

17.1 Alternatives Overview

CEQA requires that an EIR contain a reasonable range of feasible alternatives that meet most or all project objectives while reducing or avoiding one or more significant impacts of the project. According to State CEQA Guidelines Section 15126.6(f), the range of alternatives required in an EIR is governed by a “rule of reason” that requires an EIR to set forth only those alternatives necessary to permit a reasoned choice.

The range of alternatives may include alternatives to the project or its location. Where a potential alternative was examined but not chosen as one of the range of alternatives, the State CEQA Guidelines require that the EIR briefly discuss the reasons the alternative was dismissed. In addition to a range of alternatives, the EIR must discuss the “No-Project Alternative,” which describes the reasonably foreseeable probable future conditions if the project is not approved (State CEQA Guidelines, Section 15126.6).

The lead agency must consider the alternatives discussed in an EIR before acting on a project. The agency is not required to adopt an alternative that may have environmental advantages over the project if specific economic, social, or other conditions make the alternative infeasible (Public Resources Code, section 21002).

This chapter describes the alternatives to the proposed project and compares the anticipated environmental impacts of the alternatives to those of the proposed project, analyzed in Chapters 3 through 16. See Appendix H for a discussion of the potential alternatives initially screened for analysis in the EIR, and the selection of Alternatives 1 and 4.

Section 15126.6(b) of the State CEQA Guidelines indicates that a discussion of alternatives should “focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project.” Alternatives to the proposed project are described below, and their impacts are compared to the proposed project.

17.2 Evaluation of Alternatives

The following analysis evaluates the potential environmental impacts associated with implementation of the No-Project Alternative, the Sunrise Boulevard Alignment Alternative, and the Bradshaw Road Alignment Alternative, compared to the proposed project. The impact conclusions (i.e., “similar,” “greater,” “lesser”) describe the level of impact compared to the impacts of the proposed project, which are discussed in Chapters 3 through 16 of this draft program EIR. The thresholds and methodologies used to evaluate the proposed project and the alternatives are also described in those chapters.

Figure 2-2b identifies the location of the proposed project and alternatives.

17.2.1 Environmental Effects of the No-Project Alternative

CEQA requires that a “no project” alternative be evaluated as part of the EIR process (State CEQA Guidelines Section 15126.6[e]). The project’s No-Project Alternative represents existing conditions and what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current adopted local and regional plans.

The roadway network under the No-Project Alternative represents, for the most part, the transportation system in SACOG’s adopted 2035 MTP, with widening of the existing roadways in the general project area to four or six lanes, with exceptions, as noted below. Access along the roadways within the general project area under the No-Project Alternative would have only minor limitations on new driveways and no reductions in the substantial number of existing driveways. The No-Project Alternative would have numerous at-grade intersections with their locations based on adopted and proposed general plans and specific plans. These future roadway improvements would be intended to serve the planned growth in the general project area.

The assumptions on planned growth in the general project area were based on community-level geographic area data used by SACOG for planning purposes, with some refinements in the projected growth made by the JPA local jurisdictions for Folsom, Rancho Cordova, and Elk Grove. The refinements generally reflect more conservative growth assumptions in the project area. The planned growth assumptions are discussed in Chapter 12, “Population and Housing,” and in Chapter 16, “Traffic and Transportation,” and are depicted on Figure 16-2 in Chapter 16.

The No-Project Alternative assumes that planned improvements to the roadway network identified in the 2035 MTP would be implemented, with certain revisions. These include the following:

- White Rock Road would be widened to: (1) six lanes from US 50 west to Latrobe Road; (2) four lanes from Manchester Drive west to the Sacramento County line; and (3) six lanes from the El Dorado County line west to Grant Line Road.
- Grant Line Road would be widened to: (1) four lanes from White Rock Road south to Bradshaw Road; and (2) six lanes from Bradshaw Road to SR 99.
- Kammerer Road would be: (1) widened to six lanes from SR 99 to Bruceville Road; and (2) extended as a four lane road from Bruceville Road to I-5.

The following revisions to the 2035 MTP were assumed:

- The number of lanes on White Rock Road from the El Dorado County line to Scott Road (E) was reduced from six to four to be consistent with the maximum number of lanes allowed on that segment in the Sacramento County General Plan currently being updated.
- An extension of Hazel Avenue from the future Easton Valley Parkway south to White Rock Road was not assumed since the PDT felt that this extension would not occur by 2035.
- The number of lanes on Scott Road (E) between White Rock Road and future Road B was reduced from six (in the MTP) to four, and the number of lanes on Prairie City Road from US 50 to the future Easton Valley Parkway was increased from four (in the MTP) to six to be consistent with the proposed roadway improvements in the City of Folsom’s plans for the Sphere of Influence (SOI) south of US 50.
- The proposed Cordova Hills project along Grant Line Road would have connections to Grant Line Road.

The primary difference between the No-Project Alternative and the proposed project is the amount and type of access along the project alignment. The proposed project would reduce the amount of access, especially on segments designated to have an expressway standard (Grant Line Road from north of Calvine Road to White Rock Road, and White Rock Road from Grant Line Road to the El Dorado County line). Refer to Table 16-12 of Chapter 16, "Traffic and Transportation," for the list of cross-streets along the project alignment and the future no-project traffic control (i.e., signal, interchanges, etc.).

The No-Project Alternative is not the baseline for the impact analyses in the preceding chapters.

17.2.1.1 Aesthetics

Under the No-Project Alternative, the areas adjacent to the project corridor would be developed with mixed residential and commercial development. Road improvements would include the construction of the US 50/Silva Valley Parkway Interchange, extension of Kammerer Road, and the widening of the portion of Grant Line Road that runs through the Sheldon area. Overall, roadway improvements would be less extensive than what is proposed under the project, which could result in slightly less visual change within the study area. The adverse visual impacts associated with construction of the Deer Creek Causeway would be avoided under the No-Project Alternative.

17.2.1.2 Air Quality

Implementation of the No-Project Alternative will not result in any Connector project-related construction-related emissions or air quality impacts. However, construction of roadways along the corridor would proceed as planned in the adopted plans of the counties and cities, causing significant construction-related impacts, similar to those described for the proposed project. Comparisons of operational-related criteria pollutant and GHG emissions of the project and alternatives, relative to the No-Project Alternative (i.e., baseline 2008 no-project condition) are provided in Tables 4-14 and 4-15 in Chapter 4, "Air Quality." Within the SMAQMD, implementation of the No-Project Alternative would result in fewer VMT and emissions relative to the build alternatives. Similarly, within the EDCAPCD, VMT and emissions are expected to decrease under the No Project Alternative compared to the proposed project. However, these impacts would likely be significant.

17.2.1.3 Biological Resources

Under the No-Project Alternative, the existing roadways in the study area and project vicinity will eventually be widened to four or six lanes. Impacts related to biological resources would be similar to the proposed project. These would be significant impacts.

17.2.1.4 Cultural Resources

Under the No-Project Alternative, existing roadways along the Connector alignments will eventually be widened to four or six lanes, potentially disturbing previously undiscovered archaeological or historical sites, as well as architectural sites. Impacts related to cultural resources would be similar to the proposed project. These would be significant impacts.

17.2.1.5 Energy

Under the No-Project Alternative, existing roadways along the Connector alignments will eventually be widened to four or six lanes, but the improvements to traffic flow that would result from the grade-separated interchanges and access limitations imposed by the proposed project would not occur, with a net result of similar air quality impacts compared to the proposed project. However, it is not anticipated that this energy consumption would result in wasteful or excessive use of direct energy.

17.2.1.6 Geology, Soils, and Paleontological Resources

The No-Project Alternative would eventually result in road widening and involve short-term soil disturbing activities, including cut and fill, grading, trenching, boring, and vegetation removal. Impacts related to geology, soils, and paleontological resources would be similar to the proposed project. These would be significant impacts.

17.2.1.7 Hazards and Hazardous Materials

The No-Project Alternative would eventually result in construction that would present similar potential for impacts related to release or exposure to hazards or hazardous materials. Impacts related to hazards and hazardous materials would be similar to the proposed project. These would be significant impacts.

17.2.1.8 Hydrology and Water Quality

The No-Project Alternative would eventually result in construction that could result in short-term (construction) and long-term (post-construction) hydrological and water quality impacts. The No-Project Alternative could potentially impact more than more than 32 creek/stream crossings compared to 21 creek/stream crossings that would potentially be affected by the proposed project (Appendix H). The No-Project Alternative could affect more water bodies. These would be significant impacts.

