

UNION VALLEY PARKWAY EXTENSION / INTERCHANGE PROJECT

City of Santa Maria, Santa Barbara County, California

District 5 – SB – 101 – PM 83.1 / 83.9

EA #05-463800

SCH #2003101063

Final Environmental Impact Report / Environmental Assessment



**Prepared by the
City of Santa Maria**

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.

February 2009

Summary

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

Overview of Project Area

The project area for the Union Valley Parkway extension portion of the project includes a total of approximately 56.0 acres. The roadway extension portion of the project would extend east to west along a line approximately 1.6 miles in length. A portion of the project area (approximately 29.3 acres) would fall under the jurisdiction of the City of Santa Maria while a somewhat smaller portion (approximately 26.7 acres) would lie within the community of Orcutt, which is under the jurisdiction of Santa Barbara County.

The Union Valley Parkway/State Route 101 interchange portion of the project is located on State Route 101 in the community of Orcutt, just south of the City of Santa Maria in Santa Barbara County. It is about 7.5 miles south of the Santa Maria River (which separates Santa Barbara and San Luis Obispo counties). The interchange portion of the project runs from post miles 83.10 to 83.90 for a distance of about 0.8 mile on State Route 101.

Purpose and Need

The purpose of the Union Valley Parkway extension/interchange is to provide a major arterial for the movement of people and goods through the Santa Maria-Orcutt area. Development envisioned in the City of Santa Maria General Plan, the Santa Maria Research Park Specific Plan, the Richards Specific Plan, and the Orcutt Community Plan will generate traffic demands on the area's circulation network and will require a transportation infrastructure capable of safely and efficiently accommodating those traffic demands. The existing Union Valley Parkway is considered inadequate to serve anticipated future traffic needs. This report suggests that construction of the proposed Union Valley Parkway extension/interchange will be necessary to achieve and maintain desired circulation levels of service and the alleviation of traffic congestion in the Santa Maria-Orcutt area.

The accident rates at the northbound off-ramp and southbound on-ramp intersections at the Clark Avenue interchange and at the northbound and southbound off-ramp and southbound on-ramp intersections at the Santa Maria Way interchange are substantially higher than similar ramp intersections elsewhere in the state. Placing the

proposed Union Valley Parkway interchange and freeway ramps between these two interchanges will decrease traffic volumes, and subsequently the congestion at those locations, with a corresponding anticipated reduction in the number of accidents.

Proposed Action

Union Valley Parkway is currently a two-lane road with right-of-way for an additional two lanes from Hummel Drive east to within 600 feet of State Route 101. The California Department of Transportation (Caltrans), in coordination with the City of Santa Maria and the County of Santa Barbara, proposes to extend Union Valley Parkway west from Hummel Drive to Blosser Road (refer to Figures 1 and 2; note that all figures in this document are contained in Appendix F) and to construct an interchange at Union Valley Parkway/State Route 101. At full buildout, the Union Valley Parkway extension portion of the project would consist of four lanes with traffic signals at each intersection. Bikeways, sidewalks, and a multi-purpose trail would be provided along the extension. Orcutt Road would also be realigned at the Union Valley Parkway extension to provide appropriate intersection spacing. The Union Valley Parkway extension/interchange project is one of many roadway improvements identified within both the City and County circulation elements, and is included in the 2004 Federal Transportation Improvement Program. The Federal Transportation Improvement Program identifies all transportation projects in Santa Barbara County to be funded under Title 23, U.S. Code of Federal Regulations, or the Federal Transit Act. The Federal Transportation Improvement Program includes transportation-related projects that require federal funding or other approval action by the Federal Highway Administration or the Federal Transit Administration. The inclusion of the Union Valley Parkway Extension and Interchange portions of the project in the 2004 Federal Transportation Improvement Program for Santa Barbara County conforms to and is included in the County Regional Transportation Plan.

It should be noted that the City is considering an amendment to its Circulation Element to end Union Valley Parkway at Blosser Road. The amendment would be approved in tandem with the project. With the implementation of this Circulation Element amendment, future extension of Union Valley Parkway to the west of Blosser Road would not be planned by the City.

Description of Project Alternatives

Alternatives addressed in this document include the “Locally Preferred Alignment,” “Curved Alignment” Alternative, “Foster Road Alignment” Alternative, “Reduced Extension” Alternative, and “No-Action” Alternative.

All of these alternatives, with the exception of the No-Action Alternative, include construction of the Union Valley Parkway/State Route 101 interchange, in one of three potential configurations [refer to Figures 7(A-C) in Appendix F]. Each of these alternatives would extend Union Valley Parkway about 590 feet east to State Route 101 and construct an overcrossing to carry the parkway over the freeway. The overcrossing would be a three-lane concrete bridge consisting of one westbound and one eastbound 12-foot lane, one 12-foot left-turn lane, two eight-foot Class II bike lanes/shoulders and a 6.5-foot sidewalk on the eastbound (south) side. In the future, when Union Valley Parkway and the bridge are widened, sidewalks would be constructed on the north side of the bridge. The Union Valley Parkway/State Route 101 southbound ramps intersection would have a free-flow lane for the State Route 101 southbound off-ramp to Union Valley Parkway westbound movement. The southbound and northbound ramps would be provided with necessary provisions for future traffic signals. The Union Valley Parkway/Boardwalk Lane intersection would be configured for right turns only (inbound and outbound). The overcrossing would be constructed to accommodate widening State Route 101 from four to six lanes in the future without modifications to the structure.

The three potential interchange configurations are as follows:

Interchange Design Variation 1

This interchange design variation proposes a spread diamond interchange with a bridge 228 feet in length (see Figure 7A). It would accommodate a future northbound loop on-ramp from eastbound Union Valley Parkway. The proposed bridge would be constructed at a 90-degree angle to State Route 101. The distance between the Santa Maria interchange and the proposed interchange is 0.9 mile. A bigger right-of-way take for a drainage basin east of Route 101 is required to accommodate the excess runoff from the west side of Route 101.

The spread diamond interchange allows more vehicles to line up to make left turns on the overcrossing. Also, its flexible design would easily allow any future construction of loop ramps that would be required to accommodate future development on the east side of the interchange site.

Interchange Design Variation 2

This design variation proposes a modified spread diamond interchange with a bridge approximately 265.8 feet in length (see Figure 7B). It provides room for a future northbound slip ramp from eastbound Union Valley Parkway. The proposed bridge

would be constructed at a 60.75-degree angle to State Route 101. This angle would also align with existing property lines on the east side of the interchange. A bigger right-of-way acquisition for a drainage basin at the northeast quadrant is required to accommodate the excess runoff from the west side of Route 101.

Interchange Design Variation 3

This design variation proposes a modified spread diamond interchange with the northbound on-ramp being a loop ramp (see Figure 7C). The bridge length for this alternative would be 228 feet. The proposed bridge would be constructed at a 90-degree angle to State Route 101. A bigger right-of-way acquisition for a drainage basin at the southeast quadrant of State Route 101 is required to accommodate the excess runoff from the west side of State Route 101.

The amount of ground disturbance and the associated environmental effects are essentially the same for each of the three potential interchange configurations.

All of the build alternatives, with the exception of the Reduced Extension Alternative, which would not extend Union Valley Parkway west of State Route 135, would also include implementation of the Union Valley Parkway Landscaping Transportation Enhancement component, which would landscape the alignment between Foxenwood Lane and California Boulevard.

Build Alternatives

Locally Preferred Alignment, Alternative 1

The Locally Preferred Alignment, Alternative 1, would initially extend Union Valley Parkway with two through lanes, with right-of-way reserved for four through lanes, between Hummel Drive and Blosser Road. Proposed improvements would include the construction of an interchange at State Route 101, and at-grade intersections with traffic signals at State Route 135, Orcutt Road, Foxenwood Lane, and Hummel Drive. The road would include provisions for a Class II bikeway and a multipurpose trail. In addition, a portion of Orcutt Road would be realigned and connect with Union Valley Parkway. An 8-foot-high masonry soundwall would be installed north of the rear lot lines of 19 Foxenwood Subdivision homes on Clubhouse Drive, between California Boulevard and Foxenwood Lane.

This alternative has been selected by the City of Santa Maria because it would satisfy identified needs, including capacity improvements, and implement the roadway extension planned in the City of Santa Maria General Plan, Orcutt Community Plan, and Santa Maria Airport Business Park Specific Plan.

Curved Alignment, Alternative 2

The Curved Alignment, Alternative 2, follows the same alignment as the Locally Preferred Alignment between Hummel Drive and a point west of California Boulevard. This alignment differs from the Locally Preferred Alignment in that it "curves" north from this point to Blosser Road rather than continuing in a "straight" line, as does the Locally Preferred Alignment. The Curved Alignment Alternative presents an alternative alignment for the proposed roadway that was formulated after receiving public testimony and input from traffic experts. As a result, this alternative alignment intersects Blosser Road approximately 328 feet further north than the Locally Preferred Alignment. This alternative would also include the Union Valley Parkway Landscaping Transportation Enhancement component, which would landscape the alignment between Foxenwood Lane and California Boulevard. An 8-foot-high masonry soundwall would be installed north of the rear lot lines of 19 Foxenwood Subdivision homes on Clubhouse Drive, between California Boulevard and Foxenwood Lane.

Foster Road Alignment, Alternative 3

The Foster Road Alignment, Alternative 3, presents an alternative alignment for the proposed roadway that was also formulated after receiving public testimony and input from traffic experts. Between Blosser Road and California Boulevard, this alternative alignment follows the same alignment as Foster Road. From California Boulevard, the Foster Road Alternative runs diagonally (southeast) to State Route 135, with an extension that forks northeast toward the intersection of Foster Road and State Route 135. However, this alternative would include a General Plan Amendment to extend Union Valley Parkway along a different alignment than is currently planned in the Circulation Element. This alternative would also include the Union Valley Parkway Landscaping Transportation Enhancement component, which would landscape the alignment between Foxenwood Lane and California Boulevard. Additionally, this alternative would require amendments to the Santa Maria Research Park Specific Plan street system due to realignment.

Reduced Extension, Alternative 4

The Reduced Extension, Alternative 4, presents an alternative Union Valley Parkway extension length for the proposed roadway that was formulated after receiving public testimony and input from traffic experts. This alternative follows the same alignment as the Locally Preferred Alignment between Hummel Drive and State Route 135. This alternative differs from the Locally Preferred Alignment in that the roadway extension terminates at State Route 135 rather than continuing west to Blosser Road. Under this alternative, the realignment of Orcutt Road and implementation of an at-

grade intersection with a traffic signal at State Route 135, would be similar to the Locally Preferred Alignment. However, the Union Valley Parkway/State Route 135 intersection would be a “T” intersection that would not include a westerly connection to Foxenwood Lane. This alternative would not include the Union Valley Parkway Landscaping Transportation Enhancement component. However, this alternative would include a General Plan Amendment to terminate Union Valley Parkway at State Route 135, rather than extend it to Highway 1 as currently planned in the Circulation Element.

No-Action Alternative

Under the “No-Action” Alternative 5, neither the Union Valley Parkway extension component nor the interchange component of the Locally Preferred Alignment or other build alternatives would be implemented, and the project area would remain vacant and generally undeveloped.

Identification of a Preferred Alternative

The City and Caltrans have selected the Locally-Preferred Alternative as the preferred alternative and have made a final determination of the project’s effect on the environment. The Locally-Preferred Alternative would best satisfy the purpose and need for the project, would provide greater beneficial impacts related to relief of existing and future traffic congestion, and associated air contaminant emissions, and would reduce environmental impacts related to aesthetics, and growth inducement compared to other alternatives.

Joint California Environmental Quality Act/National Environmental Policy Act Document

The project is subject to federal, as well as local and state environmental review requirements because the City of Santa Maria in coordination with the County of Santa Barbara proposes the use of federal funds from the Federal Highway Administration and/or the project requires an approval action from the Federal Highway Administration. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act and the National Environmental Policy Act. The City of Santa Maria is the project proponent and the lead agency under the California Environmental Quality Act. The Federal Highway Administration’s responsibility for environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S. Code 327.

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

Following receipt of public comments on the Draft Environmental Impact Report/Environmental Assessment and circulation of the Final Environmental Impact Report/Environmental Assessment, the lead agencies will take actions regarding the environmental document. The City of Santa Maria in coordination with the County of Santa Barbara has determined to certify the Environmental Impact Report and issue Findings and a Statement of Overriding Considerations and Caltrans has decided to issue a Finding of No Significant Impact.

Environmental Consequences

As required by Section 15126.6 of the California Environmental Quality Act Guidelines, 40 Code of Federal Regulations 1508.9(b), and the Federal Highway Administration and Caltrans guidelines, this Draft Environmental Impact Report/Environmental Assessment examines a range of reasonable alternatives that could feasibly achieve similar objectives. The alternatives are analyzed at an equal level of detail within Chapter 2, as required under the National Environmental Policy Act. Impacts specific to each alternative are identified and the relative magnitude of impacts between the different alternatives are analyzed.

Impacts categorized as significant and that cannot be avoided or substantially lessened through mitigation require a statement of overriding considerations to be issued per Section 15093 of the California Environmental Quality Act Guidelines if the project is approved. In addition, significant impacts that can be feasibly mitigated to less than significant levels require findings to be made under Section 15091 of the California Environmental Quality Act Guidelines, for project approval. Less than significant impacts, beneficial impacts, and issues with no impact are also identified.

Many avoidance and minimization measures were incorporated into the project design to reduce the level of impact to resources found within the project area. Best management practices have also been incorporated into the project design to

minimize impacts and to expedite the permit process. Mitigation would offset substantial impacts to sensitive resources that would result from the project.

a. Categories With No Impact

As discussed in Chapter 2, Affected Environment, Environmental Consequences, and Avoidance, Minimization, and Mitigation Measures, the build alternatives were determined not to affect or involve the following:

- Hydrology and Floodplain
- Paleontology

b. Categories With Impacts

The Locally Preferred Alignment, Curved Alignment, and Foster Road Alignment would result in beneficial impacts related to improvements in traffic circulation, associated improvements in air contaminant emissions, improved emergency access, and consistency with local and regional transportation and air quality plans that identify the project as a planned improvement. These alignment alternatives would result in physical impacts related to noise exposure, disturbance of sensitive habitats and species, and alteration of public views. The Foster Road Alignment would result in additional major impacts related to direct local circulation, site access, existing and planned site use, facility layout, parking, clearances, and setback conflicts with existing and recently constructed land uses. While the Reduced Extension Alternative would reduce impacts related to physical disturbance, including the elimination of impacts on California tiger salamander and California red-legged frogs, since it would not extend west of State Route 135, it would not fully implement planned roadway improvements, and would therefore result in fewer beneficial impacts related to traffic circulation, air quality, emergency access, and plan consistency. The No-Action Alternative would not result in physical impacts, but would result in long-term impacts related to traffic circulation and plan consistency.

Table ES-1 summarizes potential impacts and required mitigation of the build alternatives. These issues and impacts are analyzed in detail in Chapter 2 - Affected Environment, Environmental Consequences, and Avoidance, Minimization, and Mitigation Measures and Chapter 3 – California Environmental Quality Act Evaluation.

Table ES-1 Summary of Major Potential Impacts from Alternatives

POTENTIAL IMPACT		Alternative 1 Locally Preferred	Alternative 2 Curved	Alternative 3 Foster	Alternative 4 Reduced	Alternative 5 No-Action
Land Use	Consistency with the City General Plan	Consistent with land use and circulation guidelines and regional programs.	Consistent with land use and circulation guidelines and regional programs.	Inconsistent with local and regional land use planning applicable to the Union Valley Parkway extension/ interchange project,	Inconsistent with local and regional land use planning applicable to the Union Valley Parkway extension/ interchange project,	Inconsistent with local and regional land use planning applicable to the Union Valley Parkway extension/ interchange project,
	Consistency with the County General Plan	Consistent with land use and circulation guidelines and regional programs.	Consistent with land use and circulation guidelines and regional programs.	Inconsistent with County circulation planning applicable to the Union Valley Parkway extension/ interchange project.	Inconsistent with County circulation planning applicable to the Union Valley Parkway extension/ interchange project.	Inconsistent with County circulation planning applicable to the Union Valley Parkway extension/ interchange project.
	Short-term and long-term land use compatibility	Short- and long-term land use compatibility conflicts with adjacent agricultural, residential, and institutional uses.	Short- and long-term land use compatibility conflicts with adjacent agricultural, residential, and institutional uses.	Major direct local circulation, site access, existing and planned site use, facility layout, parking, clearances, and setback conflicts with existing and recently constructed land uses	Short- and long-term land use compatibility conflicts with adjacent residential uses east of State Route 135. Displacement of potential land use compatibility impacts to areas adjacent to other roadways.	Displacement of potential land use compatibility impacts to areas adjacent to other roadways.
Growth		Inducement of minor economic growth and removal of existing obstacles to growth.	Inducement of minor economic growth and removal of existing obstacles to growth.	Inducement of minor economic growth and removal of existing obstacles to growth.	Inducement of minor economic growth and removal of existing obstacles to growth.	The No-Action Alternative would not meet future planned growth goals for the City and County.
Farmlands/Timberlands		The interchange portion of the project would convert areas in agricultural production.	The interchange portion of the project would convert areas in agricultural production.	The interchange portion of the project would convert areas in agricultural production.	The interchange portion of the project would convert areas in agricultural production.	Since no disturbance would occur, no agricultural resource impacts would result.
Community Character and Cohesion		The Union Valley Parkway extension portion of the project would be located north of the Foxenwood Estates residential subdivision, but would not cross or divide this subdivision or physically separate it from any adjacent subdivisions.	The Union Valley Parkway extension portion of the project would be located north of the Foxenwood Estates residential subdivision, but would not cross or divide this subdivision or physically separate it from any adjacent subdivisions.	The Union Valley Parkway extension portion of the project would be located north of the Foxenwood Estates residential subdivision, but would not cross or divide this subdivision or physically separate it from any adjacent subdivisions.	The Union Valley Parkway extension portion of this alignment would be located east of the Foxenwood Estates residential subdivision, and would not cross or divide this subdivision or physically separate it from any adjacent subdivisions.	Since no disturbance would occur, no community character or cohesion impacts would result.

Table ES-1 Summary of Major Potential Impacts from Alternatives

POTENTIAL IMPACT		Alternative 1 Locally Preferred	Alternative 2 Curved	Alternative 3 Foster	Alternative 4 Reduced	Alternative 5 No-Action
Relocations	Businesses	None	None	Requires relocation of existing businesses, food bank, animal shelter, County Agricultural building, and County Public Works building.	None	None
	Homes	None	None	None	None	None
Environmental Justice		No minority or low-income populations were identified within the project limits.	No minority or low-income populations were identified within the project limits.	No minority or low-income populations were identified within the project limits.	No minority or low-income populations were identified within the project limits.	Since no disturbance would occur, no environmental justice impacts would occur.
Utilities/Emergency Services		Utility demand would be accommodated by existing available City and County supplies and infrastructure. Project would result in improved traffic circulation, and associated benefits related to emergency services access.	Utility demand would be accommodated by existing available City and County supplies and infrastructure. Project would result in improved traffic circulation, and associated benefits related to emergency services access.	Utility demand would be accommodated by existing available City and County supplies and infrastructure. Project would result in improved traffic circulation, and associated benefits related to emergency services access.	This alternative would result in fewer improvements. Congestion and LOS would continue to deteriorate, potentially delaying emergency vehicles.	This alternative would result in no improvements. Congestion and LOS would continue to deteriorate, potentially delaying emergency vehicles.
Traffic and Transportation/ Pedestrian and Bicycle Facilities		Roadway and intersection operations would meet or exceed the City and County Level of Service standards.	Roadway and intersection operations would meet or exceed the City and County Level of Service standards.	The widening of Foster Road and capacity improvements at the Foster Road/State Route 135 intersection, as well as street system modifications within the Santa Maria Research Park Specific Plan area would be required.	The widening of Foster Road and capacity improvements at the Foster Road/State Route 135 intersection would be required.	The widening of Foster Road and Lakeview Road, and capacity improvements at the State Route (SR) 101/Santa Maria Way interchange and the State Route 101/Clark Avenue interchange, as well as the Foster Road/SR 135, Lakeview Road/SR 135, and Lakeview Road/Bradley Road intersections, would be required.

Table ES-1 Summary of Major Potential Impacts from Alternatives

POTENTIAL IMPACT	Alternative 1 Locally Preferred	Alternative 2 Curved	Alternative 3 Foster	Alternative 4 Reduced	Alternative 5 No-Action
Visual/Aesthetics	Alteration of public views of the project area through the removal of existing vegetation, and introduction of pavement, soundwalls, and other improvements, and light and glare.	Alteration of public views of the project area through the removal of existing vegetation, and introduction of pavement, soundwalls, and other improvements, and light and glare.	Alteration of public views of the project area through the removal of existing vegetation, and introduction of pavement, soundwalls, and other improvements, and light and glare.	Alteration of public views of the project area through the removal of existing vegetation, and introduction of pavement, soundwalls, and other improvements, and light and glare.	No impact.
Cultural Resources	No significant archaeological resources have been identified in the archaeological Area of Potential Effect. The project would have either no effect or no adverse effect on three properties in the architectural Area of Potential Effect that, for the purposes of this project, are assumed to be eligible for listing in the National Register of Historic Places.	No significant archaeological resources have been identified in the archaeological Area of Potential Effect. The project would have either no effect or no adverse effect on three properties in the architectural Area of Potential Effect that, for the purposes of this project, are assumed to be eligible for listing in the National Register of Historic Places.	No significant archaeological resources have been identified in the archaeological Area of Potential Effect. The project would have either no effect or no adverse effect on three properties in the architectural Area of Potential Effect that, for the purposes of this project, are assumed to be eligible for listing in the National Register of Historic Places.	No significant archaeological resources have been identified in the archaeological Area of Potential Effect. The project would have either no effect or no adverse effect on three properties in the architectural Area of Potential Effect that, for the purposes of this project, are assumed to be eligible for listing in the National Register of Historic Places.	Since no disturbance would occur, no archaeological resource impacts would result.
Hydrology and Floodplain	The project area is not located within the 100-year flood zone.	The project area is not located within the 100-year flood zone.	The project area is not located within the 100-year flood zone.	The project area is not located within the 100-year flood zone.	The project area is not located within the 100-year flood zone.
Water Quality and Storm Water Runoff	Reduction in the quality of surface water flowing to drainage channels, subsurface aquifers, and thus, stream use.	Reduction in the quality of surface water flowing to drainage channels, subsurface aquifers, and thus, stream use.	Reduction in the quality of surface water flowing to drainage channels, subsurface aquifers, and thus, stream use.	Reduction in the quality of surface water flowing to drainage channels, subsurface aquifers, and thus, stream use.	Since no disturbance would occur, no storm water runoff impacts would result
Geology/Soils/Seismic/Topography	This alternative would be designed in compliance with modern seismic safety standards. No impact.	This alternative would be designed in compliance with modern seismic safety standards. No impact.	This alternative would be designed in compliance with modern seismic safety standards. No impact.	This alternative would be designed in compliance with modern seismic safety standards. No impact.	This alternative would be designed in compliance with modern seismic safety standards. No impact.

Table ES-1 Summary of Major Potential Impacts from Alternatives

POTENTIAL IMPACT	Alternative 1 Locally Preferred	Alternative 2 Curved	Alternative 3 Foster	Alternative 4 Reduced	Alternative 5 No-Action
Paleontology	The project area is entirely underlain by Quaternary Dune Sand, which has no potential to contain paleontological resources.	The project area is entirely underlain by Quaternary Dune Sand, which has no potential to contain paleontological resources.	The project area is entirely underlain by Quaternary Dune Sand, which has no potential to contain paleontological resources.	The project area is entirely underlain by Quaternary Dune Sand, which has no potential to contain paleontological resources.	Since no disturbance would occur, no impacts related to paleontological resources would result.
Hazardous Waste/Materials	Potential exposure of people to a sand-tar mixture and tank bottoms within the project area during construction.	Potential exposure of people to a sand-tar mixture and tank bottoms within the project area during construction.	Potential exposure of people to a sand-tar mixture and tank bottoms within the project area during construction.	Potential exposure of people to a sand-tar mixture and tank bottoms within the project area during construction.	Since no disturbance would occur, no impacts related to exposure to hazardous materials would result.
Air Quality	Temporary dust and ozone precursor emissions from grading activities and the use of heavy-duty construction vehicles. Consistent with the adopted transportation plans, 2007 Clean Air Plan, and programs for the region, and therefore conforms to the requirements of the Clean Air Act Amendments of 1990.	Temporary dust and ozone precursor emissions from grading activities and the use of heavy-duty construction vehicles. Consistent with the adopted transportation plans, 2007 Clean Air Plan, and programs for the region, and therefore conforms to the requirements of the Clean Air Act Amendments of 1990.	Temporary dust and ozone precursor emissions from grading activities and the use of heavy-duty construction vehicles. Consistent with the adopted transportation plans, 2007 Clean Air Plan, and programs for the region, and therefore conforms to the requirements of the Clean Air Act Amendments of 1990.	Temporary dust and ozone precursor emissions from grading activities and the use of heavy-duty construction vehicles. Partially consistent with adopted transportation plans, and therefore potentially conforms to the requirements of the Clean Air Act Amendments of 1990.	Since no disturbance would occur under this alternative, no impacts related to construction emissions would result. Inconsistent with air quality and transportation plans, and lack of conformity to the requirements of the Clean Air Act Amendments of 1990.
Noise and Vibration	Temporary short-term noise levels that could affect nearby residences and other sensitive receptors. Long-term traffic noise levels would exceed the Federal Highway Administration's noise abatement criteria at homes located along Clubhouse Drive and the existing segment of Union Valley Parkway.	Temporary short-term noise levels that could affect nearby residences and other sensitive receptors. Long-term traffic noise levels would exceed the Federal Highway Administration's noise abatement criteria at homes located along Clubhouse Drive and the existing segment of Union Valley Parkway.	Temporary short-term noise levels that could affect nearby residences and other sensitive receptors. Long-term traffic noise levels would exceed the Federal Highway Administration's noise abatement criteria at homes located along Clubhouse Drive and the existing segment of Union Valley Parkway.	Temporary short-term noise levels that could affect nearby residences and other sensitive receptors. Long-term traffic noise levels would exceed the Federal Highway Administration's noise abatement criteria at homes located along the existing segment of Union Valley Parkway.	This alternative would not result in traffic along the proposed Union Valley Parkway corridor. If the No-Action Alternative is selected, there will be no construction project and no noise attributed to the project.

Table ES-1 Summary of Major Potential Impacts from Alternatives

POTENTIAL IMPACT	Alternative 1 Locally Preferred	Alternative 2 Curved	Alternative 3 Foster	Alternative 4 Reduced	Alternative 5 No-Action
Natural Communities	Temporary or permanent removal of 1.67 acres of coast live oak woodland, 8.96 acres of eucalyptus woodland, 1.70 acres of wetland, and 11.31 acres of central dune scrub habitat.	Temporary or permanent removal of 0.71 acres of coast live oak woodland, 7.19 acres of eucalyptus woodland, 1.67 acres of wetland, and 13.07 acres of central dune scrub habitat.	Temporary or permanent removal of 5.51 acres of eucalyptus woodland, 1.67 acres of wetland, 10.52 acres of central dune scrub, and 0.14 acre of valley needlegrass grassland habitat.	Temporary or permanent removal of 3.91 acres of eucalyptus woodland, 9.87 acres of central dune scrub, and 1.67 acres of wetland habitat.	The project area would remain undeveloped. No impacts would occur to natural communities.
Wetlands and Other Waters	Impacts on 1.70 acres of Cowardin classified wetlands, and approximately 0.35 acre of Corps jurisdiction	Impacts on 1.67 acres of Cowardin classified wetlands, and approximately 0.35 acre of Corps jurisdiction.	Impacts on 1.67 acres of Cowardin classified wetlands, and approximately 0.35 acre of Corps jurisdiction.	Impacts on 1.67 acres of Cowardin classified wetlands, and approximately 0.35 acre of Corps jurisdiction.	The project area would remain undeveloped. No impacts on wetland habitat or other waters would result
Plant Species	Direct impacts on one occurrence of curly-leaved monardella, a California Native Plant Society List 4 plant species.	Direct impacts on occurrence of curly-leaved monardella, a California Native Plant Society List 4 plant species.	This alternative would not affect any known occurrences of rare plants.	This alternative would not affect any known occurrences of rare plants.	The project area would remain undeveloped. No impacts would occur to rare plants.
Animal Species	Removal of 15.20 acres of potential nesting and roosting habitat for birds. Impacts on habitat and individuals of California legless lizard, California horned lizard, Southern Pacific pond turtle, two-striped garter snake, and American badger.	Removal of 11.96 acres of nesting and roosting habitat for birds. Impacts on habitat and individuals of California legless lizard, California horned lizard, Southern Pacific pond turtle, two-striped garter snake, and American badger.	Removal of 9.57 acres of potential nesting and roosting habitat for birds. Impacts on habitat and individuals of California legless lizard, California horned lizard, Southern Pacific pond turtle, two-striped garter snake, and American badger.	Removal of 6.16 acres of nesting and roosting bird habitat. Impacts on habitat and individuals of California legless lizard, California horned lizard, and American badger.	The project area would remain undeveloped. No impacts would occur to protected wildlife species.
Threatened and Endangered Species	Impacts on 22.24 acres of potential California tiger salamander habitat and 22.24 acres of potential California red-legged frog upland migration habitat.	Impacts on 20.4 acres of potential dispersal and estivation (dormant state) habitat for the California tiger salamander, and 20.4 acres of potential upland migration habitat for California red-legged frog.	Impacts on 16.02 acres of potential California tiger salamander habitat and 16.02 acres of potential California red-legged frog upland migration habitat. This alternative would also potentially affect vernal pool fairy shrimp.	This alignment is east of State Route 135, which is a substantial barrier to California tiger salamander and California red-legged frog movement from the west; thus these species or their habitat would not be impacted by this alignment.	The project area would remain undeveloped. No impacts would occur to threatened or endangered wildlife or plant species.

Summary

Table ES-1 Summary of Major Potential Impacts from Alternatives

POTENTIAL IMPACT	Alternative 1 Locally Preferred	Alternative 2 Curved	Alternative 3 Foster	Alternative 4 Reduced	Alternative 5 No-Action
Invasive Species	This alternative would not be expected to introduce or materially increase or decrease the abundance or diversity of invasive plants.	This alternative would not be expected to introduce or materially increase or decrease the abundance or diversity of invasive plants.	This alternative would not be expected to introduce or materially increase or decrease the abundance or diversity of invasive plants.	This alternative would not be expected to introduce or materially increase or decrease the abundance or diversity of invasive plants.	This alternative would not be expected to introduce or materially increase or decrease the abundance or diversity of invasive plants.
Construction	Temporary disruption of traffic during construction, detours, traffic congestion, and safety considerations. Temporary impacts to air and water quality and noise levels during construction, Potential exposure of workers to contaminated soils or materials.	Temporary disruption of traffic during construction, detours, traffic congestion, and safety considerations. Temporary impacts to air and water quality and noise levels during construction, Potential exposure of workers to contaminated soils or materials.	Temporary disruption of traffic during construction, detours, traffic congestion, and safety considerations. Temporary impacts to air and water quality and noise levels during construction, Potential exposure of workers to contaminated soils or materials.	Temporary disruption of traffic during construction, detours, traffic congestion, and safety considerations. Temporary impacts to air and water quality and noise levels during construction, Potential exposure of workers to contaminated soils or materials.	This alternative would not result in construction and would therefore result in no impacts related to construction disturbances.
Cumulative Impacts	Cumulative impacts related to alteration of aesthetic character, and special-status animal species, including Southern Pacific pond turtle, California legless lizard, coast horned lizard, American badger, monarch butterfly, California tiger salamander, and California red-legged frog.	Cumulative impacts related to alteration of aesthetic character, and special-status animal species, including Southern Pacific pond turtle, California legless lizard, coast horned lizard, American badger, California tiger salamander, and California red-legged frog.	Cumulative impacts related to alteration of aesthetic character, and special-status animal species, including California legless lizard, coast horned lizard, American badger, California tiger salamander, and California red-legged frog.	Cumulative impacts related to alteration of aesthetic character, and special-status animal species, including coast horned lizard and American badger.	The project area would remain undeveloped. No cumulative impacts would occur.

Notes:

Alt 1 = Alternative 1: Locally-Preferred Alternative

Alt 2 = Alternative 2: Curved Alignment Alternative

Alt 3 = Alternative 3: Foster Road Alignment Alternative

Alt 4 = Alternative 4: Reduced Extension Alternative

Alt 5 = Alternative 5: No-Action Alternative

SR = State Route

Coordination with Other Agencies

In conformance with Section 15050 and 15367 of the California Environmental Quality Act Guidelines, the City of Santa Maria is designated as the “lead agency” which is defined as the “public agency which has the principal responsibility for carrying out or approving the project.” Caltrans is delegated as the federal lead agency for the purposes of the National Environmental Policy Act working on preparation of the Environmental Assessment.

Responsible Agencies are those agencies that have discretionary approval over one or more actions involved with development of the project area. Santa Barbara County would be considered a Responsible Agency for the project. Trustee Agencies are state agencies having discretionary approval or jurisdiction by law over natural resources affected by a project. The California Department of Fish and Game is one of four trustee agencies defined by the California Environmental Quality Act affected by the project. A Streambed Alteration Agreement may be required from this agency.

The following permits, reviews, and approvals in Table ES-2 would be required for project construction:

Table ES-2 Required Permits and Approvals

Agency	Permit/Approval	Status
City of Santa Maria	General Plan Circulation Element Amendment	To be considered by Planning Commission and City Council with this Environmental Impact Report/Environmental Assessment
	Call for Bids	To be considered by City Council with this Environmental Impact Report/Environmental Assessment
	Right-of-way Acquisition and Finding of General Plan Conformance	To be considered by City Council with this Environmental Impact Report/Environmental Assessment
Caltrans	Finding of No Significant Impact	To be considered by Caltrans District 5 Director, as delegated by the Federal Highway Administration, with the Caltrans Environmental Impact Report/Environmental Assessment for the project. Caltrans is expected to revise and/or supplement the City’s Environmental Impact Report/ Environmental Assessment for the purposes of their project approval process.

Table ES-2 Required Permits and Approvals

Agency	Permit/Approval	Status
	Interchange Project Approval	To be considered by Caltrans, in coordination with the Federal Highway Administration, with the Caltrans Environmental Impact Report/ Environmental Assessment and Finding of No Significant Impact for the project
	Right-of-way Acquisition	To be considered by Caltrans with the Caltrans Environmental Impact Report/Environmental Assessment and Finding of No Significant Impact for the project
County of Santa Barbara	Right-of-way Acquisition and Finding of General Plan Conformance	To be considered by Board of Supervisors with this Environmental Impact Report/Environmental Assessment
	Encroachment Permits	To be considered by Board of Supervisors with this Environmental Impact Report/ Environmental Assessment
	Future Roadway Project Development Approval	The County may potentially use this Environmental Impact Report as a base tier of environmental review for future projects along the County portion of the corridor.
Santa Barbara County Association of Governments	Unknown at this Time	Santa Barbara Association of Governments approvals would not be required for the project. However, this agency may use the Environmental Impact Report in the preparation of environmental evaluations for the Regional Transportation Plan.
Santa Barbara County Fire Department/ Hazardous Materials	Unknown at this Time	This department would review remediation of existing and past soil contamination, if identified during construction.
California Department of Toxic Substances Control	Unknown at this Time	This department would review remediation of existing and past soil contamination, if identified during construction.
California Department of Conservation, Division of Oil, Gas, and Geothermal Resources	Unknown at this Time	This division would review remediation of existing and past soil contamination, if identified during construction.
California Water Resources Board	National Pollutant Discharge Elimination System permit; Waste Discharge Permit, if applicable. Section 401 water quality certification.	Applications would be submitted to agencies before construction.
United States Fish and Wildlife Service	Section 7 Consultation for Threatened and Endangered Species	Applications would be submitted to agencies before construction.
	Review and Comment on Section 404 Permit, if applicable	Applications would be submitted to agencies before construction.

Table ES-2 Required Permits and Approvals

Agency	Permit/Approval	Status
United States Army Corps of Engineers	Section 404 Permit for filling or dredging waters of the United States.	Applications would be submitted to agencies before construction

There are no unresolved issues with other agencies for the Union Valley Parkway Extension/Interchange Project.

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List of Abbreviated Terms

AADT	<i>Average Annual Daily Traffic</i>
AAQS	<i>Ambient Air Quality Standards</i>
ACM	<i>Asbestos Containing Material</i>
ADL	<i>Aerially deposited lead</i>
APCD	<i>Air Pollution Control District</i>
ASR	<i>Archaeological Survey Report</i>
BMPs	<i>Best Management Practices</i>
Caltrans	<i>California Department of Transportation</i>
CDFG	<i>California Department of Fish and Game</i>
CEQA	<i>California Environmental Quality Act</i>
CNDDDB	<i>California Natural Diversity Database</i>
CNPS	<i>California Native Plant Society</i>
CSC	<i>California Special Concern Species</i>
EA	<i>Environmental Assessment</i>
EIR	<i>Environmental Impact Report</i>
FE	<i>Federally listed as Endangered</i>
FHWA	<i>Federal Highway Administration</i>
FT	<i>Federally listed as Threatened</i>
HPSR	<i>Historic Properties Survey Report</i>
ISA	<i>Initial Site Assessment</i>
LOS	<i>Level of Service</i>
Mph	<i>Miles per hour</i>
NEPA	<i>National Environmental Policy Act</i>
NPDES	<i>National Pollutant Discharge Elimination System</i>
PM	<i>post mile</i>
RTIP	<i>Regional Transportation Improvement Program</i>
RTP	<i>Regional Transportation Plan</i>
RWQCB	<i>Regional Water Quality Control Board</i>
SCCAB	<i>South Central Coast Air Basin</i>
SE	<i>State listed as Endangered</i>
SHPO	<i>State Historic Preservation Officer</i>
ST	<i>State listed as Threatened</i>
STIP	<i>Statewide Transportation Improvement Program</i>
USFWS	<i>United States Fish and Wildlife Service</i>
VIA	<i>Visual Impact Assessment</i>

List of Technical Studies that are Bound Separately

The following technical studies are available upon request. Please contact District 5 Environmental Coordinator Lara Bertaina for information on how to obtain the desired technical study. Ms. Bertaina can be contacted by any of the following:

E-Mail: lara_bertaina@dot.ca.gov
Phone: 805-542-4610
Address: Caltrans
Attn: Lara Bertaina
50 Higuera Street
San Luis Obispo, CA 93401

Technical studies conducted for this project that are available for public review include the following:

- Traffic and Circulation Study (May 2008)
- Biological Resources Studies
 - Natural Environment Study for the Union Valley Parkway/State Route 101 Interchange (September 1999)
 - Natural Environment Study for the Union Valley Parkway Extension (June 2008)
 - Delineation of “Waters of the U.S.” Union Valley Parkway Extension Project California Boulevard to Blosser Road Segment (November 2001)
 - Wetland Delineation Union Valley Parkway Extension on the East Side of State Highway 135 (July 1999)
 - Wetland Mitigation Plan Union Valley Parkway Extension Project (February 2000)
- Geologic Hazards Report for the Union Valley Parkway/State Route 101 Interchange (November 1999)
- Water Quality Report for the Union Valley Parkway/State Route 101 Interchange (February 2004)
- Paleontology Report for the Union Valley Parkway/State Route 101 Interchange (August 2003)
- Visual Impacts Studies
 - Visual Impact Study of the Proposed Union Valley Parkway Interchange Project (May 2002)
 - Visual Impact Study for the Union Valley Parkway Extension (June 2008)
- Hazardous Materials Reports

- Site Investigation Report Route 101 – Proposed Union Valley Parkway Interchange (May 2001)
 - Initial Site Assessment for the Union Valley Parkway Extension (June 2003)
- Air Quality Studies
 - Air Quality Study for the Union Valley Parkway/State Route 101 Interchange (February 2004)
 - Air Quality Study for the Union Valley Parkway Extension (June 2008)
- Noise Study (June 2008)

These technical studies are all incorporated by reference into this Environmental Impact Report/Environmental Assessment.

The Notice of Preparation and responses to the Notice of Preparation are available for review at the City of Santa Maria Public Works Department, 110 S. Pine Street, Santa Maria, California 93458.

Chapter 1 Proposed Project

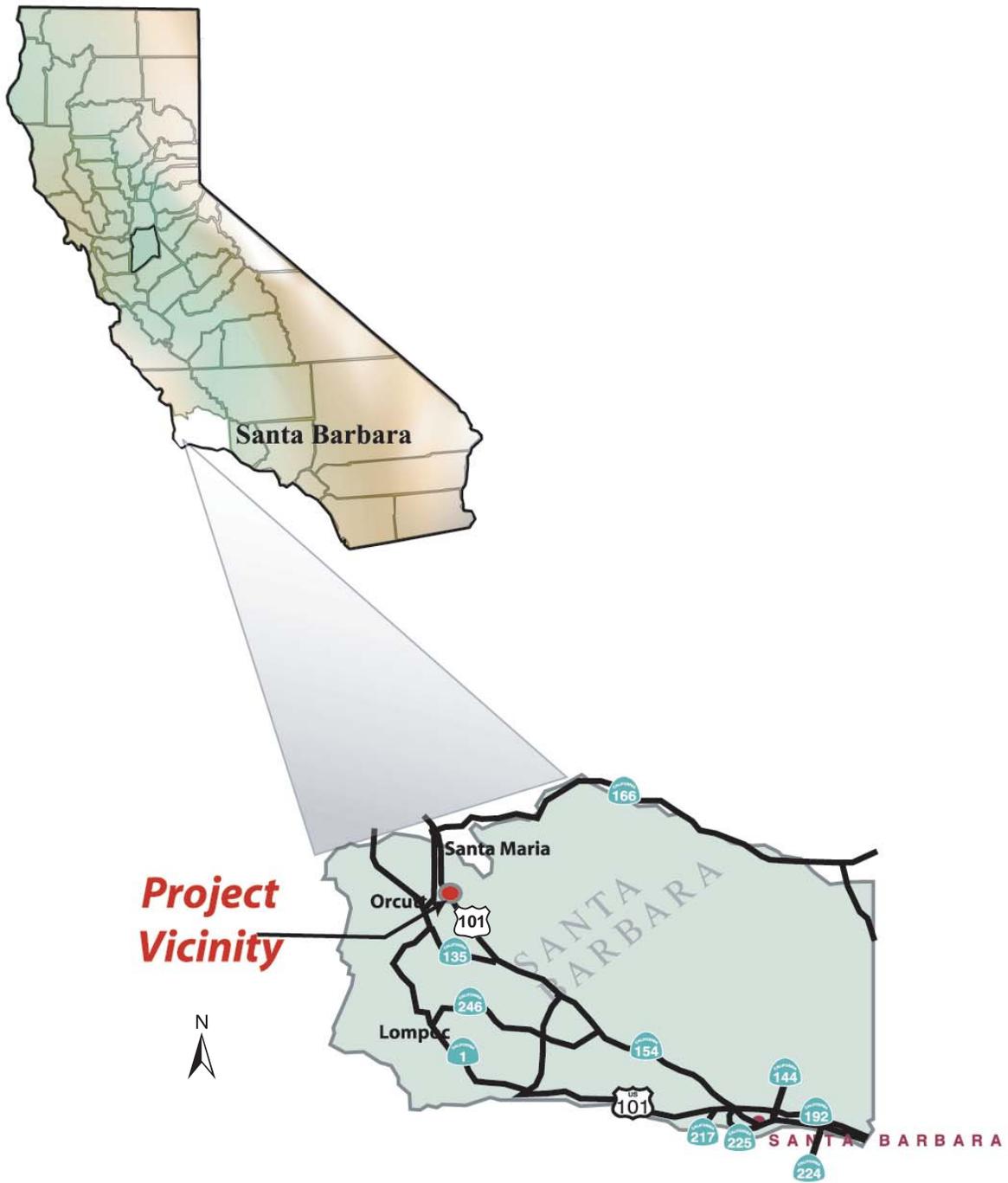
1.1 Introduction

Union Valley Parkway is currently a two-lane road with right-of-way for an additional two lanes from Hummel Drive east to within 600 feet of State Route 101. The California Department of Transportation (Caltrans) and the City of Santa Maria, in coordination with the County of Santa Barbara, are proposing to extend Union Valley Parkway west from Hummel Drive to Blosser Road (refer to Figures 1 and 2; note that all figures in this document are contained in Appendix F) and to construct an interchange at Union Valley Parkway/State Route 101. Caltrans, as assigned by the Federal Highway Administration, is the National Environmental Policy Act Lead Agency. The City of Santa Maria is the California Environmental Quality Act Lead Agency.

The Union Valley Parkway/State Route 101 interchange portion of the project is located on State Route 101 in the community of Orcutt, just south of the City of Santa Maria (City) in Santa Barbara County (County). It is about 7.5 miles south of the Santa Maria River, which separates Santa Barbara and San Luis Obispo counties. The interchange portion of the project runs from post miles 83.1 to 83.9 for a distance of about 0.8 mile on State Route 101.

The Union Valley Parkway Extension/Interchange Project is one of many roadway improvements identified within both the City and County circulation elements, and is included in the 2004 Federal Transportation Improvement Program. The interchange and landscaping portions of the project are included in the 2006 Santa Barbara County Regional Transportation Improvement Plan. It is also included in the 1999 Santa Barbara County Regional Transportation Plan.

A mixture of mostly undeveloped land, residences, and institutional uses are located adjacent to the project area. A residential area is located along the southern portion of the roadway extension section between Blosser Road and Foxenwood Lane. Several homes are also located on the east side of Orcutt Road. The City and County circulation elements identify the Union Valley Parkway extension as a future circulation improvement.

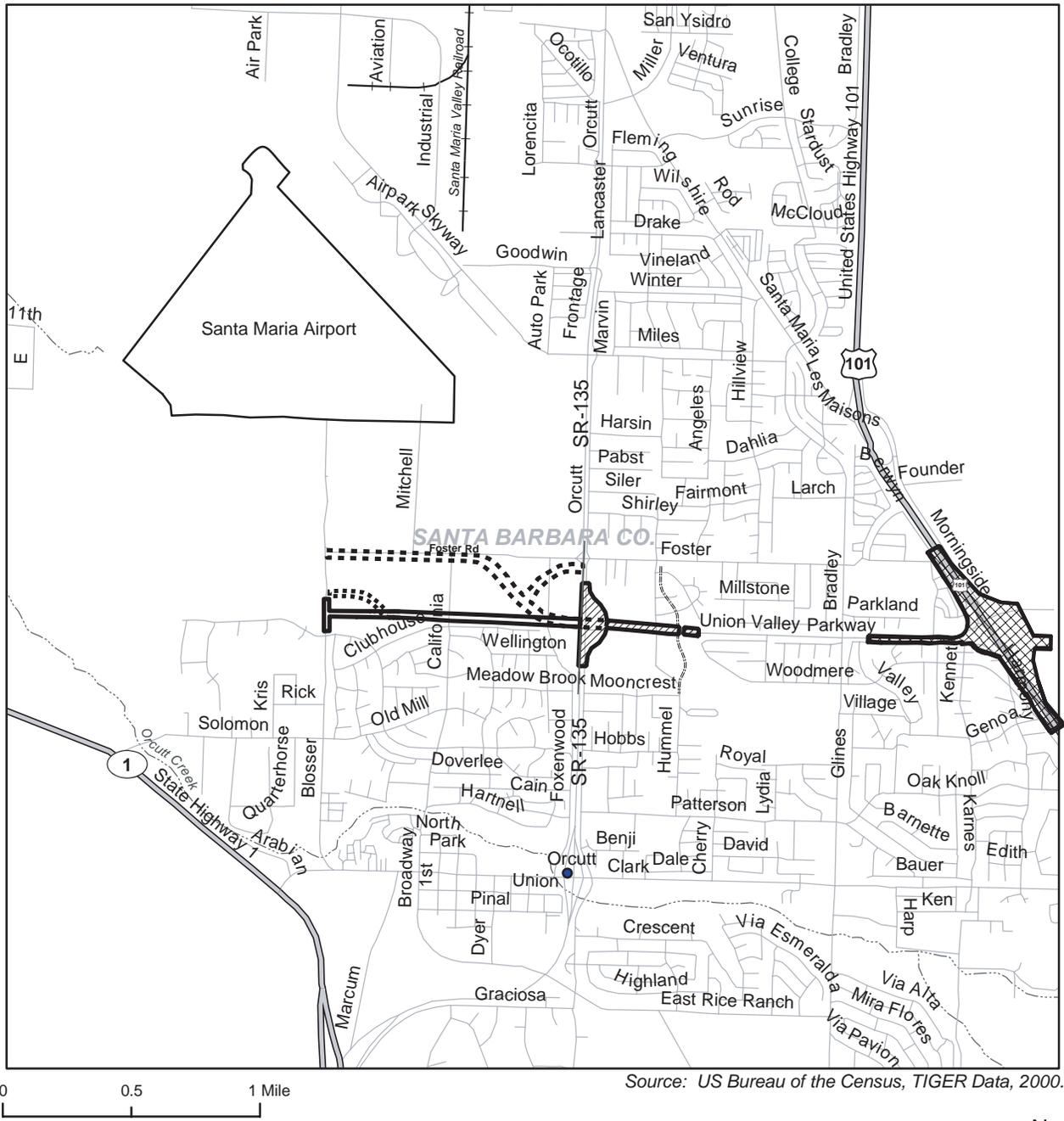


Source: Caltrans, July 2002

Project Vicinity

Figure 1

Union Valley Parkway Extension/Interchange EA/EIR



- Legend**
-  Locally Preferred Alignment Location
 -  Foster Road Alignment Location
 -  Reduced Extension Location
 -  Curved Alignment Location
 -  Interchange Location (all Alternatives)



Regional Location

Figure 2

The project area for the Union Valley Parkway extension portion of the project includes a total of approximately 56 acres. The roadway extension portion of the project would extend east to west along a line approximately 1.6 miles in length. A portion of the project area (approximately 29.3 acres) would fall under the jurisdiction of the City of Santa Maria, while a smaller portion (approximately 26.7 acres) would lie within the community of Orcutt, which is under the jurisdiction of Santa Barbara County.

Project History

Santa Barbara County had proposed a project to extend Union Valley Parkway east and construct southbound freeway on- and off-ramps to State Route 101. This project was originally scheduled for construction in 1997–1998. Fill was placed and rough grading occurred for the parkway extension (as far as the southbound freeway ramps intersection) and for the southbound ramps as part of the Edgewood and Creekside residential developments west of the freeway.

The County had proposed another project to be constructed after extending the parkway to the east and constructing the southbound freeway on- and off-ramps. This project would have extended Union Valley Parkway from the then-existing parkway/southbound ramps intersection east to State Route 101 and constructed an overcrossing and northbound freeway on- and off-ramps. In 1998, this project was programmed for construction in 2002–2003 in the Regional Transportation Improvement Plan.

The City and County had also proposed a project to extend Union Valley Parkway about 2,000 feet west of its present end at Hummel Drive to intersect State Route 135 (Orcutt Expressway) and then continue west to Blosser Road.

In March 1999, the County, Santa Barbara County Association of Governments, and Caltrans agreed that both of the proposed improvements at the Union Valley Parkway extension/State Route 101 interchange — either the southbound ramps or the overcrossing and northbound ramps — were not crucial to regional traffic until the connection of Union Valley Parkway and State Route 135 was constructed. In 2003, the Federal Highway Administration subsequently determined that the Union Valley Parkway extension between Hummel Drive and Blosser Road, and the Union Valley Parkway/State Route 101 interchange did not have independent utility. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the vicinity. The Union Valley Parkway extension

would be a multi-phase project where each portion would depend upon other phases and therefore would not have independent utility. Because of this, it was then proposed to combine the extension of Union Valley Parkway and Union Valley Parkway/State Route 101 interchange components as a single project.

1.2 Purpose and Need

This section identifies and describes the purpose and need of the project by providing background information and evaluating the existing and future conditions of the study area in relation to area development and adopted level of service standards. In addition, it identifies the specific deficiencies along the study area.

1.2.1 Purpose

The purpose of the project is to achieve the following goals:

- To transfer through-vehicle trips to the regional highway system and facilitate the efficient flow of people, goods, and services through this area, ensuring continued mobility of the public.
- To provide congestion relief to improve traffic flow on the regional transportation system.
- To be consistent with existing and planned local development.

1.2.2 Need

Transfer Through-Vehicle Trips to the Regional Highway System

The Union Valley Parkway extension/interchange is intended to provide transportation system linkages and improve the transportation system interface with the Santa Maria Public Airport, which is located approximately 0.75 mile north of the Union Valley Parkway extension site. The project would improve access between the airport and State Route 101.

The project would transfer through trips to the regional highway system by providing east/west access between State Route 135 and State Route 101, and between State Route 135 and Blosser Road. This would facilitate through-trip access to the regional highway system by travelers from Santa Maria to the north and the community of Orcutt to the south.

The City of Santa Maria General Plan identifies the Union Valley Parkway as a major arterial for the community. The existing General Plan Circulation Element depicts

Union Valley Parkway as extending between State Routes 101 and 1 as a future circulation improvement. The Union Valley Parkway extension and interchange would help meet an objective of the Circulation Element “to provide for public mobility and access necessary to support the existing and anticipated population of the City.” The extension and interchange are also identified as planned and/or programmed improvements in the 1999 Santa Barbara County Regional Transportation Plan. Although the project could be considered a connecting link of the Union Valley Parkway corridor west of Blosser Road, as identified in the City’s General Plan Circulation Element, portions of the corridor are located within the jurisdiction of the County of Santa Barbara, and the implementation of this portion of the corridor is beyond the City’s control. The 1999 Santa Barbara County Regional Transportation Plan does not include the extension of Union Valley Parkway west of Blosser Road. In addition, the City is considering an amendment to its Circulation Element to end Union Valley Parkway at Blosser Road. The amendment would be approved in tandem with the proposed project.

Congestion Relief and Future Travel Demand

The Union Valley Parkway extension/interchange is also intended to satisfy regional Congestion Management Program objectives. It should be noted that financial penalties (such as loss of Section 2105 funds and inability to program new Regional Surface Transportation Program/Congestion Management Air Quality funds in future programming cycles) occur if a local agency either does not participate or does not properly implement the Congestion Management Program. Exceeding the Congestion Management Program Level of Service standard would trigger the need for the affected agency/agencies to develop a Congestion Management Program deficiency plan specific to the problem location, which would result in costs related to developing the deficiency plan and garnering the funds to implement the identified improvements in the plan.

An analysis was prepared to determine when existing roadways and intersections would exceed adopted Level of Service thresholds if the improvements were not constructed. The ability of a roadway to accommodate traffic is typically measured in terms of Level of Service. Based on the ratio of traffic volume to roadway capacity, Level of Service is expressed as a range from A (free traffic flow with low volumes) to F (indicates stop-and-go traffic and delay).

The analysis found that several key regional roadways would degrade to Level of Service D, E, or F within the 20-year horizon period. As shown in Table 1-1, the Foster

Road/State Route 135 intersection degraded to Level of Service D in 2008, the State Route 101/Santa Maria Way interchange would degrade to Level of Service D in 2010, and the State Route 101/Clark Avenue interchange would degrade to Level of Service D in the 2011 to 2014 period.

It should be noted that the reduction in level of service at the intersection of Foster Road/State Route 135 is due to background traffic growth in the area, and represents an update to existing conditions. The Union Valley Parkway traffic study had previously projected a level of service D at this intersection in 2008, which is now anticipated to have been reached. This reduction in level of service is not due to implementation of the proposed project.

Table 1-1 No-Action Alternative: Timing of Level of Service Deficiencies at Key Intersections

Intersection	Existing LOS	Design Year Level of Service (LOS)	Timing of Deficiency	
			Year	LOS
Foster/State Route 135	C <u>D</u>	D	2008	LOS D
Santa Maria Way/State Route 101 southbound	C	D	2010	LOS D
Clark Ave/State Route 101 southbound ^a	A	A <u>D</u>	2014	LOS D

^a Levels of service assume Orcutt Transportation Improvement Plan (Santa Barbara County Public Works Department, May 1996) improvements.

Source: Traffic Study, 2008.

There would also be a greater increase in traffic and congestion on the surface street system in the area west of State Route 101. The additional traffic on State Route 135 would result in a less than acceptable Level of Service F. Table 1-2 shows the future increase in traffic volumes on state routes without the project.

Table 1-2 No-Action Alternative: Traffic Volume Increases on State Routes

State Route	Existing Volume (Average Daily Trips)	Design Year Volume (Average Daily Trips)	Percent Increase
State Route 101 Between Clark Avenue and Santa Maria Way	38,000	57,600	52%
State Route 135 South of Foster Road	19,300	25,900	34%

Source: Traffic Study, 2008.

As shown in Table 1-3, Santa Maria-Orcutt Traffic Model forecasts produced for existing and future conditions in the study area demonstrate that substantial future traffic increases would occur on Clark Avenue, Foster Road, and the interchange with State Route 101 at Clark Avenue. The traffic forecasts for Foster Road indicate that a four-lane roadway would be required west of State Route 135. Additional capacity would also be required at the Foster Road/State Route 135 intersection to maintain Level of Service C-D operations.

Table 1-3 No-Action Alternative: Traffic Volume Increases on Local Roadway Segments

Roadway Segment	Existing Volume (Average Daily Traffic)	Design Year Volume (Average Daily Traffic)	Level of Service (LOS) Deficiency
Foster Road East of State Route 135	7,400	13,800	LOS E at Foster Road/State Route 135
Clark Avenue East of Bradley Road	18,300	31,900	LOS D at Clark Avenue/State Route 101 Southbound Ramps

Source: Traffic Study, 2008.

Development envisioned in the City of Santa Maria General Plan, the Santa Maria Research Park Specific Plan, the Richards Specific Plan, and the Orcutt Community Plan will generate traffic demands on the area’s circulation network and will require a transportation infrastructure capable of safely and efficiently accommodating those traffic demands. The Union Valley Parkway extension/interchange is one of several planned circulation improvements designed to achieve desired circulation levels.

The existing Union Valley Parkway is considered inadequate to serve anticipated future traffic needs. Without the proposed Union Valley Parkway extension/interchange and other public roadway and intersection improvements, future development envisioned in the City of Santa Maria General Plan, Santa Maria Research Park Specific Plan, Richards Specific Plan, or Orcutt Community Plan could not be accommodated within the circulation system. As described in the traffic analysis, construction of the proposed Union Valley Parkway extension/interchange would be necessary to achieve and maintain desired circulation levels of service and to alleviate traffic congestion in the Santa Maria-Orcutt area.

1.3 Logical Termini

Logical termini criteria are applied to a project to ensure that (1) the proposed project would have independent utility or work well without the need for additional projects, (2) environmental issues are considered on a broad scale, and (3) the relationship of the proposed project to potential future projects would not preclude opportunities to avoid environmental resources.

Independent Utility

The most common termini that provide independent utility are intersecting roadways. This is because in most cases projected traffic volumes determine the size and type of roadway being proposed. The intersection of Blosser Road/Union Valley Parkway and State Route 101/Union Valley Parkway would be considered logical termini for the project, as this reach of roadway extension and interchange construction would sufficiently address the identified project objectives. As shown in Section 2.1.6 (Traffic), the project would satisfy traffic demand through the planning horizon year 2030. In addition, there is a large drop-off in traffic volume projected for 2030 in the segment west of Blosser Road, which further confirms Blosser Road as a logical end-point (see Figure 12A in Appendix F). The proposed State Route 101 freeway interchange would also provide for satisfactory operation through 2030.

Broad Look at Environmental Issues

Discussions with the U.S. Fish and Wildlife Service have considered habitat for the California tiger salamander (a federal threatened species under the federal Endangered Species Act and a state Species of Concern under the California Endangered Species Act). This habitat is generally in the area north and west of the proposed State Route 135/Union Valley Parkway intersection (refer to Section 2.3.5 of this document and Figure 30 in Appendix F). The U.S. Fish and Wildlife Service has expressed support for having Union Valley Parkway terminate at Blosser Road to protect breeding ponds and nearby farmland used by the salamanders.

The City of Santa Maria has taken several steps to protect the population of salamanders west of Blosser Road. For example, the City of Santa Maria recently protected the salamanders in this area as part of the Santa Maria Airport Business Park Specific Plan. In addition to direct protection of the salamanders, the traffic and circulation portion of the plan is based on the termination of Union Valley Parkway at Blosser Road. The City's recently proposed Downtown Specific Plan would increase the number of residential units in the downtown area to relieve growth pressure on

urban fringe “greenfields” to protect biological resource areas, such as the salamander habitat west of Blosser Road.

Not only do traffic numbers indicate that Blosser Road is the logical terminus for the west end of the project, but also consideration of environmental issues on a broad scale. Similarly, environmental resources including oil, farmland, and salamander habitat exist to the east of State Route 101, reinforcing the project’s eastern terminus.

Protection of Resources from Potential Future Projects

Because project alternatives would provide transportation improvements that satisfy traffic demand through 2030 and because environmental issues were considered on a broad scale, the design alternatives for the termini at Blosser Road and U.S. 101 could be developed to provide maximum protection of environmental resources should extensions of Union Valley Parkway be considered in the future.

1.4 Alternatives

As required by Section 15126.6 of the California Environmental Quality Act Guidelines, 40 Code of Federal Regulations 1508.9(b), and the Federal Highway Administration and Caltrans guidelines, this Environmental Impact Report/Environmental Assessment examines a range of reasonable alternatives that could feasibly achieve similar objectives. Since the project involves extending an existing road and constructing an interchange, alternatives that are available to accomplish the project objectives are relatively limited. Criteria used to select the alternatives under consideration included the following: ability to achieve the project objectives, cost, protection of the environment (including endangered species), and the amount of physical constraints.

The Union Valley Parkway extension alignment alternatives analyzed in this document include the “Locally Preferred Alignment” Alternative 1, “Curved Alignment” Alternative 2, “Foster Road Alignment” Alternative 3, “Reduced Extension” Alternative 4, and “No-Action” Alternative 5. These Union Valley Parkway extension alignment alternatives are depicted on Figure 6 (A-D) in Appendix F and are described in detail below. A comparison summary of the alternatives is provided in Table 1-5.

1.4.1 Build Alternatives

Common Design Features of the Build Alternatives

Union Valley Parkway Extension

The project would initially construct the extension of Union Valley Parkway with two through lanes with right-of-way reserved for a future four-lane arterial road. Proposed improvements would include the construction of an interchange at State Route 101, and at-grade intersections with traffic signals at State Route 135 (in Phase I), Orcutt Road (in Phase II), Hummel Drive, Foxenwood Lane, and California Boulevard (at buildout). The road would include provisions for a Class II bikeway and a multipurpose trail. In addition, a portion of Orcutt Road would be realigned and connected with Union Valley Parkway.

The City is considering an amendment to its Circulation Element to end Union Valley Parkway at Blosser Road. The amendment would be approved in tandem with the proposed project.

Landscaping Transportation Enhancement Component

All of the build alternatives, except the Reduced Extension Alternative, which would not extend Union Valley Parkway west of State Route 135, and the Foster Road Alignment Alternative, would include the Union Valley Parkway Landscaping Transportation Enhancement component, which would landscape the alignment between Foxenwood Lane and California Boulevard. This component would include soil preparation, planting of trees, vines, and shrubs, an irrigation system, bike path signage, and bollards. Native, drought-tolerant plant materials, including native trees and groundcovers, would be planted. The proposed multi-purpose trail/bike path would meander through the landscaped area. Clinging vines would be planted to cling to the proposed masonry soundwall. The landscaped area would total about 0.2 acre.

Union Valley Parkway/State Route 101 Interchange

All of the build alternatives would extend Union Valley Parkway east to intersect with State Route 101 about midway between the State Route 101/Clark Avenue and State Route 101/Santa Maria Way interchanges. The new interchange would be constructed in one of three potential configurations to be determined by Caltrans (refer to Figures 7 A-C). There, an overcrossing with north- and southbound freeway ramps would be constructed. The work would stretch along Union Valley Parkway from its present eastern end, about 600 feet west of State Route 101, to the proposed parkway/northbound freeway ramps intersection, about 600 feet east of State Route

101. Union Valley Parkway would not be extended east of the proposed parkway/northbound ramps intersection with this project.

Each of the build alternatives would extend Union Valley Parkway about 600 feet east to State Route 101 and construct an overcrossing to carry the parkway over the freeway. The overcrossing would be a three-lane concrete bridge consisting of one westbound and one eastbound 12-foot lane, one 12-foot striped median with a left-turn pocket, two 8-foot Class II bike lanes/shoulders, and a 6.5-foot sidewalk on the eastbound (south) side. The Union Valley Parkway/State Route 101 southbound ramp intersection would have a free-flow lane for the State Route 101 southbound off-ramp to Union Valley Parkway westbound movement. The southbound and northbound ramps would be provided with necessary provisions for future traffic signals. The Union Valley Parkway/Boardwalk Lane intersection would be configured for right turns only (inbound and outbound). The overcrossing would be constructed to accommodate widening State Route 101 from four to six lanes in the future without modifications to the structure.

The three potential interchange configurations are shown on Figures 7A, 7B, and 7C in Appendix F, and are summarized as follows:

Interchange Design Variation 1

This interchange design variation proposes a spread diamond interchange with a bridge 228 feet in length (see Figure 7A). It would accommodate a future northbound loop on-ramp from eastbound Union Valley Parkway. The proposed bridge would be constructed at a 90-degree angle to State Route 101. The distance between the Santa Maria interchange and the proposed interchange is 0.9 mile. A bigger right-of-way take for a drainage basin east of Route 101 is required to accommodate the excess runoff from the west side of Route 101.

The spread diamond interchange allows more vehicles to line up to make left turns on the overcrossing. Also, its flexible design would easily allow any future construction of loop ramps that would be required to accommodate future development on the east side of the interchange site.

Interchange Design Variation 2

This design variation proposes a modified spread diamond interchange with a bridge approximately 265.8 feet in length (see Figure 7B). It provides room for a future northbound slip ramp from eastbound Union Valley Parkway. The proposed bridge

would be constructed at a 29.25-degree angle to State Route 101. This angle would also align with existing property lines on the east side of the interchange. A bigger right-of-way acquisition for a drainage basin at the northeast quadrant is required to accommodate the excess runoff from the west side of Route 101.

Interchange Design Variation 3

This design variation proposes a modified spread diamond interchange with the northbound on-ramp being a loop ramp (see Figure 7C). The bridge length for this alternative would be 228 feet. The proposed bridge would be constructed at a 90-degree angle to State Route 101. A bigger right-of-way acquisition for a drainage basin at the southeast quadrant of State Route 101 is required to accommodate the excess runoff from the west side of State Route 101.

Table 1-4 below illustrates the similarities and differences of the three interchange design variations. The amount of ground disturbance and the associated environmental effects are essentially the same for each of the three potential interchange configurations.

Table 1-4 Comparison of Interchange Design Variations (IDV)

Interchange Design Variations (IDV)		IDV 1	IDV 2	IDV 3
Over-crossing Width	Overall	60.1 feet	60.1 feet	60.1 feet
	Lanes	12-foot	12-foot	12-foot
	Bike Lane/Shoulder	8-foot	8-foot	8-foot
	Sidewalk	6.5-foot	6.5-foot	6.5-foot
Overcrossing Length		228.03 feet	265.76 feet	228.03 feet
Overcrossing's Angle with Route 101		90 degrees	29.25 degrees	90 degrees
Right-of-Way Required		884,268 square feet	884,268 square feet	884,268 square feet
Type Interchange		Spread Diamond	Modified Spread Diamond	Modified Spread Diamond
On-and Off-ramps	Overall Width ¹	24 feet	24 feet	24 feet
	Lanes	12-foot	12-foot	12-foot
	Inside Shoulders	4-foot	4-foot	4-foot
	Outside Shoulders	8-foot	8-foot	8-foot
	Length	1,000-1,475 feet	1,150-1,475 feet	1,000-1,475 feet
Distance from Santa Maria Way Interchange		.89 mile	.93 mile	.89 mile

Table 1-4 Comparison of Interchange Design Variations (IDV)

Interchange Design Variations (IDV)	IDV 1	IDV 2	IDV 3
Distance from Clark Ave. Interchange	1.29 miles	1.24 mile	1.29 miles
Current Cost Estimate	\$30,183,000	\$25,043,000	\$28,863,000
Effective in Meeting Project Purpose	Yes	Yes	Yes
Flexibility to Accommodate Future Growth East of State Route 101	Yes	Yes	Yes
Relationship to Adjacent Property Lines	Does Not Match Property Lines	Matches Property Lines	Does Not Match Property Lines

¹ Some ramps are 12 feet wider near the ramp/Union Valley Parkway intersections to accommodate an additional merging and turning lane.

Unique Features of the Build Alternatives

Locally Preferred Alignment

The Locally Preferred Alignment is located in northern Santa Barbara County, within the City of Santa Maria and the unincorporated community of Orcutt. The project area is located south of the Santa Maria Airport and is generally bounded by Foster Road to the north, State Route 101 to the east, the Foxenwood Estates and other residential development to the south, and Blosser Road to the west.

The project area for the Union Valley Parkway extension portion of the project includes a total of approximately 56.0 acres. The roadway extension portion of the project would extend east to west along a line approximately 1.6 miles in length. A portion of the project area (approximately 29.3 acres) would fall under the jurisdiction of the City of Santa Maria while a portion (approximately 26.7 acres) would lie within the community of Orcutt, which is under the jurisdiction of Santa Barbara County. Figures 1 and 2 show the site's regional location within northern Santa Barbara County. The proposed improvements are shown on an aerial photograph on Figure 4. Preliminary Improvement Plan sheets for Union Valley Parkway from Blosser Road to Hummel Drive are provided in Figures 5A through 5I in Appendix F. The Locally Preferred Alignment, Alternative 1, follows a relatively straight alignment between Hummel Drive and Blosser Road

An 8-foot-high masonry soundwall would be installed north of the rear lot lines of 19 Foxenwood Subdivision homes on Clubhouse Drive, between California Boulevard and Foxenwood Lane (refer to Figure 22A in Appendix F).

Curved Alignment Alternative

The Curved Alignment, Alternative 2, presents an alternative alignment for the proposed roadway that was formulated after receiving public testimony and input from traffic experts. This alternative would generally follow a straight alignment from Foxenwood Lane to California Boulevard; however, the western portion of the Curved Alignment, near Blosser Road, would be designed with a curve to avoid an existing area of eucalyptus woodland (refer to Figure 6B in Appendix F).

An 8-foot-high masonry soundwall would be installed north of the rear lot lines of 19 Foxenwood Subdivision homes on Clubhouse Drive, between California Boulevard and Foxenwood Lane (refer to Figure 22A in Appendix F).

Foster Road Alignment

In general the Foster Road Alignment, Alternative 3, would follow the same alignment as Foster Road from Blosser Road to California Boulevard. From California Boulevard, the alternative alignment would run diagonally (southeast) to State Route 135, with a realigned roadway that forks northeast toward the intersection of Foster Road and State Route 135 (refer to Figure 6C in Appendix F).

This alternative would require the widening of Foster Road and capacity improvements at the Foster Road/State Route 135 intersection, as well as street system modifications within the Santa Maria Research Park Specific Plan area.

