

# Chapter 18—Alternatives Analysis

## 18.1 Introduction

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The purpose of this chapter is to identify and describe alternatives to the 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (proposed MTP/SCS). The primary intent of the alternatives analysis in an EIR, as stated in Section 15126.6(a) of the California Environmental Quality Act (CEQA) Guidelines, is to “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.” Further, the State CEQA Guidelines provide that “the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly” (CEQA Guidelines Section 15126.6(b)).

Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: failure to meet most of the basic project objectives; infeasibility; and, inability to avoid significant environmental impacts (CEQA Guidelines Section 15126.6(a)(c)). “Feasible” is defined as “capable of being accomplished within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors” (CEQA Guidelines Section 15364). The feasibility of an alternative may be determined based on a variety of factors, including but not limited to economic viability, availability of infrastructure, and other regulatory limitations (CEQA Guidelines Section 15126.6(f)(1)).

In response to the Notice of Preparation (NOP), SACOG received comments related to project alternatives from the Sierra Club (Placer County) and ECOS. The commenters expressed that the Draft EIR should consider the following as project alternatives:

- increased density,
- all infill,
- decreased peripheral growth, and
- guided fixed rail transit system.

The CEQA Guidelines note that comments received during the NOP scoping process can be helpful in “identifying the range of actions, alternatives, mitigation measures, and significant effects to be analyzed in depth in an EIR and in eliminating from detailed study issues found not to be important.” (CEQA Guidelines, Section 15083.) Neither the CEQA Guidelines nor Statutes require a lead agency to respond directly to comments received in response to the NOP, but they do require they be considered. Consistent with these requirements, this comment has been carefully reviewed and considered by SACOG and is reflected in the analysis of impacts and alternatives in this chapter. Appendix PD-1 includes all NOP comments received.

## **18.2 Project Objectives**

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SACOG’s mission is to “provide leadership and a dynamic, collaborative public forum for achieving an efficient regional transportation system, innovative and integrated regional planning, and a high quality of life within the greater Sacramento region.” SACOG’s purpose in proposing the MTP/SCS is to provide a strategy to approach the many challenges faced by the Sacramento region as the population grows and the region expands over the next few decades. The proposed MTP/SCS seeks to guide the Sacramento region toward a more sustainable future through better integration of smart land use decisions with a well-managed transportation system, as envisioned by the Blueprint. The intent of the proposed MTP/SCS is to support economic prosperity and accommodate the expected population growth and accompanying demand for transportation in the region consistent with federal and state requirements through a multi-modal approach based on the following objectives.

### ***BUILD VIBRANT PLACES FOR TODAY’S AND TOMORROW’S RESIDENTS:***

1. Support local land use authority with data, tools, incentives, and programs that reinforce the region’s voluntary implementation of the Blueprint.
2. Support housing choice and diversity for all segments of the population that respond to changing economics and demographics in the region.
3. Support improved jobs-housing balance in subareas of the region and complete mixed-use communities.
4. Minimize direct and indirect land use and transportation impacts on agriculture and natural resources.
5. Meet regional air quality plans and goals.
6. Meet federal and state requirements for regional transportation plans, including Senate Bill (SB) 375 and Assembly Bill (AB) 32.
7. Achieve the greenhouse gas reduction (GHG) targets assigned to SACOG by the California Air Resources Board (CARB).
8. Activate the CEQA streamlining benefits of SB 375.

### ***FOSTER THE NEXT GENERATION OF MOBILITY SOLUTIONS:***

1. Support transportation choice and diversity for all segments of the population through a balanced transportation system where investments in various modes complement each other and support the diversity of travel demand in various community types.
2. Reduce vehicle miles traveled (VMT).
3. Broaden mobility options, as measured by an increase in the transit, bicycle, and pedestrian travel mode share.
4. Connect workers to jobs across the region.

**MODERNIZE THE WAY WE PAY FOR TRANSPORTATION INFRASTRUCTURE:**

1. Identify and work toward a sustainable replacement of fuel taxes for funding transportation investments.
2. Identify and work toward new funding opportunities through roadway pricing that includes facility-based tolling (e.g. managed/express lanes) and/or pay-as-you-go (PAYGO) fees based on mileage driven.

**BUILD AND MAINTAIN A SAFE, RELIABLE, AND MULTIMODAL TRANSPORTATION SYSTEM:**

1. Support transportation investments that provide high performance benefits for all community types in the region.
2. Improve the condition of the existing transportation system through the maintenance of transportation corridors that can support various modes of travel.
3. Maximize cost-effective investments that both preserve the current system and support the existing and future development served by that system.
4. Deliver cost-effective results from investments in each transportation mode and is feasible to construct and maintain.
3. Satisfy financial constraint requirements, such that all revenues reasonable to assume are used and matched to eligible projects.
4. Deliver more productive and cost-effective public transit services.
5. Support the economic vitality of the region through efficient goods movement that includes minimizing disruptions to the movement of agricultural products on rural roadways.
6. Utilize performance measures to prioritize transportation investments
7. Support safety and emergency preparedness, as demonstrated by land use and transportation changes that include capital investments in disaster-prone areas, transit services, and improved system maintenance.

## **18.3 Analysis of Alternatives**

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The following alternatives were identified for examination and analysis in this EIR:

- No Project Alternative
- Alternative 1: Outward Expansion
- Alternative 2: Increased Infill
- Alternative 3: All Infill Development

### **18.3.1 Alternatives Considered but Not Carried Forward for Detailed Analysis**

#### *ALTERNATIVE 3: ALL INFILL DEVELOPMENT OPTION*

In this alternative, the projected land use pattern constrains the twenty-year growth to Center and Corridor and Established Communities. No growth in this scenario is assumed in Developing Communities or Rural Residential Communities. This scenario maintains the same growth forecast for population, homes, and jobs and similar fiscal constraints as the preferred scenario. Additionally, where developer funding contributions and fees are tied to specific development projects in Developing Communities or Rural Residential Communities, these funds are not available to support projects in other parts of the region. Planned transportation improvements are concentrated on the existing system, with relatively few new roads to serve new growth areas. New roads are limited to providing connections from the existing system to development in Established Communities.

#### **Reasons for Rejection of Alternative 3**

By limiting growth to Center and Corridor and Established Communities Alternative 3 would likely meet the GHG reduction objectives of the MTP/SCS. However, this alternative does not represent a reasonable land use forecast based on the latest available land use conditions and trends. MPOs in air quality non-attainment areas must use the latest available estimates and assumptions for population, land use, travel, employment, congestion, and economic activity in the development of the MTP (23 C.F.R. Section 450.322(e)). Not doing so would jeopardize the plan's conformity analysis by basing future emissions estimates on a land use pattern that is infeasible to implement. SACOG cannot supersede the exercise of land use authority by cities and counties within the region.

SACOG analyzed policy, regulatory, and market factors including status of local, state, and federal entitlement applications, as applicable; housing permit activity in the vicinity of the project; major infrastructure requirements; and developer readiness to pursue entitlement and construction; to inform the land use projection. The proposed MTP/SCS and Alternatives 1 and 2 reflect growth patterns that are consistent with this analysis. An all infill alternative would not acknowledge the current condition of Developing Communities that are already approved and constructing development. It also would not acknowledge that the majority of Rural Residential Communities already allow a certain amount of development by right, so excluding growth from these communities would not represent a realistic or feasible alternative.

SACOG considered additional alternatives that included higher density growth, decreased peripheral growth, and additional fixed-guideway rail, as suggested in comments received on the NOP. SACOG determined that these potential alternatives are sufficiently covered in Alternative 2, which was carried forward for full analysis herein. Alternative 2 has higher density from increased infill growth in Center and Corridor and Established Communities compared to Alternatives 1 and the proposed MTP/SCS. Alternative 2 also decreases the amount of development in the most outlying areas of the region by projecting less growth in Developing Communities. In terms of additional fixed rail, Alternative 2 and the No Project Alternative include additional light rail service to the Sacramento International Airport that is not included in Alternative 1 or the proposed MTP/SCS. However, adding additional fixed rail beyond what is included in Alternative 2 is not feasible given the financial constraint requirements for the MTP/SCS.

### 18.3.2 Comparative Analysis of Alternatives

Three alternatives were identified for comparative analysis: The No Project Alternative and two other potentially feasible MTP/SCS alternatives including one that increases the amount of greenfield development (Alternative 1) and one that places additional emphasis on infill development and transit (Alternative 2).

The No Project alternative, required to be analyzed under CEQA, assumes the projected land use pattern and planned transportation improvements would be consistent with those set forth in the 2016 MTP/SCS. The two other alternatives were designed to allow for analysis of truly distinct alternatives within the bounds of the projected land use pattern and planned transportation improvements that could realistically be expected to occur over the MTP/SCS planning period. In essence, all three alternatives reflect different growth patterns and different investment decisions for the transportation system. All three alternatives assume the same regional employment, population, and housing growth projections and roughly the same overall transportation budget. Land use and transportation assumptions vary in the following ways:

#### Land Use Variables:

- The amount of compact development, which is measured in terms of housing product mix (the mix of high- and low-density housing units) and amount of development occurring in existing developed versus undeveloped areas. Compact development has been shown to be more effectively served by transit, to support potentially higher rates of walking and biking, and to generate less vehicle travel.
- The amount of development in high-quality transit corridors, where residents are more likely to use available transit.
- The amount of complementary, mixed-use development, which supports shorter vehicle trip making and higher rates of non-motorized travel.

#### Transportation Variables:

- The location, intensity, and type of transit service, based on the extent of transit-supportive land uses in corridors. Higher density, mixed-use corridors provide greater opportunities for higher capacity transit, such as light rail and streetcars.
- The amount, location, and type of investment in complete streets projects, which serve multiple users in locations where land use generates a mix of travel modes.
- The extent and location of roadway and other projects to alleviate major bottlenecks and congestion points, and the extent to which investments were made to alleviate existing bottlenecks, compared to reserving investments for future bottlenecks.
- The level of investment in Blueprint supportive programs and transportation systems management (TSM) strategies, including technology and travel demand management (TDM) programs, that allow for greater optimization of existing transportation infrastructure. More compact and mixed-use development patterns can allow some shifts in investment priorities away from road extensions and expansions to improving the function of existing roads for multi-modal travel.

- The deployment of system pricing strategies, such as tolled express lanes or mileage-based fees, as a tool for managing congestion and travel on the region’s roadways.

The land use components of the three alternatives reflect a progression from most dispersed development pattern (Alternative 1) to least dispersed development pattern (Alternative 2) with the proposed MTP/SCS and the No Project alternative falling in between. Similarly, the corresponding transportation components follow a progression of most auto-oriented transportation system (Alternative 1) to most multi-modal transportation system (Alternative 2), with the proposed MTP/SCS and the No Project alternative falling in between. The alternatives identified for comparative analysis in this EIR are described according to this progression in Table 18-1. As stated above, all alternatives analyzed accommodate the same amount of regional growth: 620,500 new people, 270,000 new jobs, and 260,000 new housing units.

**Table 18-1  
Description of MTP/SCS Land Use and Transportation Scenarios**

Scenario Name	Land Use	Transportation
<b>Alternative 1: Outward Expansion</b>	<ul style="list-style-type: none"> <li>▪ Developing and Established Communities receive highest share of region’s growth</li> <li>▪ Highest growth in Rural Residential Communities of all three alternatives</li> <li>▪ Smallest share of new compact and attached housing<sup>1</sup> (61%)</li> <li>▪ Least amount of new development near high-frequency transit</li> <li>▪ Smallest share of growth in High Frequency Transit Areas (HFTAs)<sup>2</sup></li> <li>▪ Most dispersed development pattern / highest amount of developed acres</li> <li>▪ Highest amount of agricultural and natural resource lands urbanized</li> </ul>	<ul style="list-style-type: none"> <li>▪ Greatest expansion in new and widened roads, with focus on both existing and future bottlenecks</li> <li>▪ Least amount of bicycle and pedestrian street and trail projects, including complete streets</li> <li>▪ Least expansion in bus and rail transit service</li> <li>▪ Smallest increase in transit ridership</li> <li>▪ Smallest increase in bicycle and pedestrian trips</li> <li>▪ Highest amount of system pricing (higher prices for tolls and higher fees per mile)</li> </ul>
<b>No Project</b>	<ul style="list-style-type: none"> <li>▪ Less growth in Developing and Established Communities than Alternative 1, but more than the proposed MTP/SCS and Alternative 2</li> <li>▪ Second highest amount of growth in Rural Residential Communities</li> <li>▪ More homes and jobs near high-frequency transit service (compared to Alternative 1) allow for greater realization of complete streets opportunities</li> <li>▪ Higher share of new compact and attached housing<sup>1</sup> (71%, same as 2016 MTP/SCS)</li> <li>▪ More growth in HFTAs than Alternative 1, but less than the proposed MTP/SCS and Alternative 2<sup>2</sup></li> <li>▪ Less dispersed development pattern than Alternative 1</li> </ul>	<ul style="list-style-type: none"> <li>▪ Second highest amount of expansion in new and widened roads.</li> <li>▪ More transit service than Alternative 1</li> <li>▪ More bicycle and pedestrian street and trail projects than Alternative 1</li> <li>▪ Performs in-between Alternatives 1 and 3 on most key metrics, including: non-auto mode share; share of bike and walk trips; decreases in VMT and GHG emissions per capita</li> <li>▪ Smallest decrease in VMT per capita and greenhouse gas emissions</li> <li>▪ No system pricing</li> </ul>

Scenario Name	Land Use	Transportation
<b>Alternative 2: Infill and Transit Focused</b>	<ul style="list-style-type: none"> <li>▪ Center &amp; Corridor Communities receive highest share of growth</li> <li>▪ Least amount of growth in Rural Residential Communities</li> <li>▪ Highest share of new compact and attached housing<sup>1</sup> (76%)</li> <li>▪ Highest share of growth in HFTAs<sup>2</sup></li> <li>▪ Least dispersed development pattern/ fewest developed acres</li> <li>▪ Highest number of homes and jobs near high-quality transit</li> <li>▪ Lowest amount of agricultural and natural resource lands urbanized</li> </ul>	<ul style="list-style-type: none"> <li>▪ Largest increase in bus and rail transit services</li> <li>▪ Smallest increase in new and expanded roads with the greatest reliance on operational enhancements for roadways (e.g., Intelligent Transportation Systems)</li> <li>▪ Greatest increase in bicycle and pedestrian projects, including complete streets</li> <li>▪ Largest increase in transit and bicycle and pedestrian trips</li> <li>▪ Lowest amount of system pricing (lower prices for tolls and lower fees per mile)</li> </ul>

Notes:

<sup>1</sup> Compact housing is defined as small-lot single-family (8 to 25 dwelling units per acre) and attached residential (attached single-family or multi-family homes, e.g., duplexes, triplexes, apartments, condominiums, townhomes, rowhouses, halfplexes, built at densities from 8 to over 50 dwelling units per acre).

<sup>2</sup> High Frequency Transit Areas (HFTAs) are defined as areas within one-half mile of a rail station stop or a high-quality transit corridor. A high-quality transit corridor has fixed-route bus service with service intervals of 15 minutes or less during peak commute hours.

A more detailed description of each of these alternatives is provided below, followed by a comparative analysis of how well the alternative would achieve the project objectives and the relative level of environmental impact associated with each alternative as compared to implementation of the proposed MTP/SCS. For each resource area evaluated in this EIR the text summarizes whether the impacts of the alternative would generally be more or less severe than those of the proposed MTP/SCS. Table 18-2 provides an “at a glance” comparison of existing (2016) conditions, the three alternatives, and the proposed MTP/SCS.

