

2026 Regional Transportation Plan & Sustainable Communities Strategy

Draft Programmatic Environmental Impact Report

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prepared by

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Table of Contents

Executive Summary ES-1
Project Synopsis ES-1
Project Objectives ES-3
Alternatives ES-3
Areas of Known Controversy ES-4
Issues to be Resolved ES-5
Issues Not Studied in Detail in the EIR ES-5
Summary of Impacts and Mitigation Measures ES-5
1 Introduction 1-1
1.1 Introductory Information 1-1
1.2 Project Background 1-1
1.3 Purpose of EIR 1-1
1.4 Implementation Issues and Future Environmental Review 1-2
1.4.1 Streamlining Under SB 375 1-3
1.4.2 Streamlining Under SB 226 1-4
1.4.3 Streamlining Under SB 743 1-4
1.4.4 Other Tiering and Streamlining Opportunities 1-4
1.5 Environmental Impact Report Background 1-6
1.6 Lead, Responsible, and Trustee Agencies 1-9
1.7 EIR Scope, Content, and Format 1-9
1.8 Environmental Review Process 1-11
2 Project Description 2-1
2.1 Background 2-1
2.1.1 General Legislative Requirements 2-1
2.1.2 Sustainable Communities & Climate Protection Act Requirements (SB 375) Requirements 2-1
2.1.3 Infrastructure Investment and Jobs Act 2-3
2.1.4 Environmental Justice 2-3
2.1.5 Regional Transportation Plans 2-4
2.2 Project Goals and Objectives 2-5
2.3 Project Location 2-5
2.4 Project Characteristics 2-7
2.4.1 Policy Element 2-9
2.4.2 Sustainable Communities Strategy 2-15
2.4.3 Action Element 2-19
2.4.4 Proposed 2026 RTP/SCS Projects and Their Funding 2-19

2.5 Transportation Components Contained within the Proposed 2026 RTP/SCS 2-30
2.6 Intended Uses of the EIR 2-32
2.7 Relationship with Other Plans and Programs 2-33
3 Environmental Setting 3-1
3.1 Regional Setting 3-1
3.2 Regional Transportation System 3-1
3.2.1 Highways and Roadways 3-1
3.2.2 Transit Services 3-2
3.2.3 Active Transportation/Complete Streets 3-4
4 Environmental Impact Analysis 4-1
Mitigation Approach, EIR Baseline, Approach for Direct and Cumulative Analyses 4-2
Mitigation Approach 4-2
EIR Baseline 4-2
Approach for Direct Impact Analysis 4-3
Approach for Cumulative Analysis 4-3
4.1 Aesthetics 4.1-1
4.1.1 Setting 4.1-1
4.1.2 Regulatory Setting 4.1-4
4.1.3 Impact Analysis 4.1-9
4.1.4 Cumulative Impacts 4.1-17
4.2 Agriculture and Forestry Resources 4.2-1
4.2.1 Setting 4.2-1
4.2.2 Regulatory Setting 4.2-7
4.2.3 Impact Analysis 4.2-11
4.2.4 Cumulative Impacts 4.2-15
4.3 Air Quality 4.3-1
4.3.1 Setting 4.3-1
4.3.2 Regulatory Setting 4.3-10
4.3.3 Impact Analysis 4.3-24
4.3.4 Cumulative Impacts 4.3-41
4.4 Biological Resources 4.4-1
4.4.1 Setting 4.4-1
4.4.2 Regulatory Setting 4.4-20
4.4.3 Impact Analysis 4.4-24
4.4.4 Cumulative Impacts 4.4-43
4.5 Cultural Resources 4.5-1
4.5.1 Setting 4.5-1
4.5.2 Regulatory Setting 4.5-7