Reduced Extension Alternative

The Reduced Extension, Alternative 4, presents an alternative Union Valley Parkway extension length for the proposed roadway that was formulated after receiving public testimony and input from traffic experts. This alternative extends between Hummel Drive and State Route 135, realigns Orcutt Road and includes an at-grade “T” intersection with a traffic signal at State Route 135 (refer to Figure 6D in Appendix F).

Construction Phasing

The City proposes to construct the Union Valley Parkway extension portion of the project in several phases and the Union Valley Parkway/State Route 101 interchange portion of the project in a single phase. The timing of the construction of the Union Valley Parkway extension portion of the project relative to the interchange portion of the project is not known, but will depend upon the availability and timing of funding. The interchange portion of the project is not currently fully funded. If full funding is available, interchange construction would commence in 2011/2012.

Phase 1 of the Union Valley Parkway extension portion of the project (Hummel Drive to Blosser Road) would entail the development of a two-lane Union Valley Parkway from State Route 135 to Blosser Road. Phase 2 would entail the development of Union Valley Parkway as a two-lane roadway between State Route 135 and Hummel Drive. The final phase of the Locally Preferred Alignment, Curved Alignment, and Foster Road Alignment would include widening Union Valley Parkway between Hummel Drive and Blosser Road to a total of four lanes. The Reduced Extension Alternative would widen Union Valley Parkway between Hummel Drive and State Route 135 to four lanes during the final phase. This final phase would be developed in response to changing traffic conditions. Sidewalks, bikeways, and a multi-purpose trail would be provided during each phase.

As part of the Union Valley Parkway extension portion of the project, approximately 2,000 feet of Orcutt Road would be realigned eastward from its current location. The realigned Orcutt Road would intersect the new Union Valley Parkway roadway roughly 535 feet east of State Route 135. The realigned portion of Orcutt Road would feature a total of two 12-foot lanes with 6-foot Class II bike lanes, curb and gutter, and a 5-foot sidewalk on each side of the road. The Orcutt Road realignment would be necessary to alleviate potential traffic problems associated with having two intersections (State Route 135/Union Valley Parkway and Orcutt Road/Union Valley Parkway) in close proximity to one another.

During each phase of the Union Valley Parkway Extension/Interchange Project, State Route 135 would be widened to provide left-turn lanes onto Union Valley Parkway. In addition, acceleration and deceleration lanes would be provided both north and south of Union Valley Parkway, and Blosser Road would be widened to allow left-turn lanes onto Union Valley Parkway. It should be noted that for the purposes of this Environmental Impact Report/Environmental Assessment, the environmental analysis is based on the final four-lane build-out scenario for the City portions of the extension, and a two-lane build-out scenario for the future County portion of the extension (i.e., between Hummel Drive and State Route 101), with implementation of the Union Valley Parkway/State Route 101 interchange.

1.4.2 No-Action Alternative

Under the No-Action Alternative, Alternative 5, the proposed Union Valley Parkway extension/interchange would not be implemented and the project area would remain undeveloped. The No-Action Alternative would not provide access to Union Valley

Parkway from State Route 101. Union Valley Parkway would not be extended between State Routes 101 and 135 to Blosser Road, although routine maintenance would continue on both State Route 101 and Union Valley Parkway. The No-Action Alternative would result in traffic congestion at several locations in the study area, including at the intersections of Foster Road/State Route 135, Santa Maria Way/State Route 101 southbound, and Clark Avenue/State Route 101 southbound. Therefore, this alternative would not meet the project purpose of transferring through-vehicle trips to the regional highway system to facilitate the efficient flow of people, goods, and services through this area, ensuring continued mobility of the public. It would also not meet the project purpose of providing congestion relief to improve traffic flow on the regional transportation system and accommodate projected travel demand. The No-Action Alternative would require a reconfiguration of the Santa Maria Way/State Route 101 interchange, realignment of the frontage road east of that interchange, construction of a standard intersection, and installation of traffic signals at the southbound off-ramp to maintain a Level of Service of C in the future.

1.4.3 Comparison of Alternatives

An environmental comparison of the build alternatives is provided below and in Table 1-5. Refer to Table ES-1 in the Summary for a comparison of the environmental effects of the alternatives.

Locally Preferred Alignment

After comparing and weighing the benefits and impacts of all of the feasible alternatives, the City has identified the Locally Preferred Alignment.

Curved Alignment Alternative

The Curved Alignment Alternative would result in greater noise impacts on the public park (Pioneer Park) north of the alignment, but reduced noise impacts on residential and private recreational uses south of the alignment (refer to Figure 5A for the location of Pioneer Park). Impacts associated with transportation/circulation would be similar to the Locally Preferred Alignment. Pioneer Park is a 15-acre public park, zoned by the City of Santa Maria as Public Facilities, which includes a large picnic area, barbecue facilities, a pavilion, softball field, children's playground, and horseshoe pits. The Curved Alignment was designed to avoid impacts to a stand of eucalyptus trees that the Locally Preferred Alignment does not avoid. However, the Curved Alignment would actually remove more area of central dune scrub habitat (11.9 acres) than the Locally-Preferred Alignment would (10.6 acres). In addition, the

Curved Alignment Alternative could result in additional growth inducement impacts on natural communities west of Blosser Road should Union Valley Parkway ever be extended in that area, due to the northward curve of the alignment, which would extend further from existing urban development to the south.

Foster Road Alignment

When compared to the Locally Preferred Alignment, impacts associated with noise under the Foster Road Alignment were generally considered to be less severe than the Locally Preferred Alignment. Impacts associated with transportation/circulation, land use, and biological resources would be greater than the Locally Preferred Alignment.

Reduced Extension Alternative

The Reduced Extension Alternative would result in less physical disturbance and associated impacts (such as to biological resources, etc.) when compared to the Locally Preferred Alignment. However, impacts on transportation and circulation and associated air contaminant emissions would be substantially greater than the Locally Preferred Alignment, and this alternative would only partially implement the project objectives.

No-Action Alternative

The No-Action Alternative would not meet the project's basic objectives of facilitating smooth and efficient movement of persons and goods within the communities of Santa Maria and Orcutt. Although adverse impacts to biological and/or aesthetics/visual resources would not occur, impacts to transportation/circulation and air quality would be expected to steadily increase due to less efficient traffic circulation and a corresponding increase in vehicle miles traveled and air contaminant emissions.

Table 1-5 Comparison of Alternatives Table

Potential Impact	Locally Preferred Alignment Alternative (Alternative 1)	Curved Alignment Alternative (Alternative 2)	Foster Road Alignment Alternative (Alternative 3)	Reduced Extension Alternative (Alternative 4)	No-Action Alternative
Pedestrian and Bicycle Access	Since this alternative includes sidewalks, multi-use paths, and Class II bike lanes, it would improve pedestrian and bicycle circulation.	Since this alternative includes sidewalks, multi-use paths, and Class II bike lanes, it would improve pedestrian and bicycle circulation.	Since this alternative includes sidewalks, multi-use paths, and Class II bike lanes, it would improve pedestrian and bicycle circulation.	Although this alternative includes sidewalks, multi-use paths, and Class II bike lanes, it would not improve pedestrian and bicycle circulation to the west of State Route 135.	No improvement to pedestrian and bicycle circulation.
Right-of-Way Impacts	Based on the City and County's approved general plans, the right-of-way is protected for this alternative. This alternative would have impacts to residential properties along Union Valley Parkway east of State Route 135. However, no relocations would be required.	Based on the City and County's approved general plans, the right-of-way is protected for this alternative. This alternative would have impacts to residential properties along Union Valley Parkway east of State Route 135. However, no relocations would be required.	This alternative would have impacts to residential properties along Union Valley Parkway east of State Route 135. Based on the current land uses along the diagonal alignment west of State Route 135, there are direct impacts to properties and facilities for this alternative such as the County's animal shelter and the administration building, which would require relocation.	Based on the City and County's approved general plans, the right-of-way is protected for this alternative. This alternative would have impacts to residential properties along Union Valley Parkway east of State Route 135. However, no relocations would be required.	This alternative would not have any right-of-way impacts.
Natural Communities	Impact to 1.67 acres coast live oak woodland, 9 acres eucalyptus woodland, and 11.31 acres central dune scrub.	This alternative would affect an area of eucalyptus woodlands (7.19 acres) and central dune scrub (13.07 acres). It would remove an area of oak woodlands (0.71 acre).	No oak woodland affected. Impact to 5.51 acres eucalyptus woodland and 10.52 acres central dune scrub.	No oak woodland affected. Impact to 3.91 acres eucalyptus woodland and 9.87 acres central dune scrub.	No impact
Wetlands and Other Waters of the U.S.	Impact to 1.70 acres of Cowardin wetlands. About 0.35 acre of Corps jurisdiction affected.	Impact to 1.67 acres of Cowardin wetlands. About 0.35 acre of Corps jurisdiction affected.	Impact to 1.67 acres of Cowardin wetlands. About 0.35 acres of Corps jurisdiction impacted.	Impact to 1.67 acres of Cowardin wetlands. About 0.35 acres of Corps jurisdiction impacted.	No impact
Threatened and Endangered Species	Impacts to 2.59 acres of upland habitat and 19.65 acres of dispersal habitat for the California tiger salamander and California red-legged frog.	Impacts to 3.04 acres of upland habitat and 17.36 acres of dispersal habitat for the California tiger salamander and California red-legged frog.	Impacts to 5.82 acres of upland habitat and 10.20 acres of dispersal habitat for the California tiger salamander and California red-legged frog.	Potential impact to California tiger salamander and red-legged frog.	No Impact

Table 1-5 Comparison of Alternatives Table

Potential Impact	Locally Preferred Alignment Alternative (Alternative 1)	Curved Alignment Alternative (Alternative 2)	Foster Road Alignment Alternative (Alternative 3)	Reduced Extension Alternative (Alternative 4)	No-Action Alternative
Air Quality	This alternative would generate temporary dust from grading activities and the use of heavy construction vehicles. This alternative is consistent with the Regional Transportation Plan and Federal Transportation Improvement Program.	This alternative would generate temporary dust from grading activities and the use of heavy construction vehicles. This alternative is consistent with the Regional Transportation Plan and Federal Transportation Improvement Program.	This alternative would generate temporary dust from grading activities and the use of heavy construction vehicles. This alternative is consistent with the Regional Transportation Plan and Federal Transportation Improvement Program.	This alternative would generate temporary dust from grading activities and the use of heavy construction vehicles. This alternative is consistent with the Regional Transportation Plan and Federal Transportation Improvement Program.	This alternative would not increase impacts to air quality.
Noise Impacts	Increased noise levels that would exceed federal and/or County criteria at 4 homes along Clubhouse Drive, which would require an 8-foot-high soundwall, and 23 homes along the existing segment of Union Valley Parkway, which would require an 8-foot-high soundwall or berm.	Increased noise levels that would exceed federal and/or County criteria at 4 homes along Clubhouse Drive, which would require an 8-foot-high soundwall, and 23 homes along the existing segment of Union Valley Parkway, which would require an 8-foot-high soundwall or berm.	Increased noise levels that would exceed federal and/or County criteria at 4 homes along Clubhouse Drive, which would require an 8-foot-high soundwall.	Increased noise levels that would exceed federal and/or County criteria at 23 homes along the existing segment of Union Valley Parkway, which would require an 8-foot-high soundwall or berm.	This alternative would not increase impacts to noise.
Water Quality, Drainage	Not located within 100-year flood zone. Runoff and sedimentation could affect offsite drainages. It would be reduced by implementation of Best Management Practices.	Not located within 100-year flood zone. Runoff and sedimentation could affect offsite drainages. It would be reduced by implementation of Best Management Practices.	Not located within 100-year flood zone. Runoff and sedimentation could affect offsite drainages. It would be reduced by implementation of Best Management Practices.	Not located within 100-year flood zone. Although less than the locally preferred alternative, runoff and sedimentation could affect offsite drainages. It would be reduced by implementation of Best Management Practices.	This alternative would not affect water quality or drainage.
Circulation/ Operations	This alternative would improve the east-west circulation in the project area. This alternative would result in roadway and intersection operations that meet the City, County, and Caltrans Level of Service standards.	This alternative would improve the east-west circulation in the project area. This alternative would result in roadway and intersection operations that meet the City, County, and Caltrans Level of Service standards.	Impacts on transportation and circulation would be greater than locally preferred alternative. This alternative would result in roadway and intersection operations that meet the City and County Level of Service standards with some mitigation required.	Impacts on transportation and circulation would be substantially greater than locally preferred alternative. This alternative would result in roadway and intersection operations that meet the City, County, and Caltrans Level of Service standards with some mitigation required. The Foster Road/State Route 135 intersection does not meet the City, County, or Caltrans Level of Service standards.	This alternative would not improve traffic circulation.

Table 1-5 Comparison of Alternatives Table

Potential Impact	Locally Preferred Alignment Alternative (Alternative 1)	Curved Alignment Alternative (Alternative 2)	Foster Road Alignment Alternative (Alternative 3)	Reduced Extension Alternative (Alternative 4)	No-Action Alternative
Construction	This alternative would result in temporary disruption of traffic and may require shifting existing traffic and/or detours. This alternative would increase the impacts to air (dust) and noise (short-term) during construction.	This alternative would result in temporary disruption of traffic and may require shifting existing traffic and/or detours. This alternative would increase the impacts to air (dust) and noise (short-term) during construction.	This alternative would result in temporary disruption of traffic and may require shifting existing traffic and/or detours. This alternative would increase the impacts to air (dust) and noise (short-term) during construction.	This alternative would result in temporary disruption of traffic and may require shifting existing traffic and/or detours. This alternative would increase the impacts to air (dust) and noise (short-term) during construction, but not as much as the other three build alternatives.	This alternative would not affect existing traffic nor would it increase the impacts to air and noise during construction.

1.4.4 Identification of a Preferred Alternative

The City and Caltrans have selected the Locally-Preferred Alternative as the preferred alternative and Interchange Design Variation 2 as the preferred interchange design, and have made a final determination of the project's effect on the environment.

The Locally-Preferred Alternative would best satisfy the purpose and need for the project, would provide greater beneficial impacts related to relief of existing and future traffic congestion, and associated air contaminant emissions, and would reduce environmental impacts related to aesthetics, land use, and growth inducement compared to other alternatives. This alternative also conforms to the circulation plan of the Santa Maria Airport Business Park Specific Plan.

Interchange Design Variation 2 is preferred because it would satisfy the purpose and need for the project, would provide more drainage capacity, would align better with property lines, would better fit topography, and would be less expensive to construct than the other variations.

In accordance with the California Environmental Quality Act, the City has certified that the project complies with the act, prepared findings for all significant impacts identified, prepared a Statement of Overriding Considerations for impacts that will not be mitigated below a level of significance, and certified that the findings and Statement of Overriding Considerations were considered prior to project approval. The City has filed a Notice of Determination with the State Clearinghouse that identifies that the project will have significant impacts, that mitigation measures were included as conditions of project approval, that findings were made, and that a Statement of Overriding Considerations was adopted. Similarly, Caltrans, as assigned by the Federal Highway Administration, has determined that the project does not significantly affect the environment, and has issued a Finding of No Significant Impact in accordance with the National Environmental Policy Act.

1.4.5 Environmentally Superior Alternative

The California Environmental Quality Act requires that an Environmental Impact Report identify an "Environmentally Superior Alternative." In accordance with California Environmental Quality Act Guidelines, if the No-Action Alternative is identified as the Environmentally Superior Alternative, the alternative among the remaining alternatives that is environmentally superior is also identified. The

California Environmental Quality Act Guidelines do not define a precise methodology regarding the determination of the Environmentally Superior Alternative. For the purposes of this analysis, each alternative has been compared within each issue area and a determination has been made as to whether the alternative was superior, inferior, or similar to the No-Action Alternative. Overall rankings are tabulated to determine, for the issue areas in question, which alternative has the highest incidence of being superior when each issue is equally weighted.

Among the alternatives, the No-Action Alternative is considered environmentally superior overall. However, the No-Action Alternative would not meet the project's basic objectives of facilitating smooth and efficient movement of persons and goods within the communities of Santa Maria and Orcutt. Adverse impacts to transportation/circulation and air quality would be greater than those associated with implementation of any build alternative. Of the build alternatives, the Locally Preferred Alternative (Alternative 1) is considered the environmentally superior alternative. The overall aesthetic and biological resource impacts of the Locally Preferred Alignment and Curved Alignment Alternative would be similar, since these alignments have a substantially similar impact area. However, the Locally Preferred Alternative would reduce vehicle noise impacts and aesthetic impacts at Pioneer Park due to its greater distance from the park, would reduce fragmentation of sensitive species habitat by locating disturbance closer to existing urban uses, and would reduce growth inducement impacts to the west of Blosser Road.

It should be noted that the Foster Road Alignment Alternative would be considered environmentally inferior to the Locally Preferred Alternative and would provide fewer beneficial impacts related to relief of existing and future traffic congestion, and associated air contaminant emissions. The Foster Road Alignment Alternative would result in greater impacts related to land use incompatibility, inconsistencies with land use plans, relocations of existing land uses, noise exposure at Pioneer Park, valley needlegrass grassland, and vernal pool fairy shrimp habitat. In addition, the Reduced Extension Alternative would result in less physical disturbance and associated impacts (such as biological resources, etc.) when compared to the Locally Preferred Alternative. However, it would provide fewer beneficial impacts related to relief of existing and future traffic congestion, and associated air contaminant emissions, and would only partially implement the project objectives.

1.4.6 Alternatives Considered but Eliminated from Further Discussion

The following alternatives were considered but eliminated from further discussion for the reasons given below.

Section 15126.6 of the State CEQA Guidelines states that: “An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. *An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decisionmaking and public participation.* An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.” (emphasis added).

Alternative Foster Road Alignment

Redesigning the Foster Road Alignment Alternative and beginning the curve further east would impact the design of the roadway. The distance between SR 135 and the closest building is only about 1,300 feet, and the horizontal curves, equivalent to almost 90-degree curves, which would be needed to avoid the buildings would not meet the City of Santa Maria required design standards. The tighter curves (i.e., with smaller radii) would result in a substandard design speed and insufficient stopping sight distance. Therefore, this alternative was eliminated from further consideration.”

Transportation System Management and Transportation Demand Management

Implementation of Transportation System Management and Transportation Demand Management are contemplated in the City’s General Plan Circulation Element. However, implementation of management measures, such as promotion of alternative modes of transportation (Circulation Element Policy C.6.a.1), placement of conditions on development to incorporate trip reduction (Policy C.6.a.2), encouragement of pedestrian-oriented development and transit-oriented development (Objective C.6.2), improvement and expansion of transit service (Policy C.6.b.1), and development of bicycling and pedestrian facilities (Policy C.6.c.1), without construction of the Union Valley Parkway extension and interchange, would not be expected to sufficiently facilitate efficient traffic circulation in the study area vicinity,

in accordance with adopted level of service thresholds, address future safety issues, or conform to adopted plans and policies. Therefore, Transportation System Management and Transportation Demand Management alternatives were considered but eliminated from further discussion.

Although Transportation System Management measures alone could not satisfy the purpose and need of the project, the following Transportation System Management measures have been incorporated into the build alternatives for this project:

- Multi-purpose Trail
- Class II Bike Path

Union Valley Parkway/State Route 135 interchange alternative

A version of the project with a full interchange at Union Valley Parkway/State Route 135 was considered but rejected due to high costs, and the presence of physical constraints, including existing land uses. The Project Study Report for the Union Valley Parkway/State Route 135 intersection indicated that an at-grade intersection of UVP/SR 135, rather than a full interchange, best fits the context of the corridor. A traffic study conducted in the year 2000 for the Union Valley Parkway Project Study Report concluded that an interchange would not result in a significant improvement to traffic operations or circulation. Moreover, this document concluded the construction of an interchange would have a negative effect on local circulation by requiring the closure of the SR 135/Foster Road intersection.

Trumpet Interchange

Caltrans withdrew from consideration a trumpet interchange configuration at Union Valley Parkway and State Route 101 for the following reasons:

- The 1997 Orcutt Community Plan, Traffic Element (pages 145, 146, and 161) refers to a full diamond interchange.
- A Notice of Preparation of an Environmental Impact Report for the proposed Bradley Ranch Specific Plan was filed in September 2007.

If a trumpet interchange and the Bradley Ranch Specific Plan were built, the bridge over State Route 101 and the northbound ramps (on and off) would have to be reconstructed at a cost of approximately \$13 million and additional disruption of traffic during the reconstruction would occur.

1.5 Permits and Approvals Needed

The permits, reviews, and approvals shown in Table 1-6 would be required for project implementation.

Table 1-6 Required Permits and Approvals

Agency	Permit/Approval	Status
City of Santa Maria	General Plan Circulation Element Amendment	To be considered by Planning Commission and City Council with this Environmental Impact Report/ Environmental Assessment
	Call for Bids	To be considered by City Council with this Environmental Impact Report/Environmental Assessment
	Right-of-way Acquisition and Finding of General Plan Conformance	To be considered by City Council with this Environmental Impact Report/Environmental Assessment
Caltrans	Finding of No Significant Impact	To be considered by Caltrans District 5 Director, as delegated by the Federal Highway Administration, with the Caltrans Environmental Impact Report/Environmental Assessment for the project. Caltrans is expected to revise and/or supplement the City's Environmental Impact Report/ Environmental Assessment for the purposes of their project approval process.
	Interchange Project Approval	To be considered by Caltrans, in coordination with the Federal Highway Administration, with the Caltrans Environmental Impact Report/ Environmental Assessment and Finding of No Significant Impact for the project
	Right-of-way Acquisition and Finding of General Plan Conformance	To be considered by Caltrans with the Caltrans Environmental Impact Report/Environmental Assessment and Finding of No Significant Impact for the project
County of Santa Barbara	Right-of-way Acquisition, dedication, and Finding of General Plan Conformance	To be considered by Board of Supervisors with this Environmental Impact Report/ Environmental Assessment
	Encroachment Permits	To be considered by Board of Supervisors with this Environmental Impact Report/ Environmental Assessment
	Future Roadway Project Development Approval	The County may potentially use the Environmental Impact Report as a base tier of environmental review for future projects along the County portion of the corridor.
Santa Barbara County Association of Governments	Unknown at this Time	Santa Barbara Association of Governments approvals would not be required for the project. However, this agency may use the Environmental Impact Report in the preparation of environmental evaluations for the Regional Transportation Plan.

Table 1-6 Required Permits and Approvals

Agency	Permit/Approval	Status
Santa Barbara County Fire Department/ Hazardous Materials	Unknown at this Time	This department would review remediation of existing and past soil contamination, if identified during construction.
California Department of Toxic Substances Control	Unknown at this Time	This department would review remediation of existing and past soil contamination, if identified during construction.
California Department of Conservation, Division of Oil, Gas, and Geothermal Resources	Unknown at this Time	This division would review remediation of existing and past soil contamination, if identified during construction.
California Water Resources Board	National Pollutant Discharge Elimination System permit; Waste Discharge Permit, if applicable. Section 401 water quality certification.	Applications would be submitted to agencies before construction.
United States Fish and Wildlife Service	Section 7 Consultation for Threatened and Endangered Species	Applications would be submitted to agencies before construction.
	Review and Comment on Section 404 Permit, if applicable	Applications would be submitted to agencies before construction.
United States Army Corps of Engineers	Section 404 Permit for filling or dredging waters of the United States.	Applications would be submitted to agencies before construction.

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

This chapter explains the impacts that the project would have on the human, physical, and biological environments in the project area. It describes the existing environment that could be affected by the project, potential impacts from each of the alternatives, and proposed avoidance, minimization, and/or mitigation measures. Any indirect impacts are included in the general impacts analysis and discussions that follow.

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

- **Cultural Resources** – Extensive and intensive archaeological surveys were conducted within the boundaries of the archaeological area of potential effect. The archaeological resources investigation was designed to locate previously recorded sites, survey the project vicinity for previously undiscovered historic and prehistoric archaeological sites, and collect archival information from various facilities. None of the research or surveys identified the presence of archaeological resources in the archaeological area of potential effect for the project. No further archaeological work is necessary at this time, unless plans for the build alternatives change to include unsurveyed areas. Although unlikely, if archaeological resources are encountered during construction, it is Caltrans policy to discontinue work in the area of the find until the material can be evaluated by a qualified archaeologist. If the find is deemed significant, further evaluation, analysis, report preparation, and curation of resources will be required.

Caltrans prepared a Historic Property Survey Report and supporting technical documents in December 2007, and a supplemental Historic Property Survey Report in May 2008, and transmitted them to the State Historic Preservation Officer. The architectural area of potential effects includes not only the area delineated by the archaeological area of potential effect, but also parcels (or portions of parcels) occupied by buildings and structures constructed in 1958 or

earlier. Six historic-period properties were identified in the architectural area of potential effect. Three of these historic-period resources, located at 120 E. Foster Road; 4124, 4126, and 4128 Orcutt Road; and 4470 Orcutt Road, were evaluated and found to be ineligible for listing in the National Register of Historic Places or to be historic resources under the California Environmental Quality Act.

For the purposes of this project, Caltrans has determined that three properties (at 4136, 4162, and 4174 Orcutt Road) are assumed eligible under Criteria A and C, at the local level of significance. Under Criterion A, they are assumed eligible for their association with the return and home-building efforts of World War II veterans in the Orcutt area, and under Criterion C, for their adobe block construction. The realignment of Orcutt Road initially required right-of-way acquisition from two of these historic properties (4162 and 4174 Orcutt Road). The alignment was therefore redesigned to avoid impacts to the historic property at 4162 Orcutt Road and to minimize impacts to the historic property at 4174 Orcutt Road. Pursuant to the County of Santa Barbara's Engineering Design Standards, the Department of Transportation Highway Design Manual, and previous correspondence with the County, the realignment was established using the minimal design standards allowed, which resulted in complete avoidance of the parcel at 4162 Orcutt Road, of which 1,900 square feet previously would have been affected. Right-of-way acquisition affecting the parcel at 4174 Orcutt Road has been reduced from about 39,000 square feet (21 percent of the parcel) to a small sliver (approximately 2,600 square feet) at the southwestern edge of the parcel, which represents less than 7 percent of the total parcel. In addition, the Orcutt Road realignment would be only about one foot above the grade at the highest point, transitioning to the existing grade, while the grade at the residence on this parcel is about 15 feet above the existing road grade.

The project will have no effect on the properties at 4136 and 4162 Orcutt Road. Because of the sloping topography and because the house is sited at the eastern edge of the parcel, the project will have no adverse effect on the historic property at 4174 Orcutt Road. It will not alter the location, design, materials, workmanship, setting, feeling or association of the property in any way that diminishes the property's assumed eligibility for the National Register of Historic Places. The property therefore retains sufficient integrity to convey its period of significance (1948-1949).

In accordance with the implementing regulations of Section 106, Caltrans, as assigned by the Federal Highway Administration, determined a Finding of No Adverse Effect for the project as a whole; the State Historic Preservation Officer did not object to this finding in the official response, dated August 18, 2008 (refer to separately bound Cultural Resources Correspondence).

Similarly, the build alternatives would have a *de minimis* impact on Section 4(f) resources [refer to Appendix B, “Resources Evaluated Relative to the Requirements of Section 4(f)”].

- **Hydrology and Floodplain** – The project area is in Flood Zone C, an area of no flood hazard (Flood Insurance Rate Maps). None of the build alternatives showed a predicted increase in the base flood elevation, and the proposed alternatives do not include development that conflicts with the function of the natural floodplain. Due to design features aimed at retaining water within the vicinity, drainage facilities outside the project area would not be indirectly affected. Therefore, none of the build alternatives would result in impacts related to flooding.
- **Paleontology** – The project area is entirely underlain by Quaternary Dune Sand, which has no potential to contain paleontological resources (Worts, 1951).

2.1 Human Environment

2.1.1 Land Use

2.1.1.1 Existing and Future Land Use

Affected Environment

Existing Land Use

The proposed project area’s General Plan designation is Public Land, reserved for future roadway construction. Surrounding zoning is primarily residential to the south, with public facility and parkland uses located toward the north (refer to Figure 23A in Appendix F).

The project area for the Union Valley Parkway extension portion of the project is designated as “Future Union Valley Parkway” and is reserved for future roadway construction in the City General Plan. Zoning is primarily residential to the south (within the County) and institutional/public facility, light industry, and parkland to the north (refer to Figure 23B in Appendix F).

The Union Valley Parkway/State Route 101 interchange area is primarily characterized by the existing State Route 101 travel lanes. Surrounding uses are Single-Family Residential to the west of the Union Valley Parkway/State Route 101 interchange and Vacant and Agricultural lands to the east.

Within the city (areas west of State Route 135), surrounding land use designations are Community Facilities, Recreational Open Space (Pioneer Park), Planned Development – golf course, Light Industrial, Residential, and Conservation Open Space – Eucalyptus Preserve.

Within the County (areas east of State Route 135), surrounding land use designations are Agriculture, General Commercial, Professional and Office, and Residential Planned Development (3.3 units/acre).

West of State Route 135, surrounding development includes Santa Barbara County government facilities to the north and the Foxenwood Estates single-family residential neighborhood to the south. County facilities consist of a Sheriff's substation, a vehicle yard, technical services offices, a mental health facility, and a juvenile hall facility. East of State Route 135, the area remains largely undeveloped with only a few residential homes on large lots.

With the exception of existing road crossings, the project area is currently vacant. Access is provided by the existing stretch of Union Valley Parkway, Hummel Drive, Foxenwood Lane, Orcutt Road, California Boulevard, Blosser Road, and State Route 135.

Future Land Use

Future land uses proposed in the vicinity include industrial and business parkland uses north of the project area, and residential and retail projects in the vicinity. Of the major developments in the City of Santa Maria and County of Santa Barbara depicted on Table 2-1 and shown on Figure 31 in Appendix F, the closest developments to the project area are two recently completed projects in the city, the food bank and animal shelter projects, and one project on the Santa Maria Public Airport District property north of the project area. The food bank and animal shelter projects, which were recently constructed, are located north of the Locally Preferred Alignment and Curved Alignment Alternative, and immediately adjacent to the Foster Road Alignment Alternative (refer to Figure 27). The Santa Maria Airport Business Park Specific Plan area is located north of Foster Road. Other major projects in the vicinity

include the Orcutt Marketplace and Foxenwood Townhomes. The Union Valley Parkway extension and interchange would alleviate some of the potential traffic impacts generated by development in the area.

Table 2-1 Future Land Uses in the Vicinity

Map ID (See Figure 31)	Name	Jurisdiction	Proposed Uses	Status	Distance from Project Area (miles)
Industrial Projects					
1	Santa Maria Airport Business Park Specific Plan	City of Santa Maria	Light industrial, manufacturing, offices, and commercial uses; 18-hole golf course, and open space	Specific Plan Approved	0.25
Residential Projects					
2	Foxenwood Townhomes	City of Santa Maria	32 single-family dwellings units as part of a Planned Unit Development on 8.26 acres in a PD/R-1 zone.	Under construction	Adjacent
3	Orcutt Key Site 30	County of Santa Barbara	80 single-family residential units and 202 apartments on 78.7 acres	Under permit review	0.25
4	Shared Senior Housing	County of Santa Barbara	12 senior units on 10.6 acres (Orcutt Key Site 29)	Under construction	0.25
5	Old Mill Run	County of Santa Barbara	60 design residential units on 19.2 acres (portion of Orcutt Key Site 20)	Under construction	0.5
6	Orcutt Creek	County of Santa Barbara	16 single-family residential lots on 9.3 acres (portion of Orcutt Key Site 10)	Approved without entitlement to begin construction	1.10
7	Stonegate	County of Santa Barbara	44 multi-family residential units on 7.9 acres (Orcutt Key Site 17)	Under construction	1.15
8	Jensen's Crossing/ Cobblestone Creek	County of Santa Barbara	112 single-family units on 48.6 acres (Orcutt Key Site 5)	Under construction	1.15
9	Harp Springs	County of Santa Barbara	44 single-family units on 20.4 acres (Orcutt Key Site 8)	Under construction	1.15

Table 2-1 Future Land Uses in the Vicinity

Map ID (See Figure 31)	Name	Jurisdiction	Proposed Uses	Status	Distance from Project Area (miles)
10	Rice Ranch	County of Santa Barbara	725 residential units at 1.2 dwelling units per acre (Orcutt Key Site 12)	Under construction	1.25
11	Mesa Verde	County of Santa Barbara	64 single-family residential units on 45.2 acres (Orcutt Key Site 6)	Under construction	1.26
12	Vintage Ranch	County of Santa Barbara	52 single-family residential units on 31.5 acres (Orcutt Key Site 7)	Under construction	1.27
13	Centex Homes	County of Santa Barbara	307 single-family and town home residential units on 147 acres (Orcutt Key Site 3)	Under permit review	1.5
14	Rancho Maria	County of Santa Barbara	150 single-family residential units on 190 acres (Orcutt Key Site 21)	Under permit review	1.5
Commercial Projects					
15	Orcutt Marketplace	County of Santa Barbara	306,100 square feet General Commercial (Orcutt Key Site 1)	Under permit review	0.75
16	Lebard Retail Center	County of Santa Barbara	13,364 square feet retail on 4.3 acres (portion of Orcutt Key Site 18)	Under permit review	0.80
17	Orcutt Gateway	County of Santa Barbara	66,700 square feet General Commercial and 66 single-family residential homes (Orcutt Key Site 2)	Under permit review	0.80
18	English- Joseph Specific Plan	County of Santa Barbara	Specific plan for 56,806 square feet Commercial Retail and Office Condominiums with 30 residential condominiums above (Orcutt Key Site 11)	Under permit review	1.00
19	Orcutt Plaza	County of Santa Barbara	220,779 square feet General Commercial (Orcutt Key Site 25)	Approved without entitlement to begin construction	1.00

PD = Planned Development Overlay District, R-1 = Single-Family Residence

It should be noted that the table of future land uses in the vicinity does not include development east of the proposed Union Valley Parkway/State Route 101 interchange on the Bradley Ranch property. Because a Notice of Preparation was filed for an Environmental Impact Report for the Bradley Ranch Specific Plan, the future development and associated environmental impacts of this area are included in the growth-related impact analysis. Although the Specific Plan is long range with approval uncertain, it is included in the growth-related impact discussion because:

1. An area currently designated for agricultural and open space use is at the edge of an urban area that is experiencing growth pressure.
2. Union Valley Parkway would provide new north-south freeway access and east-west arterial access to this area. Bicycle and pedestrian access would also be provided.

For similar reasons, the potential for growth-related impacts west of Blosser Road is also addressed. Refer to Section 2.1.2, *Growth*, for a discussion of project impacts related to growth inducement.

Environmental Consequences

As a public infrastructure improvement, the Union Valley Parkway Extension/Interchange Project would facilitate the movement of people and goods in the Orcutt/Santa Maria community.

Locally Preferred Alignment

This alignment is consistent with existing and planned future land use. The project does not propose any zoning changes. The only land use changes from the project would be from direct conversion of agriculture or residential land use to a transportation corridor. Although right-of-way acquisition would affect properties located along the proposed Orcutt Road realignment, no residents would be displaced by any of the alignment alternatives. Because the project has been planned since the 1960s, right-of-way has been acquired over the years, including right-of-way along the existing segment of Union Valley Parkway, and right-of-way west of Hummel Drive for the extension portion of the project.

Curved Alignment Alternative

This alignment is consistent with existing and planned future land use and is identified in the City General Plan and County Comprehensive Plan. The project does

not propose any zoning changes. The only land use changes from the project would be from direct conversion of agriculture or residential land use to a transportation corridor. Although right-of-way acquisition would affect properties located along the proposed Orcutt Road realignment, no residents would be displaced by any of the alignment alternatives. Because the project has been planned since the 1960s, right-of-way has been acquired over the years, including right-of-way along the existing segment of Union Valley Parkway, and right-of-way west of Hummel Drive for the extension portion of the project.

Foster Road Alignment Alternative

This alternative would require a major deviation from what has been identified and preserved as the planned roadway alignment for the extension of Union Valley Parkway in this area and would result in substantial direct impacts to several existing structures and facilities (refer to Figure 27). These facilities include the County Agriculture Building, the Food Bank, the Animal Shelter, and the County Public Works Building. The Foster Road Alignment Alternative would directly conflict with these existing facilities. Major right-of-way impacts are associated with this alternative as a result.

The following impacts to existing facilities are associated with the Foster Road Alignment Alternative between State Route 135 and California Boulevard:

- Foster Road (State Route 135 to California Boulevard) would need to be closed and existing access to adjoining parcels would need to be replaced. To maintain the operational characteristics planned for Union Valley Parkway, access would be restricted and would be limited to major intersections. This alternative would require major changes to the existing parcel access and would substantially alter the traffic circulation of the affected sites.
- Foxenwood Lane (Foster Road to Union Valley Parkway) would need to be closed to maintain planned operational characteristics for Union Valley Parkway. This would require that the Foxenwood Road northerly access be closed with no future access to Union Valley Parkway or Foster Road to the north.
- County Agricultural Building driveways, access roads, parking lots, and landscaping would need to be modified to provide adequate clearance, setbacks, site access, and circulation. The existing access road, which provides northerly

access onto Foster Road, would need to be replaced with a new access road to the west to connect to California Boulevard.

- The Santa Barbara County Food Bank has northerly access to Foster Road. The closure of Foster Road in this area would require replacement of the current access with a new roadway and connection to the local roadway network. This new connection location is not obvious and it may be difficult to provide replacement access.

The Santa Barbara County Food Bank site has plans for a future expansion of the facility to the south. This alternative would directly affect the future expansion to the south and would require a major alteration of the proposed expansion buildings, site layout, parking lots, landscaping, and driveway access.

- The Santa Barbara County Animal Shelter shares the same northerly access to Foster Road with the Santa Barbara County Food Bank. Replacement access may be difficult to provide. The southwest portion of the Animal Shelter is in direct conflict with the Foster Road Alignment. The Animal Shelter site and building layout, roadway setbacks, access, parking lots, and landscaping would be adversely affected by this alignment. The existing building on the site would require demolition and modification and it may be very difficult to provide a similar facility on the remaining site.
- The Proposed Public Works Building has northerly access to Foster Road and westerly access to California Boulevard that would need to be replaced. Access would be limited to California Boulevard. Driveways, access roads, parking lots, and landscaping would need to be modified to provide adequate clearances, setbacks, site access, and circulation.

Local circulation, as well as conflicts with site access, planned use of sites, facility layout, parking, clearances, and setbacks for public facilities are all considered substantial impacts associated with the Foster Road Alignment Alternative.

Reduced Extension Alternative

This alternative would eliminate land use compatibility impacts along the portions of the proposed alignment west of State Route 135. Since this alternative would not fully implement planned improvements for traffic circulation, potential land use

compatibility impacts would be displaced to areas adjacent to other roadways. This alternative is not consistent with future planned development.

No-Action Alternative

Since this alternative would not improve traffic circulation along a Union Valley Parkway alignment, potential land use compatibility impacts would be displaced to areas adjacent to other roadways.

Avoidance, Minimization, and/or Mitigation Measures

No measures are required. Mitigation measures for right-of-way impacts are discussed in Section 2.1.4.2 *Relocations*.

2.1.1.2 Consistency with State, Regional, and Local Plans

Affected Environment

Local Plans

City of Santa Maria General Plan: The build alternatives cross areas under the jurisdiction of both the City of Santa Maria and the County of Santa Barbara. In general, alignment areas east of State Route 135 fall within the jurisdiction of the County. Other portions of the alignments are within the City's boundaries and are subject to the plans and policies of the City.

The City of Santa Maria General Plan identifies the Union Valley Parkway as a major arterial for the community. The existing General Plan Circulation Element depicts Union Valley Parkway as extending between State Routes 101 and 1 as a future circulation improvement. It should be noted that the City is considering an amendment to its Circulation Element to end Union Valley Parkway at Blosser Road. The amendment would be approved in tandem with the project. Nevertheless, the Union Valley Parkway extension and interchange would help meet an objective of the Circulation Element "to provide for public mobility and access necessary to support the existing and anticipated population of the City."

The 40-year planning history of Union Valley Parkway, previously known as East West Expressway, is summarized in Table 2-2 below. For the last 40 years, this major east-west route has been shown on every planning effort for the County and the City. Over the years, the City and County have reserved right-of-way for the proposed Union Valley Parkway as development has occurred along the route. As projects have been built in Orcutt, segments of this road have been constructed.

Table 2-2 Union Valley Parkway History

Planning Period	Planning Action
July 1963	The “Amended General Plan for the Santa Maria-Orcutt Area” was completed. This Plan included the location of the East West Expressway (Union Valley Parkway) through Orcutt from U.S. Highway 101 to State Highway 1. There was no requirement at that time for environmental review of the Master Plan.
April 1976	The Board of Supervisors approved the first Comprehensive Plan for the County. This plan included the East West Expressway (Union Valley Parkway) in the land use and circulation sections of the plan. In addition, this plan included a citizen’s community group to help prepare this plan, and included several public hearings.
1979	During this year, there were over 30 projects proposed in the Orcutt Area. The County clustered these projects into several master Environmental Impact Reports (EIRs). They were known as 79-EIR-01 Orcutt 13 and 79-EIR-07 Orcutt 7. There were two other EIRs known as Orcutt 4 and Orcutt 9. All of these EIRs make reference to the East West Expressway (Union Valley Parkway) as part of the major circulation for the community. Each of these EIRs underwent noticed public hearings at the Planning Commission and the Board of Supervisors.
1979	The Northpoint Condo project was approved. This project included the intersection of Hummel with the East West Expressway (Union Valley Parkway). It was the first project to require dedication of right-of-way as part of the project. This project had several Planning Commission and Board of Supervisors public hearings before it was adopted.
June 1980	The Ygnacio Homes Project was reviewed in 80-EIR-6. This project was located at the intersection of Highway 1 and the extension of the East West Expressway (Union Valley Parkway) in the area known as West Orcutt. The project was denied at the Board of Supervisors.
December 1980	<p>The Board of Supervisors approved the Santa Barbara Comprehensive Plan. This work was a follow-up to the 1976 plan and it included the first EIR report, 80-EIR-03, for this level of planning. The East West Expressway (Union Valley Parkway) was included in the Land Use and Circulation section of the plan.</p> <p>The 1980 plan was reviewed by the Orcutt General Plan Advisory Committee on numerous occasions. The Comprehensive Plan also underwent Planning Commission and Board of Supervisors public meetings and hearings for adoption.</p>
1984-1989	<p>During these years, there were a number of projects approved and constructed that included sections of the East West Expressway (Union Valley Parkway). These projects included Edgewood (81-EIR-14) and Creekside (83-EIR-26 and 87-SD-4). These two projects built the section of the East West Expressway that would connect to State Route 101 when the interchange is built. Porter-Highlands Estates built the section to Bradley Road. The Woodmere project built the section from Bradley to the Northpoint project. In 1989, the remaining connection to Hummel Drive was completed.</p> <p>All of these projects were required to go before the Planning Commission and the Board of Supervisors for approval and each project was conditioned to build this road and/or dedicate right-of-way for the future construction.</p>
September 1987	The County wanted to devise a better name than the East West Expressway. A contest was held to rename this road. After receiving over 30 suggestions, a committee was formed. Union Valley Parkway was chosen as the name to represent and acknowledge the major businesses in the area—Union Oil and Union Sugar. It was also intended to be the roadway that would unite the City and the County areas. The road has been known as Union Valley Parkway ever since.

Table 2-2 Union Valley Parkway History

Planning Period	Planning Action
1989	The first version of the Airport Specific Plan was adopted and this project EIR included the extension of Union Valley Parkway from State Route 135 to Blosser Road. This project would have also helped fund the State Route 101 interchange. As part of the approval of the Airport Research Park Specific Plan, a number of citizens asked for a review of Union Valley Parkway with an option of the road being directed to the north to Foster Road. A full traffic study was prepared and many public hearings were held to discuss this alternative. The Airport District, the City Council, and the Board of Supervisors all held public hearings and determined that the original alignment was still the preferred route for Union Valley Parkway.
1989-1997	This block of time reflects two major events. First, development in Orcutt stalled because of the slow down in the economy. Secondly, the County of Santa Barbara started their next major planning effort in the vicinity with the Orcutt Community Plan. During this time frame, almost no projects were processed. The Orcutt Community Plan was approved in 1997 with the Orcutt Community Plan Environmental Impact Report and the Orcutt Transportation Improvement Plan, which identified how the rest of Union Valley Parkway was to be built. The Orcutt Community Plan and Environmental Impact Report (see Figure 18 in the Orcutt Community Plan Final Environmental Impact Report) show a Union Valley Parkway alignment that extends between State Route 101 and State Route 1 that is concurrent with the “Locally Preferred Alignment” of Union Valley Parkway between Hummel Drive and Blosser Road as described in this Environmental Impact Report. The Orcutt Community Plan involved over 30 Orcutt General Plan Advisory Committee citizen meetings, 20 Planning Commission meetings, and 15 Board of Supervisors meetings. The Final Environmental Impact Report also identifies the future construction of a diamond interchange at Union Valley Parkway/State Route 101 and responds to several public and agency comments regarding the alignment of Union Valley Parkway.
Since 1997	With the approval of the Orcutt Community Plan, the County and the City have pursued funding for the completion of the roadway and the interchange at State Route 101.

A multitude of reports and public decision documents that used the master planned Union Valley Parkway have been prepared, including the following:

1. A Report with Respect to the Planning, Financing, and Land Development of Santa Maria Public Airport for the Santa Maria Airport Committee (April 1961)
2. The General Plan for the City of Santa Maria, Ca. Public Facilities and Services. (October 1967)
3. Santa Maria Public Airport District Master Plan (August 1970)
4. Skyway Industrial Park Santa Maria Public Airport District (August 1973)
5. Airport Master Plan for Santa Maria Public Airport (September 1979)
6. City of Santa Maria Sphere of Influence Boundary and Concurrent Annexation Study (June 1990)
7. Santa Maria Public Airport Master Plan Update (October 1997)
8. Santa Maria General Plan – Circulation Element (January 1994)

In addition, the more recent history and reports relying on the master planned location of Union Valley Parkway include the following:

1. Santa Barbara County Association of Governments' 1999 Regional Transportation Plan, adopted September 16, 1999, addressed Union Valley Parkway as a currently programmed improvement, showed the Locally Preferred Alignment of Union Valley Parkway south of Foster on Map 2.6, and addressed the phasing of its construction in the Programmed or Funded Road System Capital Improvement Projects Table 5.7.
2. Santa Barbara County Association of Governments' Draft 2000-2020 Regional Transportation Plan, dated September 6, 2001, addressed Union Valley Parkway as a currently programmed improvement, showed the Locally Preferred Alignment of Union Valley Parkway south of Foster on Map 2.6, and addressed the phasing of its construction in the Programmed or Funded Road System Capital Improvement Projects Table 5.7.
3. Public notice of availability of environmental document, Draft Mitigated Negative Declaration for the Union Valley Parkway/Orcutt Road Realignment, December 1, 1999.
4. Public notice of availability of environmental document, Draft Mitigated Negative Declaration for the Union Valley Parkway/Orcutt Road Realignment, September 13, 2000.
5. Notice of completion of Negative Declaration for the Extension of Union Valley Parkway from Hummel to California Boulevard, September 1, 2000.
6. Public hearing and Resolution of City of Santa Maria City Council making California Environmental Quality Act findings and directing the filing of a mitigated negative declaration E-99-60 for the Union Valley Parkway/Orcutt Road Improvements, November 21, 2000.
7. Initial site assessment for hazardous waste contamination within the corridor for the widening of State Route 135, dated April 25, 1997.
8. Subsequent Notice of Preparation of Environmental Impact Report for Union Valley Parkway Hummel to Blosser.
9. Scoping session for Environmental Impact Report.
10. Subsequent Notice of Preparation for Environmental Impact Report/National Environmental Policy Act document.

County of Santa Barbara Comprehensive Plan: The Santa Barbara County Comprehensive Plan Land Use Element, Circulation Element, and Environmental

Resources Management Element were adopted in October 1992. The major purpose of the Comprehensive Plan is to enable the Santa Barbara County Board of Supervisors and Planning Commission to more effectively determine matters of priority in the allocation of resources and to achieve the physical, social, and economic goals of the communities. The Circulation Element applies to all roadways and intersections within the unincorporated area of the County, with the exception of those roadways and intersections located within an area included in an adopted community or area plan, such as the Orcutt Community Plan, described below.

Orcutt Community Plan: In July of 1997, the Board of Supervisors adopted the Orcutt Community Plan. The Orcutt Community Plan identifies growth projections and provides for orderly development to meet the full spectrum of housing, commercial, and industrial space, as well as roads, public facilities, and amenities for the Orcutt community over the next 10 to 15 years. The Orcutt Community Plan boundaries include portions of all of the build alternatives' project areas for the Union Valley Parkway extension, as well as the Union Valley Parkway/State Route 101 interchange area. The Orcutt Community Plan identifies the Union Valley Parkway as a major arterial and primary roadway for the community. In addition, the Orcutt Community Plan identifies the construction of a full-diamond interchange at Union Valley Parkway/State Route 101, and the extension of Union Valley Parkway west across State Route 135 to California Boulevard as roadway improvements that would be required to accommodate traffic generated under the Orcutt Community Plan's 10-year scenario. Specifically, the Orcutt Community Plan states that the project improvements are needed to decrease traffic volumes on North Bradley Road, sections of Lakeview Road, Foster Road, and the northern end of California Boulevard.

The Orcutt Community Plan depicts Union Valley Parkway as extending between State Routes 101 and 1 as a future circulation improvement. It should be noted that the City is considering an amendment to its Circulation Element to end Union Valley Parkway at Blosser Road. The amendment would be approved in tandem with the project. City approval of the amendment would reduce the feasibility of the extension of the County portions of Union Valley Parkway west of Blosser Road to State Route 1.

Santa Maria Airport Land Use Plan: The Santa Maria Public Airport, a general aviation facility with two runways serving commercial and general aviation air

traffic, is located about 1/8 mile north of the project area at its closest point. Safety regulations are imposed by the Santa Maria Public Airport District and the Federal Aviation Administration. In addition, the County of Santa Barbara Airport Land Use Plan provides land use guidelines for areas surrounding the airport to safeguard the public and assure the safety of air navigation. The County Airport Land Use Commission also advises the County and City on individual land use decisions within areas surrounding the airport.

The area east of State Route 135 is located within the Airport Approach Zone. According to the Airport Land Use Plan (October 1993), which is a plan prepared by the Santa Barbara County Association of Governments, acting as the Airport Land Use Commission, to set forth appropriate land use controls, including noise and safety standards, around each airport in the county, use of land for roadways and streets within the Airport Approach Zone is considered a compatible land use. Therefore, the proposed project will not contribute to an increase in airport safety hazards, even if the Santa Maria Airport were to accommodate additional aircraft.

Santa Maria Airport Business Park Specific Plan: The Specific Plan, which was originally adopted in December 1995 as the Santa Maria Airport Research Park Specific Plan, amended in October 1998, and replaced by a similar specific plan (and renamed as the Santa Maria Airport Business Park Specific Plan) in December 2007 contains a Circulation Plan that depicts the Union Valley Parkway extension along the Locally Preferred Alignment, between Blosser Road and east of State Route 135, along the southern boundary of the Specific Plan area. The Specific Plan proposes to reserve/dedicate right-of-way along the Locally Preferred Alignment. The Specific Plan contemplates public facility land uses in the area that would be crossed by the Foster Road Alignment. It should be noted that the Specific Plan depicts Union Valley Parkway extending west of Blosser Road to State Route 1 in accordance with the existing City General Plan Circulation Element.

Richards Specific Plan: The Specific Plan, which was adopted by the County in 1983, covers an approximately 51-acre area located on the east side of Orcutt Road and Highway 135, south of Foster Road, and west of Hummel Drive. The site is identified in the Orcutt Community Plan as Key Site 26. The Specific Plan designates a range of residential densities and other uses for the site that would result in a buildout of 141 residential units and 115,626 square feet of commercial and office space. The

Specific Plan preserves right-of-way for the Union Valley Parkway extension, which is planned to bisect the property in the alignment identified by the build alternatives.

Regional Plans

Regional Transportation Plan: The Union Valley Parkway Extension/Interchange Project was included in the 1999 Santa Barbara County Regional Transportation Plan, which is the most recent adopted Regional Transportation Plan. Transportation goals and policies for the County are set forth in the Regional Transportation Plan, which was adopted by the Santa Barbara County Association of Governments board in 1999. The Regional Transportation Plan identifies the Union Valley Parkway/State Route 101 interchange and the extension of Union Valley Parkway between State Route 101 and Blosser Road as programmed or planned improvements, but does not identify the extension of Union Valley Parkway west of Blosser Road to State Route 1 as a programmed or planned improvement. Transportation projects selected for inclusion in the Federal Transportation Improvement Program are fully consistent with the goals, policies, and priorities established in the Regional Transportation Plan. The inclusion of the Union Valley Parkway Extension and Interchange portions of the project in the 2007 Federal Transportation Improvement Program for Santa Barbara County signifies conformance with the County Regional Transportation Plan and, subsequently with National Ambient Air Quality Standards. The design (parkway extension, interchange, and associated improvements) and scope (four-lane access-controlled divided roadway extension between Blosser Road and Hummel Drive; interchange construction) of the project is consistent with that described in the Federal Transportation Improvement Program. In addition, the Regional Transportation Plan is also considered consistent with the Santa Barbara Clean Air Plan.

Regional Transportation Improvement Program: The Union Valley Parkway/State Route 101 interchange and landscaping components were included in Santa Barbara County Association of Governments' financially constrained 2006 Regional Transportation Improvement Program, page 8. The Santa Barbara County Regional Transportation Improvement Program was found to conform to the Federal Transportation Improvement Program and National Ambient Air Quality Standards by the Federal Highway Administration and Federal Transit Authority on February 16, 2005. It should be noted that with the federal attainment designation of the 8-hour ozone standard, Santa Barbara County was relieved of all conformity requirements on June 15, 2005, which was the date of the 1-hour ozone standard revocation. Refer to

Section 2.2.4, *Air Quality*, of this document for a discussion of the conformance of the build alternatives with National Ambient Air Quality Standards.

Federal Transportation Improvement Program: The Union Valley Parkway Extension/Interchange Project was included in the 2007 Federal Transportation Improvement Program for Santa Barbara County (Projects SM001, SM002, SM003, and CT-12, on pages 3-87, 3-88, 3-89, and 3-111, respectively). The 2007 Federal Transportation Improvement Program was prepared and adopted by the Santa Barbara County Association of Governments in response to federal requirements. Santa Barbara County Association of Governments must prepare a multi-year Federal Transportation Improvement Program, which identifies all transportation projects in Santa Barbara County to be funded under Title 23, U.S. Code or the Federal Transit Act. The Federal Transportation Improvement Program includes transportation-related projects that require federal funding or other approval action by the Federal Highway Administration or the Federal Transit Administration.

Projects that are selected for inclusion in the Federal Transportation Improvement Program are identified through Santa Barbara County Association of Governments' planning process. Transportation goals and policies for the County are set forth in the Regional Transportation Plan, adopted by the Santa Barbara County Association of Governments board in 1999. Transportation projects selected for inclusion in the Federal Transportation Improvement Program are fully consistent with the goals, policies, and priorities established in the Regional Transportation Plan. This consistency between the Federal Transportation Improvement Program and the Regional Transportation Plan is required under Part 450.110(b) of Title 23 of the Code of Federal Regulations. The 2007 Federal Transportation Improvement Program for Santa Barbara County has been evaluated following the specific requirements for making conformity determinations for transportation plans and programs. Based on the results of this analysis, Santa Barbara County Association of Governments has found the 2007 Federal Transportation Improvement Program to be in conformance with the State Transportation Improvement Program for Santa Barbara County.

Metropolitan Transportation Plan: The Union Valley Parkway Extension/Interchange Project was included in the 2004 Metropolitan Transportation Plan (Project CT-7, Appendix D, Index of Programmed and Planned Projects, page 5). The Metropolitan Transportation Plan for Santa Barbara County identifies the

region's transportation needs and issues, sets forth an action plan to address the needs consistent with adopted policies, and documents the financial resources needed to implement the action plan.

Clean Air Plan: The Union Valley Parkway Extension/Interchange Project was included in the Santa Barbara County Clean Air Plan. Santa Barbara County's 2007 Clean Air Plan provides guidance to the Air Pollution District and County on how to attain federal and state ozone standards. Refer to Section 2.2.4, *Air Quality*, of this document for a discussion of the conformance of the build alternatives with the Clean Air Plan.

Environmental Consequences

Build Alternatives

The alternatives cross areas under the jurisdiction of both the City of Santa Maria and the County of Santa Barbara. In general, project areas east of State Route 135 fall within the jurisdiction of the County.

Analyses completed by the City and County for their General Plan and Comprehensive Plan Circulation Elements found that the extension of Union Valley Parkway between Blosser Road and Hummel Drive with a full-access interchange at State Route 101 and at-grade intersections at the surface streets and State Route 135 was needed to accommodate the adopted land use plans. Both Circulation Elements include Union Valley Parkway along the Locally Preferred Alignment. With the Locally Preferred Alignment and Curved Alignment alternatives, Union Valley Parkway and the key intersections in the traffic study area would operate at levels of service that are consistent with the adopted circulation elements.

The Union Valley Parkway Extension/Interchange Project has been reviewed within several planning/environmental documents for the Santa Maria-Orcutt area. Specifically, the 1999 Regional Transportation Plan, 2004 Metropolitan Transportation Plan, 2006 Regional Transportation Improvement Program, State Transportation Improvement Program, 2007 Federal Transportation Improvement Program, the City of Santa Maria Circulation Element, the Circulation Plan for the Orcutt Community Plan, the Richards Specific Plan, and the Santa Maria Airport District Business Park Specific Plan have listed this project as an important and necessary project to achieve desired circulation levels and alleviate existing and anticipated traffic congestion in the Santa Maria-Orcutt area. The Locally Preferred Alignment and Curved Alignment Alternative do not conflict with the goals of these

land use programs. However, it should be noted that the Santa Maria Airport Business Park Specific Plan identifies the Locally Preferred Alternative for the Union Valley Parkway extension. Therefore, the Curved Alignment would be inconsistent with this Specific Plan.

The Foster Road Alignment and Reduced Extension Alternative have not been identified in any of the planning documents mentioned above. The future volume forecasts (refer to Section 2.1.6) show that several roadways and intersections may require additional capacity to meet City, County, and Caltrans standards if the Foster Road Alignment or Reduced Extension Alternative were selected.

The Foster Road Alignment is also inconsistent with the street system and land use plans adopted for the Santa Maria Airport Business Park Specific Plan (located south of the Santa Maria Airport) and would require revisions to the specific plan. The Foster Road Alignment would require amendments to such planning documents to accommodate the modification to the Union Valley Parkway extension alignment, and would therefore result in land use planning impacts.

The Reduced Extension Alternative would be inconsistent with local and regional land use planning applicable to the Union Valley Parkway Extension/Interchange Project, as it does not include the extension west of State Route 135.

For all of the build alternatives, it should be noted that the Orcutt Community Plan identifies a full diamond interchange design for the Union Valley Parkway/State Route 101 interchange. Therefore, each of the alternative interchange variations would be inconsistent with the Orcutt Community Plan and may therefore require an amendment to the Orcutt Community Plan.

The proposed interchange component of the project would be located more than two miles from the airport, and would not impede air traffic. The proposed Union Valley Parkway extension portion of the project would feature a low vertical profile and would therefore not influence air traffic patterns. The implementation of the Union Valley Parkway extension/interchange would not affect air traffic, and would be consistent with the Santa Maria Airport Land Use Plan.

None of the alternatives are consistent with city or county plans that call for Union Valley Parkway to extend from State Route 101 to State Route 1. The City is

considering an amendment to its Circulation Element to end Union Valley Parkway at Blosser Road. The amendment would be considered in tandem with the project.

No-Action Alternative

The No-Action Alternative is inconsistent with the adopted City and County Circulation Elements, as it does not follow the adopted alignment. The future volume forecasts (refer to Section 2.1.6) show that several roadways and intersections would require additional capacity to meet City, County, and Caltrans standards if the No-Action Alternative is selected.

Since no structures would be built along the Union Valley Parkway corridor and no disturbance would occur under this alternative, no impacts related to air traffic or airport safety would result.

Avoidance, Minimization, and/or Mitigation Measures

The Locally Preferred Alignment and Curved Alignment would be compatible with the applicable land use programs. The Foster Road Alternative, Reduced Extension Alternative, and No-Action Alternative would not support existing and planned land uses. No avoidance, minimization, and/or mitigation measures are required.

2.1.2 Growth

Regulatory Setting

The Council on Environmental Quality regulations, which implement the National Environmental Policy Act of 1969, require evaluation of the potential environmental consequences of all proposed federal activities and programs. This provision includes a requirement to examine indirect consequences, which may occur in areas beyond the immediate influence of a proposed action and at some time in the future. The Council on Environmental Quality regulations, 40 Code Federal Regulations 1508.8, refer to these consequences as indirect impacts. Indirect impacts may include changes in land use, economic vitality, and population density, which are all elements of growth.

The California Environmental Quality Act also requires the analysis of a project's potential to induce growth. California Environmental Quality Act guidelines, Section 15126.2(d), require that environmental documents "...discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment..."

Affected Environment

The U.S. Census Bureau indicates the population of the City of Santa Maria has grown at a rapid rate. Between 2000 and 2006, the City experienced a 5.8 percent population increase, while Santa Barbara County’s increase in population was only 0.2 percent (see Table 2-3).

**Table 2-3 Population Data for the City of Santa Maria,
County of Santa Barbara, and California**

Residents	Santa Maria	Santa Barbara County	California
Population, 2006 estimate	85,016	400,335	36,457,549
Population percent change, April 1, 2000-July 1, 2006	5.8%	0.2%	7.6%
Travel time to work age 16+ minutes, 2000	20.0	19.3	27.7
Housing Units, 2006	28,677	150,869	13,174,378
Business	Santa Maria	Santa Barbara County	California
Private, non-farm establishments, 2005	No Data	11,239	860,866
Private, non-farm employment, 2005	No Data	139,126	13,382,470
Private, non-farm employment, percent change 2000-2005	No Data	-0.8%	3.9%
Geography	Santa Maria	Santa Barbara County	California
Land area, 2000 (square miles)	19	2,737	155,959
Persons per square mile, 2000	4,005.8	145.9	217.2

Source: U.S. Census 2000, City and County Quick Facts

There were 28,667 housing units in 2006 in the City of Santa Maria. The City’s land area measures 19 square miles, averaging 4,005.8 persons per square mile. This compares to the County’s average of 145.9 persons per square mile and the state’s average of 217.2 persons per square mile.

Table 2-3 displays year 2000 census data in detail for the City of Santa Maria, County of Santa Barbara, and state. Annual population growth for Santa Barbara County is substantially lower than the statewide average.

Table 2-4 displays the growth trend in the City of Santa Maria and County of Santa Barbara. Included is the percentage of employees over the age of 16 who travel outside the City or County for work.

Table 2-4 Population Data Comparison

Residents	Santa Maria	Santa Barbara County
Population, 2000	77,423	339,247
Population, 2006 (estimated)	85,016	400,335
Percentage Commuting to Work (Outside City for Santa Maria, Outside County for Santa Barbara)	42.6%	45.3

Source: U.S. Census Bureau Factfinder

As depicted on Figures 23A & B, much of the project vicinity between Blosser Road and State Route 101 is substantially built out. However, vacant lands designated for commercial professional office use and community facility use remain north of Foxenwood Estates residential subdivision. Orcutt Community Plan Key Site 23, much of which has already been developed with community facility uses, is located in this area. In addition, vacant and underutilized lands on the Santa Maria Airport District property north of Foster Road and west of Blosser Road are located north of the project area. These lands are planned for light industrial, airport commercial, and golf course use in the recently approved Santa Maria Airport Business Park Specific Plan.

Vacant lands designated for general commercial/office, professional, and residential use, comprising Orcutt Community Plan Key Sites 26 and 34, are located adjacent to the project area, east of Orcutt Road. Vacant lands designed for planned development use also are located east and west of Hummel Drive. Orcutt Community Plan Key Site 27, which is designated for residential use, is also located in this area.

All property east of the proposed interchange project area, within the Orcutt Community Plan Area, is on the rural side of the designated Orcutt Urban/Rural Boundary. The Orcutt Urban/Rural boundary separates principally urban land uses and those that are rural and/or agricultural in nature. The Orcutt Community Plan

states that this boundary should not be extended until existing inventories of vacant land within the urban area are nearing build-out and that any change should only be approved as a part of a major update to the plan.

Recent development in the project vicinity has occurred consistent with General Plan, Comprehensive Plan, and zoning designations.

Refer to Section 2.1.1.1 for further discussion of existing and future land uses in the vicinity and Section 2.1.1.2 for a discussion of the consistency of the project with state, regional, and local plans.

Environmental Consequences

Locally Preferred Alignment, Curved Alignment, Foster Road Alignment, and Reduced Extension Alternatives

An interchange and road extension project can induce growth by removing existing constraints to growth (such as, eliminating congestion) or by directly promoting growth (for example, providing access to previously inaccessible commercial or residential development sites). In assessing the potential growth inducement of a proposed project, it is important to clearly identify growth induced by the project beyond that already anticipated and planned for by local community planners.

The relationship between the proposed project and growth in the Santa Maria and Orcutt areas is expected to be one of accommodating planned growth, rather than growth inducement. Overall growth pressure in the region is expected to decline due to the downturn in the local real estate market and the substantial decrease in the City's and County's Regional Housing Needs Allocation for housing production compared to the previous General Plan Housing Element update cycle.

As described in 1.1, Purpose and Need, of this document, the existing Union Valley Parkway is considered inadequate to serve anticipated future traffic needs. Without the proposed Union Valley Parkway extension/interchange and other public roadway and intersection improvements, future development envisioned in the City of Santa Maria General Plan, Santa Maria Airport Business Park Specific Plan, Richards Specific Plan, and Orcutt Community Plan, including the projects described in Table 2-1, could not be accommodated. Construction of the proposed Union Valley Parkway extension/interchange will be necessary to achieve and maintain desired

circulation levels of service and alleviate traffic congestion in the Santa Maria-Orcutt area.

Growth Inducement East of the Proposed Union Valley Parkway/State Route 101 Interchange

Future development is envisioned east of the proposed Union Valley Parkway/State Route 101 interchange on the Bradley Ranch property. A Notice of Preparation was filed for an Environmental Impact Report for a Specific Plan on this property. This property is currently designated for agricultural and open space use, but is located at the edge of an urban area that is experiencing growth pressure. Large parcels of undeveloped land near expanding urban or suburban areas are usually prime areas for growth. Union Valley Parkway would provide new north-south freeway access and east-west arterial access to this area. Bicycle and pedestrian access would also be provided. Because the project would improve access to State Route 101 and areas east of the highway, it could encourage the development of residential or employment- generating land uses in the area (such as commercial, industrial, or office uses). However, the land east of the proposed interchange contains sensitive environmental resources including agricultural lands, oil resources, wetlands, and listed species whose presence would require substantial mitigation for impacts that could render development economically infeasible. In addition, utility and roadway infrastructure to support urban development is not currently in place or currently planned in this area. The area east of the interchange site has been in agricultural use historically, and has experienced virtually no urban growth. The Orcutt Community Plan shows little or no growth in this area. The City General Plan and Orcutt Community Plan generally direct future growth in the project area to the lands north and south of the existing and planned extension of Union Valley Parkway.

The current design of the proposed interchange does not provide access to lands east of the interchange. However, the proposed interchange has been designed to be expandable and as such does not preclude future development to the east. Future expansion of the interchange and associated roadway improvements would be the responsibility of the Bradley Ranch Specific Plan applicants. By improving future access to lands east of the proposed interchange, the project could shift the direction of future growth toward the east.

Bradley Ranch trips would connect to State Route 101 at three interchanges: the McCoy Lane/State Route 101 interchange (future interchange to the north), the Santa Maria

Way/State Route 101 interchange, and the Union Valley Parkway/State Route 101 interchange. Accordingly, the absence of direct access to State Route 101 at Union Valley Parkway without the project would not preclude future development of the Bradley Ranch, with access provided to and from the McCoy Lane/State Route 101 interchange and the Santa Maria Way/State Route 101 interchange. Therefore, future development in this area does not necessarily rely on implementation of the project.

A conditional use permit has been granted to the property zoned AG-II-100 (a rodeo facility) northeast of the proposed interchange project area, which currently has plans for expansion. The rodeo facility may rely on a future extension of Union Valley Parkway east of the interchange for secondary access to its site. However, no access to the interchange from the east could occur without the approval of a new county road connection and an amended Freeway Agreement.

The Orcutt Community Plan states that the County may consider a re-designation and a re-zone to highway commercial/CH of one or more of the Jantz parcels (Assessor's Parcel Numbers 107-240-27, -28, -29) when a full diamond interchange for Union Valley Parkway and State Route 101 is funded and a schedule is established. The Jantz parcels are located immediately adjacent to the eastern end of the proposed interchange. Commercial uses could be approved on the Jantz property should the re-designation and re-zone be approved.

Although the interchange portion of the project would eliminate one of several obstacles to development on the east side of the highway, the interchange portion of the project is but one step in a series of requirements that must first be realized for development to commence. Some of the other required steps would be a General Plan amendment, a new county road connection, and a re-zone of interested properties. According to the Santa Barbara County Community Planning Department, the Orcutt Community Plan would not be amended for several years. It was last updated in 1997.

Future development in the area east of the Union Valley Parkway/State Route 101 interchange could place resources of concern, such as agricultural lands, wetlands, and listed species and their associated habitat under greater threat for development. However, future development in this area would be required to undergo additional project-level environmental review, and would be expected to avoid, minimize, and/or mitigate effects on these resources of concern. The Bradley Ranch Specific Plan applicants would be responsible for obtaining regulatory biological permits, with

corresponding minimization and mitigation measures, from applicable state and federal agencies. The most likely growth scenario in this area would avoid sensitive habitat areas and protected agricultural lands. Each of the build alternatives would implement an interchange at Union Valley Parkway/State Route 101 and would provide access to and from the interchange from the Union Valley Parkway corridor. Accordingly, each of the build alternatives would result in similar growth inducement in this area.

Growth Inducement North and South of the Union Valley Parkway Extension Corridor

The Union Valley Parkway extension would be located in an area that has experienced recent growth and that is planned for future growth. The proposed project conforms with the growth-related policies, goals, and objectives of the City's General Plan. The route is currently used mainly for local travel, but with implementation of the interchange, it would be used mainly as a connector to State Route 101. The Union Valley Parkway extension portion of the project would eliminate one of several obstacles to growth along the project area corridor by improving circulation and access to vacant lands. However, existing access to vacant lands north and south of the extension is currently available from other roadways in the vicinity, including Foster Road, Blosser Road, California Boulevard, Foxenwood Lane, Orcutt Road, and Hummel Drive. The Union Valley Parkway extension is proposed as an access controlled parkway. Access to vacant lands would need to be taken from existing roadways. Accordingly, future development in this area does not necessarily rely on implementation of the project. Therefore, the project would not cause the development of these lands.

Future development in the area north and south of the extension could place resources of concern, such as listed species and their associated habitat under greater threat for development. Future development in this area would be required to undergo additional project-level environmental review, and would be expected to avoid, minimize, and/or mitigate effects on these resources of concern.

Each of the build alternatives provides access to and from these potential future growth areas. However, since urban development and infrastructure are currently planned in these areas, and because the vacant land in these areas is limited to infill sites surrounded by suburban development, the project would not be expected to change the rate, direction, or pattern of planned growth. Nevertheless, improved local

access to and from State Route 101 could result in a higher density of urban development in these areas.

