

4.2 Agriculture and Forestry Resources

This section evaluates the agriculture and forestry resource impacts of the proposed 2018 RTP/SCS.

4.2.1 Setting

SJCOG's planning area includes expansive agricultural lands. The specific agricultural resources of San Joaquin County are discussed below.

Important Farmland

To characterize the environmental baseline for agricultural resources, Important Farmland Maps produced by the California Department of Conservation's (DOC) Farmland Mapping and Monitoring Program (FMMP) were reviewed. Unless otherwise expressed, the future use of "Important Farmland" specifically includes the following definitions provided by the DOC (DOC 2016a):

- **Prime Farmland.** Land which has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming standards.
- **Farmland of Statewide Importance.** Land that is similar to *Prime Farmland* but with minor shortcomings, such as greater slopes or less ability to hold and store moisture.
- **Unique Farmland.** Land of lesser quality soils used for the production of specific high economic value crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality or high yields of a specific crop when treated and managed according to current farming methods. It is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Examples of crops include oranges, olives, avocados, rice, grapes, and cut flowers.

a. Important Farmland Trends

According to the DOC, Important Farmland in California decreased by 70,632 acres, or 0.6 percent, between 2010 and 2012 (DOC 2015). The highest-quality agricultural soils, known as Prime Farmland, comprised 67 percent of the loss. Although this farmland conversion was partially caused by increased urbanization, long-term land idling was the largest factor contributing to irrigated land decreases over this time period.

As shown in Table 4, in contrast with statewide trends of decreasing agricultural lands, between 2012 and 2014, total Important Farmland in San Joaquin County saw a net increase of 2,259 acres (DOC 2015). However, for irrigated farmland, the San Joaquin Valley accounted for 56 percent of the statewide decrease in net irrigated farmland change, with land idling as a major contributing factor (DOC 2015).

Table 4 Important Agriculture Land Conversion by County 2012-2014

Land Use Category	Total Acreage Inventoried		2012-2014 Acreage Changes			
	2012	2014	Acres Lost (-)	Acres Gained (+)	Total Acreage Changed	Net Acreage Changed
Important Farmland ¹	612,733	614,992	6,929	9,188	16,117	2,259

¹Important Farmland represents all Prime Farmland, Farmland of Statewide Importance, and Unique Farmland within the given County.
 Source: California Department of Conservation (DOC). San Joaquin County 2012-2014 Land Use Conversion