**Table 18-2  
Comparison of Baseline, Proposed MTP/SCS, and Alternatives**

	Performance Metric	2016 Baseline	Proposed MTP/SCS	No Project	Alternative 1 Outward Expansion	Alternative 2 Infill & Transit Focus
<b>Land Use Pattern</b>	Share of homes in Center & Corridor Communities <i>(percent of total homes in region)</i>	113,880 12%	86,661 33%	78,038 30%	52,026 20%	93,646 36%
	Share of homes in Established Communities <i>(percent of total homes in region)</i>	712,012 77%	81,365 31%	72,836 28%	75,437 29%	70,235 27%
	Share of homes in Developing Communities <i>(percent of total homes in region)</i>	20,793 2%	89,313 34%	104,051 40%	122,260 47%	93,646 36%
	Share of homes in Rural Residential Communities <i>(percent of total homes in region)</i>	74,438 8%	2,789 1%	5,203 2%	10,405 4%	2,601 1%
	<b>Total Homes</b>	<b>921,123</b>	<b>260,128</b>	<b>260,128</b>	<b>260,128</b>	<b>260,128</b>
	Total acres developed	686,847	46,403	47,563	75,622	37,350

	Performance Metric	2016 Baseline	Proposed MTP/SCS	No Project	Alternative 1 Outward Expansion	Alternative 2 Infill & Transit Focus	
Housing Mix	Share of homes in rural residential or large-lot single-family homes <i>(percent of total homes in region)</i>	553,334 60%	68,505 26%	75,437 29%	101,450 39%	62,431 24%	
	Share of homes in small-lot single-family or attached <i>(percent of total homes in region)</i>	367,807 40%	191,623 74%	184,691 71%	158,678 61%	197,697 76%	
	Jobs within 30-minute drive of homes	377,257	+109,539	+104,175	+94,749	+109,600	
	Jobs within 30-minute transit of homes	4,829	+17,534	+16,128	+9,287	+19,356	
Access to Employment Activities	Average vehicle miles traveled per worker	18.0	16.1	16.9	16.2	16.1	
	Road & Highway System	New or Expanded Major Road Lane Miles (Arterial and above)	6,465	1,258	1,340	1,730	1,230
		Transit System	Transit Weekday Service Hours	4,000	4,200	4,400	2,200
Transit System	Total number of homes near high-frequency transit <i>(share of all homes near high-frequency transit)</i>	385,100 n/a	105,210 40%	96,247 37%	70,235 27%	101,450 39%	
	Total number of jobs near high-frequency transit <i>(share of all jobs near high-frequency transit)</i>	553,756 n/a	104,567 39%	102,624 38%	102,624 38%	116,127 43%	
	Travel Choice and Traffic	Household Generated VMT Per Capita	17.9	16.5	17.2	16.5	16.5
		Share of commute trips by transit, bike or walk	10.0%	13.6%	13.4%	12.4%	13.8%
		Mode share for transit, walking and bicycling <i>(percent of all trips)</i>	11.5%	14.3%	13.7%	13.0%	14.5%
System Pricing	Taxes and fees per mile of driving (in current year dollars)	~\$0.02	~\$0.03	~\$0.01	~\$0.05	~\$0.02	
GHG Emissions	Weekday passenger vehicle CO <sub>2</sub> emissions <i>(percent change per capita from 2005)</i>	n/a	19%	13%	19%	19%	

## NO PROJECT ALTERNATIVE

### Description of No Project Alternative

The No Project Alternative assumes growth patterns and transportation investment priorities consistent with the 2016 MTP/SCS. The growth in population, jobs, and homes was higher in the 2016 plan, but is adjusted down in this alternative to match the growth forecast for the proposed plan. Projected revenues for transportation investments and funding allocations are consistent with the 2016 MTP/SCS. This alternative assumes the same housing and employment growth as the proposed MTP/SCS, but distributes the growth differently as described below. Overall, growth under this alternative would be less dispersed than Alternative 1, but slightly more dispersed than



the proposed MTP/SCS. Table 18-1 summarizes key characteristics of all the alternatives, and Table 18-2 compares performance characteristics of each alternative.

#### *Projected Land Use Pattern*

The No Project Alternative generally lands between the Proposed Plan and Alternatives 1 and 2 in terms of the projected land use pattern. This alternative has the same percentage of large-lot versus compact (small-lot or attached) housing as the proposed MTP/SCS, but spreads growth out to a higher number of developing communities.

#### *Planned Transportation Improvements*

The percentage of the budget dedicated to operations and maintenance, transit, new road capacity, bicycle and pedestrian improvements, and programs is the same as the current 2016 plan. This alternative would have more transit service, including more new Bus Rapid Transit, streetcar, and light rail service than Alternative 1. Alternative 2 would have a 109 percent increase in transit service from 2016. It also would have more bicycle and pedestrian improvements, and fewer new roads and road expansions, than Alternative 1. These differences in the transportation system would support a more compact development pattern. Alternative 2 has more new roads and road expansions, and less transit service than in Alternative 3 and the proposed MTP/SCS, as those alternatives have a more compact development pattern than Alternative 2.

#### *Pricing*

The No Project Alternative does not include pricing strategies.

### **No Project Alternative Attainment of Project Objectives**

This alternative attains most project objectives, but less effectively and successfully than the proposed MTP/SCS.

#### *Build Vibrant Places for Today's and Tomorrow's Residents:*

While the projected land use pattern of the No Project Alternative builds on the Blueprint, it would provide more greenfield development and fewer transportation options than the proposed MTP/SCS and Alternative 2. This alternative has 71 percent of new housing in small-lot single-family or attached homes and 37 percent of all homes near high-frequency transit, fewer than both Alternative 2 and the proposed MTP/SCS. The No Project Alternative would consume more developed acres (47,563) than the proposed MTP/SCS and Alternative 2 due to a more dispersed development pattern which forecasts a higher share of housing growth in Developing Communities. This alternative offers some support to improved jobs-housing balance, but is out-performed by other alternatives, with a lower share of homes near high frequency transit and fewer jobs within a 30-minute drive or transit trip than either the Proposed MTP/SCS or Alternative 2.

The No Project Alternative does not achieve the GHG reduction targets assigned to SACOG by CARB and; therefore, would not activate the CEQA streamlining benefits of SB 375. Although this alternative was constructed to be consistent with the land use pattern and transportation investment of the 2016 MTP/SCS (which does achieve the GHG reduction targets), the No Project Alternative does not meet the targets primarily due to projected lower growth in fuel price and auto operating cost than were assumed in the 2016 MTP/SCS (U.S. Energy Information Administration 2013). While the other alternatives examined implement pricing strategies to counterbalance the expected

impacts on driving behavior and VMT associated with these projected decreases in auto operating costs, the No Project Alternative does not include any pricing strategies that would carry such effect.

#### *Foster the Next Generation of Mobility Solutions*

The No Project Alternative has more homes and jobs near high-frequency transit service than Alternative 1, allowing for greater realization of complete streets opportunities, though a smaller share than the proposed MTP/SCS and Alternative 2. While it does demonstrate some reduction from the 2016 baseline VMT, the No Project Alternative has the smallest decrease in VMT per capita and GHG emissions of all alternatives examined, underperforming in relation to the GHG emissions and air quality goals that are achieved in the other alternatives. This alternative demonstrates a broadening of mobility options from baseline conditions, with an increase in mode share for walking, biking, and transit (13.7 percent), though the increase is smaller than that demonstrated by the proposed MTP/SCS and Alternative 2. This alternative does connect workers to jobs across the region but includes fewer jobs within a 30-minute drive or transit ride than the proposed MTP/SCS and Alternative 2.

#### *Modernize the Way We Pay for Transportation*

The No Project Alternative is the only alternative that does not include pricing strategies or per-mileage fees for driving. As a result, this alternative does not meet the objective to modernize the way we pay for transportation infrastructure through new revenue-generation strategies or development of sustainable alternatives for fuel taxes as a revenue source, funding investments or sustainable alternatives to replace fuel taxes as a revenue source.

#### *Build and Maintain a Safe, Reliable, and Multimodal Transportation System*

Because the No Project Alternative does not include pricing strategies or per-mileage fees for driving, this alternative raises the least amount of revenue to build and maintain the transportation system compared with other alternatives examined. The No Project Alternative transit assumptions are similar to the proposed MTP/SCS, but do not consider new funding constraints that would affect the alternative's ability to pay for major expansion projects. The No Project Alternative has a more dispersed overall growth pattern and includes more growth in Developing Communities than Alternative 2 or the proposed MTP/SCS. More growth in these communities and new or expanded roads to serve the relatively dispersed growth may interfere with bicycle and pedestrian connectivity objectives and may lead to conflicts along rural roadways for safe and efficient agricultural operations.

### **No Project Environmental Impacts**

The following discussion describes the relative level of environmental impact associated with the No Project Alternative as compared to the level of environmental impact under implementation of the proposed MTP/SCS. The performance measures for this alternative and the proposed MTP/SCS are based on Table 18-2 unless stated otherwise.

#### *Aesthetics*

Impacts to scenic vistas from the projected land use pattern under this alternative would likely be less than under the proposed MTP/SCS, because this alternative assumes a somewhat lower density and intensity of development. Structures are likely to be shorter and more dispersed, with less likelihood of blocking or impeding scenic vistas. Impacts to scenic vistas would be greater under this

alternative due to the addition of lane miles to the roads and highway system. With a projected land use pattern that is more dispersed, and additional capacity-enhancing planned transportation improvements compared to the proposed MTP/SCS, the No Project Alternative would have greater impacts to scenic resources along official or eligible state scenic highways.

The potential for substantial degradation of visual character or quality of public views of sites and their surroundings in non-urbanized areas would be greater under this alternative as compared to the proposed MTP/SCS because under this alternative more of the projected land use pattern would be located within non-urbanized areas. Impacts to visual character and the quality of public views of sites and their surroundings would also be greater under the No Project Alternative because it consists of more capacity-enhancing projects in non-urbanized areas relative to the proposed MTP/SCS. With a greater amount of the projected land use pattern and additional capacity-enhancing planned transportation improvements in non-urbanized areas, the No Project Alternative would have greater impacts to existing visual character and the quality of public views of sites and their surroundings in non-urbanized areas. Impacts to scenic quality in urbanized areas would be the same as the proposed MTP/SCS because existing zoning and other regulations governing scenic quality are mandatory and would be equally enforced under this alternative.

Light and glare impacts to day or nighttime views under this alternative would likely be greater than under the proposed MTP/SCS because the projected land use pattern of this alternative would disturb 1,160 more acres of land. As such, building and site lighting and potential sources of glare would be introduced on a larger geographic scale affecting more acres by comparison to the proposed MTP/SCS. In addition, because there are slightly more detached units under this alternative, there would be fewer shared walls, which could result in the need for greater nighttime lighting as compared to attached structures that share walls. The less compact land use pattern of this alternative would introduce more sources of nighttime lighting in areas where existing nighttime views are not adversely affected by substantial sources of outdoor lighting (e.g., 14,738 additional homes in Developing Communities and 2,414 additional homes in Rural Residential Communities relative to the proposed MTP/SCS). Light and glare associated with planned transportation improvements would likely be greater than the proposed MTP/SCS because there would be 82 additional lane miles of new or expanded roadway and highway projects, which could result in the addition of new sources of light and glare that could adversely affect nighttime views as compared to the proposed MTP/SCS.

Adverse effects of shadows from both the projected land use pattern and planned transportation improvements under this alternative would likely be less than under the proposed MTP/SCS, because it assumes a somewhat lower density and intensity of development. Structures are likely to have fewer stories and be more dispersed, with less likelihood of creating adverse shadows. However, the beneficial effects of shadows from taller buildings and increased tree canopy, such as shade during periods of high heat, would occur to a lesser extent than under the proposed MTP/SCS.

Construction-related aesthetic impacts are likely to be greater under this alternative for both projected land use pattern and planned transportation improvements because both the land area required for development is greater and the budget for new transportation capacity is higher. There is the potential that construction activities associated with this alternative could result in increased aesthetic impacts because it assumes a lower number of attached units resulting in a larger number of individual detached structures. Moreover, because more of this alternative's projected land use

pattern would occur in existing non-urbanized areas and it consists of a greater number of capacity-enhancing planned transportation improvements relative to the proposed MTP/SCS, its construction activities would have greater impacts to scenic resources along state scenic highways, visual character and quality of existing sites and their surroundings, and day and nighttime views due to light and glare. Construction impacts to scenic vistas and related to casting shadows would be less than under the proposed MTP/SCS.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

#### *Agriculture and Forestry Resources*

Conversion of agricultural land (including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance), forest land, timberland, and timberland zoned Timberland Production to non-agricultural, non-forest, or non-timber uses under this alternative would be greater than under the proposed MTP/SCS because the projected land use pattern of the No Project Alternative would be less compact and would disturb 1,160 more acres of land, and the planned transportation improvements of this alternative would include 82 more lane miles of new or expanded roadway and highways relative to the proposed MTP/SCS. The additional land disturbance associated with the less compact land use pattern and additional roadway and highway lane miles of this alternative would occur in areas with agricultural land, forest land, and timberland. The potential for conflicts with zoning, land use designations, Williamson Act contracts, and/or other applicable regulations that protect agricultural and forestry resources and timberlands would also be greater for the same reasons. Similarly, the potential for other changes that could result in the conversion of agricultural land, forest land, and timber land to developed land uses would be greater due to increases in urban-rural edge areas under this alternative as compared to the proposed MTP/SCS.

Construction-related impacts to agricultural land, forest land, and timberland would likely be greater under this alternative than the proposed MTP/SCS for the reasons provided above. The additional land disturbance associated with the less compact land use pattern and additional roadway and highway lane miles of this alternative means that additional construction activities would occur in areas with agricultural land, forest land, and timberland.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

#### *Air Quality*

Regional emissions of criteria air pollutants and ozone precursors would be greater under this alternative. This is because the projected land use pattern would be less compact (1,160 additional acres of land development) and place fewer jobs and homes near high-frequency transit service. The planned transportation improvements of this alternative include 82 additional roadway and highway lane miles relative to the proposed MTP/SCS. Household generated VMT (and the associated emissions of criteria air pollutants and ozone precursors) would be higher under this alternative, and the mode share for transit, walking, and bicycling would be lower for both commute trips and all trips. The higher passenger vehicle GHG emissions under this alternative also indicate that air pollutant emissions would be higher than under the proposed MTP/SCS. As compared to the proposed MTP/SCS, this increase in emissions of criteria air pollutants and ozone precursors would result in more adverse health outcomes from greater exposure to concentrations of criteria air pollutants in excess of the national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS). This alternative may not conflict with or obstruct implementation of

applicable air quality plans, but it would result in relatively higher emissions of the criteria air pollutants and ozone precursors addressed by applicable air quality plans when compared to the proposed MTP/SCS.

The number of sensitive receptors exposed to substantial concentrations of toxic air contaminants (TACs) would likely be less under this alternative as compared to the proposed MTP/SCS. This is because TACs are pollutants of local rather than regional concern. TACs dissipate quickly from their source resulting in significantly reduced concentrations at certain distances from a source (i.e., 500 feet). Although the No Project Alternative would result in higher household generated VMT, which could create more mobile sources of TACs (along freeways and major roadways), the overall number of sensitive receptors exposed to TAC emissions would likely to be lower under this alternative. This is because its less compact land use pattern would allocate fewer people and housing units into Center, Corridor, and Established Communities. Housing units in these communities are more likely than other community types to be located in close proximity to roadways and freeways that generate substantial concentrations of TAC emissions. This impact would be less than under the proposed MTP/SCS.

This alternative would have similar odors impacts to the proposed MTP/SCS. It is possible that odor impacts could be lower due to greater dispersal of development over a larger area, thereby exposing fewer people at any one location. It is also possible, however, that the increase in overall developed acreage could result in increased exposure to odors because it would become more difficult to site land uses that introduce potential odor emissions within reasonable distances (e.g., Sacramento Metropolitan Air Quality Management District's [SMAQMD's] Recommended Odor Screening Distances) from existing or future populations susceptible to odor impacts (SMAQMD 2009).

Long-term operational criteria air emissions associated with area sources, such as natural gas emissions, landscaping equipment, applications of architectural coatings, and use of consumer products, in addition to operational vehicle exhaust emissions, would be greater under this alternative as compared to the proposed MTP/SCS. This alternative includes relatively more rural residential and large-lot single family homes, and relatively fewer small-lot single-family or attached homes. Rural residential and large-lot single family homes tend to have higher energy (including natural gas) consumption and involve greater use of landscaping equipment and architectural coatings (and higher associated criteria air pollutant emissions) than small-lot single-family or attached homes. Operational vehicle exhaust emissions would be higher under this alternative because household generated VMT would be higher.

Short-term construction criteria air pollutant emissions would be higher under this alternative because its less compact land use pattern would develop 1,160 additional acres and its planned transportation improvements would include 82 additional lane miles of roadway and highway construction, which would result in additional emissions from construction equipment and vehicles and dust generation during construction activities such as site preparation, grading, excavation, and paving. This impact would be greater than under the proposed MTP/SCS.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

### *Biological Resources*

Impacts (direct or through habitat modification) on candidate, sensitive, or special status species (including plants, wildlife, and fish) under this alternative would be greater than under the proposed MTP/SCS, because this alternative's projected land use pattern would be less compact and include an additional 1,160 additional acres of development, and its planned transportation improvements would include an additional 82 miles of roadway and highway lane miles. The additional land disturbance resulting from the projected land use pattern and planned transportation improvements of this alternative would generally occur in Developing Communities and Rural Residential Communities, which are less developed and include more biological resources than Center, Corridor, and Established Communities. The potential for impacts to riparian habitats, oak woodlands, other sensitive natural communities, state or federally protected wetlands, migratory wildlife corridors and native wildlife nursery sites, adopted Habitat Conservation Plans (HCP) or Natural Communities Conservation Plans (NCCP), other approved habitat conservation plans, and local policies and ordinances protecting biological resources would be greater for the same reasons. This alternative would have greater impacts to fish or wildlife species habitat and population levels, the range of endangered or threatened species, and greater potential to threaten to eliminate a plant or animal community. Construction-related impacts to biological resources are likely to be greater under this alternative for the reasons provided above. The additional land disturbance associated with the less compact land use pattern and additional roadway and highway lane miles of this alternative means that additional construction activities would occur in areas with biological resources, and would result in greater direct and indirect impacts to biological resources during construction activities (e.g., equipment staging, construction lighting and noise, dust generation and exhaust emissions).