Growth Inducement West of Blosser Road

Lands to the west of Blosser Road have been planned for residential ranchette use. The potential for future development in this area is substantially limited by existing agricultural operations, the identified presence of listed species—including California tiger salamander—and their associated habitat in this area, and the lack of urban infrastructure.

Due to biological resource constraints identified by the U.S. Fish and Wildlife Service in the area west of Blosser Road, the City intends to propose a General Plan Amendment to terminate Union Valley Parkway at Blosser Road, rather than extend it to State Route 1 as currently planned in the Circulation Element. Nevertheless, the extension of Union Valley Parkway to Blosser Road would increase pressure on lands west of Blosser Road for future development of urban uses and/or further roadway extensions. It should be noted, however, that the circulation system would function at acceptable City and Caltrans levels of service with the proposed project, and without the further extension of Union Valley Parkway to State Route 1 (refer to Section 2.1.6, *Traffic and Transportation/Pedestrian and Bicycle Facilities*). In addition, the Santa Barbara County Association of Governments Regional Transportation Plan does not identify the future extension of Union Valley Parkway west of Blosser Road to State Route 1 as a planned or funded improvement.

The termination of the Union Valley Parkway extension at Blosser Road would redirect future growth from areas west of Blosser Road to areas east of Blosser Road. Without the extension of Union Valley Parkway to State Route 1, future development in areas north and south of the project area, such as the Mahoney Ranch Specific Plan site, Rancho Maria site, and Key Site 22 currently planned west of Blosser Road would access State Route 1 and State Route 101 from Clark Avenue and Santa Maria Way. Vehicle trips generated by these future projects are included in estimates of future travel in the Traffic Study for the proposed project.

Future development in the area west of Blosser Road could place resources of concern, such as agricultural lands, wetlands, and listed species and their associated habitat under greater threat for development. Future development in this area would be required to undergo additional project-level environmental review, and would be expected to avoid, minimize, and/or mitigate effects on these resources of concern.

The most likely growth scenario in this area would avoid sensitive habitat areas and protected agricultural lands. Each of the build alternatives except the Reduced Extension Alternative would implement the Union Valley Parkway extension to Blosser Road and would provide access to and from State Route 101 from the Union Valley Parkway corridor. Accordingly, each of the build alternatives would result in similar growth inducement in this area.

A project's potential to induce growth does not automatically result in growth. Growth can only occur through capital investment in new economic opportunities by the public or private sectors. Development is a result of economic investment in an area.

No-Action Alternative

Since the Union Valley Parkway extension and interchange would not be implemented under this alternative, no growth impacts would result.

Avoidance, Minimization, and/or Mitigation Measures

The following measures are required for all of the build alternatives. The City and Caltrans should coordinate with the County of Santa Barbara to encourage future roadway improvements and land development west of Blosser Road and east of the proposed Union Valley Parkway/State Route 101 interchange to avoid, minimize, and/or mitigate impacts on resources of concern, including agricultural lands, oil resources, sensitive species, and habitat. In addition, regional habitat conservation planning of these areas should be encouraged.

2.1.3 Farmlands

Regulatory Setting

The National Environmental Policy Act and the Farmland Protection Policy Act (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.

Affected Environment

Agriculture has historically played an important role in the economy and development of the City of Santa Maria and the Santa Maria Valley. Soil quality, water supply, a year-round growing season, and level topography have made the Santa Maria Valley one of the most productive agricultural regions in the country. The Valley possesses the soil and climatic conditions suitable for vegetable and field crops such as strawberries, broccoli, cauliflower, lettuce, barley, and corn.

Agricultural activity in the Santa Maria Valley has progressively increased in terms of both acreage counts and crop values. These increases are attributed to double and triple cropping as well as the use of marginal lands for labor-intensive crops like strawberries.

The suitability of soils for agricultural use depends on many factors, including fertility, slope, texture, drainage, depth, and salt content. A variety of classification systems have been devised to categorize soil capabilities. The two systems that have been most widely used are the United States Department of Agriculture Capability Classification System and the Storie Index. The first system classifies soils from Class I to Class VIII based on their ability to support agriculture. The Storie Index takes into account other factors such as slope and texture to arrive at a rating.

The State of California, Department of Conservation, Office of Land Conservation, Important Farmlands Inventory system is used in Santa Barbara County to inventory lands considered to have agricultural value. This system classifies land based on the productive capabilities of the land, rather than the mere presence of ideal soil conditions. Land is divided into several categories of diminishing agricultural importance. The State of California's Important Farmland Inventory is based in part on the Capability Classification System and the Storie Index described above.

Existing agricultural lands in the vicinity are depicted on Figure 29 in Appendix F.

Environmental Consequences

Locally Preferred Alignment, Curved Alignment, Foster Road Alignment, and Reduced Extension Alternatives

A section of the Union Valley Parkway extension east of Orcutt Road would affect an area currently used as an apiary. However, this parcel is not prime agricultural land, and is zoned and designated for urban (commercial) use. In addition, small agricultural uses such as an apiary could be relocated to either side of the new roadway. The *Orcutt Community Plan* does not differentiate between prime farmland, unique farmland, or farmland of statewide importance. However, it does show there are no prime soils in the area east of State Route 101 to be converted from agriculture to highway use. In addition, no Williamson Act contract lands would be affected through implementation of any of the build alternatives, as no such land is located in the project area.

The Union Valley Parkway extension portion of the project would not occur on lands designated for agriculture. However, up to approximately 16 acres of right-of-way in the proposed Union Valley Parkway/State Route 101 interchange area, east of State Route 101, would be taken from land zoned for agricultural or resource management (refer to Figure 29 and Table 2-5). Approximately two acres of this right-of-way area for the proposed Union Valley Parkway/State Route 101 interchange, east of State Route 101, would be taken from land currently in agricultural (row crop) use. None of the 16 acres of right-of-way east of the proposed Union Valley Parkway/State Route 101 interchange area contain prime soils. These agricultural areas are located at the extreme western perimeter of larger agricultural areas. The conversion of this relatively small area of agricultural land would not compromise the sustainability of, fragment, or restrict access to other adjacent agricultural operations.

Table 2-5 Farmland Conversion by Alternative

Alternatives	Land Converted (acres)	Prime & Unique farmland (acres)	Percent of farmland in County	Percent of farmland in State	Farmland Conversion Impact Rating
1: Locally Preferred	16	0	.002%	<.001%	135
2: Curved	16	0	.002%	<.001%	135
3: Foster	16	0	.002%	<.001%	137
4: Reduced Extension	16	0	.002%	<.001%	133

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

It should be noted that each of the interchange design variations would convert 16 acres of agriculturally zoned lands since the design variations have a substantially similar area of disturbance, and that the alignment alternatives would not convert such lands. However, in accordance with Natural Resource Conservation Service requirements, the alignment alternatives are evaluated as corridor alternatives in Table 2-5 (refer also to Appendix E). As indicated in the Farmland Conversion Impact Rating for Corridor-Type Projects technical study (Appendix E), which is a quantified rating for the magnitude of impact on farmlands, the assessment of the corridors for the build alternatives results in scores of 133 to 137 out of a possible 260 points. Provisions of the Farmland Protection Policy Act would not be triggered.

In addition, it should be noted that the proposed extension of Union Valley Parkway and connection to State Route 101 are shown in the *Orcutt Community Plan*, the *City of Santa Maria General Plan Circulation Element*, and the *Santa Barbara County Comprehensive Plan Circulation Element*.

It should also be noted that implementation of the Locally Preferred, Curved Alignment, or Foster Road Alignment Alternative would require consultation with the U.S. Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act because of impacts on federally listed species, including the California tiger salamander. Through the Section 7 process, mitigation to offset impacts on species and their associated habitat could potentially include habitat creation or restoration on existing agricultural lands. However, such mitigation requirements would not be expected to permanently convert agricultural lands to non-agricultural use. Rather, habitat creation or restoration would be compatible with ongoing use of agricultural lands for grazing production.

Cumulative development throughout the greater Santa Barbara County and City of Santa Maria area would gradually convert prime agricultural areas. The project would incrementally contribute to this change. Individual development projects in the region would have the potential to create compatibility conflicts between historic agricultural uses and new urban development. Such conflicts are expected to be addressed on a case-by-case basis. As discussed above, the proposed project would not result in substantial impacts to agricultural resources. From a cumulative perspective, implementation of the proposed project would contribute to a less than significant cumulative impact.

No-Action Alternative

Since the Union Valley Parkway extension and interchange would not be implemented under this alternative, no farmland impacts would result.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are required.

2.1.4 Community Impacts

2.1.4.1 Community Character and Cohesion

Regulatory Setting

The National Environmental Policy Act of 1969, as amended, established that the federal government use all practicable means to ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings [42 U.S. Code 4331(b)(2)]. The Federal Highway Administration in its implementation of the National Environmental Policy Act [23 U.S. Code 109(h)] directs that final decisions regarding projects are to be made in the best overall public interest. This requires taking into account adverse environmental impacts, such as, destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

Under the California Environmental Quality Act, an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Since this project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project's effects.

Affected Environment

The City of Santa Maria is located in Santa Barbara County on the Central Coast of California, roughly 250 miles south of San Francisco and 170 miles north of Los Angeles. The city lies within the Santa Maria River Valley in a fertile plain, surrounded by rolling hills on three sides and the Pacific Ocean to the west, and has a mild climate. Agriculture has played an important role in expanding the city's economic prosperity.

Activity centers in the area include Pioneer Park and the County Government Center located north of the project area. Commercial centers are located along State Route 135 north of the project area.

Long average residency is a good indication of community cohesion. The project area spans across Census Tracts 20.08, 20.09, 20.11, 20.12, and 20.13. Per U.S. Census data, as of the year 2000, approximately 75 percent of housing units in the area were owner occupied. Of those that were owner occupied, the majority of residents had lived in the unit longer than 10 years. Therefore, these long-term residents are likely to feel more connected to the neighborhood and may have a more profound sense of community.

The residents near the project area live in a suburban setting. The Locally Preferred Alignment would initially extend Union Valley Parkway with two through lanes with right-of-way reserved for a future four-lane arterial road between Hummel Drive and Blosser Road.

The project area for the Union Valley Parkway extension portion of the project west of State Route 135 is located immediately north of the Foxenwood Estates residential subdivision. This subdivision maintains a Homeowners' Association and retains relatively high design cohesion. No residential communities are located immediately north of the project area for the Union Valley Parkway extension, or south of the project area for the portion of the Union Valley Parkway extension east of State Route 135. The Edgewood residential subdivision is located adjacent to the northwest quadrant of the State Route 101/Union Valley Parkway interchange project area. The Creekside residential subdivision is located adjacent to the southwest quadrant of the interchange. Existing homes and neighborhoods adjacent to the build alternatives can be viewed in Figures 4 and 6 (A-D) in Appendix F.

A common trend across all of the communities in the area (census tracts 20.08, 20.09, 20.11, 20.12, and 20.13) shows family households, or those households made up of more than one resident, make up an overwhelming majority (more than 70 percent in all neighborhoods) of total households. This trend is an indication of community cohesion among residents in the vicinity of the proposed project.

Although a high percentage (64 percent) of Hispanic residents live in Census Tract 20.11, located north of Foster Road and west of State Route 135, the majority of

residents (over 80 percent) in the neighborhoods adjacent to the project area are Caucasian. Therefore, there is a degree of ethnic homogeneity in the region at large.

Environmental Consequences

Locally Preferred Alignment, Curved Alignment, and Reduced Extension Alternatives

Since the proposed project would expand the existing transportation facilities, disruption to neighborhood character or neighborhood stability would be minimal. These alignment alternatives would not disrupt the existing communities along the roadway extension. This includes not interrupting public services such as public utilities, police, fire, emergency, or other public services that are located within the surrounding communities. The Union Valley Parkway extension portion of the project would be located north and east of the Foxenwood Estates residential subdivision, and would not cross or divide this subdivision or physically separate it from any adjacent subdivisions. In addition, the State Route 101/Union Valley Parkway interchange portion of the project would be located adjacent to the Creekside and Edgewood residential subdivisions, but would not cross or divide these neighborhoods. Rather, the interchange would provide improved access to these neighborhoods from State Route 101. In addition, the project would provide improved access to community facilities in the area, such as Pioneer Park and the County Government Center.

Foster Road Alignment

The Foster Road Alignment Alternative would directly conflict with and result in substantial right-of-way impacts associated with the County Agriculture Building, the Food Bank, the Animal Shelter, and the County Public Works Building (refer to Section 2.1.1, *Land Use*), and would therefore disrupt the existing commercial and institutional uses along the roadway extension. This includes interrupting public services such as public utilities, police, fire, emergency, or other public services that are located within this commercial and institutional district.

The Foster Road Alignment would be located north and east of the Foxenwood Estates residential subdivision, and would not cross or divide this subdivision or physically separate it from any adjacent subdivisions. In addition, the State Route 101/Union Valley Parkway interchange portion of the project would be located adjacent to the Creekside and Edgewood residential subdivisions, but would not cross

or divide these neighborhoods. Rather, the interchange would provide improved access to these neighborhoods from State Route 101.

No-Action Alternative

Since no disturbance would occur along the Union Valley Parkway corridor under this alternative, no community character or cohesion impacts would result.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are required.

2.1.4.2 Relocations

Regulatory Setting

Caltrans' Relocation Assistance Program is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended) and Title 49 Code of Federal Regulations, Part 24. The purpose of the Relocation Assistance Program is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. Please see Appendix G for a summary of the Relocation Assistance Program.

All relocation services and benefits are administered without regard to race, color, national origin, or sex in compliance with Title VI of the Civil Rights Act (42 U.S. Code 2000d, et seq.). Please see Appendix C for a copy of Caltrans' Title VI Policy Statement.

Affected Environment

The project area for the Union Valley Parkway extension portion of the project is designated as "Future Union Valley Parkway" and is reserved for future roadway construction in the City General Plan. Zoning is primarily residential to the south (within the County) and institutional/public facility, light industry, and parkland to the north. The Union Valley Parkway/State Route 101 interchange area is primarily characterized by the existing State Route 101 travel lanes. Surrounding uses are Single-Family Residential to the west of the Union Valley Parkway/State Route 101 interchange and Vacant and Agricultural lands to the east.

Environmental Consequences

Locally Preferred Alignment, Curved Alignment, and Reduced Extension Alternatives

Although linear strips of right-of-way are needed in the interchange area, and along the Union Valley Parkway extension and Orcutt Road realignment, the right-of-way acquisition does not result in the relocation of any residences or businesses.

Foster Road Alignment Alternative

Linear strips of right-of-way are needed in the interchange area, and along the Union Valley Parkway extension and Orcutt Road realignment. The right-of-way acquisition for the Foster Road Alignment Alternative would not result in the relocation of any residences. However, it would result in the relocation of existing businesses and institutional uses (refer to Figure 27). These facilities include the County Agriculture Building, the Food Bank, the Animal Shelter, and the County Public Works Building. The Foster Road Alignment Alternative would directly conflict with these existing facilities. Major right-of-way impacts are associated with this alternative as a result. Local circulation, as well as conflicts with site access, planned use of sites, facility layout, parking, clearances, and setbacks for public facilities are all considered substantial impacts associated with the Foster Road Alignment Alternative. Refer to Section 2.1.1.1, *Existing and Future Land Use*, for a detailed discussion of these land use conflicts.

No-Action Alternative

Since no disturbance would occur along the Union Valley Parkway corridor under this alternative, no relocation impacts would result.

Avoidance, Minimization, and/or Mitigation Measures

The following mitigation measure would apply to the Foster Road Alignment Alternative only. At the time of acquisition, when relocation would become necessary, the City and Caltrans would provide relocation assistance to displaced businesses, in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and Title 49 Code of Federal Regulations, Part 24.

2.1.4.3 Environmental Justice

Regulatory Setting

All projects involving a federal action (funding, permit, or land) must comply with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, signed by President Bill Clinton on February 11, 1994. This Executive Order directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on the Department of Health and Human Services poverty guidelines. For 2007, this was \$20,650 for a family of four.

All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have also been included in this project. Caltrans' commitment to upholding the mandates of Title VI is evidenced by its Title VI Policy Statement, signed by the Director, which can be found in Appendix C of this document.

Affected Environment

The 2000 U.S. Census reported a total population of 20,489 residents in Census Tracts 20.08, 20.09, 20.10, 20.12, and 20.13, which includes the proposed project. There are 7,162 housing units in these census tracts; of those, 5,909 are owner-occupied and 1,253 are renter-occupied. The average household size in housing units within the census tract is 2.80.

According to the Census, of the total population of 20,489 residents in these Census tracts, 18,303, or 89.3 percent, are white. The median household income for the County of Santa Barbara was \$65,800.00 in 2005, the latest year the data was provided.

Although a high percentage (64 percent) of Hispanic residents live in Census Tract 20.11, located north of Foster Road and west of State Route 135, the majority of residents (over 80 percent) in the neighborhoods adjacent to the project area are Caucasian.

Environmental Consequences

Locally Preferred Alignment, Curved Alignment, Foster Road Alignment, and Reduced Extension Alternatives

No minority or low-income populations were identified within the project limits. No minority or low-income populations would be adversely affected by the proposed project. Therefore, this project is not subject to the provisions of Executive Order 12898.

No-Action Alternative

Since no disturbance would occur along the Union Valley Parkway corridor under this alternative, no environmental justice impacts would result.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are required.

2.1.5 Utilities/Emergency Services

Affected Environment

Water Supply

Water service to the Orcutt area and some southern portions of the City of Santa Maria is provided by the California Cities Water Company. Water is obtained from the Santa Maria Groundwater Basin and the State Water Project. One private water supply well is located within the project area roughly 800 feet east of State Route 135. The nearest public water well is the M.F. Well No. 1, which is operated by California Cities Water Company and is located approximately one-quarter mile north of the project area along Foster Road.

The City currently contracts for 16,200 acre-feet per year of State Water supplies with an additional 10 percent draw buffer of 1,620 acre-feet per year. Other sources of water in the city include Twitchell Reservoir and groundwater. A water-blending station and several sections of pipeline that will deliver water to the city were completed in 1999.

Wastewater Treatment

The Laguna County Sanitation District provides wastewater treatment services to the project area. The district operates a wastewater treatment plant serving the unincorporated community of Orcutt and portions of southern Santa Maria. The plant

is located at the end of Dutard Road west of Black Road. The Laguna County Sanitation District serves approximately 11,700 connections and currently collects, treats, and disposes of 2.4 million gallons of wastewater per day. Wastewater is generated primarily from domestic sources with minor contributions from commercial establishments, but does not include storm water collection. The district maintains one pump station and 155 miles of collection sewers. All of the water is recycled and used for irrigation purposes.

The plant is rated for 3.2 million gallons per day, but is limited to 2.4 million gallons per day under current permit conditions as regulated by the Regional Water Quality Control Board. Effluent is currently treated to secondary levels and applied to approximately 620 acres of pastureland.

Police Protection

Law enforcement services for the City of Santa Maria are provided by the City of Santa Maria Police Department, headquartered at 222 East Cook Street. The police department provides three basic types of services: field services including patrolling and investigating, staff services including training, and auxiliary services including record keeping. The department deploys up to 30 patrol cars and 51 total vehicles.

The city is patrolled on a 24-hour basis. Emergency calls are assessed on a priority basis by the officer who receives the call. Response times to emergency calls for service within the city limits average less than seven minutes.

The Santa Maria Police Department has a current total staff of 130, including 93 sworn-in officers. To accommodate the expected population buildout within the existing city limits, the police department would need to add additional sworn and non-sworn personnel, additional vehicles and equipment, and more office space.

The Santa Barbara County Sheriff's Department provides primary police protection service in the vicinity. The Sheriff's Department Orcutt Station, located at 118 East Foster Road in Orcutt (Division Headquarters for North County), is the first responder in the area.

Fire Protection

Fire protection services for the city are provided by the City of Santa Maria Fire Department, headquartered at 110 East Cook Street. The department provides fire protection services to prevent the loss of property and life from fire, with additional

responsibilities including public education and frequent site inspections. Fire department facilities include three fire stations. The fire department strives to maintain an average response time for first-in units of 5 minutes or less for 90 percent of emergency calls.

The Santa Barbara County Fire Department currently serves an estimated population of 36,600 in the Orcutt area and approximately 609,000 square feet of non-residential development. County Fire Station 21 was recently relocated from 3339 Terminal Way to the former Orcutt Fire Station at 335 Union Avenue in Orcutt. Station 21 provides primary fire protection service for the area and is staffed by one captain, one engineer, and one firefighter, and houses one fire engine.

Paramedic Services

Paramedic services within the City of Santa Maria are not provided by the Fire Department, but by a private operator, Mobile Life Support. Paramedic emergency response in the city is from the paramedic service headquarters at McClelland and Jones Street. A two-person paramedic squad, consisting of a paramedic and an emergency medical technician, typically respond to emergency calls in the city.

Environmental Consequences

Locally Preferred Alignment, Curved Alignment, Foster Road Alignment, and Reduced Extension Alternatives

Since 1998, the City of Santa Maria has depended on State Water Project water for its water source, in combination with groundwater and water from Twitchell Reservoir. The City maintains a total water supply of 39,000 acre-feet per year. Projected water demand under General Plan buildout conditions is 21,000 acre-feet per year. Therefore, under General Plan buildout, the City would retain a surplus of 18,000 acre-feet per year of water. According to staff at the City of Santa Maria Recreation and Parks Department, irrigation for landscaping typically requires approximately 3 acre-feet per year of water per acre. The irrigation of the proposed landscaping for the Locally Preferred Alignment, Curved Alignment, or Foster Road Alignment, including the interchange (assumed as 1 acre of irrigated landscaping, as a conservative estimate of water use) would therefore require 3 acre-feet per year of water. The Reduced Extension Alternative would require about 1 acre-foot per year of water for landscaping, assuming 0.3 acre of irrigated landscaping as a conservative estimate of water use. This water use would represent a negligible percentage of the City's General Plan buildout water surplus. The Union Valley Parkway

extension/interchange and other cumulative projects in the vicinity would use a portion of this surplus, but a substantial water supply surplus would remain subsequent to implementation of cumulative projects; therefore, none of the build alternatives would result in a substantial cumulative water supply impact.

None of the build alternatives would require individual sewage disposal systems, or generate sewage or operational solid waste.

No communication facilities are needed for, or would be disrupted by, any of the build alternatives, and no electrical service or gas supplies are needed. At California Boulevard, markers for a Greka Energy natural gas pipeline were observed along the west side of the roadway. Grading and compaction activities during construction may have the potential to affect this pipe, so the utility should be contacted to coordinate all phases of the construction process.

Roadway extension improvements and interchange construction would reduce traffic congestion in the long term and improve overall vehicle access and response times, which would be considered a long-term beneficial impact. No impacts to emergency services personnel, equipment, or facilities are anticipated. None of the build alternatives are located in a high fire hazard area.

No-Action Alternative

Since no landscaping would be implemented and no water demand would be generated, no water supply impacts would result. Since no ground disturbance would occur with this alternative, no communications, electrical, or natural gas line impacts would result.

Since no transportation improvements would be implemented, no short-term construction impacts or long-term access (including emergency access) improvements would result.

Avoidance, Minimization, and/or Mitigation Measures

The following measures are required for all of the build alternatives. Construction plans would be submitted to Greka Energy and/or Union Oil for review and comment for grading or excavation proposed within 25 feet of known oil or gas lines. In addition, to identify and avoid all known subsurface lines, Underground Service Alert would be consulted immediately before construction. A private utility locator service

and/or individual private property owners would be consulted immediately before construction if excavation were scheduled to occur on private property.

2.1.6 Traffic and Transportation/Pedestrian and Bicycle Facilities

Regulatory Setting

Caltrans, as assigned by the Federal Highway Administration, directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 Code of Federal Regulations 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

Caltrans is committed to carrying out the 1990 Americans with Disabilities Act by building transportation facilities that provide equal access for all persons. The same degree of convenience, accessibility, and safety available to the general public would be provided to persons with disabilities.

Affected Environment

The following technical traffic studies have been prepared for the project:

- Traffic Technical Report for the Union Valley Parkway/State Route 101 Interchange (Caltrans, February 2004)
- Traffic and Circulation Study for the Union Valley Parkway Extension (Associated Transportation Engineers, May 2008)

Roadways

The roadway network in the traffic study area is comprised of State Route 101, State Route 135, and arterials and collector roads, which are illustrated on Figure 9. All of the traffic figures can be found in Appendix F. Roadways are classified according to their function. The County of Santa Barbara uses Primary and Secondary roadway classifications for the Orcutt area based on roadway design characteristics and the types of land uses served. Arterial type roadways are designated as Primary roads and collector type roadways are designated as Secondary roads.

Most of the roadways in the traffic study area are under the County's jurisdiction. In general, the area east of State Route 135 and the area south of the proposed Union

Valley Parkway are within the County. The areas west of State Route 135 and north of the proposed Union Valley Parkway are within the city. The City of Santa Maria uses Arterial and Collector roadway classifications. State Route 101 and State Route 135 are state roadways under the jurisdiction of Caltrans. The roadway classifications and corresponding design capacities established by the County in the Orcutt Community Plan are listed in Table 2-6A. The roadway classifications established by the City in their Circulation Element are listed in Table 2-6B.

State Route 101 is a major north-south highway extending between the San Francisco Bay Area and the Los Angeles area. It is the major regional route in Santa Barbara County and is part of the National Highway System. In the Orcutt-Santa Maria area, State Route 101 also serves as a local route linking communities. It is a convenient north-south route along the east side of Orcutt and Santa Maria, reducing motorists' travel time and keeping them off county roads, city streets, or the other state highways. State Route 101 is a four-lane, divided freeway through the traffic study area. Access to and from State Route 101 and the Orcutt-Santa Maria area in the vicinity of the project is currently provided by the State Route 101/Santa Maria Way and State Route 101/Clark Avenue interchanges.

Table 2-6A Orcutt Community Plan Roadway Classifications

County Classification	Purpose and Design Factors	Design Capacity		Level of Service C Threshold ¹	
		2-Lane	4-Lane	2-Lane	4-Lane
Primary 1 (P-1)	Roadways designed to serve primarily non-residential development. Roadways have minimum 12-foot-wide lanes with shoulders and few curb cuts. Signal intervals of 1 mile or more.	19,990	47,760	15,900	38,200
Primary 2 (P-2)	Roadways that serve a high proportion of non-residential development with some residential lots. Lane widths are a minimum of 12 feet with well-spaced curb cuts. Signal intervals of ½ mile.	17,900	42,480	14,300	34,000
Primary 3 (P-3)	Roadways designed to serve both non-residential development and residential development. More frequent curb cuts are acceptable. Potential signal intervals of ¼ mile or more.	15,700	37,680	12,500	30,100
Secondary 1 (S-1)	Roadways designed to serve both non-residential development and large lot residential development. Roadways would have 2 lanes and infrequent curb cuts. Signals would occur at intersections with primary roads.	11,600	NA	9,300	NA

Table 2-6A Orcutt Community Plan Roadway Classifications

County Classification	Purpose and Design Factors	Design Capacity		Level of Service C Threshold ¹	
Secondary 2 (S-2)	Roadways designed to serve residential and non-residential land uses. Roadways would be 2 lanes with close to moderately spaced curb cuts.	9,100	NA	7,300	NA
Secondary 3 (S-3)	Roadways designed to primarily serve residential development on small to medium-sized lots. Roadways have 2 lanes and frequent curb cuts.	7,900	NA	6,300	NA

¹Defined as 80% of Design Capacity. NA = Not Applicable
Source: Santa Barbara County Public Works, Transportation Division

Table 2-6B City of Santa Maria Roadway Classifications

Classification	Purpose and Design Features
Primary Arterials	Roadways designed to provide mobility with intermittent access to Secondary Arterials with minimal direct land access.
Secondary Arterials	Roadways designed to provide mobility via access to Collector Roads and some Local Streets and accommodate access to major traffic-generating land uses.
Collector Road	Roadways designed to connect Local Streets to Secondary Arterials and, occasionally, Primary Arterials, and also provide access to major land uses.
Local Street	Roadways designed to provide access to adjacent land uses as well as access to Collector Roads.
Minor Street	Roadways designed to provide access to adjacent land uses, as well as to Local Streets and, occasionally, Collector Roads. Minor Streets occur only within and serve only residentially zoned properties.

State Route 135 (Orcutt Expressway) is a four- to six-lane roadway, which is the primary north-south route through the study area. State Route 135 extends as a four-lane freeway from State Route 1 to Foster Road and as a four-lane limited access expressway north of Foster Road. The State Route 135/Foster Road intersection has a traffic signal.

Union Valley Parkway is an east-west primary arterial (classified as a P-2 by the County). Union Valley Parkway is two lanes wide and extends between Hummel Drive on the west and Boardwalk Lane on the east.

Foster Road is an east-west collector road (classified as an S-1 by the County) located in the City-County area south of the Santa Maria Airport. Foster Road extends easterly from Blosser Road to a point east of Bradley Road where it ends. Throughout its length, Foster Road is two lanes wide and has a traffic signal at State

Route 135 in the study area. The intersections of Foster Road at Blosser Road, California Boulevard, Foxenwood Lane, and Orcutt Road are controlled by stop signs.

Blosser Road is a two-lane, north-south collector road (classified as an S-2 by the County) that extends from the southern boundary of the Santa Maria Airport to Clark Avenue. The intersection of Blosser Road at Foster Road is stop sign controlled.

California Boulevard is a north-south, two-lane collector road (classified as an S-2 by the County) that extends from Foster Road on the north to Clark Avenue on the south, where it becomes Broadway and continues southerly. The intersection of California Boulevard at Foster Road is stop sign controlled.

Foxenwood Lane is a north-south, two-lane collector road (classified as an S-3 by the County) that parallels the west side of State Route 135. Foxenwood Lane extends from Foster Road on the north to Clark Avenue on the south. The intersection of Foxenwood Lane at Foster Road is stop sign controlled.

Orcutt Road is a north-south, two-lane collector road (classified as an S-2 by the County) that parallels the east side of State Route 135. Orcutt Road extends from Goodwin Road on the north to Rice Ranch Road on the south. The Orcutt Road/Foster Road intersection is stop sign controlled.

Hummel Drive is a north-south, two-lane collector road (classified as an S-3 by the County) that extends southerly from Foster Road to Patterson Road.

Clark Avenue is an east-west arterial road (classified as a P-2 by the County) that extends through the Orcutt area from east of State Route 101 to State Route 1 on the west. Clark Avenue has two to four lanes in the Orcutt area. The State Route 101/Clark Avenue interchange is a Type L-1 (tight diamond) configuration.

Santa Maria Way is a four-lane arterial (classified as a Secondary Arterial by the City) that extends on a southeast to northwest diagonal alignment from State Route 101 to State Route 135. The State Route 101/Santa Maria Way interchange is a Type L-11 (trumpet-style) configuration.

Level of Service

“Levels of Service” A through F are used to rate roadway and intersection operations; Level of Service A indicates free flow operations while Level of Service F indicates

Level of Service

“Levels of Service” A through F are used to rate roadway and intersection operations; Level of Service A indicates free flow operations while Level of Service F indicates congested operations. Levels of service are depicted on Figures 3A, 3B, and 3C in Appendix F. The City's standard is to provide Level of Service D or better. The County's standard is to provide Level of Service C or better and Caltrans' desire is to provide Levels of Service C-D.

Roadway Operations

Figures 10 (A and B) show the existing (2005) average daily traffic volumes on the study area roadways. Existing operations for the roadway segments within the study area were determined by correlating the existing average daily traffic volumes presented in Figures 10 (A and B) and the corresponding capacity for each roadway. This analysis found that all of the study area roadways currently operate at Level of Service C or better.

Intersection Operations

Traffic flows on roadway networks are most constrained at the intersections. Therefore, the traffic analysis focuses on the operating conditions at key intersections during peak travel periods. For the study area, traffic demands are highest at the key intersections during the p.m. peak-hour period. Figures 10 (A and B) show the existing (2005) peak-hour traffic volumes at the key intersections. Levels of service for the key intersections were calculated using the operations method outlined in the Highway Capacity Manual (Transportation Research Board, National Research Council, 2000).

Table 2-7 lists the 2005 levels of service for the key intersections. As shown, the intersections operate at Level of Service C or better during the p.m. peak-hour period, and meet City, County, and Caltrans standards. However, as described in Section 1.2.2, *Need for the Project*, several key regional roads would degrade to Levels of Service D, E, or F within the 20-year horizon period if the Union Valley Parkway extension/interchange were not constructed. Tables 2-10 (A-D) under Environmental Consequences presents forecast year 2030 levels of service for key intersections for each build alternative and the No-Action Alternative.

Table 2-7 Existing (2005) P.M. Peak-Hour Intersection Levels of Service (LOS)

Intersection	Control	Delay / LOS
Santa Maria Way/State Route 101 Northbound Ramps	Free Flow	LOS A
Santa Maria Way/State Route 101 Southbound Ramps	Stop Sign	15.3 Seconds/LOS C
Clark Ave/State Route 101 Northbound	Stop Sign	8.9 Seconds/LOS A
Clark Ave/State Route 101 Southbound	Stop Sign	6.3 Seconds/LOS A
Bradley Road/Union Valley Parkway	Stop Sign	23.8 Seconds/LOS C
Foster Road/Blosser Road	Stop Sign	6.3 Seconds/LOS A
Foster Road/California Boulevard	Stop Sign	5.9 Seconds/LOS A
Foster Road/Foxenwood Lane	Stop Sign	3.6 Seconds/LOS A
Foster Road/State Route 135	Signal	27.0 Seconds/LOS C
Foster Road/Orcutt Road ^a	Stop Sign	N.A./LOS C
Union Valley Parkway /Hummel Drive	Stop Sign	6.0 Seconds/LOS A

^a Delay and LOS dependent upon operation of Foster Road/State Route 135. N.A. = Not Applicable

Bikeways

The City of Santa Maria classifies bikeways in 3 categories. Class I bikeways are major routes separated from vehicular traffic. Class II bikeways are striped bike lanes within roadways. Class III bikeways are suggested bike routes within roadways that consist of a series of signs designating a preferred route. Currently, the only bike trail in the traffic study area depicted on the City of Santa Maria Bikeway Plan filed with the Public Works Department in 1980 is a Class III bike route along Foster Road and State Route 135 north of the traffic study area. As identified on the proposed Bikeway Plan developed in 1992, a “Multi-Purpose” trail, including a Class II bike trail and sidewalks for pedestrian safety, is planned along the length of the Union Valley Parkway corridor. Foster Road is planned to include an on-street Class II bike lane. In addition, Blosser Road, State Route 135, and Bradley Road are each planned to contain an on-street Class II bike lane. To the south of the traffic study area, an on-street Class II bike lane is also planned along Clark Road from State Route 1 to just past State Route 101. Class II bike lanes are currently in place on State Route 135 and Orcutt Road. These bike lanes are planned to extend north past Waller Park and south across Union Valley Parkway to Clark Road.

The Orcutt Community Plan and Orcutt Transportation Improvement Plan identify the need for Class II bicycle lanes along the length of Orcutt Road between Rice Ranch Road and Lakeview Road, including the portion of Orcutt Road proposed for realignment. The Orcutt Community Plan also encourages the expansion and

improvement of a continuous and gap-free sidewalk and trail system, as well as an upgraded and expanded bicycle network throughout the community.

Environmental Consequences

The City proposes to construct the Union Valley Parkway extension portion of the project in several phases and the Union Valley Parkway/State Route 101 interchange portion of the project in a single phase. The timing of the construction of the Union Valley Parkway extension portion of the project relative to the interchange portion of the project is not known. However, both the interchange and extension portions of the project are included as funded projects in the 1999 Regional Transportation Plan.

Phase 1 of the Union Valley Parkway extension portion of the project (Hummel Drive to Blosser Road) would entail the development of a two-lane Union Valley Parkway from State Route 135 to Blosser Road, with intersections at Foxenwood Drive and California Boulevard. In this first phase, development would include two 12-foot-wide traffic lanes with 8-foot-wide Class II bikeways on either side of the street, curb, and gutter. A meandering 8-foot-wide multi-purpose trail would be located on the south side of the roadway. An interim “T-intersection” would be constructed at the crossing of Union Valley Parkway and State Route 135. This intersection would be in operation during the construction of Phase 2.

Phase 2 would entail the development of Union Valley Parkway as a two-lane roadway between State Route 135 and Hummel Drive. During this phase, the “T-intersection” at State Route 135 would be expanded to an at-grade “four-way” intersection coupled with the realignment of Orcutt Road to the east of State Route 135. This phase of development would also include two 12-foot-wide traffic lanes with two 8-foot-wide Class II bikeways on either side of the street. Curb and gutter and a 6-foot-wide sidewalk are proposed along the south side of the roadway. A taper from the existing Union Valley Parkway east of Hummel Drive to the new Union Valley Parkway west of Hummel Drive is also included in all of the build alternatives. The final phase of the Locally Preferred Alignment, Curved Alignment, and Foster Road Alignment would include widening Union Valley Parkway between Hummel Drive and Blosser Road to a total of four lanes. The Reduced Extension Alternative would widen Union Valley Parkway between Hummel Drive and State Route 135 to four lanes during the final phase. This final phase would be developed in response to changing traffic conditions and the final configuration (north to south) would be as follows:

- A 6-foot sidewalk on the north side of the street
- An 8-foot-wide Class II bikeway
- A 12-foot westbound vehicular lane
- A 14-foot westbound vehicular lane
- A 16-foot median
- A 14-foot eastbound vehicular lane
- A 12-foot eastbound vehicular lane
- An 8-foot-wide Class II bikeway
- An 8-foot-wide multi-purpose trail or a 6-foot sidewalk

The 8-foot-wide multi-purpose trail would run eastward along the south side of Union Valley Parkway from Blosser Road to Foxenwood Lane. A 6-foot sidewalk is proposed on the north side of the roadway throughout this stretch. East of Foxenwood Lane, pedestrians would have access to 6-foot sidewalks on either side of Union Valley Parkway.

As part of the Union Valley Parkway extension portion of the project, approximately 2,000 feet of Orcutt Road would be realigned eastward from its current location. The realigned Orcutt Road would intersect the new Union Valley Parkway roadway roughly 535 feet east of State Route 135. The realigned portion of Orcutt Road would feature a total of two 12-foot lanes with 6-foot Class II bike lanes, curb and gutter, and a 5-foot sidewalk on each side of the road. The Orcutt Road realignment would be necessary to alleviate potential traffic problems associated with having two intersections (State Route 135/Union Valley Parkway and Orcutt Road/Union Valley Parkway) in close proximity to one another.

During each phase of the Union Valley Parkway Extension/Interchange Project, State Route 135 would be widened to provide left-turn lanes onto Union Valley Parkway. In addition, acceleration and deceleration lanes would be provided both north and south of Union Valley Parkway, and Blosser Road would be widened to allow left-turn lanes onto Union Valley Parkway. It should be noted that for the purposes of this Environmental Impact Report/Environmental Assessment, the environmental analysis is based on the final four-lane build-out scenario with implementation of the Union Valley Parkway/State Route 101 interchange. However, as described in the Traffic Study (2008), the circulation network would function at acceptable levels of service following implementation of both Phase 1 and Phase 2 of the Locally Preferred Alignment and Curved Alignment alternatives. Without the project, the circulation

network would be deficient by late 2008. Figures 13 and 15 show the lane geometry and traffic controls (traffic signals, stop signs, etc.) for Phases 1 and 2 of the Union Valley Parkway extension, respectively. Figures 14 and 16 show the traffic volumes for Phases 1 and 2, respectively.

The Santa Maria-Orcutt Traffic Model was used to forecast future traffic volumes. This traffic model has been certified by the Santa Barbara County Association of Governments and is accepted by Caltrans. Since the final phase of the project would commence subsequent to the completion of Phase 2, which is anticipated to occur in 2011, the time horizon for full development of the project is approximately 20 years, thus representing the year 2030. The traffic model was programmed to include the buildout land uses and street system modifications for the 20-year period, pursuant to the City and County General Plans.

The buildout growth scenario includes the development of 10,375 residential units and 14,022,000 square feet of non-residential uses (commercial, office, industrial, etc.) within the Santa Maria-Orcutt area. The major traffic generator in the vicinity of the westerly extension of the proposed project is future development under the Santa Maria Airport Business Park Specific Plan on the south side of the Santa Maria Airport. There are also about 675 residential units and 200,000+ square feet of commercial space planned north and south of Clark Avenue adjacent to the Orcutt Old Town area.

The Santa Maria Airport Business Park Specific Plan includes about 3 million square feet of commercial development (light industrial, research, manufacturing, office, retail, airport services, etc.) and possibly some high-density housing in the airport area. There are about 675 residential units and 240,000 square feet of commercial uses proposed within Orcutt Community Plan Key Sites in the project area. The interaction of these uses will increase traffic on Blosser Road, as well as Broadway-California and Foxenwood Lane to a lesser extent. The traffic model also includes development of Orcutt Community Plan Key Site 22, a 2,000 dwelling unit community located at the SR 1/Black Road intersection.

It should be noted that the buildout model does not include implementation and development of the Bradley Ranch property located east of the proposed Union Valley Parkway/State Highway 101 interchange. The Bradley Ranch Specific Plan development could include up to 9,300 residential units and 4,120,000 square feet of supporting commercial uses (such as retail, office, public facilities). A sensitivity

analysis was completed for the proposed Union Valley Parkway/State Route 101 interchange to determine the level of development that could occur on the Bradley Ranch site east of the interchange while maintaining Caltrans' desire to provide operations that do not exceed the cusp of Level of Service C-D. According to the sensitivity analysis, in the year 2030, the interchange could accommodate about 650 additional peak-hour vehicle trips from development east of the interchange.

It is important to note that the Bradley Ranch Specific Plan may include a mix of land uses. Accordingly, some of the traffic will remain internal to the site and some will be external to the site. In addition, Bradley Ranch trips will connect to State Route 101 at three interchanges; the McCoy Lane/State Route 101 interchange (future interchange to the north), the Santa Maria Way/State Route 101 interchange, and the Union Valley Parkway/State Route 101 interchange. The external traffic using the Union Valley Parkway/State Route 101 interchange will depend upon the phasing of the Bradley Ranch developments and the mix of the land uses.

The sensitivity model shows that about 10 percent of the Bradley Ranch traffic would be to/from the Orcutt area west of State Route 101 via the Union Valley Parkway extension. Given the 650 peak-hour constraint at the Union Valley Parkway/State Route 101 interchange, this equates to an additional 65 p.m. peak-hour trips within the Union Valley Parkway corridor west of State Route 101. This level of traffic would be accommodated by the proposed Union Valley Parkway extension. Even with trips generated by potential future development at the Bradley Ranch property, the constraints along the Union Valley Parkway corridor would remain at the intersections along the section. With or without the proposed Union Valley Parkway extension and interchange, with development of the Bradley Ranch property, roadway and intersection levels of service throughout the study area would worsen beyond levels projected by the model. Depending on the magnitude of development in this area, several roadways and intersections could have deficient levels of service, and additional transportation improvements may be necessary. Future developers on the Bradley Ranch property would be responsible for paying fair share fees toward these transportation network improvements.

The buildout traffic model street system modifications include roadway widenings and other capacity improvements that are planned under the City and County Circulation Elements. The key street system modifications in the study area include:

- Widening State Route 135 to 6 lanes from Union Valley Parkway north to the existing six-lane section in the City
- Extending Hummel Drive between Union Valley Parkway and Patterson Road

Existing operations for the roadway segments within the study area were determined by correlating the existing average daily traffic volumes and the corresponding capacity for each roadway. Traffic flows on roadway networks are most constrained at the intersections. Therefore, the traffic analysis focuses on the operating conditions at key intersections during peak travel periods. For the study area, traffic demands are highest at the key intersections during the p.m. peak-hour period. Levels of service for the key intersections were calculated using the operations method outlined in the Highway Capacity Manual (Transportation Research Board, National Research Council, 2000). The traffic model assumed a vehicle mix on the future Union Valley Parkway extension of 96 percent automobiles and four percent medium and large trucks.

Table 2-8 shows a summary of the actual and statewide average accident rates on State Route 101 between the State Route 101/Santa Maria Way and State Route 101/Clark Avenue interchanges and at the freeway ramps to these interchanges. The data is from the three-year period from February 1, 1999 to January 31, 2002.

The table shows that the accident rates at the northbound off-ramp and southbound on-ramp intersections at the Clark Avenue interchange and at the northbound and southbound off-ramp and southbound on-ramp intersections at the Santa Maria Way interchange are substantially higher than similar ramp intersections elsewhere in the state. Implementation of any of the build alternatives would improve safety and reduce accident rates in the vicinity.

Table 2-8 Actual and Statewide Average Accident Rates-Route 101 and Santa Maria Way and Clark Avenue Interchange Ramps

Facility	Accident Rates	
	Actual	Statewide Average
Route 101 from Santa Maria Way to Clark Avenue (PM 82.2/84.3)	0.62	0.57
Route 101/Clark Avenue Interchange:		
Northbound off-ramp	1.96	1.50
Northbound on-ramp	0.80	0.80
Southbound off-ramp	1.16	1.50
Southbound on-ramp	1.26	0.80
Route 101/Santa Maria Way Interchange:		
Northbound off-ramp	1.26	0.90
Northbound on-ramp	0.22	0.90
Southbound off-ramp	3.47	1.50
Southbound on-ramp	1.71	0.80

Note: The accident rates are expressed as accidents per million vehicle miles for the freeway segment and as accidents per million vehicles at the ramp intersections.

Locally Preferred Alignment and Curved Alignment Alternatives

Figure 11 shows the geometry and controls for the Locally Preferred Alignment and Curved Alignment components and Figures 12 (A and B) show the 20-year traffic volumes for the study area roadway network. Table 2-9 compares the level of service at key intersections for existing, design year, and 20-year scenarios for the No-Action Alternative as well as the Locally Preferred Alignment and Curved Alignment Alternatives. As shown in Table 2-9, the Locally Preferred Alignment and Curved Alignment alternatives would result in acceptable levels of service at key intersections under design year and 20-year conditions, whereas these intersections would fail under both scenarios with the No-Action Alternative.

Table 2-9 Existing, Design Year, and 20-Year P.M. Peak-Hour Intersection Levels of Service (LOS) for the No-Action Alternative, Locally Preferred Alternative, and Curved Alignment Alternative

Intersection	Existing LOS	No-Action Alternative		Locally Preferred Alignment and Curved Alignment	
		Design Year LOS	20-Year LOS	Design Year LOS	20-Year LOS ^b
Foster Road/State Route 135	LOS C	LOS D	LOS E	B	LOS C
Santa Maria Way/State Route 101 southbound	LOS C	LOS D	LOS F	C	LOS A
Clark Ave/State Route 101 northbound ^a	LOS A	LOS A	LOS D	A	LOS C
Clark Ave/State Route 101 southbound ^a	LOS A	LOS A	LOS D	A	LOS B

^a Levels of service assume Orcutt Transportation Improvement Plan improvements.

^b 20-Year levels of service reflect implementation of planned circulation improvements at buildout. For example, this scenario assumes implementation of the Santa Maria Way interchange, as planned in the Circulation Element.

Roadway Operations

With the Locally Preferred Alignment or Curved Alignment, Union Valley Parkway is forecast to carry volumes within the 7,900 to 20,100 average daily traffic range from Blosser Road to Hummel Drive and 18,700 average daily traffic east of Hummel Drive. These volumes are within the Level of Service C capacity designation for four-lane roadways classified as P-2 arterials. The other key roadways in the study area, including Foster Road, Blosser Road, California Boulevard, Foxenwood Lane, Orcutt Road, and Hummel Drive south of the westerly extension, are forecast to operate at Level of Service C or better.

Intersection Operations

Table 2-10A shows the 20-year p.m. peak-hour level of service forecasts for the key intersections along Union Valley Parkway and at the Union Valley Parkway/State Route 101 interchange for the Locally Preferred Alignment and Curved Alignment alternatives. Under these alternatives, the Union Valley Parkway intersections are forecast to operate at Level of Service C or better in 2030, which meets City, County, and Caltrans Level of Service standards.

**Table 2-10A 20-Year Peak-Hour Levels of Service (LOS) –
Locally Preferred and Curved Alignment Alternatives**

Intersection	Future Control	Delay / LOS
Union Valley Parkway/Blosser Road	Stop Sign	15.3 Seconds/LOS C
Union Valley Parkway /California Boulevard	Signal	25.5 Seconds/LOS C
Union Valley Parkway /Foxenwood Lane	Signal	25.3 Seconds/LOS C
Union Valley Parkway/State Route 135	Signal	31.4 Seconds/LOS C
Union Valley Parkway/Orcutt Road	Signal	18.6 Seconds/LOS B
Union Valley Parkway/Hummel Drive	Signal	22.6 Seconds/LOS C
Union Valley Parkway/Bradley	Signal	26.7 Seconds/LOS C
Union Valley Parkway/State Route 101 Southbound	Stop Sign	0.2 Seconds/LOS A
Union Valley Parkway/State Route 101 Northbound	Free Flow	N.A./LOS A
Foster Road/State Route 135	Signal	20.6 Seconds/LOS C
Santa Maria Way/State Route 101 southbound	Stop Sign	4.7 Seconds/LOS A
Clark Ave/State Route 101 northbound ^a	Signal	22.0 Seconds/LOS C
Clark Ave/State Route 101 southbound ^a	Signal	15.2 Seconds/LOS B

^a Levels of service assume Orcutt Transportation Improvement Plan improvements

The Union Valley Parkway/State Route 101 southbound interchange would have a free-flow lane for the State Route 101 southbound off-ramp to westbound Union Valley Parkway. Except for Interchange Design Alternative 1, the Union Valley Parkway/State Route 101 northbound ramps would also be free flow for vehicles entering and exiting State Route 101 northbound. The Union Valley Parkway/Boardwalk Lane intersection would be configured for right turns only (inbound and outbound). This configuration would not interrupt the traffic flows on Union Valley Parkway.

With the project, Boardwalk Lane would continue to connect to UVP. Given the spacing between the southbound ramps at the UVP/U.S. Highway 101 interchange and Boardwalk Lane, the access at the UVP/Boardwalk Lane intersection will be configured for right-turns only (inbound and outbound). Access to Boardwalk Lane is currently provided to the west via UVP (no access to/from U.S. Highway 101 east of Boardwalk Lane) and via Woodmere Road. Inbound trips to Boardwalk Lane would therefore not change (continue to be from the west only). Trips outbound from Boardwalk Lane would turn right under the proposed plan and gain access to U.S. Highway 101 if traveling north or south out of the area, whereas they currently turn left onto UVP and then turn onto Bradley Road to reach destinations that are out of the immediate area. Outbound trips that travel to destinations in the immediate area

would use Woodmere Road to gain access to Bradley Road under the proposed plan, similar to how they currently access the surrounding street system.

Bikeways

As discussed in Chapter 1, *Proposed Project*, the purpose of the proposed Union Valley Parkway extension/interchange is to reduce traffic congestion associated with regional growth. As a result, the provision of a safe and functional multi-purpose trail that would run on the south side of Union Valley Parkway eastward from Blosser Road to Foxenwood Lane, 8-foot Class II bikeways, and 6-foot sidewalks on either side of the Union Valley Parkway east of Foxenwood Lane would meet a stated need of the project by providing facilities that promote alternative transportation use and expanding the existing bicycle network within the City of Santa Maria and the County of Santa Barbara.

The Locally Preferred Alignment and Curved Alignment alternatives include sidewalks, multi-use paths, and bike lanes, and would therefore improve pedestrian and bicycle circulation in the area. In addition, the proposed alternative transportation infrastructure would serve to implement a portion of a planned regional bikeway and pedestrian system, including a bike path along Union Valley Parkway from State Route 101 to Blosser Road.

Foster Road Alignment Alternative

The Santa Maria-Orcutt Traffic Model was used to evaluate the Union Valley Parkway extension assuming the Foster Road Alignment Alternative. The forecasts were completed assuming that Union Valley Parkway would be a four-lane road along the Foster Road Alignment. Other than the revised Union Valley Parkway alignment, the traffic model includes the same land use and street system assumptions as the Curved Alignment. Figure 17 shows the geometry and controls for this alternative and Figure 18 shows the 20-year traffic volumes.

Roadway Operations

The Foster Road Alignment would carry between 6,700 and 19,700 average daily traffic within the study area, indicating Level of Service C on the four-lane roadway.

With the Foster Road Alignment, signals would be required at the following intersections along Union Valley Parkway under year 2030 conditions:

1. Union Valley Parkway/California Boulevard
2. Union Valley Parkway/Airpark Drive

3. Union Valley Parkway/Foxenwood Lane
4. Union Valley Parkway/State Route 135
5. Union Valley Parkway/Orcutt Road
6. Union Valley Parkway/Hummel Drive

A portion of the regional trips would shift to other east-west roadways, such as Clark Avenue, due to the increased travel times. The Foster Road Alignment Alternative would result in higher volumes on Foxenwood Lane since access to and from Union Valley Parkway would be more accessible at Foxenwood Lane versus Blosser Road or California Boulevard. Foxenwood Lane would carry an additional 3,200 average daily traffic south of Union Valley Parkway. According to the Circulation Element, Foxenwood Lane is classified as an S-3 collector road and is intended to primarily serve residential uses with small to medium lots. The forecast for Foxenwood Lane is 6,800 average daily traffic under the Foster Road Alignment Alternative, which exceeds the County's Acceptable Capacity (Acceptable Capacity is 6,300 average daily traffic).

The Foster Road Alignment Alternative would also result in additional east-west travel within the Foxenwood Estates neighborhood, as residents that live on California Boulevard and the neighboring streets would divert to other local residential streets within the neighborhood to access Foxenwood Lane (diversion anticipated on Clubhouse Drive, Coachman Way, Wellington Drive, Meadowbrook Road, Old Mill Lane, Foxenwood Drive, Hartnell Road, Stanbury Drive, and Wilson Drive).

The Foster Road Alignment Alternative would also require street system modifications within the Santa Maria Business Park Specific Plan area. This area has been planned around the existing section of Foster Road and the proposed realignment of Union Valley Parkway to Foster Road would necessitate modifications to the Specific Plan street system and land use plan. These changes would include realigning Airpark Drive and creating a new intersection at Airpark Drive and Union Valley Parkway.

Intersection Operations

Table 2-10B shows the p.m. peak-hour level of service forecasts for the intersections along the Foster Road Alignment Alternative in 2030. This data shows that the Union Valley Parkway intersections along the Foster Road Alignment would operate at Level of Service D or better. The Union Valley Parkway/State Route 135 intersection

would operate at Level of Service D under the Foster Road Alignment Alternative. Additional capacity (the addition of travel lanes) would be required at the intersection to provide Level of Service C/D under the Foster Road Alignment Alternative.

**Table 2-10B 20-Year Peak-Hour Levels of Service (LOS) –
Foster Road Alignment Alternative**

Intersection	Future Control	Delay / LOS
Union Valley Parkway/Blosser Road	Stop Sign	8.7 Seconds/LOS A
Union Valley Parkway /California Boulevard	Signal	29.7 Seconds/LOS C
Union Valley Parkway/Airpark Drive	Signal	11.8 Seconds/LOS B
Union Valley Parkway /Foxenwood Lane	Signal	21.6 Seconds/LOS C
Union Valley Parkway/State Route 135	Signal	37.3 Seconds/LOS D
Union Valley Parkway/Orcutt Road	Signal	28.2 Seconds/LOS C
Union Valley Parkway/Hummel Drive	Signal	20.8 Seconds/LOS C

Bikeways

The Foster Road Alignment Alternative includes sidewalks, multi-use paths, and bike lanes, and would therefore improve pedestrian and bicycle circulation in the area. In addition, the proposed alternative transportation infrastructure would serve to implement a portion of a planned regional bikeway and pedestrian system, including a bike path along Union Valley Parkway from State Route 101 to Blosser Road.

Reduced Extension Alternative

The Reduced Extension Alternative assumes that Union Valley Parkway would be extended between State Route 135 and Hummel Drive and would not extend west of State Route 135. The Union Valley Parkway/State Route 135 intersection would be configured as a “T” intersection and would be controlled by traffic signals. Figure 19 shows the geometry and controls for this alternative and Figure 20 shows the 20-year traffic volumes. The Santa Maria-Orcutt Traffic Model was used to evaluate the Reduced Extension Alternative. The forecasts were completed assuming that Union Valley Parkway would be built as a four-lane road between State Route 135 and Hummel Drive.

Roadway Operations

Union Valley Parkway is forecast to carry 14,600 to 17,400 average daily traffic east of State Route 135. With the 20-Year scenario, the Reduced Extension Alternative would result in substantially increased average daily traffic volumes on Foster Road west of State Route 135. Foster Road would carry 19,500 average daily traffic west of

State Route 135 under the Reduced Extension Alternative, indicating the need for four lanes. A portion of the regional trips would also shift to other east-west facilities, such as Clark Avenue and Lakeview Drive.

This alternative would also result in substantially increased traffic on Foxenwood Lane. Foxenwood Lane would carry 7,700 average daily traffic south of Foster Road under the Reduced Extension Alternative. Some of the additional traffic would filter throughout the neighborhood.

Intersection Operations

Table 2-10C shows the p.m. peak-hour level of service forecasts for the intersections along the Reduced Extension Alternative in 2030. As shown, the Union Valley Parkway intersections would operate at Level of Service C or better. Table 2-10C also shows that the Foster Road/State Route 135 intersection would operate at Level of Service E under the Reduced Extension Alternative. This intersection would receive much of the diverted traffic in the Santa Maria Airport-Foxenwood neighborhood area. Major intersection improvements (the addition of travel lanes) would be required to provide an acceptable level of service at the intersection under the Reduced Extension Alternative scenario.

**Table 2-10C 20-Year Peak-Hour Levels of Service (LOS) –
Reduced Extension Alternative**

Intersection	Future Control	Delay / LOS
Union Valley Parkway/State Route 135	Signal	26.4 Seconds/LOS C
Union Valley Parkway/Orcutt Road	Signal	20.4 Seconds/LOS C
Union Valley Parkway/Hummel Drive	Signal	21.5 Seconds/LOS C
Foster Road/State Route 135	Signal	70.8 Seconds/LOS E

^a Levels of service assume Orcutt Transportation Improvement Plan improvements

Bikeways

The Reduced Extension Alternative includes sidewalks, multi-use paths, and bike lanes, and would therefore improve pedestrian and bicycle circulation in the area. In addition, the proposed alternative transportation infrastructure would serve to implement a portion of a planned regional bikeway and pedestrian system, including a bike path along Union Valley Parkway from State Route 101 to State Route 135.

No-Action Alternative

The Santa Maria-Orcutt Traffic Model was used to evaluate the No-Action Alternative. The No-Action traffic model assumes buildout of the land uses within the Santa Maria-Orcutt area and the roadway network modification programmed for buildout, except for the Union Valley Parkway interchange and extension.

Figures 21 (A and B) show the No-Action traffic forecasts and the following text discusses the affects of No-Action traffic diversions on key alternative routes within the study area.

Roadway Operations

The No-Action Alternative traffic forecasts show that additional traffic volumes would occur on alternative east-west roadways, including Foster Road and Lakeview Road; as well as on State Route 135 and Bradley Road, the major north-south routes in the study area. The following text discusses the roadways where the Level of Service standards would be exceeded.

Foster Road: Volumes on Foster Road east of State Route 135 would increase to 13,800 average daily traffic under the No-Action Alternative. This segment of Foster Road is an east-west collector road located in the county area (classified as an S-1 by the County) that serves residential uses and two high schools. See Figure 21A. The 13,800 average-daily-traffic forecast would exceed the County's Design Capacity standard (Design Capacity is 11,600 average daily traffic).

Lakeview Road: Volumes on Lakeview Road would increase by 3,400 average daily traffic under the No-Action Alternative, increasing volumes to 12,700 average daily traffic. See Figure 21B. Lakeview Road is an east-west collector road located in the county area (classified as an S-1 by the County) that connects State Route 135 with Bradley Road. Throughout its length, Lakeview Road is two lanes wide and serves single-family residences along its reach. The 12,700 average-daily-traffic forecast exceeds the County's Design Capacity for S-1 collector roads (Design Capacity is 11,600 average daily traffic).

Intersection Operations

The No-Action Alternative traffic forecasts show additional traffic volumes at the key intersections in the study area. The Foster Road/State Route 135 intersection would operate at Level of Service E. The Highway 101/Santa Maria Way interchange would operate at Level of Service F and the Highway 101/Clark Avenue interchange would

operate at Level of Service C-D under the No-Action scenario. These levels of service do not meet City, County, or Caltrans standards.

Also shown in Table 2-10D is the level of service for the Foster Road/State Route 135 intersection, a key intersection in the study area. This intersection would operate at Level of Service E under the No-Action Alternative (versus Level of Service C with the Locally Preferred Alignment). Additional capacity (the addition of travel lanes) would be required to provide an acceptable level of service at the intersection. The No-Action Alternative would also create additional loading at the Clark Avenue/State Route 101 southbound and Santa Maria Way/State Route 101 southbound intersections. Additional capacity would likely be required at these locations to maintain Level of Service C-D operations under this alternative.

**Table 2-10D 20-Year Peak-Hour Levels of Service (LOS) –
No-Action Alternative**

Intersection	Future Control	Delay / LOS
Foster Road/State Route 135	Signal	61.0 Sec/LOS E
Santa Maria Way/State Route 101 southbound	Stop Sign	>50.0 Sec/LOS F
Clark Ave/State Route 101 northbound ^a	Signal	28.2 Sec/LOS C
Clark Ave/State Route 101 southbound ^a	Signal	37.6 Sec/LOS D

^a Levels of service assume Orcutt Transportation Improvement Plan improvements

In conclusion, under the No-Action Alternative, future development envisioned in the City of Santa Maria General Plan, Santa Maria Airport Business Park Specific Plan, Richards Specific Plan, or Orcutt Community Plan could not be accommodated by the circulation system without exceeding level of service standards along several roadway segments and intersections.

Bikeways

This alternative would not result in bicycle or pedestrian improvements in the traffic study area, and, therefore, would not result in beneficial impacts related to pedestrian and bicycle circulation.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures would be required for the Locally Preferred Alignment or Curved Alignment to reduce impacts to roadway and intersection operations. However, to accommodate future traffic at acceptable levels

of service, the No-Action Alternative would require the widening of Foster Road and Lakeview Road, and capacity improvements at the State Route 101/Santa Maria Way interchange and the State Route 101/Clark Avenue interchange, as well as the Foster Road/State Route 135, Lakeview Road/State Route 135, and Lakeview Road/Bradley Road intersections. The Reduced Extension Alternative would require the widening of Foster Road and capacity improvements at the Foster Road/State Route 135 intersection. The Foster Road Alignment Alternative would require widening Foster Road and making capacity improvements at the Foster Road/State Route 135 intersection, as well as street system modifications within the Santa Maria Airport Business Park Specific Plan area.

2.1.7 Visual/Aesthetics

Regulatory Setting

The National Environmental Policy Act of 1969, as amended, establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* (emphasis added) and culturally pleasing surroundings [42 U.S. Code 4331(b)(2)]. To further emphasize this point, the Federal Highway Administration in its implementation of the National Environmental Policy Act [23 U.S. Code 109(h)] directs that final decisions regarding projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

Likewise, the California Environmental Quality Act establishes that it is the policy of the state to take all action necessary to provide the people of the state “with...enjoyment of *aesthetic*, natural, scenic and historic environmental qualities.” [CA Public Resources Code Section 21001(b)]

Affected Environment

As described in the “Visual Impact Study for the Union Valley Parkway Extension” and the “Visual Impact Study for the Proposed Union Valley Parkway Interchange Project,” the project area is located near the southern edge of the City of Santa Maria, in an area that visually transitions from a more rural setting of the south, to the northern more developed area of the city. Existing land uses in the vicinity include residential development, along with agricultural, open space, service, and retail-oriented commercial uses. The existing visual setting in the project area is moderately unified and intact, with the agricultural open space being the dominant visual landscape type, but increasing commercial and residential development is beginning

to visually encroach upon the rural character. The visual character of most of the project area is that of a vacant (with the exception of road crossings), relatively flat area covered with low-lying grasses, weeds, and scattered native scrub vegetation. Rows of non-native eucalyptus parallel the project area for the easterly portion of the build alternatives. Several eucalyptus rows also run perpendicular to the westerly portion of the Locally Preferred Alignment and Curved Alignment Alternative. Rolling hills with low-lying vegetation characterize the interchange portion of the project, east of State Route 101.

Key views of the interchange site are provided from State Route 101 and the portion of Union Valley Parkway near its existing eastern terminus. Key views of the Union Valley Parkway extension site are provided from State Route 135. Travelers along State Routes 101 and 135 would constitute major viewer groups likely to see the site.

Developed areas located west of State Route 135 include county government facilities to the north and the Foxenwood Estates single-family residential neighborhood to the south. County facilities include a Sheriff's Department substation, a vehicle yard, technical services offices, a mental health facility, and a juvenile hall facility, which is currently being expanded. Residential development south of the project area consists of medium density one- and two-story single-family homes. The backyards of these homes are separated from the project area by a 6-foot fence that blocks views of the site. The area east of State Route 135 adjacent to the project area contains only a few single-family homes located on approximately 20- to 50-acre lots.

The visual character of the Union Valley Parkway/State Route 101 interchange area is influenced by the existing State Route 101, as well as existing single-family residential development on the west side of State Route 101. Vacant and agricultural lands are located on the east side of State Route 101 in the vicinity of the proposed interchange. Motorists traveling along the State Route 101 corridor can see several existing overcrossings, primarily to the north. Landscaping within the highway right-of-way in the vicinity is mature and includes scattered trees and a few shrubs.

This portion of State Route 101 is eligible for State Scenic Highway designation. However, Santa Barbara County has not completed the procedures necessary to obtain this official designation from the state.

The Caltrans Landscape Architecture Branch conducted a Scenic Resource Evaluation and Preliminary Visual Impact Assessment for the interchange portion of the project. A visual impact analysis, including a visual simulation of the Locally Preferred Alignment and Curved Alignment were also conducted for the Union Valley Parkway extension portion of the project (See Figure 28). These studies considered the potential effects of the build alternatives on expected viewer groups along Union Valley Parkway, State Route 101, other public roads, and the surrounding area.

Environmental Consequences

For the purposes of this Environmental Impact Report/Environmental Assessment, the cumulative geography of the project area and vicinity stretches from the flatlands in the northern portion of the community of Orcutt, to the southwestern portion of the City of Santa Maria. The cumulative (General Plan buildout) scenario includes the development of 6,605 residential units and 2,365,000 square feet of non-residential uses (commercial, office, industrial etc.) within the Orcutt Planning Area, and 14,640 residential units and 6,966,000 square feet of non-residential uses within the City of Santa Maria and areas within its Sphere of Influence for which specific plans have been prepared.

Locally Preferred Alignment

To assess the potential visual effects that the Locally Preferred Alignment may produce, a photograph of present view conditions was taken to and a photographic simulation of post-project conditions was completed. Figure 28 illustrates current visual conditions and a simulation of the post-project conditions, as viewed from westbound travelers on the proposed Union Valley Parkway extension, between California Boulevard and Foxenwood Lane, looking southwest toward the existing Foxenwood Estates residential subdivision. All of the figures for this section are in Appendix F. As shown on Figure 28, post-project views of the Union Valley Parkway corridor demonstrate the removal of weedy vegetation and some mature eucalyptus trees, and the presence of pavement and landscaping within the corridor right-of-way.

Landscaping along the Union Valley Parkway extension median, and along the sidewalk area between the roadway and the rear of the Foxenwood Estates subdivision homes along Clubhouse Drive, would soften post-project views of and from the Union Valley Parkway corridor. The proposed soundwall and existing residential units would be partially obscured by this landscaping vegetation. In

addition, the proposed soundwall would provide a more continuous view than the existing six-foot fencing at the rear of the Foxenwood Estates homes that is composed of inconsistent wood materials.

The Locally Preferred Alignment would extend the existing Union Valley Parkway and associated roadway and pedestrian infrastructure further to the west and realign Orcutt Road to the east of State Route 135. This alignment would require the removal of about 970 trees, most of which (approximately 750) would be eucalyptus located near Blosser Road and Hummel Drive. However, this alignment would avoid oak woodlands located near Blosser Road. This alternative would result in impacts related to alteration of public views, visual character, and compatibility.

Because the project area is generally flat, minimal grading and limited change in topography would be required. The Locally Preferred Alignment improvements would not be visible from important scenic corridors or viewsheds, such as designated scenic highways, major transportation corridors, or major public gathering areas.

The Locally Preferred Alignment improvements would be visible from existing public roadways, including Hummel Drive, Orcutt Road, State Route 135, Foxenwood Lane, California Boulevard, and Blosser Road. In addition, adequate landscaping would be able to mitigate impacts related to the visual character of surrounding urban areas, including residential development to the south and Pioneer Park to the north.

The Locally Preferred Alignment improvements would be visually compatible with surrounding urban areas, including the institutional uses to the north, and residential uses to the south and east of the project area.

The use of soundwalls near residential areas may result in adverse visual impacts to individual residents. However, fences and walls approximately six feet in height currently border the backyards of residences located adjacent to the Locally Preferred Alignment. The proposed soundwalls would be visually similar to walls currently in place. The proposed soundwalls are not considered to be visually incompatible nor would they appreciably affect any public view corridors.

Potential sources of daytime glare associated with the Locally Preferred Alignment include surface paving materials and vehicles. Standard street lighting would be

placed along the new roadway and intersection. Existing residences to the south of the Locally Preferred Alignment could be affected by this new light source. Site illumination provides safety for vehicular and pedestrian movement, and increases security. However, the introduction of new lighting into an unlit area can contribute to the light glow of an urban area, proportionally affecting viewing opportunities of the nighttime sky.

The project area currently receives some spillover lighting from the county facilities to the north, the Foxenwood Estates residential area to the south, and current street lighting of adjacent roadways. The Locally Preferred Alignment would introduce new light and glare sources that may result in adverse effects on nearby residences. However, the majority of the project area does not receive much nighttime lighting and is not currently a source of daytime glare.

Extending Union Valley Parkway east to State Route 101, adding the freeway overcrossing, completing the southbound freeway ramps, and constructing the northbound freeway ramps would not substantially degrade the existing visual character or quality of the project area or surroundings. The highway elements to be added to the surroundings would be consistent with viewers' expectations along this highway and would be essentially the same as what now exists at the nearby interchanges on State Route 101.

Visual impacts associated with the build alternatives would be minimized to the extent feasible and would be consistent with the City of Santa Maria policies pertaining to the protection of visual resources. Nonetheless, cumulative growth in this portion of the City and County, in combination with the proposed project, could result in changes to the area's existing character. This cumulative change would introduce new sources of lighting, new buildings, and new infrastructure, which would alter the existing character of this portion of the city and county. Implementation of required minimization measures in coordination with those that would be required of other development would ensure that the project would not substantially contribute to cumulative aesthetic impacts.

Curved Alignment Alternative

As with the other build alternatives, this alternative would result in aesthetic effects associated with ground disturbance, pavement, landscaping, light, and glare. The Curved Alignment would result in the removal of mature vegetation, which would

result in aesthetic impacts. This alignment would involve the removal of areas of low-lying grasses, weeds, scattered native scrub vegetation, and non-native eucalyptus trees. It would require the removal of approximately 730 trees, most of which (approximately 575) would be eucalyptus located near Blosser Road and Hummel Drive. However, neither the existing fencing nor the rows of eucalyptus trees that currently obstruct views of the project area from the adjacent Foxenwood Estates residential uses would be removed by the Curved Alignment. As with the other build alternatives, with required minimization measures, this alternative would not substantially contribute to cumulative aesthetic impacts.