17.2.1.9 Land Use

The No-Project Alternative would avoid some of the land use impacts expected to occur under the proposed project. Substantial loss or disruption of existing access is not anticipated to occur. No division of an established community would occur under the No-Project Alternative. Land uses in the surrounding area would be changed via the adopted general plans and planned improvements, which would result in conversion of land from agricultural uses to transportation-related uses. Impacts related to loss of access would be considerably less than those anticipated to occur under the proposed project. Overall, these would be significant impacts.

17.2.1.10 Noise

Under the No-Project Alternative improvements to existing roadways and construction of new roadways such as the Kammerer Road extension to SR 99 would eventually occur. Construction of these projects would result in construction noise impacts similar to the impacts identified for the proposed project. These improvements would increase capacity and allow high speeds, both of which would increase traffic noise. These traffic noise increases would be significant if noise

increases are 1.5 dB or more where pre-project noise is greater than 65 dB, 3 dB where pre-project noise is 60–65 dB, and 5 dB where pre-project noise is less than 60 dB.

17.2.1.11 Public Services and Utilities

The No-Project Alternative would eventually result in improvements to existing roadways and construction of new roadways such as the Kammerer Road extension to SR 99. The impact on water facilities would be similar and could require construction of new stormwater drainage facilities or expansion of existing facilities. Overall, these would be significant impacts.

17.2.1.12 Population and Housing

The No-Project Alternative would eventually result in improvements to existing roadways and construction of new roadways such as the Kammerer Road extension, and the impacts on population and housing, including acquisition and relocation, would be similar to the proposed project. Overall, these would be significant and unavoidable impacts.

17.2.1.13 Recreation

The No-Project Alternative would eventually result in improvements to existing roadways and construction of new roadways which would require the conversion of small amounts of park and conservation areas and result in temporary construction impacts on recreational facilities. These impacts would be similar to the proposed project. Overall, these would be significant impacts.

17.2.1.14 Traffic and Transportation

The primary difference between the No-Project Alternative and the proposed project is the amount and type of access along the project alignment. Under the No-Project Alternative, there would be no reductions in the amount of access, including on segments where access with the proposed project would be limited (Grant Line Road from north of Calvine Road to White Rock Road, and White Rock Road from Grant Line Road to the El Dorado County line). Table 16-11 in Chapter 16, “Traffic and Transportation,” compares the access between the No-Project Alternative and the proposed project with project options included in the traffic analysis. In brief, the No-Project Alternative would not improve traffic operations compared to the proposed project and would have a significant effect.

17.2.2 Environmental Effects of the Project Build Alternatives

17.2.2.1 Sunrise Boulevard Alignment Alternative

This alternative is the same as the proposed project, except that it would utilize existing Sunrise Boulevard for a portion of the alignment (Figure 2-2b). At the Grant Line Road/Sunrise Boulevard intersection, this alternative would follow Sunrise Boulevard north as an expressway to just north of SR 16 (Jackson Highway) and then as a thoroughfare north of SR 16 to Douglas Road. North of Douglas Road, the alignment would be east of and parallel to Sunrise Boulevard, requiring an undefined new thoroughfare segment to provide a connection to White Rock Road. The alignment would continue east as a thoroughfare on White Rock Road through Rancho Cordova. East of Grant Line Road, the alignment is the same as the proposed project.

The mitigation measures identified for the project would apply also to this alternative, as pertinent.

Aesthetics

The Sunrise Boulevard Alignment Alternative would result in the same visual effects as the proposed project from I-5 to the intersection of Grant Line Road and Sunrise Boulevard; and from the intersection of White Rock Road/Grant Line Road to U.S 50. The visual character of the land uses adjacent to Sunrise Boulevard and White Rock Road are similar to the western landscape unit, and include flat agricultural fields, row crops, and scattered residential development. The northernmost areas of along this alternative corridor include dense urban development including commercial, industrial, and retail complexes. Along White Rock Road, the natural landscape has been significantly altered by aggregate mining operations. As a result, the visual character of the landscape along this alternative corridor is less intact and has a lower visual quality than the project corridor.

Implementation of the Sunrise Boulevard Alignment Alternative would alter the visual character of Sunrise Boulevard and White Rock Road by increasing the dominance of the transportation facility (widening from two lanes to four/six lanes). This alternative may also result in displacement of residential and commercial uses along Sunrise Boulevard. These visual changes may result in improved intactness and unity by creating a consistent roadway cross section. However, the overall visual quality along Sunrise Boulevard would not change significantly.

Between the Sunrise Boulevard/Kiefer Road and Sunrise Boulevard/White Rock Road intersections, the roadway already consists of a five-lane thoroughfare. This alternative would not alter the visual character of this segment of Sunrise Boulevard, as significant changes would not occur to the existing thoroughfare.

Widening of White Rock Road under this alternative would result in increased dominance of the roadway within the landscape. However, the surrounding landscape has been highly altered by aggregate mining, creating low visual quality. As a result, widening White Rock Road under the Sunrise Boulevard Alignment Alternative would not result in a significant change in visual quality.

Air Quality

For the analysis of the Sunrise Boulevard Alignment Alternative, construction emissions were estimated using the Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model. The alternative was assumed to be 36 miles in length and require a construction area of 1,433 acres. Based on consultation with the project applicant, it was assumed construction would begin in 2015 and last approximately 10 years. Construction activity would require water trucks and import and export 500 cubic yards of soil daily.

Operational emissions were based on information provided by the traffic engineers. The data for the Sunrise Boulevard Alignment Alternative included volumes within the Traffic Analysis Study Area (TASA), as defined in Chapter 16. Emissions were evaluated using the CT-EMFAC emissions model and Sacramento County regional vehicle fleet profiles (please refer to Chapter 4, "Air Quality," for additional discussion of the analysis methodologies).

Construction emissions consist of temporary emissions from grubbing/land clearing, grading/excavation, drainage/utilities/subgrade construction, paving activities, and construction worker commutes involved with project construction. Table 17-1 summarizes mitigated construction emissions for the Sunrise Boulevard Alignment Alternative within the SMAQMD and EDCAPCD; Tables 17-2 and 17-3 summarize construction emissions for the proposed project within the SMAQMD and EDCAPCD, respectively. As indicated in Tables 17-1, construction activities associated with the Sunrise Boulevard Alignment Alternative are anticipated to be less than the proposed project, but exceed the SMAQMD thresholds. Implementation of Mitigation Measures AQ-1 through AQ-4 will reduce emissions to less than significant (see Table 17-2).

Similar to the proposed project, operational emissions would increase because of increases in VMT. Impacts on air quality for this alternative would be similar to the impacts of the proposed project and would be significant and unavoidable.

Table 17-1. Summary of Unmitigated Construction Emissions for the Sunrise Boulevard Alignment Alternative (pounds per day)

Alternative	ROG	NO _x	CO	PM10			PM2.5		
				Total	Exhaust	Dust	Total	Exhaust	Dust
Sunrise Boulevard Alignment Alternative (SMAQMD)	22.18	128.16	173.74	664.42	7.25	657.16	143.15	6.46	136.69
<i>SMAQMD Threshold</i>	-	85	-	-	-	-	-	-	-
Sunrise Boulevard Alignment Alternative (EDCAPCD)	2.01	11.63	15.77	60.30	0.66	59.64	12.99	0.59	12.40
<i>EDCAPCD Threshold</i>	82	82	-	-	-	-	-	-	-

Table 17-2. Summary of Mitigated Construction Emissions for the Sunrise Boulevard Alignment Alternative (pounds per day)

Alternative	ROG	NO _x	CO	PM10			PM2.5		
				Total	Exhaust	Dust	Total	Exhaust	Dust
Sunrise Boulevard Alignment Alternative (SMAQMD)	9.53	57.28	71.87	140.69	3.17	137.52	31.30	2.70	28.60
<i>SMAQMD Threshold</i>	-	85	-	-	-	-	-	-	-
Sunrise Boulevard Alignment Alternative (EDCAPCD)	0.87	5.20	6.52	12.77	0.29	12.48	2.84	0.24	2.60
<i>EDCAPCD Threshold</i>	82	82	-	-	-	-	-	-	-

Table 17-3. Summary of Land Use and Biological Resources within the Sunrise Boulevard Alignment Alternative Corridor