Mitigation measures identified for the proposed MTP/SCS would be applicable.

### *Cultural, Paleontological, and Tribal Cultural Resources*

Impacts to cultural resources (historic built environments, archeological, paleontological, and tribal cultural resources, and human remains, and important examples of major periods of California history or prehistory) under this alternative would be greater than under the proposed MTP/SCS because this alternative's projected land use pattern would be less compact and include an additional 1,160 acres of development, and its planned transportation improvements would include an additional 82 miles of roadway and highway lane miles. The additional land disturbance, such as grading and excavation, resulting from the projected land use pattern and planned transportation improvements of this alternative would result in greater likelihood of encountering unknown surface or subsurface archaeological, paleontological, and tribal cultural resources, or human remains; it would also result in greater impacts to the character of settings that contribute to the significance of historic built environments and to the traditional use and cultural character and integrity of tribal cultural resources. By subjecting a larger land area to disturbance and physical change this alternative would result in greater indirect impacts to tribal cultural resources by increasing public accessibility to tribal cultural resources. Construction activities under this alternative would also have greater impacts to historic built environments, archeological, paleontological, and tribal cultural resources, human remains, and important examples of major periods of California history or prehistory for the reasons provided above.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

## *Energy and Global Climate Change*

This alternative would result in a 13 percent reduction in per capita CO<sub>2</sub> emissions by 2035 relative to a 2005 baseline, which is less than the 19 percent reduction target established for SACOG by CARB. Therefore, this alternative would conflict with the SACOG region's achievement of its SB 375 GHG emissions reduction target, which is a significant impact. The proposed MTP/SCS would achieve the 2035 target. Because achievement of SB 375 GHG reduction targets contribute to achievement of the state's long-term climate goals set forth in CARB's 2017 Scoping Plan, failure to achieve the 2035 target under the No Project alternative would substantially interfere with achievement of the state's long-term climate goals, which is a significant impact that would not occur under the proposed MTP/SCS. The higher rate of household generated VMT under the No Project Alternative would interfere with achievement of the state's long-term climate goals, which rely on decreases in the rate of VMT. For similar reasons, the lower rate of passenger vehicle GHG emissions reductions and higher rates of household generated VMT under this alternative would conflict with applicable local GHG reduction plans, which rely in part on a regional land use pattern and planned transportation improvements that would contribute to lower passenger vehicle GHG emissions and lower rates of household generated VMT. The impact to applicable local GHG reduction plans would be greater under this alternative relative to the proposed MTP/SCS.

The No Project Alternative would likely result in increased use of energy and generation of GHG emissions during construction because the No Project Alternative assumes fewer attached units, resulting in a larger number of individual detached structures. These individual structures require more energy for materials, more materials overall, and more fuels to build (e.g., additional equipment and vehicle use for site development, grading, and excavation) than would be needed for attached structures. Construction impacts from planned transportation improvements would also likely be greater because of the additional energy consumed and GHG emissions generated to construct 82 additional lane miles of road and highway improvements. Per-capita energy consumption under this alternative would be greater than under the proposed MTP/SCS because this alternative would result in a less compact land use pattern. The No Project Alternative also includes a housing mix with a greater proportion of large-lot single-family homes (29 percent) as compared to the proposed MTP/SCS (26 percent). Because the No Project Alternative would include more large-lot single-family homes, which require more energy use per capita as compared to attached and multi-family homes, the No Project Alternative would likely result in more energy use per capita as compared to the proposed MTP/SCS. The less compact land use pattern and additional roadway and highway lane miles under this alternative also lead to higher rates of household generated VMT, which means more inefficient consumption of transportation energy than under the proposed MTP/SCS. While it would be likely that, as compared to baseline conditions (2016), per capita energy consumption would go down under this alternative, per capita energy consumption would be higher than under the proposed MTP/SCS. Therefore, the No Project Alternative would result in greater impacts related to the wasteful, inefficient, or unnecessary consumption of energy during construction activities and long-term operations.

This alternative is likely to have similar impact on state and local plans for renewable energy or energy efficiency as compared to the proposed MTP/SCS. Use of some renewable energy sources could be facilitated, while the use of other renewable energy sources could be hindered by this alternative. The economics of some small-scale renewable energy sources benefit from serving higher density development and development patterns that produce balanced loads and minimize peak demand; other renewable energy sources require larger areas of land to site, making lower

density patterns more optimal. Implementation of the California Energy Code and State goals for increasing the percentage of electricity from renewable and zero-carbon sources under this alternative would be the same as under the proposed MTP/SCS.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

#### *Geology, Soils, Seismicity, and Mineral Resources*

The following impacts associated with earthquakes and seismic activity under this alternative would be the same as the proposed MTP/SCS: rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; and landslides. Existing state laws and state and local building code requirements addressing substantial adverse effects due to earthquakes and seismic activity would apply to the projected land use pattern and planned transportation improvements of the proposed MTP/SCS. The following operational and construction impacts of the No Project Alternative would be greater than the proposed MTP/SCS because this alternative includes a less compact land use pattern that would develop an additional 1,160 acres, including additional land development within Developing Communities and Rural Residential Communities: soil erosion and loss of topsoil; on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse; development on expansive soil; and inadequate soils for alternative wastewater systems. The more compact land use pattern of the proposed MTP/SCS projects less land development within areas subject to adverse impacts from the geologic and soils conditions.

Impacts to unique geologic features and mineral resources would be greater under this alternative than under the proposed MTP/SCS because the projected land use pattern of this alternative is less compact and would develop 1,160 additional acres and the planned transportation improvements include 82 additional lane miles on the roadway and highway network. The additional land disturbance resulting from the projected land use pattern and planned transportation improvements under this alternative would result in greater impacts to unique geologic features and restricted access to and potentially the inability to harvest a greater proportion of mineral resources, including those of value to the region and the state, and locally-important mineral resource recovery sites delineated on a local land use plan.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

#### *Hazards, Hazardous Materials, and Wildfire*

Hazardous materials impacts to the public or the environment associated with construction activities and operations under this alternative would be the same as the impacts under the proposed MTP/SCS. This is because of the numerous federal, state, and local requirements and regulations that minimize the creation of significant hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials; through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment and through handling of hazardous materials, substances, and waste within 0.25 mile of an existing or proposed school. These existing requirements and regulations would apply equally to the different projected land use patterns and planned transportation network improvements of this alternative and the proposed MTP/SCS, so impacts would be the same. The same is true for existing requirements and regulations addressing potential safety hazards and excessive noise within an airport land use plan or within two miles of a public or public use airport, so airport-related safety and noise impacts to people residing or working in the plan area would be the same under this alternative.



This alternative assumes a less compact land use pattern dispersed over 1,160 additional acres and 82 additional lane miles of road and highway construction. The additional land disturbance including site preparation and grading during construction activities under this alternative could expose more people, such as construction workers or nearby residents and employees, or the environment to significant hazards involving the accidental release of naturally occurring asbestos and hazardous materials present in soil or groundwater, such as aerially-deposited lead in exposed surface soils immediately adjacent to existing roadways and highways. The less compact land use pattern of this alternative includes fewer housing units and jobs within Center, Corridor, and Established Communities relative to the proposed MTP/SCS, where sites included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, such as those contaminated by past industrial uses are more likely to occur. Therefore, impacts associated with development on such hazardous materials sites would be less under this alternative.

Additionally, construction impacts would be greater for this alternative, because it assumes a lower number of attached units, resulting in a larger number of individual detached structures, and a larger land area to accommodate its projected land use pattern, and construction of additional lane miles of transportation capacity projects. Construction-related activities will require the use of construction equipment and materials, which may include hazardous substances and/or release hazardous materials into the environment.

The more dispersed land use pattern and additional lane miles of roadway and highway construction under this alternative would be more automobile-oriented than the proposed MTP/SCS and could complicate emergency evacuation plans that rely in part on public transit. This alternative also would result in a greater share of homes within Rural Residential Communities, which have a higher risk of wildfire than other Community Types and are more likely to exacerbate post-fire flooding or landslide hazards that would require emergency responses or emergency evacuation. Therefore, the less compact land use pattern of this alternative would result in greater impacts associated with impairing the implementation of adopted emergency response and emergency evacuation plans (including within or near state responsibility areas or lands classified as very high fire hazard severity zones), exposing people or structures to significant risk of loss, injury, or death involving wild land fire, and exacerbating wildfire risk or post-fire flooding or landslide hazards.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

#### *Hydrology and Water Quality*

Impacts associated with hydrology and water quality under this alternative would be greater than under the proposed MTP/SCS because its less compact land use pattern and additional lane miles of roadway and highway construction would result in disturbance to a larger land area during construction activities and would permanently convert a greater amount of land to impervious surfaces, such as parking lots, buildings, roadways, highways, and other paved areas, as compared to the proposed MTP/SCS. The additional land area subject to construction disturbance would increase potential for short-term discharge of pollutants from construction sites into surface or groundwater. Construction impacts to hydrology and water quality would be greater under this alternative.

The additional land area permanently converted to impervious surfaces would increase the potential volume and decrease the water quality of stormwater and nonstormwater flows. Additional impervious surfaces also would interfere with groundwater recharge and alter drainage patterns in a

manner that would increase the potential for substantial erosion, siltation, and flooding relative to the proposed MTP/SCS. This alternative would require greater storm drainage system capacity than the proposed MTP/SCS because of its conversion of additional land area to impervious surface area. In addition, the housing mix of this alternative would include a larger number of rural residential and large-lot single-family homes, which would result in more managed landscaping areas and associated pollutants such as nutrients, herbicides, and irrigated runoff, which in turn could adversely affect surface and groundwater quality. Because the projected land use pattern and planned transportation improvements of this alternative would convert a greater amount of land to impervious surfaces that would collect water quality contaminants, this alternative would increase the risk of release of pollutants if such impervious surfaces areas were inundated during a flood hazard or seiche. The projected land use pattern and planned transportation improvements of this alternative would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan, but for the reasons describe above implementing the goals and objectives of these plans would be more difficult under this alternative as compared to the proposed MTP/SCS.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

#### *Land Use and Planning*

The less compact land use pattern of this alternative provides less connectivity within existing communities because of its more disperse allocation of future growth, but it would not physically divide any existing communities. This impact is the same as under the proposed MTP/SCS. New roadway or highway improvements can physically divide existing communities by providing physical barriers where none previously existing. Expansion of existing roadways and highways also can physically divide existing communities to the extent that wider facilities with additional lanes represent greater physical barriers than narrower facilities. The planned transportation improvements of this alternative would include 82 additional lane miles along the roadway and highway network. The planned transportation improvements of this alternative would result in greater impacts from physically dividing existing communities.

This alternative would not substantively satisfy the SCS requirements of SB 375. Under this alternative, per capita passenger vehicle CO<sub>2</sub> emissions in 2035 would be 13 percent lower relative to a 2005 baseline. This performance would not achieve the 19 percent reduction target established for SACOG by CARB. This alternative would not meet the core requirement of SB 375 to prepare an SCS that aligns land use patterns, housing, and regional transportation planning to achieve CARB targets for per capita reductions in passenger vehicle CO<sub>2</sub> emissions by 2035. This is a greater impact than the proposed MTP/SCS.

All of the alternative's direct growth to areas within city boundaries in the Delta, and all subsequent projects within the proposed MTP/SCS that fall within the LURMP boundaries will be required to demonstrate consistency with the LURMP and satisfy mitigation requirements. However, because this alternative would include a less compact land use pattern and additional lane miles of roadway and highway improvements that would result in additional land disturbance relative to the proposed MTP/SCS, it would have greater impacts to resources within the Delta that are protected by the provisions of the 2010 LURMP, including agriculture, biological resources, and recreational land, and from contaminated runoff and construction of new utilities facilities, especially at the rural-urban edge. Impacts to these resources under this alternative may not rise to the level of a conflict

with the 2010 LURMP, but for the reasons described above, implementing its goals would be more difficult under this alternative as compared to the proposed MTP/SCS.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

#### *Noise and Vibration*

This alternative would generate noise levels generally similar to those that would be generated under the proposed MTP/SCS because the same total population, housing, and employment are assumed. However, the less compact land use pattern of this alternative would direct more housing growth to Developing and Rural Residential Communities, increasing construction and operational noise levels in these areas that tend to have lower existing noise levels than more developed and urbanized communities. Noise thresholds could be exceeded in these communities. The higher rate of household generated VMT per capita, and higher rates of commute and all trips completed by driving indicate that traffic noise levels may be higher under this alternative, and noise thresholds could be exceeded. The additional lane miles of roadway and highway improvements under this alternative could lead to increased traffic volumes and associated localized noise levels, and noise thresholds could be exceeded. Localized short-term noise levels would be higher during construction of the additional lane miles included in this alternative.

The projected land use pattern of this alternative, while less compact than the proposed MTP/SCS, would not result in land use types that would result in meaningfully different levels of vibration or groundborne noise. The planned transportation improvements of this alternative would include additional lane miles of roadway and highway improvements, but this would also not result in meaningfully different levels of vibration or groundborne noise relative to the planned transportation improvements identified in the proposed MTP/SCS. This impact is the same under this alternative.

There would potentially be more construction-related noise impacts under this alternative due to the additional land area that would be subject to disturbance during construction activities associated with the less compact land use pattern and the additional lane miles of construction along the roadway and highway network. This would increase the number of separate construction sites, which would exacerbate overall noise levels associated with construction activities.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

#### *Population and Housing*

Impacts related to population and housing should be similar under all alternatives, because the same number of people and dwelling units are assumed. The less compact land use pattern of this alternative and its additional lane miles of roadway and highway improvements would not result in displacement of substantial numbers of people or existing housing that necessitates the construction of replacement housing elsewhere. This impact is the same as the proposed MTP/SCS.

No mitigation measures were identified for population and housing impacts for the proposed MTP/SCS.

### *Public Services and Recreation*

This alternative is anticipated to result in public service and recreation impacts (both construction-related and operational) similar to those that would be generated under the proposed MTP/SCS, because the same total population, housing, and employment are assumed. However, this alternative could exacerbate the ability to achieve local levels of service due to a more dispersed land use pattern that makes it more difficult to efficiently serve the population. This impact is greater than the proposed MTP/SCS. The planned transportation improvements of this alternative would have the same public services and recreation impacts as the proposed MTP/SCS.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

### *Transportation*

This alternative would result in higher levels of household generated VMT per capita than under the proposed MTP/SCS, in part because of its less compact land use pattern and additional lane miles of roadway and highway improvements; it would also locate fewer homes and jobs near high frequency transit service. According to CARB much greater VMT reductions (beyond those achieved by the proposed MTP/SCS) will be required to meet the state's long-term climate goals for 2030 and 2050. Therefore, the VMT impact of this alternative is greater than under the proposed MTP/SCS. For the reasons provided above, this alternative would also result in lower levels of transit ridership, walking, and biking for commute trips and all trips, and it would be less complementary to existing and planned bicycle and pedestrian facilities.

The projected land use pattern of this alternative would locate additional homes in Developing and Rural Residential Communities, which is expected to result in greater interference with the movement of agricultural equipment and farm products on rural roadways, because physical changes associated with development increased passenger vehicle trips on existing rural roadways may interfere with movement of agricultural equipment and limit or impede efficient access to farmland. There are no aspects of this alternative that would result in greater impacts related to disrupting aviation access or service of goods movement into or through the SACOG region, or inconsistency with project design standards related to project safety.

Construction-related transportation impacts would likely be greater under this alternative because the less compact land use pattern and additional lane miles of roadway and highway investments would subject a greater amount of land to construction activities and their resulting short-term disruptions to ongoing operations of regional and local area transportation systems.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

### *Utilities and Service Systems*

This alternative is anticipated to result in impacts to utilities and service systems (both construction-related and operational) similar to those that would be generated under the proposed MTP/SCS because the same total population, housing, and employment numbers are assumed. The larger share of rural residential and large-lot single-family homes under this alternative would likely increase the demand for surface and groundwater supplies because such housing units have higher demand for water, for example due to increased irrigation demand for landscaping areas and additional appliances and fixtures that use potable water (e.g., sinks, toilets, showers). As a result, this alternative could exceed the capacity of existing water storage, conveyance, distribution, and

treatment facilities to a greater degree than the proposed MTP/SCS and result in construction of new, expanded, or relocated facilities. These impacts of this alternative are greater than under the proposed MTP/SCS.