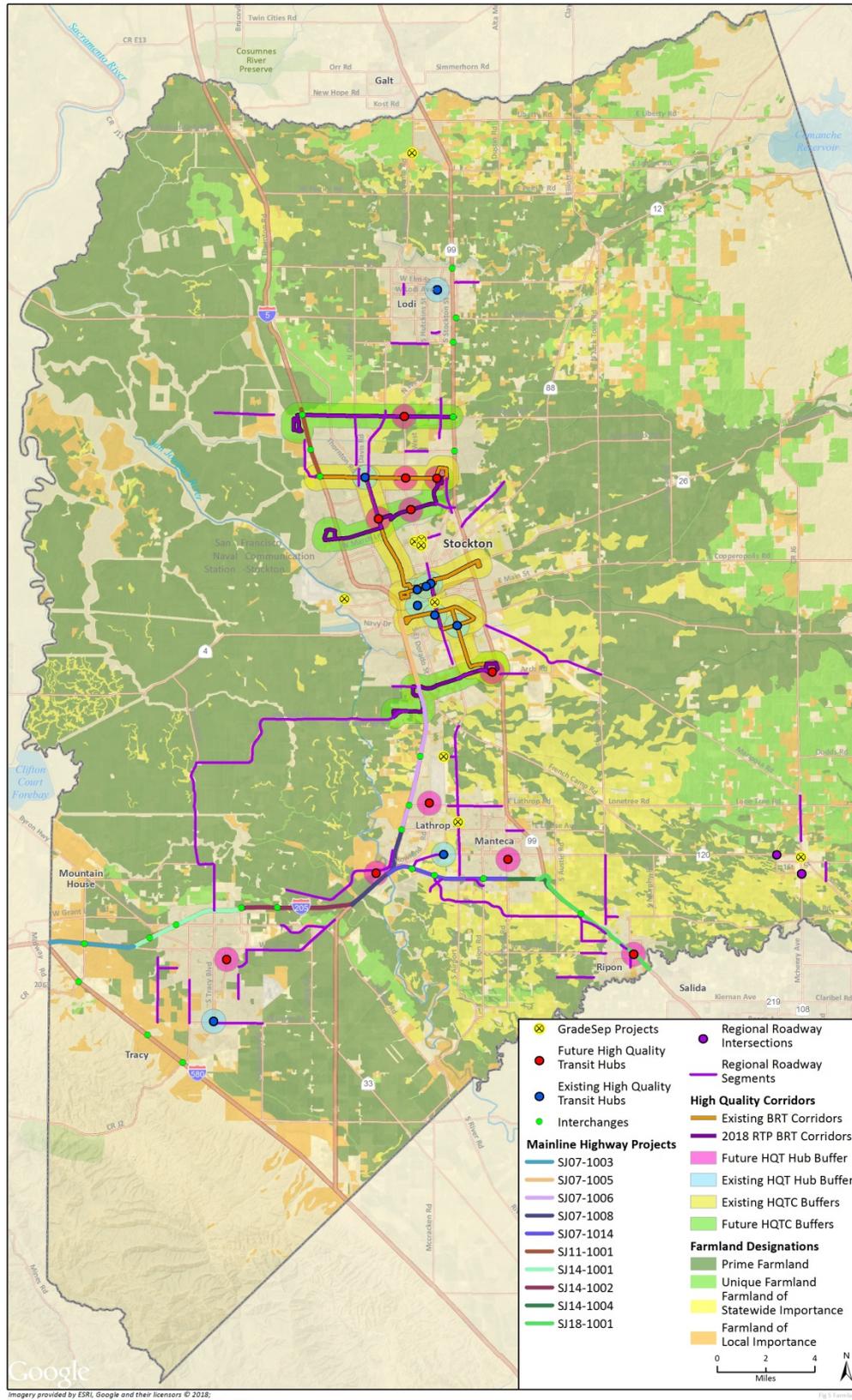
b. Agricultural Productivity

San Joaquin County

Agriculture consisting of crop farming is the largest industry in San Joaquin County and contributes a substantial amount of money to San Joaquin County’s economy. San Joaquin County ranks number seven in agricultural producing counties in the United States and is one of eleven California counties with a billion dollars or more production in crop value. Per the 2016 Agricultural Report for San Joaquin County, the gross value of agricultural production for 2016 was \$2,337,922,000, a 14.5 percent decrease from 2015. The top ten crops produced in the County for 2016 consisted of: grapes, milk, almonds, walnuts, cattle, tomatoes, cherries, hay, potatoes, and melons (San Joaquin County 2016).

As of January 1, 2015, 499,654 acres of land are under Williamson Act contract in San Joaquin County with 60,255 acres under the Farmland Security Zone (“FSZ”) (DOC 2016c). As noted, approximately 748,633 acres of land in San Joaquin County were classified as “farmland” in 2012, which accounts for approximately 82 percent of land in the County (DOC 2015). Of the total agricultural land in the County, the DOC (2015) has classified approximately 382,115 acres as “Prime Farmland,” approximately 82,160 acres as “Farmland of Statewide Importance,” and approximately 72,055 acres as “Unique Farmland.” According to the FMMP, between the years 2012 and 2014, Important Farmland in San Joaquin County saw a net increase of over 2,259 acres (DOC 2015). Figure 6 illustrates the intersection of Important Farmland and projects listed under the 2018 RTP/SCS in San Joaquin County.