Land Cover and Biological Communities	Acreage of Resource in the 400-foot Corridor (Areas of Potential Direct Impacts)	Acreage of Resource between the 400- and 800-foot Corridor (Area of Potential Indirect Impacts)
Uplands		
Annual grassland	1,498.1	1,489.9
Blue oak woodland	4.7	14.1
Riparian woodland	135.8	134.8
Uplands Subtotal	1,638.6	1,638.8
Wetlands		
Seasonal wetland	0.6	0.6
Swale	8.3	12.8
Vernal pool	20.5	20.3
Freshwater marsh	10.1	8.0
Stream	10.4	13.8
Seasonal pond	9.3	6.9
Open water	2.1	4.6
Wetlands and Waters Subtotal	61.2	66.9
Agricultural		
Irrigated pasture	186.0	152.6
Cropland	387.0	376.4
Vineyard	74.0	53.0
Orchard	0	0
Agricultural Subtotal	646.9	582.0
Developed		
Major roads	152.5	19.0
Landscaped	0	3.0
Low density development	386.2	275.4
High density development	245.8	283.9
Dredge tailings	331.2	342.5
Disturbed	9.8	22.6
Aqueduct	31.7	20.9
Developed Subtotal	1,157.4	967.1
Total Acreage	3,504.1	3,254.9

Biological Resources

Construction of the Sunrise Boulevard Alignment Alternative has the potential to result in direct and indirect impacts on sensitive biological resources. Although this alternative has more overall acreage of land relative to the proposed project, it has less sensitive upland and wetland habitats that could be directly and indirectly affected compared to that of the proposed project. Table 17-3 below summarizes the biological resources that could be affected by the Sunrise Boulevard Alignment Alternative.

No critical habitat was identified along the Sunrise Boulevard Alignment Alternative.

The Sunrise Boulevard Alignment Alternative has slightly less conservation area lands occurring within the assessment corridors than the proposed project: 114.7 acres within the 400-foot corridor and 101.0 between the 400- and 800-foot corridors, which are roughly 9 and 11 acres less than that of the proposed project, respectively.

Cultural Resources

The records search identified areas previously surveyed for cultural resources, as well as previously recorded cultural resources sites. Approximately 31% of the Sunrise Boulevard Alignment Alternative has been previously surveyed for cultural resources. Previously recorded cultural resources within this alternative corridor and the 0.25-mile buffer study area include 45 historic sites and 6 prehistoric sites. These numbers do not differ substantially from the proposed project (Table 17-4). Therefore, the Sunrise Boulevard Alignment Alternative would result in similar, less than significant impacts on cultural resources.

Table 17-4. Percentage of Study Coverage

Alternative	Survey Coverage (%)	Previously Recorded	
		Historic Sites	Prehistoric Sites
Proposed Project Corridor	58	43	6
Sunrise Boulevard Alignment	31	45	6

Energy

Under the Sunrise Boulevard Alignment Alternative, traffic flow and levels of service would improve, similar to the proposed project. One-time expenditures of energy for project construction would also be similar to the proposed project. However, it is not anticipated that this energy consumption would result in wasteful or excessive use of direct energy.

Geology, Soils, and Paleontological Resources

Construction of the Sunrise Boulevard Alignment Alternative would result in short-term soil-disturbing activities, including cut and fill, grading, trenching, boring, and vegetation removal. This alternative corridor is relatively flat with little potential for slope failure and surficial erosion during or after construction, and the geological, soil, and paleontological resources/conditions are similar to those of the project corridor. Impacts on geology, soils, and paleontological resources would be similar to the proposed project; and therefore, less than significant.

Hazards and Hazardous Materials

Construction of the Sunrise Boulevard Alignment Alternative would result in similar impacts as those for the proposed project (as discussed in Chapter 9, "Hazards and Hazardous Materials"). According to the EDR database search, there are four potential hazardous waste/materials sites within the proposed project study area: Super Pallet Recycling, Mather AFB, and the two White Rock Road Disposal sites (North and South). These sites are the same as for the proposed project.

Table 17-5 lists the EDR-identified sites that may have the potential to affect the Connector. The list of sites includes the site name, address, the database where the site was listed, where within the Connector the site is located, and rank.

Table 17-5. EDR Database–Identified Hazardous Waste/Material Sites

Site Name	Address	NPL/ Superfund	Response	SWF/ LF	Location	Rank
Super Pallet Recycling	10401 Grant Line Road, Elk Grove, CA			X	Proposed project, Bradshaw Road Alignment and Sunrise Boulevard Alignment Alternatives, Deer Creek Causeway Options	High
Lopez Agricultural Services, Inc.	11499 Florin Road, Sacramento, CA			X	Off-Corridor Multi-Use Path	Low
Aerojet Investments, LTD	11505 Douglas Road, Rancho Cordova, CA		X		Bradshaw Road Alignment Alternative	High
Aerojet LRC Landfill	Aerojet Road off US 50, Rancho Cordova, CA			X	Off-Corridor Multi-Use Path	Low
Mather Air Force Base	Mather Air Force Base, Rancho Cordova, CA	X		X	Bradshaw Road and Sunrise Boulevard Alignment Alternatives & Off-Corridor Multi-Use Path	High
Elk Grove Disposal Site	Waterman Road/Bond Road, Elk Grove, CA			X	Off-Corridor Multi-Use Path	Low
White Rock Road Disposal – North	White Rock Road/Grant Line Road, Rancho Cordova, CA			X	Proposed Project, Bradshaw Road and Sunrise Boulevard Alignment Alternative	Medium
White Rock Road Disposal – South	White Rock Road/Grant Line Road, Rancho Cordova, CA			X	Proposed Project, Bradshaw Road and Sunrise Boulevard Alignment Alternative	Medium

Source: Environmental Data Resources, Inc. July 2010.

This alternative has a similar potential for impacts related to hazards and hazardous materials as the proposed project. Therefore, the Sunrise Boulevard Alignment Alternative would result in similar, less than significant impacts related to hazards and hazardous materials.

Hydrology and Water Quality

The Sunrise Boulevard Alignment Alternative would have more extensive impacts on the hydrology and water quality conditions of the Folsom South Canal, Morrison Creek (upstream from Mather Lake), Rebel Hill Ditch, and surrounding tributaries (see Figure 10-1 in Chapter 10, “Water Quality and Hydrology”). As shown in Table 5-2 in Chapter 5, “Biology,” regarding the area of wetlands and water resources within the 800-foot corridor, this alternative would potentially impact up to 128.1

acres of water bodies, which includes up to 20 creek/stream crossings, compared to potential direct impacts on 158.4 acres of water bodies for the proposed project.

Other than the location and extent of the impacts, the Sunrise Boulevard Alignment Alternative would result in similar impacts on existing hydrology and water quality conditions as the proposed project. Therefore, the Sunrise Boulevard Alignment Alternative would result in similar, less than significant impacts related to hydrology and water quality.

Land Use

Under the Sunrise Boulevard Alignment Alternative, land use impacts would be similar to those anticipated to occur under the proposed project. Similar disruptions to access and division of an established community could occur during construction. Agriculturally designated lands could be acquired under this alternative as under the proposed project. Similar to the proposed project, this could result in a potentially significant land use impact. Additionally, as with the proposed project, this alternative would be consistent with applicable land use plans and policies and is identified in the SACOG MTP.

Noise

Construction noise and vibration impacts associated with implementation of the Bradshaw Boulevard Alternative would be similar to those described for the Proposed Project. Because of the potential for noise to exceed applicable local noise standards and the potential for construction vibration to result in perceptible and potentially damaging vibration, construction noise impacts associated with this alternative would be significant.

A detailed analysis of changes in traffic volumes associated implementation of the Sunrise Boulevard Alternative has not been conducted. However, conclusions related to potential traffic noise impacts can be drawn from information developed for the Proposed Project. Current average daily traffic volumes along Sunrise Boulevard between Grant Line Road and Douglas Road are about 11,100 (Sacramento County 2010c). These volumes correspond to a traffic noise level of about 61 L_{dn} at 100 feet. The traffic analysis prepared for the Proposed Project indicates that average daily traffic volumes would increase by about 10,000 along Grant Line Road. Assuming that volumes along Sunrise Boulevard would increase by a similar amount under the Sunrise Boulevard Alternative, it is expected that traffic noise would increase by about 3 dB along Sunrise Boulevard. This indicates that significant traffic noise impacts could occur in areas along Sunrise Boulevard where baseline noise levels could be in excess of 65 L_{dn} . This is likely to occur along this segment of Sunrise Boulevard.

The new roadway segment associated with this alternative northeast of Sunrise Boulevard will likely result in traffic noise that exceeds 60 L_{dn} at 100 feet. However, there are no developed uses along this new road so no significant traffic noise impacts are expected along this segment.

Mitigation Measures NOI-1 and NOI-2 would reduce significant construction and traffic noise impacts associated with the Sunrise Boulevard Alternative. However, for the same reasons identified for the Proposed Project, these impacts would be significant and unavoidable under the Sunrise Boulevard Alternative.