In addition, this alternative could adversely affect the capacity of the necessary utility conveyance and distribution systems (e.g. wastewater, fire flows, storm drain, electricity, natural gas, and telecommunications) due to a more dispersed projected land use pattern that makes it more difficult to efficiently serve the population. Also, the increase in transportation capacity projects as compared to the proposed MTP/SCS would demand more water and energy and produce more waste during construction. All of the alternatives would be required to follow the same federal, state, and local statutes and regulations related to solid waste. This alternative would have the same impact related to solid waste generation and conflicts with solid waste management and reduction statutes and regulations.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

#### *ALTERNATIVE 1: OUTWARD EXPANSION*

### **Description of Alternative 1**

Alternative 1 assumes the same growth and transportation investment as the proposed MTP/SCS, but with less compact development and less focus on maintaining and improving the current transportation system. Overall this alternative is the most dispersed and provides the fewest housing and transportation options. Table 18-1 summarizes key characteristics of all the alternatives, while Table 18-2 compares performance characteristics of each alternative.

#### *Land Use Pattern*

Compared to the other two alternatives and the proposed MTP/SCS, this alternative provides the most new large lot single-family and rural residential housing, the least amount of growth through infill and redevelopment, and the least improvement in jobs-housing balance within sub-areas of the region. Specifically, 61 percent of the new homes are small-lot or attached and just over half (51 percent) of the new homes are in Developing or Rural Residential Communities, which is significantly higher than the other alternatives. More specifically, this alternative assumes that growth will occur in a higher number of Developing Communities compared to the other alternatives. In other words, while the overall proportion of growth across community types in this scenario only varies by a few percent compared to the proposed MTP/SCS and Alternative 2, this growth is spread across more planned developments (57 new communities) and is spread across a wider area. This means that fewer communities are built out to the point where they have a full mix of amenities, jobs, and transportation options. This point is illustrated in part, by the much higher land consumption in Alternative 1 of almost 76,000 acres of land.

#### *Transportation*

Compared to the other two alternatives, Alternative 1 invests in the largest number of new roads and road expansion projects. Alternative 1 has less expansion of transit than the other alternatives. This is largely due to the more dispersed land use pattern.

#### *Pricing*

Compared to the other two alternatives, this alternative relies on higher fees for driving, in part because of greater expansion of the road and highway system that require a larger investment to build. Additionally, because of the more dispersed land use pattern, a greater price signal to drivers is needed to achieve the plan's objective to reduce vehicle miles traveled per capita.

### **Alternative 1 Attainment of Project Objectives**

This alternative attains many project objectives, but less effectively and successfully than the proposed MTP/SCS.

#### *Build Vibrant Places*

While the land use pattern of this alternative has some Blueprint-supportive aspects, it would provide the lowest increase in housing options and the lowest increase in transportation options. Specifically, this alternative has the lowest share of housing in small-lot single-family or attached homes combined. Alternative 1 has the lowest number of housing near high-frequency transit (70,235) and shares the lowest number of jobs near high-frequency transit (102,624) with the No Project Alternative. This alternative would have the greatest amount of developed acres of all the alternatives due to its dispersed development pattern, which forecasts the highest proportion of growth in Developing Communities and in Rural Residential Communities. Similarly, it has the greatest impact on agriculture and natural resources.

Through the combination of land use and transportation changes, Alternative 1 would have the highest direct and indirect impacts to the environment. For instance, this alternative has the greatest increase in new or expanded major road lane miles (1,730) and the largest amount of developed acres (75,622) of all the alternatives due to the fact that it has the highest proportion of growth in Developing Communities and the largest share of homes in rural residential and large-lot single family homes of all the alternatives. This alternative would have the greatest amount of total developed acres of all the alternatives due to its dispersed development pattern, which forecasts the highest proportion of growth in Developing and Rural Residential Communities. This alternative meets the requirements for regional transportation plans and achieves the GHG reduction targets assigned to SACOG by CARB and would therefore activate the CEQA streamlining benefits of SB 375. To achieve the GHG targets with a more dispersed land use pattern, this alternative relies more heavily on system pricing strategies than the other alternatives. The per-mile fee included in this scenario is roughly two cents higher per mile than Alternative 2 or the proposed MTP/SCS.

#### *Foster the Next Generation of Mobility Solutions*

Alternative 1 has the same level of per capita household VMT (16.5) as both the proposed MTP/SCS and Alternative 2, but depends on increased cost on tolled facilities and mileage fees to manage VMT. The alternative has lower VMT per capita than both the baseline levels and the No Project Alternative. Alternative 1 has the lowest number of jobs and homes near high-frequency transit. While all of the alternatives are shown to broaden mobility options through increased mode-share for walking, biking, and transit, Alternative 1 has the smallest degree of mode shift of any alternative. Alternative 1 improves connections between workers to jobs over the baseline conditions, however it is less effective at meeting this objective than the proposed MTP/SCS and other alternatives, with the fewest jobs within a 30-minute drive or transit trip of homes of any alternative examined.

### *Modernize the Way We Pay for Transportation*

Alternative 1 has the highest level of system pricing of any alternative. The pricing strategies included in this alternative support the objective to modernize the way that we pay for transportation by offering new avenues of funding for transportation improvements. However, the higher per-mile fees in this alternative could negatively impact lower income households and rural communities where there may be fewer alternatives to driving or a greater number of miles per trip relative to urban communities.

### *Build and Maintain a Safe, Reliable, and Multimodal Transportation System*

Alternative 1 includes pricing strategies that help to generate funding for investment in the transportation system. This alternative has the largest expansion of the road and highway system, with 1,730 new or expanded road lane miles, so would likely have the least remaining funding available for investments in maintenance. Alternative 1 includes the second least increase in transit, walking, and bicycling trips, which may impact gains in economic vitality relative to other alternatives. Alternative 1 has the highest level of growth in Developing Communities, Rural Residential Communities, and total acres developed compared with the other alternatives. The larger urban footprint and more dispersed growth pattern makes goods movement travel less efficient between locations, increases encroachment on agricultural lands, and results in commuter traffic along rural roadways that may complicate safe and efficient farm-to-market access to farmlands.

## **Alternative 1 Environmental Impacts**

The following discussion describes the relative level of environmental impact associated with Alternative 1 as compared to the level of environmental impact under implementation of the proposed MTP/SCS. The performance measures for this alternative and the proposed MTP/SCS are based on Table 18-2 unless stated otherwise.

### *Aesthetics*

Impacts to scenic vistas from the projected land use pattern under this alternative would likely be less than under the proposed MTP/SCS, because this alternative assumes a significantly lower density and intensity of development. Structures are likely to be shorter and more dispersed, with less likelihood of blocking or impeding scenic vistas. Impacts to scenic vistas would be greater under this alternative due to the nearly 500 additional lane miles of new roads and capacity-enhancing projects. With a projected land use pattern that is more dispersed, and additional new roads and capacity-enhancing planned transportation improvements compared to the proposed MTP/SCS, this alternative would have greater impacts to scenic resources along official or eligible state scenic highways.

The potential for substantial degradation of visual character or quality of public views of sites and their surroundings in non-urbanized areas would be greater under this alternative as compared to the proposed MTP/SCS because under this alternative significantly more of the projected land use pattern would be located within existing non-urbanized areas, such as Developing and Rural Residential Communities. Impacts to visual character and the quality of public views of sites and their surroundings would also be greater under this alternative because it consists of a greater number of new roads and capacity-enhancing projects in non-urbanized areas relative to the proposed MTP/SCS. With a greater amount of the projected land use pattern and additional capacity-enhancing planned transportation improvements in non-urbanized areas, this alternative

would have greater impacts to existing visual character and the quality of public views of sites and their surroundings in non-urbanized areas. Impacts to scenic quality in urbanized areas would be the same as the proposed MTP/SCS because existing zoning and other regulations governing scenic quality would be equally enforced under this alternative.

Light and glare impacts to day or nighttime views under this alternative would likely be greater than under the proposed MTP/SCS because the projected land use pattern of this alternative would disturb nearly 30,000 more acres of land. As such, building and site lighting and potential sources of glare would be introduced on a larger geographic scale affecting more acres by comparison to the proposed MTP/SCS. In addition, because there are significantly more rural residential or large-lot single-family homes under this alternative, there would be fewer shared walls, which could result in the need for greater nighttime lighting as compared to attached structures that share walls. The less compact land use pattern of this alternative would introduce more sources of nighttime lighting in areas where existing nighttime views are not adversely affected by substantial sources of outdoor lighting (e.g., over 30,000 additional new homes in Developing Communities and nearly 8,000 additional new homes in Rural Residential Communities relative to the proposed MTP/SCS). Light and glare associated with planned transportation improvements would be greater than the proposed MTP/SCS because there would be nearly 500 additional lane miles of new or expanded roadway and highway projects, which could result in the addition of new sources of light and glare that could adversely affect nighttime views as compared to the proposed MTP/SCS.

Adverse effects of shadows from both the projected land use pattern and planned transportation improvements under this alternative would likely be less than under the proposed MTP/SCS, because of the lower density and intensity of development. Structures are likely to have fewer stories and be more dispersed, with less likelihood of creating adverse shadows. However, the beneficial effects of shadows from taller buildings and increased tree canopy, such as shade during periods of high heat, would occur to a lesser extent than under the proposed MTP/SCS.

Construction-related aesthetic impacts would be greater under this alternative for both projected land use pattern and planned transportation improvements because it would result in physical development of nearly 30,000 additional acres of land and nearly 500 additional lane miles of new roads and roadway expansion projects. Moreover, because more of this alternative's projected land use pattern would occur in existing non-urbanized areas and it consists of a greater number of capacity-enhancing planned transportation improvements relative to the proposed MTP/SCS, its construction activities would have greater impacts to scenic resources along state scenic highways, visual character and quality of existing sites and their surroundings, and day and nighttime views due to light and glare. Construction impacts to scenic vistas and related to casting shadows would be less than under the proposed MTP/SCS.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

#### *Agriculture and Forestry Resources*

Conversion of agricultural land (including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance), forest land, timberland, and timberland zoned Timberland Production to non-agricultural, non-forest, or non-timber uses under this alternative would be greater than under the proposed MTP/SCS because the projected land use pattern of t Alternative 1 would be significantly less compact and would disturb nearly 30,000 more acres of land, and the planned transportation improvements of this alternative would include nearly 500 more lane miles of new or



expanded roadway and highways relative to the proposed MTP/SCS. The additional land disturbance associated with the less compact land use pattern and additional roadway and highway lane miles of this alternative would occur in areas with agricultural land, forest land, and timberland. The potential for conflicts with zoning, land use designations, Williamson Act contracts, and/or other applicable regulations that protect agricultural and forestry resources and timberlands would also be greater for the same reasons. Similarly, the potential for other changes that could result in the conversion of agricultural land, forest land, and timber land to developed land uses would be greater due to increases in urban-rural edge areas under this alternative as compared to the proposed MTP/SCS.

Construction-related impacts to agricultural land, forest land, and timberland would likely be greater under this alternative than the proposed MTP/SCS for the reasons provided above. The additional land disturbance associated with the less compact land use pattern and additional roadway and highway lane miles of this alternative means that additional construction activities would occur in areas with agricultural land, forest land, and timberland.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

### *Air Quality*

Regional mobile source emissions of criteria air pollutants and ozone precursors would be similar to the proposed MTP/SCS under this alternative, even with a projected land use pattern that would be significantly less compact (almost 30,000 additional acres of land development) and place fewer jobs and significantly fewer homes near high-frequency transit service. The planned transportation improvements of this alternative include nearly 500 additional roadway and highway lane miles relative to the proposed MTP/SCS. The mode share for transit, walking, and bicycling would be lower for both commute trips and all trips. However, household generated VMT per capita (and the associated emissions of criteria air pollutants and ozone precursors) would be the same under this alternative as the proposed MTP/SCS because the alternative includes more aggressive pricing strategies that would result in higher fees for driving in order to reduce VMT.

As compared to the proposed MTP/SCS, the similar emissions of criteria air pollutants and ozone precursors would result in similar adverse health outcomes from greater exposure to concentrations of criteria air pollutants in excess of the NAAQS and CAAQS). This alternative would have the same impact related to implementation of or conflict with an applicable air quality plan.

The number of sensitive receptors exposed to substantial concentrations of TACs would likely be less under this alternative as compared to the proposed MTP/SCS. This is because TACs are pollutants of local rather than of regional concern. TACs dissipate quickly from their source resulting in significantly reduced concentrations at certain distances from a source (i.e., 500 feet). The overall number of sensitive receptors exposed to TAC emissions would likely be lower under this alternative because its significantly less compact land use pattern would allocate fewer people and housing units into Center, Corridor, and Established Communities. Housing units in these communities are more likely than other community types to be located in close proximity to roadways and freeways that generate substantial concentrations of TAC emissions. This impact would be less than under the proposed MTP/SCS.

This alternative would have the same odors impacts as the proposed MTP/SCS. It is possible that odor impacts could be lower due to greater dispersal of development over a larger area; therefore,

exposing fewer people at any one location. It is also possible, however, that the increase in overall developed acreage could result in increased exposure to odors because it would become more difficult to site land uses that introduce potential odor emissions within reasonable distances (e.g., SMAQMD's Recommended Odor Screening Distances) from existing or future populations susceptible to odor impacts (SMAQMD 2009).

Long-term operational criteria air emissions associated with area sources, such as natural gas emissions, landscaping equipment, applications of architectural coatings, and use of consumer products would be greater under this alternative as compared to the proposed MTP/SCS. This alternative includes relatively more rural residential and large-lot single family homes, and relatively fewer small-lot single-family or attached homes. Rural residential and large-lot single family homes tend to have higher energy (including natural gas) consumption and involve greater use of landscaping equipment and architectural coatings (and higher associated criteria air pollutant emissions) than small-lot single-family or attached homes.

Short-term construction criteria air pollutant emissions would be higher under this alternative because its less compact land use pattern would develop nearly 30,000 additional acres and its planned transportation improvements would include close to 500 additional lane miles of roadway and highway construction, which would result in additional emissions from construction equipment and vehicles and dust generation during construction activities such as site preparation, grading, excavation, and paving. This impact would be greater than under the proposed MTP/SCS.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

#### *Biological Resources*

Impacts (direct or through habitat modification) on candidate, sensitive, or special status species (including plants, wildlife, and fish) under this alternative would be greater than under the proposed MTP/SCS, because this alternative's projected land use pattern would be significantly less compact and include almost 30,000 additional acres of development, and its planned transportation improvements would include close to 500 additional roadway and highway lane miles. The additional land disturbance resulting from the projected land use pattern and planned transportation improvements of this alternative would generally occur in Developing Communities and Rural Residential Communities, which are less developed and include more biological resources than Center, Corridor, and Established Communities. The potential for impacts to riparian habitats, oak woodlands, other sensitive natural communities, state or federally protected wetlands, migratory wildlife corridors and native wildlife nursery sites, adopted HCP or NCCP, other approved habitat conservation plans, and local policies and ordinances protecting biological resources would be greater for the same reasons. This alternative would have greater impacts to fish or wildlife species habitat and population levels, the range of endangered or threatened species, and greater potential to threaten to eliminate a plant or animal community. Construction-related impacts to biological resources are likely to be greater under this alternative for the reasons provided above. The additional land disturbance associated with the significantly less compact land use pattern and additional roadway and highway lane miles of this alternative means that additional construction activities would occur in areas with biological resources, and would result in greater direct and indirect impacts to biological resources during construction activities (e.g., equipment staging, construction lighting and noise, dust generation and exhaust emissions).

Mitigation measures identified for the proposed MTP/SCS would be applicable.