Foster Road Alignment Alternative

As with the other build alternatives, this alternative would result in aesthetic effects associated with ground disturbance, pavement, landscaping, light, and glare. The Foster Road Alignment would require the removal of approximately 530 trees, most of which (approximately 440) would be eucalyptus located near Blosser Road and Hummel Drive. Therefore, this alternative would result in impacts related to alteration of public views, visual character, and compatibility. As with the other build alternatives, with required minimization measures, this alternative would not substantially contribute to cumulative aesthetic impacts.

Reduced Extension Alternative

As with the other build alternatives, this alternative would result in aesthetic effects associated with ground disturbance, pavement, landscaping, light, and glare. However, this alternative would not improve access to aesthetically pleasing views of open space west of State Route 135. The Reduced Extension Alternative would require the removal of approximately 310 trees, most of which (approximately 225) would be eucalyptus located near Hummel Drive. This alternative would result in impacts related to alteration of public views, visual character, and compatibility. As with the other build alternatives, with required minimization measures, this alternative would not substantially contribute to cumulative aesthetic impacts.

No-Action Alternative

Since no disturbance would occur along the Union Valley Parkway corridor under this alternative, no visual impacts would result. However, this alternative would not improve access to aesthetically pleasing views of open space east and west of State Route 135.

Avoidance, Minimization, and/or Mitigation Measures

The following measures apply to the visual impacts within the project area for the build alternatives. These measures would minimize the project's effects on visual resources and ensure consistency with the City of Santa Maria policies pertaining to the protection of visual resources.

To minimize visual character and compatibility effects, long expanses of walls or fences would be interrupted with offsets and provided with accents to prevent visual monotony. Wall colors would be compatible with surrounding terrain. Whenever possible, a combination of elements would be used, including walls and landscaped berms.

To minimize visual character and compatibility effects, where landforms are modified during construction, recontouring of landmasses would provide a smooth and gradual transition between modified landforms and existing grades.

Street lights would be hooded and directed to project area roadways to avoid light and glare impacts to residences, aviation, and nearby habitat areas. Roadway lighting would be minimized to the extent possible, and would not exceed the minimum height requirements of the local jurisdiction in which the lighting is located.

Refer to Section 2.3.1, *Natural Communities*, for a discussion of avoidance, minimization, and/or mitigation measures that require replacement of removed trees at the following ratios:

- 2:1 (number of trees planted:number of trees removed) for trees six to eight inches in diameter (as measured at 4 ½ feet above the ground);
- 4:1 for trees nine to 12 inches in diameter
- 6:1 for trees greater than 12 inches in diameter.

The planting of replacement trees in accordance with this measure would reduce long-term impacts related to visual character associated with tree removal.

2.2 Physical Environment

2.2.1 Water Quality and Storm Water Runoff

Regulatory Setting

Section 401 of the Clean Water Act requires water quality certification from the State Water Resources Control Board or from a Regional Water Quality Control Board

when the project requires a Clean Water Act Section 404 permit. Section 404 of the Clean Water Act requires a permit from the U.S. Army Corps of Engineers to discharge dredged or fill material into waters of the United States.

Along with Section 401 of the Clean Water Act, Section 402 of the Clean Water Act establishes the National Pollutant Discharge Elimination System permit for the discharge of any pollutant into waters of the United States. The federal Environmental Protection Agency has delegated administration of the National Pollutant Discharge Elimination System program to the State Water Resources Control Board and nine Regional Water Quality Control Boards. The State Water Resources Control Board and Regional Water Quality Control Boards also regulate other waste discharges to land within California through the issuance of waste discharge requirements under authority of the Porter-Cologne Water Quality Act.

The State Water Resources Control Board has developed and issued a statewide National Pollutant Discharge Elimination System permit to regulate storm water discharges from all Caltrans activities on its highways and facilities. Caltrans construction projects are regulated under the statewide permit, and projects performed by other entities on Caltrans right-of-way (encroachments) are regulated by the State Water Resources Control Board's Statewide General Construction Permit. All construction projects over 1 acre require a Storm Water Pollution Prevention Plan to be prepared and implemented during construction. Caltrans activities of less than 1 acre require a Water Pollution Control Program.

Affected Environment

As described in the Water Quality Report for the Union Valley Parkway/State Route 101 Interchange, the proposed project is located in the Guadalupe Hydraulic Area of the Santa Maria Hydrologic Unit of the Central Coast Hydrologic Basin Planning Area established by the Central Coast Regional Water Quality Control Board. The Water Quality Control Plan-Central Region published by the Regional Water Quality Control Board has assigned beneficial uses to all surface water bodies in the region. These uses are listed as municipal and domestic water supply, contact and non-contact recreation, and protection of aquatic life. The assigned usage applies whether the water body is perennial or intermittent.

Soils in the project area are generally sandy. Storm water normally seeps into the ground rather than flowing on the ground surface. No watercourses were noted within

the proposed interchange area, but a small drain flows under State Route 101 in a lined channel at the north end of the project area.

The project area is located within the Santa Maria Groundwater Basin. Average depth to groundwater is approximately 70 to 80 feet, and groundwater flow is toward the southwest. Estimated groundwater depths may fluctuate due to pumping, rainfall, and seasonal variations.

Environmental Consequences

Locally Preferred Alignment, Curved Alignment, Foster Road Alignment, and Reduced Extension Alternatives

With each of the build alternatives, use of the proposed Union Valley Parkway extension and interchange would introduce petroleum hydrocarbons, heavy metals, rubber, and other vehicular pollution byproducts to drainage features via runoff from the roadway extension and interchange. This increase in roadway runoff could result in degraded downstream water quality, thereby affecting riparian plants and resident and migrating animals. In addition, contaminated runoff could degrade surface and subsurface water quality for downstream domestic, agriculture, and industrial uses.

The project area is not located near any large watercourses, creeks, streams, channels, or the ocean. A man-made pond is located to the southeast of the proposed intersection of Hummel and Union Valley Parkway, and a detention basin is located south of the proposed alignment east of Blosser Road. In addition, a Santa Barbara County Flood Control District channel is located south of the proposed alignment, from California Boulevard west to the detention basin. The drainage design between California Boulevard and Blosser Road has not been finalized. However, conceptual drainage plans indicate that runoff from the alignment would be separate from these drainage systems outside the project area, and increased runoff to these facilities would not occur from any of the build alternatives. Project plans will be submitted to the Santa Barbara County Flood Control and Water Conservation District for review. Therefore, the build alternatives would not affect currents or flow patterns to these or any other surface water body, nor would they directly discharge into any surface water body.

Should construction activities start before implementation of project drainage facilities, construction could increase the amount of pollutants going to drainages and aquifers outside the project area as materials from the project area (such as oil and

grease from construction vehicles and sediment from construction activities) are transported into the drainages by storm water runoff and deep percolation. As a result, impacts to wildlife habitat, warm freshwater habitat, and municipal and domestic water supplies could occur.

Existing development and future growth within the local watershed area could result in decreased water quality and continued flooding and erosion problems. Watershed planning efforts are being directed at resolving the current problems that exist in this drainage. Future projects within the watershed are also subject to the requirements of the state and federal Clean Water Acts. Such requirements would include the use of Best Management Practices for construction and operations and discharge requirements for point sources. The magnitude of cumulative impacts will be dependent on the success of this continuing planning effort and effective implementation of water quality control requirements. However, containing and capturing surface storm water runoff before it enters drainage courses outside the project area would reduce the amount from current levels of petroleum hydrocarbons, heavy metals, and rubber that would enter the creek from the road surface. Although some increase in surface water runoff and surface water pollution could be anticipated, implementation of applicable requirements on all developments in the area would be expected to ensure the project's contribution to cumulative hydrology and water quality impacts would not be substantial.

No-Action Alternative

Since no disturbance would occur with this alternative, no water quality impacts would result.

Avoidance, Minimization, and/or Mitigation Measures

The following measure is recommended for each of the build alternatives to reduce pollutant concentrations in roadway runoff and ensure long-term functionality of the runoff filtration devices.

Final project design would include a storm water control and filtering system along the length of the roadway to capture and treat all first flush runoff from the roadway before it discharges to drainage channels outside the project area.

A maintenance program for the storm water control and filtering system would be developed in accordance with the California Department of Transportation Best Management Practices handbook to eliminate the potential for odor problems and

mosquito habitat, and to prevent clogging. Best Management Practices may include a combination of the following: biofiltration strips and swales; infiltration devices; detention devices; traction sand traps; dry weather flow diversion; gross solids removal devices; media filters; multi-chamber treatment train; and wet basins.

The build alternatives would be designed to convey roadway runoff to several proposed bioswales. A bioswale is a wide, shallow depression in the ground with dense vegetation to filter storm water runoff. For both short-term and long-term water quality impacts, temporary as well as permanent Best Management Practices would be identified during final design when sufficient engineering details are available to warrant competent analysis. The City of Santa Maria is committed to implementing cost-effective temporary and permanent Best Management Practices as identified during final design.

During the construction phase, adherence to the Caltrans Standard Specifications and the Special Provisions (written for this particular project) would be required to control storm water pollution. Waste material removed from the construction area would be disposed of in accordance with the Standard Specifications listed in the California Administrative Code. Erosion control would require that no siltation from the construction area be allowed to enter the flood control channels or drainage system. Any impacts would be temporary, local, and limited to construction areas.

Because each of the build alternatives would disturb more than one acre of surface area, the proposed project would require a permit in accordance with the National Pollutant Discharge Elimination System, regulated by the Regional Water Quality Control Board. The National Pollutant Discharge Elimination System permit and the Standard Specifications require the development of a Storm Water Pollution Prevention Plan by the contractor before construction. The construction contractor must adhere strictly to the provisions of the Standard Specifications, the Special Provisions, and the Storm Water Pollution Prevention Plan. Man-made drainage facilities are included in the design of the roadway, and Best Management Practices to protect surface water quality would be applied. If needed, erosion control measures would also be implemented in compliance with National Pollutant Discharge Elimination System permit requirements. Adherence with these measures would minimize potential impacts to surface waters and water quality. It should be noted that the interchange portion of the project would fall under a statewide permit issued to Caltrans under the National Pollutant Discharge Elimination System. To comply

with the National Pollutant Discharge Elimination System permit, Caltrans must file a Notice of Construction with the Regional Water Quality Control Board.

The City and Caltrans would limit the use of pesticides, herbicides, and inorganic fertilizers applied to roadway landscaping for weed abatement to those quantities necessary to treat specific problems.

2.2.2 Geology/Soils/Seismic/Topography

Regulatory Setting

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects “outstanding examples of major geological features.” Topographic and geologic features are also protected under the California Environmental Quality Act.

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. Caltrans’ Office of Earthquake Engineering is responsible for assessing the seismic hazard for Caltrans projects. The current policy is to use the anticipated Maximum Credible Earthquake from young faults in and near California. The Maximum Credible Earthquake is defined as the largest earthquake that can be expected to occur on a fault over a particular period of time.

Affected Environment

According to the City of Santa Maria General Plan and the Orcutt Community Plan, the Santa Maria Valley is an east-west trending alluvial valley bounded on the north by the San Rafael Range and on the south by the Casmalia Range and the Solomon Hills. The City of Santa Maria and community of Orcutt are underlain by Quaternary alluvial deposits (Worts, 1951). Recent alluvium (soil) consists of unconsolidated course gravel, sand, silt, and clay. According to water and oil well logs, the thickness of the alluvium uniformly increases from 50 feet at the Sisquoc River (near the east side of the valley) to 230 feet at the coast. Average depth to groundwater in the region is approximately 70 to 80 feet below ground surface and groundwater flow is toward the southwest.

The Santa Maria Valley is within a structural fold, (rock layers that are arched or bent) and a thrust fault area: The axes of most of the structural elements in the region run northwest-southeast, parallel to the valley. The Santa Maria basin and adjacent

southern Coast Ranges have been subject to uplift during the last 2 to 5 million years, and they are considered to be seismically active. The fault systems associated with the area are considered seismically active. Based on their historical activity, faults are classified as Active, Potentially Active, or Inactive. Active faults are those with demonstrable movement within the most recent 11,000-year period. Potentially Active faults have movement within the last 500,000 years, but not within the most recent 11,000-year period. Inactive faults have not moved within the last 500,000 years.

The topography of the project area is generally flat, with a gradual slope towards the northwest. No unique geologic or topographic features are in the project area. Although the project area contains no streams or rivers, some seasonal wetlands are located to the east of State Route 135 adjacent to and within the project area. These wetland areas are further identified and discussed within the biology section of this impact analysis.

Seismicity and Faulting

The project area is located in an area of high seismic potential due to the presence of numerous local and regional fault systems. According to the City of Santa Maria General Plan, the nearest fault to the project area is the Casmalia fault, which is located about three miles south of the project area. However, relatively little direct evidence of active faulting has been observed in the region and the Casmalia fault is listed as “potentially active.” As noted in the “Geologic Hazards Report for the Union Valley Parkway/State Route 101 Interchange,” the Santa Maria River-Foxen Canyon Fault and Hosgri-East Fault are also considered to be potentially active. The Moment Magnitude of the Maximum Credible Earthquake for these faults is 6.50 for the Santa Maria River-Foxen Canyon Fault and 7.50 for the Hosgri-East Fault. The maximum credible bedrock acceleration that is anticipated in the project area as generated from the events is 0.34 and 0.61 acceleration of gravity (g), respectively.

Substantial ground shaking occurred in the Santa Maria area during an earthquake centered near San Simeon on December 22, 2003. This Magnitude 6.5 earthquake occurred on the north end of the San Simeon/Oceanic/Hosgri fault system and damaged structures throughout San Luis Obispo County and Northern Santa Barbara County, including the water tower in the community of Guadalupe.

Other Geologic Hazards in the Project Area

Landslides: The project area is relatively flat with no steep slopes or other features. According to the City of Santa Maria's Safety Element, there does not appear to be a potential for landslides in the project area.

Liquefaction: The potential for liquefaction, which is the transformation of water-saturated sand and silt from a solid to a liquid during an earthquake, is generally considered low. According to the City's Safety Element, areas west of State Route 135 and south of the airport may contain shallow perched groundwater. This area may be subject to liquefaction during an earthquake.

Subsidence: Subsidence is generally defined as the sinking of the ground surface. Historically, the city has not had major subsidence problems, despite historical drilling in the area.

Expansive Soils: The City's Safety Element indicates that the project area is not within an area of expansive soils. The soil composition of the majority of the project area consists of native soil materials, including sandy loams, which are rated as having "low" shrink/swell potential and typically provide adequate support following proper compaction.

Soil Erosion: Under natural conditions, the erosion of various soil materials varies depending on such factors as vegetative cover, cohesion of soil particles, slope of ground surface, etc. Construction and other development activities have the potential to alter one or more of these characteristics, which can lead to a greater potential for erosion of soil materials.

Environmental Consequences

Locally Preferred Alignment, Curved Alignment, and Foster Road Alignment Alternatives

According to the City of Santa Maria's General Plan Safety Element, the liquefaction potential from ground shaking is low in the study area east of State Route 135 because of the relatively deep groundwater levels that are ordinarily over 70 feet below the ground surface. Study areas west of State Route 135 are known, however, for the occurrence of shallow perched groundwater, which could cause liquefaction in the event of an earthquake. Impacts that could result from liquefaction typically include settlement of structures (bridges, overheads, and roads), cracking of pavement, and lateral spreading toward areas of low relief.

While construction activities in the project area would expose small amounts of soil to water erosion, storm water runoff would not affect surface water quality. All construction projects are required to include Best Management Practices, which, in part, are designed to protect surface water quality. Erosion control measures would also be implemented in compliance with National Pollutant Discharge Elimination System permit requirements. Adherence with these measures would minimize potential impacts to surface waters and water quality.

Given the nature of the proposed roadway/interchange improvements and soil and geologic conditions in the vicinity, soil settlement and subsidence are not expected to adversely affect the Locally Preferred Alignment, Curved Alignment, or Foster Road Alignment Alternatives, provided that standard design measures are used and construction-monitoring practices employed.

Reduced Extension Alternative

As with the other build alternatives, this alternative would result in structures that would be subject to groundshaking hazard. Implementation of recommended mitigation would reduce this hazard.

In addition, as with the other build alternatives, this alternative is located in an area of native soil materials, including sandy loams, which typically provide adequate support following proper compaction and are not considered erosive or expansive.

Since this alternative alignment would be constructed east of State Route 135, outside the area of potential liquefaction hazard, this alternative would not result in structures that would be subject to liquefaction hazard. No liquefaction impacts would result.

No-Action Alternative

Since no structures would be built along the Union Valley Parkway corridor under this alternative, no seismic, liquefaction, or soils hazard (erosion, slope stability, expansive soils, subsidence) impacts would result.

Avoidance, Minimization, and/or Mitigation Measures

The City of Santa Maria and Caltrans build to current earthquake standards and would use best engineering practices to minimize damage from ground shaking. These standards have been established to reduce the damage from seismic activity, which would reduce the potential for impacts to the public.

Geotechnical studies would be performed to evaluate site-specific conditions and liquefaction potential along the project area. The City would design and implement measures needed to comply with current Caltrans Standard Specifications to reduce settlement associated with liquefaction. Suitable measures to avoid liquefaction impacts would include one or more of the following as recommended in the geotechnical study: removal or treatment of liquefiable soils to reduce the potential for liquefaction, drainage to lower the groundwater table to below the level of liquefiable soils, compacting or consolidating onsite soils, or other alterations to the ground characteristics.

2.2.3 Hazardous Waste/Materials

Regulatory Setting

Hazardous materials and hazardous wastes are regulated by many state and federal laws. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health, and land use.

The primary federal laws regulating hazardous wastes/materials are the Resource Conservation and Recovery Act of 1976 and the Comprehensive Environmental Response, Compensation and Liability Act of 1980. The purpose of the Comprehensive Environmental Response, Compensation and Liability Act, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. The Resource Conservation and Recovery Act provides for “cradle to grave” regulation of hazardous wastes. Other federal laws include the following:

- Community Environmental Response Facilitation Act of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety & Health Act
- Atomic Energy Act
- Toxic Substances Control Act
- Federal Insecticide, Fungicide, and Rodenticide Act

In addition to the acts listed above, Executive Order 12088, Federal Compliance with Pollution Control, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976 and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction.

Affected Environment

An Initial Site Assessment was performed for the project area, for both the Union Valley Parkway extension component of the project (2003) and the Union Valley Parkway/State Route 101 interchange component of the project (2001).

Union Valley Parkway Extension Area

The project area is bounded on the north by a combination of Pioneer Park, vacant land, County of Santa Barbara facilities, and additional residential and vacant land. The Greka North Orcutt No. 3 idle oil well is located adjacent to the project area west of Hummel Drive. The southern boundary of the project area is occupied by residences, a storm water detention basin, and vacant land.

A review of historical aerial photographs, topographic maps, and available oil field maps indicates that a portion of the project area was used as part of the Santa Maria Air Base during the 1940s and 1950s, primarily for taxiways and troop barracks. A portion of the project area has been used for dry farming or was undeveloped before 1938.

Union Valley Parkway Interchange Area

Oil wells operate just east of the project area. A review of highway inventory aerial photos yielded no evidence of oil wells in the vicinity. A search of a database of known hazardous waste sites was also done of the vicinity. No sites that could have an impact on the Union Valley Parkway interchange area were listed in the database.

An Initial Site Assessment was conducted within the Area of Potential Effect. There were no indications of any hazardous waste sites. According to the Caltrans Hazardous Waste Spill List, there have not been any recent spills in the project area.

Ongoing testing by Caltrans has indicated that aerially deposited lead exists along major freeway routes due to emissions from vehicles powered by leaded gasoline.

A Site Investigation Report prepared in 2001 for the Union Valley Parkway Interchange Project area evaluated the extent of lead-impacted soil within the proposed excavation boundaries. Elevated levels of lead were identified adjacent to the edge of pavement of State Route 101 next to the project area, as documented in the Initial Site Assessment. However based on sampling of aerially deposited lead along more heavily traveled segments of State Route 101 in Santa Barbara County, aerially deposited lead concentrations on the portions of the project area adjacent to State Route 101 ranged from less than the laboratory reporting limit of 5mg/kg to 350 mg/kg. These concentrations are well below the Environmental Protection Agency threshold of 750 milligrams per kilogram.

Environmental Consequences

Locally Preferred Alignment, Curved Alignment, Foster Road Alignment, and Reduced Extension Alternatives

State Route 101/Union Valley Parkway Interchange Area

Historic travel on heavily traveled highways can result in hazardous concentrations of aerially deposited lead in soils adjacent to the highways. Although elevated levels of lead were identified adjacent to the edge of pavement of State Route 101 next to the project area, aerially deposited lead concentrations in this area would not exceed public health standards.

Union Valley Parkway Extension Area

Since State Route 135 has historically carried far less traffic than State Route 101, hazardous concentrations of aerially deposited lead would not occur adjacent to State Route 135.

No hazardous materials sites were identified within a 1/8-mile radius of the project area. Due to the length of the proposed roadway extension portion of the project (approximately 1.5 miles), the database search was extended 3/4 mile so the American Society of Testing and Materials requirement would be met for the entire length of the project area. The width of the proposed roadway extension is only approximately 200 feet, so sites north and south were individually measured on the map to confirm distance from the project area. Sites located within 1/2 mile of the project area are listed in Table 2-11:

Table 2-11 Listing Summary of Sites Within ½ Mile of the Project Area

Site Name	Site Address	Distance from Project Area (miles)	Database Reference
Santa Barbara County Agricultural Commission	624 West Foster Road	¼-½	Resource Conservation and Recovery Information System, Facility Index System, Corrective Action Reports, Hazardous Waste Information System, and Comprehensive Environmental Response, Compensation, and Liability Information System, No Further Remedial Action Planned
County Fueling Facility	912 Foster Road	¼-½	Leaking Underground Storage Tank

The Radius Maps report identified two listings within a 1/2-mile radius from the project area. None of these listings are located within the project area. The two sites are located north of the project area, west of California Boulevard. According to the database, the Santa Barbara County Agricultural Commission has records of violations regarding operations at the facility. There are seven violations reported for that site. No violations pertaining to the improper storage, use, or disposal of hazardous materials are listed. The facility was assigned low corrective action priority for its violations. The Commission was contacted on June 13, 2002 to obtain more information about the operations at the facility and the reported violations. The Santa Barbara County Agricultural Commission does not currently use, store, or dispose hazardous materials. Approximately 10 years ago, poison bait for squirrels and gophers was stored and mixed at the facility. The County Fueling Facility is listed in the Leaking Underground Storage Tank database for having leaked gasoline from an Underground Storage Tank on the facility property. According to the database, groundwater was affected by the release. The Central Coast Regional Water Quality Control Board is the lead oversight agency. The current facility status is listed as “case closed” indicating no further need for remedial action. The case was closed January 12, 1994. Based on the status of the facility and distance from the project area, it is not a substantial concern to the project area.

State Route 101 would continue to accommodate the transport of hazardous materials, as it does now, under existing laws and regulations. The Union Valley Parkway extension/interchange would not change the status of State Route 101 with regard to hazardous materials transport. In addition, the proposed interchange at Union Valley Parkway would decrease traffic congestion at the adjacent interchange

ramps, and the proposed Union Valley Parkway extension would decrease traffic congestion along roadways in the vicinity. Less congestion would decrease the likelihood of an upset or accident. Although hazardous materials could be transported along the Union Valley Parkway despite its status as a non-hazardous materials route, the potential for the roadway extension or interchange to create a significant hazard would not be substantial because such an accident would be unlikely and not reasonably foreseeable.

The enforcement agencies for hazardous materials transportation regulations are the California Highway Patrol and Caltrans. Hazardous materials transporters are responsible for complying with all applicable packaging, labeling, and shipping regulations.

The design of the proposed Union Valley Parkway extension and interchange would not create hazardous roadway conditions that may contribute to the likelihood of an accident or the upset of these materials. In the unlikely event that an accident involving hazardous materials were to occur, the project area and surrounding properties are within the adequate response time zones for emergency services. Through the implementation of the federal, state and local regulations and policies related to the use a transport of hazardous materials, impacts would not be substantial.

The Union Valley Parkway extension may result in safety/hazardous materials impacts due to a sand-tar mixture and tank bottoms within the project area east of the Orcutt Road realignment, west of Hummel Drive.

The three improperly abandoned underground storage tanks and piping are located outside the Area of Potential Effect for the project, east of the proposed Orcutt Road realignment. Therefore, this area would not be disturbed by the project. A debris pile of plastic irrigation pipe is located in a low-lying area east of State Route 135.

Extending east of the debris pile to the dirt access road that begins at Hummel Drive, the majority of the ground is covered with a sand-tar mixture that appeared to be approximately 6 inches thick. The sand tar mixture is likely the result of tank bottoms being applied to a roadway for site access. During the pumping of oil from a well, the crude that is extracted is often pumped into a holding tank. The product that is pumped from the ground typically contains a mixture of sand and crude oil. Sand settles out in the bottom of the tank and crude is pumped off of the top. The sand is

then removed from the tank to increase the capacity of the tank. It is common in oilfield practice for the sand or tank bottoms to be dispersed along roadways to increase the stability of the road for large and heavy vehicle access. Before the construction of Hummel Drive, it is likely that the tank bottoms were dispersed from State Route 135 eastward to the well for access.

The City, County, or Caltrans would be responsible for overseeing the mitigation of all impacts due to potential hazardous waste or materials hazards within their respective jurisdictions in the project area.

No-Action Alternative

Since no disturbance would occur under this alternative, no hazardous materials impacts would result.

Avoidance, Minimization, and/or Mitigation Measures

The following measures are required for all of the build alternatives. It should be noted that it is Caltrans policy as part of the Project Development Process to avoid contamination wherever feasible. While the Initial Site Assessment did not identify the possible presence of abandoned oil wells in the project area, the following measures are suggested as a precaution to avoid any potential contamination related to historic oil and gas operations or other contamination sources in the project area.

If during construction/grading activities the contractor discovers unknown waste or debris believed to involve hazardous waste and/or materials, the contractor would immediately stop work in the vicinity of the suspected contaminant, remove workers and the public from the area, and contact the City of Santa Maria Construction Engineer. If hazardous materials (including contaminated soil or groundwater) are uncovered during construction activities, all materials found would be removed, handled, and disposed of in accordance with state and federal regulations. All hazardous materials involvement would be coordinated with the appropriate federal, state, and local regulatory agencies.

Before the initiation of construction activities in the identified area of the sand-tar mixture, several soil samples would be taken from beneath the material by a qualified professional to find out if hydrocarbons have affected the soil beneath the tank bottoms and identify the extent of contamination. The contract would include a bid quantity of material to be removed. The initial quantity would be bid on a per-cubic-yard basis with a specified method of measurement and method of payment. The

quantity of contamination would be identified with final construction plans. Final payment would be based on actual quantities encountered and removed. If concentrations of hydrocarbons above health hazard threshold levels are not detected in the underlying soil, the tank bottoms would be removed from the project area and disposed of in accordance with state and federal regulations. If hazardous concentrations of hydrocarbons above health hazard threshold levels are detected in the underlying soil, the tank bottoms would be removed and disposed of in accordance with state and federal regulations, and the area would be cleaned up in accordance with applicable local, state, and federal requirements. This requirement, including the need for soils testing and remediation if necessary before initiation of construction activities, would be noted in the construction contract for the potentially affected portion of the project.

In addition, mitigation identified in Section 2.1.5 *Utilities/Emergency Services, Avoidance, Minimization, and/or Mitigation Measures* would also apply.

2.2.4 Air Quality

Regulatory Setting

The Clean Air Act, as amended in 1990, is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. These laws set standards for the concentration of pollutants that can be in the air. At the federal level, these standards are called National Ambient Air Quality Standards. Standards have been established for six criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM), lead (Pb), and sulfur dioxide (SO₂).

Under the 1990 Clean Air Act Amendments, the U.S. Department of Transportation cannot fund, authorize, or approve Federal actions to support programs or projects that are not first found to conform to the State Implementation Plan for achieving the goals of the Clean Air Act requirements. Conformity with the Clean Air Act takes place on two levels—first, at the regional level and second, at the project level. The proposed project must conform at both levels to be approved.

Regional level conformity is concerned with how well the region is meeting the standards set for carbon monoxide, nitrogen dioxide, ozone, and particulate matter. California is in attainment for the other criteria pollutants. At the regional level, Regional Transportation Plans are developed that include all of the transportation

projects planned for a region over a period of years, usually 20. Based on the projects included in the Regional Transportation Plan, an air quality model is run to determine whether or not the implementation of those projects would conform to emission budgets or other tests showing that attainment requirements of the Clean Air Act are met. If the conformity analysis is successful, then the regional planning organization, such as Santa Barbara County Association of Governments and the appropriate federal agencies, such as the Federal Highway Administration, make the determination that the Regional Transportation Plan is in conformity with the State Implementation Plan for achieving the goals of the Clean Air Act. Otherwise, the projects in the Regional Transportation Plan must be modified until conformity is attained. If the design and scope of the proposed transportation project are the same as described in the Regional Transportation Plan, then the proposed project is deemed to meet regional conformity requirements for purposes of the project-level analysis.

Conformity at the project-level also requires “hot spot” analysis if an area is in “nonattainment” or “maintenance” for carbon monoxide (CO) and/or particulate matter. A region is a “nonattainment” area if one or more monitoring stations in the region fail to attain the relevant standard. Areas that were previously designated as non-attainment areas but have recently met the standard are called “maintenance” areas. “Hot spot” analysis is essentially the same, for technical purposes, as carbon monoxide or particulate matter analysis performed for National Environmental Policy Act and California Environmental Quality Act purposes. Conformity does include some specific standards for projects that require a hot spot analysis. In general, projects must not cause the carbon monoxide standard to be violated, and in “nonattainment” areas, the project must not cause any increase in the number and severity of violations. If a known carbon monoxide or particulate matter violation is located in the project vicinity, the project must include measures to reduce or eliminate the existing violation(s) as well.

Affected Environment

The project is situated in northern Santa Barbara County. Santa Barbara County is part of the South Central Coast Air Basin. Santa Barbara County Air Pollution Control District is responsible for maintaining air quality in the South Central Coast Air Basin. The South Central Coast Air Basin is currently in attainment or unclassified for all National Ambient Air Quality Standards. The basin is in attainment or unclassified for all California Ambient Air Quality Standards except ozone and particulate matter smaller than 10 microns. To maintain their attainment

status for National Ambient Air Quality Standards, and gain attainment of California Ambient Air Quality Standards for ozone, the Santa Barbara County Air Pollution Control District established the 2007 Clean Air Plan. Because the proposed project is included in the applicable State Implementation Program (the 2007 Clean Air Plan), the project is consistent with the air quality attainment goals of the South Central Coast Air Basin.

Environmental Consequences

Federal and state air quality standards, and the South Central Coast Air Basin’s attainment status for each pollutant of concern, are summarized in Table 2-12 below.

Table 2-12 Air Quality Status

Criteria Pollutant	Federal Standard (National Ambient Air Quality Standards)	Federal Attainment Status	State Standard (California Ambient Air Quality Standards)	State Attainment Status
Carbon Monoxide (CO)	35 ppm (1-hour average) 9 ppm (8-hour average)	Attainment	20 ppm (1-hour average) 9 ppm (8-hour average)	Attainment
Nitrogen Dioxide (NO ₂)	.053 ppm (annual average)	Attainment	.030 ppm (annual average) 0.18 ppm (1-hour average)	Attainment
Ozone (O ₃)	0.08 ppm (8-hour average)	Attainment	0.09 ppm (1-hour average) 0.070 ppm (8-hour average)	Attainment Non-Attainment
Particulate Matter (PM ₁₀)	150 µg/m ³ (24 hour)	Attainment	20 µg/m ³ (annual arithmetic mean) 50 µg/m ³ (24 hour)	Non-Attainment Non-Attainment
Particulate Matter (PM _{2.5})	15 µg/m ³ (annual arithmetic mean) 35 µg/m ³ (24 hour)	Unclassifiable/Attainment*	12 µg/m ³ (annual arithmetic mean)	Unclassifiable

ppm = parts per million; µg/m³ = micrograms per cubic meter

* There is not yet enough data to determine attainment status for the federal and state standards for PM 2.5.

Source: Santa Barbara County Air Pollution Control District, 2007.

Because the South Central Coast Air Basin is in attainment of all National Ambient Air Quality Standards, federal air quality conformity standards do not apply.

The basin is in attainment or unclassified for all California Ambient Air Quality Standards except ozone and particulate matter smaller than 10 microns. To maintain their attainment status for National Ambient Air Quality Standards, the Santa Barbara County Air Pollution Control District established the 2001 Clean Air Plan. To gain

attainment of California Ambient Air Quality Standards for ozone, the air district has written the 2007 Clean Air Plan. Because the proposed project is included in the applicable State Implementation Program (the 2007 Clean Air Plan), the project is consistent with the air quality attainment goals of the South Central Coast Air Basin. It should also be noted that the project is included in the 2007 Federal Transportation Improvement Program and 1999 Regional Transportation Plan for Santa Barbara County.

The project, including the Union Valley Parkway extension, Union Valley Parkway/State Route 101 interchange, and landscaping components, is included in the Santa Barbara County Association of Governments' financially constrained 2006 Regional Transportation Improvement Program, page 8. The Regional Transportation Improvement Program was found to conform to the Federal Transportation Improvement Program and National Ambient Air Quality Standards by the Federal Highway Administration and Federal Transit Authority on February 16, 2005. The design concept and scope of the project is consistent with the project description in the 1999 Regional Transportation Plan, the 2006 Regional Transportation Improvement Program, and the assumptions in Santa Barbara County Association of Governments' regional emissions analysis. It should be noted that with the federal attainment designation of the 8-hour ozone standard, Santa Barbara County was relieved of all conformity requirements on June 15, 2005, which was the date of the 1-hour ozone standard revocation.

The inclusion of the Union Valley Parkway Extension and Interchange portions of the project in the 2007 Federal Transportation Improvement Program for Santa Barbara County signifies consistency with the Santa Barbara County Association of Governments' Regional Transportation Plan and, subsequently, conformance with National Ambient Air Quality Standards, since the design (parkway extension, interchange, and associated improvements) and scope (four-lane, access-controlled divided roadway extension between Blosser Road and Hummel Drive; and State Route 101 interchange construction) of the project is consistent with that described in the Federal Transportation Improvement Program. In addition, the Regional Transportation Plan is also considered consistent with the Santa Barbara Clean Air Plan. Santa Barbara County's 2007 Clean Air Plan provides guidance to the Air Pollution Control District and County on how to attain federal and state ozone standards. The Locally Preferred Alignment, Curved Alignment, and Foster Road Alignment alternatives are consistent with the County's 2007 Clean Air Plan.

Through the facilitation of traffic flow improvement and construction of bicycling and pedestrian infrastructure, the Locally Preferred Alignment would provide means to reduce potential emissions associated with proposed regional transportation improvements. The Locally Preferred Alignment would accordingly not interfere with any established transportation control measures.

Therefore, regional air quality impacts have previously been analyzed and found to not be substantial. In fact, long-term impacts of the proposed Union Valley Parkway Extension/Interchange Project would be considered beneficial related to air quality. If the proposed transportation and circulation improvements (i.e., the Union Valley Parkway extension and Union Valley Parkway/State Route 101 interchange) identified in the 2007 Federal Transportation Improvement Program were not constructed, an inconsistency with the 2007 Clean Air Plan, and increased overall vehicle emissions not accounted for in the Clean Air Plan emissions inventory, would result. In such a case, the Clean Air Plan would need to be revised in 2010 to offset the resulting increase in air contaminant emissions.

Project impacts would be considered substantial if implementation of the project would generate emissions exceeding Santa Barbara County Air Pollution Control District thresholds, or cause or substantially contribute to an exceedance of a federal or state ambient air quality impact, whether long-term or short-term.

Long-term (Operational) Impacts

Locally Preferred Alignment, Curved Alignment, Foster Road Alignment, and Reduced Extension Alternatives

Operation of the project would result in increased levels of air pollutants in the micro-scale, but would not result in a substantial increase in regional emissions, as some traffic that currently uses the Santa Maria Way and Clark Avenue interchanges and roadways would be redistributed to Union Valley Parkway. Homes along the selected alignment would experience higher levels of air pollutants proportional to increased traffic on the new route. The Sacramento Air Quality Management District has noted that increased levels of mobile source air pollutants occur within 500 feet of a roadway (Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways (January 2007)).

The California Air Resources Board's (ARB) *Air Quality and Land Use Handbook: A Community Health Perspective* recommends that sensitive land uses be sited at least 500 feet from freeways, urban roads with 100,000 average daily trips (ADT), or rural

roads with 50,000 ADT to avoid exposure to hazardous air pollutants. The proposed Union Valley Parkway extension, an urban road, is forecast to carry between 7,900 to a maximum of 20,100 ADT between State Route 135 and Hummel Drive. This would not be a sufficient traffic volume to generate significant quantities or concentrations of hazardous air pollutants.

All of the proposed build alternatives would result in lower regional emissions due to improved local circulation and less idling time and, in some cases, shortened commute times. In addition, no substantial odor impacts would be created by the project.

No-Action Alternative

Since no disturbance would occur along the Union Valley Parkway corridor under this alternative, no impacts from construction dust emissions would result. However, since no traffic improvements would occur along the Union Valley Parkway corridor under this alternative, this alternative could result in carbon monoxide hotspots at existing intersections that would become increasingly congested over time.

Under the No-Action Alternative, the project area would remain undeveloped. The No-Action Alternative would not provide access to Union Valley Parkway from State Route 101. Union Valley Parkway would not be extended between State Routes 101 and 135, to Blosser Road, although routine maintenance would continue on both State Route 101 and Union Valley Parkway. Since no traffic improvements would occur along the Union Valley Parkway corridor under this alternative, this alternative could result in traffic congestion at existing intersections, with associated unacceptable air contaminant emissions.

Naturally Occurring Asbestos and Structural Asbestos

Locally Preferred Alignment, Curved Alignment, Foster Road Alignment, and Reduced Extension Alternatives

Santa Barbara is one of 44 counties in California that has been identified as containing naturally occurring asbestos. This material occurs with serpentine as an alteration product of ultra-basic intrusive rocks. According to the Geologic Map of California-San Luis Obispo Sheet, the nearest source of naturally occurring asbestos to the project area is located about 16 miles to the north. Since the project is largely underlain by well sorted, Quaternary sand dunes, it is unlikely that naturally occurring asbestos would be encountered during construction of the project. No structures containing structural asbestos would be demolished for project

construction; therefore, notification requirements pursuant to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) –Asbestos would not apply.

No-Action Alternative

Under the No-Action Alternative, no construction would occur. Accordingly, there would be no potential for impacts related to naturally occurring asbestos.

Mobile Source Air Toxics

Locally Preferred Alignment, Curved Alignment, Foster Road Alignment, and Reduced Extension Alternatives

The project would serve to improve operations of a highway without adding substantial new capacity or without creating a facility that is likely to meaningfully increase regional emissions.

In addition to the criteria air pollutants for which there are National Ambient Air Quality Standards, the Environmental Protection Agency also regulates air toxics. Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources (such as airplanes), area sources (such as dry cleaners), and stationary sources (such as factories or refineries).

Mobile source air toxics are a subset of the 188 air toxics defined by the Clean Air Act. The mobile source air toxics are compounds emitted from highway vehicles and non-road equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics also result from engine wear or from impurities in oil or gasoline.

The Environmental Protection Agency is the lead federal agency for administering the Clean Air Act and has certain responsibilities regarding the health effects of mobile source air toxics. The Environmental Protection Agency issued a Final Rule on Controlling Emissions of Hazardous Air Pollutants from Mobile Sources (66 Code of Federal Regulations 17229, March 29, 2001). This rule was issued under the authority in Section 202 of the Clean Air Act. In its rule, the Environmental Protection Agency examined the impacts of existing and newly promulgated mobile source control programs, including its reformulated gasoline program, its national low emission vehicle standards, its Tier 2 motor vehicle emissions standards and

gasoline sulfur control requirements, and its proposed heavy duty engine and vehicle standards and on-highway diesel fuel sulfur control requirements. Between 2000 and 2020, the Federal Highway Administration projects that even with a 64 percent increase in vehicle miles traveled, these programs will reduce on-highway emissions of benzene, formaldehyde, 1,3-butadiene, and acetaldehyde by 57 to 65 percent, and will reduce on-highway diesel PM emissions by 87 percent.

As a result, the Environmental Protection Agency concluded that no further motor vehicle emissions standards or fuel standards were necessary to further control mobile source air toxics. The agency is preparing another rule under authority of Clean Air Act Section 202(l) that will address these issues and could make adjustments to the full 21 and the primary six mobile source air toxics.

Unavailable Information for Project Specific Mobile Source Air Toxic Impact

Analysis: This Environmental Impact Report/Environmental Assessment includes a basic analysis of the likely mobile source air toxic emission impacts of this project. However, available technical tools do not enable us to predict the project-specific health impacts of the emission changes associated with the alternatives in this Environmental Impact Report/Environmental Assessment. Due to these limitations, the following discussion is included in accordance with Council on Environmental Quality regulations (40 Code of Federal Regulations 1502.22(b)) regarding incomplete or unavailable information:

Information that is Unavailable or Incomplete: Evaluating the environmental and health impacts from mobile source air toxics on a proposed highway project would involve several key elements, including emissions modeling, dispersion modeling to estimate ambient concentrations resulting from the estimated emissions, exposure modeling to estimate human exposure to the estimated concentrations, and then final determination of health impacts based on the estimated exposure. Each of these steps is encumbered by technical shortcomings or uncertain science that prevents a more complete determination of the mobile source air toxic health impacts of this project.

- **Emissions:** The Environmental Protection Agency tools to estimate mobile source air toxic emissions from motor vehicles are not sensitive to key variables determining emissions of mobile source air toxics in the context of highway projects. While MOBILE6.2 is used to predict emissions at a regional level, it has limited applicability at the project level. MOBILE6.2 is a trip-based model; emission factors are projected based on a typical trip of 7.5 miles, and on average

speeds for this typical trip. This means that MOBILE6.2 does not have the ability to predict emission factors for a specific vehicle operating condition at a specific location at a specific time. Because of this limitation, MOBILE6.2 can only approximate the operating speeds and levels of congestion likely to be present on the largest-scale projects, and cannot adequately capture emissions effects of smaller projects. For particulate matter, the model results are not sensitive to average trip speed, although the other mobile source air toxic emission rates do change with changes in trip speed. Also, the emissions rates used in MOBILE6.2 for both particulate matter and mobile source air toxics are based on a limited number of tests of mostly older-technology vehicles. Lastly, in its discussions of particulate matter under the conformity rule, the Environmental Protection Agency has identified problems with MOBILE6.2 as an obstacle to quantitative analysis.

These deficiencies compromise the capability of MOBILE6.2 to estimate mobile source air toxic emissions. MOBILE6.2 is an adequate tool for projecting emissions trends, and performing relative analyses between alternatives for very large projects, but it is not sensitive enough to capture the effects of travel changes tied to smaller projects or to predict emissions near specific roadside locations.

- **Dispersion:** The tools to predict how mobile source air toxics disperse are also limited. The Environmental Protection Agency's current regulatory models, CALINE3 and CAL3QHC, were developed and validated more than a decade ago for the purpose of predicting episodic concentrations of carbon monoxide to determine compliance with the National Ambient Air Quality Standards. The performance of dispersion models is more accurate for predicting maximum concentrations that can occur at some time at some location within a geographic area. This limitation makes it difficult to predict accurate exposure patterns at specific times at specific highway project locations across an urban area to assess potential health risk. The National Cooperative Highway Research Program is conducting research on best practices in applying models and other technical methods in the analysis of mobile source air toxics. This work also will focus on identifying appropriate methods of documenting and communicating mobile source air toxic impacts in the National Environmental Policy Act process and to the general public. Along with these general limitations of dispersion models, the Federal Highway Administration is also faced with a lack of monitoring data in

most areas for use in establishing project-specific mobile source air toxic background concentrations.

- **Exposure Levels and Health Effects:** Finally, even if emission levels and concentrations of mobile source air toxics could be accurately predicted, shortcomings in current techniques for exposure assessment and risk analysis preclude us from reaching meaningful conclusions about project-specific health impacts. Exposure assessments are difficult because it is difficult to accurately calculate annual concentrations of mobile source air toxics near roadways, and to determine the portion of a year that people are actually exposed to those concentrations at a specific location. These difficulties are magnified for 70-year cancer assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology (which affects emissions rates) over a 70-year period. There are also considerable uncertainties associated with the existing estimates of toxicity of the various mobile source air toxics, because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population. Because of these shortcomings, any calculated difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with calculating the impacts. Consequently, the results of such assessments would not be useful to decision makers, who would need to weigh this information against other project impacts that are better suited for quantitative analysis.

Summary of Existing Credible Scientific Evidence Relevant to Evaluating the Impacts of Mobile Source Air Toxics: Research into the health impacts of mobile source air toxics is ongoing. For different emission types, there are a variety of studies that show that some either are statistically associated with adverse health outcomes through epidemiological studies (frequently based on emissions levels found in occupational settings) or that animals demonstrate adverse health outcomes when exposed to large doses.

Exposure to toxics has been a focus of a number of Environmental Protection Agency efforts. Most notably, the agency conducted the National Air Toxics Assessment in 1996 to evaluate modeled estimates of human exposure applicable to the county level. While not intended for use as a measure of or benchmark for local exposure, the modeled estimates in the National Air Toxics Assessment database best illustrate the levels of various toxics when aggregated to a national or state level.

The Environmental Protection Agency is in the process of assessing the risks of various kinds of exposures to these pollutants. The Environmental Protection Agency's Integrated Risk Information System (IRIS) is a database of human health effects that may result from exposure to various substances found in the environment. This database is located at <http://www.epa.gov/iris>. The following toxicity information for the six prioritized mobile source air toxics was taken from the Integrated Risk Information System database *Weight of Evidence Characterization* summaries. This information is taken verbatim from the Environmental Protection Agency's Integrated Risk Information System database and represents the Agency's most current evaluations of the potential hazards and toxicology of these chemicals or mixtures.

- **Benzene** is characterized as a known human carcinogen.
- The potential carcinogenicity of **acrolein** cannot be determined because the existing data are inadequate for an assessment of human carcinogenic potential for either the oral or inhalation route of exposure.
- **Formaldehyde** is a probable human carcinogen, based on limited evidence in humans and sufficient evidence in animals.
- **1,3-butadiene** is characterized as carcinogenic to humans by inhalation.
- **Acetaldehyde** is a probable human carcinogen based on increased incidence of nasal tumors in male and female rats and laryngeal tumors in male and female hamsters after inhalation exposure.
- **Diesel exhaust** is likely to be carcinogenic to humans by inhalation from environmental exposures. Diesel exhaust as reviewed in this document is the combination of diesel particulate matter and diesel exhaust organic gases.
- **Diesel exhaust** also represents chronic respiratory effects, possibly the primary noncancer hazard from mobile source air toxics. Prolonged exposures may impair pulmonary function and could produce symptoms, such as cough, phlegm, and chronic bronchitis. Exposure relationships have not been developed from these studies.

There have been other studies that address mobile source air toxic health impacts in proximity to roadways. The Health Effects Institute, a non-profit organization funded by the Environmental Protection Agency, Federal Highway Administration, and industry, has undertaken a major series of studies to research near-roadway mobile source air toxic hot spots, the health implications of the entire mix of mobile source

pollutants, and other topics. The final summary of the series is not expected for several years.

Some recent studies have reported that proximity to roadways is related to adverse health outcomes—particularly respiratory problems¹. Much of this research is not specific to mobile source air toxics, instead surveying the full spectrum of both criteria and other pollutants. The Federal Highway Administration cannot evaluate the validity of these studies, but more importantly, they do not provide information that would be useful to alleviate the uncertainties listed above and enable us to perform a more comprehensive evaluation of the health impacts specific to this project.

Relevance of Unavailable or Incomplete Information to Evaluating Reasonably Foreseeable Significant Adverse Impacts on the Environment, and Evaluation of impacts based upon theoretical approaches or research methods generally accepted in the scientific community: Because of the uncertainties outlined above, a quantitative assessment of the effects of air toxic emissions impacts on human health cannot be made at the project level. While available tools do allow us to reasonably predict relative emissions changes between alternatives for larger projects, the amount of mobile source air toxic emissions from each of the project alternatives and mobile source air toxic concentrations or exposures created by each of the project alternatives cannot be predicted with enough accuracy to be useful in estimating health impacts. (As noted above, the current emissions model is not capable of serving as a meaningful emissions analysis tool for smaller projects.) Therefore, the relevance of the unavailable or incomplete information is that it is not possible to make a determination of whether any of the alternatives would have “significant adverse impacts on the human environment.”

In this document, the Federal Highway Administration has provided a qualitative analysis of mobile source air toxic emissions relative to the various alternatives, and has acknowledged that the build alternatives may result in increased exposure to mobile source air toxic emissions in certain locations, although the concentrations

¹ South Coast Air Quality Management District, Multiple Air Toxic Exposure Study-II (2000); Highway Health Hazards, The Sierra Club (2004) summarizing 24 Studies on the relationship between health and air quality); NEPA’s Uncertainty in the Federal Legal Scheme Controlling Air Pollution from Motor Vehicles, Environmental Law Institute, 35 ELR 10273 (2005) with health studies cited therein.

and duration of exposures are uncertain, and because of this uncertainty, the health effects from these emissions cannot be estimated.

As discussed above, technical shortcomings of emissions and dispersion models and uncertain science with respect to health effects prevent meaningful or reliable estimates of mobile source air toxics emissions and effects of this project. However, even though reliable methods do not exist to accurately estimate the health impacts of mobile source air toxics at the project level, it is possible to qualitatively assess the levels of future mobile source air toxic emissions under the project. Although a qualitative analysis cannot identify and measure health impacts from mobile source air toxics, it can give a basis for identifying and comparing the potential differences among mobile source air toxic emissions, if any, from the various alternatives. The qualitative assessment presented below is derived in part from a study conducted by the Federal Highway Administration entitled *A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives*, found at: www.fhwa.dot.gov/environment/airtoxic/msatcompare/msatemissions.htm.

For each alternative, the amount of mobile source air toxics emitted would be proportional to the vehicle miles traveled, assuming that other variables such as fleet mix are the same for each alternative. Because the vehicle miles traveled estimated for the No-Action Alternative is higher than for any of the build alternatives, higher levels of regional mobile source air toxics are not expected from any of the build alternatives compared to the No-Action. In addition, because the estimated vehicle miles traveled under each of the build alternatives are nearly the same, varying by less than one tenth of one percent, it is expected there would be no appreciable difference in overall mobile source air toxics emissions among the various alternatives. Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of the Environmental Protection Agency's national control programs that are projected to reduce mobile source air toxic emissions by 57 to 87 percent from 2000 to 2020. Local conditions may differ from these national projections in terms of fleet mix and turnover, growth rates of vehicle miles traveled, and local control measures. However, the magnitude of the projected reductions by the Environmental Protection Agency is so great (even after accounting for growth in vehicle miles traveled) that mobile source air toxic emissions in the study area are likely to be lower in the future in virtually all locations.

Because of the specific characteristics of the project alternatives (new connector roadways), under each alternative there may be localized areas where vehicle miles traveled would increase, and other areas where vehicle miles traveled would decrease. Therefore it is possible that localized increases and decreases in mobile source air toxic emissions may occur. The localized increases in mobile source air toxic emissions would likely be most pronounced along the new Union Valley Parkway roadway sections that would be built under all of the build alternatives. However, even if these increases do occur, they too will be substantially reduced in the future due to implementation of the Environmental Protection Agency's vehicle and fuel regulations.

In sum, under all build alternatives in the design year, reduced mobile source air toxic emissions are expected in the immediate area of the project, relative to the No-Action Alternative. This is due to the reduced vehicle miles traveled associated with more direct routing and the Environmental Protection Agency's reduction programs for mobile source air toxics. In comparing various project alternatives, mobile source air toxic levels could be higher in some locations than others, but current tools and science are not adequate to quantify them. However, on a regional basis, the Environmental Protection Agency's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause region-wide mobile source air toxic levels to be significantly lower than today.

No-Action Alternative

Under the No-Action Alternative, no construction would occur. Accordingly, there would be no potential for impacts related to mobile source air toxics.

Avoidance, Minimization, and/or Mitigation Measures

See Section 2.4, *Construction Impacts*, for dust control measures during construction.

2.2.5 Noise and Vibration

Regulatory Setting

The National Environmental Policy Act of 1969 and the California Environmental Quality Act provide the broad basis for analyzing and abating highway traffic noise effects. The intent of this law is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise abatement and/or mitigation, however, differ between the National Environmental Policy Act and the California Environmental Quality Act.

California Environmental Quality Act

The California Environmental Quality Act requires a strictly baseline versus build analysis to assess whether a proposed project will have a noise impact. If a proposed project is determined to have a significant noise impact under the California Environmental Quality Act, then the act dictates that mitigation measures must be incorporated into the project unless such measures are not feasible. Since the project is being primarily constructed in the County of Santa Barbara, county threshold guidelines are applied for review of California Environmental Quality Act impacts in that jurisdiction. Foxenwood Garden Villas (Receptor 10) and institutional uses (Receptors 7 and 8) are located within the jurisdiction of the City of Santa Maria. City California Environmental Quality Act guidelines are applied to impacts at these locations. Please see Chapter 3 for further information on noise analysis under the California Environmental Quality Act.

National Environmental Policy Act and 23 Code of Federal Regulations 772

For highway transportation projects with Federal Highway Administration (and Caltrans, as assigned) involvement, the Federal-Aid Highway Act of 1970 and the associated implementing regulations (23 Code of Federal Regulations 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations require noise abatement measures to be considered on all major construction or widening of highways if projected noise levels approach or exceed the noise abatement criteria for activities occurring on adjacent lands, or if the project would cause a substantial increase over existing noise levels. The regulations contain noise abatement criteria that are used to determine when a noise impact would occur. The noise abatement criteria differ depending on the type of land use under analysis. For example, the noise abatement criterion for residences (approaching 67 decibels Leq) is lower than the noise abatement criterion for commercial areas (72 decibels Leq). Table 2-13 lists the noise abatement criteria. As a point of reference, Table 2-14 illustrates some common activities and their associated noise levels.

Table 2-13 Federal Highway Administration Noise Abatement Criteria

Activity Category	Noise Abatement Criteria, A-weighted Noise Level, Leq (h)	Description of Activities
A	57 Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose
B	67 Exterior	Picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 Exterior	Developed lands, properties, or activities not included in Categories A or B above
D	--	Undeveloped lands.
E	52 Interior	Residence, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums

Source: Caltrans Traffic Noise Analysis Manual, August 2006. A-weighted decibels are adjusted to approximate the way humans perceive sound. Leq(h) is the steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual time-varying levels over one hour.

Table 2-14 Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Jet Fly-over at 300m (1000 ft)	110	Rock Band
Gas Lawn Mower at 1 m (3 ft)	100	
Diesel Truck at 15 m (50 ft), at 80 km (50 mph)	90	Food Blender at 1 m (3 ft)
Noisy Urban Area, Daytime	80	Garbage Disposal at 1 m (3 ft)
Gas Lawn Mower, 30 m (100 ft)	70	Vacuum Cleaner at 3 m (10 ft)
Commercial Area		Normal Speech at 1 m (3 ft)
Heavy Traffic at 90 m (300 ft)	60	Large Business Office
Quiet Urban Daytime	50	Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	30	Library
Quiet Rural Nighttime	20	Bedroom at Night, Concert Hall (Background)
	10	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

In accordance with the Caltrans' *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, August 2006*, a noise impact occurs when the future noise level with the project results in a substantial increase in noise level (defined as a 12 decibels or more increase) or when the future noise level with the project approaches or exceeds the Noise Abatement Criteria. Approaching the Noise Abatement Criteria is defined as coming within 1 decibel of the Noise Abatement Criteria.

If it is determined that the project will have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are determined to be reasonable and feasible at the time of final design are incorporated into the project plans and specifications. This document discusses noise abatement measures that would likely be incorporated in the project.

Caltrans' *Traffic Noise Analysis Protocol* sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is basically an engineering concern. A minimum 5-decibel reduction in the future noise level must be achieved for an abatement measure to be considered feasible. Other considerations include topography, access requirements, other noise sources, and safety considerations. The reasonableness determination is basically a cost-benefit analysis. Factors used in determining whether a proposed noise abatement measure is reasonable include residents' acceptance, the absolute noise level, build versus existing noise, environmental impacts of abatement, public and local agencies' input, newly constructed development versus development pre-dating 1978, and the cost per benefited residence.

Affected Environment

The following technical noise studies have been prepared for the project:

- Noise Study Report in Support of an Environmental Impact Report/Environmental Assessment for the Union Valley Parkway Extension Portion of the Union Valley Parkway Extension/Interchange Project (May 2008)
- Noise Study Report, Construct Interchange, Union Valley Parkway 05-SB-101-83.1/83.9 (February 2008)

Noise sensitive receivers in the project area include residences and private recreational uses located along the southwestern portion of the project area between Blosser Road and Foxenwood Lane, residences along Blosser Road, residences

located east of Orcutt Road, residences located along the existing portion of Union Valley Parkway, and Pioneer Park.

It should be noted that federal noise thresholds use the peak-hour equivalent sound level descriptor [Leq(h)].

Existing Noise Conditions and Sources for the Union Valley Parkway Extension Area

In January 2008, peak-hour vehicle trips and existing peak-hour equivalent sound levels were measured in the vicinity of Union Valley Parkway. These measurements and projections were used as base assumptions for the Federal Highway Administration Traffic Noise Model[®] (TNM, ver 2.5). The model was calibrated using evening peak-hour noise measurements made approximately 100 feet east of State Route 135 (“Site A”), and approximately 20 feet east of Blosser Road, south of Pioneer Park (“Site B”). Peak equivalent sound levels at Site A were measured at 70 decibels, and modeled at 71 decibels. Noise levels at Site B were measured at 68 decibels and modeled at 69 decibels. Ambient noise measurements were also made at a point approximately midway between Blosser Road and California Boulevard (“Site C”). Peak hour ambient noise levels at Site C were measured at 53 decibels. Noise measurement and modeling locations are depicted on Figures 22A-E in Appendix F.

It should be noted that existing noise levels at the closest sensitive receptors to noise study area roadways reflect the distance between the sensitive receptor and the roadway as well as roadway traffic volumes. Consequently, roadways with higher traffic volumes but a greater distance to the nearest sensitive receptor (such as State Route 135) have similar noise levels as roadways with lower traffic volumes but a shorter distance to receptors (such as Orcutt Road).

Motor vehicles are the most common source of noise in the vicinity. This source of noise is of concern because it is characterized by a high number of individual events, which often create a sustained noise level, and because of the proximity of roads to areas sensitive to noise exposure.

Many residences located adjacent to the project area are situated along Clubhouse Drive. These residences are located within the County of Santa Barbara. Traffic noise in this area mostly results from vehicles along California Boulevard, Foxenwood Lane, and local streets. Also, residents living along the eastern portion of Clubhouse Drive are being exposed to traffic noise from State Route 135. The existing traffic-

related peak-hour equivalent sound level at these homes ranges from approximately 42 to 62 decibels, as shown on Tables 2-17 through 2-20.

Several residences are also located east of Orcutt Road within the County of Santa Barbara. The traffic noise at these residences is primarily associated with State Route 135, and to a lesser extent, Orcutt Drive. The modeled noise levels at these residences range from approximately 60 to 61 decibels, as shown on Tables 2-17 through 2-20.

In addition, several residences are located along the existing Union Valley Parkway corridor, east of Hummel Drive, within the County of Santa Barbara. The existing roadway segment adjacent to these residences is not proposed for improvement as part of this project. Current and future traffic noise at these residences is primarily associated with traffic on the existing segment of Union Valley Parkway and/or Bradley Road (at Receptors 13, 14, 17, 18, 19, and 20). The modeled existing noise level at these residences is approximately 46 and 65 decibels, as shown on Tables 2-17 through 2-20.

Existing Noise Conditions and Sources for the Union Valley Parkway Interchange Area

Through the study area, State Route 101 runs along the east side of the community of Orcutt. The land use west of the freeway and on either side of Union Valley Parkway is residential. To the east, it is primarily agricultural. The residential areas north and south of Union Valley Parkway are protected from highway traffic noise by existing noise barriers. North of the proposed Union Valley Parkway extension, a soundwall/berm protects residences that are adjacent to State Route 101. South of the proposed Union Valley Parkway extension, an earthen berm protects residences that are adjacent to State Route 101.

Noise readings were taken in November 1998, April 1999, and again in January of 2008 at various noise receptor locations in the vicinity of the proposed interchange. The tested locations (refer to Figure 22E) are next to the proposed southbound off- and on-ramps and next to the Union Valley Parkway extension where increased noise from Union Valley Parkway would have the greatest impact. The results of these readings are included in Table 2-15 below. The existing noise levels at all receptor locations in the vicinity of the proposed interchange are under the Federal Highway Administration's noise abatement criteria for residential uses (Category B).

**Table 2-15 Existing Peak-Hour Equivalent Sound Levels at the State Route 101 /
Union Valley Parkway Interchange Area**

Receiver ID Number	Location or Address	Type of Development	Number of Units Represented	Noise Abatement Category and (Criterion)	Existing Worst Hour Noise Level, Leq(h), dBA	Noise Level Measured* or Modeled?
1	4232 Harmony Ln. behind basketball court	Residential	5	B (67)	57	Modeled
2	4262 Harmony Ln. corner, south	Residential	5	B (67)	59	Modeled
3	4302 Boardwalk intersection with Union Valley Parkway	Residential	7	B (67)	53	Modeled
4	4319 Bridgeport near north corner	Residential	12	B (67)	59	Modeled
5	4125 Bridgeport last block north	Church	8	B (67)	59	Modeled
6	4363 Harmony Ln. last house south	Residential	6	B (67)	63	Modeled

* Unless otherwise indicated, all measurements shown reflect worst hour noise levels, i.e. they were either measured or adjusted to the noisiest traffic hour (Section N-3312).

Environmental Consequences Under the National Environmental Policy Act

Noise studies were prepared for the proposed Union Valley Parkway extension component and interchange component of the project. The noise studies document the existing noise level based on noise measurement and modeling, and estimate the potential increase in noise at sensitive receptor locations associated with the construction and extension of Union Valley Parkway between Hummel Drive and Blosser Road and the construction of an interchange at Union Valley Parkway/State Route 101. Future average daily trips for the proposed Union Valley Parkway extension project were modeled in the Traffic and Circulation Study (2008) prepared for the project.

It should be noted that the noise model calculations do not include implementation and development of the Bradley Ranch property located east of the proposed Union Valley Parkway/State Route 101 interchange. However, future implementation of urban land uses on this property would generate additional vehicle trips, many of

which would likely use the Union Valley Parkway/State Route 101 interchange, existing and proposed Union Valley Parkway segments, and several other regional roadways in the study area. With or without the proposed Union Valley Parkway extension and interchange, with development of the Bradley Ranch property east of State Route 101, noise levels along roadways throughout the study area would increase beyond levels projected by the traffic models. Depending on the magnitude of development in this area, additional noise abatement measures may be necessary. Future developers of the Bradley Ranch property would be responsible for paying fair share fees toward these additional noise abatement measures.

Noise levels associated with the proposed project would not exceed the interior Noise Abatement Criteria Category E (52 decibels) for residential uses and no substantial cumulative impacts are expected. City and County policies require that new residential growth should not be located in high noise areas, and if they are, adequate noise abatement should be provided to reduce noise levels to an acceptable level. It is expected that any new growth in the areas adjacent to the Union Valley Parkway corridor would be required to install soundwalls, berms, or other forms of noise abatement.

Table 2-16 identifies the location of the 20 noise receptors in the study area (refer also to Figures 22A-D). Each of these receptors represent one or more residences a similar distance from the proposed roadway.

Tables 2-17 through 2-20 summarize the existing and post-project noise conditions at representative noise sensitive receptors for each build alternative.

Table 2-16 Noise Receptor Locations for Union Valley Parkway Extension

Receptor	Location
1	Residence on Blosser Road north of Clubhouse Drive
2	Portion of Pioneer Park nearest Union Valley Parkway Extension
3	Recreational uses on Clubhouse Drive west of California Blvd.
4	Residence on Clubhouse Drive west of California Blvd. nearest Union Valley Parkway Extension
5	Residence on Clubhouse Drive just west of California Blvd.
6	Residence on Clubhouse Drive just east of California Blvd.
7	County Public Works Building
8	County Agriculture Building
9	Residence on Clubhouse Drive nearest Foxenwood Lane
10	Residence in Foxenwood Villas nearest State Route 135
11	Residence east of proposed Orcutt Road realignment, south of proposed Union Valley Parkway Extension
12	Residence east of proposed Orcutt Road realignment, north of proposed Union Valley Parkway Extension
13	Residence north of Union Valley Parkway east of Hummel Drive
14	Residence south of Union Valley Parkway east of Hummel Drive, nearest Bradley Road
15	Residence in northern center of Foxenwood Villas
16	Residence in Foxenwood Villas nearest Foxenwood Lane
17	Residence north of Union Valley Parkway east of Hummel Drive, nearest Bradley Road
18	Residence north of Union Valley Parkway east Bradley Road
19	Residence south of Union Valley Parkway east of Bradley Road
20	Residence south of Union Valley Parkway east of Hummel Drive

Table 2-17 Summary of Traffic Noise Impacts of the Locally Preferred Alignment

Receptor	Existing Noise 2008 ¹	Predicted Noise No Build 2030 ¹	Predicted Noise Build 2030 ¹	Predicted Noise level with abatement (2030) ¹			Reasonable and feasible
				8-foot sound-wall	10-foot sound-wall	12-foot sound-wall	
1	60	63	66	61	59	58	No
2	46	49	50	N/A	N/A	N/A	N/A
3	42	44	55	53	53	52	No
4	42	44	58	57	56	55	No
5	53	54	60	N/A	N/A	N/A	N/A
6	62	63	65	N/A	N/A	N/A	N/A
7	51	53	53	N/A	N/A	N/A	N/A
8	46	48	54	N/A	N/A	N/A	N/A
9	55	59	66	61	61	61	Yes
10	52	54	58	N/A	N/A	N/A	N/A
11	60	62	62	N/A	N/A	N/A	N/A
12	61	63	65	N/A	N/A	N/A	N/A
13	57	61	66	60	58	57	Yes
14	62	63	65	N/A	N/A	N/A	N/A
15	51	53	58	N/A	N/A	N/A	N/A
16	50	53	59	N/A	N/A	N/A	N/A
17	65	66	64	N/A	N/A	N/A	N/A
18	59	60	60	N/A	N/A	N/A	N/A
19	55	56	61	N/A	N/A	N/A	N/A
20	46	50	54	N/A	N/A	N/A	N/A

¹ Noise levels are expressed in peak-hour noise equivalent levels [Leq(h)].

For residential receptors, 67 decibels Leq Federal Highway Administration (FHWA), National Environmental Policy Act (NEPA) standard.

For park receptors, 67 decibels Leq FHWA (NEPA) standard.

N/A = Not Applicable (noise abatement not required because sound levels do not exceed abatement criteria).

Source: Federal Highway Administration Traffic Noise Model® (TNM 2.5)

Table 2-18 Summary of Traffic Noise Impacts of the Curved Alignment

Receptor	Existing Noise 2008 ¹	Predicted Noise No-Action 2030 ¹	Predicted Noise Build 2030 ¹	Predicted Noise level with abatement (2030) ¹			Reasonable and feasible
				8-foot sound-wall	10-foot sound-wall	12-foot sound-wall	
1	60	63	64	N/A	N/A	N/A	N/A
2	46	49	54	N/A	N/A	N/A	N/A
3	42	44	50	N/A	N/A	N/A	N/A
4	42	44	54	53	53	52	No
5	53	54	60	N/A	N/A	N/A	N/A
6	62	63	65	N/A	N/A	N/A	N/A
7	51	53	53	N/A	N/A	N/A	N/A
8	46	48	54	N/A	N/A	N/A	N/A
9	55	59	66	61	61	61	Yes
10	52	54	58	N/A	N/A	N/A	N/A
11	60	62	62	N/A	N/A	N/A	N/A
12	61	63	65	N/A	N/A	N/A	N/A
13	57	61	66	60	58	57	Yes
14	62	63	65	N/A	N/A	N/A	N/A
15	51	53	58	N/A	N/A	N/A	N/A
16	50	53	59	N/A	N/A	N/A	N/A
17	65	66	64	N/A	N/A	N/A	N/A
18	59	60	60	N/A	N/A	N/A	N/A
19	55	56	61	N/A	N/A	N/A	N/A
20	46	50	54	N/A	N/A	N/A	N/A

¹ Noise levels are expressed in peak-hour noise equivalent levels [Leq(h)].

For residential receptors, 67 decibels Leq Federal Highway Administration (FHWA), National Environmental Policy Act (NEPA) standard.

For park receptors, 67 decibels Leq FHWA (NEPA) standard.

N/A = Not Applicable (noise abatement not required because sound levels do not exceed abatement criteria).

Source: Federal Highway Administration Traffic Noise Model® (TNM 2.5)

**Table 2-19 Summary of Traffic Noise Impacts of the
Foster Road Alignment Alternative**

Receptor	Existing Noise 2008 ¹	Predicted Noise No Build 2030 ¹	Predicted Noise Build 2030 ¹	Predicted Noise level with abatement (2030) ¹			Reasonable and feasible
				8-foot sound-wall	10-foot sound-wall	12-foot sound-wall	
1	60	63	63	N/A	N/A	N/A	N/A
2	46	49	49	N/A	N/A	N/A	N/A
3	42	44	45	N/A	N/A	N/A	N/A
4	42	44	46	N/A	N/A	N/A	N/A
5	53	54	55	N/A	N/A	N/A	N/A
6	62	63	63	N/A	N/A	N/A	N/A
7	51	53	57	N/A	N/A	N/A	N/A
8	46	48	58	57	56	55	No
9	55	59	66	61	61	61	Yes
10	52	54	57	N/A	N/A	N/A	N/A
11	60	62	63	N/A	N/A	N/A	N/A
12	61	63	66	64	64	63	No
13	57	61	65	N/A	N/A	N/A	N/A
14	62	63	65	N/A	N/A	N/A	N/A
15	51	53	57	N/A	N/A	N/A	N/A
16	50	53	57	N/A	N/A	N/A	N/A
17	65	66	64	N/A	N/A	N/A	N/A
18	59	60	60	N/A	N/A	N/A	N/A
19	55	56	61	N/A	N/A	N/A	N/A
20	46	50	54	N/A	N/A	N/A	N/A

¹ Noise levels are expressed in peak-hour noise equivalent levels [Leq(h)].

For residential receptors, 67 decibels Leq Federal Highway Administration (FHWA), National Environmental Policy Act (NEPA) standard.

For park receptors, 67 decibels Leq FHWA (NEPA) standard.

N/A = Not Applicable (noise abatement not required because sound levels do not exceed abatement criteria).