Population and Housing

Under the Sunrise Boulevard Alignment Alternative, an additional segment of new road would be constructed between Sunrise Boulevard's intersections with Douglas and White Rock Roads. As under the proposed project, there would be similar impacts related to property acquisition and relocation. Implementation of Mitigation Measures POP-1 and POP-2 would reduce significant impacts associated with the Sunrise Boulevard Alignment Alternative. Therefore, impacts to Population and Housing would be less than significant under the alternative.

Public Services and Utilities

Under the Sunrise Boulevard Alignment Alternative, there would be an additional segment of new road construction between Sunrise Boulevard's intersections with Douglas Road and White Rock Road. The alternative would have similar impacts to the proposed project on water facilities, including the potential for construction of new storm water drainage facilities or expansion of existing facilities. However, because of the increased area of new road construction, impacts could be slightly greater with this alternative. However, implementation of Mitigation Measures PS-1, PS-2, and PS-3 would reduce significant impacts associated with the Sunrise Boulevard Alignment Alternative. Therefore, these impacts would be less than significant under the alternative.

Recreation

As shown in Table 17-6, below, the Sunrise Boulevard Alignment Alternative is expected to result in the conversion of a total of 102.62 acres of park land (Mather Regional Park and Prairie City OHV Park) in Sacramento County and is expected to result in the conversion of approximately 37.43 acres of park land in El Dorado County. In addition, as shown in Table 17-7, below, this alternative is estimated to result in the conversion of approximately 215.75 acres of conservation land. Compared to the proposed project, this alternative would result in the conversion of an additional 64.02 acres of park land (Table 15-1 in Chapter 15, "Recreation"). With implementation of Mitigation Measure REC-1 in Chapter 15, "Recreation," these impacts would be less than significant.

Table 17-6. Park Land Potentially Affected by the Sunrise Boulevard Alignment Alternative

Alternative	Park Name	Affected Acreage	Total Affected Acreage
Sacramento County			
Sunrise Boulevard Alignment	Mather Regional Park	64.02	102.62
	Prairie City SVRA	38.60	
El Dorado County			
Sunrise Boulevard Alignment	Creekside Greens Park	3.69	37.43
	Unidentified Regional Park	33.74	

Source: See Figure 15-1 in Chapter 15, *Recreation*, for data sources.
Note: – = not applicable/no information.

Table 17-7. Conservation Lands Potentially Affected by the Sunrise Boulevard Alignment Alternative

Alternative	Conservation Land Name	Affected Acreage	Total Affected Acreage
Sunrise Boulevard Alignment	Habitat Management Easement	0.07	
	Bryte Ranch Mitigation Bank	129.93	
	Policy/Statute Lands	2.41	
	Sunridge Easement	81.56	
	Triangle Rock Easement	1.78	215.75
Bradshaw Road Alignment	Habitat Management Easement	5.67	
	Policy/Statute Lands	53.56	
	Teichert Easement	11.50	70.73

Source: See Figure 15-1 in Chapter 15, *Recreation*, for data sources.

Note: – = not applicable/no information.

Traffic and Transportation

The Sunrise Boulevard Alignment Alternative would involve the same roadway access and improvements as the proposed project on their common alignment segments, which are southwest of the Grant Line Road/Sunrise Boulevard intersection and northeast of the Grant Line Road/Whiter Rock intersection. Between those intersections, this alternative would follow Sunrise Boulevard and the proposed Rancho Cordova Parkway to reach White Rock Road.

Along Sunrise Boulevard, between Grant Line Road and Jackson Road, access to the Sunrise Boulevard Alignment Alternative would be limited to grade-separated interchanges at Grant Line Road, Florin Road, and Jackson Road. Between Jackson Road and Douglas Road, this alternative would have widely spaced signalized intersections. Between Douglas Boulevard and White Rock Road, the alignment passes through the proposed Rio del Oro project, which is planned as a dense mixed-use development. A substantial number of access points with less than ½ mile spacing are planned in that development along the Sunrise Boulevard Alignment Alternative alignment and this level of access was assumed for this segment with and without this alternative.

Tables 17-8 and 17-9 indicate the following about the general performance of the Sunrise Boulevard Alignment Alternative:

- The Sunrise Boulevard Alignment Alternative would cause increases in traffic volumes on 1) all of the segments along its alignment and 2) most major roadways that provide access to the Sunrise Boulevard Alignment Alternative near where they intersect it.
- The Sunrise Boulevard Alignment Alternative would decrease total vehicle-hours of delay in the traffic analysis study area by about 9% since it would decrease traffic on a number of arterial/collector roadway segments in the traffic analysis study area, as well as decrease traffic volumes on portions of US 50, SR 99 and I-5. However, this alternative would not decrease total vehicle-hours of delay as much as the proposed project alignment (Alternative 2/3).
- The Sunrise Boulevard Alignment Alternative would have the highest number of signalized intersections of all the alignment alternatives
- The travel time along the Sunrise Boulevard Alignment Alternative (measured at common points for the alternative alignments) between Grant Line Road at Sunrise Boulevard and Grant

Line Road at White Rock Road would take 5 minutes longer than the time to use Grant Line Road for this entire trip, even with no further improvements to Grant Line Road than the High Access Alternative for that segment. Thus through traffic would not use the Sunrise Boulevard Alignment Alternative alignment as a preferred route.

Based on the general analysis of cumulative (2045) conditions, the impacts of the Sunrise Boulevard Alignment Alternative can be described as follows:

- The Sunrise Boulevard Alignment Alternative would cause traffic increases on all of the roadway segments along the alignment.
- Southwest of the Grant Line Road/Sunrise Boulevard intersection, and east of the Grant Line Road/White Rock Road intersection the LOS impacts of this alternative would be the similar to the impact of Grant Line Road in the Sheldon area may not operate at acceptable LOS conditions if access is not restricted.
- Significant LOS impacts are anticipated along this alternative alignment, including Sunrise Boulevard near Douglas Road as well as on Rancho Cordova Parkway near White Rock Road.
- The measures required to mitigate the LOS impacts along the portion of the Sunrise Boulevard Alignment Alternative alignment through the city of Rancho Cordova would involve roadway widening or grade separations beyond those planned by the City and may not meet the City's policies concerns about adverse impacts to bicyclists and pedestrians. Since the Capital SouthEast Connector JPA cannot ensure their implementation, this impact is considered **significant and unavoidable**.
- The Sunrise Boulevard Alignment Alternative would decrease traffic on many non-project roadway segments in the traffic analysis study area. However, this alternative would cause traffic increases on most of its cross streets near where they intersect the Connector, which would likely result in significant LOS impacts on some non-project roadways.
- The measures required to mitigate the LOS impacts on non-project roadway segments would involve improvements beyond those planned by local jurisdictions, including some improvements which may not meet the policies of local jurisdictions due concerns about adverse impacts to bicyclists and pedestrians. Improvements on non-project roadways would need to be implemented by local jurisdictions. Since local jurisdictions may choose not to implement them and the Capital SouthEast Connector JPA cannot ensure their implementation, this impact is considered **significant and unavoidable**.
- The Sunrise Boulevard Alignment Alternative would decrease traffic on most of the freeway segments in the traffic analysis study area and would likely not cause any LOS impacts on the freeway mainline or at any ramps junctions. This alternative would thus provide a benefit to freeway traffic operations compared to existing conditions. This impact is considered **less than significant**.
- The Sunrise Boulevard Alignment Alternative would not adversely affect any existing or planned bicycle or pedestrian facilities. This alternative would add off-street (Class I) bike trails along the expressway segments and thereby provide two types of bikeways in those segments, which would provide a benefit compared to existing conditions. This impact is considered **less than significant**.
- The transit policies adopted by the Connector JPA Board as part of the project would provide capital funding, beyond what would be available under existing conditions and thereby facilitate

Table 17-8. Change in Cumulative (2045) Daily Traffic Volumes from No Project Alternative – Along Alternative Alignments