### *Cultural, Paleontological, and Tribal Cultural Resources*

Impacts to cultural resources (historic built environments, archeological, paleontological, and tribal cultural resources, and human remains, and important examples of major periods of California history or prehistory) under this alternative would be greater than under the proposed MTP/SCS because this alternative's projected land use pattern would be significantly less compact and include nearly 30,000 additional acres of development, and its planned transportation improvements would include almost 500 additional roadway and highway lane miles. The additional land disturbance, such as grading and excavation, resulting from the projected land use pattern and planned transportation improvements of this alternative would result in greater likelihood of encountering unknown surface or subsurface archaeological, paleontological, and tribal cultural resources, or human remains; it would also result in greater impacts to the character of settings that contribute to the significance of historic built environments and to the traditional use and cultural character and integrity of tribal cultural resources. By subjecting a larger land area to disturbance and physical change this alternative would result in greater indirect impacts to tribal cultural resources by increasing public accessibility to tribal cultural resources. Construction activities under this alternative would also have greater impacts to historic built environments, archaeological, paleontological, and tribal cultural resources, human remains, and important examples of major periods of California history or prehistory for the reasons provided above.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

### *Energy and Global Climate Change*

While the less compact development pattern assumed for this alternative would ordinarily lead to increased VMT, thereby increasing GHG emissions, this alternative also assumes pricing strategies that would reduce VMT to the same level estimated under the proposed MTP/SCS. Therefore, this alternative would result in a 19 percent reduction in per capita CO<sub>2</sub> emissions by 2035 relative to a 2005 baseline, which attains the 19 percent reduction target established for SACOG by CARB. This alternative would not conflict with the SACOG region's achievement of its SB 375 GHG emissions reduction target, the same impact conclusion as the proposed MTP/SCS. Achievement of the SB 375 GHG reduction target contributes to achievement of the state's long-term climate goals set forth in CARB's 2017 Scoping Plan. Same as the proposed MTP/SCS, the per capita passenger vehicle GHG reductions achieved by this alternative would not be enough to achieve the state's long-term climate goals. Achievement of the SB 375 GHG reduction target under this alternative would also contribute to local GHG reduction plan goals. These impacts are the same as under the proposed MTP/SCS.

This alternative would likely result in increased use of energy and generation of GHG emissions during construction because it assumes fewer attached units, resulting in a larger number of individual detached structures. These individual structures require more energy for materials, more materials overall, and more fuels to build (e.g., additional equipment and vehicle use for site development, grading, and excavation affecting nearly 30,000 additional acres) than would be needed for attached structures. Construction impacts from planned transportation improvements would also likely be greater because of the additional energy consumed and GHG emissions generated to construct nearly 500 additional lane miles of road and highway improvements. Per-capita energy consumption under this alternative would be greater than under the proposed MTP/SCS because this alternative would result in a significantly less compact land use pattern. This alternative also includes a housing mix with a greater proportion of large-lot single-family homes (39 percent) as

compared to the proposed MTP/SCS (26 percent). Because this alternative includes more large-lot single-family homes, which require more energy per capita as compared to attached and multi-family homes, it would likely result in more energy use per capita as compared to the proposed MTP/SCS. While it would be likely that, as compared to baseline conditions (2016), per capita energy consumption would go down under this alternative, per capita energy consumption would be higher than under the proposed MTP/SCS. Therefore, this alternative would result in greater impacts related to the wasteful, inefficient, or unnecessary consumption of energy during construction activities and long-term operations.

This alternative is likely to have a similar impact on state and local plans for renewable energy or energy efficiency as compared to the proposed MTP/SCS. Use of some renewable energy sources could be facilitated, while the use of other renewable energy sources could be hindered by this alternative. The economics of some small-scale renewable energy sources benefit from serving higher density development and development patterns that produce balanced loads and minimize peak demand; other renewable energy sources require larger areas of land to site, making lower density patterns more optimal. Implementation of the California Energy Code and State goals for increasing the percentage of electricity from renewable and zero-carbon sources under this alternative would be the same as under the proposed MTP/SCS.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

#### *Geology, Soils, Seismicity, and Mineral Resources*

The following impacts associated with earthquakes and seismic activity under this alternative would be the same as the proposed MTP/SCS: rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; and landslides. Existing state laws and state and local building code requirements addressing substantial adverse effects due to earthquakes and seismic activity would apply to the projected land use pattern and planned transportation improvements of the proposed MTP/SCS. The following operational and construction impacts of this alternative would be greater than the proposed MTP/SCS because this alternative includes a significantly less compact land use pattern that would develop nearly 30,000 additional acres, including additional land development within Developing Communities and Rural Residential Communities: soil erosion and loss of topsoil; on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse; development on expansive soil; and inadequate soils for alternative wastewater systems. The more compact land use pattern of the proposed MTP/SCS projects less land development within areas subject to adverse impacts from the geologic and soils conditions.

Impacts to unique geologic features and mineral resources would be greater under this alternative than under the proposed MTP/SCS because the projected land use pattern of this alternative is less compact and would develop nearly 30,000 additional acres and the planned transportation improvements include nearly 500 additional lane miles on the roadway and highway network. The additional land disturbance resulting from the projected land use pattern and planned transportation improvements under this alternative would result in greater impacts to unique geologic features and restricted access to and potentially the inability to harvest a greater proportion of mineral resources, including those of value to the region and the state, and locally-important mineral resource recovery sites delineated on a local land use plan.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

### *Hazards, Hazardous Materials, and Wildfire*

Hazardous materials impacts to the public or the environment associated with construction activities and operations under this alternative would be the same as the impacts under the proposed MTP/SCS. This is because of the numerous federal, state, and local requirements and regulations that minimize the creation of significant hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials; through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment and through handling of hazardous materials, substances, and waste within 0.25 mile of an existing or proposed school. These existing requirements and regulations would apply equally to the different projected land use patterns and planned transportation network improvements of this alternative and the proposed MTP/SCS, so impacts would be the same. The same is true for existing requirements and regulations addressing potential safety hazards and excessive noise within an airport land use plan or within two miles of a public or public use airport, so airport-related safety and noise impacts to people residing or working in the plan area would be the same under this alternative.

This alternative assumes a less compact land use pattern dispersed over almost 30,000 additional acres and close to 500 additional lane miles of road and highway construction. The additional land disturbance including site preparation and grading during construction activities under this alternative could expose more people such as construction workers or nearby residents and employees or the environment to significant hazards involving the accidental release of naturally occurring asbestos and hazardous materials present in soil or groundwater, such as aerially-deposited lead in exposed surface soils immediately adjacent to existing roadways and highways. The less compact land use pattern of this alternative includes fewer homes and jobs within Center, Corridor, and Established Communities relative to the proposed MTP/SCS, where sites included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, such as those contaminated by past industrial uses are more likely to occur. Therefore, impacts associated with development on such hazardous materials sites would be less under this alternative.

Additionally, construction impacts would be greater for this alternative, because it assumes a lower number of attached units, resulting in a larger number of individual detached structures, and a larger land area to accommodate its projected land use pattern, and construction of additional lane miles of transportation capacity projects. Construction-related activities will require the use of construction equipment and materials, which may include hazardous substances and/or release hazardous materials into the environment.

The more dispersed land use pattern and additional lane miles of roadway and highway construction under this alternative would be more automobile-oriented than the proposed MTP/SCS and could complicate emergency evacuation plans that rely in part on public transit. This alternative also would result in a greater share of homes within Rural Residential Communities, which have a higher risk of wildfire than other Community Types and when developed are more likely to exacerbate post-fire flooding or landslide hazards that would require emergency responses or emergency evacuation. Therefore the less compact land use pattern of this alternative would result in greater impacts associated with impairing the implementation of adopted emergency response and emergency evacuation plans (including within or near state responsibility areas or lands classified as very high fire hazard severity zones), exposing people or structures to significant risk of loss, injury, or death involving wild land fire, and exacerbating wildfire risk or post-fire flooding or landslide hazards.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

### *Hydrology and Water Quality*

Impacts associated with hydrology and water quality under this alternative would be greater than under the proposed MTP/SCS because its significantly less compact land use pattern and significantly more lane miles of roadway and highway construction would result in disturbance to a larger land area during construction activities and would permanently convert a greater amount of land to impervious surfaces, such as parking lots, buildings, roadways, highways, and other paved areas, as compared to the proposed MTP/SCS. The additional land area subject to construction disturbance would increase potential for short-term discharge of pollutants from construction sites into surface or groundwater. Construction impacts to hydrology and water quality would be greater under this alternative.

The additional land area permanently converted to impervious surfaces would increase the potential volume and decrease the water quality of stormwater and nonstormwater flows. Additional impervious surfaces also would interfere with groundwater recharge and alter drainage patterns in a manner that would increase the potential for substantial erosion, siltation, and flooding relative to the proposed MTP/SCS. This alternative would require greater storm drainage system capacity than the proposed MTP/SCS because of its conversion of additional land area to impervious surface area. In addition, the housing mix of this alternative would include a larger number of rural residential and large-lot single-family homes, which would result in more managed landscaping areas and associated pollutants such as nutrients, herbicides, and irrigated runoff, which in turn could adversely affect surface and groundwater quality. Because the projected land use pattern and planned transportation improvements of this alternative would convert a greater amount of land to impervious surfaces that would collect water quality contaminants, this alternative would increase the risk of release of pollutant if such impervious surfaces areas were inundated during a flood hazard or seiche. The projected land use pattern and planned transportation improvements of this alternative would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan, but for the reasons described above implementing the goals and objectives of these plans would be more difficult under this alternative as compared to the proposed MTP/SCS.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

### *Land Use and Planning*

The less compact land use pattern of this alternative provides less connectivity within existing communities because of its more disperse allocation of future growth, but it would not physically divide any existing communities. This impact is the same as under the proposed MTP/SCS. New roadway or highway improvements can physically divide existing communities by providing physical barriers where none previously existing. Expansion of existing roadways and highways also can physically divide existing communities to the extent that wider facilities with additional lanes represent greater physical barriers than narrower facilities. The planned transportation improvements of this alternative would include close to 500 additional lane miles along the roadway and highway network. The planned transportation improvements of this alternative would result in greater impacts from physically dividing existing communities.

This alternative would substantively satisfy the SCS requirements of SB 375, including achievement of the 19 percent per capita passenger vehicle CO<sub>2</sub> emissions reduction target established for SACOG by CARB. This impact is the same as under the proposed MTP/SCS.

All of the alternatives direct growth to areas within city boundaries in the Delta, and all subsequent projects within the proposed MTP/SCS that fall within the LURMP boundaries will be required to demonstrate consistency with the LURMP and satisfy mitigation requirements. However, because this alternative would include a less compact land use pattern and additional lane miles of roadway and highway improvements that would result in additional land disturbance relative to the proposed MTP/SCS, it would have greater impacts to resources within the Delta that are protected by the provisions of the 2010 LURMP, including agriculture, biological resources, and recreational land, and from contaminated runoff and construction of new utilities facilities, especially at the rural-urban edge. Impacts to these resources under this alternative may not rise to the level of a conflict with the 2010 LURMP, but for the reasons describe above implementing its goals would be more difficult under this alternative as compared to the proposed MTP/SCS.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

#### *Noise and Vibration*

This alternative would generate noise levels generally similar to those that would be generated under the proposed MTP/SCS because the same total population, housing, and employment are assumed. However, the significantly less compact land use pattern of this alternative would direct more housing growth to Developing and Rural Residential Communities, increasing localized operational noise levels in these areas that tend to have lower existing noise levels than more developed and urbanized communities. Noise thresholds could be exceeded in these communities. The additional lane miles of roadway and highway improvements under this alternative could lead to increased traffic volumes and associated localized noise levels, and noise thresholds could be exceeded. Operational noise impacts of the projected land use pattern and planned transportation improvements of this alternative would be greater than under the proposed MTP/SCS.

The projected land use pattern of this alternative, while less compact than the proposed MTP/SCS, would not result in land use types that would result in different levels of vibration or groundborne noise. The planned transportation improvements of this alternative would include additional lane miles of roadway and highway improvements, but this would also not result in significantly different levels of vibration or groundborne noise relative to the planned transportation improvements identified in the proposed MTP/SCS. This impact is the same under this alternative.

There would potentially be greater construction-related noise impacts under this alternative due to the nearly 30,000 acres of additional land area that would be subject to disturbance during construction activities associated with the less compact land use pattern and the nearly 500 additional lane miles of construction along the roadway and highway network. This would increase the number of separate construction sites, which would exacerbate overall noise levels associated with construction activities.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

#### *Population and Housing*

Impacts related to population and housing should be similar under all alternatives, because the same number of people and dwelling units are assumed. The less compact land use pattern of this alternative and its additional lane miles of roadway and highway improvements would not result in

displacement of substantial numbers of people or existing housing that necessitates the construction of replacement housing elsewhere. This impact is the same as the proposed MTP/SCS.

No mitigation measures were identified for the proposed MTP/SCS.

#### *Public Services and Recreation*

This alternative is anticipated to result in public service and recreation impacts (both construction-related and operational) similar to those that would be generated under the proposed MTP/SCS, because the same total population, housing, and employment are assumed. However, this alternative could exacerbate the ability to achieve local levels of service due to the significantly more dispersed land use pattern that makes it more difficult to efficiently serve the population. This impact is greater than the proposed MTP/SCS. The planned transportation improvements of this alternative would have the same public services and recreation impacts as the proposed MTP/SCS.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

#### *Transportation*

This alternative would result in the same rate of household generated VMT per capita as the proposed MTP/SCS. This alternative includes pricing strategies that increase the cost of driving to compensate for the relatively higher household generated VMT per capita that would otherwise occur because of its significantly less compact land use pattern and significant increase in construction of roadway and highway lane miles. According to CARB much greater VMT reductions (beyond those achieved by the proposed MTP/SCS and this alternative) will be required to meet the state's long-term climate goals for 2030 and 2050. Therefore, the VMT impact of this alternative is the same as under the proposed MTP/SCS. However, the projected land use pattern and planned transportation improvements of this alternative are more automobile-oriented than the those of the proposed MTP/SCS and would result in lower levels of transit ridership, walking, and biking for commute trips and all trips, and it would be less complementary to existing and planned bicycle and pedestrian facilities. These impacts are greater than under the proposed MTP/SCS.

The projected land use pattern of this alternative would locate significantly more homes in Developing and Rural Residential Communities, which is expected to result in greater interference with the movement of agricultural equipment and farm products on rural roadways, because physical changes associated with development increased passenger vehicle trips on existing rural roadways may interfere with movement of agricultural equipment and limit or impede efficient access to farmland. There are no aspects of this alternative that would result in greater impacts related to disrupting aviation access or service of goods movement into or through the SACOG region, or inconsistency with project design standards related to project safety.

Construction-related transportation impacts would likely be greater under this alternative because the less compact land use pattern and additional lane miles of roadway and highway investments would subject a greater amount of land to construction activities and their resulting short-term disruptions to ongoing operations of regional and local area transportation systems.

Mitigation measures identified for the proposed MTP/SCS would be applicable.



### *Utilities and Service Systems*

This alternative is anticipated to result in impacts to utilities and service systems (both construction-related and operational) similar to those that would be generated under the proposed MTP/SCS because the same total population, housing, and employment are assumed. The larger share of rural residential and large-lot single-family homes under this alternative would likely increase the demand for surface and groundwater supplies because such housing units have higher demand for water, for example due to increased irrigation demand for landscaping areas and additional appliances and fixtures that use potable water (e.g., sinks, toilets, showers). As a result, this alternative could exceed the capacity of existing water storage, conveyance, distribution, and treatment facilities to a greater degree than the proposed MTP/SCS and result in construction of new, expanded, or relocated facilities. These impacts of this alternative are greater than under the proposed MTP/SCS.

In addition, this alternative could adversely affect the capacity of the necessary utility conveyance and distribution systems (e.g. wastewater, fire flows, storm drain, electricity, natural gas, and telecommunications) due to a significantly more dispersed projected land use pattern that makes it more difficult to efficiently serve the population. Also, the significant increase in transportation capacity projects as compared to the proposed MTP/SCS would demand more water and energy and produce more waste during construction. All of the alternatives would be required to follow the same federal, state, and local statutes and regulations related to solid waste. This alternative would have the same impact related to solid waste generation and conflicts with solid waste management and reduction statutes and regulations.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

### ***ALTERNATIVE 2: INFILL & TRANSIT FOCUS***

The following discussion describes the relative level of environmental impact associated with Alternative 2 as compared to the level of environmental impact under implementation of the proposed MTP/SCS. The performance measures for this alternative and the proposed MTP/SCS are based on Table 18-2 unless stated otherwise.

#### **Description of Alternative 2**

This alternative assumes the same growth in population, jobs, and housing numbers as the proposed MTP/SCS, but with more compact and mixed land uses. Overall this alternative would be less dispersed than the proposed MTP/SCS. This alternative includes a more compact growth footprint and increased transit service for the purposes of gaining an understanding of what would be required to generate a high increase in transit ridership. To achieve this level of transit performance for Alternative 2, land use assumptions were made that go beyond the federal requirements of what is reasonable to assume. For instance, the alternative relies on a higher amount of attached housing, especially near transit, than the market and financial incentives currently will support. Additionally, Alternative 2 includes a high funding allocation for transit and relies on an exceptionally high farebox recovery rate, which would be unlikely to occur under current operations.