Figure 6 Important Farmland in San Joaquin County



c. Forest Lands

San Joaquin County has approximately 20,000 acres of existing oak woodland. The groves are located in the southwest and northeast portions of the County. As the oak woodlands and forest lands are generally located in the slow growth areas of the County (mountain areas) the rate of forest land loss has typically been slow. Within the SJCOG planning area, there are no Timber Harvesting Plans (TPH) (CAL FIRE 2012). Additionally, according to the California Department of Forestry and Fire Protection's (CAL FIRE) Fire and Resource Assessment Program (FRAP), there are no Timber Production Zone (TPZ) designations within the County (FRAP 2010).

Although there are no TPH or TPZ in the planning area, there is blue oak habitat in the SJCOG region. This is a community that covers about 20,000 acres and is dominated by blue oak, and/or interior live oak, and foothill pine. The 20,000 acres of existing oak woodland in the southwest portion of the county qualifies as "forest land" under Public Resources Code section 12220(g), which states, "'Forest land' is land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." (ESA 2014).

d. Regulatory Setting

Federal

Federal Farmland Protection Act (FFPA)

The FPPA is intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that to the extent possible federal programs are administered to be compatible with state, local units of government, and private programs and policies to protect farmland. Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a Federal agency or with assistance from a Federal agency (NRCS 2017).

US Forest Service (USFS)

The United States Forest Service (USFS) is a Federal agency that manages public lands in national forests and grasslands. The Forest Service is also the largest forestry research organization in the world, and provides technical and financial assistance to state and private forestry agencies. The purpose of USFS is to provide the greatest amount of good for the greatest amount of people in the long run (USFS 2017).

State

Farmland Mapping and Monitoring Program

The DOC, under the Division of Land Resource Protection, developed the FMMP to monitor the conversion of the state's farmland to and from agricultural use. Data is collected at the county level to produce a series of maps identifying eight land use classifications using a minimum mapping unit of 10 acres. The program also produces a biannual report on the amount of land converted from agricultural to non-agricultural use. The program maintains an inventory of state agricultural land and updates the "Important Farmland Series Maps" every two years (DOC 2016d).

Williamson Act

The California Land Conservation Act of 1965, Sections 51200 et seq. of the California Government Code, commonly referred to as the “Williamson Act”, enables local governments to restrict the use of specific parcels of land to agricultural or related open space use. Landowners enter into contracts with participating cities and counties and agree to restrict their land to agriculture or open space use for a minimum of ten years. In return, landowners receive property tax assessments that are much lower than normal because they are based upon farming and open space uses as opposed to full market (speculative) value. Local governments receive an annual subvention of forgone property tax revenues from the state via the Open Space Subvention Act of 1971 (DOC 2016e).

Regional and Local

Delta Protection Commission

The Delta Protection Act of 1992 (Pub. Resources Code, § 29760 et seq.) recognized the Sacramento-San Joaquin Delta as a natural resource of statewide, national, and international significance, containing irreplaceable resources. It created the policy to recognize, preserve, and protect those resources, and established the Delta Protection Commission. The Delta Protection Commission was charged with creating the Land Use and Resources Management Plan for the Primary Zone, which was adopted in 1995. The management plan provides direction for local jurisdictions in the Delta region on land use decisions. Local jurisdictions with lands in the primary zone have amended their general plans to incorporate the management plan. In 2010, the Delta Protection Commission amended the management plan to reflect changes since adoption, such as newly identified Endangered species, effects of climate change, flood control issues, increased recreational use, water quality changes, habitat loss, road and utility construction, and urbanization. The amendment adds specific overview, goals, and policies subsections and a glossary of terms to address components of the Delta system, such as: natural resources, utilities, infrastructure, land use, agriculture, water, recreation, and levees.