Roadway	Segment		Travel Lanes					Average Daily Traffic Volumes					Change in Average Daily Traffic Volume from 2045 No Project		
	From	To	2008	2045 No Project	2045			2008	2045 No Project	2045			Alternative 1	Alternative 2/3	Alternative 4
					Alternative 1	Alternative 2/3	Alternative 4			Alternative 1	Alternative 2/3	Alternative 4			
White Rock Road	US 50	Valley View	2	6	6	6	6	9,300	15,800	21,000	21,800	21,500	5,200	6,000	5,700
	Valley View	Latrobe Rd	2	6	6	6	6	13,700	21,000	26,200	26,900	26,700	5,200	5,900	5,700
	Latrobe Rd	Windfield Way	4	4	4	4	4	10,100	29,200	38,400	39,800	38,800	9,200	10,600	9,600
	Windfield Way	Four Seasons Dr	2	4	4	4	4	7,800	24,200	36,400	38,300	37,200	12,200	14,100	13,000
	Four Seasons Dr	Empire Ranch Rd	2	4	4	4	4	6,400	18,900	28,700	30,100	29,700	9,800	11,200	10,800
	Empire Ranch Rd	Scott Rd (North)	2	4	4E	4E	4E	8,500	33,200	51,300	54,700	53,400	18,100	21,500	20,200
	Scott Rd (North)	Oak Av Pkwy	2	6	4E	4E	4E	5,700	48,700	70,900	78,000	75,400	22,200	29,300	26,700
	Oak Av Pkwy	Prairie City Rd	2	6	4E	4E	4E	5,700	48,300	74,300	83,300	79,600	26,000	35,000	31,300
	Prairie City Rd	Grant Line Rd	2	6	4E+ 2 HOV	4E+ 2 HOV	4E+ 2 HOV	9,900	79,000	106,300	122,600	116,400	27,300	43,600	37,400
	Grant Line Rd	Villagio Dr	2	6	6			3,400	36,600	54,900			18,300		
	Villagio Dr	International Dr	2	6	6			3,400	34,600	39,200			4,600		
International Dr	R Cordova Pkwy	2	6	6			3,400	21,300	22,900			1,600			
Grant Line Road	White Rock Rd	Centennial Dr	2	6		4E+ 2 HOV	4E+ 2 HOV	9,600	70,100		102,500	94,200		32,400	24,100
	Centennial Dr	Douglas Rd	2	6		4E	4E	9,600	42,100		74,000	66,500		31,900	24,400
	Douglas Rd	Chrysanthy	2	6		4E		8,800	44,400		77,800			33,400	
	Chrysanthy	Kiefer Blvd	2	6		4E		7,800	46,000		76,900			30,900	
	Kiefer Blvd	Rancho Cordova	2	6		4E		7,700	42,900		69,100			26,200	
	Rancho Cordova	Jackson Rd	2	6		4E		7,700	36,200		60,100			23,900	
	Jackson Rd	Sunrise Blvd	2	6		4E		5,600	26,200		46,100			19,900	
	Sunrise Blvd	Eagles Nest Rd	2	6	4E	4E		14,700	43,500	59,900	63,700		16,400	20,200	
	Eagles Nest Rd	Calvine Rd	2	6	4E	4E		14,700	46,000	61,000	67,100		15,000	21,100	
	Calvine Rd	Sheldon Rd	2	6	6	6		11,900	32,000	45,300	48,100		13,300	16,100	
	Sheldon Rd	Wilton Rd	2	6	6	6		16,200	22,600	35,800	37,800		13,200	15,200	
	Wilton Rd	Bond Rd	2	6	6	6		14,700	38,200	50,500	52,600		12,300	14,400	
	Bond Rd	Elk Grove Blvd	2	6	6	6		9,400	32,800	42,600	44,200		9,800	11,400	
	Elk Grove Blvd	Bradshaw Rd	2	6	6	6		6,300	27,300	35,100	36,400		7,800	9,100	
Bradshaw Rd	Waterman Rd	2	6	6	6	6	9,300	32,100	43,200	44,600	38,900	11,100	12,500	6,800	
Waterman Rd	E Stockton Blvd	2	6	6	6	6	13,500	53,000	61,900	63,200	58,400	8,900	10,200	5,400	
E Stockton Blvd	SR 99	4	6	6	6	6	15,800	57,300	65,800	67,000	62,400	7,500	9,700	4,900	
Rancho Cordova Parkway	White Rock Rd	International Dr	NA	6	6			NA	41,400	40,100			-1,300		
	International Dr	Douglas Rd	NA	6	6			NA	30,100	30,800			700		
Rio del Oro Parkway	Rancho Cordova	Sunrise Blvd	NA	6	6			NA	42,400	45,700			3,300		
Sunrise Blvd	Douglas Rd	Chrysanthy	5	6	6			24,500	48,500	54,400			5,900		
	Chrysanthy	Keifer Blvd	5	6	6			24,500	33,000	42,100			9,100		
	Keifer Blvd	Jackson Rd	2	6	6			17,500	27,400	43,100			15,700		
	Jackson Rd	Florin Rd	2	6	4E			13,300	28,000	47,800			19,800		
Florin Rd	Grant Line Rd	2	6	4E			11,100	19,300	37,800			18,500			

Table 17-8. Change in Cumulative (2045) Daily Traffic Volumes from No Project Alternative – Along Alternative Alignments

Roadway	Segment		Travel Lanes					Average Daily Traffic Volumes					Change in Average Daily Traffic Volume from 2045 No Project		
	From	To	2008	2045 No Project	2045			2008	2045 No Project	2045			Alternative 1	Alternative 2/3	Alternative 4
					Alternative 1	Alternative 2/3	Alternative 4			Alternative 1	Alternative 2/3	Alternative 4			
Douglas Rd	Grant Line Rd	Americanos	5	6			6	4,000	42,700			51,900			9,200
	Americanos	R Cordova Pkwy	2	6			6	4,000	39,700			47,100			7,400
	R Cordova Pkwy	Sunrise Blvd	2	6			6	4,000	60,400			63,500			3,100
	Sunrise Blvd	Eagles Nest Rd	2	6			6	6,800	60,100			71,400			11,300
Bradshaw Rd to Sunrise Blvd Connector (Alternative 4)	Douglas Rd	Eagles Nest Rd	NA	NA			4E	NA	34,700			55,400			20,700
	Eagles Nest Rd	Excelsior Rd	NA	NA			4E	NA	46,100			81,900			35,800
	Excelsior Rd	Jackson Rd	NA	NA			4E	NA	42,000			71,900			29,900
	Jackson Rd	Bradshaw Rd	NA	NA			4E	NA	39,400			56,500			17,100
Bradshaw Rd	Elder Creek Rd	Florin Rd	4	6			6	20,400	52,700			57,300			4,600
	Florin Rd	Gerber Rd	2	6			6	19,400	32,000			39,200			7,200
	Gerber Rd	Calvine Rd	2	6			6	15,100	25,100			33,500			8,400
	Calvine Rd	Sheldon Rd	2	6			6	9,300	26,100			30,400			4,300
	Sheldon Rd	Bond Rd	2	6			6	8,100	22,400			25,000			2,600
	Bond Rd	Elk Grove Blvd	2	6			6	5,100	14,300			15,900			1,600
	Elk Grove Blvd	Grant Line Rd	2	6			6	3,400	14,100			15,000			900
Kammerer Road	SR 99	W Stockton Blvd	2	6	6	6	6	4,000	62,600	73,300	74,000	72,300	10,700	11,400	9,700
	W Stockton Blvd	Lent Ranch Pkwy	2	6	6	6	6	2,500	21,600	34,000	34,800	33,600	12,400	13,200	12,000
	Lent Ranch Pkwy	Lotz Pkwy	2	6	6	6	6	2,500	23,200	41,500	42,100	40,900	18,300	18,900	17,700
	Lotz Pkwy	Big Horn Blvd	2	6	6	6	6	2,500	24,800	45,100	45,600	44,700	20,300	20,800	19,900
	Big Horn Blvd	Bruceville Rd	2	6	6	6	6	2,500	19,700	43,000	43,500	42,800	23,300	23,800	23,100
Kammerer Road Extension	Bruceville Rd	Willard Pkwy	NA	6	6	6	6	NA	21,900	42,300	42,800	42,100	20,400	20,900	20,200
	Willard Pkwy	Hood-Franklin	NA	6	4E	4E	4E	NA	27,500	44,200	44,700	44,000	16,700	17,200	16,500
	Hood-Franklin	I-5	2	6	4E	4E	4E	NA	22,700	22,500	20,800	24,200	-200	-1,900	1,500

Source: DKS Associates 2010.

Notes: E = expressway.

HOV = high occupancy vehicle (carpool) lanes.

Cells shaded in yellow are segments that are not a part of the Connector under the various alternative alignments.