Table 18-1 summarizes key characteristics of all the alternatives, while Table 18-2 compares performance characteristics of each alternative.

### *Land Use Pattern*

Alternative 2 has the highest percentage of new compact housing (76 percent) and the smallest development footprint in comparison to the proposed MTP/SCS and the alternatives described above. This alternative would have the highest percentage of new homes in Center and Corridor Communities and the least amount of new growth in Developing Communities and Rural Residential Communities. Like the description for Alternative 1, the proportion of growth in this alternative across community types is not significantly different from the proposed MTP/SCS; however, growth in these communities is distributed among fewer new developments (47 new communities). Therefore, these communities would be more built out with a higher mix of uses, access to local amenities and jobs, and more transportation options under Alternative 2.

### *Transportation*

Because it has the least dispersed development pattern, this alternative has the highest amount of bus and rail projects of all of the alternatives and would increase transit service (vehicle service hours) by 130 percent from 2016. It also has the highest amount of bicycle and pedestrian projects, and the fewest new roads and road expansions.

### *Pricing*

Compared to the other two alternatives, this alternative relies on lower fees for driving, in part because the reduced expansion of new roads and highways requires a smaller investment to build and maintain. Additionally, because of the more compact land use pattern and robust transit system, a smaller price signal to drivers is needed to achieve the plan's objective to reduce vehicle miles traveled per capita.

## **Alternative 2 Attainment of Project Objectives**

### *Build Vibrant Communities*

This alternative would have the lowest number of total new homes in Rural Residential Communities (2,601) as compared to all the alternatives being analyzed and fewer new homes in Developing Communities (93,646) than Alternative 1 and the No Project Alternative. Alternative 2 would have the highest number of attached or small-lot single-family homes (197,697). While this alternative is consistent with the objective of increasing housing choice, it may result in more attached housing than the market and financial incentives currently will support. This alternative has the highest share of jobs near high-frequency transit (43 percent) of any alternative examined, as well as a large number of homes in high-frequency transit areas (101,450), though fewer than those in the proposed MTP/SCS. This alternative would have the smallest amount of developed acres (37,350) of all the alternatives due to the fact that it has the highest proportion of growth in Center and Corridor Communities and the highest proportion of compact housing- such as small lot single family homes or attached homes- of all of the alternatives. As such, this alternative would also result in the smallest amount of converted farmland and impacted biological resources. This alternative meets the requirements for regional transportation plans and achieves the GHG reduction targets assigned to SACOG by CARB and would therefore activate the CEQA streamlining benefits of SB 375.

### *Foster the Next Generation of Mobility Solutions*

Alternative 2 has the greatest increase in bicycle and pedestrian projects, including complete streets, and the smallest increase in new or expanded major roadways. Alternative 2 has the same level of per capita household VMT (16.5) as both the proposed MTP/SCS and Alternative 1, but relies more on a compact land use pattern and lower pricing than the proposed MTP/SCS and Alternative 1. Alternative 2 has lower VMT than both the baseline levels and the No Project Alternative. Transit, bike, and walk travel mode shares increase substantially due to the supportive land uses and the focus on these investments. Alternative 2 has the largest number of jobs within a 30-minute drive of residence, slightly outperforming the proposed MTP/SCS. Due to the strong emphasis on transit investment, this alternative also has the highest number of jobs within a 30-minute transit ride from home, as well as the highest increase in the share of commute trips made by transit, walking, or biking. Alternative 2 and the proposed MTP/SCS also share the lowest VMT per worker (16.1).

### *Modernize the Way We Pay for Transportation*

Alternative 2 has lower per-mile pricing than the proposed MTP/SCS and Alternative 1. The increase in pricing strategies over the No Project Alternative offer new funding opportunities to replace diminishing fuel tax revenues and fund investments in transportation infrastructure and system maintenance. However, this alternative relies less on pricing for achieving the GHG target compared to the proposed MTP/SCS and Alternative 1.

### *Build and Maintain a Safe, Reliable, and Multimodal Transportation System*

Alternative 2 includes pricing strategies that help to generate funding for investment in the transportation system. Alternative 2 limits investment in new roadway capacity, emphasizing investment in transit. Alternative 2 has the highest investment in transit service; however, may be less cost-effective than the balance of investments in the proposed MTP/SCS, with this alternative demonstrating just a marginal increase in mode share of transit, walking, and biking above the levels in the proposed MTP/SCS, despite this greater level of investment. The compact land use pattern of Alternative 2 minimizes interference with agricultural lands, with the smallest total acreage of new development. This alternative has the highest investment in transit, with weekday service hours. This investment in the transit system and the increase in service levels under this alternative may assist emergency evacuations, in support of safety and emergency preparedness objectives.

## **Alternative 2 Environmental Impacts**

### *Aesthetics*

Impacts to scenic vistas from the projected land use pattern under this alternative would likely be greater than under the proposed MTP/SCS, because this alternative assumes a higher density and intensity of development. Structures are likely to be taller and more concentrated, with greater likelihood of blocking or impeding scenic vistas. Impacts to scenic vistas would be less under the planned transportation improvements of this alternative due to the fewer lane miles of new roads and capacity-enhancing projects. With a projected land use pattern that is more compact, and fewer lane miles of new roads and capacity-enhancing planned transportation improvements compared to the proposed MTP/SCS, this alternative would have less impacts to scenic resources along official or eligible state scenic highways.

The potential for substantial degradation of visual character or quality of public views of sites and their surroundings in non-urbanized areas would be less under this alternative as compared to the

proposed MTP/SCS because under this alternative a smaller share of the projected land use pattern would be located within existing non-urbanized areas, such as Rural Residential Communities. Impacts to visual character and the quality of public views of sites and their surroundings would also be less under this alternative because it consists of fewer lane miles of new roads and capacity-enhancing projects in non-urbanized areas relative to the proposed MTP/SCS. With a more compact projected land use pattern and fewer capacity-enhancing planned transportation improvements in non-urbanized areas, this alternative would have less impacts to existing visual character and the quality of public views of sites and their surroundings in non-urbanized areas. Impacts to scenic quality in urbanized areas would be same as the proposed MTP/SCS because existing zoning and other regulations governing scenic quality are mandatory and would be equally enforced under this alternative.

Light and glare impacts to day or nighttime views under this alternative would likely be less than under the proposed MTP/SCS because the projected land use pattern of this alternative would disturb approximately 9,000 fewer acres of land. As such, building and site lighting and potential sources of glare would be introduced on a smaller geographic scale affecting fewer acres and more focused in existing communities that already feature building and site lighting and source of glare. In addition, because there are fewer rural residential or large-lot single-family homes under this alternative, there would be fewer detached structures, which could result in the need for less nighttime lighting. The more compact land use pattern of this alternative would introduce fewer sources of nighttime lighting in areas where existing nighttime views are not adversely affected by substantial sources of outdoor lighting. Light and glare associated with planned transportation improvements would be less than the proposed MTP/SCS because there would be 28 fewer lane miles of new or expanded roadway and highway projects, which would reduce the addition of new sources of light and glare that could adversely affect nighttime views as compared to the proposed MTP/SCS.

Adverse effects of shadows from both the projected land use pattern and planned transportation improvements under this alternative would likely be greater than under the proposed MTP/SCS, because of the increased density and intensity of development. Structures are likely to be taller and more concentrated, increasing the likelihood of creating adverse shadows. However, the beneficial effects of shadows from taller buildings and increased tree canopy, such as shade during periods of high heat, would occur to a greater extent than under the proposed MTP/SCS.

Construction-related aesthetic impacts would be less under this alternative for both projected land use pattern and planned transportation improvements because it would result in physical development of approximately 9,000 fewer acres of land and 28 fewer lane miles of new roads and roadway expansion projects. Moreover, because a smaller proportion of this alternative's projected land use pattern would occur in existing non-urbanized areas and it consists of a lesser number of capacity-enhancing planned transportation improvements relative to the proposed MTP/SCS, its construction activities would have fewer impacts to scenic resources along state scenic highways, visual character and quality of existing sites and their surroundings, and day and nighttime views due to light and glare. Construction impacts to scenic vistas and related to casting shadows would be the same as under the proposed MTP/SCS.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

### *Agriculture and Forestry Resources*

Conversion of agricultural land (including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance), forest land, timberland, and timberland zoned Timberland Production to non-agricultural, non-forest, or non-timber uses under this alternative would be less than under the proposed MTP/SCS because the projected land use pattern of the Alternative 2 would be more compact and would disturb approximately 9,000 fewer acres of land, and the planned transportation improvements of this alternative would include 28 fewer lane miles of new or expanded roadway and highways relative to the proposed MTP/SCS. The more compact land use pattern and fewer roadway and highway lane miles of this alternative would reduce the amount of land disturbance in areas with agricultural land, forest land, and timberland. The potential for conflicts with zoning, land use designations, Williamson Act contracts, and/or other applicable regulations that protect agricultural and forestry resources and timberlands would also be less for the same reasons. Similarly, the potential for other changes that could result in the conversion of agricultural land, forest land, and timber land to developed land uses would be less due to decreases in urban-rural edge areas under this alternative as compared to the proposed MTP/SCS.

Construction-related impacts to agricultural land, forest land, and timberland would likely be less under this alternative than the proposed MTP/SCS for the reasons provided above. The reduced land disturbance associated with the less compact land use pattern and additional roadway and highway lane miles of this alternative means that fewer construction activities would occur in areas with agricultural land, forest land, and timberland.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

### *Air Quality*

Regional mobile source emissions of criteria air pollutants and ozone precursors would be similar to the proposed MTP/SCS under this alternative as indicated by the same projected household VMT per capita performance as the proposed MTP/SCS. As compared to the proposed MTP/SCS, the similar emissions of criteria air pollutants and ozone precursors would result in similar adverse health outcomes from greater exposure to concentrations of criteria air pollutants in excess of the NAAQS and CAAQS. This alternative would have the same impact related to implementation of or conflict with an applicable air quality plan.

The number of sensitive receptors exposed to substantial concentrations of (TACs) would likely be greater under this alternative as compared to the proposed MTP/SCS. This is because TACs are pollutants of local rather than of regional concern. TACs dissipate quickly from their source resulting in significantly reduced concentrations at certain distances from a source (i.e., 500 feet). The overall number of sensitive receptors exposed to TAC emissions would likely be greater under this alternative because its more compact land use pattern would allocate more people and housing units into Center, Corridor, and Established Communities. Housing units in these communities are more likely than other community types to be located in close proximity to roadways and freeways that generate substantial concentrations of TAC emissions. This impact would be greater than under the proposed MTP/SCS.

This alternative would have the same odors impacts as the proposed MTP/SCS. It is possible that odor impacts could be greater due to more concentration of development in a smaller area; therefore, exposing more people at any one location. It is also possible, however, that the decrease

in overall developed acreage could result in decreased exposure to odors because it would be relatively more opportunities to site land uses that introduce potential odor emissions within reasonable distances (e.g., SMAQMD's Recommended Odor Screening Distances) from existing or future populations susceptible to odor impacts (SMAQMD 2009).

Long-term operational criteria air emissions associated with area sources, such as natural gas emissions, landscaping equipment, applications of architectural coatings, and use of consumer products, would be less under this alternative as compared to the proposed MTP/SCS. This alternative includes relatively fewer rural residential and large-lot single family homes, and relatively more small-lot single-family or attached homes. Rural residential and large-lot single family homes tend to have higher energy (including natural gas) consumption and involve greater use of landscaping equipment and architectural coatings (and higher associated criteria air pollutant emissions) than small-lot single-family or attached homes.

Short-term construction criteria air pollutant emissions would be lower under this alternative because its more compact land use pattern would develop approximately 9,000 fewer acres and its planned transportation improvements would include 28 fewer lane miles of roadway and highway construction, which would result in lower emissions from construction equipment and vehicles and dust generation during construction activities such as site preparation, grading, excavation, and paving. This impact would be less than under the proposed MTP/SCS.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

#### *Biological Resources*

Impacts (direct or through habitat modification) on candidate, sensitive, or special status species (including plants, wildlife, and fish) under this alternative would be less than under the proposed MTP/SCS, because this alternative's projected land use pattern would be more compact and include approximately 9,000 fewer acres of development, and its planned transportation improvements would include 28 fewer roadway and highway lane miles. The reduced land disturbance resulting from the projected land use pattern and planned transportation improvements of this alternative would generally occur in Rural Residential Communities, which are less developed and include more biological resources than Center, Corridor, and Established Communities. The potential for impacts to riparian habitats, oak woodlands, other sensitive natural communities, state or federally protected wetlands, migratory wildlife corridors and native wildlife nursery sites, adopted HCP or NCCP, other approved habitat conservation plans, and local policies and ordinances protecting biological resources would be lower for the same reasons. This alternative would have less impacts to fish or wildlife species habitat and population levels, the range of endangered or threatened species, and potential to threaten to eliminate a plant or animal community. Construction-related impacts to biological resources are likely to be less under this alternative for the reasons provided above. The reduced land disturbance associated with the more compact land use pattern and fewer roadway and highway lane miles of this alternative means that less construction activities would occur in areas with biological resources, and would result in less direct and indirect impacts to biological resources during construction activities (e.g., equipment staging, construction lighting and noise, dust generation and exhaust emissions).

Mitigation measures identified for the proposed MTP/SCS would be applicable.

### *Cultural, Paleontological, and Tribal Cultural Resources*

Impacts to cultural resources (historic built environments, archeological, paleontological, and tribal cultural resources, and human remains, and important examples of major periods of California history or prehistory) under this alternative would be less than under the proposed MTP/SCS because this alternative's projected land use pattern would be more compact and include approximately 9,000 fewer acres of development, and its planned transportation improvements would include 28 fewer roadway and highway lane miles. The reduced land disturbance, such as grading and excavation, resulting from the projected land use pattern and planned transportation improvements of this alternative would result in lower likelihood of encountering unknown surface or subsurface archaeological, paleontological, and tribal cultural resources, or human remains; it would also result in less impacts to the character of settings that contribute to the significance of historic built environments and to the traditional use and cultural character and integrity of tribal cultural resources. By subjecting a smaller land area to disturbance and physical change this alternative would result in less indirect impacts to tribal cultural resources by resulting in a smaller increase in public accessibility to tribal cultural resources relative to the proposed MTP/SCS. Construction activities under this alternative would also have less impacts to historic built environments, archaeological, paleontological, and tribal cultural resources, human remains, and important examples of major periods of California history or prehistory for the reasons provided above.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

### *Energy and Global Climate Change*

This alternative would result in a 19 percent reduction in per capita CO<sub>2</sub> emissions by 2035 relative to a 2005 baseline, which attains the 19 percent reduction target established for SACOG by CARB. Therefore, this alternative would not conflict with the SACOG region's achievement of its SB 375 GHG emissions reduction target, the same impact as the proposed MTP/SCS. Achievement of the SB 375 GHG reduction target contributes to achievement of the state's long-term climate goals set forth in CARB's 2017 Scoping Plan. Same as the proposed MTP/SCS, the per capita passenger vehicle GHG reductions achieved by this alternative would not be enough to achieve the state's long-term climate goals. Achievement of the SB 375 GHG reduction target under this alternative would also contribute to local GHG reduction plan goals. These impacts are the same as under the proposed MTP/SCS.

This alternative would likely result in decreased use of energy and generation of GHG emissions during construction because it assumes more attached units and fewer individual detached structures. These individual detached structures require more energy for materials, more materials overall, and more fuels to build than would be needed for attached structures. Construction impacts from planned transportation improvements would also likely be fewer because of the decreased energy consumed and GHG emissions generated to construct 28 fewer lane miles of road and highway improvements. Per-capita energy consumption under this alternative would be lower than under the proposed MTP/SCS because this alternative would result in a more compact land use pattern. This alternative also includes a housing mix with fewer large-lot single-family homes (24 percent) and more small-lot single-family or attached homes (76 percent) as compared to the proposed MTP/SCS (26 percent and 74 percent, respectively). As a result, this alternative would likely result in lower energy use per capita because small-lot single-family and attached homes require less energy per capita as compared to large-lot single-family homes. This alternative would

result in less impacts related to the wasteful, inefficient, or unnecessary consumption of energy during construction activities and long-term operations.