Source: Federal Highway Administration Traffic Noise Model® (TNM 2.5)

**Table 2-20 Summary of Traffic Noise Impacts of the
Reduced Extension Alternative**

Receptor	Existing Noise 2008 ¹	Predicted Noise No Build 2030 ¹	Predicted Noise Build 2030 ¹	Predicted Noise level with abatement (2030) ¹			Reasonable and feasible
				8-foot sound-wall	10-foot sound-wall	12-foot sound-wall	
1	60	63	63	N/A	N/A	N/A	N/A
2	46	49	49	N/A	N/A	N/A	N/A
3	42	44	44	N/A	N/A	N/A	N/A
4	42	44	45	N/A	N/A	N/A	N/A
5	53	54	54	N/A	N/A	N/A	N/A
6	62	63	63	N/A	N/A	N/A	N/A
7	51	53	53	N/A	N/A	N/A	N/A
8	46	48	49	N/A	N/A	N/A	N/A
9	55	59	62	N/A	N/A	N/A	N/A
10	52	54	56	N/A	N/A	N/A	N/A
11	60	62	62	N/A	N/A	N/A	N/A
12	61	63	65	N/A	N/A	N/A	N/A
13	57	61	66	60	58	57	Yes
14	62	63	65	N/A	N/A	N/A	N/A
15	51	53	55	N/A	N/A	N/A	N/A
16	50	53	54	N/A	N/A	N/A	N/A
17	65	66	64	N/A	N/A	N/A	N/A
18	59	60	60	N/A	N/A	N/A	N/A
19	55	56	60	N/A	N/A	N/A	N/A
20	46	50	54	N/A	N/A	N/A	N/A

¹ Noise levels are expressed in peak-hour noise equivalent levels [Leq(h)].

For residential receptors, 67 decibels Leq Federal Highway Administration (FHWA), National Environmental Policy Act (NEPA) standard.

For park receptors, 67 decibels Leq FHWA (NEPA) standard.

N/A = Not Applicable (noise abatement not required because sound levels do not exceed abatement criteria).

Source: Federal Highway Administration Traffic Noise Model® (TNM 2.5)

Homes along Blosser Road (Receptor 1)

The future (2030) peak-hour equivalent traffic noise level at homes on the west and east sides of Blosser Road would increase for each alternative as shown below:

- *Locally Preferred Alignment*— Due to its proximity to existing residences, the future peak-hour equivalent sound level would be 66 decibels, an increase of 6 decibels above the existing noise levels.
- *Curved Alignment Alternative*— The future peak-hour equivalent sound level with this alternative would be approximately 64 decibels, an increase of approximately 4 decibels above the existing noise levels.
- *Foster Road Alignment Alternative*—The future peak-hour equivalent sound level would be approximately 63 decibels, an increase of approximately 3 decibels above the existing noise levels.
- *Reduced Extension Alternative*—The future peak-hour equivalent sound level would be 63 decibels, an increase of approximately 3 decibels above the existing noise levels.

Only the Locally Preferred Alternative would approach the noise abatement criterion of 67 decibels for homes. However, because soundwalls cannot be constructed across existing driveways, no long-term noise abatement measures are recommended at this location.

Pioneer Park (Receptor 2)

Pioneer Park is a 15-acre active use park located immediately north of the western portion of the project area, near Blosser Road. The park would be considered a Federal Highway Administration “Category B” land use, subject to an exterior noise abatement criteria of 67 decibels.

The peak-hour equivalent traffic noise level at Pioneer Park would increase for each alternative as shown below:

- *Locally Preferred Alignment*— The future peak-hour equivalent sound level would be approximately 50 decibels, an increase of approximately 4 decibels above the existing noise levels.
- *Curved Alignment Alternative*—The future (2030) peak-hour equivalent sound level with this alternative would be approximately 54 decibels, an increase of 8 decibels above the existing noise levels.

- *Foster Road Alignment Alternative*—The future peak-hour equivalent sound level would be approximately 49 decibels, an increase of approximately 3 decibels above the existing noise levels.
- *Reduced Extension Alternative*—Due to the elimination of the Union Valley Parkway segment west of State Route 135, this alignment would not result in a noticeable increase in noise levels at Pioneer Park.

None of the build alternatives would substantially increase the ambient noise level or exceed the noise abatement criteria at Pioneer Park. For this reason, no long-term noise abatement measures are recommended at this location.

Homes and Private Recreational Areas within Foxenwood Subdivision (Receptors 3, 4, 5, 6, and 9)

Receptor 3 represents recreational areas (tennis courts) on Clubhouse Drive about half way between California Boulevard and Blosser Road. Receptors 4 and 5 represent seven homes on Clubhouse Drive west of California Boulevard, and Receptors 6 and 9 represent 23 homes east of California Boulevard.

The peak-hour equivalent traffic sound level at these receptors would increase from the current levels to the future (2030) levels for each alternative as shown below:

- *Locally Preferred Alignment*—Noise levels would range from 55 to 66 decibels. Receptors 3 and 4 would have substantial increases of 13 and 16 decibels, respectively. Receptor 9 would increase from 55 decibels to 66 decibels, which approaches the noise abatement criterion for homes.
- *Curved Alignment Alternative*— Noise levels would range from 50 to 66 decibels. Receptor 4 would have a substantial increase of 12 decibels and the noise level at Receptor 9 would increase to 66 decibels, which approaches the noise abatement criterion for homes.
- *Foster Road Alignment Alternative*—Noise levels would range from 45 to 66 decibels. Receptors 3 through 6 would have increases of only 1 to 4 decibels. Receptor 9 would increase from 55 decibels to 66 decibels, which approaches the noise abatement criterion for homes.
- *Reduced Extension Alternative*—Since the Union Valley Parkway segment would not extend west of State Route 135, this alternative would not result in a noticeable increase in noise levels at most of these receptors. Receptor 9 would have a 7-decibel increase. All of the other receptors would have a 1 to 3 decibel increase.

Noise levels at homes represented by Receptor 4 would substantially increase by 12 decibels with the Curved Alignment and 16 decibels with the Locally Preferred Alignment. The Locally Preferred Alignment Alternative would also have a substantial increase of 13 decibels at Receptor 3. Noise levels at Receptor 9 would approach the noise abatement criterion of 67 decibels with the Locally Preferred Alignment, Curved Alignment Alternative, and Foster Road Alignment Alternative.

Receptor 6 is located along the proposed Union Valley Parkway extension, near the Foxenwood neighborhood, as illustrated on Figures 22A through 2D. Tables 2-17 through 2-20 summarize the existing and future noise levels at this location. Receptor 6 is currently exposed to noise associated with vehicles traveling on California Boulevard. Noise receptors located east of this receptor would experience lower existing noise levels due to their increased distance from this noise source. Accordingly, with the Union Valley Parkway extension, future noise levels at noise receptors located east of Receptor 6 would be less than for Receptor 6 (since vehicle noise from California Boulevard would not add as much noise to overall sound levels), but the change in noise levels may be greater. It should be noted that although noise abatement is not required for the receptors along Clubhouse Drive between California Boulevard and Foxenwood Lane, for the Locally Preferred Alignment and Curved Alignment Alternative, the City proposes to install an 8-foot-high masonry soundwall north of the rear lot lines of the residences represented by this receptor.

Institutional Facilities Along California Boulevard (Receptors 7 and 8)

Institutional land uses are located between Foster Road and the Foxenwood Estates subdivision, east of Pioneer Park and west of Foxenwood Lane. The noise abatement criterion is 72 decibels for both (commercial) receptors. The peak-hour equivalent traffic sound level at these two receptors would increase for each alternative as shown below:

- *Locally Preferred Alignment*—The future (2030) peak-hour equivalent sound levels with this alternative would be 53 decibels at Receptor 7 (a 2-decibel increase) and 54 decibels at Receptor 8 (an 8-decibel increase).
- *Curved Alignment Alternative*—The future peak-hour equivalent sound levels with this alternative would be 53 decibels at Receptor 7 (a 2-decibel increase) and 54 decibels at Receptor 8 (an 8-decibel increase).

- *Foster Road Alignment Alternative*—The future peak-hour equivalent sound levels with this alternative would be 57 decibels at Receptor 7 (a 6-decibel increase) and 58 decibels at Receptor 8 (a substantial increase of 12 decibels).
- *Reduced Extension Alternative*—The future peak-hour equivalent sound levels with this alternative would be 53 decibels at Receptor 7 (a 2-decibel increase) and 49 decibels at Receptor 8 (a 3-decibel increase).

None of the build alternatives would exceed the noise abatement criterion of 72 decibels at these receptors. However, the Foster Road Alignment would cause a substantial increase of 12 decibels at Receptor 8. The exterior areas at Receptor 8 do not qualify as a sensitive receptor (an area of frequent human use), therefore consideration of noise abatement is not warranted at this location.

Homes within Foxenwood Garden Villas (Receptor 10, 15, and 16)

These homes are behind the existing six-foot-high concrete block soundwalls that are on an elevated berm along the boundary of the development. The residential noise abatement criterion is 67 decibels. None of the build alternatives would cause a substantial increase in the ambient noise level or exceed the noise abatement criteria at these receptors.

- *Locally Preferred Alignment and Curved Alignment Alternative*—The future peak-hour equivalent sound levels with these alternatives would be 58 decibels at Receptor 10 (a 6-decibel increase), 58 decibels at Receptor 15 (a 7-decibel increase), and 59 decibels at Receptor 16 (a 9-decibel increase).
- *Foster Road Alignment Alternative*—The future peak-hour equivalent sound levels with this alternative would be 57 decibels at Receptor 10 (a 5-decibel increase), 57 decibels at Receptor 15 (a 6-decibel increase), and 57 decibels at Receptor 16 (a 7-decibel increase).
- *Reduced Extension Alternative*—The future peak-hour equivalent sound levels with this alternative would be 56 decibels at Receptor 10 (a 4-decibel increase), 55 decibels at Receptor 15 (a 4-decibel increase), and 54 decibels at Receptor 16 (a 4-decibel increase).

Homes East of Orcutt Road and State Route 135 (Receptors 11 and 12)

Receptor 11 represents 1 residence southeast of the proposed intersection of Union Valley Parkway and Route 135. Receptor 12 represents 3 residences northeast of the proposed intersection of Union Valley Parkway and Route 135. The peak-hour

equivalent traffic sound level at these two receptors would increase for each alternative as shown below:

- *Locally Preferred Alignment, Curved Alignment Alternative, and Reduced Extension Alternative*—The future peak-hour equivalent sound levels with these alternatives would be 62 decibels at Receptor 11 (a 2-decibel increase) and 65 decibels at Receptor 12 (a 4-decibel increase).
- *Foster Road Alignment Alternative*—The future peak-hour equivalent sound levels with this alternative would be 63 decibels at Receptor 11 (a 3-decibel increase) and 66 decibels at Receptor 12 (a 5-decibel increase).

The Foster Road Alignment Alternative would approach the noise abatement criteria at Receptor 12. However, because soundwalls cannot be effectively constructed across existing driveways, noise abatement would not be considered at Receptor 12. None of the other build alternatives would substantially increase the ambient noise level or exceed the noise abatement criteria at either receptor.

Homes to the North of the Existing Segment of Union Valley Parkway, East of Hummel Drive (Receptors 13 & 17)

Receptor 13 represents 23 residences located on the north side of the existing County segment of Union Valley Parkway, nearest to Hummel Drive. Receptor 17 represents three residences located on the north side of the existing County segment of Union Valley Parkway just west of Bradley Road. The noise abatement criteria for the homes represented by Receptors 13 and 17 is 67 decibels. The peak-hour equivalent traffic sound level at these receptors would change with each alternative as shown below:

- *Locally Preferred Alignment, Curved Alignment Alternative, and Reduced Extension Alternative*—The future peak-hour equivalent sound levels with these alternatives would be 66 decibels at Receptor 13 (a 9-decibel increase) and 64 decibels at Receptor 17 (a 1-decibel decrease from the current noise level).
- *Foster Road Alignment Alternative* —The future peak-hour equivalent sound levels with this alternative would be 65 decibels at Receptor 13 (an 8-decibel increase) and 64 decibels at Receptor 17 (a 1-decibel decrease from the current noise level).

The Locally Preferred Alignment, Curved Alignment Alternative, and Reduced Extension Alternative would all approach the noise abatement criteria at Receptor 13. The Foster Road Alignment would not approach the noise abatement criteria at

Receptor 13 because travelers on the Foster Road Alignment would divert to other roadways, such as Clark Avenue, for trips to the south, which would result in an associated reduction in vehicle trips along the existing segment of Union Valley Parkway, east of Hummel Drive.

Homes to the South of the Existing Segment of Union Valley Parkway, East of Hummel Drive (Receptors 14 & 20)

There is an existing 8- to 10-foot-high earthen berm topped by a 6-foot-high concrete soundwall along the northern boundary of these residential properties. Each of the build alternatives would increase the peak-hour equivalent traffic sound level to 65 decibels at Receptor 14 (a 3-decibel increase) and to 54 decibels at Receptor 20. These levels do not approach 67 decibels, the noise abatement criteria for residents.

Homes Along the Existing Segment of Union Valley Parkway, East of Bradley Road (Receptors 18 & 19)

Existing 6-foot masonry walls are on the north and south side of Union Valley Parkway in this area. None of the build alternatives would substantially increase the ambient noise level or exceed the noise abatement criteria at these receptors.

The noise level at Receptor 18 would only increase by 1 decibel to 60 decibels with all the build alternatives. At Receptor 19 the noise level would increase by 6 decibels to 61 decibels with all of the build alternatives except the Reduced Extension Alternative. With this alternative the noise level would increase from 55 decibels to 60 decibels.

Homes Near State Route 101 Interchange Area (All Build Alternatives)

Because the proposed southbound ramps and State Route 101 would be the major noise source for existing sensitive receptors in the area of the proposed Union Valley Parkway/State Route 101 interchange, the proposed northbound ramps that would be across the freeway from sensitive receptors would not substantially contribute to noise impacts on those sensitive receptors. Noise levels for receptors located closest to the proposed southbound ramps and State Route 101 (receptors R1, R2, and R6; see Figure 22E) were predicted for the year 2030 using the Federal Highway Administration's Traffic Noise Model. Results of those forecasts are shown in Table 2-21. Receptor 3 would experience the greatest increase—4 decibels—in noise levels, going from 53 decibels to 57 decibels in 2030.

Note: The 2030 peak-hour noise levels were determined using predicted 2030 traffic volumes on the freeway, freeway ramps, and Union Valley Parkway. The prediction method used was the Federal Highway Administration's Traffic Noise Model.

The build alternatives would extend Union Valley Parkway east to State Route 101 and construct a freeway interchange with on- and off-ramps. The area west of State Route 101 and adjacent to Union Valley Parkway contains residential development, with the Edgewood development north of Union Valley Parkway and the Creekside development south of Union Valley Parkway. The area east of State Route 101 is primarily grass-covered, low, rolling hills (ancient sand dunes) used for agriculture and oil production.

When the residential developments were constructed in the interchange area, noise abatement measures were incorporated into the design. Residents north of the proposed Union Valley Parkway overcrossing are protected by a masonry sound barrier that is approximately 15 feet tall (relative to the residences). Residences south of the proposed over-crossing are protected by an earthen berm that is approximately 12 feet tall (relative to the residences). The Interchange Noise Study completed in February 2008 determined that with existing noise abatement measures, noise levels at sensitive receptors in the interchange area would not experience a substantial increase in noise levels, nor would they experience noise levels that approach or exceed 12 decibels (substantial increase). No additional noise abatement is proposed for these residents.

Between November 1998 and June 1999, and in January 2008, ambient noise level readings were taken at six representative sensitive receptor sites. The sites were located next to the proposed southbound off- and on-ramps and next to the proposed extension of Union Valley Parkway. The noise level readings ranged from 50 to 59 decibels. These were well below the county and Federal Highway Administration noise abatement criteria of exceeding 65 decibels and approaching 67 decibels, respectively.

As shown in Table 2-21, the predicted noise levels at the locations that would experience the highest noise levels associated with the proposed interchange would range from 59 to 65 decibels in 2030. A 65-decibel level was predicted at the rear of the residence on Harmony Lane, closest to the proposed southbound on-ramp. A 61-decibel level was predicted at the front of two residences facing the freeway on

Bridgeport Road. The predicted increase in noise levels in 2030 at these three locations ranged from 2 to 4 decibels over the current ambient levels.

Table 2-21 2030 Peak-Hour Forecast Noise Levels at the Proposed Union Valley Parkway/State Route 101 Interchange

Receptor # and Location	Existing Noise 2008 ¹	Predicted Noise Build 2030 ¹	Predicted Noise Level with Abatement (2030)			Reasonable and Feasible
			8-foot sound-wall	10-foot sound-wall	12-foot sound-wall	
1 - 4262 Harmony Ln., corner, south	57	59	N/A	N/A	N/A	N/A
2 - 4232 Harmony Ln. behind Bball court	59	60	N/A	N/A	N/A	N/A
3 - 4302 Boardwalk intersection with Union Valley Parkway	53	57	N/A	N/A	N/A	N/A
4 - 4319 Bridgeport near north corner	59	61	N/A	N/A	N/A	N/A
5 - 4125 Bridgeport last block north	59	61	N/A	N/A	N/A	N/A
6 - 4363 Harmony Ln. last house south	63	65	N/A	N/A	N/A	N/A

¹ Noise levels are expressed in peak hour noise equivalent levels [Leq(h)]. For residential receptors, 67 decibels Leq Federal Highway Administration (FHWA), National Environmental Policy Act (NEPA) standard.
N/A = Not Applicable (noise abatement not required because sound levels do not exceed abatement criteria).
Source: Federal Highway Administration Traffic Noise Model® (TNM 2.5)

The predicted noise levels at receptors in the interchange area, representing the locations that would experience the highest noise levels in 2030, do not meet the Federal Highway Administration noise abatement criteria of approaching 67 decibels, or the Federal Highway Administration criteria for a substantial noise increase (an increase of 12 decibels over existing conditions). Consequently, noise impacts on sensitive receptors adjacent to the proposed Union Valley Parkway/State Route 101 interchange would not be substantial.

No-Action Alternative

This alternative would not result in traffic along the proposed Union Valley Parkway corridor. If the No-Action Alternative were selected, there would be no construction project and no noise impacts attributed to the project. Therefore, consideration of noise abatement is not required for the No-Action Alternative.

Avoidance, Minimization, and/or Noise Abatement Under the National Environmental Policy Act

Since the predicted noise levels for peak-hour traffic in 2030 approach or exceed 67 decibels at some residences under each of the build alternatives, abatement of these impacts is considered in this section. In addition, since the predicted peak-hour traffic noise levels are at least 12 decibels greater than existing noise levels at some receptors under each of the build alternatives, abatement for these impacts is also considered. In cases where individual or widely scattered residences or other receptors are exposed to excessive traffic noise levels, an earthen berm would be recommended wherever possible to attenuate some of the traffic noise. Where several residences are located close to each other, or where right-of-way is limited, as occurs at the Foxenwood Estates Subdivision immediately south of the Union Valley Parkway extension, soundwalls would be considered.

Noise abatement is required in locations where the following conditions are met:

1. Sound levels at noise receptors would substantially increase or would exceed criteria levels;
2. Noise abatement, such as soundwalls, is feasible to construct based on engineering considerations related to topography, access requirements, other noise sources, and safety considerations (e.g., the walls would not cross existing driveway openings). A minimum 5-decibel reduction in the future noise level must be achieved for an abatement measure to be considered feasible; and
3. Noise abatement is “reasonable” to construct. The reasonableness determination is basically a cost-benefit analysis. Factors used in determining whether a proposed noise abatement measure is reasonable include residents’ acceptance, the absolute noise level, build versus existing noise, environmental impacts of abatement, public and local agencies’ input, newly constructed development versus development pre-dating 1978, and the cost per benefited residence.

Noise abatement measures are generally most effective when installed nearer the source or the receptor. Barriers are generally not feasible to build when residences are widely scattered, where driveways open onto the highway, or when residences are farther than about 300 feet from the edge of the roadway.

Noise abatement is considered when it is found to be reasonable and feasible. The reasonable cost is determined through the use of Worksheets A and B in Caltrans Traffic Noise Analysis Protocol (August 2006). The reasonable cost per residence is multiplied by the number of residences that would benefit by construction of a barrier to derive a reasonable cost for the barrier. If the reasonable cost is less than the engineer's estimate for construction of the barrier, it is considered reasonable to build. Table 2-22 shows the reasonableness determination information and estimated barrier costs. Feasibility is whether or not a barrier can be constructed that would reduce noise levels by 5 decibels.

The final determination to construct a noise barrier is made after soliciting input from the affected residents. If more than 50 percent of the benefited residents (those who would receive a 5-decibel reduction in noise levels) are opposed to proposed sound barriers, the barrier would not be constructed.

Table 2-23 is a summary of proposed noise abatement by alternative. The location of noise abatement for each alternative is depicted on Figures 22A through 22D in Appendix F.

Receptor 3

Receptor 3 represents a private recreational use (tennis courts) in the Foxenwood Subdivision. Measurements taken at Receptor 3 indicate that the existing noise level at that location is 42 decibels. The future noise level at Receptor 3 with the Locally Preferred Alignment is predicted to be 55 decibels. Because the predicted future noise level is a substantial noise increase (12 decibels or more), the private recreational uses represented by Receptor 3 would be adversely affected by noise. To achieve a 5-decibel reduction, a 16-foot-tall, 1,100-foot-long noise wall would be needed.

Table 2-22 shows that sound barriers would be feasible, but not reasonable at Receptor 3 for the Locally Preferred Alignment.

Receptor 4

Receptor 4 represents 7 homes in the Foxenwood Subdivision. Measurements taken at Receptor 4 indicate that the existing noise level at that location is 42 decibels. The future noise level at Receptor 4 with the Curved Alignment is predicted to be 54 decibels, and with the Locally Preferred Alignment it is predicted to be 58 decibels. Because the predicted future noise level increases substantially over existing noise levels (12 decibels or more), the 7 residences represented by Receptor 4 would be

adversely affected by noise. Noise abatement was considered for this receptor. To achieve a 5-decibel reduction, a 16-foot-tall, 1,100-foot-long noise wall would be needed. The total reasonable cost allowance, calculated in accordance with Caltrans' *Traffic Noise Analysis Protocol*, is \$378,000.

Table 2-22 shows that sound barriers would be feasible, but not reasonable at Receptor 4 for the Locally Preferred Alignment and Curved Alignment Alternative.

Receptor 9

Receptor 9 represents four homes in the Foxenwood Subdivision on Clubhouse Drive nearest to Foxenwood Lane. Measurements taken at Receptor 9 indicate that the existing noise level at that location is 55 decibels. The future noise level at Receptor 9 with the Locally Preferred Alignment, Curved Alignment, or Foster Road Alignment is predicted to be 66 decibels. Because the predicted future noise level approaches the noise abatement criterion for residential uses (67 decibels), the four homes represented by Receptor 9 would be adversely affected by noise. To achieve a 5-decibel reduction, an 8-foot-tall, 365-foot-long soundwall would be needed. The total reasonable cost allowance, calculated in accordance with Caltrans' *Traffic Noise Analysis Protocol*, is \$208,000.

Table 2-22 shows that sound barriers would be reasonable and feasible at Receptor 9 for the Locally Preferred Alignment, Curved Alignment, and Foster Road Alignment alternatives.

Receptor 13

Receptor 13 represents 23 residences located on the north side of the existing County segment of Union Valley Parkway, nearest to Hummel Drive. Measurements taken at Receptor 13 indicate that the existing noise level at that location is 57 decibels. The future noise level at Receptor 13 with the Locally Preferred Alignment, Curved Alignment, or Reduced Extension Alternative is predicted to be 66 decibels. Because the predicted future noise level approaches the noise abatement criterion for residential uses (67 decibels), the 23 homes represented by Receptor 13 would be adversely affected by noise. To achieve a 5-decibel reduction, an 8-foot-tall, 2,000-foot-long berm (or berm and wall combination) would be needed. The total reasonable cost allowance for this barrier, calculated in accordance with Caltrans' *Traffic Noise Analysis Protocol*, is \$1,242,000.

Table 2-22 shows that sound barriers would be reasonable and feasible at Receptor 13 for the Locally Preferred Alignment, Curved Alignment, and Reduced Extension Alternatives. Table 2-23 is a summary of proposed noise abatement by alternative. The location of noise abatement for each alternative is depicted on Figures 22A through 22D in Appendix F.

Table 2-22 Reasonableness Determination for Noise Abatement Measures

Section	Receptor #	Number of Residences	Barrier #	Reasonable Cost	Barrier Area in Square Feet	Estimated Cost	Reasonable?
Locally Preferred Alignment							
Between south side of Union Valley Parkway and Foxenwood Subdivision residences, from the private recreational uses to the residence two houses west of California Boulevard	3, 4	7	1A	\$378,000	17,600	\$633,600	No
Between south side of Union Valley Parkway and Foxenwood Subdivision residences, from a point north of the terminus of Westminister Lane to Foxenwood Lane	9	4	1B	\$208,000	2,920	\$105,120	Yes
Between north side of existing segment of Union Valley Parkway and Brookside Avenue residences	13	23	2	\$1,242,000	16,000	\$576,000	Yes
Curved Alignment Alternative							
Between south side of Union Valley Parkway and Foxenwood Subdivision residences, from a point just west of the ninth residence west of California Boulevard to the residence two houses west of California Boulevard	4	7	1A	\$378,000	11,200	\$403,200	No

Table 2-22 Reasonableness Determination for Noise Abatement Measures

Section	Receptor #	Number of Residences	Barrier #	Reasonable Cost	Barrier Area in Square Feet	Estimated Cost	Reasonable?
Between south side of Union Valley Parkway and Foxenwood Subdivision residences, from a point north of the terminus of Westminister Lane to Foxenwood Lane	9	4	1B	\$208,000	2,920	\$105,120	Yes
Between north side of existing segment of Union Valley Parkway and Brookside Avenue residences	13	23	2	\$1,242,000	16,000	\$576,000	Yes
Foster Road Alignment Alternative							
Union Valley Parkway from a point north of the terminus of Westminister Lane to Foxenwood Lane	9	4	1B	\$208,000	2,920	\$105,120	Yes
Reduced Extension Alternative							
Between north side of existing segment of Union Valley Parkway and Brookside Avenue residences	13	23	2	\$1,242,000	16,000	\$576,000	Yes

Table 2-23 Summary of Proposed Noise Abatement by Alternative

Alternative	Barrier #	Location	Height (feet)	Receptors
Reduced Extension Alternative				
Locally Preferred Alignment	1b	Between 4 residences along Clubhouse Drive, west of Foxenwood Lane and proposed Union Valley Parkway	8	9
	2	Between north side of existing segment of Union Valley Park way and 23 Brookside Avenue residences	8	13
Curved Alignment	1b	Between 4 residences along Clubhouse Drive, west of Foxenwood Lane and proposed Union Valley Parkway	8	9
	2	Between north side of existing segment of Union Valley Park way and 23 Brookside Avenue residences	8	13
Foster Road Alignment	1b	Between 4 residences along Clubhouse Drive, west of Foxenwood Lane and proposed Union Valley Parkway	8	9
Reduced Extension	2	Between north side of existing segment of Union Valley Park way and 23 Brookside Avenue residences	8	13
No-Action Alternative	NA	No improvements would be made, no noise abatement would be implemented	NA	NA

2.3 Biological Environment

2.3.1 Natural Communities

Regulatory Setting

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation.

Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed in *Threatened and Endangered Species*, Section 2.3.5. Wetlands and other waters are also discussed in Section 2.3.2.

Affected Environment

Biological surveys of the study area were conducted from 1998 to 2007 to map and/or assess the existing vegetation and survey for plant and animal species recognized as sensitive by local, state, or federal resource agencies. A *Natural Environment Study* and a *Biological Assessment* were completed in 2007. Numerous biological surveys that included an analysis of the natural communities present in the study area have been prepared and are listed in Table 1 of the *Natural Environment Study*.

The classification of habitat types in the biological study area follow the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986). Special-status habitats were those contained in the California Natural Diversity Database (California Department of Fish and Game, October 2007), or those considered sensitive by the City of Santa Maria or the County of Santa Barbara in the Orcutt Community Plan.

The build alternatives' study areas contain a mix of native and non-native habitat types including developed areas. The coastal proximity of the study area results in native habitats containing vegetation that typifies coastal environments, such as central (Lucian) coastal scrub and central dune scrub. Other native habitats occurring in the study area are coast live oak woodland, central coast arroyo willow riparian forest (as described within the wetland habitat type below), and valley needlegrass grassland. Wetlands in the study area include both Cowardin classified wetlands (one-parameter wetlands meeting the sensitivity criteria of the County of Santa Barbara), as well as Army Corps of Engineers jurisdictional wetlands. The predominant non-native habitat types include non-native grassland, eucalyptus woodland, ornamental landscaping, ruderal habitat, disturbed habitat, and developed land. Habitat types within the study area are shown in Figures 24B through 24G in Appendix F. There are five natural communities of special concern that occur in the study area: 1) coast live oak woodland, 2) eucalyptus woodland, 3) wetland habitat (including central coast arroyo willow riparian forest), 4) coastal dune scrub, and 5) valley needlegrass grassland.

Non-native Grassland

Non-native grassland typically occurs in areas that have been disturbed frequently or intensively by grazing, fire, agriculture, or other activities, and the native community has been replaced by non-native species. The native community is usually incapable of recovery since non-native grass species out-compete native perennial grasses. Non-native grasslands are characterized by the presence of slender wild oat (*Avena*

barbata) and bromes (*Bromus diandrus*, *B. madritensis*, *B. hordeaceus*). Introduced broadleaf herbaceous species (forbs) typically occurring within non-native grassland include black mustard (*Brassica nigra*), broad-leaved filaree (*Erodium botrys*), and wild radish (*Raphanus sativus*).

Non-native grassland occurs throughout the study area and contains species such as slender wild oat, ripgut grass (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), rattail fescue (*Vulpia myuros*), filaree (*Erodium* spp.), and curly dock (*Rumex crispus*). Native species include the forbs western ragweed (*Ambrosia psilostachya*), tarweed (*Hemizonia* spp.), twiggy wreathplant (*Stephanomeria virgata*), doveweed (*Eremocarpus setigerus*), and the native bunchgrass purple needlegrass (*Nassella pulchra*). The non-native grassland in the study area occasionally contains scattered central (Lucian) coastal scrub elements.

Coast Live Oak Woodland

Coast live oak woodland is considered sensitive by the City of Santa Maria and the County of Santa Barbara. Coast live oak woodland is considered a plant community of special concern within some political boundaries and by some agencies because oak trees and oak woodlands are currently diminishing at a rapid rate. Regeneration is lacking due to several factors, including the browsing of seedlings by grazing animals and the clearing of woodlands for firewood, agriculture, grazing, and development.

Coast live oak woodland is comprised of a broad-leaved woodland dominated by a single evergreen species, coast live oak (*Quercus agrifolia*). Canopy height ranges from approximately 33 to 82 feet. The typically poorly developed understory may contain toyon (*Heteromeles arbutifolia*), blue elderberry (*Sambucus mexicana*), poison oak (*Toxicodendron diversilobum*), California coffeeberry (*Rhamnus californica*) and sticky monkey flower (*Mimulus aurantiacus*). The herbaceous component is dominated by a variety of introduced flora described above as non-native grassland.

Coast live oak woodland in the study area occurs primarily in the western end of the study area. It contains dense stands of coast live oak that are often intermixed with poison oak and blue elderberry. Non-native grassland typically comprises the understory, although in several areas patches of dune sedge (*Carex pansa/praeegracilis* complex) blend with the shrubs and grasses.

Central Dune Scrub

Central dune scrub is considered rare by the California Department of Fish and Game, and is listed as a special-status habitat within the California Natural Diversity Database (DFG 2003). Central dune scrub contains shrubs, sub-shrubs, and herbs that are generally less than 3 feet tall. Dominant species within central dune scrub typically include heather goldenbush (*Ericameria ericoides*), dune lupine (*Lupinus chamissonis*), and California sagebrush (*Artemisia californica*).

Central dune scrub in the study area occurs primarily within the western end of the study area and is dominated by dune lupine and coyote brush (*Baccharis pilularis* var. *consanguinea*). It also contains tarragon (*Artemisia dracuncululus*), California sagebrush, saw-toothed goldenbush (*Hazardia squarrosa* ssp. *grindeloides*), coastal goldenbush (*Isocoma menziesii*), bladderpod (*Isomeris arborea*), black sage (*Salvia mellifera*), slender wooly buckwheat (*Eriogonum gracile*), and silver lupine (*Lupinus albifrons*). Most of the central dune scrub in the State Route 101/Union Valley Parkway Interchange area contains nearly pure stands of dune lupine.

Central (Lucian) Coastal Scrub

Central (Lucian) coastal scrub is typically a mixture of California sagebrush, coyote brush, redberry (*Rhamnus crocea*), heather goldenbush, black sage, California coffeeberry, poison oak, sticky monkey flower, long-stem golden yarrow (*Eriophyllum confertiflorum* var. *confertiflorum*), and flat-top buckwheat (*Eriogonum fasciculatum*).

Central (Lucian) coastal scrub is present throughout the study area and includes a diversity of shrub species including California sagebrush, coyote brush, sticky monkey flower, and heather goldenbush. Forbs present include California croton (*Croton californicus*), doveweed, and deerweed (*Lotus scoparius*). Between California Boulevard and Foxenwood Lane, this habitat type may contain some pure stands of coyote brush. Non-native grassland often forms the understory.

Wetland Habitats

Two main wetland designations are found in the study area. Wetlands protected by the County of Santa Barbara (also called “Cowardin classified wetlands”) require the presence of at least one of three criteria: the presence of hydrophytic (water-dependent) vegetation, hydrology (the presence of saturated soils or standing water), or the presence of hydric soils (soils subject to saturation or inundation). Army Corps of Engineers jurisdictional wetlands require all three of these criteria. Two areas

located in the study area were classified as Corps jurisdictional wetlands, and these areas also are considered Cowardin classified wetlands.

Central coast arroyo willow scrub is a plant community contained within the wetland habitat type in the study area. The California Natural Diversity Database lists it as a plant community of special concern. It is a dense, broadleafed, winter-deciduous riparian thicket dominated by arroyo willows (*Salix lasiolepis*). The understory is usually underdeveloped because of the dense canopy. Two limited areas containing southern willow scrub are in the study area: 1) East of Orcutt Road in the north and south swales, and 2) A small area on the west end of the Locally Preferred Alignment, containing a few arroyo willow mixed in with coast live oak woodland.

The wetland areas are discussed in greater detail in Section 2.3.2, *Wetlands and other Waters*.

Valley Needlegrass Grassland

Valley needlegrass grassland is considered a plant community of special concern by the California Natural Diversity Database, and is considered a protected rare habitat by the County of Santa Barbara. It is a native grassland typically found on clay soils and dominated by perennial bunchgrasses, such as needlegrass (*Nassella* spp.). This plant community often forms a matrix with central (Lucian) coastal scrub and can be an element in non-native grassland or other plant communities. The extent of valley needlegrass grassland in the study area is extremely limited, and consists of a patch of ruderal habitat on the Foster Road Alignment Alternative. It is distinguished from non-native grassland by the presence of irregular tufts of purple needlegrass (*N. pulchra*), which comprise more than 10 percent cover.

Eucalyptus Woodland

Eucalyptus woodland is not considered sensitive, but it is protected by the City of Santa Maria and the County of Santa Barbara if it supports special-status species. The Orcutt Community Plan Policy BIO-O-4 calls for protection of eucalyptus groves and windrows that provide nesting or roosting habitat for raptors, as well as specimen trees greater than 25 inches at breast height. Eucalyptus woodland is a vegetation type that is fairly widespread throughout California. It typically consists of stands of introduced, blue gum eucalyptus trees (*Eucalyptus globulus*). The understory is underdeveloped as a result of high canopy cover and chemicals released by the dense eucalyptus leaf and bark litter that inhibit growth of other plants. Although eucalyptus woodlands are of limited value to most native plants and animals, they frequently

provide nesting and roosting sites for many raptor species. Eucalyptus woodland habitat occurs as rows and scattered stands throughout the study area and is typical of eucalyptus woodland habitat because it generally lacks understory vegetation.

Developed Land

Developed land includes areas occupied by structures, paving, and other impermeable surfaces that cannot support vegetation. The developed land in the project area primarily consists of Blosser Road, California Boulevard, Hummel Drive, State Route 101, State Route 135, and Foster Road.

Disturbed Habitat

Disturbed habitat refers to areas that are sparsely vegetated or lack vegetation entirely. These areas generally are the result of severe or repeated mechanical disturbance. These areas may be capable of recovering as a native community.

Disturbed habitat is located throughout the study area, and is most extensive within the Foster Road Alignment Alternative. In the study area, these areas contain sparse patches of non-native vegetation including sweet fennel (*Foeniculum vulgare*), wild radish, black mustard, and castor-bean (*Ricinus communis*).

Ornamental

This vegetation type consists of introduced pine trees (*Pinus* spp.) and plantings of exotic species, such as landscaping. It is present adjacent to Orcutt Road, north of Union Valley Parkway, east of Hummel Drive, on the western end of the Locally Preferred Alignment, and in areas surrounding State Route 101.

Ruderal Habitat

Ruderal habitat is an area that is regularly disturbed by human activities. It is similar to non-native grassland and disturbed areas in that non-native species predominate over natives and native habitat recovery is unlikely. It is characterized by a dominance of broad-leaved, non-native flowering plant species such as black mustard, castor bean, filaree, doveweed, and sweet fennel. Ruderal habitat in the study area occurs primarily on the Foster Road Alignment Alternative.

Environmental Consequences

Depending on the alignment selected, the project could directly affect varying acreages of five natural communities of special concern: 1) coast live oak woodland 2) eucalyptus woodland, 3) wetland habitat (including central coast arroyo willow riparian forest), 4) coastal dune scrub, and 5) valley needlegrass grassland. Impacts to

special-status natural communities from each of the alignment alternatives are summarized in Table 2-24. The impact area calculations were based on digital mapping of plant community types using aerial photography, site plans, habitat mapping, an October 2007 project area visit to verify the habitat map, and information on temporary impact areas. Impact area maps are provided in Figures 24B through 24G.

Direct impacts are those in which natural habitats would permanently be converted to other uses and temporary impacts are those in which natural habitats would be disturbed during construction and subsequently restored. Impacts on Cowardin classified wetlands and Corps jurisdictional areas are described in Section 2.3.2, *Wetlands and Other Waters*.

Table 2-24 Summary of Impacts to Special Concern Natural Communities (Temporary Impacts/Permanent Impacts in Acres)

Habitat Type	Alignment Alternatives				
	Locally Preferred Alignment	Curved Alignment	Foster Road Alignment	Reduced Extension	No-Action Alternative
Coast Live Oak Woodland	0.07/ 1.60	0.26/ 0.45	No Impact	No Impact	No Impact
Eucalyptus Woodland	1.11/ 7.85	0.99/ 6.20	1.99/ 3.52	0.57/ 3.34	No Impact
Wetland	0.04/ 1.66	0.04/ 1.63	0.04/ 1.63	0.04/ 1.63	No Impact
Central Dune Scrub	0.68/ 10.63	1.15/ 11.92	0.91/ 9.61	0.50/ 9.37	No Impact
Valley Needlegrass Grassland	No Impact	No Impact	0/ 0.14	No Impact	No Impact

Locally Preferred Alignment

The Locally Preferred Alignment Alternative would permanently and temporarily affect a total of 1.67 acres of coast live oak woodland, 8.96 acres of eucalyptus woodland, 1.70 acres of wetland, and 11.31 acres of central dune scrub habitat. There is no valley needlegrass grassland within this alignment.

Curved Alignment Alternative

Coast live oak woodland, eucalyptus woodland, central dune scrub, and wetlands are special-status habitats that occur within the Curved Alignment project area. The Curved Alignment would permanently and temporarily affect a total of 0.71 acre of

coast live oak woodland, 7.19 acres of eucalyptus woodland, 1.67 acres of wetland, and 13.07 acres of central dune scrub habitat. Central dune scrub occurs mainly as patches within the study area, however, there is a large patch within the Curved Alignment that is contiguous with a larger area of central dune scrub habitat located outside the project area to the north (Figure 24D). There is no valley needlegrass grassland within this alignment.

Foster Road Alignment Alternative

The Foster Road Alignment Alternative would permanently and temporarily affect a total of 5.51 acres of eucalyptus woodland, 1.67 acres of wetland, 10.52 acres of central dune scrub, and 0.14 acre of valley needlegrass grassland habitat. No oak woodland habitat would be impacted.

Reduced Extension Alternative

This alternative would permanently and temporarily affect a total of 3.91 acres of eucalyptus woodland, 9.87 acres of central dune scrub, and 1.67 acres of wetland habitat. There is no coast live oak woodland or valley needlegrass grassland present within this alignment.

No-Action Alternative

Under the No-Action Alternative, the project would not be implemented and the project area would remain undeveloped. No impacts would occur to oak woodland, eucalyptus woodland, central dune scrub, wetland, or valley needlegrass grassland habitats.

Avoidance, Minimization, and/or Mitigation Measures

To minimize project impacts to natural communities occurring on the build alternatives, including those considered to be special-status, the following measures are required:

- Before approval of any grading plan for the project, a City-approved biologist or arborist would prepare a tree protection, replacement, and monitoring program that ensures compliance with the City's Municipal Code 12-44 as it pertains to tree replacement ratios, as follows: 1) 2:1 (number of trees planted:number of trees removed) for trees six to eight inches in diameter (as measured at 4 ½ feet above the ground); 2) 4:1 for trees nine to 12 inches in diameter; and 3) 6:1 for trees greater than 12 inches in diameter. In addition, the plan would include compensatory mitigation for eucalyptus and coast live oak woodland habitats at a 2:1 ratio (habitat area created:habitat area lost). Requirements for the tree

protection plan would include, but not be limited to, the protection of trees with construction setbacks from trees; construction fencing around trees; and grading limits around tree bases. The tree replacement plan would include the identification of restoration areas, strategies, an implementation schedule, irrigation design plan, long-term monitoring methods, success criteria, methods to assess whether success criteria have been met, and contingency plans for meeting success criteria. The program would be monitored for five years, and monitoring reports that evaluate tree survivability, health, and vigor would be submitted to the City annually. All trees planted as mitigation would have an 80 percent survival rate after five years. A conservation easement would be placed on the mitigation area to protect it in perpetuity.

- See Section 2.3.2, *Wetlands and Other Waters*, for mitigation measures for impacts to wetlands.
- The project proponent would compensate for the loss of central dune scrub and valley needlegrass grassland habitat through the creation or enhancement of these habitats at a location outside the project area at a mitigation ratio of 2:1.

2.3.2 Wetlands and Other Waters

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Clean Water Act (33 U.S. Code 1344) is the primary law regulating wetlands and waters. The Clean Water Act regulates the discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the Clean Water Act, a three-parameter approach is used that includes the presence of hydrophytic (water-dependent) vegetation, wetland hydrology, and hydric soils (soils subject to saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the Clean Water Act.

Section 404 of the Clean Water Act establishes a regulatory program that provides that no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be substantially degraded. The Section 404 permit program is run by

the U.S. Army Corps of Engineers (Corps) with oversight by the Environmental Protection Agency.

The Executive Order for the Protection of Wetlands (Executive Order 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this executive order states that a federal agency, such as the Federal Highway Administration, and Caltrans as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm.

At the state level, wetlands and waters are regulated primarily by the California Department of Fish and Game and the Regional Water Quality Control Board. In certain circumstances, the California Coastal Commission (or Bay Conservation and Development Commission) may also be involved. Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project that would substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify the California Department of Fish and Game before beginning construction. If the department determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement would be required. Department of Fish and Game jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the Army Corps of Engineers may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the Department of Fish and Game.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The Regional Water Quality Control Board also issues water quality certifications in compliance with Section 401 of the Clean Water Act. Please see the Water Quality section for additional details.

Wetlands protected by the County of Santa Barbara (also called “Cowardin classified wetlands”) require the presence of at least one of the three wetland criteria (hydrophytic vegetation, hydrology, hydric soils).

Affected Environment

No major aquatic resources are in the study area. Two technical studies, *Delineation of “Waters of the U. S.” Union Valley Parkway Extension Project California Blvd. to Blosser Road Segment* (2001) and *Wetland Delineation Union Valley Parkway Extension on the East Side of State Highway 135* (1999) were completed. Biologists verified the information in the 1999 delineation study through an additional field visit in February 2005. Conditions in this area were also observed during field studies in 2007. The results of these delineations are described below.

1. Aquatic resources in the study area from California Boulevard to Blosser Road consist of three ditches. One concrete-lined drainage ditch conveys runoff from California Boulevard to the Foxenwood retention basin located to the south of the study area. This conveys flows during rainstorms, and apparently also conveys excess irrigation runoff since there are perennial flows. A second man-made ditch extends about 150 feet northward from a drain inlet located on the western end of the study area. The drain inlet conveys water to the north, onto airport property north of Foster Road where it is allowed to spread overland. The second ditch is lower than the drain inlet; therefore, it is not fully drained. Standing water was evident at the time of surveys conducted for the wetland delineation. A third ditch located just outside the project area starts at the northwest corner of the Foxenwood retention basin and continues approximately 100 feet northwest, ending at a walking path that crosses the study area in a north/south direction.

These artificial ditches are not considered by the Corps to be tributary to “waters of the U.S.,” therefore, they do not fall under the jurisdiction of the Corps. It is possible that they meet the definition of (one parameter) wetlands under the use of the Cowardin Classification System by Santa Barbara County.

2. Aquatic resources in the study area east of State Route 135 and Orcutt Road consisted of two swales, a culvert, and a drainage ditch. The wetland area located along the north side of the proposed Union Valley Parkway alignment is referred to as the north swale in the project wetland delineation, Figure 25. The dominant plant species in the north swale included scattered arroyo willows (*Salix lasiolepis*), perennial ryegrass (*Lolium perenne*), rabbit’s-foot grass (*Polypogon monspeliensis*), sheep sorrel (*Rumex acetosella*), and toad rush (*Juncus bufonius*). Cattails (*Typha* sp.) were present during the wetland delineation field work in 1999, although they likely would not have occurred if not for the above average rainfall during the previous winter. The cattails were absent when reviewed

during field surveys in 2007. Saltgrass (*Distichlis spicata*) was present in 2007. Non-native species such as iceplant (*Carpobrotus edulis*), pampas grass, and wild radish also were present. The entire extent of this wetland area (0.2 acre) satisfies the Cowardin criteria (based on vegetation and hydrology) and 0.07 acre of the potential impact area meets the Corps criteria.

The wetland area located south of the proposed Union Valley Parkway alignment and east of the proposed realigned Orcutt Road is referred to as the south swale (Figure 26). The south swale supports scrub-shrub wetland vegetation, which includes arroyo willows, curly dock, and perennial ryegrass. Most vegetation on the western side of the swale (along Orcutt Road) could grow equally well in wetland or non-wetland habitat. The remainder of the swale was sparsely vegetated due to recent farming and possibly grading activity. The lower elevations of this swale qualify as Cowardin classified wetlands based on vegetation and the presence of hydric soils, and consisted of 0.34 acre. The westernmost section of the swale also meets the criteria for Corps jurisdictional wetland, but an acreage calculation for this area was not provided in the 1999 delineation study. This area was estimated to be 0.1 acre in size. A culvert provides drainage from the south swale beneath Orcutt Road and State Route 135; however, the road berm at Orcutt Road impounds surface and subsurface water that fills the swale. The drainage ditch feeds the entire north swale.

As detailed above, Corps jurisdictional wetlands pursuant to Section 404 of the Clean Water Act occur within the study area. The features that occur in the study area are considered by the Corps to be tributary to a “waters of the U.S.” As a result, impacts to these jurisdictional wetlands would require attainment of a permit pursuant to Section 404 of the Clean Water Act, and compliance with the conditions of the permit.

Environmental Consequences

Locally Preferred Alignment, Curved Alignment, Foster Road Alignment, and Reduced Extension Alternatives

Cowardin classified wetland habitat occurs in two locations in the study area east of State Route 135: 1) within a swale that crosses the Orcutt Road realignment and is north of the proposed Union Valley Parkway extension (the north swale) and 2) within a depression that crosses the Orcutt Road realignment, south of the proposed Union Valley Parkway extension (the south swale) (Figures 25 and 26). The south

swale wetland area would also be considered Corps jurisdiction as tributary to “waters of the U.S.”

A summary of wetland impacts by alignment alternative is provided in Table 2-25. Direct impacts are those in which natural habitats would permanently be converted to other uses, and temporary impacts are those in which natural habitats would be disturbed during construction and subsequently restored.

Since all of the build alternatives would affect the same area east of State Route 135, including the realignment of Orcutt Road, a total of 1.67 acres of Cowardin wetland habitat would be permanently affected and an additional 0.04 acre would be temporarily affected in this area. Approximately 0.35 acre of Corps jurisdiction wetland would be permanently affected by each of the build alternatives. An additional 0.03 acre of central coast arroyo willow riparian scrub occurs within the Locally Preferred Alignment, and would qualify as Cowardin classified wetlands.

Table 2-25 Summary of Impacts to Wetlands (in acres)

Wetland Jurisdictional Classification		Alignment Alternatives				
		Locally Preferred Alignment	Curved Alignment	Foster Road Alignment	Reduced Extension	No-Action Alternative
Cowardin Classified Wetland	Temporary	0.04	0.04	0.04	0.04	No Impact
	Permanent	1.66	1.63	1.63	1.63	No Impact
Corps Jurisdictional Wetland	Temporary	No Impact	No Impact	No Impact	No Impact	No Impact
	Permanent	0.35	0.35	0.35	0.35	No Impact

No-Action Alternative

Under the No-Action Alternative, the project area would remain undeveloped. No impacts on wetland habitat would result.

Avoidance, Minimization, and/or Mitigation Measures

The following mitigation measure is required for all of the build alternatives.

The project proponent would compensate for the habitat loss or disturbance of identified Cowardin classified wetlands located within the County and for Corps jurisdictional wetland areas at a ratio of 2:1 for areas permanently and temporarily affected. The mitigation would consist of both wetland creation and enhancement. Wetland creation involves converting a non-wetland (either dry land or unvegetated

water) to a wetland, while wetland enhancement involves increasing one or more of the functions performed by an existing wetland beyond what currently or previously existed in the wetland. The mitigation plan would include mitigation for impacts to Corps jurisdictional wetlands. The project proponent would obtain a Section 404 permit and Section 401 certification.

Only Practicable Finding

The Executive Order for the Protection of Wetlands (Executive Order 11990) states that a federal agency, such as the Federal Highway Administration, and Caltrans as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm.

As described in Section 1.4.6, *Alternatives Considered but Eliminated from Further Discussion*, Transportation System Management and Transportation Demand Management alternatives were considered but withdrawn because such alternatives would not be expected to sufficiently facilitate efficient traffic circulation in the study area vicinity, in accordance with adopted level of service thresholds, address future safety issues, or conform to adopted plans and policies. Since all of the build alternatives would affect the same area east of State Route 135, including the realignment of Orcutt Road, each alternative would temporarily and permanently affect the same area of Corps wetlands jurisdiction. An alternative that avoids wetlands in the area east of State Route 135 would not be practicable due to additional costs that would be required and the presence of physical constraints, including existing land uses. All practicable measures have been included to minimize harm to wetlands. All of the build alternatives would require implementation of avoidance, minimization, and/or mitigation measures that compensate for the habitat loss or disturbance of identified Cowardin classified wetlands located within the County and for Corps jurisdictional wetland areas at a ratio of 2:1, as well as wetland creation and enhancement. With implementation of these measures, project impacts on the value and function of wetlands would be fully mitigated. Based on the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands that may result from such use. The least environmentally damaging practicable alternative is the Locally-Preferred Alternative because although it would result in the same impact on Corps wetlands as the other build alternative, it would reduce vehicle noise impacts

and aesthetic impacts at Pioneer Park due to its greater distance from the park, and would reduce growth inducement impacts to the west of Blosser Road. No other practicable alternative would have less adverse impact on the aquatic ecosystem without having additional adverse environmental consequences.

2.3.3 Plant Species

Regulatory Setting

The U.S. Fish and Wildlife Service and California Department of Fish and Game share regulatory responsibility for the protection of special-status plant species. “Special-status” species are selected for protection because they are rare and/or subject to population and habitat declines. Special-status is a general term for species that are afforded varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act and/or the California Endangered Species Act. Please see *Threatened and Endangered Species*, Section 2.3.5, in this document for detailed information regarding these species.

This section of the document discusses all the other special-status plant species, including California Department of Fish and Game fully protected species and species of special concern, U.S. Fish and Wildlife Service candidate species, and non-listed California Native Plant Society rare and endangered plants.

The regulatory requirements for the Federal Endangered Species Act can be found at U.S. Code 16, Section 1531, et seq. See also 50 Code of Federal Regulations Part 402. The regulatory requirements for the California Endangered Species Act can be found at California Fish and Game Code, Section 2050, et seq. Caltrans projects are also subject to the Native Plant Protection Act, found at Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act, Public Resources Code, Sections 2100-21177.

Affected Environment

A *Natural Environment Study* and a *Biological Assessment* were completed in 2007. As detailed above, the study area contains native vegetation and several natural habitat types that could support special-status plant species. One rare plant species, curly-leaved monardella (*Monardella undulata*), was detected in the study area (refer to Figures 24 B-D for species locations). Population size estimates were not conducted for this species. Curly-leaved monardella is a California Native Plant

Society List 4.2 species, which is a watch list for species with a generally limited distribution. List 4.2 species do not have formal protected status, and this species is common throughout the region. No other special-status plant species were observed or are expected to occur in the study area (Table 2-26).

Environmental Consequences

This section describes the impacts of the build alternatives on special-status plant species.

Locally Preferred Alignment

The curly-leaved monardella occurs within central dune scrub habitat on the west end of the Locally Preferred Alignment. This alternative would permanently affect a 0.08-acre occurrence of curly-leaved monardella, a total of 0.08 acre.

Curved Alignment Alternative

The curly-leaved monardella occurs within central dune scrub habitat on the west end of the Curved Alignment. The Curved Alignment would temporarily affect 0.03 acre and permanently affect 0.13 acre containing this species.

Foster Road Alignment Alternative

No curly-leaved monardella or other rare plant species occur on this alignment.

Reduced Extension Alternative

No curly-leaved monardella or other rare plant species occur on this alignment.

**Table 2-26 Special-Status Plant Species
Potentially or Actually Occurring in the Study Area**

Scientific Name	Common Name	Status: Federal/State/ California Native Plant Society	Habitat Requirements	Presence/ Absence
<i>Arctostaphylos rudis</i>	sand mesa manzanita	--/--/1B.2	Chaparral and coastal scrub on sandy soils	Not observed during surveys; not expected to occur in the study area.
<i>Erysimum capitatum</i> var. <i>lompocense</i>	San Luis Obispo wallflower	--/--/4.2	Coastal scrub, chaparral, and sandy soils or sandy hillsides and mesas	Not observed during surveys; not expected to occur in the study area.

**Table 2-26 Special-Status Plant Species
Potentially or Actually Occurring in the Study Area**

Scientific Name	Common Name	Status: Federal/State/ California Native Plant Society	Habitat Requirements	Presence/ Absence
<i>Monardella undulata</i>	curly-leaved monardella	--/--/4.2	Lower montane coniferous forest, sagebrush scrub, and chaparral on dunes and sandy soils	Observed in the study area in a 2002 survey.
<i>Delphinium parryi</i> ssp. <i>blochmaniae</i>	dune larkspur	--/--/1B.2	Chaparral (maritime) and coastal dunes on sandy soils	Not observed during surveys; not expected to occur in the study area.
<i>Erigeron blochmaniae</i>	Blochman's leaf daisy	--/--/1B.2	Coastal dunes, coastal scrub	Not observed during surveys; not expected to occur in the study area.
<i>Scrophularia atrata</i>	black-flowered figwort	--/--/1B.2	Closed-cone coniferous forest, chaparral, coastal dunes, coastal scrub, riparian scrub, on calcareous soils	Not observed during surveys; not expected to occur in the study area.
<i>Calystegia subacaulis</i> ssp. <i>episcopalis</i>	Cambria Morning Glory	--/--/1B.2	Chaparral, cismontane woodland, grasslands. Blooms from April to May	Not observed during surveys; not expected to occur in the study area.
<i>Atriplex serenana</i> var. <i>davidsonii</i>	Davidson's saltscare	--/--/1B.2	Coastal bluff scrub, coastal scrub on alkaline soils. Blooms from April to October.	Not observed during surveys; not expected to occur in the study area.
<i>Agrostis hooveri</i>	Hoover's bent grass	--/--/1B.2	Chaparral, cismontane woodland, and valley and foothill grassland on sandy soils. Blooms from April to July.	Not observed during surveys; not expected to occur in the study area.
<i>Horkelia cuneata</i> ssp. <i>sericea</i>	Kellogg's horkelia	--/--/1B.1	Closed-cone coniferous forest, coastal scrub, chaparral. Old dunes, coastal sand hills; in open areas. Blooms from April to September.	Not observed during surveys; not expected to occur in the study area.
<i>Arctostaphylos purissima</i>	La Purisima manzanita	--/--/1B.1	Maritime chaparral. Endemic to Santa Barbara County. Sandstone outcrops, sandy soil. Blooms from November to May.	No suitable habitat in the study area; not observed during reconnaissance surveys.

**Table 2-26 Special-Status Plant Species
Potentially or Actually Occurring in the Study Area**

Scientific Name	Common Name	Status: Federal/State/ California Native Plant Society	Habitat Requirements	Presence/ Absence
<i>Horkelia cuneata</i> <i>ssp. puberula</i>	Mesa horkelia	--/--/1B.1	Chaparral, cismontane woodland, coastal scrub on sandy or gravelly soils. Blooms from February to September.	Not observed during surveys; not expected to occur in the study area.
<i>Chorizanthe rectispina</i>	Straight-awned spineflower	--/--/1B.3	Chaparral, cismontane woodland, coastal scrub. Often on granite in chaparral or on shale in coastal scrub. Blooms from May to July.	Not observed during surveys; not expected to occur in the study area.
<i>Sidalcea hickmanii</i> <i>parishii</i>	Parish's checkerbloom	--/SR/1B.2	Chaparral, open coniferous forest	Not observed during surveys; not expected to occur in the study area.

Status: SR= State Rare; California Native Plant Society (CNPS) List 1B.1 = Rare or Endangered in California and elsewhere, seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat); CNPS List 1B.2 = Rare or Endangered in California and elsewhere, fairly endangered in California (20-80% occurrences threatened); CNPS List 1B.3 = Rare or Endangered in California and elsewhere, not very endangered in California; CNPS List 4.2 = Plants of limited distribution (watch list), fairly endangered in California (20-80% occurrences threatened).

No-Action Alternative

Under the No-Action Alternative, no disturbance would occur and the project area would remain undeveloped. No impacts would occur to curly-leaved monardella or other rare plants.

Avoidance, Minimization, and/or Mitigation Measures

To avoid impacts to plants that are rare and/or species of special concern, the following avoidance, minimization, and/or mitigation measures are recommended for the Locally Preferred Alignment and Curved Alignment Alternative.

Avoidance of curly-leaved monardella is the primary measure to protect this species. If avoidance is not feasible, then a mitigation and monitoring program, including a salvage and relocation program, would be prepared and implemented. The plan would include measures necessary to establish self-sustaining populations in suitable open space areas designated by the City to ensure the long-term survivability of the species in the vicinity. Salvage and relocation activities would include the following: seed and/or topsoil collection; germination of seed by a qualified horticulturist in a nursery

setting; transplanting seedlings and hand broadcasting seed into the appropriate open space habitats. Annual monitoring would take place for at least five years to ensure no net loss of habitat occupied by this species. The mitigation ratio would be no less than 1:1 (occupied acreage lost:acreage created).

2.3.4 Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration Fisheries Service, and the California Department of Fish and Game are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with wildlife not listed or proposed for listing under the state or federal Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.3.5. All other special-status animal species are discussed here, including California Department of Fish and Game fully protected species and species of special concern, and the U.S. Fish and Wildlife Service or National Oceanic and Atmospheric Administration Fisheries Service candidate species.

Federal laws and regulations pertaining to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act
- Marine Mammal Protection Act

State laws and regulations pertaining to wildlife include the following:

- California Environmental Quality Act
- Sections 1601 – 1603 of the Fish and Game Code
- Sections 4150 and 4152 of the Fish and Game Code

Affected Environment

A *Natural Environment Study* and a *Biological Assessment* were prepared for the project in 2007.

This section describes the California Department of Fish and Game species of special concern that were found in the study area or that have the potential to occur in the study area or in the vicinity. The potential for occurrence is based on a species list

provided by the United States Fish and Wildlife Service (2007), a query of the California Natural Diversity Database (2007) for species occurring in the United States Geological Service 7.5' Santa Maria quadrangle, and the preparer's knowledge of project area characteristics, known regional distribution, and habitat affinities of species occurring in the vicinity of the study area.

Table 2-27 lists animal species that are rare and/or species of special concern with potential to occur in the study area. Several animal species of special concern were detected in the study area, including the California legless lizard, southern Pacific pond turtle, coast horned lizard, golden eagle, burrowing owl, white-tailed kite, California horned lark, loggerhead shrike, and American badger. Special concern animal species that were not observed during surveys, but that have the potential to occur in the study area due to the presence of suitable habitat, include the western spadefoot, two-striped garter snake, Cooper's hawk, northern harrier, and yellow warbler. Additional protected species that are considered species of special concern are nesting bird species protected under the Migratory Bird Treaty Act. The eucalyptus trees and oak trees in the study area provide foraging, roosting, and nesting resources for birds, including the red-tailed hawk, red-shouldered hawk (*Buteo lineatus*), American kestrel (*Falco sparverius*), and great-horned owl (*Bubo virginianus*), which were detected in the study area. In addition, the Turkey vulture (*Cathartes aura*), California horned lark (*Eremophila alpestris actia*), and loggerhead shrike (*Lanius ludovicianus*) were observed or detected in the study area.

**Table 2-27 Special-Status Animal Species
Potentially or Actually Occurring in the Study Area**

Scientific Name	Common Name	Status: Federal/CA	Habitat Requirements	Presence/Absence
REPTILES AND AMPHIBIANS				
<i>Actinemys</i> (= <i>Clemmys</i>) <i>marmorata pallida</i>	southern Pacific (=southwestern) pond turtle	--/SSC	Still or slow-moving water with aquatic vegetation and open areas for basking; upland areas for nesting	Observed at Foxenwood Basin and is expected use upland habitats in the study area near suitable aquatic habitats
<i>Anniella pulchra</i>	California legless lizard	--/SSC	Requires loose soil for burrowing, moisture warmth, and plant cover. Typically frequents sparse vegetation of beaches, coastal scrub, chaparral, pine-oak woodland, and streamside growth of sycamore, cottonwood, and oak trees. Burrows in washes, dune sand, loose soil near bases of slopes, and near permanent or temporary streams.	Observed within the Locally Preferred/ Curved Alignment and adjacent to the Foster Road Alignment
<i>Phrynosoma coronatum</i>	California horned lizard	--/SSC	Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Suitable habitat in the study area; has been observed in the project vicinity; likely to occur in the study area.
<i>Thamnophis hammondi</i>	Two-striped garter snake	--/SSC	Highly aquatic species known to occur in coastal drainages or man-made ponds with riparian and wetland vegetation. Overwinters in uplands in small mammal burrows.	Not observed in the study area, but suitable upland habitat may exist in the study area.
<i>Spea</i> (= <i>Scaphiopus</i>) <i>hammondi</i>	Western spadefoot	--/SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg laying.	Not observed in the study area, but suitable upland habitat may exist. Could occur in the study area.
BIRDS				
<i>Accipiter cooperii</i>	Cooper's hawk	--/SSC (nesting)	Forages and nests in open woodlands, wood margins, and riparian habitat	Suitable nesting and foraging habitat exists in the study area; not observed during surveys.

**Table 2-27 Special-Status Animal Species
Potentially or Actually Occurring in the Study Area**

Scientific Name	Common Name	Status: Federal/CA	Habitat Requirements	Presence/Absence
<i>Circus cyaneus</i>	northern harrier	--/SSC (nesting)	Forages and nests in grasslands and marshes	Suitable nesting and foraging habitat exists in the study area; not observed during surveys.
<i>Aquila chrysaetos</i>	golden eagle	--/SSC, FP (nesting, wintering)	Open country, in prairies, tundra, open coniferous forest and barren areas, especially in hilly or mountainous regions; nests on cliff ledges and in trees	Observed foraging at the Santa Maria Airport and other areas in the project vicinity; marginal foraging habitat exists in the study area; nesting is unlikely.
<i>Elanus leucurus</i>	white-tailed kite	--/FP (nesting)	Open country, grasslands, and marshes; nests in trees	Suitable nesting and foraging habitat exists in the study area; observed roosting and foraging in the project vicinity.
<i>Eremophila alpestris actia</i>	California horned lark	--/SSC	Nests and forages in sparse coastal sage scrub, grasslands	Observed in the study area between Blosser Road and California Boulevard (Dudek 2001).
<i>Lanius ludovicianus</i>	Loggerhead shrike	--/SSC (nesting)	Coastal sage scrub, grasslands.	Observed in the vicinity at the sediment basin southeast of Hummel Dr. and Union Valley Parkway
<i>Athene cunicularia</i>	Burrowing owl	--/SSC (burrows & some wintering sites)	Burrow sites in open dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.	Observed at the Santa Maria Airport; nesting habitat is not present in the study area, but may forage in the study area.
<i>Accipiter striatus</i>	Sharp-shinned hawk	--/SSC (nesting)	Nesting in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffery pine habitats. Prefers riparian areas.	Suitable nesting and foraging habitat exists in the study area; not observed during surveys.
<i>Dendroica petechia brewsteri</i>	Yellow warbler	--/SSC (nesting)	Riparian plant associations, prefers willows, cottonwoods, aspens, sycamores, and alders for nesting and foraging.	Not observed during reconnaissance surveys; potential foraging and nesting habitat exists in the study area; could occur in the study area

**Table 2-27 Special-Status Animal Species
Potentially or Actually Occurring in the Study Area**

Scientific Name	Common Name	Status: Federal/CA	Habitat Requirements	Presence/Absence
MAMMALS				
<i>Taxidea taxus</i>	American badger	--/SSC	Friable soils and open, uncultivated grassland habitat. Preys on burrowing rodents.	Observed north of Union Valley Parkway alignment in the Santa Maria Airport Business Park Specific Plan area. Signs observed at the County Yard and elsewhere in the project vicinity; likely to occur in the study area.

Status: Fully Protected (FP); California Species of Special Concern (SSC).

Environmental Consequences

Table 2-28 summarizes the impacts of each of the build alternatives on special-status animal species.

Table 2-28 Special-Status Animal Species Impacts

Scientific Name	Common Name	Status Federal/CA	Potentially Impacted by Alignment Alternative?			
			Locally Preferred	Curved	Foster Road	Reduced Extension
REPTILES AND AMPHIBIANS						
<i>Actinemys</i> (= <i>Clemmys</i>) <i>marmorata</i> <i>pallida</i>	southern Pacific Pacific (southwestern) pond turtle	--/SSC	Yes	Yes	Yes	No
<i>Anniella pulchra</i>	California legless lizard	--/SSC	Yes	Yes	Yes	Yes
<i>Phrynosoma coronatum</i>	California horned lizard	--/SSC	Yes	Yes	Yes	Yes
<i>Thamnophis hammondi</i>	Two-striped garter snake	--/SSC	Yes	Yes	Yes	Yes
<i>Spea</i> (<i>Scaphiopus</i>) <i>hammondi</i>	Western spadefoot	--/SSC	Yes	Yes	Yes	Yes
BIRDS						
<i>Accipiter cooperii</i>	Cooper's hawk	--/SSC (nesting)	Yes	Yes	Yes	Yes
<i>Circus cyaneus</i>	northern harrier	--/SSC (nesting)	Yes	Yes	Yes	Yes
<i>Aquila chrysaetos</i>	golden eagle	--/SSC, FP (nesting, wintering)	Yes	Yes	Yes	Yes

Table 2-28 Special-Status Animal Species Impacts

Scientific Name	Common Name	Status Federal/CA	Potentially Impacted by Alignment Alternative?			
			Locally Preferred	Curved	Foster Road	Reduced Extension
<i>Elanus leucurus</i>	white-tailed kite	--/FP (nesting)	Yes	Yes	Yes	Yes
<i>Eremophila alpestris actia</i>	California horned lark	--/SSC	Yes	Yes	Yes	Yes
<i>Lanius ludovicianus</i>	Loggerhead shrike	--/SSC (nesting)	Yes	Yes	Yes	Yes
<i>Athene cunicularia</i>	Burrowing owl	--/SSC (burrows & some wintering sites)	Yes	Yes	Yes	Yes
<i>Accipiter striatus</i>	Sharp-shinned hawk	--/SSC (nesting)	Yes	Yes	Yes	Yes
<i>Dendroica petechia brewsteri</i>	Yellow warbler	--/SSC (nesting)	Yes	Yes	Yes	Yes
MAMMALS						
<i>Taxidea taxus</i>	American badger	--/SSC	Yes	Yes	Yes	Yes

Status: Fully Protected (FP); California Species of Special Concern (SSC).

Note: The purpose of this table is to provide a summary of special-status animal species that could be potentially impacted by each of the alignment alternatives. It is not intended to provide a quantitative comparison of the magnitude of impact on each animal species for each of the alternatives.

Locally Preferred Alignment

A total of approximately 15.20 acres of potential nesting and roosting (eucalyptus, ornamental and oak woodland) habitat for birds occurs on the Locally Preferred Alignment Alternative and could be disturbed by project construction and operations. In addition, 6.11 acres of central (Lucian) coastal scrub, 11.31 acres of central dune scrub, and 27.59 acres of non-native grassland, which can be used by species such as the horned lark, loggerhead shrike, and various special-status mammal and reptile species, would be affected. The California legless lizard, California horned lizard, southern Pacific pond turtle, two-striped garter snake, and American badger have the potential to use habitats within this alignment. Eucalyptus woodland is protected and would require compensatory mitigation at a 2:1 ratio as described in Section 2.3.1, *Natural Communities*. Compensatory mitigation for other plant communities of special concern, which is described in Section 2.3.1, would also benefit several special-status animal species. Cumulative impacts from loss of wildlife habitat are discussed in Section 2.5, *Cumulative Impacts*.

Curved Alignment Alternative

Approximately 11.96 acres of nesting and roosting (oak, eucalyptus, and ornamental woodland) habitat for birds would be affected by this alignment. In addition, 5.06 acres of central (Lucian) coastal scrub, 13.07 acres of central dune scrub, and 28.66 acres of non-native grassland that can be used by species such as the horned lark, loggerhead shrike, and various special-status mammal and reptile species would be lost.

California legless lizard, California horned lizard, southern Pacific pond turtle, two-striped garter snake and American badger have the potential to use habitats within the Curved Alignment.

Cumulative impacts from loss of wildlife habitat are discussed in Section 2.5, *Cumulative Impacts*.

Foster Road Alignment Alternative

A total of approximately 9.57 acres of potential nesting and roosting habitat (eucalyptus and ornamental woodland) for birds occurs on the Foster Road Alignment Alternative and would be disturbed by project construction and operations. In addition, 5.20 acres of central (Lucian) coastal scrub, 10.52 acres of central dune scrub, and 23.68 acres of non-native grassland that can be used by species such as the horned lark, loggerhead shrike, and various special-status mammal and reptile species would be affected. The California legless lizard, California horned lizard, southern Pacific pond turtle, two-striped garter snake, and American badger have the potential to use habitats within this alignment. Eucalyptus woodland is protected and would require compensatory mitigation at a 2:1 ratio as described in Section 2.3.1, *Natural Communities*. Compensatory mitigation for other plant communities of special concern, which is described in Section 2.3.1, also would benefit several special-status animal species. Cumulative impacts from loss of wildlife habitat are discussed in Section 2.5, *Cumulative Impacts*.