Delta Stewardship Council

In November 2009, the California Legislature enacted the Sacramento-San Joaquin Delta Reform Act (Delta Reform Act) of 2009, also known as Sen. Bill No. 1 (Stats. 2009, 7th Ex. Sess., ch. 5) (SB X7-1), one of several bills passed at that time related to water supply reliability, ecosystem health, and the Delta. The Delta Reform Act created the Delta Stewardship Council (DSC). The DSC is made up of seven members that are advised by a 10-member board of scientists. The DSC was charged with developing and adopting a Delta Plan by January 1, 2012.

The DSC is tasked with addressing the coequal goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. According to the Delta Reform Act, the coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place. The DSC regulates covered actions, as statutorily defined, to address the coequal goals.

General Plans

The San Joaquin County General Plan highlights the importance of protecting agricultural land. The County General Plan contains goals to promote the long-term protection, conservation, and enhancement of productive and potentially productive agricultural land and ensure that the County’s land use policies are consistent with ongoing agricultural activities. The most

comprehensive land use planning for the San Joaquin region is provided by city and county general plans, which local governments are required to prepare as a guide for future development. The municipalities within the SJCOG area contain general plans with goals and policies concerning topics that are mandated by state law or which the jurisdiction has chosen to include, such as land use, conservation and open space, natural resources, parks and recreation, and agricultural elements.

4.2.2 Impact Analysis

a. Methodology and Significance Thresholds

Appendix G of the State CEQA Guidelines identifies the following criteria for determining whether a project's impacts would have a significant impact on agricultural resources:

1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use;
2. Conflict with existing zoning for agricultural use, or a Williamson Act contract;
3. Conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timber Production;
4. Result in the loss of forest land or conversion of forest land to non-forest use; and/or
5. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.

Thresholds 1-5 are discussed below.

b. Project Impacts and Mitigation Measures

This section describes generalized agricultural resources impacts associated with the projects anticipated under the 2018 RTP/SCS. Due to the programmatic nature of the 2018 RTP/SCS, a precise, project-level analysis of the specific impacts associated with individual transportation and land use projects is not possible at this time. In general, however, implementation of proposed transportation improvements and future projects under the land use scenario envisioned by the 2018 RTP/SCS could result in the impacts as described in the following section.

Threshold 1: Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use
Threshold 5: Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use

Impact AG-1 PROPOSED TRANSPORTATION IMPROVEMENTS AND LAND USE PATTERNS ENVISIONED BY THE 2018 RTP/SCS COULD RESULT IN THE CONVERSION OF IMPORTANT FARMLAND TO NONAGRICULTURAL USE, AND/OR CONFLICT WITH EXISTING ZONING FOR AGRICULTURE. THIS WOULD BE A SIGNIFICANT AND UNAVOIDABLE IMPACT.

As discussed in Section 4.2.1, the SJCOG region contains approximately 382,115 acres of Prime Farmland, 72,055 acres of Unique Farmland, and 82,160 acres of Farmland of Statewide Importance (DOC 2015). Because the 2018 RTP/SCS land use pattern emphasizes infill development, approximately 99 percent of the region's existing agricultural land is expected to remain available

for agriculture. The remaining less than one percent, representing approximately 23,400 acres, would have the potential to be converted to developed land. Conservatively assuming that all 23,400 acres contain FMMP-designated Important Farmland, the proposed 2018 RTP/SCS would have the potential to convert 23,400 acres of Important Farmland to non-agricultural use. This amount of conversion over the 25-year planning period for the 2018 RTP/SCS (2018-2042) represents an average conversion rate of approximately 936 acres per year, compared to an average of approximately 965 acres per year from 1990 to 2014 (DOC 2016d). The 2018 RTP/SCS is estimated to reduce by 9,700 acres the amount of Prime Farmland converted to developed land compared to business as usual. Although the County is expected to see a reduction in the average annual acreage change of converted farmland, this rate of conversion would constitute a potentially significant impact.