This alternative is likely to have less impact on state and local plans for renewable energy or energy efficiency as compared to the proposed MTP/SCS. Use of renewable energy sources could be facilitated by this alternative. The economics of some small-scale renewable energy sources benefit from serving higher density development and development patterns that produce balanced loads and minimize peak demand; other renewable energy sources would benefit from larger areas of land required for siting, making more compact land use patterns more compatible than more dispersed development. Implementation of the California Energy Code and State goals for increasing the percentage of electricity from renewable and zero-carbon sources under this alternative would be the same as under the proposed MTP/SCS.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

#### *Geology, Soils, Seismicity and Mineral Resources*

The following impacts associated with earthquakes and seismic activity under this alternative would be the same as the proposed MTP/SCS: rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; and landslides. Existing state laws and state and local building code requirements addressing substantial adverse effects due to earthquakes and seismic activity would apply to the projected land use pattern and planned transportation improvements of the proposed MTP/SCS. The following operational and construction impacts of this alternative would be less than the proposed MTP/SCS because this alternative includes a more compact land use pattern that would develop approximately 9,000 fewer acres: soil erosion and loss of topsoil; on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse; development on expansive soil; and inadequate soils for alternative wastewater systems. The projected land use pattern of the proposed MTP/SCS projects more land development within areas subject to adverse impacts from the geologic and soils conditions than this alternative.

Impacts to unique geologic features and mineral resources would be less under this alternative than under the proposed MTP/SCS because the projected land use pattern of this alternative is more compact and would develop fewer acres and the planned transportation improvements include 28 fewer lane miles on the roadway and highway network. The decreased land disturbance resulting from the projected land use pattern and planned transportation improvements under this alternative would result in less impacts to unique geologic features and restricted access to and potentially the inability to harvest a greater proportion of mineral resources, including those of value to the region and the state, and locally-important mineral resource recovery sites delineated on a local land use plan.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

#### *Hazards, Hazardous Materials, and Wildfire*

Hazardous materials impacts to the public or the environment associated with construction activities and operations under this alternative would be the same as the impacts under the proposed MTP/SCS. This is because of the numerous federal, state, and local requirements and regulations that minimize the creation of significant hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials; through reasonably foreseeable upset and



accident conditions involving the release of hazardous materials into the environment and through handling of hazardous materials, substances, and waste within 0.25 mile of an existing or proposed school. These existing requirements and regulations would apply equally to the different projected land use patterns and planned transportation network improvements of this alternative and the proposed MTP/SCS, so impacts would be the same. The same is true for existing requirements and regulations addressing potential safety hazards and excessive noise within an airport land use plan or within two miles of a public or public use airport, so airport-related safety and noise impacts to people residing or working in the plan area would be the same under this alternative.

This alternative assumes a more compact land use pattern dispersed over approximately 9,000 fewer acres and 28 fewer lane miles of road and highway construction. The decreased land disturbance including site preparation and grading during construction activities under this alternative would expose fewer people such as construction workers or nearby residents and employees or the environment to significant hazards involving the accidental release of naturally occurring asbestos and hazardous materials present in soil or groundwater, such as aerially-deposited lead in exposed surface soils immediately adjacent to existing roadways and highways. The more compact land use pattern of this alternative includes more homes and jobs within Center, Corridor, and Established Communities relative to the proposed MTP/SCS, where sites included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, such as those contaminated by past industrial uses are more likely to occur. Therefore, impacts associated with development on such hazardous materials sites would be greater under this alternative.

Additionally, construction impacts would be less for this alternative because it assumes a more compact land use pattern dispersed over approximately 9,000 fewer acres and 28 fewer lane miles of road and highway construction. Construction-related activities will require the use of construction equipment and materials, which may include hazardous substances and/or release hazardous materials into the environment.

The more compact land use pattern and fewer lane miles of roadway and highway construction under this alternative would be more transit-oriented than the proposed MTP/SCS and could complement emergency evacuation plans that rely in part on public transit to a greater degree. This alternative also would result in a lower share of homes within Rural Residential Communities, which have a higher risk of wildfire than other Community Types and when developed are more likely to exacerbate post-fire flooding or landslide hazards that would require emergency responses or emergency evacuation. Therefore the more compact land use pattern of this alternative would result in less impacts associated with impairing the implementation of adopted emergency response and emergency evacuation plans (including within or near state responsibility areas or lands classified as very high fire hazard severity zones), exposing people or structures to significant risk of loss, injury, or death involving wild land fire, and exacerbating wildfire risk or post-fire flooding or landslide hazards.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

#### *Hydrology and Water Quality*

Impacts associated with hydrology and water quality under this alternative would be less than under the proposed MTP/SCS because its more compact land use pattern and fewer lane miles of roadway and highway construction would result in disturbance to a smaller land area during construction activities and would permanently convert a smaller amount of land to impervious surfaces, such as

parking lots, buildings, roadways, highways, and other paved areas, as compared to the proposed MTP/SCS. The decreased land area subject to construction disturbance would decrease potential for short-term discharge of pollutants from construction sites into surface or groundwater. Construction impacts to hydrology and water quality would be less under this alternative.

The decreased land area permanently converted to impervious surfaces would decrease the potential volume and increase the water quality of stormwater and nonstormwater flows relative to the proposed MTP/SCS. Fewer new impervious surfaces also would reduce interference with groundwater recharge and result in less alteration of drainage patterns in a manner that would increase the potential for substantial erosion, siltation, and flooding relative to the proposed MTP/SCS. This alternative would require less storm drainage system capacity than the proposed MTP/SCS because of its conversion of reduced land area to impervious surface area. In addition, the housing mix of this alternative would include a smaller number of rural residential and large-lot single-family homes, which would result in less managed landscaping areas and associated pollutants such as nutrients, herbicides, and irrigated runoff, which in turn could adversely affect surface and groundwater quality. Because the projected land use pattern and planned transportation improvements of this alternative would convert a smaller amount of land to impervious surfaces that would collect water quality contaminants, this alternative would decrease the risk of release of pollutant if such impervious surfaces areas were inundated during a flood hazard or seiche. The projected land use pattern and planned transportation improvements of this alternative would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan, but for the reasons describe above this alternative is more complementary to implementing the goals and objectives of these plans as compared to the proposed MTP/SCS.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

#### *Land Use and Planning*

The more compact land use pattern of this alternative provides more connectivity within existing communities, so it would not physically divide any existing communities. This impact is the same as under the proposed MTP/SCS. New roadway or highway improvements can physically divide existing communities by providing physical barriers where none previously existing. Expansion of existing roadways and highways also can physically divide existing communities to the extent that wider facilities with additional lanes represent greater physical barriers than narrower facilities. The planned transportation improvements of this alternative would include fewer lane miles along the roadway and highway network, which means it would result in less impacts from physically dividing existing communities.

This alternative would substantively satisfy the SCS requirements of SB 375, including achievement of the 19 percent per capita passenger vehicle CO<sub>2</sub> emissions reduction target established for SACOG by CARB. This impact is the same as under the proposed MTP/SCS.

All of the alternatives direct growth to areas within city boundaries in the Delta, and all subsequent projects within the proposed MTP/SCS that fall within the LURMP boundaries will be required to demonstrate consistency with the LURMP and satisfy mitigation requirements. However, because this alternative would include a more compact land use pattern and fewer lane miles of roadway and highway improvements that would result in decreased land disturbance relative to the proposed MTP/SCS, it would have less impacts to resources within the Delta that are protected by the

provisions of the 2010 LURMP, including agriculture, biological resources, and recreational land, and from contaminated runoff and construction of new utilities facilities, especially at the rural-urban edge. This impact is less than under the proposed MTP/SCS.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

**Noise and Vibration** This alternative would generate noise levels generally similar to those that would be generated under the proposed MTP/SCS because the same total population, housing, and employment are assumed. However, the more compact land use pattern of this alternative would direct less housing growth to Rural Residential Communities, decreasing construction and operational noise levels relative the proposed MTP/SCS in these areas that tend to have lower existing noise levels than more developed and urbanized communities. Noise thresholds would be less likely to be exceeded. The fewer lane miles of roadway and highway improvements under this alternative could lead to decreased traffic volumes and associated localized noise levels, and noise thresholds would be less likely to be exceeded. Operational noise impacts of the projected land use pattern and planned transportation improvements of this alternative would be less than under the proposed MTP/SCS.

The projected land use pattern of this alternative, while more compact than the proposed MTP/SCS, would not result in land use types that would result in different levels of vibration or groundborne noise. The planned transportation improvements of this alternative would include fewer lane miles of roadway and highway improvements, but this would also not result in significantly different levels of vibration or groundborne noise relative to the planned transportation improvements identified in the proposed MTP/SCS. This impact is the same under this alternative.

There would potentially be less construction-related noise impacts under this alternative due to the approximately 9,000 fewer acres of land area that would be subject to disturbance during construction activities associated with the less compact land use pattern and the 28 fewer lane miles of construction along the roadway and highway network. This would decrease the number of separate construction sites, which would decrease overall noise levels associated with construction activities relative to the proposed MTP/SCS.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

#### *Population and Housing*

Impacts related to population and housing should be similar under all alternatives, because the same number of people and dwelling units are assumed. The more compact land use pattern of this alternative and its fewer lane miles of roadway and highway improvements would not result in displacement of substantial numbers of people or existing housing that necessitates the construction of replacement housing elsewhere. This impact is the same as the proposed MTP/SCS.

No mitigation measures were identified for the proposed MTP/SCS.

#### *Public Services and Recreation*

This alternative is anticipated to result in public service and recreation impacts (both construction-related and operational) similar to those that would be generated under the proposed MTP/SCS, because the same total population, housing, and employment are assumed. However, this alternative could result in less demand on the ability to achieve local levels of service due to the more compact

land use pattern that makes it more efficiently serve the population. This impact is less than the proposed MTP/SCS. The planned transportation improvements of this alternative would have the same public services and recreation impacts as the proposed MTP/SCS.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

### *Transportation*

This alternative would result in the same rate of household generated VMT per capita as the proposed MTP/SCS. According to CARB much greater VMT reductions (beyond those achieved by the proposed MTP/SCS and this alternative) will be required to meet the state's long-term climate goals for 2030 and 2050. Therefore, the VMT impact of this alternative is the same as under the proposed MTP/SCS. However, the projected land use pattern and planned transportation improvements of this alternative are more transit-oriented than the those of the proposed MTP/SCS and would result in higher levels of transit ridership, walking, and biking for commute trips and all trips, and it would be more complementary to existing and planned bicycle and pedestrian facilities. These impacts are less than under the proposed MTP/SCS.

The projected land use pattern of this alternative would locate fewer homes and fewer lane miles of road and highway network improvements in Rural Residential Communities, which is expected to result in less interference with the movement of agricultural equipment and farm products on rural roadways. There are no aspects of this alternative that would result in greater impacts related to disrupting aviation access or service of goods movement into or through the SACOG region, or inconsistency with project design standards related to project safety.

Construction-related transportation impacts would likely be less under this alternative because the more compact land use pattern and fewer lane miles of roadway and highway investments would subject a lesser amount of land to construction activities and their resulting short-term disruptions to ongoing operations of regional and local area transportation systems.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

### *Utilities and Service Systems*

This alternative is anticipated to result in impacts to utilities and service systems (both construction-related and operational) similar to those that would be generated under the proposed MTP/SCS because the same total population, housing, and employment are assumed. The lower share of rural residential and large-lot single-family homes under this alternative could decrease the demand for surface and groundwater supplies because such housing units have higher demand for water, for example due to increased irrigation demand for landscaping areas and additional appliances and fixtures that use potable water (e.g., sinks, toilets, showers). As a result, this alternative could exceed the capacity of existing water storage, conveyance, distribution, and treatment facilities to a lesser degree than the proposed MTP/SCS and result in construction of new, expanded, or relocated facilities. These impacts of this alternative are less than under the proposed MTP/SCS.

In addition, this alternative would result in less impacts related to adversely affecting the capacity of the necessary utility conveyance and distribution systems (e.g. wastewater, fire flows, storm drain, electricity, natural gas, and telecommunications) due to the more compact land use pattern that makes it more efficient to serve the population. Also, the decreased land area subject to construction

activities, such as watering for dust suppression, and the decrease in transportation capacity projects as compared to the proposed MTP/SCS would demand less water and energy and produce more waste during construction. All of the alternatives would be required to follow the same federal, state, and local statutes and regulations related to solid waste. This alternative would have the same impact related to solid waste generation and conflicts with solid waste management and reduction statutes and regulations.

Mitigation measures identified for the proposed MTP/SCS would be applicable.

## **18.4 Environmentally-Superior Alternative**

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CEQA requires that an EIR identify the environmentally-superior alternative from among the range of reasonable alternatives that are evaluated. CEQA Guidelines Section 15126.6(d)(2) states that if the environmentally-superior alternative is the no project alternative, the EIR shall also identify an environmentally-superior alternative from among the other alternatives.

This chapter analyzes the effectiveness of the alternatives in meeting the objectives of the project and how the potential impacts of the alternatives compare to the potential impacts of the proposed MTP/SCS. Based on this evaluation, Alternative 2: Infill and Transit Focused would be the environmentally-superior alternative, because it would reduce most impacts as compared to the proposed MTP/SCS. However, the overall level of impact and the conclusions regarding those that remain potentially significant and unavoidable are similar between Alternative 2 and the proposed MTP/SCS. Table 18-3 provides a summary comparison of the pre-mitigation impacts of the No Project Alternative, Alternative 1, and Alternative 2 to those of the proposed MTP/SCS. Alternative 2 ranks the highest, because, as proposed, it would have the most reduced impacts of all alternatives as compared to the proposed MTP/SCS. The proposed MTP/SCS ranks second, the No Project Alternative ranks third, and Alternative 1: Outward Expansion ranks fourth, because it would have the most impacts of all alternatives analyzed.

### **18.4.1 Proposed Project (MTP/SCS) Attainment of Project Objectives**

The environmental impacts of the proposed MTP/SCS are analyzed throughout this EIR and a comparison of its impacts to the impacts of the alternatives is provided in Table 18-3 below. This section provides a discussion of the ability of the proposed MTP/SCS to achieve the Project Objectives identified above in section 18.20. Under the proposed project (MTP/SCS), the projected land use pattern, in combination with strategic transportation improvements, meet SACOG's SB 375 target for GHG emissions reduction. As discussed in more detail below, the proposed MTP/SCS meets all Project Objectives.

#### ***BUILD VIBRANT PLACES FOR TODAY'S AND TOMORROW'S RESIDENTS***

The MTP/SCS meets all these objectives by providing a land use forecast that delivers strong performance, while also reflecting market and regulatory realities. A key factor in meeting these objectives is focusing a large share of new growth towards infill and corridor re-urbanization opportunity sites that reduce the expansion of the urban footprint and thereby protect agricultural and natural resource lands. The proposed MTP/SCS has a greater share of new housing in small-lot single-family or attached homes and fewer new acres developed than both the No Project Alternative and Alternative 1. This smaller development footprint means less of an impact on

agriculture and natural resources. The proposed project emphasizes a greater share of new homes in Center & Corridor Communities and Established Communities, with one of the smallest shares of homes in Rural Residential Communities compared with other alternatives. The proposed MTP/SCS has the largest share of all homes near high-frequency transit (40%) of any alternative. Objectives related to improved jobs-housing balance and increased housing choice and diversity are also met through the proposed MTP/SCS, which includes the most balanced jobs-housing ratio in high frequency transit. To the extent that is reasonable to assume, mixed-use and compact activity centers expand with more jobs and a diversity of housing options to accommodate the region's forecasted changes in demographics and economics. Support towards the realization of these policy-related objectives is reflected in the MTP/SCS investment priorities. The MTP/SCS has a high level of investment in programs to fund data, tools and financial incentives that support local land use decision-making and assist in the voluntary implementation of the Blueprint. This alternative meets the requirements for regional transportation plans and achieves the GHG reduction targets assigned to SACOG by CARB and would therefore activate the CEQA streamlining benefits of SB 375.

#### *FOSTER THE NEXT GENERATION OF MOBILITY SOLUTIONS*

The proposed MTP/SCS has the same level of per capita household VMT (16.5) as both Alternative 1 and Alternative 2, with lower VMT than both the baseline levels and the No Project Alternative. The proposed MTP/SCS relies on a combination of compact land uses and moderate levels of pricing, between Alternatives 1 and 2, to manage VMT.

The proposed MTP/SCS has more homes and jobs near high-frequency transit service than Alternative 1 and the No Project Alternative, allowing for greater realization of complete streets opportunities. Mobility options are broadened, as evidenced by the increase in transit, bike and walk trips. The proposed MTP/SCS improves connections of workers to jobs across the region, with nearly the highest number of jobs within a 30-minute drive of residence, edged out slightly by Alternative 2. The proposed MTP/SCS and Alternative 2 also share the lowest VMT per worker (16.1). The proposed MTP/SCS increases the share of commute trips by alternative modes such as transit, walking, and biking, and has the second highest number of jobs within a 30-minute transit trip from home.