Reduced Extension Alternative

This alternative would directly affect approximately 6.16 acres of nesting and roosting bird habitat (eucalyptus and ornamental woodland). In addition, 4.26 acres of central (Lucian) coastal scrub, 9.87 acres of central dune scrub, and 16.70 acres of non-native grassland that can be used by species such as the horned lark, loggerhead shrike, and various special-status mammal and reptile species would be affected. It would also affect California legless lizard, California horned lizard, and American

badger habitat. Eucalyptus woodland is protected and would require compensatory mitigation at a 2:1 ratio as described in Section 2.3.1, *Natural Communities*. Compensatory mitigation for other plant communities of special concern, which is described in Section 2.3.1, also would benefit several special-status animal species. Cumulative impacts from loss of wildlife habitat are discussed in Section 2.5, *Cumulative Impacts*.

No-Action Alternative

Under the No-Action Alternative, no disturbance would occur and the study area would remain undeveloped. No impacts would occur to special-status animal species.

Avoidance, Minimization, and/or Mitigation Measures

To avoid and minimize impacts to animals that are rare and/or species of special concern and their habitats that occur on the build alternatives, the following avoidance and minimization measures are required:

- To avoid impacts to nesting special-status bird species, and other birds protected under the Migratory Bird Treaty Act and/or California Department of Fish and Game code, all initial ground-disturbing activities and tree removal would be limited to the period between September 1 and February 1. If initial project-specific disturbance, grading, and tree removal cannot be conducted during this period, a qualified biologist approved by the City in consultation with Caltrans would conduct surveys for active nests within the limits of the project two weeks before any construction activities. If no active nests are located, ground-disturbing/construction activities can proceed. If active nests are located, then all construction work must be conducted outside a non-disturbance buffer zone at a distance established by the City in consultation with the California Department of Fish and Game and depending upon the species. No direct disturbance to nests would occur until the adults and young are no longer reliant on the nest site as determined by the approved qualified biologist.
- To avoid impacts to turkey vulture roosts (if present), preconstruction surveys for active roosts within the limits of the project would be conducted by a qualified biologist approved by the City before initiation of construction activities. If roost sites were located, they would be avoided wherever possible and no more than two pieces of construction equipment would be used simultaneously within 100 feet of active roost sites. The trees and habitat structure lost due to development would be adequately mitigated through replacement of the oaks and eucalyptus

(see mitigation measures under Section 2.3.1, *Natural Communities*). Before maturation of the replacement trees, adequate alternative roosting sites are available throughout the project vicinity.

- Because the distribution of the western spadefoot within the project area is not well understood, it is not known if any of the alternatives would avoid areas occupied by the species. Minimization measures for the western spadefoot are the same as those specified for the California tiger salamander, and would be implemented concurrently:
 1. At least one month before the start of western spadefoot surveys/trapping, the name(s) and qualifications(s) of the biologist(s) who would conduct surveys would be submitted to the City for approval.
 2. For the period from October 15 through June 15 of the year before the start of construction, all work areas within 2,200 feet of California tiger salamander breeding ponds would be fenced with drift fence and pitfall traps. The western spadefoot occupies many of the same aquatic breeding sites as the California tiger salamander, and the local distribution of the California tiger salamander is better understood. This would allow for the exclusion of the western spadefoot and other animals from the work area (including southern Pacific pond turtles, California tiger salamanders, and California red-legged frogs) and the relocation of any animals that may emerge from burrows inside the work area. Installation of the fence and traps would follow materials, design, and implementation specifications detailed in the California tiger salamander protocol, with the exception that there would be no gaps between sections of fence. For the two weeks following installation, a biologist would survey the area inside the fence daily and relocate any animal species encountered to areas outside the fence. Pitfall traps would be opened during all rain events or humid overnight conditions as specified in the protocol throughout the period from October 15 through June 15.
 3. Captured western spadefoots would immediately be placed into containers containing moist soil and plant material from the location of capture, and released in designated relocation areas no more than three hours after capture.
 4. During all initial ground-disturbing activities, a qualified biologist would be present in the study area to recover any western spadefoot that may be excavated from an underground refuge. If the animals were in good health, they would be relocated immediately to the designated release area. If they were injured or killed, the animals would be deposited at a suitable vertebrate

- museum, such as the Santa Barbara Museum of Natural History or the University of California Santa Barbara Museum of Systematics and Ecology.
5. Before any construction activities begin on the project, a qualified biologist would conduct a training session for all construction personnel. At a minimum, the training would include a description of the western spadefoot and its habitat, the importance of the western spadefoot and its habitat, the general measures that are being implemented to conserve the western spadefoot as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session. The City and appropriate resource agency personnel would be notified of the date and time the training is scheduled so they may attend.
 6. A qualified biologist would be present at the work site until such time as all removal of western spadefoot, instruction of workers, and initial ground disturbance have been completed. After this time, the City would designate a person to monitor compliance with all mitigation measures. The qualified biologist would ensure that this individual receives the training outlined above.
 7. The number of access routes, number and size of staging areas, and the total area of the activity would be limited to the minimum necessary to achieve the project goal. Routes and boundaries would be clearly marked, and would be outside wetland areas. Fueling and maintenance of vehicles and other equipment and staging areas would occur at least 100 feet from any riparian or wetland habitat. The City would ensure that contamination of habitat does not occur during such operations. Before the onset of work, the City would prepare and comply with an emergency response plan to allow a prompt and effective response to any accidental spills. All workers would be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
 8. California Natural Diversity Database forms would be completed and sent to the California Department of Fish and Game for all western spadefoots observed during the project.
- The two-striped garter snake was not found in the study area, however there is potential for this species to occur in the study area. Minimization measures are as follows:

1. Before any construction activities begin on the project, a qualified biologist would conduct a training session for all construction personnel. At a minimum, the training would include a description of the two-striped garter snake and its habitat, the importance of the two-striped garter snake and its habitat, the general measures that are being implemented to conserve the two-striped garter snake as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session. The City and appropriate resource agency personnel would be notified of the date and time the training is scheduled so they may attend.
 2. During all initial ground-disturbing activities, a qualified biologist would be present in the study area to recover any two-striped garter snake that may be excavated from an underground refuge. If the animals were in good health, they would be relocated immediately to a designated release area. If they were injured or killed, the animals would be deposited at a suitable vertebrate museum, such as the Santa Barbara Museum of Natural History or the University of California Santa Barbara Museum of Systematics and Ecology.
 3. California Natural Diversity Database forms would be completed and sent to the California Department of Fish and Game for all two-striped garter snakes observed during the project.
- The California legless lizard was not found in the study area, however it does have potential to occur in the study area. Avoidance and minimization efforts for the California legless lizard require the City to retain a qualified biologist to conduct pre-construction surveys and monitor construction activities as follows:
 1. Raking surveys would be conducted on a weekly basis from February 1 through May 31 before the start of construction. These surveys would entail raking of leaf litter and sand under shrubs within suitable habitat in the area to be disturbed, to a minimum depth of eight inches.
 2. In addition to raking, “coverboards” would be used to capture California legless lizards. Coverboards should consist of untreated plywood at least 4 feet long by 4 feet wide. Coverboards would be placed flat on the ground at least six months before construction or from the period of February 1 through May 31 and checked once a week. Captured lizards would be placed immediately into containers containing sand and kept at a constant cool temperature. Lizards would be released in designated relocation areas no more than one hour after capture.

3. During all initial grading activities, a qualified biologist would be in the study area to recover any California legless lizards that may be excavated/unearthed with native material. If the animals were in good health, they would be immediately relocated to the designated relocation area. If they were injured, the animals would be turned over to a specialist approved by the California Department of Fish and Game until they were in a condition to be released into the designated release area or deposited at an approved vertebrate museum.
 4. California Natural Diversity Database forms would be completed and sent to the California Department of Fish and Game for all California legless lizards observed during the project.
- The southern Pacific pond turtle was found in the study area at the Foxenwood Basin. The Foster Road or Reduced Extension alignments would likely avoid or reduce impacts to this species. Avoidance and minimization efforts would require the City to retain a qualified biologist who would monitor construction activities in habitat suitable for the southern Pacific pond turtle to ensure that impacts to the species are avoided or minimized, as follows:
 1. An exclusion fence constructed out of three-foot-tall silt fence would be installed around the perimeter of the work site and keyed into the ground to exclude southwestern pond turtles from the construction activities. This fence would be installed during the month of April, before the start of construction, for areas within 1,500 feet of the Foxenwood Basin and the sediment basin near the intersection of Union Valley Parkway and Hummel Drive. The timing of installation should allow for hatchlings to have emigrated to aquatic sites, and should prevent adult females from entering the area to establish new nests. The area within the exclusion fence should then be surveyed for southern Pacific pond turtles on a daily basis for the first two weeks, and weekly thereafter until the start of construction. If any southern Pacific pond turtles were found, they would be moved out of the exclusion area by a qualified biologist and relocated to the nearest aquatic site with suitable habitat.
 2. A biologist would survey all areas of the work site within 1,640 feet of the Foxenwood Basin two weeks before the start of grading or other ground-disturbing activities. The survey should include raking of leaf litter and sand under shrubs within suitable habitat in the area to be disturbed to a minimum

- depth of five inches. The approved biologist would be allowed sufficient time to relocate southern Pacific pond turtle before work activities begin.
3. Before any construction activities begin, a biologist would conduct a training session for all construction personnel. At a minimum, the training should include a description of the southern Pacific pond turtle, its habitat, and status; the general measures that are being implemented to conserve the species as they relate to the project; and, the boundaries within which the project may be accomplished. A worker education handout containing this information would be distributed to participants and a sign-in sheet completed. The City and appropriate resource agency personnel would be notified of the date and time the training is scheduled so they may attend.
 4. During all initial grading activities, a qualified biologist would walk alongside the excavating equipment to recover any southern Pacific pond turtle that may be uncovered. If the animals were in good health, they would be immediately relocated to the designated release area. If they were injured, the animals would be turned over to a specialist approved by the California Department of Fish and Game until they were in a condition to be released into the designated release area. Dead southern Pacific pond turtles would be deposited at a vertebrate museum such as the Santa Barbara Natural History Museum or the University of California Museum of Systematics and Ecology.
 5. California Natural Diversity Database forms would be completed and sent to the California Department of Fish and Game for all southern Pacific pond turtles observed during the project.
- The coast horned lizard was not found in the study area, however it does have potential to occur in the study area. Avoidance and minimization efforts for coast horned lizard require the City to retain a qualified biologist to monitor construction activities in habitat suitable for the coast horned lizard to ensure that impacts to coast horned lizard are avoided or minimized, as follows:
 1. Before the initiation of construction, surveys would be conducted for the coast horned lizard. If construction activities were to take place within the activity period of the coast horned lizard (April to October), pre-construction visual surveys would be conducted weekly beginning two months before initial ground-disturbing activities. All lizards found within the project footprint would be captured and released into designated relocation areas approved by the City and a qualified biologist.

2. “Coverboards” would be used to capture coast horned lizards. Coverboards should consist of untreated plywood at least 4 feet long by 4 feet wide. Coverboards would be placed flat on the ground at least six months before construction or from the period of February 1 through May 31 and checked once a week. Captured lizards would be placed immediately into containers containing sand and kept at a constant cool temperature. Lizards would be released in designated relocation areas no more than one hour after capture.
 3. During all initial grading activities, a qualified biologist would be present in the study area to recover any coast horned lizard that may be excavated/unearthed with native material. If the animals were in good health, they would be immediately relocated to the designated relocation area. If they were injured, the animals would be turned over to a specialist approved by the California Department of Fish and Game until they were in a condition to be released into the designated release area or deposited at an approved vertebrate museum.
 4. California Natural Diversity Database forms would be completed and sent to the California Department of Fish and Game for all coast horned lizard observed during the project.
- The American badger was found in the project vicinity and likely occurs within the alignment alternative areas. Relative impact levels of the alternatives on the American badger are not known. To avoid the potential mortality of American badgers, no grading would occur within 50 feet of an active American badger den between March 1 and June 30 as determined by a qualified biologist approved by the City. Construction activities between July 1 and March 1 would comply with the following measures to avoid mortality of adult and/or young badgers:
 1. A qualified biologist approved by the City would conduct a survey for active American badger dens within the entire project area between 2 weeks and 4 weeks before the start of ground clearing or grading activity. The survey would cover the entire study area, but would focus on the areas where suitable American badger habitat occurs. A fiber optic scope or other non-invasive means would be used to assess the presence of badgers within dens that are too long to see to the end. Inactive dens would be collapsed by hand with a shovel to prevent badgers from re-using them during construction.
 2. Before grading, badgers would be discouraged from using currently active dens by partially blocking the entrance of the den with sticks, debris, and soil for 3 to 5 days. Access to the den would be incrementally blocked to a greater

degree over this period. This would cause the badger to abandon the den site and move elsewhere. After badgers have stopped using active dens within the project study area, the dens would be hand-excavated with a shovel and collapsed to prevent re-use. A qualified biologist would be present during the initial ground-disturbing activity. If badger dens were found, all work would cease until the biologist could safely close the badger den. Once the badger dens have been closed, work in the project area may resume.

2.3.5 Threatened and Endangered Species

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act: U.S. Code, Section 1531, et seq. See also 50 Code of Federal Regulations Part 402. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems on which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration, and Caltrans as assigned, are required to consult with the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration Fisheries Service to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 is a Biological Opinion or an incidental take statement. Section 3 of the Federal Endangered Species Act defines take as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or any attempt at such conduct.”

California has enacted a similar law at the state level, the California Endangered Species Act, California Fish and Game Code, Section 2050, et seq. The California Endangered Species Act emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The California Department of Fish and Game is the agency responsible for implementing the California Endangered Species Act. Section 2081 of the Fish and Game Code prohibits “take” of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” The California Endangered Species Act allows for take incidental to otherwise

lawful development projects; for these actions an incidental take permit is issued by the California Department of Fish and Game. For projects requiring a Biological Opinion under Section 7 of the Federal Endangered Species Act, the California Department of Fish and Game may also authorize impacts to the California Endangered Species Act species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

Affected Environment

Informal communication with the U.S. Fish and Wildlife Service was conducted regarding the California tiger salamander. Bridget Fahey and Katherine Drexhage of the U.S. Fish and Wildlife Service concurred that based on habitat conditions and proximity of the project to known breeding ponds on the Airport property, the California tiger salamander could potentially use upland habitat (native and naturalized habitats) west of State Route 135. Regular communication with Ms. Drexhage was conducted during the course of the surveys to inform the U.S. Fish and Wildlife Service of survey results. Formal Section 7 consultation regarding California tiger salamander and California red-legged frog was initiated in July 2008 with submittal of a Biological Assessment to the U.S. Fish and Wildlife Service. The Section 7 process was completed with issuance of a Biological Opinion on December 17, 2008, which states that it is the U.S. Fish and Wildlife Service's biological opinion that the Locally-Preferred Alignment is not likely to jeopardize the continued existence of the California tiger salamander or California red-legged frog, or adversely modify critical habitat for the California tiger salamander.

This section describes threatened and endangered plant and animal species that were found or that have the potential to occur in the study area or the project vicinity. The species considered are based on a list of endangered, threatened, and candidate species provided by the United States Fish and Wildlife Service (2003, 2007), a query of the California Natural Diversity Database (2007) for species occurring in the United States Geological Service 7.5' Santa Maria quadrangle, and the preparer's knowledge of project area characteristics, known regional distribution, and habitat affinities of species occurring in the vicinity of the study area. Additional information is in the *Natural Environment Study* and *Biological Assessment* that were prepared for this project in 2007.

Threatened and Endangered Plant Species

No state or federally listed threatened or endangered plants were found in the study area, and none are expected to occur in the study area (Table 2-29).

**Table 2-29 Threatened and Endangered Species
Potentially or Actually Occurring in the Study Area**

Scientific Name	Common Name	Status: Federal/State/ California Native Plant Society	Habitat Requirement	Presence/Absence
PLANTS				
<i>Arenaria paludicola</i>	Marsh sandwort	FE/SE/ 1B.1	Boggy meadows, marshes	Not observed during surveys; no suitable habitat in the study area; not expected to occur in the study area.
<i>Cirsium loncholepis</i>	La Graciosa thistle	FE/ST/ 1B.1	Wetlands in dunes	Not observed during surveys; no suitable habitat in the study area; not expected to occur in the study area.
<i>Cordylanthus rigidus</i> ssp. <i>littoralis</i>	seaside bird's- beak	---/SE/1B.1	Closed-cone coniferous forest, maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, and disturbed habitat types on sandy soils	Not observed during surveys; not expected to occur in the study area.
<i>Deinandra increscens</i> ssp. <i>villosa</i>	Gaviota tarplant	FE/SE/ 1B.1	Coastal bluff scrub, coastal scrub, valley and foothill grassland	Not observed during surveys; not expected to occur in the study area.
<i>Eriodictyon capitatum</i>	Lompoc yerba santa	FE/SR/ 1B.2	Chaparral, coastal scrub, sandy soils	Not observed during surveys; not expected to occur in the study area.
<i>Lasthenia conjugens</i>	Contra Costa goldfields	FE/--/ 1B.1	Vernal pools	Not observed during surveys; no suitable habitat in the study area; not expected to occur in the study area.
<i>Layia carnosa</i>	Beach layia	FE/SE/ 1B.1	Coastal dunes	Not observed during surveys; no suitable habitat in the study area; not expected to occur in the study area.
<i>Rorippa gambelii</i>	Gambel's water cress	FE/ST/ 1B.1	Marshes, streambanks, lake margins	Not observed during surveys; no suitable habitat in the study area; not expected to occur in the study area.

**Table 2-29 Threatened and Endangered Species
Potentially or Actually Occurring in the Study Area**

Scientific Name	Common Name	Status: Federal/State/ California Native Plant Society	Habitat Requirement	Presence/Absence
AMPHIBIANS				
<i>Ambystoma californiense</i>	California tiger salamander	FE/SSC/--	Vernal and seasonal pools and associated grasslands, oak savanna and woodland, and coastal scrub. Require underground refuges (small mammal burrows for dry season refuge)	Observed between the Locally Preferred/Curved Alignment and the Foster Road Alignment. Likely uses study area as upland habitat and for dispersal to breeding pools on nearby Airport property. Foxenwood Basin may provide breeding habitat. Recent protocol surveys for this species have been inconclusive.
<i>Rana draytoni</i>	California red-legged frog	FT/SSC/--	Lowland and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation in ponds or streams	Not observed in alignment, but was observed at the Foxenwood Basin adjacent to study area. Could use upland habitat within the study area due to proximity of known breeding habitat. Would use study area as dispersal habitat.
INVERTEBRATES				
<i>Branchinecta longiantenna</i>	Longhorn fairy shrimp	FE/--/--	Ephemeral freshwater, vernal pools, seasonal swales	Has not been documented from coastal areas near Santa Maria; not expected to occur.
<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	FT/--/--	Vernal pools, ephemeral ponds, seasonal wetlands	Recently documented from the Santa Maria Airport; should be considered present since water quality impacts from the project could affect occupied habitats outside the project area.

**Table 2-29 Threatened and Endangered Species
Potentially or Actually Occurring in the Study Area**

Scientific Name	Common Name	Status: Federal/State/ California Native Plant Society	Habitat Requirement	Presence/Absence
BIRDS				
<i>Vireo bellii pusillus</i>	least Bell's vireo	FE/SE/-- (nesting)	Dense willow- dominated riparian habitat with lush understory near watercourse.	Suitable habitat not present; not expected to occur in the study area.
<i>Empidonax traillii extimus</i>	southwestern willow flycatcher	FE/SE/-- (nesting)	Dense understory in riparian habitat near water.	Suitable habitat not present; not expected to occur in the study area.
FISH				
<i>Oncorhynchus mykiss irideus</i>	steelhead-central California coast ESU	FT/SSC	Gravel-bottomed, fast-flowing, well- oxygenated rivers and streams, and migrate to the ocean	Suitable habitat not present; not expected to occur in the study area.

¹Status: FE = federally endangered; FT = federally threatened; SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; FP = state fully protected

Threatened and Endangered Animal Species

The federally listed threatened and endangered animal species with potential to occur in the study area include the California tiger salamander, California red-legged frog, and vernal pool fairy shrimp (Table 2-29). Based on the Section 7 determinations made in the Biological Assessment for threatened and endangered species, a formal Section 7 consultation was required for the California tiger salamander and California red-legged frog for any of the build alternatives except the Reduced Extension Alternative. Formal Section 7 consultation was completed for the Locally-Preferred Alignment in December 2008. Vernal pool fairy shrimp are known to occur on the Santa Maria Airport property. It is possible that indirect effects such as runoff and sedimentation from the project could affect these populations. Therefore, it is possible that a consultation with the U.S Fish and Wildlife Service may also be needed for vernal pool fairy shrimp, especially in the case of the Foster Road Alternative.

California Tiger Salamander

It should be noted that the portion of the Biological Study Area west of State Route 135, which occurs on the Locally Preferred Alignment, Curved Alignment, and

Foster Road Alignment alternatives, is designated by the U.S. Fish and Wildlife Service as critical habitat for California tiger salamander. The build alternatives are located outside the proposed critical habitat for the California red-legged frog.

California tiger salamanders were not observed in the study area during field surveys, but they have been observed within the vicinity (Figure 30). They are recorded from breeding pools approximately 0.45 mile northwest and 0.55 mile west northwest of the junction of Blosser Road and Foster Road. Breeding has been documented in an agricultural pond located approximately 0.3 mile north of the junction of Foster Road and California Boulevard. In addition, one individual California tiger salamander was observed at the County Administration building north of the Locally Preferred/Curved alignments and south of the Foster Road Alignment immediately south of Foster Road. This observation was within 600 feet of the Locally Preferred/Curved alignment and less than about 50 feet from the Foster Road Alignment.

The 1.5-acre Foxenwood storm water retention basin (Foxenwood Basin) is located 500 feet south of the Curved Alignment. California tiger salamander protocol surveys were conducted at the Foxenwood Basin during spring 2006 (aquatic surveys), winter/spring 2006/2007 (upland and aquatic surveys), and winter/spring 2007/2008 (upland and aquatic surveys). No California tiger salamanders were identified within the Foxenwood Basin as a result of the protocol surveys.

The portion of the study area within the range of dispersal for most California tiger salamanders (2,200 feet from known breeding sites) is shown on Figure 30. Due to the proximity of known California tiger salamander populations and habitat, there is a potential that this species could disperse to rodent burrows in the study area in non-native grassland, coastal and dune scrub, and valley needlegrass grassland habitats for upland refuge. It could also use other habitats, such as live oak woodland, eucalyptus, and disturbed areas, in the study area for movement purposes. California tiger salamanders are not expected to occur east of State Route 135 and Orcutt Road because it is highly unlikely that any would survive crossing these roads and suitable habitat is lacking.

California Red-Legged Frog

California red-legged frogs are known from five occurrences within one mile of the Curved Alignment, including the following:

- 1) The eucalyptus forest immediately west of Blosser Road, approximately 0.3 mile south of the junction of Foster Road

- 2) A breeding pond approximately 0.6 mile west southwest of the junction of Foster Road and Blosser Road
- 3) A dune swale pond approximately 0.8 mile west northwest of the junction of Foster Road and Blosser Road
- 4) Two agricultural ponds approximately 0.3 mile north of the junction of Foster Road and California Boulevard
- 5) The Foxenwood Basin located approximately 0.3 mile southeast of the junction of Foster Road and Blosser Road.

The detention basin provides excellent aquatic habitat for this species, and California red-legged frogs were observed in 2002 and during protocol surveys for California tiger salamander aquatic and upland habitat conducted at the Foxenwood Basin in 2006, 2007, and 2008. Furthermore, this species may use upland habitat in the study area for dispersal between aquatic sites and during wet periods in the winter when they can occupy upland habitats. California red-legged frogs are not expected to occur east of State Route 135 and Orcutt Road because they are unlikely to survive crossing the roads and no suitable habitat exists.

Vernal Pool Fairy Shrimp

Vernal pool fairy shrimp have been documented from the Santa Maria Airport property approximately 0.3 mile west of the intersection of Blosser Road and Foster Road. A small area of standing water in a road rut was observed within the study area to the east of State Route 135. In October 2007, this rut had shallow standing water in an area less than 6 feet in diameter. In some cases, vernal pool fairy shrimp occur in small tire ruts or roadside ditches, as long as at least 3 centimeters of standing water persists for a minimum of 10 days. However, it is unlikely they occur in the study area puddle since it is not adjacent to other suitable habitats. This species is unlikely to occur in the “north and south swales” east of State Route 135 because these areas have some degree of flow. Habitat for vernal pool fairy shrimp is not expected to occur elsewhere within the study area. Puddles of standing water were not present on the Locally Preferred and Curved alignments northeast of the Foxenwood Basin during the winter of 2006/2007 when observers frequently visited this area during California tiger salamander sampling. The study area does not fall within designated critical habitat for the vernal pool fairy shrimp.

Environmental Consequences

Permanent and temporary impacts to California tiger salamander and California red-legged frog upland and dispersal habitat are provided in Table 2-30. Direct impacts

are those in which natural habitats would permanently be converted to other uses, and temporary impacts are those in which natural habitats would be disturbed during construction and subsequently restored. Impact areas for both species were calculated for areas occupied by non-native grassland, wetland, central (Lucian) coastal scrub, central dune scrub, valley needlegrass grassland, disturbed, ruderal, ornamental, coast live oak woodland, and eucalyptus woodland habitats. These species are not expected to use developed habitats, such as roads or the concrete ditch north of Foxenwood Estates. Calculations were made for the area between Blosser Road to State Route 135 since these species are not expected to move east of State Route 135 due to the positive barrier effect created by traffic on State Route 135.

Table 2-30 Direct Impacts to California Tiger Salamander and California Red-legged Frog Habitat (Temporary Impacts/Permanent Impacts in Acres)

Species	Alignment Alternatives				
	Locally Preferred Alignment	Curved Alignment	Foster Road Alignment	Reduced Extension	No-Action Alternative
California Tiger Salamander Upland and Dispersal Habitat	2.59/ 19.65	3.04/ 17.36	5.82/ 10.41	No Impact	No Impact
California Red-Legged Frog Upland and Dispersal Habitat	2.59/ 19.65	3.04/ 17.36	5.82/ 10.41	No Impact	No Impact
Vernal Pool Fairy Shrimp	No Impact	No Impact	Not Expected	No Impact	No Impact

California Tiger Salamander

No California tiger salamander breeding habitat occurs within the study area. However, the alignment alternatives would affect upland dispersal and refuge habitat for California tiger salamander. In addition, fragmentation of habitats would contribute to decreasing dispersal, and consequently gene flow, between local populations. The effects of road kill would contribute to the further loss of this species. The loss of this habitat and potential mortality of California tiger salamander individuals due to construction and use of the alignment are considered potentially substantial impacts. Concurrence from the U.S. Fish and Wildlife Service for these impacts related to the Locally-Preferred Alignment was received in the Biological Opinion of December 2008. Avoidance, mitigation, and minimization measures are required for potential impacts to California tiger salamanders.

The impacts of each alignment alternative on California tiger salamander are shown below:

- *Locally Preferred Alignment*—Development of the Locally Preferred Alignment would temporarily and permanently affect a total of 22.24 acres of potential dispersal and refuge habitat for the California tiger salamander. Of this area, 19.65 acres would be permanently affected, and 2.59 acres would be restored to habitats that could be used for dispersal.
- *Curved Alignment Alternative*— Development of the Curved Alignment would temporarily and permanently affect a total of 20.40 acres of potential dispersal and refuge habitat for the California tiger salamander. Of this area, 17.36 acres would be permanently affected, and 3.04 acres would be restored to habitats that could be used for dispersal.
- *Foster Road Alignment Alternative*— The portion of this alignment that is west of State Route 135 is within the typical dispersal distance of known California tiger salamander breeding habitat (Figure 30). Development of the Foster Road Alignment would temporarily and permanently affect approximately 16.02 acres of potential dispersal and refuge habitat for the California tiger salamander. Of this area, 10.41 acres would be permanently affected and 5.82 acres would be temporarily affected and subsequently restored to habitats that could be used for dispersal.
- *Reduced Extension Alternative*— This alignment is east of State Route 135, which represents a barrier to California tiger salamander movement from the west since it is not expected that any individuals would survive crossing this road. Therefore, it is highly unlikely that this species or their habitat would be affected by this alignment.

California Red-Legged Frog

The study area lacks suitable breeding habitat for the California red-legged frog, but they may use the study area for dispersal and upland refuge. In addition, fragmentation of habitats would contribute to decreasing dispersal, and consequently gene flow, between local populations. The effects of road kill would contribute to the further loss of this species. The loss of this habitat and potential mortality of California red-legged frog individuals due to construction and use of the alignment are considered potentially substantial impacts. Concurrence from the U.S. Fish and Wildlife Service for these impacts related to the Locally-Preferred Alignment was received in the Biological Opinion of December 2008. Avoidance, mitigation, and minimization measures are required for potential impacts to California red-legged frogs.

The impacts of each alignment alternative on California red-legged frog are shown below:

- *Locally Preferred Alignment*—Development of the Locally Preferred Alignment would temporarily and permanently affect a total of 22.24 acres of potential upland and dispersal habitat for California red-legged frog. Of this area, 19.65 acres would be permanently affected, and 2.59 acres would be restored to habitats that could be used for dispersal. Indirect effects on the water quality of known breeding sites may also occur, since the Foxenwood Basin drains to a pond on the airport property known to be used by California red-legged frog for breeding.
- *Curved Alignment Alternative*—Development of the Curved Alignment would temporarily and permanently affect a total of 20.40 acres of potential dispersal and refuge habitat for the California red-legged frog. Of this area, 17.36 acres would be permanently affected, and 3.04 acres would be restored to habitats that could be used for dispersal.
- *Foster Road Alignment Alternative*—Development of the Foster Road Alignment would temporarily and permanently affect a total of 16.23 acres of potential upland and dispersal habitat for California red-legged frog. Of this area, 10.41 acres would be permanently affected, and 5.82 acres would be temporarily affected and subsequently restored to habitats that could be used for dispersal.
- *Reduced Extension Alternative*—This alignment is east of State Route 135, which represents a barrier to California red-legged frog movement from the west since it is not expected that any individuals would survive crossing this road. Therefore, it is highly unlikely that this species or their habitat would be affected by this alignment.

Vernal Pool Fairy Shrimp

Suitable habitat for the vernal pool fairy shrimp is not expected to occur within any of the alternative alignments. However, the Foster Road Alignment Alternative could indirectly affect the species as a result of water quality impacts to surface runoff. Concurrence from the U.S. Fish and Wildlife Service is required for these impacts. Avoidance, mitigation, and minimization measures are required for potential impacts to vernal pool fairy shrimp.

The impacts of each alignment alternative on vernal pool fairy shrimp are shown below:

- *Locally Preferred Alignment and Curved Alignment Alternatives*—These alignment alternatives are not expected to affect known vernal pool fairy shrimp habitat because drainage from the area would be to the south, away from known habitat.
- *Foster Road Alignment Alternative*—The alignment may affect known habitat for vernal pool fairy shrimp through water quality impacts to surface runoff. Drainage from the study area is expected to be within proposed bioswales and storm drains along Foster Road that would discharge to the west of Blosser Road toward a known vernal pool fairy shrimp pool. With this alternative, a bioswale would be constructed on the north side of Foster Road that would decrease or eliminate pollutants and sediment from reaching the known fairy shrimp pool. Drainage improvements on the south side of Foster Road are planned under the Santa Maria Airport Business Park Specific Plan, and have been designed to protect and enhance water quality of vernal pool fairy shrimp habitat in the project vicinity. Under the proposed Santa Maria Airport Business Park Specific Plan, the known vernal pool fairy shrimp pond would be eliminated, and habitat would be created elsewhere on the property. Additional information regarding these improvements is contained in Section 2.5, *Cumulative Impacts*. Mitigation measures to protect water quality in relation to habitat for vernal pool fairy shrimp are provided below. Formal consultation with the U.S. Fish and Wildlife Service is required for these impacts.
- *Reduced Extension Alternative*—The Reduced Extension Alignment is not expected to affect known habitat for vernal pool fairy shrimp because drainage from the area would not reach known occupied habitats.

No-Action Alternative

Under the No-Action Alternative, no disturbance would occur and the study area would remain undeveloped. No impacts would occur to threatened or endangered animal species.

Refer to Section 2.1.2, *Growth*, for a discussion of the potential growth-inducing impacts of the project on sensitive environmental resources, including listed species, located in the area east of the proposed interchange and west of Blosser Road.

Avoidance, Minimization, and/or Mitigation Measures

It should be noted that although the existing General Plan Circulation Element depicts Union Valley Parkway as extending between State Routes 101 and 1 as a future circulation improvement, none of the Union Valley Parkway alignment alternatives include the extension of Union Valley Parkway west of Blosser Road. Based on informal consultation, U.S. Fish and Wildlife Service staff has indicated strong support for the elimination of the roadway segment west of Blosser Road to protect breeding ponds and nearby farmland used by California tiger salamanders.

As determined through formal consultation with the USFWS, as has occurred for the Locally-Preferred Alignment, the project would not meet the criteria for “jeopardizing the continued existence of a listed species”. Such a determination would represent substantially more severe endangered species impacts beyond those identified for any of the extension alternatives.

The Santa Maria Airport Business Park Specific Plan traffic analysis certified by the City evaluated the termination of Union Valley Parkway at Blosser Road. The City is considering an amendment to its Circulation Element to end Union Valley Parkway at Blosser Road. The amendment would be approved in tandem with the proposed project. In addition, the 1999 Santa Barbara County Regional Transportation Plan does not include the extension of Union Valley Parkway west of Blosser Road.

To avoid and minimize impacts to threatened and endangered animal species and their habitat, the following avoidance, minimization, and/or mitigation measures are required for all of the build alternatives, except the Reduced Extension Alternative:

California Tiger Salamander

The following avoidance, minimization, and mitigation measures are required to reduce impacts to the California tiger salamander:

1. At least one month before the onset of activities, the City, in consultation with Caltrans, would submit the name(s) and credentials of biologists who would conduct any California tiger salamander activities to the U.S. Fish and Wildlife Service for approval. No project activities would begin until proponents have received written approval from the U.S. Fish and Wildlife Service that the biologist(s) is qualified to conduct the work. Only biologists approved by the U.S. Fish and Wildlife Service would participate in activities associated with the capture, handling, and monitoring of California tiger salamander.

2. The City would contact the U.S. Fish and Wildlife Service to determine an appropriate site in which to relocate California tiger salamander if found in the work area.
3. From October 15 through June 15 of the year before the start of construction, all work areas within 2,200 feet of California tiger salamander breeding ponds (Figure 30) would be fenced with drift fence and pitfall traps. This would allow for the exclusion of California tiger salamanders and other animals from the work area (including southern Pacific pond turtles, California red-legged frogs, and western spadefoots) and the relocation of any animals that may emerge from burrows inside the work area. Installation of the fence and traps would follow materials, design, and implementation specifications detailed in the California tiger salamander protocol, with the exception that there would be no gaps between sections of fence. An approved qualified biologist must oversee the installation of the fence and be present during all trapping. For the two weeks following installation, a biologist would survey the area inside the fence daily and relocate any animal species encountered to areas outside the fence. Pitfall traps would be opened during all rain events or humid overnight conditions as specified in the protocol throughout the period from October 15 through June 15. All California tiger salamanders would be relocated to a suitable release site that has been determined in consultation with the U.S. Fish and Wildlife Service.
4. A biologist approved by the U.S. Fish and Wildlife Service would survey the work site two weeks before the commencement of work activities. A fiber optic scope or similar device would be used to determine if California tiger salamanders are present in small mammal burrows. The biologist would be allowed sufficient time to hand excavate small mammal burrows and move California tiger salamanders from the work site to the approved relocation site before work activities begin.
5. Captured California tiger salamanders would immediately be placed into containers containing moist soil and plant material from the location of capture, and released in designated relocation areas no more than three hours after capture.
6. During all initial ground-disturbing activities, a biologist approved by the U.S. Fish and Wildlife Service would be present in the study area to recover any California tiger salamander that may be excavated from an underground refuge. If the animals were in good health, they would be relocated immediately to the designated release area. If they were injured, a biologist approved by the U.S.

- Fish and Wildlife Service would retain the animals until they were in a condition to be released into the designated release area.
7. Before any construction activities begin on the project, a biologist approved by the U.S Fish and Wildlife Service would conduct a training session for all construction personnel. At a minimum, the training would include a description of the California tiger salamander and its habitat, the importance of the California tiger salamander and its habitat, the general measures that are being implemented to conserve the California tiger salamander as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session. The City and appropriate resource agency personnel would be notified of the date and time the training is scheduled so they may attend.
 8. A biologist approved by the U.S Fish and Wildlife Service would be present at the work site until such time as all removal of California tiger salamanders, instruction of workers, and initial ground disturbance have been completed. After this time, the City would designate a person to monitor compliance with all mitigation measures. The approved biologist would ensure that this individual receives the training outlined above. The monitor and the approved biologist would have the authority to halt any action that might result in effects to the California tiger salamander that exceed the levels authorized by the U.S. Fish and Wildlife Service. If work were stopped, the City would be notified immediately to determine the appropriate course of action.
 9. During construction, all trash that may attract predators would be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris would be removed from the work areas.
 10. The number of access routes, number and size of staging areas, and the total area of the activity would be limited to the minimum necessary to achieve the project goal. Routes and boundaries would be clearly marked, and these areas would be outside wetland areas. Fueling and maintenance of vehicles and other equipment and staging areas would occur at least 100 feet from any riparian or wetland habitat. The City would ensure that contamination of habitat does not occur during such operations. Before any work begins, the City would prepare and comply with an emergency response plan to allow a prompt and effective response to any accidental spills. All workers would be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

11. A curb or similar permanent exclusion structure would be erected along the southern edge of the path proposed to the south of the alignment and on the north side of the sidewalk proposed to the north of the alignment. This structure would be added for the area from Blosser Road to the Foxenwood Basin on the south and from Blosser Road to State Route 135 on the north. It should be designed to prevent California tiger salamanders from moving into the developed areas. Soft-bottomed culverts or similar passageways would be constructed to permit animals to pass under the alignment in the area from Blosser Road to the Foxenwood Basin. Passageways would be installed at 200-foot intervals. A permanent exclusion structure would be erected to prevent California tiger salamanders from moving east of California Boulevard on the south side of the alignment. The exclusion structures must extend below ground at least three feet, and extend above ground at least two feet. The considerable underground depth is needed to prevent small mammals from creating passageways under the exclusion structure that could be used by California tiger salamanders. An exclusion structure of this height would also benefit California red-legged frogs by excluding this species from developed areas.
12. California Natural Diversity Database forms would be completed and sent to the California Department of Fish and Game for all California tiger salamanders observed during the project.
13. Compensatory mitigation to off-set losses of California tiger salamander upland and dispersal habitat would be designated at a 2.5:1 ratio (habitat preserved:habitat permanently lost). The City would identify suitable habitat in the Santa Maria area within the dispersal distance from at least one known breeding pond that would be restored (if applicable) and preserved in perpetuity through a conservation easement. Restoration efforts would use native grass and forb seed mixes developed by a qualified biologist. Restoration activities would be detailed in a plan prepared by a qualified biologist. The plan would focus on adaptive management principles and would identify enhancement areas, strategies, an implementation schedule, long-term monitoring methods, success criteria, methods to assess whether success criteria have been met, and contingency plans for meeting success criteria. The program would be monitored for five years, and monitoring reports that evaluate the success of the program would be submitted to the City annually.

California Red-Legged Frog

The following avoidance, minimization, and mitigation measures are required to reduce impacts to the California red-legged frog:

1. At least one month before the onset of activities, the City in consultation with Caltrans would submit the name(s) and credentials of biologists who would conduct the following activities to the U.S. Fish and Wildlife Service for approval. No project activities would begin until proponents have received written approval from the U.S. Fish and Wildlife Service that the biologist(s) is (are) qualified to conduct the work. The County would also contact the U.S. Fish and Wildlife Service to determine an appropriate site in which to relocate California red-legged frogs, if found in the work area.
2. The work area west of State Route 135 would be surrounded by a temporary exclusion fence (such as silt fence) buried into the ground and extended at least 3 feet above the ground to exclude California red-legged frogs from the work area. The fence would be installed in June of the year before the start of construction. During construction conducted from July 2 through April 30, the fence would be inspected daily to ensure that it is functioning properly to exclude California red-legged frogs from the work area.
3. To minimize the potential for direct impacts to dispersing individuals, initial ground-disturbing activities should be completed during the period from May 1 through July 1. The initiation of any subsequent ground-disturbing activity or construction from July 2 through April 30, the period when California red-legged frog are potentially dispersing or using upland areas, would be preceded by two night surveys of the work area. The survey area would include all areas inside the exclusion fence, in the event that California red-legged frogs find a way through the fence. In addition, this survey may benefit California tiger salamanders or other animals that similarly could find a way through the fence. Surveys would be conducted on two separate nights within 48 hours before the start of work activities. If California red-legged frogs were present, they would be moved out of the work area by a biologist approved by the U.S. Fish and Wildlife Service following the methods described below. The approved biologist would maintain detailed records of any individuals that are relocated (such as size, coloration, any distinguishing features, and photographs) to assist in determining whether relocated individuals return to the work site.
4. Captured California red-legged frog would be placed immediately into plastic zip lock bags dampened with untreated water and released in designated relocation areas no more than one hour after capture.

5. During all initial ground-disturbing activities, a biologist approved by the U.S. Fish and Wildlife Service would be present in the study area to recover any California red-legged frog that may be found at that time. If the animals were in good health, they would be immediately relocated to the designated release area. If they were injured, a biologist approved by the U.S. Fish and Wildlife Service would retain the animals until they were in a condition to be released into the designated release area. Any dead California red-legged frogs must be reported immediately to the U.S. Fish and Wildlife Service and deposited in an approved museum, such as the Santa Barbara Museum of Natural History or the University of California Santa Barbara Museum of Systematics and Ecology.
6. Before any construction activities begin on the project, a biologist approved by the U.S. Fish and Wildlife Service would conduct a training session for all construction personnel. At a minimum, the training would include a description of the California red-legged frog and its habitat, the importance of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the California red-legged frog as they relate to the project, and the boundaries within which the project may be accomplished.
7. A biologist approved by the U.S. Fish and Wildlife Service would be present at the work site until such time as all removal of California red-legged frog, instruction of workers, and initial ground disturbance have been completed. After this time, the City would designate a person to monitor compliance with all mitigation measures. The approved biologist would ensure that this individual receives the training outlined above and is qualified in the identification of California red-legged frog. The monitor and the approved biologist would have the authority to halt any action that might result in impacts that exceed the levels anticipated by U.S. Fish and Wildlife Service during review of the proposed action. If work were stopped, the City would be notified immediately to determine the appropriate course of action.
8. During construction, all trash that may attract predators would be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris would be removed from the work areas.
9. The number of access routes, number and size of staging areas, and the total area of the activity would be limited to the minimum necessary to achieve the project goal. Routes and boundaries would be clearly marked, and would be outside wetland areas.

10. All refueling, maintenance, and staging of equipment and vehicles would occur at least 60 feet from riparian or aquatic habitats, and not in a location where a spill would drain directly toward an aquatic habitat. The biologist approved by the U.S. Fish and Wildlife Service or a designated monitor would check the staging area periodically to ensure that contamination of aquatic habitats does not occur. Prior to the onset of work, a spill response plan must be designated, and all workers must be briefed on the provisions of this plan.
11. Temporarily affected areas would be recontoured to their original configurations and revegetated with native plant species suitable for the area. Locally collected plant material would be used to the extent practicable. Invasive exotic plant species would be controlled.
12. Best management practices would be implemented during and after project implementation to control sedimentation.
13. Water would not be impounded in a manner that may attract California red-legged frogs.
14. A curb or similar permanent exclusion structure would be erected along the southern edge of the path proposed to be located to the south of the alignment and on the north side of the sidewalk proposed to be located to the north of the alignment. This structure would be added in the area contained within Blosser Road to the Foxenwood Basin on the south and from Blosser Road to State Route 135 on the north. It should be designed to prevent California red-legged frogs from moving into the developed areas. Soft-bottomed culverts or similar passageways would be constructed to permit animals to pass under the alignment in the area from Blosser Road to the Foxenwood Basin. Passageways would be installed at 200-foot intervals. A permanent exclusion structure would be erected to prevent California red-legged frogs from moving east of California Boulevard on the south side of the alignment. The exclusion structures must extend below ground at least three feet (this depth is required for the California tiger salamander), and extend above ground at least two feet.
15. Compensatory mitigation to off-set losses of California red-legged frog upland and dispersal habitat would be designated at a 2.5:1 ratio (habitat preserved:habitat permanently lost). The City would identify suitable habitat in the Santa Maria area within the dispersal distance from at least one known breeding pond that would be restored (if applicable) and preserved in perpetuity through a conservation easement. Restoration efforts would use native grass and forb seed mixes developed by a qualified biologist. Restoration activities would be detailed in a plan prepared by a qualified biologist. The plan would focus on

adaptive management principles and would identify enhancement areas, strategies, an implementation schedule, long-term monitoring methods, success criteria, methods to assess whether success criteria have been met, and contingency plans for meeting success criteria. The program would be monitored for five years, and monitoring reports that evaluate the success of the program would be submitted to the City annually.

16. California Natural Diversity Database forms would be completed and sent to the California Department of Fish and Game for all California red-legged frogs observed during the project.

Vernal Pool Fairy Shrimp

The following avoidance and minimization measures are required only for the Foster Road Alignment to reduce impacts to vernal pool fairy shrimp:

1. Grading and road alignments would be designed to ensure that drainage from the work area and the final project does not enter known vernal pool fairy shrimp habitats. A bioswale would be constructed along the north side of the alignment that would be planted with native wetland and upland grass species, and would act to improve water quality of surface water runoff.
2. Best Management Practices for sedimentation and erosion control would be implemented throughout all project areas to protect potential habitats for vernal pool fairy shrimp.
3. All vehicles operated in the project area must be inspected daily and maintained to avoid leaks of fuel, hydraulic fluids, oil, or coolant.
4. Water quality monitoring would occur before, during, and after project activities to ensure that storm water runoff that leaves the project area does not contain pollutants or sediment as a result of construction activities. Water quality monitoring would be continued for at least one year following the completion of construction to ensure the bioswale is effectively removing pollutants.

2.3.6 Invasive Species

Regulatory Setting

On February 3, 1999, President Clinton signed Executive Order 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or

environmental harm or harm to human health.” Federal Highway Administration guidance issued August 10, 1999 directs the use of the state’s noxious weed list to define the invasive plants that must be considered as part of the National Environmental Policy Act analysis for a proposed project.

Affected Environment

As described in Section 2.3.1, *Natural Communities*, the study areas of the build alternatives contain a mix of native and non-native habitat types. The predominant non-native habitat types include non-native grassland, eucalyptus woodland, ornamental landscaping, ruderal habitat, disturbed habitat, and developed land. Invasive species that occur in the study areas include purple starthistle (*Centaurea calcitrapa*), yellow starthistle (*Centaurea solstitialis*), Italian thistle (*Cardus pycnocephalus*), field bindweed (*Convolvulus arvensis*), bermudagrass (*Cynodon* spp. and hybrids), kikuyugrass (*Pennisetum clandestinum*), common Russian thistle (*Salsola tragus*), puncturevine (*Tribulus terrestris*), and alkali mallow (*Malvella leprosa*).

Environmental Consequences

Locally Preferred Alignment, Curved Alignment, Foster Road Alignment, and Reduced Extension Alternatives

Implementation of the landscaping component of the build alternatives could potentially introduce or facilitate non-native invasive plants through disturbance and escape of ornamentals. Invasive species often out-compete native plant species for space, light, and nutrients. Furthermore, non-native invasive species typically produce large quantities of seed or reproduce through asexual reproduction, therefore, making control of these species difficult. However, a qualified biologist would review the landscape palette before project implementation to identify and eliminate any potentially invasive plant species.

No-Action Alternative

Under the No-Action Alternative, no disturbance would occur and the study area would remain undeveloped. No impacts related to invasive species in landscaping would result.

Avoidance, Minimization, and/or Mitigation Measures

To avoid impacts by invasive species on the build alternatives, the following avoidance, minimization, and/or mitigation measures are recommended.

Exotic and invasive weeds would be removed during clearing and grubbing and disposed of in an appropriate manner for the species. In areas where exotic and invasive weeds are the dominant plants, the topsoil from those areas would not be reused onsite in areas with sensitive plant communities or special-status plants. The project Biologist and the Resident Engineer would identify those areas in the field before construction. Erosion control included in the project would not use species on the California list of noxious weeds. Landscape plans would be reviewed by a qualified biologist to ensure the use of native plants or non-native plants that do not occur on the California Exotic Pest Plant Council and the California Invasive Plant Council Lists 1, 2, and 4. Plants considered to be invasive by the California Exotic Pest Plant Council and the California Invasive Plant Council would not be used onsite. After revegetation in areas with native vegetation, sites would be monitored for weeds during the contract period set up for plant establishment.

2.4 Construction Impacts

This section summarizes construction related impacts discussed previously in Sections 2.1.6, *Traffic and Transportation/Pedestrian and Bicycle Facilities*, 2.2.4, *Air Quality*, and 2.2.5, *Noise and Vibration*.

Affected Environment

Refer to Sections 2.1.6, *Traffic and Transportation/Pedestrian and Bicycle Facilities*, 2.2.4, *Air Quality*, and 2.2.5, *Noise and Vibration*, for discussions of the affected environment related to these issue areas.

Environmental Consequences

Traffic

With all of the build alternatives, several nearby streets would be used for equipment movement during construction, resulting in short-term traffic impacts to the local street system. Specifically, construction of the intersection at State Route 135 would cause some traffic delays and would disperse traffic to nearby roadway networks. Construction of each phase of improvements may also result in short-term diversions or interruptions of existing and/or proposed pedestrian/bicycle paths. The implementation of a Construction Traffic Control and Parking Plan that meets Caltrans and City of Santa Maria standards would mitigate potential short-term adverse construction impacts. Once construction is completed, the traffic/circulation system would be greatly improved.

The Transportation Management Plan would be implemented to notify the public of upcoming construction activities in an effort to reduce the volume of traffic through the affected area. The Transportation Management Plan would also provide motorists with alternate routes around any construction-related delays. This decrease in traffic volume would decrease the amount of congestion experienced. The plan may include a Construction Zone Enhancement Enforcement Program contract with the California Highway Patrol (to provide an officer specifically assigned to the project for immediate incident response and authority presence and to enforce traffic control measures), changeable message signs (to provide current information to motorists), a public information package (to inform local residents and the media of planned construction activities), and traffic operation strategies (to provide selective operation strategies applicable to the project, especially during stage construction).

Short-term adverse traffic and circulation impacts may result during each construction phase.

On the east side of State Route 101 and just north of the proposed Union Valley Parkway extension, construction would affect two county roads. An unnamed, partially paved frontage road runs south from the State Route 101/Santa Maria Way interchange, through the proposed intersection area, and continues to the south. It is unpaved south of the proposed intersection area. Morningside Drive “tees” into the frontage road in the area of the proposed northbound on-ramp. Portions of the frontage road and Morningside Drive would be permanently realigned in the area of the northbound ramp. The portion of the unpaved road south of the northbound ramps would not be reconnected.

Additionally, during construction of the interchange, temporary lane closures would be required on State Route 101. For Interchange Design Alternative 1, traffic would be diverted to the northbound and southbound ramps at the Union Valley Parkway/State Route 101 interchange during nighttime hours. For Interchange Design Alternatives 2 and 3, during temporary lane closures on State Route 101, traffic would be diverted to Clark Avenue, State Route 135 (Orcutt Expressway), and State Route 166 (Main Street) to State Route 101 during nighttime hours.

Air Quality

Santa Barbara County Air Pollution Control District includes emissions from approved construction projects in their air quality emissions budget (Clean Air Plan). They have, however, requested that potential dust emissions be calculated for all

construction projects. The Curved Alignment would disturb the greatest amount of area of any project alternative. Assuming the grading for this project was done over a period of 30 days, average daily grading would be 1.87 acres. If each acre of grading yielded 10.1 pounds of particulate matter 10 microns in diameter (conversation with Monterey Bay Unified Air Pollution Control District, November 2007), per acre, average daily emissions of particulate matter 10 microns in diameter would be 18.8 pounds. Daily watering required by Caltrans Standard Specifications would reduce this amount by 50 percent. It should be further noted that the proposed construction area is underlain by Quaternary sand dunes that contain a minimal amount of particulate matter.

Standard dust control measures must be implemented for any discretionary project involving earth-moving activities. Some projects have the potential for construction-related dust to cause a nuisance. Since Santa Barbara County violates the state standard for PM₁₀, dust mitigation measures are required for all discretionary construction activities regardless of the significance of the fugitive dust impacts, based on the policies in the 1979 Air Quality Attainment Plan.

Noise

For all of the build alternatives, the initial noise impact resulting from the proposed improvements would be generated from construction activities. Noise generated by construction equipment would occur with varying intensities and durations during the different phases of construction: clear and grub, earthwork, base preparation, paving, and cleanup. Equipment the contractor is expected to use includes tractors, backhoes, pavers, and other related equipment. It should be noted that the total construction period for all phases of the project is anticipated to be 7 to 9 years.

As illustrated in Table 2-31, equivalent noise levels associated with the use of heavy equipment at construction sites can range from about 78 to 88 decibels at 50 feet from the source, depending on the types of equipment in operation at any given time and the phase of construction. It should be noted that pile drivers can generate noise levels up to 100 decibels L_{max} (the maximum sound level at any given time) at 50 feet. One can expect construction noise to decrease by 6 to 7.5 decibels with each doubling of the distance away from the (point) source. Assuming a point source reduction, residences up to 400 feet from the source over a “soft” site, or 500 feet from the source over a “hard” site, could receive noise levels above the noise abatement criteria level while construction activities are taking place.

The highest noise levels generally occur during excavation, which involves the use of such equipment as backhoes, bulldozers, shovels, and front-end loaders.

Table 2-31 Typical Noise Level Ranges at Roadway Construction Sites

Construction Phase	Equivalent Hourly Noise Level (Leq) at 50 feet	
	Minimum Required Equipment in the Project Area	All Pertinent Equipment in the Project Area
Ground Clearing	84	84
Excavation	88	88
Foundations	88	88
Erection	79	79
Finishing and Cleanup	84	84

Source: Bolt, Beranek and Newman, "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances," prepared for the U.S. Environmental Protection Agency, 1971.

A construction noise model was used to estimate noise levels during construction activities. Noise estimates were made using the 1971 Environmental Protection Agency's "Noise From Construction Equipment and Operations Modeling Spreadsheet." This model uses an assumed list of construction equipment and the extent to which they would be used as a basis for noise estimation. During grading operations, the equipment is dispersed in various portions of the project area in both time and space. Physically, a limited amount of equipment can operate near a given location at a particular time. Accordingly, noise levels were estimated for a reasonable worst-case scenario with regard to the timing and location of construction equipment relative to nearby sensitive receptors. The results from this model indicate that construction would result in an 87-decibel noise level, 50 feet from the proposed nearest construction activities to sensitive receptors. According to Caltrans' Traffic Noise Supplement, normal construction noise levels are 86 decibels. Extraordinary construction methods like pavement breaking and pile driving can cause higher peak noise levels.

Construction activities could also generate ground-borne vibrations during pile-driving activity (piles may be used to support the new overcrossing). Impacts from construction-induced vibrations can cause annoyance within 100 feet and can damage structures within 60 feet of the source. However, the nearest residences are anticipated to be over 100 feet from the nearest pile-driving operations. Noise impacts from pile driving for this project could be up to approximately 100 decibels within 200 feet of the source. Heavy construction equipment would also be used for

earth-moving and other construction activity. This vibration and noise would be of a temporary nature and could be a nuisance and irritant to nearby residents.

Standard conditions of approval would minimize short-term construction noise effects. Given the time constraints and due to the temporary nature of construction activities, construction noise would not exceed threshold levels. Nevertheless, construction noise would generate temporary nuisance noise levels that exceed City and County criteria.

No-Action Alternative

This alternative would not result in construction and would therefore not result in impacts related to dust, temporary traffic disruptions, construction noise, or other construction effects.

Avoidance, Minimization, and/or Mitigation Measures

Traffic

The following abatement measure is required to minimize the disruption of traffic flows during construction and maintain safe conditions under any of the alignment scenarios.

The City of Santa Maria would implement a Traffic Control and Parking Plan during all construction phases. This plan would implement the performance measures set out below to ensure adequate traffic flow and parking in the area. The plan would include a detailed description of the measures, which would be required to be implemented during the construction phase and would be required to meet Caltrans standards. Construction personnel parking and staging areas would occur within the project area or other nearby developed properties. In no case would any construction activity (parking, staging, storage, grading, clearing, grubbing, etc.) be allowed to occur in previously undisturbed areas located outside the project area. The control measures would include detour signs and prescribed routes, construction personnel parking, staging areas, and emergency access, as well as the following:

1. Maintain specified number of travel lanes at key intersections during peak periods.
2. Develop a construction schedule to avoid construction during peak travel periods.
3. Implement appropriate work zone signing and delineation plan.
4. Use appropriate flagging procedures.
5. Provide for adequate and safe pedestrian and bicycle passage.

The City of Santa Maria would review and approve the Traffic Control and Parking Plan (in consultation with Caltrans) for consistency with the identified control and avoidance, minimization, and/or mitigation measures before initiation of construction. The City of Santa Maria or its designated representatives would conduct field verification and documentation of the implementation of the Traffic Control and Parking Plan.

Air Quality

Caltrans Standard Specifications pertaining to dust control and dust palliative requirements are a required part of all construction contracts and should effectively reduce and control emission impacts during construction. The provisions of Caltrans Standard Specifications, Section 7-1/OF “Air Pollution Control” and Section 10 “Dust Control” require the contractor to comply with the Santa Barbara County Air Pollution Control District’s rules, ordinances, and regulations. Daily watering of all areas disturbed by construction activity, required by Caltrans Standard Specifications, can reduce emissions of fugitive dust by 50 percent. Furthermore, implementation of the following measures from the Santa Barbara County Air Pollution Control District’s “Scope and Content of Air Quality Sections in Environmental Documents” (June 2008) as appropriate, can further minimize emissions of dust generated by construction activities.

- During construction, use water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this should include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency should be required whenever the wind speed exceeds 15 miles per hour. Reclaimed water should be used whenever possible. However, reclaimed water should not be used in or around crops for human consumption.
- Minimize amount of disturbed area and reduce on site vehicle speeds to 15 miles per hour or less.
- Gravel pads shall be installed at all access points to prevent tracking of mud onto public roads.
- If importation, exportation, and stockpiling of fill material is involved, soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting fill material to and from the project area shall be tarped from the point of origin.

- After clearing, grading, earth moving, or excavation is completed, treat the disturbed area by watering, or revegetating, or spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur.
- The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the Air Pollution Control District before issuance of grading permits.

Many of these dust control measures would be beneficial and would preferably be included in the construction contract. The Caltrans Standard Specifications, which apply to all of Caltrans' construction projects, and Special Provisions, which would apply to this particular project, would require that reasonable precautions be taken by the contractor to reduce dust emissions.

Particulate emissions from diesel exhaust are classified as carcinogenic by the state of California. Therefore, the following control strategies provided by the APCD shall be implemented.

- All portable diesel-powered construction equipment shall be registered with the states portable equipment registration program OR shall obtain an APCD permit.
- Diesel powered equipment should be replaced by electric equipment.
- As of June 15, 2002, fleet owners are subject to sections 2449, 2449.1, 2449.2, and 2449.3 in Title 13, Article 4.8, Chapter 9, of the California Code of Regulations (CCR) to reduce diesel particulate matter (PM) and criteria pollutant emissions from in-use off-road diesel-fueled vehicles, See <http://www.arb.ca.gov/regact/2007/ordies107/frooal.pdf>.
- Diesel construction equipment meeting the California Air Resources Board (CARB) Tier 1 emission standards for off-road heavy-duty diesel engines shall be used. Equipment meeting CARB Tier 2 or higher emission standards shall be used.
- Other diesel construction equipment, which does not meet CARB standards, shall be equipped with two to four degree engine timing retard or pre-combustion chamber engines. Diesel catalytic converters, diesel oxidation catalysts and diesel particulate filters as certified and/or verified by EPA or California shall be installed
- Catalytic converters shall be installed on gasoline-powered equipment.

- All construction equipment shall be maintained in tune per the manufacturer's specifications.
- The engine size of construction equipment shall be the minimum practical size.
- The amount of construction equipment operating simultaneously shall be minimized through efficient management practices so that the smallest practical number is operating at any one time,
- Idling of heavy-duty diesel trucks during loading and unloading shall be limited to five minutes; auxiliary power units should be used wherever possible. State law requires that drivers of diesel-fueled commercial vehicles weighing more than 10,000 pounds:
 - shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location
 - shall not idle a diesel-fueled auxiliary power system (APS) for more than 5 minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle equipped with a sleeper berth when that vehicle is operated within 100 feet of a restricted area (homes and schools).
 - Construction worker trips shall be minimized by requiring carpooling and by providing for lunch on site.

Noise

Caltrans Standard Specifications Section 7-1.1011 requires the following:

- The Contractor would comply with all local sound control and noise level rules, regulations, and ordinances that apply to any work performed pursuant to the contract.
- Each internal combustion engine, used for any purpose on the job, or related to the job, would be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine would be operated on the job site without an appropriate muffler.

The following measures are required for the build alternatives to reduce construction noise impacts along the Union Valley Parkway corridor and interchange area. A construction noise reduction plan would be prepared that includes the following requirements:

1. Establish a procedure for noise complaints.

2. Equip all equipment used in construction with the manufacturer's recommended noise abatement measures, such as mufflers, engine covers, and engine vibration isolators.
3. Use electrical power if electrical service is available within 150 feet to run air compressors and similar small power tools.
4. Limit roadway extension construction activity to daytime hours of 7 a.m. to 5 p.m., Monday through Friday, and 8 a.m. to 5 p.m. on Saturdays, to minimize sleep disturbance and interference of speech, and reduce general annoyance. No roadway extension construction would occur on Sundays or federal holidays (such as Thanksgiving, Labor Day). Roadway extension construction equipment maintenance would be limited to the same hours. It should be noted that interchange construction would occur during evening and nighttime hours.
5. Provide notification to home occupants adjacent to the project area at least 24 hours before initiation of construction activities that could substantially affect outdoor or indoor living areas. This notification would include the anticipated hours and duration of construction and a description of noise reduction measures, including construction equipment noise abatement measures and use of electrical power, where applicable.
6. All stationary noise-generating construction equipment (such as air compressors and electric generators) would be required to be located as far as practical from nearby residences.

The following measures are required for the build alternatives to reduce construction vibration impacts near the interchange project area:

- Notify residents within 300 feet of areas where pile driving, pavement breaking, and vibratory rolling will take place at least two weeks in advance of the proposed activity. Residents may wish to secure fragile items that could be broken by shaking.
- Conduct photo surveys of structures within 100 feet of pile driving in advance of potentially damaging construction work (when expected vibrations are greater than 0.4 inches per second within 60 feet of a pile driving location).
- Use vibratory pile driving or Cast-in-Drill-Hole methods when soil and other conditions are favorable for employment of these methods.
- Pre-drill pile holes when feasible.
- Use rubber tires instead of tracked vehicles near vibration-sensitive areas.
- Assure that night joints and bridge conforms are as smooth as possible, especially where there is heavy truck traffic near residences.

- Perform activities most likely to propagate objectionable noise or vibrations (nearest the residences) during the day, or at least before most residents retire for the night.

2.5 Cumulative Impacts

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

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive types of agricultural cultivation. A summary of future land uses in the vicinity of the project is included in Table 2-1. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

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

Each of the proposed alignments is expected to contribute to cumulative impacts on natural communities of concern and special-status animal species within the region. One of the alignments would affect a special-status plant species. However, since the project footprint is relatively small and many of these habitats have already been fragmented by urban development, the overall impact of the project on natural communities within the region is not considered to be substantial. The cumulative

impacts on some threatened and endangered animal species are described below. Impacts on the rare plant species are not cumulatively considerable because the species is locally common and compensatory mitigation would be required.

Past development has restricted the extent of natural communities mainly to areas to the north of Foster Road, within the Santa Maria Airport property, and west of Blosser Road. Parcels of undeveloped habitat exist between Foxenwood Estates and Foster Road, and on either side of Foxenwood Lane. The largest planned development within the vicinity of the Union Valley Parkway extension is the Santa Maria Airport Business Park Specific Plan. The project proposes to use approximately 740.0 acres of the total 2,598 acres within the existing boundary of the Santa Maria Public Airport for light industrial, research, manufacturing, commercial, and retail uses, as well as government facilities, professional office space, an 18-hole golf course, and open space land. The Rancho Maria Estates project proposed adjacent to the Rancho Maria Golf Course, along Highway 1 west of the Union Valley Parkway study area, involves residential development on 70 acres, improvements to the existing golf course, and preservation of 120 acres of open space. Implementation of the Bradley Ranch Specific Plan east of U.S. Highway 101, between Prell Road on the north and Union Valley Parkway on the south, could entail a mix of urban land uses on up to 2,300 acres.

Cumulative impacts from any of the build alternatives could occur to natural communities of special concern, including coast live oak woodland, eucalyptus woodland, wetlands, and central dune scrub. The alternatives would affect 0 to 1.67 acres coast live oak woodland, and trees removed would be replaced and monitored to ensure survivorship that meets specified replacement ratios. Therefore, cumulative impacts on coast live oak woodland would be negligible. The project would affect 3.91 to 8.96 acres of eucalyptus woodland. The City proposes to mitigate impacts to eucalyptus woodland through the establishment of replacement groves. One hundred and fifty-nine acres of eucalyptus woodland habitat presently exists within the Santa Maria Airport Business Park Specific Plan area. However, under implementation of the airport plan, only 37.4 acres would not be affected. Under the proposed mitigation, eucalyptus woodland lost due to the build alternatives would be replaced. Therefore, the temporary loss of eucalyptus woodland habitat as a result of the Union Valley Parkway Extension would not be cumulatively considerable. The project would result in impacts to 1.67 to 1.70 acres of wetland habitat and mitigation calls for replacement of this habitat at a 2:1 ratio. Due to the small area of wetland habitat lost and no net loss of this habitat, cumulative impacts would not be cumulatively

considerable. The project would result in impacts to 9.87 to 13.07 acres of central dune scrub habitat, and project mitigation calls for replacement of this habitat at a 2:1 ratio. Coastal dune scrub habitat is present at the Bradley Ranch property, but not at the airport or Rancho Maria Estates. Therefore, there would be a temporary loss of this habitat that could have regional effects. However, since establishment of coastal dune scrub plant species is relatively fast, the impact of this loss would not be cumulatively considerable. Similarly, only the Foster Road Alignment would affect valley needlegrass grassland by the Foster Road Alignment, and the 0.14 acre affected would be replaced at a 2:1 ratio. Due to the very small area of this habitat and the mitigation proposed, the impacts would not be cumulatively considerable.

The City of Santa Maria, the County of Santa Barbara, the Santa Maria Public Airport District, and private landowners are proposing to continue to develop land within the resource study area; therefore, available regional habitat for the western spadefoot, two-striped garter snake, California legless lizard, southern Pacific pond turtle, coast horned lizard, nesting birds, American badger, California tiger salamander, California red-legged frog, and vernal pool fairy shrimp may diminish over time. All roads would decrease the dispersal of most of these species. Vehicle-induced mortality is also expected to occur as a result of the creation of new roads. Fragmentation of suitable habitats would decrease gene flow between local populations. Other cumulative effects on each of these species from the build alternatives are discussed below.

Past urban development has limited the local distribution of the western spadefoot, and probably the two-striped garter snake largely to undeveloped areas west and northwest of the study area, and to relatively undisturbed areas within the vicinity of the study area. While the distribution of the two-striped garter snake in the project vicinity is not known, it is unlikely that they can persist in developed areas. The western spadefoot and two-striped garter snake have not been observed during aquatic and upland surveys at the Foxenwood Basin. If these species did in fact occupy the Basin, cumulative impacts from the Curved and/or Locally Preferred alternatives could be cumulatively considerable because these alignments would isolate the populations from other local populations and restrict movement between aquatic and upland habitats. However, no evidence exists that the western spadefoot or two-striped garter snake occupy the Foxenwood Basin, and suitable habitat does not exist to the south of the alignment or to areas east of State Route 135 due to urban development. Therefore, cumulative impacts to these species would not be considered cumulatively considerable.

Past urban development has limited the local distribution of the California legless lizard, coast horned lizard, and American badger largely to undeveloped areas west and northwest of the study area, and to relatively undisturbed areas within the project area. The build alternatives would decrease the overall amount of suitable habitat in the area, therefore, there could be cumulative impacts to these species. The replacement of coastal dune scrub habitat under the prescribed mitigation would lessen impacts to all three species. Replacement of oak woodland habitat would lessen impacts to the California legless lizard. However, there would be an overall net loss of habitat due to conversion of non-native grassland and central (Lucian) coastal scrub to paved surfaces.

Past urban development has probably limited the local distribution of the southern Pacific pond turtle, but information about their historic distribution in the project vicinity is not known. The Foxenwood Basin was probably colonized by individuals that dispersed from other nearby sites. In particular, upland habitat that is used for nesting and during winter periods of reduced activity is likely to be lost as development continues in this area. Indirect effects on the southern Pacific pond turtle could result from water quality impacts through increased amounts of pollutants entering surface water runoff that would enter the Foxenwood Basin. Impacts of the Locally Preferred and Curved alternatives would be considered cumulatively considerable due to the proximity to the Foxenwood Basin, whereas impacts of the other alternatives would not be cumulatively considerable.

Past urban development has limited the extent of nesting habitat for many bird species, although some species readily nest in urban landscapes. Under the prescribed mitigation, woodland habitats lost due to the implementation of the build alternatives would be replaced; therefore, there would be no cumulative impacts of the project on nesting birds.

Past urban development has limited the local distribution of California tiger salamander habitat to areas within and west of the Santa Maria Airport. Other localities are known from east of Highway 101, but these are isolated by urban development from populations west of the highway. As previously noted, the City of Santa Maria, the County of Santa Barbara, the Santa Maria Airport, and private landowners are proposing to continue to develop land within the vicinity. Therefore available regional habitat for the California tiger salamander may diminish over time. Fragmentation of habitats would contribute to decreasing dispersal, and consequently gene flow, between local populations. The effects of road kill will contribute to the

further loss of this species. Indirect effects from the Locally Preferred Alignment on the California tiger salamander could result from water quality impacts through increased amounts of pollutants entering surface water runoff that would enter the Foxenwood Basin, should they be present. Water quality impacts are not expected from the other alternatives. The impacts of the Locally Preferred Alignment, Curved Alignment, or Foster Road Alignment Alternative on the California tiger salamander would be cumulatively considerable due to a decrease of upland habitat, decrease of dispersal opportunities, fragmentation of habitat, and isolation of populations in an area in which the species is already substantially affected by urban development.