Table 17-9. Transportation Performance Measure for Alternative Alignments

Criteria	Measure	2008	2045 No Project	Change from 2045 No Project		
				Alternative 1	Alternative 2/3	Alternative 4
Reduces total vehicle-hours of delay (VHD) during peak commute periods on roadways with TASA	VHD (PM Peak 3-hr Period)	6,340	17,614	-9.4 %	- 11.2 %	-7.3%
Reduces peak period vehicle-miles traveled (VMT) on congested (LOS F) roadways in the TASA	VMT at LOS F (PM Peak 3-hr Period)	575,800	1,576,700	-7.3%	-5.7%	-5.2%
Contributes to the reduction of daily vehicle miles traveled (VMT)	Regional VMT	55,83,400	93,795,500	+0.17%	+0.22%	+0.30%
Reduces travel times between key origins and destinations - El Dorado Hills to Rancho Cordova - South Elk Grove to El Dorado Hills - Sunridge to El Dorado Hills - So Elk Grove to Rancho Cordova	PM Peak hour travel time (in minutes) on quickest travel path		24.7 53.4 20.6 38.8	-6.7% -7.6% -16.0% -5.4%	-6.9% -11.8% -21.5% -4.5%	-7.5% -9.7% ^a -21.2% ^a -3.7% ^a
Criteria	Measure	2008	2045 No Project	2045		
				Alternative 1	Alternative 2/3	Alternative 4
Reduces travel along the Connector alignment (Measured at common points for alternative alignments: Grant Line Rd at Bradshaw Rd to Grant Line Rd at White Rock Rd)	PM peak period travel time (in minutes)		36	41	26	39
Provides access control while minimizing impacts to existing driveways and local streets. Such methods include limiting access via directional access control or restricting development outside approved local agency general plans or the MTP2035	<u>Alternative 1 Alignment</u>					
	Driveways	91	Unknown	Unknown		
	Major intersection	34	42	39		
	Minor intersections	25	42	33		
	Interchanges	0	0	10		
	<u>Alternative 2/3 Alignment</u>					
	Driveways	91	Unknown		Unknown	
	Major intersection	35	37		20	
	Minor intersections	24	37		24	
	Interchanges	0	0		13	
	<u>Alternative 4 Alignment</u>					
	Driveways	154	Unknown			Unknown
Major intersection	28	38			35	
Minor intersections	30	47			33	
Interchanges	0	0			15	
Source: DKS Associates 2010.						
^a Fastest travel time route under Alternative 4 follows Grant Line Road, not Bradshaw Road.						

a modest increase in bus service over existing levels. The Sunrise Boulevard Alignment Alternative would thus provide a benefit to transit services compared to existing conditions. This impact is considered *less than significant*.

- Except in two areas, the Sunrise Boulevard Alignment Alternative would reduce the number of existing access points along its alignment by 1) eliminating many (but not all) existing driveways as well as connections to smaller local roadways and 2) limiting the number of new access points along the project alignment to planned arterial roadways and some new major collector roadways. The two areas where access limitations may not occur are 1) the Sheldon area, with the Sheldon High Access Roadway Option and 2) in the proposed Rio del Oro development of Rancho Cordova, which is planned as a dense mixed-use development with numerous access points along the Sunrise Boulevard Alignment Alternative alignment. If access is not limited in those areas, access rates would be significantly higher than a limited access facility.

17.2.2.2 Bradshaw Road Alignment Alternative

This alternative is the same as the proposed project, except that it would utilize existing Bradshaw Road for a portion of the alignment and would avoid a lengthy section of Grant Line Road between its intersections with Bradshaw and Douglas Roads. At the Grant Line Road/Bradshaw Road intersection, this alternative would be a thoroughfare along Bradshaw Road north to SR 16 (Jackson Highway), with access limited and consolidated where feasible. A signalized intersection spacing of ½ mile may not be feasible in this area because of existing and approved development, and therefore minimal ¼ mile spacing may be allowed for this stretch. From SR 16 (Jackson Highway), this alternative would continue as a new expressway in a predominantly easterly direction, along the southern boundary of Mather Airport, to the Sunrise Boulevard/Douglas Road intersection. The alignment would then follow Douglas Road east as a thoroughfare to Grant Line Road where it then follows Grant Line Road as an expressway. East of Grant Line Road, the alignment is the same as the proposed project. The mitigation measures identified for the project would also apply to the Bradshaw Road Alignment Alternative, as pertinent.

Aesthetics

The Bradshaw Road Alignment Alternative would result in the same visual effects as the project from I-5 to Grant Line Road at Bradshaw Road; and from Douglas Boulevard/Grant Line Road to U.S. 50. With the exception of the segment that would connect Bradshaw Road with Douglas Road, the visual character of the land uses adjacent to Bradshaw Road and Douglas Road are similar to the western landscape unit, which is defined by flat agricultural fields, row crops, and scattered residential development. However, land uses along Bradshaw and Douglas Roads are more densely developed and suburban in character than the project corridor. Large residential subdivisions are present along both roadways with commercial and retail centers at major intersections. The portion of this alternative that would connect Bradshaw Road to Douglas Road would travel through heavy industrial land uses adjacent to the Mather Air Force Base. Overall the visual quality along this alternative alignment is lower than the project corridor.

This alternative would widen Bradshaw Road and Douglas Road and construct a new roadway to connect these two major facilities, which would increase the dominance of transportation facilities within the landscape. However, because of the more developed nature of the surrounding landscape

the increased dominance of the roadways would not result in a substantial change in overall visual quality.

Air Quality

For the analysis of the Bradshaw Road Alignment Alternative, construction emissions were estimated using the Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model. The alternative was assumed to be approximately 37 miles in length and require a construction area of 1,541 acres. Based on consultation with the JPA, it was assumed construction would begin in 2015 and last approximately 10 years. Construction activity would require water trucks and import and export 500 cubic yards of soil daily.

Operational emissions were based information provided by the traffic engineers. The data for the Bradshaw Road Alignment Alternative included volumes within the TASA. Emissions were evaluated using the CT-EMFAC emissions model and Sacramento County regional vehicle fleet profiles (see Chapter 4, "Air Quality," for additional discussion of the analysis methodologies).

Table 17-10 summarizes construction emissions for the Bradshaw Road Alignment Alternative within SMAQMD and EDCAPCD, while Table 17-11 summarizes mitigated construction emissions for the proposed project within SMAQMD and EDCAPCD, respectively. As indicated in Table 17-10, construction activities associated with the Bradshaw Road Alignment Alternative are anticipated to be less than the proposed project, but exceed the SMAQMD thresholds. Implementation of Mitigation Measures AQ-1 through AQ-4 will reduce emissions to less than significant (Table 17-11).

Table 17-10. Summary of Unmitigated Construction Emissions for the Bradshaw Road Alignment Alternative (pounds per day)

Alternative	ROG	NO _x	CO	PM10			PM2.5		
				Total	Exhaust	Dust	Total	Exhaust	Dust
Bradshaw Road Alignment Alternative (SMAQMD)	22.31	129.66	174.42	716.32	7.29	709.03	153.97	6.49	147.48
<i>SMAQMD Threshold</i>	-	85	-	-	-	-	-	-	-
Bradshaw Road Alignment Alternative (EDCAPCD)	1.94	11.26	15.15	62.20	0.63	61.57	13.37	0.56	12.81
<i>EDCAPCD Threshold</i>	82	82	-	-	-	-	-	-	-

Table 17-11. Summary of Mitigated Construction Emissions for the Bradshaw Road Alignment Alternative (pounds per day)

Alternative	ROG	NO _x	CO	PM10			PM2.5		
				Total	Exhaust	Dust	Total	Exhaust	Dust
Bradshaw Road Alignment Alternative (SMAQMD)	9.61	57.95	72.19	141.21	3.19	138.02	31.42	2.71	28.71
<i>SMAQMD Threshold</i>	-	85	-	-	-	-	-	-	-
Bradshaw Road Alignment Alternative (EDCAPCD)	0.83	5.03	6.27	12.26	0.28	11.99	2.73	0.24	2.49
<i>EDCAPCD Threshold</i>	82	82	-	-	-	-	-	-	-

Similar to the proposed project, operational emissions would increase because of increases in VMT. Impacts on air quality for this alternative would be similar to the impacts of the proposed project and significant and unavoidable.

Biological Resources

Construction of the Bradshaw Road Alignment Alternative has the potential to result in direct and indirect impacts to sensitive biological resources. The alternative has more acres of upland and wetland habitats within the assessment corridors relative to the proposed project, which is largely due to the greater overall acreage of land within this alternative's longer corridor (approximately 400 more acres). Table 17-12 below summarizes the biological resources within the Bradshaw Road Alignment Alternative.

The Bradshaw Road Alignment Alternative has the potential to affect critical habitat. Approximately 171.4 acres of critical habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp was identified along the 400-foot corridor for and 131.0 acres between the 400 and 800-foot corridors. No critical habitat was identified within the corridors of the proposed project.