#### *MODERNIZE THE WAY WE PAY FOR TRANSPORTATION*

The proposed MTP/SCS has the same per-mile pricing as Alternative 2, which is the lowest level of system pricing of any alternative. The pricing strategies included in this alternative offer new funding opportunities to replace diminishing fuel tax revenues and fund investments in transportation infrastructure and system maintenance. By contrast, the No Project Alternative does not include pricing strategies that would generate new such new revenue sources and Alternative 1 has elevated pricing levels that could be more burdensome to low income and rural community members than the proposed MTP/SCS pricing strategies.

#### *BUILD AND MAINTAIN A SAFE, RELIABLE, AND MULTIMODAL TRANSPORTATION SYSTEM*

The proposed MTP/SCS meets all of these objectives. The proposed MTP/SCS includes pricing strategies that help to generate funding for investment in the transportation system. The proposed MTP/SCS limits investment in new roadway capacity, instead emphasizing the highest level of investment in system maintenance to improve the condition of the transportation system and

maximize the cost efficiency of investments. Safety and emergency preparedness objectives are also met in the MTP/SCS through compact land uses that minimize conflicts on roadways along the urban/rural edge as well as significant increases in transit investments that may support evacuations. This increase in mobility alternatives to driving allows the MTP/SCS to meet the economic vitality objectives related to commute travel and efficient goods movement.

**Table 18-3  
Summary of Alternative Impacts Against the Proposed MTP/SCS**

<b>S – Impact is Significant</b> <b>LS – Impact is Less than Significant</b> <b>+ Impact is greater than proposed MTP/SCS</b> <b>- Impact is less than proposed MTP/SCS</b> <b>= Impact is same as proposed MTP/SCS</b>  <b>Impact Statement</b>		Proposed MTP/SCS	Alternative 1 (Outward Expansion)	No Project	Alternative 2 (Infill and Transit Focus)
<b>AES-1:</b> Have a substantial adverse effect on a scenic vista.	Land Use	<b>S</b>	-	-	+
	Transpo.	<b>S</b>	+	+	-
<b>AES-2:</b> Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a state scenic highway.	Land Use	<b>S</b>	+	+	-
	Transpo.	<b>S</b>	+	+	-
<b>AES-3:</b> In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality.	Land Use	<b>S (non-urbanized areas)</b>	+	+	-
	Transpo.	<b>S (non-urbanized areas)</b>	+	+	-
<b>AES-4:</b> Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	Land Use	<b>S</b>	+	+	-
	Transpo.	<b>S</b>	+	+	-
<b>AES-5:</b> Cast shadow in such a way as to cause a public hazard or substantially degrade the existing visual/aesthetic character or quality of a site or place for a sustained period of time.	Land Use	<b>LS</b>	+	-	+
	Transpo.	<b>LS</b>	=	=	+
<b>AES-6:</b> Result in construction impacts that would substantially adversely affect a scenic vista, substantially damage scenic resources within a state scenic highway, substantially degrade visual character or quality of public views in non-urban areas or conflict with applicable zoning and other regulations governing scenic quality in urbanized areas, create a new source of substantial light and glare with adverse effects on views, or cast shadows that cause a public hazard or substantially degrade the existing visual/aesthetic character.	Land Use	<b>S</b>	+	+	-
	Transpo.	<b>S</b>	+	+	-
<b>AG-1:</b> Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the FMMP of the DOC, to non-agricultural use.	Land Use	<b>S</b>	+	+	-
	Transpo.	<b>S</b>	+	+	-

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<b>AG-2:</b> Conflict with existing zoning or general plan land use designations for agricultural use, or a Williamson Act Contract.	Land Use	<b>S</b>	<b>+</b>	<b>+</b>	<b>-</b>
	Transpo.	<b>S</b>	<b>+</b>	<b>+</b>	<b>-</b>
<b>AG-3:</b> Conflict with existing zoning or land use designation for, or cause rezoning of, forest land (as defined in PRC Section 12220(G)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Gov. Code Section 51104(G)).	Land Use	<b>LS</b>	<b>+</b>	<b>+</b>	<b>-</b>
	Transpo.	<b>S</b>	<b>+</b>	<b>+</b>	<b>-</b>
<b>AG-4:</b> Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use.	Land Use	<b>S</b>	<b>+</b>	<b>+</b>	<b>-</b>
	Transpo.	<b>S</b>	<b>+</b>	<b>+</b>	<b>-</b>
<b>AG-5:</b> Result in the loss of “Forest Land” as defined in the California Forest Legacy Act of 2007 (PRC Section 12220(G)) or conversion of Forest Land to non-forest use.	Land Use	<b>S</b>	<b>+</b>	<b>+</b>	<b>-</b>
	Transpo.	<b>S</b>	<b>+</b>	<b>+</b>	<b>-</b>
<b>AG-6:</b> Result in construction impacts that would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses; conflict with existing zoning or land use designation for agricultural use or a Williamson Act contract; conflict with existing zoning or land use designations for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production; involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use; or result in the loss of Forest Land or conversion of Forest Land into non-forest use.	Land Use	<b>S</b>	<b>+</b>	<b>+</b>	<b>-</b>
	Transpo.	<b>S</b>	<b>+</b>	<b>+</b>	<b>+</b>
<b>AIR-1:</b> Conflict with or obstruct implementation of an applicable air quality plan.	Land Use	<b>LS</b>	<b>=</b>	<b>+</b>	<b>=</b>
	Transpo.	<b>LS</b>	<b>=</b>	<b>+</b>	<b>=</b>
<b>AIR-2:</b> Expose sensitive receptors to substantial TAC concentrations, including those from construction or operational emissions.	Land Use	<b>S</b>	<b>-</b>	<b>-</b>	<b>+</b>
	Transpo.	<b>S</b>	<b>-</b>	<b>-</b>	<b>+</b>
<b>AIR-3:</b> Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	Land Use	<b>S</b>	<b>=</b>	<b>=</b>	<b>=</b>
	Transpo.	<b>LS</b>	<b>=</b>	<b>=</b>	<b>=</b>
<b>AIR-4a:</b> Be inconsistent or exceed applicable thresholds of significance established by the local air district for long-term operational criteria air pollutant emissions.	Land Use	<b>S</b>	<b>+</b>	<b>+</b>	<b>-</b>
	Transpo.	<b>S</b>	<b>+</b>	<b>+</b>	<b>-</b>
<b>AIR-4b:</b> Be inconsistent or exceed applicable thresholds of significance established by the local air district for short-term construction criteria air pollutant emissions.	Land Use	<b>S</b>	<b>+</b>	<b>+</b>	<b>-</b>
	Transpo.	<b>S</b>	<b>+</b>	<b>+</b>	<b>-</b>



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<b>BIO-1:</b> Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by CDFW or USFWS.	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>BIO-2:</b> Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS.	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>BIO-3:</b> Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, and coastal wetlands) through direct removal, filling, hydrological interruption, or other means.	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>BIO-4:</b> Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>BIO-5:</b> Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>BIO-6:</b> Conflict with the Provisions of an Adopted Habitat Conservation Plan (HCP), Natural Communities Conservation Plan (NCCP), or Other Approved Local, Regional, or State Habitat Conservation Plan.	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>BIO-7:</b> 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 substantially reduce the number or restrict the range of an endangered, rare, or threatened species.	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>CR-1:</b> Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>CR-2:</b> Cause a substantial adverse change in the significance of an historical or unique archaeological resource pursuant to CEQA Guidelines Section 15064.5.	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>CR-3:</b> Directly or indirectly destroy a unique paleontological resource or site.	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>CR-4:</b> Disturb any human remains, including those interred outside of formal cemeteries.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-

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<b>CR-5:</b> Cause a substantial adverse change in the significance of a tribal cultural resource defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is: i. Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to the criteria set forth in Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>CR-6:</b> Eliminate important examples of major periods of California history or prehistory pursuant to CEQA Guidelines Section 15065(a)(1).	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>GHG-1:</b> Conflict with the SACOG region’s achievement of SB 375 GHG emissions reduction targets.	Land Use	LS	=	+	=
	Transpo.	LS	=	+	=
<b>GHG-2:</b> Substantially interfere with achievement of the state’s long-term climate goals, as set forth in CARB’s 2017 Scoping Plan	Land Use	S	=	+	=
	Transpo.	S	=	+	=
<b>GHG-3:</b> Substantially interfere with achievement of applicable local GHG reduction plan goals.	Land Use	LS	=	+	=
	Transpo.	LS	=	+	=
<b>ENE-1:</b> Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-
<b>ENE-2:</b> Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Land Use	LS	=	=	=
	Transpo.	LS	=	=	=
<b>GEO-1a:</b> Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death due to rupture of a known earthquake fault.	Land Use	LS	=	=	=
	Transpo.	LS	=	=	=
<b>GEO-1b:</b> Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.	Land Use	LS	=	=	=
	Transpo.	LS	=	=	=

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<b>GEO-1c:</b> Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.	Land Use	LS	=	=	=
	Transpo.	LS	=	=	=
<b>GEO-1d:</b> Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving landslides.	Land Use	LS	=	=	=
	Transpo.	LS	=	=	=
<b>GEO-2:</b> Result in substantial soil erosion or the loss of topsoil.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-
<b>GEO-3:</b> Locate a project on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-
<b>GEO-4:</b> Result in development on expansive soil, creating substantial risks to life or property.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-
<b>GEO-5:</b> Have soils incapable of adequately supporting the use of septic tanks or alternative water disposal systems where sewers are not available for the disposal of waste water.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-
<b>Geo-6:</b> Directly or indirectly destroy a unique geologic feature.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-
<b>GEO-7:</b> Result in substantial impacts to geology, seismicity, and soils from construction of proposed MTP/SCS projects.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-
<b>GEO-8:</b> Result in the loss of availability of a known designated mineral resource that would be of value to the region and the residents of the state.	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>GEO-9:</b> 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.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-
<b>GEO-10:</b> Result in a substantial impact to mineral resources from construction of proposed MTP/SCS projects.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-
<b>HAZ-1:</b> Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	Land Use	LS	=	=	=
	Transpo.	LS	=	=	=
<b>HAZ-2a:</b> Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Land Use	LS	=	=	=
	Transpo.	LS	=	=	=

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<b>HAZ-2b:</b> Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of asbestos into the environment.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-
<b>HAZ-3:</b> Emit hazardous emissions or cause handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	Land Use	LS	=	=	=
	Transpo.	LS	=	=	=
<b>HAZ-4:</b> Result in development on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or environment.	Land Use	LS	-	-	+
	Transpo.	LS	-	-	+
<b>HAZ-5:</b> 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 or excessive noise for people residing or working in the project area.	Land Use	LS	=	=	=
	Transpo.	LS	=	=	=
<b>HAZ-6:</b> Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.	Land Use	LS	+	+	=
	Transpo.	LS	+	+	=
<b>HAZ-7:</b> Result in construction impacts that would cause a hazard to the public or the environment.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-
<b>HAZ-8:</b> Expose people or structures to a significant risk of loss, injury, or death involving wild land fires.	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>HAZ-9:</b> Result in projects located in or near state responsibility areas or lands classified as very high fire hazard severity zones that could substantially impair an adopted emergency response plan or emergency evacuation plan, exacerbate wildfire risk, or post-fire create flooding or landslide hazards.	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>HYD-1:</b> Violate water quality standards or wastewater requirements or otherwise substantially degrade surface or groundwater quality.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-
<b>HYD-2:</b> Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-
<b>HYD-3A:</b> Substantially alter existing drainage patterns, including alteration of the course of a stream or river or addition of impervious surfaces, in a manner that would result in substantial erosion or siltation.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-

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<b>HYD-3B:</b> Substantially alter existing drainage patterns, including alteration of the course of a stream or river or addition of impervious surfaces, in a manner that would substantially increase rates or amounts of surface runoff and result in flooding.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-
<b>HYD-3C:</b> Substantially alter existing drainage patterns, including alteration of the course of a stream or river or addition of impervious surfaces, in a manner that would create or contribute runoff, water that would exceed the capacity of existing or planned stormwater drainage systems, such that the construction of new, expanded, or relocated facilities that could cause significant effects is required, or provide substantial additional sources of polluted runoff.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-
<b>HYD-4:</b> In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-
<b>HYD-5:</b> Conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-
<b>HYD- 6:</b> Violate any water quality standards or waste discharge requirements resulting from construction and other soil disturbance activities.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-
<b>LU-1:</b> Physically divide an existing community.	Land Use	LS	=	=	=
	Transpo.	S	+	+	-
<b>LU-2:</b> Cause a significant environmental impact due to a conflict with any of the following SCS requirements of Senate Bill 375 (California Government Code Section 65080(b)(2)(B)).	Land Use	LS	=	+	=
	Transpo.	LS	=	+	=
<b>LU-3:</b> Cause a significant environmental impact resulting from a conflict with any of the following requirements included in the Land Use and Resource Management Plan adopted by the Delta Protection Commission.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-
<b>NOI-1:</b> Result in noise levels that exceed the community type L <sub>dn</sub> thresholds identified in Table 13.4 and increase noise levels by more than 1.5 dB for Center and Corridor Communities or more than 3 dB over baseline conditions for the other community types.	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>NOI-2:</b> Result in excessive vibration and groundborne noise.	Land Use	LS	=	=	=
	Transpo.	S	=	=	=

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<b>NOI-3:</b> Result in construction impacts that would increase noise levels above the community type CNEL thresholds identified in Table 13.4, result in increases of more than 1.5 dB at locations currently in exceedance of the CNEL thresholds for Center and Corridor Communities or more than 3 dBA at locations currently in exceedance of the CNEL thresholds over baseline conditions for the other community types; or result in excessive levels of vibration and groundborne noise.	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>POP-1:</b> Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere.	Land Use	LS	=	=	=
	Transpo.	LS	=	=	=
<b>PS-1:</b> Impede achievement of acceptable levels of service, including capital capacity, programming, equipment, and personnel, for police protection, fire protection, emergency response, school, library, social, parks and recreation, and/or other public services, and including increased use of parks and recreational facilities such that substantial physical deterioration would occur or be accelerated.	Land Use	S	+	+	-
	Transpo.	S	=	=	=
<b>PS-2:</b> Result in impacts associated with the construction of new or the expansion of existing facilities to maintain adequate capital capacity for police protection, fire protection, emergency response, school, library, social, park and recreation, and/or other public services.	Land Use	S	+	+	-
	Transpo.	S	=	=	=
<b>TRN-1:</b> Substantially interfere with achievement of VMT reductions consistent with CARB’s 2017 Scoping Plan.	Land Use	S	=	+	=
	Transpo.	S	=	+	=
<b>TRN-2:</b> Cause combined bicycle, walk, and transit person trips per capita to be lower than the baseline average in the applicable sub-area, and cause a decline in the bicycle, walk, and transit person trips per capita that is lower than the baseline regional average.	Land Use	LS	+	=	-
	Transpo.	LS	+	=	-
<b>TRN-3:</b> Cause average transit passenger boardings per vehicle service hour to be lower than the baseline average for transit service provided in the relevant sub-area.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-
<b>TRN-4:</b> Cause an interference with existing or planned bicycle and pedestrian facilities.	Land Use	LS	+	+	-
	Transpo.	LS	+	+	-
<b>TRN-5:</b> Cause a disruption to the movement of agricultural products on rural roadways.	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>TRN-6:</b> Cause a disruption to aviation access or service.	Land Use	LS	=	=	=
	Transpo.	LS	=	=	=

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<b>TRN-7:</b> Cause a disruption to goods movement into or through the SACOG region.	Land Use	LS	=	=	=
	Transpo.	LS	=	=	=
<b>TRN-8:</b> Cause a disruption to the ongoing operations of the applicable regional or local area transportation system due to construction activities.	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>TRN-9:</b> Result in inconsistency with project design standards related to traffic safety.	Land Use	LS	=	=	=
	Transpo.	LS	=	=	=
<b>USS-1:</b> Result in an increased demand for surface or groundwater in excess of available supplies during normal, dry, or multiple dry years.	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>USS-2:</b> Exceed the capacity of existing water storage, conveyance, distribution, and treatment facilities such that the construction of new, expanded, or relocated facilities that could cause significant environmental effects is required.	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>USS-3:</b> Exceed the capacity of utility infrastructure including wastewater treatment, fire flows, solid waste, electric power, natural gas, and telecommunications such that the construction of new, expanded, or relocated facilities that could cause significant environmental effects is required.	Land Use	S	+	+	-
	Transpo.	S	+	+	-
<b>USS-4:</b> Generate solid waste in excess of State or local standards or otherwise conflict with federal, state, and local management and reduction statutes and regulations related to solid waste, including solid waste reduction goals.	Land Use	LS	=	=	=
	Transpo.	LS	=	=	=

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