Past urban development has limited the local distribution of the California red-legged frog largely to areas west and northwest of the study area. The Foxenwood Basin was probably colonized by individuals that dispersed from these sites. Indirect effects of the Locally Preferred Alignment on the California red-legged frog could result from water quality impacts through increased amounts of pollutants entering surface water runoff that would enter the Foxenwood Basin. Therefore, effects of the Locally Preferred and Curved Alignment on the California red-legged frog would be considered cumulatively considerable due to water quality impacts, decreased upland habitat, decreased dispersal opportunities, and isolation of populations in an area in which the species is already greatly affected by urban development. Impacts of the Foster Road Alignment could be considered cumulatively considerable due to proximity to breeding ponds located to the north.

Past urban development has limited the local distribution of vernal pool fairy shrimp habitat mainly to areas within and west of the Santa Maria Airport. Indirect effects on vernal pool fairy shrimp could result from water quality impacts through increased amounts of pollutants entering surface water runoff that could potentially reach breeding ponds to the west. Each of the alternatives would remove a potential habitat area east of State Route 135; however, it is unlikely that vernal pool fairy shrimp are present because the habitat is only marginally suitable. Impacts from the Foster Road Alignment could be considered cumulatively considerable. However, under the adopted Santa Maria Airport Business Park Specific Plan, the known vernal pool fairy shrimp pool located 0.3 mile to the west of the intersection of Blosser Road and Foster Road would be eliminated. Under a Biological Opinion prepared for the airport project, cysts would be salvaged and relocated to habitat created elsewhere on the site. The City proposes to create five to six ponds as potentially suitable habitat for the vernal pool fairy shrimp. Therefore, if this habitat were eliminated, cumulative impacts from the Foster Road Alignment would not be cumulatively considerable.

Impacts from the other build alternatives would not be considered cumulatively considerable.

Avoidance, Minimization and/or Mitigation Measures

No avoidance, minimization and/or mitigation measures are required for the project beyond the measures already described in Sections 2.1 through 2.4, above. Refer to Sections 2.1, 2.2, and 2.3 for a discussion of measures that address environmental consequences on the human environment, physical environment and biological environment, respectively. Refer to Section 2.4 for measures that address environmental consequences related to construction.

Chapter 3 California Environmental Quality Act Evaluation

3.1 Determining Significance under the California Environmental Quality Act

The project is subject to federal, as well as City of Santa Maria and state environmental review requirements because the City of Santa Maria proposes the use of federal funds and/or the project requires a federal approval action. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act and the National Environmental Policy Act. The City of Santa Maria is the project proponent and the lead agency under the California Environmental Quality Act. The Federal Highway Administration's responsibility for environmental review, consultation, and any other action required in accordance with the National Environmental Policy Act and other 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.

One of the primary differences between the National Environmental Policy Act and the California Environmental Quality Act is the way significance is determined. Under the National Environmental Policy Act, significance is used to determine whether an Environmental Impact Statement, or some lower level of documentation, would be required. The National Environmental Policy Act requires that an Environmental Impact Statement be prepared when the proposed federal action (project) *as a whole* has the potential to "significantly affect the quality of the human environment." The determination of significance is based on context and intensity. Some impacts determined to be significant under the California Environmental Quality Act may not be of sufficient magnitude to be determined significant under the National Environmental Policy Act. Under the National Environmental Policy Act, once a decision is made regarding the need for an Environmental Impact Statement, it is the magnitude of the impact that is evaluated and no judgment of its individual significance is deemed important for the text. The National Environmental Policy Act does not require that a determination of significant impacts be stated in the environmental documents.

The California Environmental Quality Act, on the other hand, does require the lead agency to identify each "significant effect on the environment" resulting from the

project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an Environmental Impact Report must be prepared. Each significant effect on the environment must be disclosed in the Environmental Impact Report and mitigated if feasible. In addition, the California Environmental Quality Act Guidelines list a number of mandatory findings of significance, which also require the preparation of an Environmental Impact Report. There are no types of actions under the National Environmental Policy Act that parallel the mandatory findings of significance under the California Environmental Quality Act. This chapter discusses the effects of this project and California Environmental Quality Act significance. The project alternatives are evaluated with reference to the baseline conditions to determine the environmental impacts.

This chapter, which references the content of Chapter 2, will be used as the informational document (Environmental Impact Report) mandated by the California Environmental Quality Act for City implementation of the Union Valley Parkway extension and interchange. Implementation includes acquisition of right-of-way, issuance of grading permits, and other local actions.

Known areas of controversy were identified by one local environmental interest group and one special district (Santa Maria Public Airport District) during a scoping meeting held with respect to the California Environmental Quality Act Environmental Impact Report process, and previous Initial Study process for the project. Stated areas of concern included effects on California tiger salamander, a federally listed endangered species, Circulation Element consistency, traffic safety, traffic congestion, and effects related to airport safety.

This section contains a discussion of the possible environmental effects of the proposed project for the specific issue areas that were identified through the Initial Study process as having the potential for significant impacts.

“Significant effect” is defined by the California Environmental Quality Act Guidelines, Section 15382, as “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment, but may be considered in determining whether the physical change is significant.”

Please refer to the Summary section for a description of the roles of the Federal Highway Administration, Caltrans, the City of Santa Maria, and the County of Santa Barbara.

The assessment of each issue area begins with the regulatory setting. This includes the methodologies that were used and the “significance thresholds,” which are those criteria adopted by the County, other agencies, universally recognized, or developed specifically for this analysis to determine whether potential effects are significant. This is followed by each impact that is under consideration for an issue area. These are listed out separately in bold text, with the discussion of the impact and its significance following. Each bold-faced impact listing also contains a statement of the significance determination for the environmental impact as follows:

- **Significant and Unavoidable:** An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per Section 15093 of the California Environmental Quality Act Guidelines.
- **Significant but Mitigable:** An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings to be made under Section 15091 of the California Environmental Quality Act Guidelines.
- **Not Significant:** An impact that may be adverse, but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **Beneficial:** An effect that would reduce existing environmental problems or hazards.

Refer to Chapter 2 for each issue area’s affected environment discussion. Refer to Section 3.3, Mitigation Measures for Significant Impacts Under the California Environmental Quality Act for a discussion of mitigation measures for significant impacts, and the level of significance after mitigation.

3.2 Discussion of Significant Impacts

3.2.1 Less Than Significant Environmental Effects of the Proposed Project

Table 3-1 provides a list of environmental issue areas for which the build alternatives would result in less than significant environmental effects, with cross references to complete impact discussions in Chapter 2 of this Environmental Impact Report/Environmental Assessment.

Table 3-1 List of Less Than Significant Environmental Effects of the Proposed Project

California Environmental Quality Act Threshold	Location of Impact Analysis in Chapter 2
Project and cumulative impacts on historic, archaeological, or paleontological resources or disturbance of human remains, or elimination of important examples of the major periods of California history or prehistory	<i>Cultural Resources, Pages 29-31.</i>
Exposure to flood hazards	<i>Hydrology and Floodplain, Page 31</i>
Impacts on air traffic patterns or airport/airstrip -related hazards or noise	<i>Section 2.1.1.2, Consistency with State, Regional, and Local Plans</i>
Inducement of substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)	<i>Section 2.1.2, Growth</i>
Project and cumulative impacts on farmland, agricultural zoning, Williamson Act lands, and agricultural uses	<i>Section 2.1.3, Farmlands</i>
Physical division of an established community	<i>Section 2.1.4.1, Community Character and Cohesion</i>
Impacts on emergency services, police protection, or fire protection	<i>Section 2.1.5, Utilities/Emergency Services</i>
Impairment of the implementation of or physical interference with an adopted emergency response plan or emergency evacuation plan	<i>Section 2.1.5, Utilities/Emergency Services</i>
Exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	<i>Section 2.1.5, Utilities/Emergency Services</i>
Exceedance of wastewater treatment requirements of the applicable Regional Water Quality Control Board.	<i>Section 2.1.5, Utilities/Emergency Services</i>
Construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	<i>Section 2.1.5, Utilities/Emergency Services</i>
Substantial depletion of groundwater supplies or substantial interference with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.	<i>Section 2.1.5, Utilities/Emergency Services</i>

Table 3-1 List of Less Than Significant Environmental Effects of the Proposed Project

California Environmental Quality Act Threshold	Location of Impact Analysis in Chapter 2
Sufficiency of water supplies available to serve the project from existing entitlements and resources, or from new or expanded entitlements	Section 2.1.5, <i>Utilities/Emergency Services</i>
Adequacy of capacity to serve the project's projected wastewater treatment demand in addition to the provider's existing commitments	Section 2.1.5, <i>Utilities/Emergency Services</i>
Conflicts with adopted policies, plans, or programs supporting alternative transportation	Section 2.1.6, <i>Traffic and Transportation/ Pedestrian and Bikeway Facilities</i>
Substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway	Section 2.1.7, <i>Visual/Aesthetics</i>
Cumulative aesthetic changes	Section 2.1.7, <i>Visual/Aesthetics</i>
Construction runoff of sedimentation and other pollutants that would affect local drainages and subsurface aquifers	Section 2.2.1, <i>Water Quality and Storm Water Runoff</i>
Substantial alteration of the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion, siltation, or flooding on or offsite	Section 2.2.1, <i>Water Quality and Storm Water Runoff</i>
Cumulative hydrologic changes and degradation of water quality	Section 2.2.1, <i>Water Quality and Storm Water Runoff</i>
Expose people or structures to potential substantial adverse effects involving fault rupture, seismic groundshaking, erosion, landslides/slope stability, expansive soils, or subsidence	Section 2.2.2, <i>Geology/Soils/Seismic/Topography</i>
Exposure to concentrations of aeriaily deposited lead	Section 2.2.3, <i>Hazardous Waste/Materials</i>
Creation of a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials	Section 2.2.3, <i>Hazardous Waste/Materials</i>
Emissions of hazardous emissions or handling of hazardous or acutely hazardous material, substances, or waste within one-quarter mile of an existing or proposed school	Section 2.2.3, <i>Hazardous Waste/Materials</i>
Inclusion on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5	Section 2.2.3, <i>Hazardous Waste/Materials</i>
Exposure of sensitive receptors to substantial pollutant concentrations	Section 2.2.4, <i>Air Quality</i>
Creation of objectionable odors affecting a substantial number of people	Section 2.2.4, <i>Air Quality</i>
Air contaminant emissions during construction	Section 2.2.4, <i>Air Quality</i>
Project and cumulative carbon monoxide hotspots and operational PM10 emissions	Section 2.2.4, <i>Air Quality</i>
Consistency with land use, air quality, and transportation plans	Section 2.2.4, <i>Air Quality</i> ; Section 2.1.1.2, <i>Consistency with State, Regional, and Local Plans</i>

The build alternatives would also result in less than significant impacts related to the issue areas described in the paragraphs below.

Recreation

A significant impact would result if the proposed project would do one or more of the following:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

Impact R-1 The proposed Union Valley Parkway extension and interchange would not include the implementation of residential land uses that would increase demand for parks and recreational facilities. No impacts to such facilities or services would result.

The proposed improvements would not directly encroach onto any parklands, including Pioneer Park. In addition, the Union Valley Parkway extension would include sidewalks, multi-use paths, and bike lanes, and would therefore improve recreational trail opportunities in the area.

Utilities

In accordance with Appendix G of the *California Environmental Quality Act Guidelines*, a project would result in a significant impact on utilities if it would do one or more of the following:

- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.
- Fail to comply with federal, state, and local statutes and regulations related to solid waste.

Impact U-1 The Union Valley Parkway extension and interchange would not necessitate additional wastewater or storm drainage improvements, beyond those described as part of the project. No additional impacts would result.

Locally Preferred Alignment, Curved Alignment, Foster Road Alignment, and Reduced Extension Alternatives

The environmental impacts associated with the wastewater and storm drainage improvements of the build alternatives are described as project impacts throughout this document. No additional impacts related to utility services or infrastructure would result.

Impact U-2 The Union Valley Parkway extension and interchange would generate short-term construction solid waste that would not exceed the capacity of existing landfills serving the area. Less than significant impacts would result.

Locally Preferred Alignment, Curved Alignment, Foster Road Alignment, and Reduced Extension Alternatives

Solid waste generated during construction of the project would be disposed of at the Santa Maria Regional Landfill. This landfill maintains a remaining capacity of 1,238,000 cubic yards and a permitted throughput of 740 tons per day of solid waste, which would be sufficient to accommodate project-generated solid waste. Less than significant impacts would result.

Transportation/Traffic

Appendix G of the *California Environmental Quality Act Guidelines* specifies that a significant impact would occur if a project would do one or more of the following:

- Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (in other words, result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).
- Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.

“Levels of Service” A through F are used to rate roadway and intersection operations. Level of Service A indicates free flow operations while Level of Service F indicates congested operations. The City’s standard is to provide Level of Service D or better. The County’s standard is to provide Level of Service C or better and Caltrans’ desire is to provide Level of Service C-D.

Impact T-1 The proposed Union Valley Parkway extension and interchange would result in roadway and intersection operations that meet or exceed the City and County Level of Service standards under all Locally Preferred Alignment and Curved Alignment Alternative phase scenarios. This is considered a less than significant impact for these alternatives.

The overall circulation improvements for both the Locally Preferred Alignment and Curved Alignment Alternative for all phase scenarios would be considered beneficial. Operational impacts at specific roadway segments and intersections for each scenario are described in detail in Section 2.1.6, *Traffic and Transportation/Pedestrian and Bikeway Facilities*.

Air Quality

The California Ambient Air Quality Standards establish an allowable carbon monoxide concentration of 20 parts per million for the one-hour period and 9.0 parts per million for the eight-hour period. These concentration standards have been used to determine the impact of carbon monoxide emissions.

As outlined in the Air Pollution Control District Guidelines, operational impact thresholds in Santa Barbara County are as follows:

- Emit (from all sources, both stationary and mobile) less than 240 pounds per day for reactive organic compounds and nitrogen oxides and less than 80 pounds per day for Particulate Matter less than 10 microns in diameter (PM10); and
- Emit less than 25 pounds per day of nitrogen oxides or reactive organic compounds from motor vehicle trips only; and
- Not cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone); and
- Not exceed the Air Pollution Control District’s health risk public notification thresholds adopted by the District’s Board; and
- Be consistent with the adopted federal and state air quality plans for Santa Barbara County.

State air quality standards and the South Central Coast Air Basin's attainment status for each pollutant of concern, are summarized in Table 3-2 below.

Table 3-2 State Air Quality Standards and Air Basin Attainment Status

Criteria Pollutant	State Standard	State Attainment Status
Carbon Monoxide (CO)	20 parts per million (1-hour average) 9 parts per million (8-hour average)	Attainment
Nitrogen Dioxide (NO ₂)	0.25 parts per million (1-hour annual average)	Attainment
Ozone (O ₃)	0.09 parts per million (1-hour average)	Non-Attainment
Particulate Matter (PM ₁₀)	50 µg/m ³ (annual arithmetic mean)	Non-Attainment

A discussion of the regional and project conformity with the Clean Air Act is provided in Section 2.2.4, *Air Quality*. As described in that section, regional air quality impacts have previously been analyzed and found to not be substantial. In fact, long-term impacts of the proposed Union Valley Parkway Extension/Interchange Project would be considered beneficial related to air quality. All of the build alternatives would improve regional circulation, with resulting reductions in air contaminant emissions, and would therefore result in beneficial cumulative impacts on air quality. Any contribution to cumulative air quality impacts in the air basin are expected to be minimal for three reasons: 1) construction impacts are of short-term duration; 2) there is no expected generation of travel demand or other direct sources of air pollutants; and 3) air quality is expected to improve via the improvement of traffic congestion in the vicinity. In addition, because the Union Valley Parkway Extension/Interchange Project has been included in the Santa Barbara County Clean Air Plan growth projections, regional cumulative impacts would not be considered substantial.

Mineral Resources

In accordance with Appendix G of the *California Environmental Quality Act Guidelines*, a project would result in a significant impact to mineral resources if it would:

- Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; or
- Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

Impact M-1 Implementation of the Union Valley Parkway extension and interchange would not significantly affect mineral resources as mineral demand from the project would not be substantial. This is considered a less than significant impact.

The build alternatives would all require the consumption of aggregate resources during the construction phase. However, none of the build alternatives would have a substantial impact on the demand for aggregate resources because there is estimated to be a sufficient amount of aggregate resources to meet local demand for the next 50 years.

Any of the build alternatives would consume petroleum by-products as fuel for the equipment used during the construction phase. However, none of the build alternatives would have a substantial impact on the demand for petroleum resources because petroleum is considered a worldwide, national, and statewide resource, which is beyond the scope of local governments to effectively manage or control.

3.2.2 Significant Environmental Effects of the Proposed Project

The build alternatives would result in significant but mitigable impacts related to the issue areas described in the paragraphs below. For each of these issue areas, cross-references to relevant analysis in Chapter 2 are provided as appropriate.

Land Use

The Locally Preferred Alignment, Curved Alignment, and Reduced Extension Alignment alternatives would result in significant but mitigable impacts related to land use compatibility, as described in Section 2.1.1.1, *Existing and Future Land Use*. The Unavoidable Significant Impacts of the Foster Road Alignment Alternative with regard to land use compatibility and right-of-way conflicts are described in Section 3.2.4.

Appendix G of the *California Environmental Quality Act Guidelines* specifies that a significant impact would occur if a project would do one or more of the following:

- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.
- Physically divide an established community.

Impacts relating to compatibility of the proposed land uses with one another and with adjacent uses are considered significant if project implementation would create considerable physical conflicts, such as visual, noise, air quality, or safety concerns.

Project impacts would be considered potentially significant if the project would conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Impact LU-1 The Union Valley Parkway extension and interchange could create both short- and long-term land use compatibility conflicts with adjacent agricultural, residential, and institutional uses. This is considered a significant but mitigable impact for the Locally Preferred Alignment, Curved Alignment Alternative, and Reduced Extension Alternative.

The Locally Preferred Alignment, Curved Alignment, and Reduced Extension alternatives would result in traffic, noise, and air quality impacts. The Locally Preferred Alignment would result in the removal of mature vegetation, including a stand of eucalyptus trees, which would result in aesthetic impacts. These impacts and the avoidance, minimization, and/or mitigation measures that would reduce land use compatibility conflicts with surrounding uses for each of these build alternatives are fully discussed in Sections 2.1.6, *Traffic and Transportation/Pedestrian and Bicycle Facilities*, 2.2.4, *Air Quality*, and 2.2.5, *Noise and Vibration*, respectively.

Transportation/Traffic

Appendix G of the *California Environmental Quality Act Guidelines* specifies that a significant impact would occur if a project would do one or more of the following:

- Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (in other words, result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).
- Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.

Impact T-1 The proposed Union Valley Parkway extension and interchange would result in roadway and intersection operations that do not meet Level of Service standards under the Foster Road Alignment Alternative and Reduced Extension Alternative. This is considered a significant but mitigable impact for these alternatives.

Operational impacts at specific roadway segments and intersections for each scenario are described in detail in Section 2.1.6, *Traffic and Transportation/Pedestrian and Bikeway Facilities*.

Foster Road Alignment Alternative

The forecast for Foxenwood Lane is 6,800 average daily traffic under the Foster Road Alignment Alternative, which exceeds the County's Acceptable Capacity (Acceptable Capacity is 6,300 average daily traffic).

The Foster Road Alignment Alternative would also require street system modifications within the Santa Maria Business Park Specific Plan area. This area has been planned around the existing section of Foster Road and the proposed realignment of Union Valley Parkway to Foster Road would necessitate modifications to the Specific Plan street system and land use plan. These changes would include realigning Airpark Drive and creating new intersections at Airpark Drive/Union Valley Parkway.

The Union Valley Parkway/State Route 135 intersection would operate at Level of Service D under the Foster Road Alignment Alternative. Additional capacity would be required at the intersection to provide the Level of Service C/D under the Foster Road Alignment Alternative.

Reduced Extension Alternative

Roadway Operations: Union Valley Parkway is forecast to carry 14,600 to 17,400 average daily traffic east of State Route 135. With the 20-year scenario, the Reduced Extension Alternative would result in substantially increased average daily traffic volumes on Foster Road west of State Route 135. Foster Road would carry 19,500 average daily traffic west of State Route 135 under the Reduced Extension Alternative, indicating the need for four lanes. A portion of the regional trips would also shift to other east-west facilities, such as Clark Avenue and Lakeview Drive.

Intersection Operations: Tables 2-10C shows that the Foster Road/State Route 135 intersection would operate at Level of Service E under the Reduced Extension Alternative. This intersection would receive much of the diverted traffic in the Santa Maria Airport-Foxenwood neighborhood area. Major intersection improvements would be required to provide an acceptable level of service at the intersection under the Reduced Extension Alternative scenario.

Visual/Aesthetics

The assessment of aesthetic impacts involves qualitative analysis that is inherently subjective in nature. Different viewers react to views and aesthetic conditions differently. This subjective element of aesthetics is underlined in the various guidelines that help determine the effect of changes to visual resources; few defined thresholds exist. The California Environmental Quality Act and the City of Santa Maria General Plan offer guidelines to determine impact thresholds; the California Environmental Quality Act, however, offers the most detailed guidance. Ultimately, the final decision as to whether aesthetic impacts occur and are considered significant would be determined by the lead agency.

Appendix G of the *California Environmental Quality Act Guidelines* specifies that a significant impact would occur if a project would *have a substantial, demonstrable negative aesthetic effect*. Specifically, a significant impact to visual resources does one or more of the following:

- Has a substantial adverse effect on a scenic vista.
- Substantially damages scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- Substantially degrades the existing visual character or quality of the site and its surroundings.
- Creates a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Impact AES-1 Implementation of the Union Valley Parkway extension and interchange would alter public views of the study area through the removal of existing vegetation, and introduction of pavement, light, and glare sources, and other improvements. Soundwalls constructed within the study area would impact visual resources by creating a monolithic effect. This is considered a significant but mitigable impact.

A detailed evaluation of the significant but mitigable aesthetic effects of each of the build alternatives is provided in Section 2.1.7, *Visual/Aesthetics*.

Water Quality and Storm Water Runoff

In accordance with Appendix G of the *California Environmental Quality Act Guidelines*, a project would result in a significant impact to hydrology and water quality if it would:

- Violate any water quality standards or waste discharge requirements.

Impact HWQ-1 Implementation of the Union Valley Parkway extension and interchange could reduce the quality of surface water flowing to offsite drainage channels. This is considered a significant but mitigable impact.

A detailed evaluation of the significant but mitigable effects of each of the build alternatives related to water quality is provided in Section 2.2.1, *Water Quality and Storm Water Runoff*.

Geology/Soils/Seismic/Topography

A significant impact would result if the proposed project would do one or more of the following:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides.
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse.

Impact GS-1 There is a potential for liquefaction of soils beneath the Union Valley Parkway extension alignments west of State Route 135. This is considered a significant but mitigable impact.

A detailed evaluation of the significant but mitigable effects of the Locally Preferred Alignment, Curved Alignment, and Foster Road Alignment alternatives related to liquefaction hazards is provided in Section 2.2.2, *Geology/Soils/Seismic/Topography*.

Hazardous Waste/Materials

Impacts are considered significant if the project activities are anticipated to result in the exposure of people and environmental resources to adverse levels of contamination, or, if contaminated conditions could adversely affect future development as a result of costly assessment and remediation. In addition, impacts are considered significant if a project would do one or more of the following:

- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area.

Impact HM-1 The Initial Site Assessment for the Union Valley Parkway extension identified a sand-tar mixture and tank bottoms within the study area. Improper handling of these materials and/or discovery of unanticipated contamination during construction could expose construction workers to adverse health conditions. This is considered a significant but mitigable impact.

A detailed evaluation of the significant but mitigable effects of each of the build alternatives related to hazardous materials is provided in Section 2.2.3, *Hazardous Waste/Materials*.

Impact HM-2 Implementation of the Union Valley Parkway extension and interchange would not impede air traffic or expose people to significant impacts related to airport safety. This is considered a less than significant impact.

The proposed interchange component of the project would be located more than two miles from the airport, and would not impede air traffic. The proposed Union Valley Parkway extension portion of the project would feature a low vertical profile and would therefore not influence air traffic patterns. Although the project would result in additional human presence in the area south of the airport, existing air safety practices would ensure that exposure to airport safety hazards would not be significant. In addition, the Union Valley Parkway extension/interchange would not affect air traffic, and would be consistent with the Santa Maria Airport Land Use Plan.

Noise and Vibration (Construction)

Please note that all noise levels discussed in this section would be presumed to have the peak-hour equivalent sound level descriptor [Leq(h)] descriptor unless specifically noted otherwise.

The California Environmental Quality Act provides the broad basis for analyzing and abating highway traffic noise effects. The intent of these laws is to promote the general welfare and to foster a healthy environment.

Pursuant to the California Environmental Quality Act guidelines, potentially significant impacts would result if the project would result in one or more of the following:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.
- A substantial permanent increase in ambient noise levels in the vicinity above levels existing without the project.
- A substantial temporary or periodic increase in ambient noise levels in the vicinity above levels existing without the project.

Noise criteria and policies established by the City of Santa Maria regulate noise for local receptors resulting from the proposed project. For land uses adjacent to State Route 101 and where State Route 101 is the predominant noise source, Caltrans noise criteria are used. These criteria establish policies regarding the location of noise sensitive uses near noise sources and the location of noise-generating uses near noise sensitive uses. Impacts associated with Caltrans and Federal Highway Administration noise abatement criteria are described in detail in Section 2.2.5, *Noise and Vibration*.

City of Santa Maria Noise Criteria: For consistency, this evaluation uses Caltrans significance criteria for noise increases. Under the Caltrans Traffic Noise Protocol, a substantial increase in noise levels occurs when project design year noise levels increase by 12 decibels over existing year noise levels.

Impact N-1 Construction of the Union Valley Parkway extension and interchange would create temporary short-term noise levels that could affect nearby residences and other sensitive receptors. This is considered a significant but mitigable impact.

Locally Preferred Alignment, Curved Alignment, Foster Road Alignment, and Reduced Extension Alternatives

The initial noise impact resulting from construction of proposed improvements would be generated from construction activities. Noise generated by construction equipment would occur with varying intensities and durations during the different phases of construction: clear and grub, earthwork, base preparation, paving, and cleanup. Equipment expected to be used would include tractors, backhoes, pavers, and other related equipment. It should be noted that the total construction period for all phases of the project is anticipated to be seven to nine years.

As illustrated in Table 3-3, equivalent noise levels associated with the use of heavy equipment at construction sites can range from about 78 to 88 decibels at 15 meters (50 feet) from the source, depending on the types of equipment in operation at any given time and the phase of construction. The highest noise levels generally occur during excavation, which involves the use of such equipment as backhoes, bulldozers, shovels, and front-end loaders. It should be noted that pile drivers can generate noise levels up to 100 decibels Lmax (i.e., the maximum sound level at any given time) at 50 feet.

Table 3-3 Typical Noise Level Ranges at Roadway Construction Sites

Construction Phase	Equivalent Hourly Noise Level (Leq) at 15 meters (50 feet)	
	Minimum Required Equipment in the Project Area	All Pertinent Equipment in the Project Area
Ground Clearing	84	84
Excavation	88	88
Foundations	88	88
Erection	79	79
Finishing and Cleanup	84	84

Source: Bolt, Beranek and Newman, "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances," prepared for the U.S. Environmental Protection Agency, 1971.

A construction noise model was used to estimate noise levels during construction activities. Noise estimates were made using the 1971 Environmental Protection Agency’s “Noise From Construction Equipment and Operations Modeling

Spreadsheet.” This model uses an assumed list of construction equipment and the extent to which they would be used as a basis for noise estimation. During grading operations, the equipment is dispersed in various portions of the project area in both time and space. Physically, a limited amount of equipment can operate near a given location at a particular time. Accordingly, noise levels were estimated for a reasonable worst-case scenario with regard to the timing and location of construction equipment relative to nearby sensitive receptors. The results from this model indicate that construction would result in an 87-decibel noise level, 50 feet from the proposed nearest construction activities to sensitive receptors. According to Caltrans’ Traffic Noise Supplement, normal construction noise levels are 86 decibels. Extraordinary construction methods like pavement breaking and pile driving can cause higher peak noise levels.

Construction activities could also generate groundborne vibration during pile-driving activity (piles may be used to support the new overcrossing). Impacts from construction-induced vibrations can cause annoyance within 100 feet and can damage structures within 60 feet of the source. Since the nearest residences are anticipated to be over 100 feet from the nearest pile-driving operation, impacts from pile driving should not cause damage to structures. Noise impacts from pile driving for this project could be up to approximately 100 decibels within 200 feet of the source. Heavy construction equipment would also be used for earth moving and other construction activity. This vibration and noise would be of a temporary nature and could be a nuisance and irritant to nearby residents.

Standard conditions of approval would minimize short-term construction noise effects. The City would require the contractor to comply with all local sound control and noise level standards, regulations, and ordinances that apply to any work performed pursuant to the contract. Each internal combustion engine, used for any purpose on the job or related to the job, would be required to be equipped with a muffler of a type recommended by the manufacturer. All stationary noise-generating construction equipment (such as air compressors and electric generators) would be required to be located as far as practical from nearby residences. Nevertheless, construction noise would generate temporary nuisance noise levels that exceed City and County criteria.

No-Action Alternative

Since no ground disturbance or other construction activities would occur under this alternative, no impacts related to construction noise would result.

Biological Environment

The California Environmental Quality Act, Chapter 1, Section 21001 (c) states that it is the policy of the state of California to “Prevent the elimination of fish and wildlife species due to man’s activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities.” Environmental impacts relative to biological resources may be assessed using impact significance criteria encompassing the California Environmental Quality Act statute (Section 21083) and guidelines (15065, Appendix G) and federal, state, and local plans, regulations, and ordinances. Project impacts to flora and fauna may be determined to be significant even if they do not directly affect rare, threatened, or endangered species.

Significant impacts to biological resources may occur if a project action would do one or more of the following:

- Conflict with local or regional conservation plans or state goals.
- Substantially affect rare, threatened, or endangered species.
- Interfere substantially with the movement of any resident or migratory fish or wildlife species.
- Substantially diminish habitat for fish, wildlife, or plants.
- Involve the use, production, or disposal of materials that pose a hazard to animal or plant populations in the area affected.
- Have impacts that are individually limited, but cumulatively considerable; or involve the alteration or conversion of biological resources (locally important species or locally important communities) identified as significant within the county or region.

A project would result in significant impacts if it would have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal.

When assessing or applying these threshold guidelines, plants and animals may be considered locally important if any of the following criteria are met:

- The species, subspecies, or variety is limited in distribution in the county or region, and endemic (limited to a specific area) in the region.

- The species population is at the extreme limit of its overall distribution or is isolated from the known overall range.
- The species potentially affected by project actions has habitat requirements or limitations that make it susceptible to local extirpation as a consequence of those actions, such as the introduction of barriers or restrictions to movement, changes in ambient conditions, or increases in human activity.
- Populations that exhibit unusual localized adaptations, or are high quality examples of the species overall.

Natural Communities

Impact BIO-1 Implementation of the Union Valley Parkway extension and interchange would affect special concern natural communities. This is considered a significant but mitigable impact.

A detailed evaluation of the significant but mitigable effects of each of the build alternatives on natural communities is provided in Section 2.3.1, *Natural Communities*.

The following discussion provides additional analysis regarding impacts on eucalyptus woodland and central dune scrub habitats. Eucalyptus woodland is considered a natural community of special concern within the City of Santa Maria and County of Santa Barbara because it provides nesting, roosting, and foraging habitat for migratory bird species. The Orcutt Community Plan Policy BIO-O-4 calls for protection of eucalyptus groves and windrows that provide nesting or roosting habitat for raptors, as well as specimen trees greater than 25 inches at breast height. Central dune scrub is considered rare by the Department of Fish and Game, and contains plant associations considered rare by the California Natural Diversity Data Base (DFG 2003). Coast live oak woodland is considered sensitive by the City of Santa Maria and the County of Santa Barbara. Valley needlegrass grassland is considered a plant community of special concern by the California Natural Diversity Database, and is considered a protected rare habitat by the County of Santa Barbara. Wetlands are protected by the County of Santa Barbara and the Corps of Engineers, and are discussed below in Impact BIO-2.

Locally Preferred Alignment

The Locally Preferred Alignment Alternative would permanently and temporarily affect a total of 1.67 acres of coast live oak woodland, 8.96 acres of eucalyptus

woodland, and 11.31 acres of central dune scrub habitat. There is no valley needlegrass grassland within this alignment.

Migratory bird species have been detected within the eucalyptus trees on the Locally Preferred Alignment. Impacts on migratory nesting birds from the loss of eucalyptus woodland are mitigated as specified in Measure BIO-1(a).

Curved Alignment Alternative

Coast live oak woodland, eucalyptus woodland, central dune scrub, and wetlands are special-status habitats that occur within the Curved Alignment project area. The Curved Alignment would permanently and temporarily affect a total of 0.71 acre of coast live oak woodland, 7.19 acres of eucalyptus woodland, 1.67 acres of wetland, and 13.07 acres of central dune scrub habitat.

Approximately 6.20 acres of eucalyptus woodland in the Curved Alignment study area would be directly and permanently affected and .99 acre would temporarily be affected.

Migratory bird species have been detected within the eucalyptus trees on the Curved Alignment. Impacts on migratory nesting birds from the loss of eucalyptus woodland are mitigated as specified in Measure BIO-1(a).

Central dune scrub occurs mainly as patches within the study area, however, there is a large patch within the Curved Alignment that is contiguous with a larger area of central dune scrub habitat that is located offsite to the north (Figure 24D).

Approximately 11.92 acres of central dune scrub would be directly and permanently affected and 1.15 acres would be temporarily affected by the Curved Alignment. Coast live oak woodland impacts include 0.45 acres of permanent impacts and 0.26 acres of temporary impacts within the Curved Alignment. No valley needlegrass grassland occurs within this alignment.

Foster Road Alignment Alternative

The Foster Road Alignment Alternative would permanently and temporarily affect a total of 5.51 acres of eucalyptus woodland, 10.52 acres of central dune scrub, and 0.14 acre of valley needlegrass grassland habitat. No oak woodland habitat would be affected.

Migratory bird species have been detected within the eucalyptus trees on the Foster Road Alignment. Impacts on migratory nesting birds from the loss of eucalyptus woodland are mitigated as specified in Measure BIO-1(a).

Reduced Extension Alternative

This alternative would permanently and temporarily affect a total of 3.91 acres of eucalyptus woodland and 9.87 acres of central dune scrub habitat. There is no coast live oak woodland or valley needlegrass grassland present within this alignment.

Migratory bird species have been detected within the eucalyptus trees on the Reduced Extension Alternative. Impacts on migratory nesting birds from the loss of eucalyptus woodland are mitigated as specified in Measure BIO-1(a).

Wetlands and Other Waters

Impact BIO-2 Implementation of the Union Valley Parkway extension would result in temporary and permanent losses of wetland habitat in the study area. This habitat would satisfy Corps requirements for jurisdiction as a tributary to Waters of the U.S., and would be considered wetland habitat under the Cowardin Classification System as recognized by the County of Santa Barbara. This impact is considered a significant but mitigable impact.

A detailed evaluation of the significant but mitigable effects of each of the build alternatives on wetlands and other waters is provided in Section 2.3.2, *Wetlands and Other Waters*. As described there, each of the build alternatives would affect Cowardin classified wetlands protected by the County of Santa Barbara.

Plant Species

Impact BIO-3 Although no state or federally listed threatened or endangered plants were found in any potential disturbance area, implementation of the Union Valley Parkway extension and interchange would reduce the amount of a rare plant species that occurs within the study area. This is considered a significant but mitigable impact.

A detailed evaluation of the significant but mitigable effects of each of the build alternatives on rare plant species is provided in Section 2.3.3, *Plant Species*. As described there, a population of curly-leaved monardella (*Monardella undulata*),

which is a California Native Plant Society List 4.2 plant species, would be directly affected by the Locally Preferred Alignment and Curved Alignment. The Locally Preferred Alignment would permanently affect a 0.08-acre occurrence of curly-leaved monardella. The Curved Alignment Alternative would temporarily affect 0.03 acre and permanently affect 0.13 acre containing this species.

Animal Species

Impact BIO-4 Implementation of the Union Valley Parkway extension could affect animal species that are rare and/or species of special concern that are known to use or potentially use habitats within the potential alignments. This is considered a significant but mitigable impact.

A detailed evaluation of the significant but mitigable effects of each of the build alternatives on rare animal species is provided in Section 2.3.4, *Animal Species*.

Invasive Species

Impact BIO-5 Landscaping associated with implementation of the Union Valley Parkway extension and interchange could potentially introduce invasive plant species. To eliminate invasive species, a qualified biologist would review the landscape palette before implementation. However, the potential introduction of invasive species would require mitigation to reduce impacts to a less than significant level. This is considered a significant but mitigable, impact.

A detailed evaluation of the significant but mitigable effects of each of the build alternatives on invasive species is provided in Section 2.3.6, *Invasive Species*.

3.2.3 Unavoidable Significant Environmental Effects

Unavoidable significant environmental effects are defined under the California Environmental Quality Act as “where the environmental effect of the proposed project reaches the threshold of significance but no feasible mitigation is available to reduce the impact to a less than significant level.”

Land Use Conflicts (Foster Road Alignment Alternative)

As described in Section 2 of this document, the Foster Road Alignment Alternative for the Union Valley Parkway extension would result in a significant and unavoidable

impact related to land use conflicts with existing and planned uses along the alternative alignment. The Foster Road Alignment Alternative would require a major deviation from what has been identified and preserved as the planned roadway alignment for the extension of Union Valley Parkway in this area and would result in severe impacts to several planned and constructed facilities. These facilities include the County Agriculture Building, the Food Bank, the Animal Shelter, and the County Public Works Building. The Foster Road Alignment Alternative would directly conflict with these existing and under-construction facilities. Major right-of-way impacts are associated with this alternative as a result.

The following impacts to existing facilities are associated with the Foster Road Alignment Alternative between State Route 135 and California Boulevard.

Foster Road (State Route 135 to California Boulevard) would need to be closed and existing access to adjoining parcels would need to be replaced. To maintain the operational characteristics planned for Union Valley Parkway, access would be restricted and would be limited to major intersections. This alternative would require major changes to the existing parcel access and would substantially alter the traffic circulation of the affected sites.

Foxenwood Road (Foster Road to Union Valley Parkway) would need to be closed to maintain planned operational characteristics for Union Valley Parkway. This would require that the Foxenwood Road northerly access be closed with no future access to Union Valley Parkway or Foster Road to the north.

County Agricultural Building driveways, access roads, parking lots, and landscaping would need to be modified to provide adequate clearance, set backs, site access, and circulation. The existing access road, which provides northerly access onto Foster Road, would need to be replaced with a new access road to the west to connect to California Boulevard.

The Santa Barbara County Food Bank has northerly access to Foster Road. The closure of Foster Road in this area would require replacement of the current access with a new roadway and connection to the local roadway network. This new connection location is not obvious and it may be difficult to provide replacement access.

The Santa Barbara County Food Bank site is planned with a future expansion of the facility to the south. This alternative would directly affect the future expansion to the

south and would require a major alteration of the proposed expansion buildings, site layout, parking lots, landscaping, and driveway access.

The Santa Barbara County Animal Shelter shares the same northerly access to Foster Road with the Santa Barbara County Food Bank. Replacement access may be difficult to provide. The southwest portion of the Animal Shelter is in direct conflict with the Foster Road Alignment. The Animal Shelter site and building layout, roadway setbacks, access, parking lots, and landscaping would be adversely affected by this alignment. The existing building on the site would require demolition and modification and it may be difficult to provide a similar facility on the remaining site.

The Proposed Public Works Building has northerly access to Foster Road and westerly access to California Boulevard that would need to be replaced. Access would be limited to California Boulevard. Driveways, access roads, parking lots, and landscaping would need to be modified to provide adequate clearances, set backs, site access, and circulation.

Local circulation, as well as conflicts with site access, planned use of sites facility layout, parking, clearances, and setbacks are all considered substantial impacts associated with this alternative.

Operational Noise (All Build Alternatives)

Impact N-2 Traffic traveling on the proposed Union Valley Parkway extension and interchange with the Locally Preferred and Curved Alignment alternatives would generate noise levels that would exceed City noise impact criteria at homes and/or private recreational areas in the study area. Since noise mitigation would not be feasible in certain noise-impacted locations, this is considered a significant and unavoidable impact for the Locally Preferred and Curved Alignment alternatives.

Tables 3-4 through 3-7 summarize the existing and post-project noise conditions at representative noise sensitive receptors for each build alternative. Refer to Figures 22A through 22D for the location of sensitive noise receptors with each build alternative.

Table 3-4 Summary of Traffic Noise Impacts of the Locally Preferred Alternative

Receptor	Existing Noise 2005 ¹	Predicted Noise No Build 2030 ¹	Predicted Noise Build 2030 ¹	Predicted Noise level with abatement (2030) ¹			Feasible?
				8-foot	10-foot	12-foot	
1	60	63	66	61	59	58	No
2	46	49	50	N/A	N/A	N/A	N/A
3	42	44	55	53	53	52	No
4	42	44	58	57	56	55	No
5	53	54	60	N/A	N/A	N/A	N/A
6	62	63	65	N/A	N/A	N/A	N/A
7	51	53	53	N/A	N/A	N/A	N/A
8	46	48	54	N/A	N/A	N/A	N/A
9	55	59	66	61	61	61	Yes
10	52	54	58	N/A	N/A	N/A	N/A
11	60	62	62	N/A	N/A	N/A	N/A
12	61	63	65	N/A	N/A	N/A	N/A
13	57	61	66	60	58	57	Yes
14	62	63	65	N/A	N/A	N/A	N/A
15	51	53	58	N/A	N/A	N/A	N/A
16	50	53	59	N/A	N/A	N/A	N/A
17	65	66	64	N/A	N/A	N/A	N/A
18	59	60	60	N/A	N/A	N/A	N/A
19	55	56	61	N/A	N/A	N/A	N/A
20	46	50	54	N/A	N/A	N/A	N/A

¹ Noise levels are expressed in peak-hour noise equivalent levels [Leq(h)].

N/A = Not Applicable

Source: Federal Highway Administration Traffic Noise Model® (TNM 2.5)

Table 3-5 Summary of Traffic Noise Impacts of the Curved Alignment

Receptor	Existing Noise 2005 ¹	Predicted Noise No Build 2030 ¹	Predicted Noise Build 2030 ¹	Predicted Noise level with abatement (2030) ¹			Feasible?
				8-foot	10-foot	12-foot	
1	60	63	64	N/A	N/A	N/A	N/A
2	46	49	54	N/A	N/A	N/A	NA
3	42	44	50	N/A	N/A	N/A	NA
4	42	44	54	53	53	52	No
5	53	54	60	N/A	N/A	N/A	NA
6	62	63	65	N/A	N/A	N/A	N/A
7	51	53	53	N/A	N/A	N/A	N/A
8	46	48	54	N/A	N/A	N/A	N/A
9	55	59	66	61	61	61	Yes
10	52	54	58	N/A	N/A	N/A	N/A
11	60	62	62	N/A	N/A	N/A	N/A
12	61	63	65	N/A	N/A	N/A	N/A
13	57	61	66	60	58	57	Yes
14	62	63	65	N/A	N/A	N/A	N/A
15	51	53	58	N/A	N/A	N/A	N/A
16	50	53	59	N/A	N/A	N/A	N/A
17	65	66	64	N/A	N/A	N/A	N/A
18	59	60	60	N/A	N/A	N/A	N/A
19	55	56	61	N/A	N/A	N/A	N/A
20	46	50	54	N/A	N/A	N/A	N/A

¹ Noise levels are expressed in peak-hour noise equivalent levels [Leq(h)].

N/A = Not Applicable

Source: Federal Highway Administration Traffic Noise Model® (TNM 2.5)

Table 3-6 Summary of Traffic Noise Impacts of the Foster Road Alignment Alternative

Receptor	Existing Noise 2005 ¹	Predicted Noise No Build 2030 ¹	Predicted Noise Build 2030 ¹	Predicted Noise level with abatement (2030) ¹			Feasible?
				8-foot	10-foot	12-foot	
1	60	63	63	N/A	N/A	N/A	N/A
2	46	49	49	N/A	N/A	N/A	N/A
3	42	44	45	N/A	N/A	N/A	N/A
4	42	44	46	N/A	N/A	N/A	N/A
5	53	54	55	N/A	N/A	N/A	N/A
6	62	63	63	N/A	N/A	N/A	N/A
7	51	53	57	N/A	N/A	N/A	N/A
8	46	48	58	57	56	55	No
9	55	59	66	61	61	61	Yes
10	52	54	57	N/A	N/A	N/A	N/A
11	60	62	63	N/A	N/A	N/A	N/A
12	61	63	66	64	64	64	No
13	57	61	65	N/A	N/A	N/A	N/A
14	62	63	65	N/A	N/A	N/A	N/A
15	51	53	57	N/A	N/A	N/A	N/A
16	50	53	57	N/A	N/A	N/A	N/A
17	65	66	64	N/A	N/A	N/A	N/A
18	59	60	60	N/A	N/A	N/A	N/A
19	55	56	61	N/A	N/A	N/A	N/A
20	46	50	54	N/A	N/A	N/A	N/A

¹ Noise levels are expressed in peak-hour noise equivalent levels [Leq(h)].

N/A = Not Applicable

Source: Federal Highway Administration Traffic Noise Model® (TNM 2.5)

Table 3-7 Summary of Traffic Noise Impacts of the Reduced Extension Alternative

Receptor	Existing Noise 2005 ¹	Predicted Noise No Build 2030 ¹	Predicted Noise Build 2030 ¹	Predicted Noise level with abatement (2030) ¹			Feasible?
				8-foot	10-foot	12-foot	
1	60	63	63	N/A	N/A	N/A	N/A
2	46	49	49	N/A	N/A	N/A	N/A
3	42	44	44	N/A	N/A	N/A	N/A
4	42	44	45	N/A	N/A	N/A	N/A
5	53	54	54	N/A	N/A	N/A	N/A
6	62	63	63	N/A	N/A	N/A	N/A
7	51	53	53	N/A	N/A	N/A	N/A
8	46	48	49	N/A	N/A	N/A	N/A
9	55	59	62	N/A	N/A	N/A	N/A
10	52	54	56	N/A	N/A	N/A	N/A
11	60	62	62	N/A	N/A	N/A	N/A
12	61	63	65	N/A	N/A	N/A	N/A
13	57	61	66	60	58	57	Yes
14	62	63	65	N/A	N/A	N/A	N/A
15	51	53	55	N/A	N/A	N/A	N/A
16	50	53	54	N/A	N/A	N/A	N/A
17	65	66	64	N/A	N/A	N/A	N/A
18	59	60	60	N/A	N/A	N/A	N/A
19	55	56	60	N/A	N/A	N/A	N/A
20	46	50	54	N/A	N/A	N/A	N/A

¹ Noise levels are expressed in peak-hour noise equivalent levels [Leq(h)].

N/A = Not Applicable

Source: Federal Highway Administration Traffic Noise Model® (TNM 2.5)

Homes along Blosser Road (Receptor 1)

The future (2030) peak-hour equivalent traffic noise level at homes on the west and east sides of Blosser Road would increase for each alternative as shown below:

- *Locally Preferred Alignment*— Due to its proximity to existing residences, the future peak-hour equivalent noise level would be 66 decibels, an increase of 6 decibels above the existing noise levels.
- *Curved Alignment Alternative*— The future peak-hour equivalent noise level with this alternative would be approximately 64 decibels, an increase of approximately 4 decibels above the existing noise levels.
- *Foster Road Alignment Alternative*—The future peak-hour equivalent noise level would be approximately 63 decibels, an increase of approximately 3 decibels above the existing noise levels.

- *Reduced Extension Alternative*—The future peak-hour equivalent noise level would be 63 decibels, an increase of approximately 3 decibels above the existing noise levels.

None of the build alternatives would increase the ambient noise level such that it exceeds noise thresholds. For this reason, no long-term noise abatement measures are recommended at this location.

Pioneer Park (Receptor 2)

Pioneer Park is a 15-acre active use park located immediately north of the western portion of the project area, near Blosser Road.

The peak-hour equivalent traffic noise level at Pioneer Park would increase for each alternative as shown below:

- *Locally Preferred Alignment*— The future peak-hour equivalent noise level would be approximately 50 decibels, an increase of approximately 4 decibels above the existing noise levels.
- *Curved Alignment Alternative*—The future (2030) peak-hour equivalent noise level with this alternative would be approximately 54 decibels, an increase of 8 decibels above the existing noise levels.
- *Foster Road Alignment Alternative*—The future peak-hour equivalent noise level would be approximately 49 decibels, an increase of approximately 3 decibels above the existing noise levels.
- *Reduced Extension Alternative*— The future peak-hour equivalent noise level would be approximately 49 decibels, an increase of approximately 3 decibels above the existing noise levels.

None of the build alternatives would increase the ambient noise level such that it exceeds noise thresholds under the California Environmental Quality Act. For this reason, no long-term noise abatement measures are recommended at this location.

Homes and Private Recreational Areas within Foxenwood Subdivision (Receptors 3, 4, 5, 6, and 9)

Receptor 3 represents recreational areas (tennis courts) on Clubhouse Drive about half way between California Boulevard and Blosser Road. Receptors 4 and 5 represent seven homes on Clubhouse Drive west of California Boulevard, and Receptors 6 and 9 represent 23 homes east of California Boulevard. The homes and private recreational uses located along Clubhouse Drive and Foxenwood Drive,

within the Foxenwood subdivision south of the project area, are situated within the County of Santa Barbara.

The peak-hour equivalent traffic noise level at these receptors would increase from the current levels to the future (2030) levels for each alternative as shown below:

- *Locally Preferred Alignment*— Noise levels would range from 55 to 66 decibels. Receptors 3 and 4 would have increases of 13 and 16 decibels, respectively, and would therefore exceed the threshold of a 12-decibel increase. Receptor 9 would increase from 55 decibels to 66 decibels, which would not exceed the threshold of a 12-decibel increase.
- *Curved Alignment Alternative*—Noise levels would range from 50 to 66 decibels. Receptor 4 would have an increase of 12 decibels, which would be considered a significant impact. The noise level at Receptor 9 would increase by 11 decibels, which would not be considered a significant impact.
- *Foster Road Alignment Alternative*—Noise levels would range from 45 to 66 decibels. Receptors 3 through 6 would have increases of only 1 to 4 decibels. Receptor 9 would increase by 11 decibels, which would not be considered a significant impact.
- *Reduced Extension Alternative*— Noise levels would range from 45 to 63 decibels. Receptors 3 through 6 would have increases of only 1 to 3 decibels. Receptor 9 would increase by 7 decibels, which would not be considered a significant impact.

Noise levels at homes represented by Receptor 4 would significantly increase by 12 decibels with the Curved Alignment and 16 decibels with the Locally Preferred Alternative. The Locally Preferred Alignment Alternative would also have a significant increase of 13 decibels at Receptor 3. Noise levels at Receptors 5, 6 and 9 would not significantly increase with the Locally Preferred Alignment, the Curved Alignment Alternative, or the Foster Road Alignment Alternative.

It should be noted that although noise mitigation is not required for Receptor 6, for the Locally Preferred Alignment and Curved Alignment Alternative, the City proposed to install an 8-foot-high masonry soundwall north of the rear lot lines of the residences represented by this receptor (refer to Figures 22A and 22B).

Institutional Facilities Along California Boulevard (Receptors 7 and 8)

Institutional land uses are located between Foster Road and the Foxenwood Estates subdivision, east of Pioneer Park and west of Foxenwood Lane, within the City of

Santa Maria. The peak-hour equivalent traffic noise level at these two receptors would increase for each alternative as shown below:

- *Locally Preferred Alignment*— The future peak-hour equivalent noise levels with this alternative would be 53 decibels at Receptor 7 (a 2-decibel increase) and 54 decibels at Receptor 8 (an 8-decibel increase).
- *Curved Alignment Alternative*— The future peak-hour equivalent noise levels with this alternative would be 53 decibels at Receptor 7 (a 2-decibel increase) and 54 decibels at Receptor 8 (an 8-decibel increase).
- *Foster Road Alignment Alternative*—The future peak-hour equivalent noise levels with this alternative would be 57 decibels at Receptor 7 (a 6-decibel increase) and 58 decibels at Receptor 8 (a substantial increase of 12 decibels).
- *Reduced Extension Alternative*—The future peak-hour equivalent noise levels with this alternative would be 53 decibels at Receptor 7 (a 2-decibel increase) and 49 decibels at Receptor 8 (a 3-decibel increase).

The Foster Road Alignment would cause a substantial increase of 12 decibels at Receptor 8. The exterior areas at Receptor 8 do not qualify as a sensitive receptor (an area of frequent human use), therefore consideration of noise abatement is not warranted at this location.

Homes within Foxenwood Garden Villas (Receptor 10, 15, and 16)

These homes are behind the existing six-foot-high concrete block soundwalls that are on an elevated berm along the boundary of the development. None of the build alternatives would exceed the noise threshold at these receptors.

- *Locally Preferred Alignment and Curved Alignment Alternative*—The future peak-hour equivalent noise levels with these alternatives would be 58 decibels at Receptor 10 (a 6-decibel increase), 58 decibels at Receptor 15 (a 7-decibel increase), and 59 decibels at Receptor 16 (a 9-decibel increase).
- *Foster Road Alignment Alternative*—The future peak-hour equivalent noise levels with this alternative would be 57 decibels at Receptor 10 (a 5-decibel increase), 57 decibels at Receptor 15 (a 6-decibel increase), and 57 decibels at Receptor 16 (a 7-decibel increase).
- *Reduced Extension Alternative*—The future peak-hour equivalent noise levels with this alternative would be 56 decibels at Receptor 10 (a 4-decibel increase), 55 decibels at Receptor 15 (a 4-decibel increase), and 54 decibels at Receptor 16 (a 4-decibel increase).

None of the build alternatives would increase the ambient noise level such that it exceeds noise thresholds. For this reason, no long-term noise abatement measures are recommended at this location.

Homes East of Orcutt Road and State Route 135 (Receptors 11 and 12)

Receptor 11 represents 1 residence southeast of the proposed intersection of Union Valley Parkway and Route 135. Receptor 12 represents 3 residences northeast of the proposed intersection of Union Valley Parkway and Route 135. These homes are located in the County of Santa Barbara. The peak-hour equivalent traffic noise level at these two receptors would increase for each alternative as shown below:

- *Locally Preferred Alignment, Curved Alignment Alternative, and Reduced Extension Alternative*—The future peak-hour equivalent noise levels with these alternatives increase to 62 decibels (a 2-decibel increase) at Receptor 11 compared to 65 decibels at Receptor 12 (a 4-decibel increase).
- *Foster Road Alignment Alternative*—The future peak-hour equivalent noise levels with this alternative would be 63 decibels at Receptor 11 (a 3-decibel increase) and 66 decibels at Receptor 12 (a 5-decibel increase).

None of the build alternatives would increase the ambient noise level such that it exceeds noise thresholds. For this reason, no long-term noise abatement measures are recommended at this location.

Homes to the North of the Existing Segment of Union Valley Parkway, East of Hummel Drive (Receptors 13 & 17)

Receptor 13 represents 23 residences located on the north side of the existing County segment of Union Valley Parkway, nearest to Hummel Drive. Receptor 17 represents three residences located on the north side of the existing County segment of Union Valley Parkway just west of Bradley Road. These homes are located in the County of Santa Barbara. The peak-hour equivalent traffic noise level at these receptors would change with each alternative as shown below:

- *Locally Preferred Alignment, Curved Alignment Alternative, and Reduced Extension Alternative*—The future peak-hour equivalent noise levels with these alternatives would be 66 decibels at Receptor 13 (a 9-decibel increase) and 64 decibels at Receptor 17 (a 1-decibel decrease from the current noise level).
- *Foster Road Alignment Alternative* —The future peak-hour equivalent noise levels with this alternative would be 65 decibels at Receptor 13 (an 8-decibel

increase) and 64 decibels at Receptor 17 (a 1-decibel decrease from the current noise level).

None of the build alternatives would increase the ambient noise level such that it exceeds noise thresholds under the California Environmental Quality Act. For this reason, no long-term noise abatement measures are recommended at this location.

Homes to the South of the Existing Segment of Union Valley Parkway, East of Hummel Drive (Receptors 14 & 20)

There is an existing 8- to 10-foot-high earthen berm topped by a 6-foot-high concrete soundwall along the northern boundary of these residential properties. These homes are located in the County of Santa Barbara.

Each of the build alternatives would increase the peak-hour equivalent traffic noise level to 65 decibels at Receptor 14 (a 3-decibel increase) and to 54 decibels at Receptor 20 (an 8-decibel increase). None of the build alternatives would increase the ambient noise level such that it exceeds noise thresholds. For this reason, no long-term noise abatement measures are recommended at this location.

Homes Along the Existing Segment of Union Valley Parkway, East of Bradley Road (Receptors 18 & 19)

Existing 6-foot masonry walls are on the north and south side of Union Valley Parkway in this area. These homes are located in the County of Santa Barbara.

With all of the build alternatives, the noise level at Receptor 18 would be the same as the future no-action noise level in this area, and would not be considered a significant increase. At Receptor 19 the noise level would increase by 6 decibels to 61 decibels with all of the build alternatives except the Reduced Extension Alternative. With this alternative the noise level would increase by 5 decibels, from 55 decibels to 60 decibels. None of the build alternatives would increase the ambient noise level such that it exceeds noise thresholds. For this reason, no long-term noise abatement measures are recommended at this location.

Homes Near State Route 101 Interchange Area (All Build Alternatives)

Because the proposed southbound ramps and State Route 101 would be the major noise source for existing sensitive receptors in the area of the proposed Union Valley Parkway/State Route 101 interchange, the proposed northbound ramps that would be across the freeway from sensitive receptors would not substantially contribute to noise impacts on those sensitive receptors. Noise levels for receptors located closest

to the proposed southbound ramps and State Route 101 (i.e., receptors R1 through R6; see Figure 22E) were modeled for the year 2030 using the Federal Highway Administration's Traffic Noise Model. Results of those forecasts are shown in Table 2-21. Receptor 3 would experience the greatest increase in noise levels [about 4 decibels Leq(h)] in 2030. However, none of the receptors would experience a substantial noise increase (12 decibels) or approach noise abatement criteria.

Note: The 2030 peak-hour noise levels were determined using predicted 2030 traffic volumes on the freeway, freeway ramps, and Union Valley Parkway. The prediction method used was the Federal Highway Administration's Traffic Noise Model.

The build alternatives would extend Union Valley Parkway east to State Route 101 and construct a freeway interchange with on- and off-ramps. The area west of State Route 101 and adjacent to Union Valley Parkway contains residential development, with the Edgewood development north of Union Valley Parkway and the Creekside development south of Union Valley Parkway. The area east of State Route 101 is primarily grass-covered, low, rolling hills (ancient sand dunes) used for agriculture and oil production. The residential development on the north side of Union Valley Parkway (Edgewood development) is already protected from street and highway traffic by an existing soundwall next to the proposed southbound off-ramp. However, the Creekside development has no soundwall next to the proposed southbound on-ramp.

Between November 1998 and June 1999, and in January 2008, ambient noise level readings were taken at six representative sensitive receptor sites. The sites were located next to the proposed southbound off- and on-ramps and next to the proposed extension of Union Valley Parkway. The noise level readings ranged from 53 to 63 decibels.

As shown in Table 2-21, the predicted noise levels in the locations that would experience the highest noise levels associated with the proposed interchange would range from 57 to 65 decibels Leq(h) in 2030. The 65-decibel level was predicted at the rear of the residence on Harmony Lane, closest to the proposed southbound on-ramp. The 61-decibel level was predicted at the front of two residences facing the freeway on Bridgeport Road. The predicted increase in noise levels in 2030 at these three locations ranged from 2 to 4 decibels over the current ambient levels.

The predicted noise levels at these three locations, representing the locations that would experience the highest noise levels in 2030, do not meet the criteria for a

substantial noise increase (requiring an increase of 12 decibels). Consequently, noise impacts on sensitive receptors adjacent to the proposed Union Valley Parkway/State Route 101 interchange would not be substantial.

City and County policies require that new residential growth should not be located in high noise areas, and if so, should provide adequate mitigation to reduce noise levels to an acceptable level. It is expected that any new growth in the areas adjacent to the Union Valley Parkway corridor would be required to install soundwalls, berms, or other noise reduction mitigation.

No-Action Alternative

This alternative would not result in traffic along the proposed Union Valley Parkway corridor. If the No-Action Alternative is selected, there would be no construction project and no noise attributed to the project. Therefore, noise mitigation is not required for the No-Action Alternative.

Threatened and Endangered Animal Species, Curved Alignment, Foster Road Alignment)

Implementation of the Curved Alignment or Foster Road Alignment could affect threatened and endangered animal species, such as California red-legged frog and California tiger salamander that are known to use or potentially use habitats within the potential alignments. A detailed evaluation of the significant and unavoidable effects of each of these build alternatives on Threatened or Endangered species is provided in Section 2.3.5, *Threatened and Endangered Species*.

3.2.4 Climate Change under the California Environmental Quality Act

Regulatory Setting

While climate change has been a concern since at least 1988 as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change, the efforts devoted to greenhouse gas emissions reduction and climate change research and policy have increased dramatically in recent years. In 2002, with the passage of Assembly Bill 1493, California launched an innovative and proactive approach to dealing with greenhouse gas emissions and climate change at the state level. Assembly Bill 1493 requires the Air Resources Board to develop and implement regulations to reduce automobile and light truck greenhouse gas emissions; these regulations would apply to automobiles and light trucks beginning with the 2009-model year. Greenhouse gases related to human activity include carbon dioxide, methane, nitrous oxide, tetrafluoromethane,

hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (1,1,1,2-tetrafluoroethane), and HFC-152a (difluoroethane).

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this executive order is to reduce California's greenhouse gas emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020, and 3) 80 percent below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32, the Global Warming Solutions Act of 2006. Assembly Bill 32 sets the same overall greenhouse gas emissions reduction goals while further mandating that the Air Resources Board create a plan, which includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Executive Order S-20-06, signed on October 17, 2006, further directs state agencies to begin implementing Assembly Bill 32, including the recommendations made by the state's Climate Action Team.

With Executive Order S-01-07, Governor Schwarzenegger set forth the low carbon fuel standard for California. Under this executive order, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020.

Climate change and greenhouse gas reduction is also a concern at the federal level; however, at this time, no legislation or regulations have been enacted specifically addressing greenhouse gas emissions reductions and climate change.

However, California, in conjunction with several environmental organizations and several other states, sued to force the U.S. Environmental Protection Agency (EPA) to regulate greenhouse gases as a pollutant under the Clean Air Act (Massachusetts vs. Environmental Protection Agency et al., U.S. Supreme Court No. 05-1120. 549 U.S. [2007]. Argued November 29, 2006—Decided April 2, 2007). The court ruled that greenhouse gases do fit within the Clean Air Act's definition of a pollutant, and that the Environmental Protection Agency does have the authority to regulate greenhouse gases. Despite the Supreme Court ruling, there are no promulgated federal regulations to date limiting greenhouse gas emissions.

Affected Environment

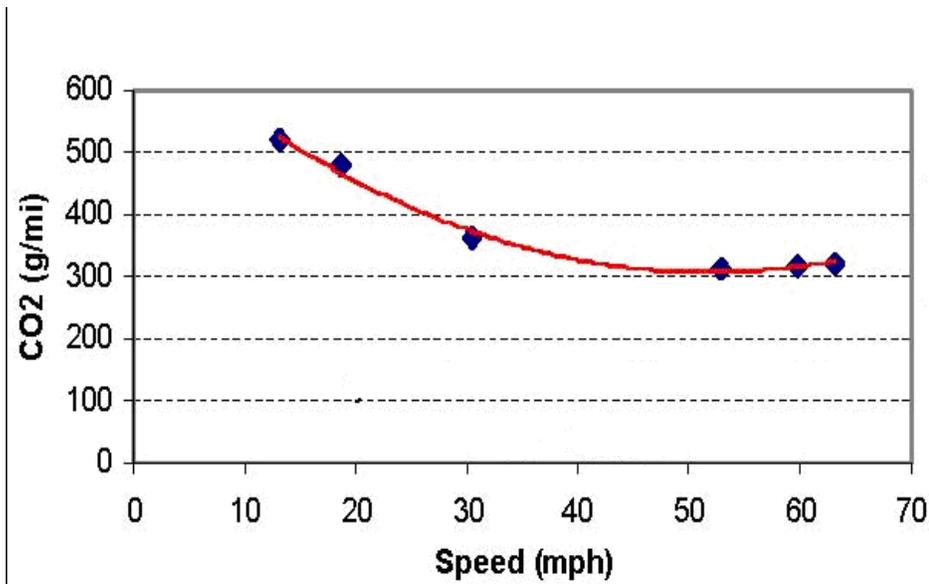
According to *Recommendations by the Association of Environmental Professionals on How to Analyze Greenhouse Gas Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), an individual project does not generate enough greenhouse gas emissions to significantly influence global climate change. Global climate change is a cumulative impact; a project participates in this potential impact

through its incremental contribution combined with the cumulative increase of all other sources of greenhouse gases.

Caltrans and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing greenhouse gas emissions reduction and climate change. Recognizing that 98 percent of California’s greenhouse gas emissions are from the burning of fossil fuels and 40 percent of all human-made greenhouse gas emissions are from transportation, Caltrans has created and is implementing the Climate Action Program at Caltrans (December 2006). Transportation’s contribution to greenhouse gas emissions is dependent on three factors: the types of vehicles on the road, the type of fuel the vehicles use, and the time/distance the vehicles travel.

One of the main strategies in Caltrans’ Climate Action Program to reduce greenhouse gas emissions is to make California’s transportation system more efficient. The highest levels of carbon dioxide from mobile sources, such as automobiles, occur at stop-and-go speeds (0-25 miles per hour) and speeds over 55 miles per hour; the most severe emissions occur from 0-25 miles per hour (see diagram below). To the extent that a project relieves congestion by enhancing operations and improving travel times in high congestion travel corridors, GHG emissions, particularly CO₂, will be reduced.

Fleet Carbon Dioxide (CO₂) Emissions vs. Speed (Highway)



Source: Center for Clean Air Policy—[http://www.ccap.org/Presentations/Winkelman%20TRB%202004%20\(1-13-04\).pdf](http://www.ccap.org/Presentations/Winkelman%20TRB%202004%20(1-13-04).pdf)

Environmental Consequences

The proposed extension and interchange project is designed to reduce congestion and/or vehicle time delays by providing a major arterial for the movement of people and goods through the Santa Maria-Orcutt area. Ultimately, Union Valley Parkway is planned to be a major east/west roadway, linking residential and commercial areas in the communities of Orcutt and Santa Maria in Santa Barbara County. This would maintain the desired Level of Service on adjacent county roads, city streets, and the Santa Maria Way and Clark Avenue freeway interchange ramps along State Route 101.

The Union Valley Parkway Extension/Interchange Project was included in the 1999 Santa Barbara County Regional Transportation Plan, which is the most recent adopted Regional Transportation Plan. In addition, the Union Valley Parkway/State Route 101 interchange and landscaping components were included in Santa Barbara County Association of Governments' financially constrained 2006 Regional Transportation Improvement Program, page 8. Implementation of these plans would reduce vehicle hours traveled and improve traffic flow for the region. Due to the reduction in vehicle hours traveled and improved traffic flow, carbon dioxide emissions would be reduced despite what may be an increase in vehicle miles traveled. Refer to Section 1.4.6 for a discussion of alternatives considered but eliminated from further consideration, including transportation system management and transportation demand management. Without construction of the Union Valley Parkway extension and interchange, such approaches alone would not be expected to sufficiently facilitate efficient traffic circulation in the study area vicinity, in accordance with adopted level of service thresholds, address future safety issues, or conform to adopted plans and policies.

Caltrans and the City recognize the concern that carbon dioxide emissions raise for climate change. However, modeling and gauging the impacts associated with an increase in greenhouse gas emission levels, including carbon dioxide, at the project level is not currently possible. No federal, state, or regional regulatory agency has provided methodology or criteria for greenhouse gas emissions and climate change impact analysis. Therefore, Caltrans and the City are unable to provide a scientific- or regulatory-based conclusion regarding whether the project's contribution to climate change is cumulatively considerable.

Air emissions resulting from vehicles are directly related to the amount of miles that vehicles drive, the hours that they are on the road, and the hours that they are idling.

The following table shows the Vehicle Miles of Travel (VMT), Vehicle Hours of Travel (VHT), and Vehicle Hours of Delay (VHD) for various scenarios analyzed in the environmental document. Note that the performance measures were taken directly from the traffic model and represent model-wide traffic data. In this case, the Santa Maria Valley Traffic Model encompasses the City of Santa Maria-Orcutt area. Also note that the performance measures represent the P.M. peak hour period.

Santa Maria Valley Traffic Model Performance Measures

Scenario	VMT	VHT	VHD
Locally Preferred Alignment	494,494	12,579	2,895
Foster Road Alignment	494,672	13,628	2,931
Reduced Extension Alternative	494,795	13,632	2,936
No Project Alternative	494,829	13,723	3,007

VMT = Vehicle miles of travel
 VHT = Vehicle hours of travel
 VHD = Vehicle hours of delay
 Source: Associated Transportation Engineers, 2008.

As shown in the table above, the Locally Preferred Alignment (Alternative 1) would result in the least amount of vehicle miles traveled, vehicle hours traveled, and vehicle hours of delay when compared to the other alternatives. The No Project Alternative (Alternative 5) would result in the greatest amount of VMT, VHT and VHD. Although not included in the above table, the Curved Alignment (Alternative 2) traffic forecasts would be the same as the Locally-Preferred Alternative since it essentially follows the same path from a regional perspective and the size of the road and traffic controls would be the same.

Section 2.2.4 *Air Quality, Environmental Consequences* states that “Operation of the project would result in increased levels of air pollutants in the micro-scale, but would not result in a substantial increase in regional emissions, as some traffic that currently uses the Santa Maria Way and Clark Avenue interchanges and roadways would be redistributed to Union Valley Parkway.”

Common GHGs include water vapor, carbon dioxide, methane, nitrous oxides, fluorinated gases, and ozone. Based upon the 2004 GHG inventory data (the latest year available) compiled by the California Energy Commission (CEC, December 2006), California produced 492 million metric tons of carbon dioxide equivalent

(CDE¹). The major source of GHG in California is transportation, contributing 41% of the state's total GHG emissions.