The Bradshaw Road Alignment Alternative affects substantially less conservation area lands relative to the proposed project: 27.4 acres within the 400-foot corridor and 43.4 between the 400 and 800-foot corridors, which are roughly 100 and 70 acres less than that of the proposed project, respectively.

Table 17-12. Summary of Land Use and Biological Resources within the Bradshaw Road Alignment Alternative

Land Cover and Biological Communities	Acreage of Resource in the 400-foot Corridor (Areas of Potential Direct Impacts)	Acreage of Resource between the 400 and 800-foot Corridor (Area of Potential Indirect Impacts)
Uplands		
Annual grassland	1,758.1	1,770.4
Blue oak woodland	1.4	13.2
Riparian woodland	22.7	30.4
Uplands Subtotal	1,782.1	1,814.1
Wetlands		
Seasonal wetland	1.5	3.3
Swale	11.6	13.2
Vernal pool	20.8	28.2
Freshwater marsh	14.1	11.5
Stream	14.6	15.7
Seasonal pond	10.8	9.7
Open water	5.0	5.9
Wetlands and Waters Subtotal	78.4	87.5
Agricultural		
Irrigated pasture	176.4	149.9
Cropland	360.2	339.8
Vineyard	0	0
Orchard	22.7	22.2
Agricultural Subtotal	559.3	511.9
Developed		
Major roads	151.5	20.8
Landscaped	8.9	14.9
Low density development	469.4	345.6
High density development	358.2	429.5
Dredge tailings	2.8	24.1
Disturbed	220.0	210.8
Aqueduct	2.3	2.7
Developed Subtotal	1,213.2	1,048.4
Total Acreage	3,633.0	3,461.8

Cultural Resources

The records search identified areas previously surveyed for cultural resources, as well as previously recorded cultural resources sites. Approximately 43% of the Bradshaw Road Alignment Alternative has been previously surveyed for cultural resources. Previously recorded cultural resources within the alternative alignment and the 0.25 mile buffer study area include 61 historic sites and six prehistoric sites (Table 17-13). This alternative has 18 more recorded sites identified, despite a lower percentage of survey coverage than the proposed project. This alternative includes a

long segment along Bradshaw Road which is highly developed and therefore presents more potential sites. Implementation of Mitigation Measures CUL-1 through CUL-4 would reduce significant impacts associated with the Bradshaw Road Alignment Alternative. Therefore, these impacts would be less than significant under the alternative.

Table 17-13. Survey Coverage

Alternative	Survey Coverage	Previously Recorded	
		Historic Sites	Prehistoric Sites
Project Corridor	58%	43	6
Bradshaw Road Alignment	43%	61	6

Energy

Under the Bradshaw Road Alignment Alternative, traffic flow and levels of service would improve, similar to the proposed project. One-time expenditures of energy for project construction would also be similar to the proposed project. However, it is not anticipated that this energy consumption would result in wasteful or excessive use of direct energy.

Geology, Soils, and Paleontological Resources

Construction of the Bradshaw Road Alignment Alternative would result in short-term soil-disturbing activities including cut and fill, grading, trenching, boring, and vegetation removal. This alternative project area is relatively flat with little potential for slope failure and surficial erosion during or after construction. There is no substantial difference between this build alternative and the proposed project with respect to geological, soil or paleontological resources/conditions. Therefore, this alternative would result in the similar significant impacts on geology, soils, and paleontological resources as the proposed project.

Hazards and Hazardous Materials

Construction of the Bradshaw Road Alignment Alternative would result in similar impacts as those for the proposed project as discussed in Chapter 9, "Hazards and Hazardous Materials." According to the EDR database search, there are five potential hazardous waste/materials sites within the project study area: The Super Pallet Recycling, Aerojet Investments, LTD., Mather AFB, and the White Rock Road Disposal Sites (North and South) (Table 17-5).

The proposed project has one high risk site and two medium risk sites. This alternative has three high risk sites and two medium risk sites. The Super Pallet Recycling and the White Rock Road Disposal Sites (North and South) have been previously discussed. This build alternative would add two high risk sites, Mather AFB and Aerojet Investments LTD.

The Mather AFB site is a high risk site listed on the NPL and SWF/LF databases and comprises approximately 6,000 acres. The Mather AFB was established in 1918 as an air training command base for navigators to learn warfare operating systems. The base also contained and operated a landfill facility that was used to dispose of trichloroethylene (TCE) between 1958 and 1966. The Mather AFB was officially closed in 1993. According to the EDR report, there are 89 potentially contaminated sites identified by the AFB. Soil and groundwater are contaminated with TCE, perchloroethylene (PCE), volatile organic compounds (VOCs), and hydrocarbons associated with

fuels. Site investigation and remediation activities are ongoing. Multiple land use restrictions have been placed on the property.

The Aerojet Investments, LTD site is a high risk site listed on the RESPONSE database and comprises approximately 4,000 acres. It was used from 1956 to 1972 for the assembly and testing of rocket systems and components. The last static rocket test was conducted in 1969. Other areas in the site have been identified including landfills, propellant burn areas, and soil and groundwater contamination sites. Site investigation and remediation are ongoing. Multiple land use restrictions have been placed on the property. The presence of additional high risk sites within this alternative alignment would increase the potential for impact, compared to the proposed project. Therefore, this alternative would result in the significant impacts on hazardous materials.

Hydrology and Water Quality

The Bradshaw Road Alignment Alternative has the highest number of water crossings (32 crossings), compared to 21 crossings for the proposed project (without the causeway option), all of which must be bridged or culverted. The Bradshaw Road Alignment Alternative could affect up to 165.9 acres of wetlands and waters, similar to the potential impact on 158.4 acres of wetlands and waters with the proposed project. Because of the additional water crossings and slightly larger acreage of impacts on wetlands and waters, impacts related to hydrology and water quality would be greater than with the proposed project (not including the causeway option). Therefore, this alternative would result in the significant impacts on hydrology and water quality.

Land Use

Under the Bradshaw Road Alignment Alternative, land use impacts would be similar to those anticipated to occur under the proposed project. Similar disruptions to access and division of an established community could occur during construction. Agriculturally designated lands could be acquired under this alternative similar to the proposed project. Similar to the proposed project, this could result in a potentially significant land use impact. Additionally, similar to the proposed project, this alternative would be consistent with applicable land use plans and policies and is identified in the adopted SACOG MTP.

Noise

Construction noise and vibration impacts associated with implementation of the Bradshaw Road Alignment Alternative would be similar to those described for the Proposed Project. Because of the potential for noise to exceed applicable local noise standards and the potential for construction vibration to result in perceptible and potentially damaging vibration, construction noise impacts associated with this alternative would be significant.

A detailed analysis of changes in traffic volumes associated with implementation of the Bradshaw Road Alignment Alternative has not been conducted. However, conclusions related to potential traffic noise impacts can be drawn from information developed for the Proposed Project. Current average daily traffic volumes along Bradshaw Road are in the range of about 13,500 near the southern end of the roadway to about 21,000 near Elder Creek Road (Sacramento County 2010c). These volumes correspond to traffic noise in the range of about 62 to 64 L_{dn} at 100 feet. The traffic analysis prepared for the Proposed Project indicates that implementation of the Proposed Project would increase average daily traffic volumes along Grant Line Road by about 10,000. Assuming that volumes along Bradshaw Road would increase by a similar amount under the Bradshaw Road

Alignment Alternative, it is expected that traffic noise would increase by 2 to 3 dB along Bradshaw Road. This indicates that significant traffic noise impacts could occur in areas along Bradshaw Road where baseline noise levels could be in excess of 65 L_{dn}.

The new roadway segments associated with this alternative northeast of Bradshaw Road and northeast of Sunrise Boulevard will likely result in traffic noise that exceeds 60 L_{dn} at 100 feet. However, there are no developed uses within about 500 feet of these new roads so it is not expected that existing residential uses would be exposed to traffic noise exceeded 60 L_{dn} from traffic on new roadway segments. There is however potential for traffic on the new roadway segment northeast of Bradshaw Road to result in a traffic noise increase greater than 5 dB at residences on the north side of the single family housing district of the Mather Field Special Planning. This would result in a significant traffic noise impact.

Mitigation Measures NOI-1 and NOI-2 would reduce significant construction and traffic noise impacts under the Bradshaw Road Alignment Alternative. However, for the same reasons identified for the Proposed Project, these impacts would be significant and unavoidable under the Bradshaw Road Alignment Alternative.