Transportation improvement projects in the 2018 RTP/SCS adjacent to agricultural areas (Figure 6), particularly those requiring new rights-of-way, could also have indirect impacts on agricultural productivity. Although the incorporated cities in San Joaquin county are fairly urbanized, many cities border agriculture, including FMMP-designated Important Farmland. These include but are not limited to the cities of Tracy and Lodi, as well as census designated places (CDPs) like Mountain House. Transportation improvement projects that involve roadway widening have the potential to affect narrow segments of agricultural land located immediately along the existing right-of-way of proposed improvements. In addition, improving, expanding, and extending existing roadways, along with the installation of new roadways, could remove some barriers to development taking place on the urban edge as the region's connectivity and access improves from these projects.

The 2018 RTP/SCS envisions infill development and development near existing transportation corridors, which are generally located in urbanized areas of cities and unincorporated communities. Such land use development within urbanized areas would not be expected to result in agricultural resource impacts since they would be located within existing urban areas. It is important to note that for federally funded projects, implementing and local agencies are required to follow the rules and regulations of the Farmland Protection Policy Act including determining the impact by completing the Farmland Conversion Impact Rating form (AD-1006), if required.

In developing the 2018 RTP/SCS forecasted development pattern and transportation system, SJCOG relied on the policies of local governments to develop urbanization assumptions based on the most recent information available. The general plans and related environmental documentation for each local jurisdiction identify potential impacts to agricultural resources that could occur as a result of Plan implementation. As such, the 2018 RTP/SCS was developed consistent with the applicable general plans; thus, no impacts that are new or different from what was disclosed are expected to occur. Through transit oriented development in denser areas, the proposed 2018 RTP/SCS would direct more growth in the areas that are already urbanized, thereby avoiding some agricultural lands from being converted to urban uses, as well as avoiding lands currently designated for agricultural purposes. However, as discussed previously, implementation of the proposed 2018 RTP/SCS would potentially result in the conversion of up to 23,400 acres of Important Farmland to non-agricultural uses. Lands that remain agricultural, but are located near areas converted to urban uses, may experience increased development pressure, as nearby land values increase, new routes to previously inaccessible areas are formed, or nuisances from urban development spread to agricultural lands.

A determination of the impacts to Important Farmland and agricultural zoning would also be made on a case-by-case basis as individual projects are implemented. It is expected that not many individual projects would create significant impacts, particularly those that involve only minor

widening along existing rights-of-way or would be located in urbanized areas zoned for development. Nevertheless, as the actual magnitude of impacts from individual projects cannot be determined at this time, and because of the potential increase in the average annual conversion rate of agricultural land to non-agricultural uses over the next 25 years, this would be a potentially significant impact.

Mitigation Measures

For transportation projects under their jurisdiction, SJCOG shall, and transportation project sponsor agencies can and should, implement the following mitigation measures developed for the 2018 RTP/SCS program, where applicable, for transportation projects that would result in impacts to Important Farmland. The County and cities in the SJCOG region can and should implement these measures, where relevant to land use projects implementing the 2018 RTP/SCS.

AG-1 Impact Avoidance and Minimization

Project sponsors shall implement measures, where feasible and necessary based on project-and site-specific considerations that include, but are not limited to those identified below.

- Require project relocation or corridor realignment, where feasible, to avoid Prime Farmland, Unique Farmland, or Farmland of Statewide Importance;
- Compensatory mitigation at a minimum 1:1 (impacted: replaced) acreage ratio with Important Farmland of equivalent or better quality may be achieved in advance of impacts through the purchase or creation of mitigation credits or the implementation of mitigation projects through Regional Advance Mitigation Planning (RAMP), as deemed appropriate by the permitting agencies;
- Require acquisition of conservation easements on land at least equal in quality and size as mitigation for the loss of Important Farmland; and/or
- Institute new protection of farmland in the project area or elsewhere through the use of long-term restrictions on use, such as 20-year Farmland Security Zone contracts (Government Code Section 51296 et seq.) or 10-year Williamson Act contracts (Government Code Section 51200 et seq.).