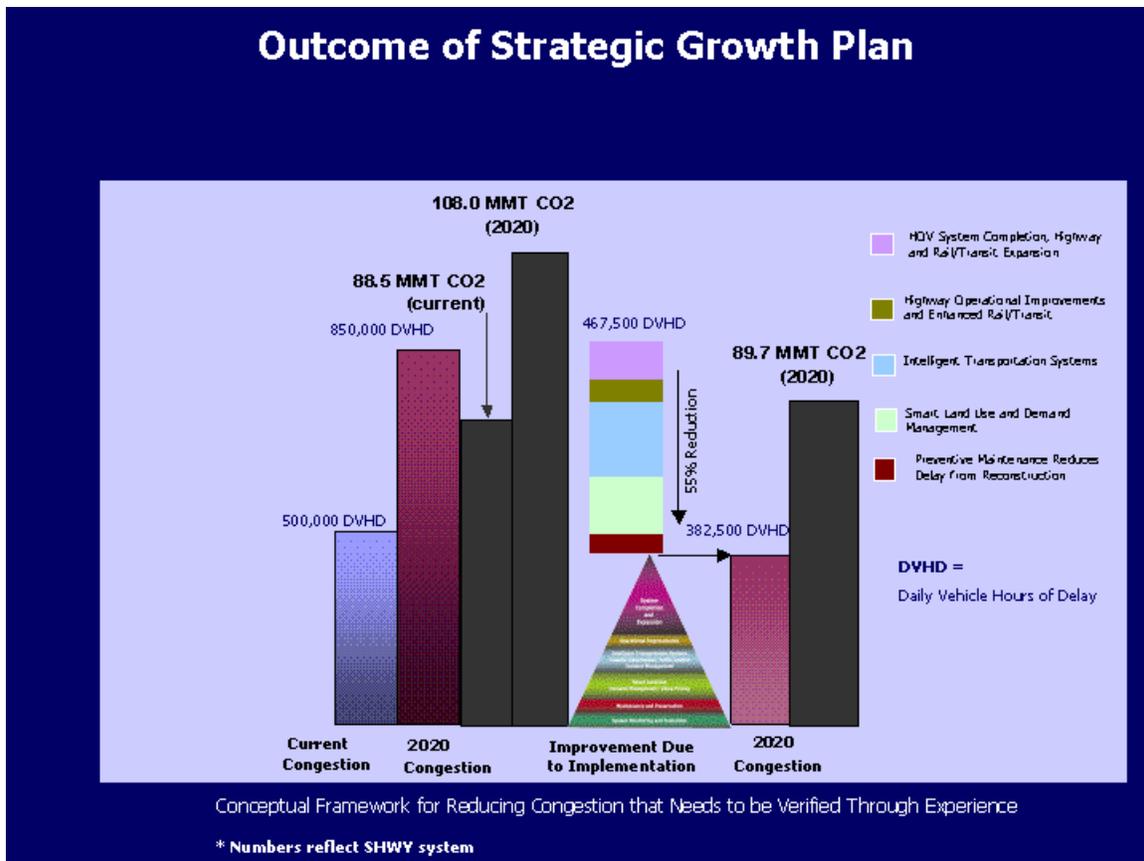
Since all of the build alternatives would result in fewer VMT, VHT and VHD than if the project were not built, the proposed Union Valley Parkway Extension and Interchange project would result in a reduction of vehicle emissions, and therefore fewer greenhouse gases, when compared to conditions if this project were not built.

This project would not in and of itself generate vehicle trips, but would serve existing local and regional traffic, thereby resulting in reduced congestion, reduced travel times, and an overall reduction in vehicle miles travelled. It is not necessary to quantify the amount of greenhouse gases that could be removed by this project because, as described above, the proposed Union Valley Parkway Interchange and Extension would actually have a beneficial impact to global climate change in that it would result in a reduction of greenhouse gases caused by traffic in the project area, when compared to the No Action Alternative.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans continues to be actively involved on the Governor's Climate Action Team as the Air Resources Board works to implement Assembly Bill 1493 and to help achieve the targets set forth in Assembly Bill 32. Many of the strategies the Department is using to help meet the targets in AB 32 come from the California Strategic Growth Plan, which is updated each year. Governor Arnold Schwarzenegger's Strategic Growth Plan (SGP) calls for a \$222 billion infrastructure improvement program to fortify the state's transportation system, education, housing, and waterways, including \$107 in transportation funding during the next decade. As shown on the figure below, the SGP targets a significant decrease in traffic congestion below today's level and a corresponding reduction in GHG emissions. The SGP proposes to do this while accommodating growth in population and the economy. A suite of investment options has been created that combined together yield the promised reduction in congestion. The SGP relies on a complete systems approach of a variety of strategies: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements.

¹ Carbon dioxide equivalent (CDE or CO₂E) is a quantity that describes, for a given mixture and amount of GHGs, the amount of CO₂ (usually in metric tons; million metric tons = MMTCO₂E) that would have the same global warming potential (GWP) when measured over a specified timescale (generally, 100 years).



As part of the Climate Action Program at Caltrans (December 2006), Caltrans is supporting efforts to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity, transit-oriented communities, and high-density housing along transit corridors. Caltrans is working closely with local jurisdictions on planning activities; however, Caltrans does not have local land use planning authority. Caltrans is also supporting efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars and light and heavy-duty trucks. However, it is important to note that control of fuel economy standards is held by the United States Environmental Protection Agency and the Air Resources Board. Lastly, the use of alternative fuels is also being considered; Caltrans is participating in funding for alternative fuel research at the University of California Davis.

The table provided on the following page summarizes the Department and statewide efforts that Caltrans is implementing in order to reduce GHG emissions. For more detailed information about each strategy, please see *Climate Action Program at Caltrans* (December 2006); it is available at <http://www.dot.ca.gov/docs/ClimateReport.pdf>.

To the extent that it is applicable or feasible for the project, the following measures should be included in the project to reduce the greenhouse gas emissions and potential climate change impacts from projects:

1. Use of reclaimed water—currently 30 percent of the electricity used in California is used for the treatment and delivery of water. Use of reclaimed water helps conserve this energy, which reduces greenhouse gas emissions from electricity production.
2. Landscaping—reduces surface warming and through photosynthesis decreases carbon dioxide.
3. Portland cement—use of lighter color surfaces such as Portland cement helps to increase the albedo effect (measure of how much light a surface reflects) and cool the surface; in addition, Caltrans has been a leader in the effort to add fly ash to Portland cement mixes. Adding fly ash reduces the greenhouse gas emissions associated with cement production—it also can make the pavement stronger.
4. Lighting—Use of energy efficient lighting, such as LED traffic signals
5. Idling restrictions—for trucks and equipment, in accordance with the California Air Resources Board *Air Toxics Control Measures*.

Chapter 3 • California Environmental Quality Act Evaluation

Strategy	Program	Partnership	Method/Process	Estimated CO2 Savings (MMT)	
				2010	2020
Smart Land Use	IGR	Lead: Caltrans Partner: Local Governments	Review and seek to mitigate development proposals	Not Estimated	Not Estimated
	Planning Grants	Lead: Caltrans Partner: Local and regional agencies & other stakeholders	Competitive selection process	Not Estimated	Not Estimated
	Regional Plans and Blueprint Planning	Lead: Regional Agencies Partner: Caltrans	Regional plans and application process	0.975	7.8
Operational Improvements and Intelligent Trans. System (ITS) Deployment	Strategic Growth Plan	Lead: Caltrans Partner: Regions	State ITS; Congestion Management Plan	.007	2.17
Mainstream Energy and GHG into Plans and Projects	Office of Policy Analysis & Research; Division of Env. Analysis	Interdepartmental effort	Policy establishment, guidelines, technical assistance	Not Estimated	Not Estimated
Educational and Information Program	Office of Policy Analysis & Research	Partner: Interdepartmental, CalEPA, CARB, CEC	Analytical report, data collection, publication, workshops, outreach	Not Estimated	Not Estimated
Fleet Greening and Fuel Diversification	Division of Equipment	Department of General Services	Fleet Replacement B20 B100	0.0045	0.0065 0.45 .0225
Non-vehicular Conservation Measures	Energy Conservation Program	Green Action Team	Energy Conservation Opportunities	0.117	.34
Portland Cement	Office of Rigid Pavement	Cement and Construction Industries	2.5 % limestone cement mix 25% fly ash cement mix > 50% fly ash/slag mix	1.2 .36	3.6
Goods Movement	Office of Goods Movement	CalEPA, CARB, BT&H, MPOs	Goods Movement Action Plan	Not Estimated	Not Estimated
Total				2.72	18.67

3.3 Mitigation Measures for Significant Impacts Under the California Environmental Quality Act

This section outlines the recommended mitigation measures and the residual effects or level of significance remaining after the implementation of the measures. In those cases where the mitigation measure for an impact could have a significant environmental impact in another issue area, this impact is discussed as a residual effect.

3.3.1 Land Use (1)

The following measure is required for the Foster Road Alignment Alternative only:

- LU-1(a)** At the time of acquisition, when relocation would become necessary, the City and Caltrans would provide relocation assistance to displaced businesses, in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and Title 49 Code of Federal Regulations, Part 24.

Impact After Mitigation

Implementation of the recommended avoidance, minimization, and mitigation measure would reduce land use conflicts associated with the Foster Road Alignment Alternative to the extent feasible. However, local circulation, site access, planned use of sites, facility layout, parking, clearances, and setback conflicts would remain and are all considered substantial impacts associated with this alternative. Therefore, impacts would remain significant and unavoidable.

3.3.2 Land Use (2)

The following measure is required for all build alternatives:

- LU-2(b)** Construction plans would be submitted to Greka Energy and/or Union Oil for review and comment for grading or excavation proposed within 25 feet of known oil or gas lines. In addition, to identify and avoid all known subsurface lines, Underground Service Alert would be consulted immediately before construction. A private utility locator service and/or individual private property owners would be consulted immediately before construction if excavation were scheduled to occur on private property.

Impact After Mitigation

Implementation of the recommended avoidance, minimization, and mitigation measure would reduce potential conflicts with oil or gas lines to a less than significant level.

3.3.3 Aesthetics (1)

The following measures apply to the visual impacts within the study area for all build alternatives. It should be noted that the Locally Preferred Alignment and Curved Alignment alternatives would improve access to aesthetically pleasing views of open space east and west of State Route 135, which would be considered a beneficial effect. Nevertheless, for each of the build alternatives, mitigation would be required to minimize the project's effects on visual resources and ensure consistency with the City of Santa Maria policies pertaining to the protection of visual resources.

AES-1 (a) To minimize visual character and compatibility effects, long expanses of walls or fences would be interrupted with offsets and provided with accents to prevent visual monotony. Wall colors would be compatible with surrounding terrain. Whenever possible, a combination of elements would be used, including walls and landscaped berms.

AES-1 (b) To minimize visual character and compatibility effects, where landforms are modified during construction, recontouring of land masses would provide a smooth and gradual transition between modified landforms and existing grades.

AES-1(c) Street lights would be hooded and directed to project area roadways to avoid light and glare impacts to residences, aviation, and nearby habitat areas. Roadway lighting would be minimized to the extent possible, and would not exceed the minimum height requirements of the local jurisdiction in which the lighting is located.

Refer to Section 2.3.1, *Natural Communities*, for a discussion of avoidance, minimization, and/or mitigation measures that require replacement of removed trees at the following ratios: 2:1 (number of trees planted:number of trees removed) for trees six to eight inches in diameter (as measured at 4 ½ feet above the ground); 2) 4:1 for trees nine to 12 inches in diameter; and 3) 6:1 for trees greater than 12 inches

in diameter. The planting of replacement trees in accordance with this measure will reduce long-term impacts related to visual character associated with tree removal.

Impact after Mitigation

With the implementation of the above measures, visual effects of the project would be mitigated to the extent feasible and would be consistent with the City of Santa Maria policies pertaining to the protection of visual resources.

3.3.4 Cultural Resources (1)

The following mitigation measures are required to address potential cultural resource impacts that could occur as a result of implementation of any of the build alternatives.

- CR-1(a)** If artifacts were discovered during excavation, all earth-moving activity within and around the immediate discovery area would be diverted until a qualified archaeologist could assess the nature and significance of the find.

- CR-1(b)** If human remains were discovered, State Health and Safety Code Section 7050.5 states that disturbances and activities would cease. The County Coroner would be notified of the find immediately so that he/she may ascertain the origin. Pursuant to Public Resources Code Section 5097.98, if the remains were thought to be Native American, then the coroner would notify the Native American Heritage Commission who would then notify the Most Likely Descendent. At this time, the person who discovered the remains would contact the Caltrans District 5 Central Coast Environmental Management Branch so that they may work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code 5097.98 are to be followed as applicable.

Impact After Mitigation

Implementation of the build alternatives would have a less than significant impact on cultural resources.

3.3.5 Hydrology and Water Quality (2)

The following measure is required for all build alternatives to reduce pollutant concentrations in roadway runoff and ensure long-term functionality of the runoff filtration devices.

HWQ-2(a) Final project design would include a storm water control and filtering system along the length of the roadway to capture and treat all first flush runoff from the roadway prior to discharge to channels outside the project area.

HWQ-2(b) A maintenance program for the storm water control and filtering system would be developed in accordance with the California Department of Transportation Best Management Practices handbook to eliminate the potential for odor problems and provision of mosquito habitat, and to prevent clogging. Best Management Practices may include a combination of the following: biofiltration strips and swales; infiltration devices; detention devices; traction sand traps; dry weather flow diversion; gross solids removal devices; media filters; multi-chamber treatment train; and wet basins.

HWQ-2(c) The City and Caltrans would limit the use of pesticides, herbicides, and inorganic fertilizers applied to roadway landscaping or weed abatement to those quantities necessary to treat specific problems.

Impact After Mitigation

Treatment of the first flush storm water runoff along with the required maintenance plan would reduce water quality impacts to offsite drainage features to a less than significant level.

3.3.6 Geology and Soils (1)

The following mitigation measure is required to mitigate effects associated with the Locally Preferred Alignment, Curved Alignment, and Foster Road Alignment Alternatives.

GS-1(a) Geotechnical studies would be performed to evaluate site-specific conditions and liquefaction potential along the project area. The City would design and implement measures needed to comply with the

current Caltrans Standard Specifications to reduce settlement associated with liquefaction. Suitable measures to avoid liquefaction impacts would include one or more of the following as recommended in the geotechnical study: removal or treatment of liquefiable soils to reduce the potential for liquefaction, drainage to lower the groundwater table to below the level of liquefiable soils, compacting or consolidating onsite soils, or other alterations to the ground characteristics.

Impact After Mitigation

With implementation of the above mitigation measure, impacts associated with liquefaction would be reduced to a less than significant level.

3.3.7 Hazards and Hazardous Materials (3)

The following measures are required for all of the build alternatives. While the Initial Site Assessment did not identify the possible presence of abandoned oil wells in the project area, the following measures are suggested as a precaution to avoid the unanticipated discovery of contamination related to historic oil and gas operations or other potential contamination sources in the project area.

HM-3(a) If during construction/grading activities the contractor discovers an unknown waste or debris believed to involve hazardous waste and/or materials, the contractor would immediately stop work in the vicinity of the suspected contaminant, remove workers and the public from the area, and contact the City of Santa Maria Construction Engineer. If hazardous materials (including contaminated soil or groundwater) are uncovered during construction activities, all materials found would be removed, handled, and disposed of in accordance with state and federal regulations. All hazardous materials involvement would be coordinated with the appropriate federal, state, and local regulatory agencies.

HM-3(b) Before the initiation of construction activities in the identified area of the sand-tar mixture, several soil samples in the area of the identified sand-tar mixture would be taken from beneath the material by a qualified professional to discern if hydrocarbons have affected the soil beneath the tank bottoms and identify the extent of contamination. The

contract would include a bid quantity of material to be removed. The initial quantity would be bid on a per-cubic-yard basis with a specified method of measurement and method of payment. The quantity of contamination would be identified with final construction plans. Final payment would be based on actual quantities encountered and removed. If concentrations of hydrocarbons above health hazard threshold levels were not detected in the underlying soil, the tank bottoms would be removed from the project area and disposed of in accordance with state and federal regulations. If hazardous concentrations of hydrocarbons above health hazard threshold levels were detected in the underlying soil, the tank bottoms would be removed and disposed of in accordance with state and federal regulations, and the area would be cleaned up in accordance with applicable local, state, and federal requirements. This requirement, including the need for soils testing and remediation if necessary before initiation of construction activities, would be noted in the construction contract for the potentially affected portion of the project.

In addition, mitigation identified in Section 3.3.2 *Land Use (2)* would also apply.

Impact After Mitigation

With implementation of the above mitigation measure, impacts associated with hazardous materials would be reduced to a less than significant level.

3.3.8 Noise (1)

The following measures are required for the build alternatives to reduce construction noise impacts along the Union Valley Parkway corridor and interchange area.

- N-1(a)** A construction noise reduction would be prepared that includes the following requirements:
1. Establish a procedure for noise complaints.
 2. Equip all equipment used in construction with the manufacturer's recommended noise abatement measures, such as mufflers, engine covers, and engine vibration isolators.
 3. Use electrical power if electrical service is available within a reasonable distance to run air compressors and similar small power tools.

4. Limit roadway extension construction activity to daytime hours of 7 a.m. to 5 p.m., Monday through Friday, and 8 a.m. to 5 p.m. on Saturdays, to minimize sleep disturbance and interference of speech, and reduce general annoyance. No roadway extension construction would occur on Sundays or federal holidays (i.e. Thanksgiving, Labor Day). Roadway extension construction equipment maintenance would be limited to the same hours. It should be noted that interchange construction would occur during evening and nighttime hours.
5. Provide notification to home occupants adjacent to the project area at least one week before initiation of construction activities that could substantially affect outdoor or indoor living areas. This notification would include the anticipated hours and duration of construction and a description of noise reduction measures, including construction equipment noise abatement measures and use of electrical power, where applicable.
6. All stationary noise-generating construction equipment (such as air compressors and electric generators) would be required to be located as far as practical from nearby residences.

Impact After Mitigation

Implementation of the recommended avoidance, minimization, and mitigation measures would reduce construction noise to less than significant levels per the City and California Environmental Quality Act criteria.

3.3.9 Noise (2)

The following measures are required for the build alternatives to reduce construction vibration impacts along the Union Valley Parkway corridor and interchange area.

- N-2(a)** Notify residents within 300 feet of areas where pile driving, pavement breaking, and vibratory rolling would take place at least two weeks in advance of the proposed activity. Residents may wish to secure fragile items that could be broken by shaking.
- N-2(b)** Conduct photo surveys of structures within 100 feet of pile driving in advance of potentially damaging construction work (i.e., when

expected vibrations are greater than 0.4 inches per second within 60 feet of a pile driving location.)

- N-2(c) Use vibratory pile driving or Cast-in-Drill-Hole methods when soil and other conditions are favorable for employment of these methods.
- N-2(d) Pre-drill pile holes when feasible.
- N-2(e) Use rubber tires instead of tracked vehicles near vibration-sensitive areas.
- N-2(f) Assure that night joints and bridge conforms are as smooth as possible, especially where there is heavy truck traffic near residences.
- N-2(g) Perform activities most likely to propagate objectionable noise or vibrations (nearest the residences) during the day, or at least before most residents retire for the night.

Impact After Mitigation

For the Locally Preferred Alternative and Curved Alignment Alternative, noise abatement is not proposed in certain locations, such as residential and private recreational receptors in the Foxenwood Subdivision, west of California Boulevard, because the implementation of noise barriers would not be feasible in these locations because noise barriers would not produce a perceptible sound level reduction, even at barrier heights that would be costly and may result in additional aesthetic impacts. With the Locally Preferred Alternative and Curved Alignment Alternative, 16-foot-high noise barriers at Receptors 3 and 4 are estimated to cost over \$600,000 (refer to Table 2-22), but would only produce an approximately 2- to 3-decibel sound level reduction, which may not be perceptible to the human ear. Accordingly, such noise barriers are considered infeasible. Since noise levels may continue to exceed threshold levels in these locations, impacts would remain *significant and unavoidable*.

3.3.10 Biological Resources (1)—Natural Communities/Woodlands

To minimize project impacts to woodland habitats, including those considered to be special-status, occurring on the build alternatives, the following measures are required:

BIO-1(a) Before the approval of any grading plan for the project, a City-approved biologist or arborist would prepare a tree protection, replacement and monitoring program that ensures compliance with the City's Municipal Code 12-44 as it pertains to tree replacement ratios, as follows: 1) 2:1 (number of trees planted:number of trees removed) for trees six to eight inches in diameter (as measured at 4 ½ feet above the ground); 2) 4:1 for trees nine to 12 inches in diameter; and 3) 6:1 for trees greater than 12 inches in diameter. In addition, the plan would include compensatory mitigation for eucalyptus and coast live oak woodland habitats at a 2:1 ratio (habitat area created:habitat area lost). Requirements for the tree protection plan would include, but not be limited to, the protection of trees with construction setbacks from trees; construction fencing around trees; and grading limits around the base of trees as required. The tree replacement plan would include identification of restoration areas, strategies, an implementation schedule, irrigation design plan, long-term monitoring methods, success criteria, methods to assess whether success criteria have been met, and contingency plans for meeting success criteria. The program would be monitored for five years, and monitoring reports that evaluate tree survivability, health, and vigor would be submitted to the City annually. All trees planted as mitigation would have an 80 percent survival rate after five years. A conservation easement would be placed upon the mitigation area to protect it in perpetuity.

Impact After Mitigation

Implementation of the above mitigation measure would reduce cumulative impacts to woodland habitats, including those considered to be special-status, occurring on the Locally Preferred Alignment and other alternatives to a less than significant level. Temporary impacts of the loss of these habitats would remain due to the time lag between habitat disturbance/removal and the establishment of the mitigation areas.

3.3.11 Biological Resources (2)—Wetlands

The following mitigation measure is required for wetlands on all build alternatives.

BIO-2(a) The project proponent would compensate for the habitat loss or disturbance of identified Cowardin classified wetlands and Corps jurisdictional areas at a ratio of 2:1 for wetland areas permanently and

temporarily affected. The mitigation would consist of wetland creation and enhancement. For complete details of the wetland mitigation plan, see *Wetland Mitigation Plan; Union Valley Parkway Extension Project* in Attachment D of the Natural Environment Study. In addition, the project proponent would demonstrate compliance with Section 404 of the Clean Water Act from the U.S. Army Corps of Engineers and Section 401 of the Clean Water Act from the Regional Water Quality Control Board for any grading or fill activity within wetlands or other Waters of the U.S.

Impact After Mitigation

Impacts to wetlands would be less than significant after mitigation for all of the build alternatives.

3.3.12 Biological Resources (3)—Natural Communities/Central Dune Scrub and Valley Needlegrass Grassland

The following mitigation measure is required for central dune scrub on all build alternatives and valley needlegrass grassland habitat on the Foster Road Alignment Alternative.

BIO-3(a) The project proponent would compensate for the loss of central dune scrub and valley needlegrass grassland habitat through the creation or enhancement of these habitats at a location outside the project area at a mitigation ratio of 2:1.

Impact After Mitigation

Impacts to central dune scrub and valley needlegrass grassland habitat would be less than significant after mitigation for all of the build alternatives.

3.3.13 Biological Resources (4)—Plant Species

To avoid impacts to one rare plant species, curly-leaved monardella, identified on the Locally Preferred Alignment and Curved Alignment Alternative, the following avoidance, minimization, and mitigation measures are required:

BIO-4(a) Avoidance of curly-leaved monardella is the primary measure to protect them. If avoidance were not feasible, then a mitigation and monitoring program, including a salvage and relocation program,

would be prepared and implemented. The plan would include the measures necessary for the establishment of self-sustaining populations in suitable open space areas designated by the City to ensure the long-term survivability of the species in the vicinity. Salvage and relocation activities would include the following: seed and/or topsoil collection; germination of seed by a qualified horticulturist in a nursery setting; transplanting seedlings, and hand broadcasting seed into the appropriate open space habitats. Annual monitoring would take place for at least five years to ensure no net loss of acres of habitat for this species. The acreage ratio of lost special-status plant species habitat to habitat replaced would be no less than 1:1.

Impact After Mitigation

Implementation of the above avoidance, minimization, and mitigation measures would reduce impacts to plant species that are rare and/or species of special concern to a less than significant level under the California Environmental Quality Act.

3.3.14 Biological Resources (5)—Animal Species

To avoid and minimize impacts to animals that are rare and/or species of special concern and their habitat that occur on the build alternatives, the following avoidance, minimization, and mitigation measures are required:

- BIO-5(a)** To avoid impacts to nesting special-status bird species, and other birds protected under the Migratory Bird Treaty Act and/or California Department of Fish and Game code, all initial ground-disturbing activities and tree removal would be limited to the period between September 1 and February 1. If initial project-specific site disturbance, grading, and tree removal cannot be conducted during this time period, pre-construction surveys for active nests within the limits of the project would be conducted by a qualified biologist approved by the City two weeks before any construction activities. If no active nests are located, ground-disturbing/construction activities can proceed. If active nests are located, then all construction work must be conducted outside a non-disturbance buffer zone at a distance established by the City in consultation with the California Department of Fish and Game and depending upon the species. No direct disturbance to nests would

occur until the adults and young are no longer reliant on the nest site as determined by the City-approved qualified biologist.

BIO-5(b) To avoid impacts to turkey vulture roosts (if present), preconstruction surveys for active roosts within the limits of the project would be conducted by a qualified biologist approved by the City before initiation of construction activities. If roost sites were located, they would be avoided wherever possible and no more than two pieces of construction equipment would be used simultaneously within 100 feet of active roost sites.

The trees and habitat structure lost due to development would be adequately mitigated through replacement of the oaks and eucalyptus (please see mitigation measures under BIO-1 above). Before maturation of the replacement trees, adequate alternative roosting sites are available throughout the project vicinity.

BIO-5(c) Because the distribution of the western spadefoot within the project area is not well understood, it is not known if any of the alternatives would avoid areas occupied by the species. Minimization measures for the western spadefoot are the same as those specified for the California tiger salamander, and would be implemented concurrently:

1. At least one month before the start of western spadefoot surveys/trapping, the name(s) and qualifications(s) of the biologist(s) who would conduct surveys would be submitted to the City for approval.
2. For the period October 15 through June 15 of the year before the start of construction, all work areas within 2,200 feet of California tiger salamander breeding ponds would be fenced with drift fence and pitfall traps (Figure 30). The western spadefoot occupies many of the same aquatic breeding sites as the California tiger salamander, and the local distribution of the California tiger salamander is better understood. This would allow for the exclusion of the western spadefoot and other animals from the work area (including southern Pacific pond turtles, California tiger salamanders, and California red-legged frogs) and the relocation of any animals that may emerge from burrows inside the work area.

Installation of the fence and traps would follow materials, design, and implementation specifications detailed in the California tiger salamander protocol (U.S Fish and Wildlife Service 2003a), with the exception that there would be no gaps between sections of fence. A qualified biologist must oversee the installation of the fence and be present during all trapping. For the two weeks following installation, a biologist would survey the area inside the fence daily and relocate any animal species encountered to areas outside the fence. Pitfall traps would be opened during all rain events or humid overnight conditions as specified in the protocol throughout the period from October 15 through June 15. All frogs and toads would be released at the nearest suitable aquatic habitat.

3. Captured western spadefoots would immediately be placed into containers containing moist soil and plant material from the location of capture, and released in designated relocation areas no more than three hours after capture.
4. During all initial ground-disturbing activities, a qualified biologist would be present in the study area to recover any western spadefoot that may be excavated from an underground refuge. If the animals were in good health, they would be relocated immediately to the designated release area. If they were injured or killed, the animals would be deposited at a suitable vertebrate museum, such as the Santa Barbara Museum of Natural History or the University of California Santa Barbara Museum of Systematics and Ecology.
5. Before any construction activities begin on the project, a qualified biologist would conduct a training session for all construction personnel. At a minimum, the training would include a description of the western spadefoot and its habitat, the importance of the western spadefoot and its habitat, the general measures that are being implemented to conserve the western spadefoot as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session. The City and appropriate resource agency personnel would be notified of the date and time the training is scheduled so they may attend.

6. A qualified biologist would be present at the work site until such time as all removal of western spadefoot, instruction of workers, and initial ground disturbance have been completed. After this time, the City would designate a person to monitor compliance with all mitigation measures. The qualified biologist would ensure that this individual receives the training outlined above.
7. The number of access routes, number and size of staging areas, and the total area of the activity would be limited to the minimum necessary to achieve the project goal. Routes and boundaries would be clearly marked, and would be outside wetland areas. Fueling and maintenance of vehicles and other equipment and staging areas would occur at least 100 feet from any riparian or wetland habitat. The City would ensure that contamination of habitat does not occur during such operations. Before work begins, the City would prepare and comply with an emergency response plan to allow a prompt and effective response to any accidental spills. All workers would be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
8. California Natural Diversity Database forms would be completed and sent to the California Department of Fish and Game for all western spadefoots observed during the project.

BIO-5(d) The following measures to minimize impacts on the two-striped garter snake would be implemented:

1. Before any construction activities begin on the project, a qualified biologist would conduct a training session for all construction personnel. At a minimum, the training would include a description of the two-striped garter snake and its habitat, the importance of the two-striped garter snake and its habitat, the general measures that are being implemented to conserve the two-striped garter snake as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session. The City and appropriate resource agency personnel would be notified of the date and time the training is scheduled so they may attend.

2. During all initial ground-disturbing activities, a qualified biologist would be present in the study area to recover any two-striped garter snakes that may be excavated from an underground refuge. If the animals were in good health, they would be relocated immediately to a designated release area. If they were injured or killed, the animals would be deposited at a suitable vertebrate museum, such as the Santa Barbara Museum of Natural History or the University of California Santa Barbara Museum of Systematics and Ecology.
3. California Natural Diversity Database forms would be completed and sent to the California Department of Fish and Game for all two-striped garter snakes observed during the project.

BIO-5(e)

Avoidance and minimization efforts for California legless lizard require the City to retain a qualified biologist to conduct pre-construction surveys and monitor construction activities as follows:

1. Raking surveys would be conducted on a weekly basis from February 1 through May 31 before the start of construction. These surveys would entail raking of leaf litter and sand under shrubs within suitable habitat in the area to be disturbed, to a minimum depth of eight inches.
2. In addition to raking, “coverboards” would be used to capture California legless lizards. Coverboards should consist of untreated plywood at least 4 feet long by 4 feet wide. Coverboards would be placed flat on the ground at least six months before construction or from February 1 through May 31 and checked once a week. Captured lizards would be placed immediately into containers containing sand and kept at a constant cool temperature. Lizards would be released in designated relocation areas no more than one hour after capture.
3. During all initial grading activities, a qualified biologist would be present in the study area to recover any California legless lizards that may be excavated/unearthed with native material. If the animals were in good health, they would be immediately relocated to the designated relocation area. If they were injured, the animals would be turned over to a specialist approved by the California Department of Fish and Game until they were in a condition to be

released into the designated release area or deposited at an approved vertebrate museum.

4. California Natural Diversity Database forms would be completed and sent to the California Department of Fish and Game for all California legless lizards observed during the project.

BIO-5(f)

Avoidance and minimization efforts would require the City to retain a qualified biologist who would monitor construction activities in habitat suitable for the southern Pacific pond turtle to ensure that impacts to the species are avoided or minimized, as follows:

1. An exclusion fence constructed out of three-foot-tall silt fence would be installed around the perimeter of the work site and keyed into the ground to exclude southwestern pond turtles from the construction activities. This fence would be installed during the month of April, before the start of construction, for areas within 1,500 feet of the Foxenwood Basin and the sediment basin near the intersection of Union Valley Parkway and Hummel Drive. The timing of installation should allow for hatchlings to have emigrated to aquatic sites, and should prevent adult females from entering the area to establish new nests. The area within the exclusion fence should then be surveyed for southern Pacific pond turtles on a daily basis for the first two weeks, and weekly thereafter until the start of construction. If any southern Pacific pond turtles were found, they would be moved out of the exclusion area by a qualified biologist and relocated to the nearest aquatic site with suitable habitat.
2. A biologist would survey all areas of the work site within 1,640 feet of the Foxenwood Basin two weeks before the start of site grading or other ground-disturbing activities. The survey should include raking of leaf litter and sand under shrubs within suitable habitat in the area to be disturbed to a minimum depth of five inches. The approved biologist would be allowed sufficient time to relocate southern Pacific pond turtle before work activities begin.
3. Before any construction activities begin, a biologist would conduct a training session for all construction personnel. At a minimum, the training should include a description of the southern Pacific

pond turtle, its habitat, and status; the general measures that are being implemented to conserve the species as they relate to the project; and, the boundaries within which the project may be accomplished. A worker education handout containing this information would be distributed to participants, and a sign-in sheet completed. The City and appropriate resource agency personnel would be notified of the date and time the training is scheduled so they may attend.

4. During all initial grading activities, a qualified biologist would walk alongside the excavating equipment to recover any southern Pacific pond turtles that may be uncovered. If the animals were in good health, they would be immediately relocated to the designated release area. If they were injured, the animals would be turned over to a specialist approved by the California Department of Fish and Game until they were in a condition to be released into the designated release area. Dead southern Pacific pond turtles would be deposited at a vertebrate museum such as the Santa Barbara Natural History Museum or the University of California Santa Barbara Museum of Systematics and Ecology.
5. California Natural Diversity Database forms would be completed and sent to the California Department of Fish and Game for all southern Pacific pond turtles observed during the project.

BIO-5(g) Avoidance and minimization efforts for coast horned lizard require the City to retain a qualified biologist to monitor construction activities in habitat suitable for the coast horned lizard to ensure that impacts to coast horned lizard are avoided or minimized:

1. Before the initiation of construction, a survey would be conducted for the coast horned lizard. If construction activities are to take place within the activity period of the coast horned lizard (April to October), pre-construction visual surveys would be conducted weekly beginning two months before initial ground-disturbing activities. All lizards found within the project footprint would be captured and released into designated relocation areas approved by the City and a qualified biologist.

2. “Coverboards” would be used to capture coast horned lizards. Coverboards should consist of untreated plywood at least 4 feet long by 4 feet wide. Coverboards would be placed flat on the ground at least six months before construction or from February 1 through May 31 and checked once a week. Captured lizards would be placed immediately into containers containing sand and kept at a constant cool temperature. Lizards would be released in designated relocation areas no more than one hour after capture.
3. During all initial grading activities, a qualified biologist would be present in the study area to recover any coast horned lizard that may be excavated/unearthed with native material. If the animals were in good health, they would be immediately relocated to the designated relocation area. If they were injured, the animals would be turned over to a specialist approved by the California Department of Fish and Game until they were in a condition to be released into the designated release area or deposited at an approved vertebrate museum.
4. California Natural Diversity Database forms would be completed and sent to the California Department of Fish and Game for all coast horned lizards observed during the project.

BIO-5(h) To avoid the potential mortality of American badgers, no grading would occur within 50 feet of an active American badger den between March 1 and June 30 as determined by a qualified biologist approved by the City. Construction activities between July 1 and March 1 would comply with the following measures to avoid mortality of adult and/or young badgers:

1. A qualified biologist approved by the City would conduct a survey for active American badger dens within the entire project area between 2 weeks and 4 weeks before the start of ground clearing or grading activity. The survey would cover the entire study area, but would focus on the areas where suitable American badger habitat occurs. A fiber optic scope or other non-invasive means would be used to assess the presence of badgers within dens that are too long to see to the end. Inactive dens would be collapsed by

hand with a shovel to prevent badgers from re-using them during construction.

2. Before grading, badgers would be discouraged from using currently active dens by partially blocking the entrance of the den with sticks, debris, and soil for 3 to 5 days. Access to the den would be incrementally blocked to a greater degree over this period. This would cause the badger to abandon the den site and move elsewhere. After badgers have stopped using active dens within the project study area, the dens would be hand-excavated with a shovel and collapsed to prevent re-use. A qualified biologist would be present during the initial ground-disturbing activity. If badger dens are found, all work would cease until the biologist can safely close the badger den. Once the badger dens have been closed, work in the project area may resume.

Impact After Mitigation

Implementation of the above avoidance, minimization, and mitigation measures would reduce impacts to wildlife species that are rare and/or a species of special concern and their habitat occurring on the build alternatives to a less than significant level under the California Environmental Quality Act.

3.3.15 Biological Resources (6)—Threatened and Endangered Species

To avoid and minimize impacts to federally listed animal species and their habitats that occur on the build alternatives, with the exception of the Reduced Extension Alternative for which State Route 135 would act as a substantial barrier to movement of these species from the west, avoidance, mitigation and minimization measures BIO-6(a) and BIO-6(b) are recommended. Minimization measure BIO-6(c) is recommended for impacts to federally listed vernal pool fairy shrimp for the Foster Road Alignment Alternative.

BIO-6(a) The following avoidance, mitigation and minimization measures are required to reduce impacts to the California tiger salamander:

1. At least one month before the onset of activities, the City, in consultation with Caltrans, would submit the name(s) and credentials of biologists who would conduct any California tiger salamander activities to the U.S. Fish and Wildlife Service for

approval. No project activities would begin until proponents have received written approval from the U.S. Fish and Wildlife Service that the biologist(s) is qualified to conduct the work. Only biologists approved by the U.S. Fish and Wildlife Service would participate in activities associated with the capture, handling, and monitoring of California tiger salamander.

2. The City would contact the U.S. Fish and Wildlife Service to determine an appropriate site in which to relocate California tiger salamander if found in the work area.
3. From October 15 through June 15 of the year before the start of construction, all work areas within 2,200 feet of California tiger salamander breeding ponds (Figure 30) would be fenced with drift fence and pitfall traps. This would allow for the exclusion of California tiger salamander and other animals from the work area (including southern Pacific pond turtles, California red-legged frogs and western spadefoots) and the relocation of any animals that may emerge from burrows inside the work area. Installation of the fence and traps would follow materials, design, and implementation specifications detailed in the California tiger salamander protocol, with the exception that there would be no gaps between sections of fence. An approved qualified biologist must oversee the installation of the fence and be present during all trapping. For the two weeks following installation, a biologist would survey the area inside the fence daily and relocate any animal species encountered to areas outside the fence. Pitfall traps would be opened during all rain events or humid overnight conditions as specified in the protocol throughout the period from October 15 through June 15. All California tiger salamanders would be relocated to a suitable release site that has been determined in consultation with the U.S. Fish and Wildlife Service.
4. A biologist approved by the U.S. Fish and Wildlife Service would survey the work site two weeks before the commencement of work activities. A fiber optic scope or similar device would be used to determine if California tiger salamanders are present in small mammal burrows. The biologist would be allowed sufficient time to hand excavate small mammal burrows and move California tiger

salamander from the work site to the approved relocation site before work activities begin.

5. Captured California tiger salamanders would immediately be placed into containers containing moist soil and plant material from the location of capture, and released in designated relocation areas no more than three hours after capture.
6. During all initial ground-disturbing activities, a biologist approved by the U.S. Fish and Wildlife Service would be present in the study area to recover any California tiger salamander that may be excavated from an underground refuge. If the animals were in good health, they would be relocated immediately to the designated release area. If they were injured, a biologist approved by the U.S. Fish and Wildlife Service would retain the animals until they were in a condition to be released into the designated release area.
7. Before any construction activities begin on the project, a biologist approved by the U.S. Fish and Wildlife Service would conduct a training session for all construction personnel. At a minimum, the training would include a description of the California tiger salamander and its habitat, the importance of the California tiger salamander and its habitat, the general measures that are being implemented to conserve the California tiger salamander as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session. The City and appropriate resource agency personnel would be notified of the date and time the training is scheduled so they may attend.
8. A biologist approved by the U.S. Fish and Wildlife Service would be present at the work site until such time as all removal of California tiger salamanders, instruction of workers, and initial ground disturbance have been completed. After this time, the City would designate a person to monitor compliance with all mitigation measures. The approved biologist would ensure that this individual receives the training outlined above. The monitor and the approved biologist would have the authority to halt any action that might result in effects to the California tiger salamander that exceed the levels authorized by the U.S. Fish and Wildlife Service.

If work were stopped, the City would be notified immediately to determine the appropriate course of action.

9. During construction, all trash that may attract predators would be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris would be removed from the work areas.
10. The number of access routes, number and size of staging areas, and the total area of the activity would be limited to the minimum necessary to achieve the project goal. Routes and boundaries would be clearly marked, and would be outside wetland areas. Fueling and maintenance of vehicles and other equipment and staging areas would occur at least 100 feet from any riparian or wetland habitat. The City would ensure that contamination of habitat does not occur during such operations. Before the onset of work, the City would prepare and comply with an emergency response plan to allow a prompt and effective response to any accidental spills. All workers would be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
11. A curb or similar permanent exclusion structure would be erected along the southern edge of the path proposed to the south of the alignment and on the north side of the sidewalk proposed to the north of the alignment. This structure would be added for the area from Blosser Road to the Foxenwood Basin on the south and from Blosser Road to State Route 135 on the north. It should be designed to prevent California tiger salamanders from moving into the developed areas. Soft-bottomed culverts or similar passageways would be constructed to permit animals to pass under the alignment in the area from Blosser Road to the Foxenwood Basin. Passageways would be installed at 200-foot intervals. A permanent exclusion structure would be erected to prevent California tiger salamanders from moving east of California Boulevard on the south side of the alignment. The exclusion structures must extend below ground at least three feet, and extend above ground at least two feet. The considerable underground depth is needed to prevent small mammals from creating passageways under the exclusion structure that could be used by

California tiger salamanders. An exclusion structure of this height would also benefit California red-legged frogs by excluding this species from developed areas.

12. California Natural Diversity Database forms would be completed and sent to the California Department of Fish and Game for all California tiger salamanders observed during the project.
13. Compensatory mitigation to off-set losses of California tiger salamander upland and dispersal habitat would be designated at a 2.5:1 ratio (habitat preserved:habitat permanently lost). The City would identify suitable habitat in the Santa Maria area within the dispersal distance from at least one known breeding pond that would be restored (if applicable) and preserved in perpetuity through a conservation easement. Restoration efforts would use native grass and forb seed mixes developed by a qualified biologist. Restoration activities would be detailed in a plan prepared by a qualified biologist. The plan would focus on adaptive management principles, and would identify enhancement areas, strategies, an implementation schedule, long-term monitoring methods, success criteria, methods to assess whether success criteria have been met, and contingency plans for meeting success criteria. The program would be monitored for five years, and monitoring reports that evaluate the success of the program would be submitted to the City annually.

BIO-6(b) The following avoidance, mitigation and minimization measures are required to reduce impacts to the California red-legged frog:

1. At least one month before the onset of activities, the City, in consultation with Caltrans, would submit for approval to the U.S. Fish and Wildlife Service the name(s) and credentials of biologists who would conduct activities specified in the following measures. No project activities would begin until proponents have received written approval from the U.S. Fish and Wildlife Service that the biologist(s) is qualified to conduct the work. The City would also contact the U.S. Fish and Wildlife Service to determine an appropriate site in which to relocate California red-legged frog if found in the work area.

2. The work area west of State Route 135 would be surrounded by a temporary exclusion fence (such as silt fence) buried into the ground and extended at least 3 feet above the ground to exclude California red-legged frogs from the work area. The fence would be installed in June of the year before the start of construction. During construction conducted between July 2 and April 30, the fence would be inspected daily to ensure that it is functioning properly to exclude California red-legged frogs from the work area.
3. To minimize the potential for direct impacts to dispersing individuals, initial ground-disturbing activities should be completed during the period from May 1 through July 1. The initiation of any subsequent ground-disturbing activity or construction from July 2 through April 30, the period when California red-legged frog are potentially dispersing or using upland areas, would be preceded by two night surveys of the work area. The survey area would include all areas inside the exclusion fence, in the event that California red-legged frogs find a way through the fence. In addition, this survey may benefit California tiger salamanders or other animals that similarly could find a way through the fence. Surveys would be conducted on two separate nights within 48 hours before the start of work activities. If California red-legged frogs were present, they would be moved out of the work area by a biologist approved by the U.S. Fish and Wildlife Service following the methods described below. The approved biologist would maintain detailed records of any individuals that are relocated (such as size, coloration, any distinguishing features, and photographs) to assist in determining whether relocated individuals return to the work site.
4. Captured California red-legged frog would be placed immediately into plastic zip lock bags dampened with untreated water and released in designated relocation areas no more than one hour after capture.
5. During all initial ground-disturbing activities, a biologist approved by the U.S. Fish and Wildlife Service would be present in the study area to recover any California red-legged frog that may be found at that time. If the animals were in good health, they would

- be immediately relocated to the designated release area. If they were injured, a biologist approved by the U.S Fish and Wildlife Service would retain the animals until they were in a condition to be released into the designated release area. Any dead California red-legged frogs must be reported immediately to the U.S. Fish and Wildlife Service and deposited in an approved museum, such as the Santa Barbara Museum of Natural History or the University of California Santa Barbara Museum of Systematics and Ecology.
6. Before any construction activities begin on the project, a biologist approved by the U.S. Fish and Wildlife Service would conduct a training session for all construction personnel. At a minimum, the training would include a description of the California red-legged frog and its habitat, the importance of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the California red-legged frog as they relate to the project, and the boundaries within which the project may be accomplished.
 7. A biologist approved by the U.S. Fish and Wildlife Service would be present at the work site until such time as all removal of California red-legged frogs, instruction of workers, and initial ground disturbance have been completed. After this time, the City would designate a person to monitor compliance with all mitigation measures. The approved biologist would ensure that this individual receives the training outlined above and is qualified in the identification of California red-legged frog. The monitor and the approved biologist would have the authority to halt any action that might result in impacts that exceed the levels anticipated by U.S. Fish and Wildlife Service during review of the proposed action. If work were stopped, the City would be notified immediately to determine the appropriate course of action.
 8. During construction, all trash that may attract predators would be properly contained, removed from the work site and disposed of regularly. Following construction, all trash and construction debris would be removed from the work areas.
 9. The number of access routes, number and size of staging areas, and the total area of the activity would be limited to the minimum

necessary to achieve the project goal. Routes and boundaries would be clearly marked, and would be outside wetland areas.

10. All refueling, maintenance, and staging of equipment and vehicles would occur at least 60 feet from riparian or aquatic habitats, and not in a location where a spill would drain directly toward an aquatic habitat. The biologist approved by the U.S. Fish and Wildlife Service or a designated monitor would check the staging area periodically to ensure that contamination of aquatic habitats does not occur. Before work begins, a spill response plan must be designated, and all workers must be briefed on the provisions of this plan.
11. Temporarily impacted areas would be recontoured to their original configurations and revegetated with native plant species suitable for the area. Locally collected plant material would be used to the extent practicable. Invasive exotic plant species would be controlled.
12. Best management practices would be implemented during and after project implementation to control sedimentation.
13. Water would not be impounded in a manner that may attract California red-legged frogs.
14. A curb or similar permanent exclusion structure would be erected along the southern edge of the path proposed to the south of the alignment and on the north side of the sidewalk proposed to the north of the alignment. This structure would be added from the area contained within Blosser Road to the Foxenwood Basin on the south and from Blosser Road to State Route 135 on the north. It should be designed to prevent California red-legged frogs from moving into the developed areas. Soft-bottomed culverts or similar passageways would be constructed to permit animals to pass under the alignment in the area from Blosser Road to the Foxenwood Basin. Passageways would be installed at 200-foot intervals. A permanent exclusion structure would be erected to prevent California red-legged frogs from moving east of California Boulevard on the south side of the alignment. The exclusion structures must extend below ground at least three feet (this depth is required for the California tiger salamander), and extend above ground at least two feet.

15. California Natural Diversity Database forms would be completed and sent to the California Department of Fish and Game for all California red-legged frogs observed during the project.
16. Compensatory mitigation to off-set losses of California red-legged frog upland and dispersal habitat would be designated at a 2.5:1 ratio (habitat preserved:habitat permanently lost). The City would identify suitable habitat in the Santa Maria area within the dispersal distance from at least one known breeding pond that would be restored (if applicable) and preserved in perpetuity through a conservation easement. Restoration efforts would use native grass and forb seed mixes developed by a qualified biologist. Restoration activities would be detailed in a plan prepared by a qualified biologist. The plan would focus on adaptive management principles, and would identify enhancement areas, strategies, an implementation schedule, long-term monitoring methods, success criteria, methods to assess whether success criteria have been met, and contingency plans for meeting success criteria.

BIO-6(c) The following avoidance and minimization measures are required to reduce impacts to vernal pool fairy shrimp:

1. Grading and road alignments would be designed to ensure that drainage from the work area and the final project does not enter known vernal pool fairy shrimp habitats. A bioswale would be constructed along the north side of the alignment that would be planted with native wetland and upland grass species, and would act to improve water quality of surface water runoff.
2. Best Management Practices for sedimentation and erosion control would be implemented throughout all project areas to protect potential vernal pool fairy shrimp habitats.
3. All vehicles operated within the project area must be inspected daily and maintained to avoid leaks of fuel, hydraulic fluids, oil, or coolant.
4. For the Foster Road Alternative, water quality monitoring would occur before, during, and after project activities to ensure that storm water runoff that leaves the project area does not contain

pollutants or sediment as a result of construction activities. Water quality monitoring would be continued for at least one year following the completion of construction to ensure the bioswale is effectively removing pollutants.

Impact After Mitigation

Implementation of the above avoidance and minimization measures would reduce impacts to federally listed wildlife species and their habitat occurring on the build alternatives to the extent feasible. A Biological Opinion for the Locally-Preferred Alignment was issued on December 17, 2008 which states that it is the U.S. Fish and Wildlife Service's biological opinion that the Locally-Preferred Alignment is not likely to jeopardize the continued existence of the California tiger salamander or California red-legged frog, or adversely modify critical habitat for the California tiger salamander. With this Biological Opinion and implementation of required mitigation measures, the impacts on the Locally-Preferred Alignment on threatened and endangered species would be less than significant. However, since the issuance of take authorization of California red-legged frogs, California tiger salamander, and/or vernal pool fairy shrimp from regulatory agencies cannot be assured for the other build alternatives, and the recommended mitigation therefore may be infeasible, impacts are significant and unavoidable for the Curved Alignment Alternative and Foster Road Alignment Alternative.

3.3.16 Biological Resources (7)—Invasive Species

To avoid impacts by invasive species on the build alternatives, the following avoidance, minimization, and mitigation measures are required:

- BIO-7(a)** Exotic and invasive weeds would be removed during clearing and grubbing and disposed of in an appropriate manner for the species. In areas where exotic and invasive weeds are the dominant plants, the topsoil from those areas would not be reused onsite in areas with sensitive plant communities or special-status plants. The project Biologist and the Resident Engineer would identify those areas in the field before construction. Erosion control included in the project would not use species on the California list of noxious weeds. Landscape plans would be reviewed by a qualified biologist to ensure the use of native plants or non-native plants that do not occur on the California Exotic Pest Plant Council and the California Invasive Plant

Council Lists 1, 2, and 4. Plants considered invasive by the California Exotic Pest Plant Council and the California Invasive Plant Council would not be used onsite. After revegetation in areas with native vegetation, sites would be monitored for weeds during the contract period set up for the plant establishment period.

Impact After Mitigation

Implementation of the above avoidance, minimization, and mitigation measures would reduce impacts to a less than significant level under the California Environmental Quality Act.

3.3.17 Construction (1) - Air Quality

- CON-1** The following measure is intended to minimize the amount of PM₁₀ produced during construction of the project.
- During construction, use water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this should include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency should be required whenever the wind speed exceeds 15 miles per hour. Reclaimed water should be used whenever possible. However, reclaimed water should not be used in or around crops for human consumption.
 - Minimize amount of disturbed area and reduce on site vehicle speeds to 15 miles per hour or less.
 - Gravel pads shall be installed at all access points to prevent tracking of mud onto public roads.
 - If importation, exportation, and stockpiling of fill material is involved, soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting fill material to and from the project area shall be tarped from the point of origin.
 - After clearing, grading, earth moving, or excavation is completed, treat the disturbed area by watering, or revegetating, or spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur.

- The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the Air Pollution Control District before issuance of grading permits.

3.3.18 Construction (2) - Air Quality

The following measure is intended to minimize the amount of diesel particulate matter and NO_x produced during construction of the project.

CON-2 The following control strategies provided by the APCD shall be implemented.

- All portable diesel-powered construction equipment shall be registered with the states portable equipment registration program OR shall obtain an APCD permit.
- Diesel powered equipment should be replaced.
- As of June 15, 2002, fleet owners are subject to sections 2449, 2449.1, 2449.2, and 2449.3 in Title 13, Article 4.8, Chapter 9, of the California Code of Regulations (CCR) to reduce diesel particulate matter (PM) and criteria pollutant emissions from in-use off-road diesel-fueled vehicles, See <http://www.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf>.
- Diesel construction equipment meeting the California Air Resources Board (CARB) Tier 1 emission standards for off-road heavy-duty diesel engines shall be used. Equipment meeting CARB Tier 2 or higher emission standards shall be used.
- Other diesel construction equipment, which does not meet CARB standards, shall be equipped with two to four degree engine timing retard or pre-combustion chamber engines. Diesel catalytic converters, diesel oxidation catalysts and diesel particulate filters as certified and/or verified by EPA or California shall be installed
- Catalytic converters shall be installed on gasoline-powered equipment.

- All construction equipment shall be maintained in tune per the manufacturer's specifications.
- The engine size of construction equipment shall be the minimum practical size.
- The amount of construction equipment operating simultaneously shall be minimized through efficient management practices so that the smallest practical number is operating at any one time,
- Idling of heavy-duty diesel trucks during loading and unloading shall be limited to five minutes; auxiliary power units should be used wherever possible. State law requires that drivers of diesel-fueled commercial vehicles weighing more than 10,000 pounds:
 - shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location
 - shall not idle a diesel-fueled auxiliary power system (APS) for more than 5 minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle equipped with a sleeper berth when that vehicle is operated within 100 feet of a restricted area (homes and schools).
 - Construction worker trips shall be minimized by requiring carpooling and by providing for lunch on site.

Chapter 4 Comments and Coordination

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 and interagency coordination meetings. This chapter summarizes the results of the efforts of the City of Santa Maria and Caltrans to fully identify, address, and resolve project-related issues through early and continuing coordination.

Scoping Process

A Notice of Preparation was prepared for the proposed project that notified reviewing agencies and the public that the project could result in substantial adverse effects on the environment.

The Notice of Preparation was circulated on October 10, 2003 for a 30-day public comment period that ended November 8, 2003. A prior Notice of Preparation for a City General Plan Circulation Element Amendment for the roadway extension portion of the project was circulated on July 16, 2003 for a 30-day public review period that ended August 14, 2003. The General Plan Amendment for the roadway portion of the project was heard before the City of Santa Maria Planning Commission on September 3, 2003 and before the Santa Maria City Council on October 7, 2003. An Initial Study/Mitigated Negative Declaration was also submitted for the roadway extension portion of the project on September 13, 2000. In addition, a scoping meeting was held on October 11, 2001 at the City of Santa Maria Library for the roadway portion of the project. The Notice of Preparation and responses to the Notice of Preparation are available for review at the City of Santa Maria Public Works Department, 110 S. Pine Street, Santa Maria, California 93458. The following issues were identified by the scoping process for this Environmental Impact Report/Environmental Assessment as having potentially significant impacts:

- Aesthetics
- Agriculture
- Air Quality
- Biological Resources
- Cultural and Historic Resources
- Drainage/Hydrology
- Geologic Hazards
- Hazardous Materials
- Land Use and Planning
- Noise
- Transportation/Circulation
- Growth and Irreversible Effects

The Environmental Impact Report/Environmental Assessment evaluates site-specific and cumulative impacts for each of these areas. The focus of the document is to address potentially significant environmental issues identified in the scoping process and to recommend feasible avoidance, minimization, and mitigation measures, where possible, that reduce or eliminate substantial environmental impacts. Consistency with local zoning, General Plan, land use policies, and long-range air-quality planning programs, as well as the project's potential to induce growth, are also examined in the Environmental Impact Report/Environmental Assessment.

Public participation in the development of the Environmental Impact Report/Environmental Assessment and in the selection of the final design concept occurs at several points in the planning process. The first input involves the Notice of Preparation. The Notice of Preparation was sent to all concerned resource agencies and other potentially interested parties. These notices were intended to solicit public input in the environmental document preparation process.

Consultation and Coordination with Public Agencies

Coordination with federal, state, and local agencies has occurred throughout the preparation of this document. Coordination has been established with the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, U.S. Department of Agriculture Natural Resources Conservation Service, California Department of Fish and Game, and various Santa Barbara County agencies.

A request for a jurisdictional determination regarding potentially non-jurisdictional wetlands on and adjacent to the study area was sent to the U.S. Army Corps of Engineers (Corps) in March 2004. The Corps responded that the potential wetlands would be considered jurisdictional as tributary to Waters of the U.S. (refer to Section 2.3.2, *Wetlands and Other Waters*, of this document). The Corps is currently reviewing a Section 404 Clean Water Act Nationwide Permit application for impacts to Corps jurisdictional waters. In addition, the State Water Resources Control Board is currently reviewing a Section 401 Clean Water Act Certification or waiver request and Waste Discharge Permit application. Before construction, a National Pollutant

Discharge Elimination System permit from the State Water Resources Control Board would also be required.

Informal communication with the U.S. Fish and Wildlife Service was conducted regarding the California tiger salamander. Bridget Fahey and Katherine Drexhage of the U.S. Fish and Wildlife Service concurred that based on habitat conditions and proximity of the project to known breeding ponds on the Airport property, the California tiger salamander could potentially use upland habitat (native and naturalized habitats) west of State Route 135. The U.S. Fish and Wildlife Service suggested that the City of Santa Maria would need to demonstrate absence of the California tiger salamander in this area through the use of a two-year drift fence study to avoid the need of acquiring an incidental take permit. Aquatic surveys were conducted in spring 2006, 2007, and 2008 and upland drift fence surveys were conducted in winter 2006/2007 and 2007/2008. Regular communication with Ms. Drexhage was conducted during the course of the surveys to inform the U.S. Fish and Wildlife Service of survey results. In addition, based on informal consultation, U.S. Fish and Wildlife Service staff has indicated strong support for the elimination of the roadway segment west of Blosser Road to protect breeding ponds and nearby farmland used by California tiger salamanders. Formal consultation with the U.S. Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act for impacts to California tiger salamander and California red-legged frog was initiated in July 2008. Through the Section 7 consultation process, Caltrans is seeking U.S. Fish and Wildlife concurrence with the Threatened and Endangered Species environmental consequences determinations for California tiger salamander and California red-legged frog.

A special-status species list was received from the U.S. Fish and Wildlife Service in 2003 and 2007 listing all endangered, threatened, and candidate species as well as those special-status species for which critical and potential critical habitat occurs within the U.S. Geological Survey Santa Maria quadrangle. The list fulfills the requirements of the U.S. Fish and Wildlife Service under Section 7(c) of the Endangered Species Act of 1973, as amended.

Caltrans prepared a Historic Property Survey Report and supporting technical documents in December 2007, and a supplemental Historic Property Survey Report in May 2008, and transmitted them to the State Historic Preservation Officer (SHPO). For the purposes of this project, Caltrans, in coordination with the State Historic

Preservation Officer, determined that three properties within the architectural area of potential effect (at 4136, 4162, and 4174 Orcutt Road) are assumed eligible under Criteria A and C, at the local level of significance. The alignment was therefore redesigned to avoid or minimize impacts to these historic properties. In accordance with the implementing regulations of Section 106, Caltrans, as assigned by the Federal Highway Administration, proposed a Finding of No Adverse Effect for the project as a whole in a letter to the State Historic Preservation Officer dated July 1, 2008.

Stipulation X.B.1.b of the 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 states:

“If the SHPO agrees with the No Adverse Effect finding made hereunder, the undertaking shall not be subject to further review under this Agreement. Unless FHWA and the SHPO have agreed to extend the 30-day time frame for SHPO review specified in 36 CFR 800.5(c), failure of the SHPO to comment within this time frame may be deemed by FHWA to constitute SHPO concurrence in the No Adverse Effect finding. Documentation of date of receipt as the basis for determining the 30-day review period may be provided through the SHPO database, a mail delivery receipt, or written or documented oral communication with the SHPO.”

Office of Historic Preservation staff indicated in an e-mail dated August 18, 2008 that the State Historic Preservation Officer had no objections to the Finding of No Adverse Effect and therefore did not send a letter for the Finding of No Adverse Effect.

Natural Resource Conservation Service field staff was consulted regarding corridor assessment criteria for the Farmland Conversion Impact Rating for Corridor Type Projects (Form NRCS-CPA-106). Natural Resources Conservation Service staff advised that the Land Evaluation Criterion Relative to Value of Farmland Conversion should be assumed to be the highest value of 100 because the Corridor Assessment Criteria resulted in relatively low scores of less than 60 (refer to Appendix E).

Public Participation

A Notice of Availability for the Draft Environmental Impact Report/Environmental Assessment was sent to all parties listed in Chapter 6, *Distribution List*. Copies of the Environmental Impact Report/Environmental Assessment were distributed to those parties designated in Chapter 6, *Distribution List*, which includes federal, state, and local agencies, and political representatives. An open forum public hearing regarding the project was held on August 12, 2008, from 5:30 to 8:00 PM. at the Radisson Hotel at 3455 Skyway Drive, Santa Maria, California.

Written Comments and Responses

At the close of the Draft Environmental Impact Report/Environmental Assessment comment period, comments were compiled. Copies of the letters and the responses to the comments are provided in Appendix H, *Comments, Responses, and Revisions to the Draft EIR*.

Chapter 5 List of Preparers

This Draft Environmental Impact Report/ Environmental Assessment was prepared by Caltrans and the City of Santa Maria.

Caltrans

- Lara Bertaina; Associate Environmental Planner; 2 years urban planning and 7 years environmental planning experience; Contribution: Reviewed and oversaw the environmental document and coordinated the environmental process for the Environmental Impact Report/Environmental Assessment.
- Paula Juelke Carr; Associate Environmental Planner (Architectural History); 25 years of experience in California history; Contribution: Assisted in research of historic resources and reviewed Cultural section of Environmental Impact Report/Environmental Assessment and Historic Property Survey Report.
- David Hacker; Associate Environmental Planner (Natural Sciences); 10 years biological impact assessment; Contribution: Reviewed Biological section of Environmental Impact Report/Environmental Assessment and Natural Environment Study.
- Wayne Mills; Transportation Engineer; 23 years air quality, noise, water quality, and paleontology studies experience; Contribution: Reviewed Air Quality, Noise and Paleontology section of Environmental Impact Report/Environmental Assessment and technical reports.
- Nancy Siepel; Associate Environmental Planner (Biology); 27 years biology experience, with 9 years of environmental impact assessment and environmental document writing; Contribution: Reviewed Biological section of Environmental Impact Report/Environmental Assessment and Natural Environment Study.
- James Tkach; Transportation Engineer; 7 years experience in project design and construction, 18 years experience in hazardous waste management; Contribution: Reviewed Hazardous Waste section of Environmental Impact Report/Environmental Assessment and Initial Site Assessment.
- Isaac Leyva; Engineering Geologist; 20 years experience Environmental and Geotechnical Design; Contribution: Reviewed Water Quality section of Environmental Impact Report/Environmental Assessment and Water Quality technical report.
- William Arkfeld, PE, Transportation Engineer-D; 22 years experience in Hazardous Waste and Water Quality issues; Contribution: Reviewed Water

Quality section of Environmental Impact Report/Environmental Assessment and Water Quality technical report.

Rincon Consultants, Inc. (Preparation and Coordination of Draft Environmental Impact Report/Environmental Assessment)

- John Rickenbach, AICP; Project Director; 17 years environmental planning experience; Contribution: Provided quality assessment/quality control for Environmental Impact Report/Environmental Assessment.
- Richard Daulton; Project Manager; 12 years environmental planning experience; Contribution: Prepared Environmental Impact Report/Environmental Assessment.
- Kevin Merk; Senior Plant Ecologist/Restoration Specialist; 15 years biological resources experience; Contribution: Oversaw preparation of the Biological Assessment, Natural Environment Study, and Environmental Impact Report/Environmental Assessment biological resources evaluation.
- Duane Vander Pluym, D. ESE; Vice President, Environmental Science; 29 years environmental planning experience; Contribution: Provided quality assessment/quality control for Noise Study and Environmental Impact Report/Environmental Assessment noise evaluation.
- Susan Christopher, Ph.D.; Senior Biologist; 13 years biological resources experience; Contribution: Prepared portions of the Biological Assessment, Natural Environment Study, and Environmental Impact Report/Environmental Assessment biological resources evaluation, conducted California tiger salamander protocol surveys.
- Wendy Knight; Biologist; 9 years biological resources experience; Contribution: Prepared portions of the Biological Assessment, Natural Environment Study, and Environmental Impact Report/Environmental Assessment biological resources evaluation, conducted California tiger salamander protocol surveys.
- Kim Sanders; Plant Ecologist; 8 years biological resources experience; Contribution: Prepared portions of the Biological Assessment, Natural Environment Study, and Environmental Impact Report/Environmental Assessment biological resources evaluation.
- Scott English; Senior Environmental Assessor; 15 years environmental assessment experience; Contribution: prepared Initial Site Assessment
- Patrick Nichols; Environmental Planner; 3 years environmental planning experience; Contribution: Prepared portions of Noise Study and Environmental Impact Report/Environmental Assessment noise evaluation.

- Trevor Keith; Environmental Analyst; 5 years environmental planning experience; Contribution: prepared Environmental Impact Report/Environmental Assessment land use evaluations.
- Joanne Dramko; Planner, Graphics Coordinator; 9 years environmental planning and graphics experience; Contribution: oversaw preparation of Environmental Impact Report/Environmental Assessment and supporting technical studies graphics.
- Kathy Babcock; Graphics Designer; 8 years graphics experience; Contribution: prepared Environmental Impact Report/Environmental Assessment and supporting technical studies graphics.
- Sara Thompson; Associate Planner; 1 year environmental planning experience; Contribution: document formatting and production.
- Susan Von Dollen; Administrative Assistant; 2 years clerical experience; Contribution: document formatting and production.

In addition to Rincon Consultants' in-house team of experts, this report incorporates the findings of technical information from the following firms and individuals:

Applied Earthworks, Inc. (Cultural and Historical Resources)

- Barry Price; Senior Scientist; 32 years cultural resources experience; Contribution: oversaw preparation of Historic Property Survey Report
- Joyce Gerber; Senior Scientist; 27 years cultural resources experience; Contribution: assisted with preparation of Historic Property Survey Report
- David Livingston; Architectural Historian; 9 years of architectural history experience; Contribution: prepared evaluations of structures within architectural Area of Potential Effect.
- Sandra S. Flint; Senior Archaeologist; 19 years cultural resources experience; Contribution: assisted with preparation of Historic Property Survey Report
- Betsy Bertrando; Historian/Researcher; 25 years cultural resources experience; Contribution: assisted with preparation of Historic Property Survey Report
- Randy Baloian; Administrative Archaeologist; 20 years cultural resources experience; Contribution: assisted with preparation of Historic Property Survey Report

ArchFX (Visual Simulation)

- Scott Stankey; Visual Simulation Expert; 11 years visual analysis experience; Contribution: prepared visual simulation.

Associated Transportation Engineers (Traffic and Circulation)

- Richard L. Pool, P.E.; Principal Engineer; 40 years transportation planning experience; Contribution: oversaw preparation of Traffic Study.
- Scott A. Schell, AICP; Principal Transportation Planner; 23 years transportation planning experience; Contribution: assisted with preparation of Traffic Study.
- Dan Dawson; Supervising Transportation Planner; 19 years transportation planning experience; Contribution: assisted with preparation of Traffic Study.
- Andrew N. Orfila; Transportation Planning Technician; 5 years transportation planning experience; Contribution: assisted with preparation of Traffic Study.

Daniel E. Meade, Ph.D. (Monarch Butterfly Assessment)

- Daniel E. Meade, Ph.D.; Biologist; 15 years biological resources experience; Contribution: prepared monarch butterfly assessment.

David Wolff Environmental (Biological Studies)

- David K. Wolff; Certified Professional Wetland Scientist; 28 years biological resources experience; Contribution: prepared portions of the Biological Assessment, Natural Environment Study, and Environmental Impact Report/Environmental Assessment biological resources evaluation.

DUDEK & Associates, Inc. (Environmental Assessment)

- Troy White; Project Manager; 8 years environmental planning experience; Contribution: prepared preliminary draft of Environmental Assessment.
- Sherri L. Miller; Senior Biologist; 12 years biological resources experience; Contribution: prepared biological resources evaluation for preliminary draft of Environmental Assessment.

Padre Associates, Inc. (Environmental Site Assessment)

- Eric K. Snelling, R.E.A.; Project Manager; 14 years environmental assessment experience; Contribution: prepared portions of Environmental Site Assessment.
- Jerome K. Summerlin, C.E.G., C. Hg., R.E.A. II; Principal; 20 years environmental assessment experience; Contribution: prepared portions of Environmental Site Assessment.

PSOMAS (Engineering)

- Robert Blume; Regional Director, Transportation; 24 years transportation engineering experience; Contribution: oversaw preparation of roadway extension designs.
- Lindy Ros; Lead CAD Designer; 16 years design experience; Contribution: prepared roadway extension CAD designs.
- Tim Hayes; Senior Engineer; 16 years transportation engineering experience; Contribution: prepared roadway extension designs.
- Teresa Lopes; Project Engineer; 20 years transportation engineering experience; Contribution: assisted with preparation of roadway extension designs.
- Jeff Apps; Design Engineer; 6 years transportation engineering experience; Contribution: assisted with preparation of roadway extension designs.

Storrer Environmental Services (Biological Studies)

- John Storrer; Biological Consultant; 15 years biological resources experience; Contribution: prepared biological field surveys and wetlands studies.
- Katherine Rindlaub; Botanist; 20 years biological resources experience; Contribution: prepared biological field surveys and wetlands studies.

URS Greiner Woodward-Clyde (Wetland Mitigation Plan)

- John Gray; Biologist; 29 years biological resources experience; Contribution: prepared wetland delineation and wetland mitigation plan.

Chapter 6 Distribution List

Distribution List

This section provides a list of public officials, agencies, and organizations that will receive a copy of the Notice of Availability of the Draft Environmental Impact Report/Environmental Assessment. “*” Designates individuals and organizations that will receive a copy of this document.

Federal

- * Natural Resources Conservation Service
- * United States Army Corps of Engineers
- * United States Environmental Protection Agency
- * United States Fish & Wildlife Service, consultation pursuant to Section 7 of the Endangered Species Act

State

- * California Department of Fish & Game
- * California Highway Patrol
- * State Clearinghouse
- * State Historic Preservation Office

Regional/Special Districts

California Cities Water Company
Central Coast Information Center, Department of Archaeology
Comcast Cable
Health Sanitation Service
Laguna County Sanitation District
Pacific Gas & Electric
* Regional Water Quality Control District
* Santa Maria Area Transit
* Santa Maria Public Airport District
Santa Maria Valley Economic Development Association
Santa Maria Valley Chamber of Commerce
The Gas Company
Verizon

County

- * Santa Barbara County Air Pollution Control District
- * Santa Barbara County Association of Governments
- * Santa Barbara County Clerk of the Board
- * Santa Barbara County Fire Department
- * Santa Barbara County Flood Control District
- * Santa Barbara County Petroleum Division
- * Santa Barbara County Planning and Development Department
- * Santa Barbara County Protection Services Division Hazardous Materials Section
- * Santa Barbara County Public Works Department

City

- * City of Santa Maria City Clerk
- * City of Santa Maria City Manager
- * City of Santa Maria Community Development Department
- * City of Santa Maria Fire Department
- * City of Santa Maria Police Department
- * City of Santa Maria Public Library
- * City of Santa Maria Public Works Department
- * City of Santa Maria Recreation and Parks Department

Private Groups/Citizens

Richard Boyle
Robert and Dorothy Bunkelman
Miriam Coryell
Steve Dacheff
William Douglas, Andre, Morris, and Buttery
Leo and Virginia Egan
Bob Fitzhenry
Roy Lee Grover
Ed Hennon
Pauline Hermann
Olga Howard
Charles and Mary Lynn Kelble
Richard and Fairy Levingston
Robert and Beverly Mackey
Erv Madden

* Steve Miller, President Foxenwood Estates Homeowners' Association

* Orcutt Citizens for a Better Environment

Carmen Orozco, 4162 Orcutt Road

Bud Richards

David Richardson

Mr. And Mrs. William Roy

David Stockdale

Law offices of Jana Zimmer

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