Population and Housing

Under the Bradshaw Road Alignment Alternative, there would be an additional segment of new road construction between Bradshaw Road and Douglas Road. A residential subdivision is located south of Mather Air Force Base, and south of the new road. As under the proposed project, there would be similar impacts related to property acquisition and relocation.

Public Services and Utilities

Under the Bradshaw Road Alignment Alternative, there would be an additional segment of new road construction between Bradshaw Road and Douglas Road. As under the proposed project, the impact on water facilities resulting from implementation of the Bradshaw Road Alignment Alternative would be less than significant. As under the proposed project, implementation of the Bradshaw Road Alignment Alternative would likely require or result in the construction of new storm water drainage facilities or expansion of existing facilities. Project-level review would determine whether or not expansion of existing or construction of new storm water drainage facilities would be required. Since this alternative involves additional construction activity when compared with the proposed project, the impacts on regional landfills may be greater under the Bradshaw Road Alignment Alternative.

Recreation

The Bradshaw Road Alignment Alternative would help to accommodate planned growth in the region. However, it would not directly result in an increase in population that would justify the need for additional recreational facilities. As shown in Table 17-14 below, this alternative is expected to result in the conversion of a total of 278.97 acres of park land in Sacramento County and is expected to result in the conversion of approximately 37.43 acres of park land in El Dorado County. In addition, as shown in Table 17-15 below, this alternative is estimated to result in the conversion of approximately 70.73 acres of conservation land. When compared with the proposed project, this alternative would result in the conversion of an additional 240.37 acres of park land (Table 15-1 in Chapter 15, "Recreation") and would result in approximately 164.89 acres less take of conservation land (Table 15-2 in Chapter 15, "Recreation") than under the proposed project. Although the

primary purpose of conservation lands is preservation and not recreation, they are included in this analysis as they do provide some recreational benefits, such as wildlife viewing and nature walks. With implementation of Mitigation Measure REC-1 in Chapter 15, "Recreation," and implementation of Mitigation Measures 2b (Compensate for Impacts on Special-Status Plant Species), 4b (Compensate for the Loss of Riparian Community), 5b (Compensate for the Loss of Wetlands and Waters), and 6b (Compensate for Impacts to Special-Status Wildlife Species) from Chapter 5, "Biological Resources," the Bradshaw Road Alignment Alternative would result in a less-than-significant impact.

Table 17-14. Park Land Potentially Affected by the Bradshaw Road Alternative

Alternative	Park Name	Affected Acreage	Total Affected Acreage
Sacramento County			
Bradshaw Road Alignment	Mather Regional Park	240.37	
	Prairie City SVRA	38.60	278.97
El Dorado County			
Bradshaw Road Alignment	Creekside Greens Park	3.69	
	Unidentified Regional Park	33.74	37.43

Source: See Figure 15-1 in Chapter 15, *Recreation*, for data sources.
Note: - = not applicable/no information.

Table 17-15. Conservation Lands Potentially Affected by the Bradshaw Road Alternative

Alternative	Conservation Land Name	Affected Acreage	Total Affected Acreage
Bradshaw Road Alignment	Habitat Management Easement	5.67	
	Policy/Statute Lands	53.56	
	Teichert Easement	11.50	70.73

Source: See Figure 15-1 in Chapter 15, *Recreation*, for data sources.
Note: - = not applicable/no information.

Traffic and Transportation

The Bradshaw Road Alignment Alternative would involve the same roadway access and improvements as the proposed project on their common alignment segments, which are southwest of the Grant Line Road/Bradshaw Road intersection and northeast of the Grant Line Road/Douglas Road intersection. Between those intersections, this alternative would follow Bradshaw Road, a new expressway connecting Bradshaw Road to Sunrise Boulevard and then Douglas Road to reach Grant Line Road.

Bradshaw Road is planned to be a six-lane thoroughfare. Along Bradshaw Road, between Grant Line Road and Jackson Road, there are a large number of existing access points including about 154 existing driveways and 58 existing intersections with major and minor roadways. It would not be feasible to significantly limit access to Bradshaw Road (Table 17-9). Thus the Bradshaw Road Alignment Alternative would have about 154 existing driveways and 58 existing intersections with major and minor roadways, and the same speed limit and capacity as existing conditions along Bradshaw Road.

Between Bradshaw Road (near Elder Creek Road) and Douglas Road (near Sunrise Boulevard) the Bradshaw Road Alignment Alternative includes a new expressway with grade-separated interchanges at major cross-streets (including Jackson Road, Kiefer Boulevard, and Zinfandel Drive/Eagles Nest Road). Douglas Road would be a six lane arterial with about ten signalized intersections between Sunrise Boulevard and Grant Line Road. It would not be feasible to significantly limit access to Douglas Road, thus this level of access was assumed for this segment with and without the Bradshaw Road Alignment Alternative.

Tables 17-8 and 17-9 indicate the following about the general performance of the Bradshaw Road Alignment Alternative:

- The Bradshaw Road Alignment Alternative would cause increases in traffic volumes on 1) all of the segments along its alignment and 2) most major roadways that provide access to this alternative near where they intersect it.
- The Bradshaw Road Alignment Alternative would decrease total vehicle-hours of delay in the traffic analysis study area since it would decrease traffic on a number of arterial/collector roadway segments in the traffic analysis study area, as well as decrease traffic volumes on portions of US 50, SR 99 and I-5. However, this alternative would not decrease total vehicle-hours of delay as much as the proposed project alignment.
- The Bradshaw Road Alignment Alternative would have the highest number of driveways and require the most grade-separated interchanges of all the alignment alternatives
- The travel time along the Bradshaw Road Alignment Alternative (measured at common points for the alternative alignments) between Grant Line Road at Bradshaw Road and Grant Line Road at White Rock Road would take 3 minutes longer than the time to use Grant Line Road for this entire trip, even with no further improvements to Grant Line Road than the existing conditions for that segment. Thus through traffic would not use the Bradshaw Road Alignment Alternative as a preferred route.

17.3 Environmentally Superior Alternative

CEQA requires that an environmentally superior alternative be identified among the alternatives that are analyzed in an EIR. In general, the environmentally superior alternative is defined as that alternative with the least adverse impacts on a project area and its surrounding environment. Because roadway improvements would be less extensive than what is proposed under the project or alternatives, the No-Project Alternative is the environmentally superior alternative. However, when a No-Project Alternative is the environmentally superior alternative, CEQA requires that an EIR must also identify an environmentally superior alternative among the other alternatives (State CEQA Guidelines Section 15126.6[e][2]).

The proposed project, the Sunrise Boulevard Alignment Alternative, and the Bradshaw Road Alignment Alternative all assume the same land use projections and population estimates and would all result in similar types of transportation improvements with similar impacts, although the locations and levels of impact could vary. Each of the alternatives could reduce one or more of the specific significant impacts of the project. Of the alternatives, the Sunrise Boulevard Alignment Alternative is the environmentally superior alternative. However, none of the alternatives would avoid all the significant impacts of the proposed project, and each would have greater impacts in some areas, as shown in Table 17-16.

Table 17-16. Summary of Impacts of the Alternatives Compared to the Proposed Project

Resource Topic	No-Project Alternative	Sunrise Boulevard Alignment Alternative	Bradshaw Road Alignment Alternative
Aesthetics	<	=	>
Air Quality	<	=	=
Biological Resources	<	<	>
Cultural Resources	<	=	>
Energy	=	=	=
Geology, Soils, and Paleontological Resources	<	=	=
Hazards and Hazardous Materials	<	=	>
Hydrology and Water Quality	<	>	>
Land Use	<	=	=
Noise	=	=	=
Public Services and Utilities	<	>	>
Population and Housing	=	=	=
Recreation	=	>	=
Traffic and Transportation	<	=	=

Notes: < – impacts are less.
> – impacts are greater.
= – impacts are approximately the same.

17.4 Other CEQA Conclusions

17.4.1 Significant and Irreversible Environmental Changes

CEQA defines the significant and irreversible changes as the use of nonrenewable resources during the initial and continued phases of a project that require a large commitment of such resources that may make unlikely the future removal or nonuse of the resources. As discussed in Chapter 2, the project would result in acquisition of right of way for roadway use. Most converted land would be in the form of long, narrow bands adjacent to roadways (lane improvements or modifications), not large, contiguous parcels. The magnitude of this impact cannot be fully known until a project-level design is developed. However, the impact would represent a significant irreversible change to the environment because open space would be permanently converted.

Additionally, construction of the project will require irretrievable quantities of a variety of limited natural resources including aggregates, petrochemicals, metals, and asphalt products.