Significance After Mitigation

If the implementing agency adopts these mitigation measures, impacts from the 2018 RTP/SCS would be reduced, although not to a less than significant level. Because this document evaluates impacts at the programmatic level, all project circumstances are not foreseeable and therefore, even with implementation of Mitigation Measure AG-1, impacts could remain significant and unavoidable. In addition, impacts remain significant and unavoidable due to the irreversible effects of land conversion. As appropriate, SJCOG will encourage implementing agencies to adopt Mitigation Measure AG-1 through its Intergovernmental Review process. SJCOG cannot require the implementing agency to adopt these mitigation measures because such agencies are ultimately responsible to determine and adopt mitigation. This impact remains significant and unavoidable.

Threshold 2: Conflict with existing zoning or land use designation for agricultural use, or a Williamson Act contract

Impact AG-2 PROPOSED TRANSPORTATION IMPROVEMENTS AND LAND USE PATTERNS ENVISIONED BY THE 2018 RTP/SCS COULD RESULT IN CONFLICTS WITH EXISTING ZONING OR LAND USE DESIGNATIONS FOR AGRICULTURE; OR A WILLIAMSON ACT CONTRACT. IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

As of January 1st, 2015, San Joaquin County contained a total of 499,654 acres of land contracted under the Williamson Act. Due to the planning horizon of the RTP (25 years), it is likely that some land currently under Williamson Act contracts could expire and potentially be converted to non-agricultural uses. However, as discussed in the RTP/SCS (see Chapter 1, Creating a Sustainable Communities Strategy), all land use changes are subject to local plans and policies. As such, no specific zoning changes would occur as a direct result of the RTP/SCS, rather each individual jurisdiction would be responsible for approving land use and zoning changes.

Transportation improvements and land uses envisioned from the 2018 RTP/SCS could occur on lands with existing agricultural uses and zoning. As discussed similarly in Impact AG-1, transportation improvement projects under the 2018 RTP/SCS adjacent to agricultural areas, particularly those requiring new rights-of-way, could also have indirect impacts on agricultural productivity. Transportation improvement projects that involve roadway widening have the potential to affect narrow segments of agricultural land located immediately along the existing right-of-way of proposed improvements.

The impacts to existing zoning and land use designations for agricultural resources, and Williamson Act agricultural lands are potentially significant. Mitigation Measure AG-1 is required to reduce impacts to the extent feasible.

Mitigation Measures

Implementation of mitigation measure AG-1 would reduce impacts to extent feasible.

Significance After Mitigation

If the project sponsor adopts these mitigation measures, impacts to contracted Williamson Act lands and agricultural zoned land would be reduced, although not to a less than significant level in all cases. Because this document evaluates impacts at the programmatic level, all project circumstances are not foreseeable and therefore, even with implementation of Mitigation Measure AG-1, impacts could remain significant and unavoidable. As appropriate, SJCOG will encourage lead agencies to adopt these mitigation measures through its Intergovernmental Review process. However, SJCOG cannot require implementing agencies to adopt Mitigation Measure AG-1, as it is ultimately the responsibility of a lead agency to determine and adopt mitigation. Therefore, this impact remains significant and unavoidable.

Threshold 3: Conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timber Production

Threshold 4: Result in the loss of forest land or conversion of forest land to non-forest use

Impact AG-3 PROPOSED TRANSPORTATION IMPROVEMENT PROJECTS AND LAND USE PATTERNS ENVISIONED BY THE 2018 RTP/SCS WOULD RESULT IN A CONFLICT WITH OR LOSS OF FOREST OR TIMBERLAND. IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

San Joaquin County has approximately 20,000 acres of existing oak woodland which are located in the southwest and northeast portions of the County. As the oak woodlands and forest lands are generally located in the slow growth areas of the County (mountainous areas) the rate of forest land loss has typically been slow.

Due to the planning horizon of the 2018 RTP (25 years), it is likely that some land currently defined and zoned as forest land or timberland could be converted to residential or other uses. However, as discussed in the RTP/SCS (see Chapter 1, Creating a Sustainable Communities Strategy), all land use changes are subject to local plans and policies. As such, no specific zoning changes would occur as a direct result of the RTP/SCS, rather each individual jurisdiction would be responsible for approving land use and zoning changes. As a result, no direct changes to land use designation or zoning would occur as a result of the RTP/SCS.

The majority of growth anticipated with the RTP/SCS would occur in urbanized areas, not existing forest lands. Land use strategies contained within the RTP/SCS would help to encourage growth in developed areas rather than a more dispersed land use pattern that could result in conversion of forest land as evidenced by the fact that the 2018 RTP/SCS would consume 55 percent fewer acres of land compared to the No Project (approximately 26,000 acres under the 2018 RTP/SCS compared to 46,084 under the No Project).

However, due to the importance of the County's timberland and forest land resources, the impacts on existing zoning and land use designations for forest land resources, related to the land use changes and transportation improvements from implementation of the proposed 2018 RTP/SCS are considered potentially significant. Mitigation Measure AG-1, described above, and AG-2(a) and AG-3, described below, should be implemented to help decrease the level of impact to the extent feasible.

Mitigation Measures

For transportation projects under their jurisdiction, SJCOG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measure developed for the 2018 RTP/SCS program where applicable for transportation projects that would substantially degrade visual character. Municipalities in the SJCOG region can and should implement this measure, where relevant to land use projects implementing the 2018 RTP/SCS. The following Mitigation Measures, AG-2 and AG-3, as well as Mitigation Measure AG-1 discussed above would reduce impacts to the extent feasible.

AG-2 Preservation Ratios

Project sponsors shall establish preservation ratios to minimize loss of forest land, and timberland, such as one acre of unprotected forest land and timber land to be permanently conserved for each acre of open space developed as a result of individual projects.

AG-3 Design Features

Project sponsors shall implement design features in RTP/SCS projects to minimize development impacts on existing forest land. Project sponsors shall consider corridor realignment, buffer zones

and setbacks, and berms and fencing where feasible, to avoid forest lands and timberlands and to reduce conflicts between transportation uses and forest and timberlands.

Significance After Mitigation

If the project sponsor adopts these mitigation measures, it is not anticipated that it will reduce forest land and timberland impacts to a less than significant level in all cases. Due to the irreversible effects of converting or reducing forest land, impacts could be significant and unavoidable. In addition, as this document evaluates impacts at the programmatic level, all project circumstances are not foreseeable and therefore, even with implementation of Mitigation Measures AG-1, through AG-3, impacts could remain significant and unavoidable. As appropriate, SJCOG will encourage lead agencies to adopt these mitigation measures through its Intergovernmental Review process. However, SJCOG cannot require implementing agencies to adopt Mitigation Measures AG-1 through AG-3, as it is ultimately the responsibility of a lead agency to determine and adopt mitigation. This impact remains significant and unavoidable.

c. Cumulative Impacts

Implementation of the proposed 2018 RTP/SCS would result in conversion of up to 23,400 acres of agriculture to non-agricultural use. While this represents total potential Important Farmland lost in the SJCOG region, counties outside the SJCOG region would also continue to convert agricultural land due to development outside of existing urbanized areas. Collectively, this adds to the cumulative conversion of agricultural lands, including areas designated as Important Farmland by the FMMP, in cumulative impact analysis area. As such, the cumulative loss of agricultural lands would be potentially significant.

Implementation of mitigation identified above would minimize the contribution of the proposed 2018 RTP/SCS to cumulative agricultural land impacts. However, as the cumulative impact analysis area urbanizes, total agricultural conversion as well as land use conflicts between agricultural land and urban uses could intensify, particularly at the edge of existing cities and communities. Consequently, cumulative impacts to agricultural resources, and the regional contribution to them, remain potentially significant, and the 2018 RTP/SCS contribution would be cumulatively considerable.

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