4.5.3 Impact Analysis 4.5-15
4.5.4 Cumulative Impacts 4.5-21
4.6 Energy 4.6-1
4.6.1 Setting 4.6-1
4.6.2 Regulatory Setting 4.6-4
4.6.3 Impact Analysis 4.6-13
4.6.4 Cumulative Impacts 4.6-20
4.7 Geology, Soils, and Mineral Resources 4.7-1
4.7.1 Setting 4.7-1
4.7.2 Regulatory Setting 4.7-11
4.7.3 Impact Analysis 4.7-21
4.7.4 Cumulative Impacts 4.7-34
4.8 Greenhouse Gas Emissions and Climate Change 4.8-1
4.8.1 Setting 4.8-1
4.8.2 Regulatory Setting 4.8-5
4.8.3 Impact Analysis 4.8-16
4.8.4 Cumulative Impacts 4.8-29
4.9 Hazards and Hazardous Materials 4.9-1
4.9.1 Setting 4.9-1
4.9.2 Regulatory Setting 4.9-6
4.9.3 Impact Analysis 4.9-15
4.9.4 Cumulative Impacts 4.9-23
4.10 Hydrology and Water Quality 4.10-1
4.10.1 Setting 4.10-1
4.10.2 Regulatory Setting 4.10-12
4.10.3 Impact Analysis 4.10-21
4.10.4 Cumulative Impacts 4.10-38
4.11 Land Use and Planning 4.11-1
4.11.1 Setting 4.11-1
4.11.2 Regulatory Setting 4.11-1
4.11.3 Impact Analysis 4.11-9
4.11.4 Cumulative Impacts 4.11-13
4.12 Noise 4.12-1
4.12.1 Setting 4.12-1
4.12.2 Regulatory Setting 4.12-6
4.12.3 Impact Analysis 4.12-14
4.12.4 Cumulative Impacts 4.12-27

4.13 Population and Housing 4.13-1
4.13.1 Setting 4.13-1
4.13.2 Regulatory Setting 4.13-2
4.13.3 Impact Analysis 4.13-9
4.13.4 Cumulative Impacts 4.13-13
4.14 Public Services and Recreation 4.14-1
4.14.1 Setting 4.14-1
4.14.2 Regulatory Setting 4.14-11
4.14.3 Impact Analysis 4.14-13
4.14.4 Cumulative Impacts 4.14-20
4.15 Transportation 4.15-1
4.15.1 Setting 4.15-1
4.15.2 Regulatory Setting 4.15-12
4.15.3 Impact Analysis 4.15-21
4.15.4 Cumulative Impacts 4.15-31
4.16 Tribal Cultural Resources 4.16-1
4.16.1 Setting 4.16-1
4.16.2 Regulatory Setting 4.16-6
4.16.3 Impact Analysis 4.16-9
4.17 Utilities and Service Systems 4.17-1
4.17.1 Setting 4.17-1
4.17.2 Regulatory Setting 4.17-9
4.17.3 Impact Analysis 4.17-19
4.17.4 Cumulative Impacts 4.17-29
4.18 Wildfire 4.18-1
4.18.1 Setting 4.18-1
4.18.2 Regulatory Setting 4.18-4
4.18.3 Impact Analysis 4.18-9
4.18.4 Cumulative Impacts 4.18-15
5 Other CEQA Required Discussions 5-1
5.1 Growth Inducement 5-1
5.1.1 Employment, Household, and Population Growth 5-1
5.1.2 Removal of Obstacles to Growth 5-2
5.2 Irreversible Effects 5-2
5.3 List of Significant and Unavoidable Impacts 5-3
6 Alternatives 6-1
6.1 Alternatives Development and Screening Process 6-2
6.2 Alternatives Considered but Rejected 6-3
6.2.1 Trend Alternative 6-3

6.2.2 Innovative Technology Alternative 6-4
6.3 Alternative 1: No Project Alternative 6-4
6.3.1 Description 6-4
6.3.2 Impact Analysis 6-5
6.4 Alternative 2: Concentrated Growth Alternative 6-13
6.4.1 Description 6-13
6.4.2 Impact Analysis 6-13
6.5 Alternative 3: Enhanced Transit Alternative 6-24
6.5.1 Description 6-24
6.5.2 Impact Analysis 6-24
6.6 Alternative 4: Concentrated Growth and Enhanced Transit Alternative 6-33
6.6.1 Description 6-33
6.6.2 Impact Analysis 6-34
6.7 Environmentally Superior Alternative 6-44
7 References 7-1
7.1 Bibliography 7-1
7.2 List of Preparers 7-26

Tables

Table ES-1 Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts ES-7
Table 1-1 NOP Comments and EIR Response 1-6
Table 2-1 Demographic Forecast 2-17
Table 2-2 The Proposed 2026 RTP/SCS Planned and Programmed Projects 2-26
Table 4.2-1 Important Farmland Conversion in Tulare County 2018-2020 ..... 4.2-3
Table 4.3-1 Tulare County Climate Conditions 4.3-1
Table 4.3-2 Description of Selected Air Contaminants 4.3-3
Table 4.3-3 Ten-Year SJVAB Air Quality Summary (2015-2024) for Days Over the Ozone, PM2.5, and PM10 NAAQS and CAAQS 4.3-7
Table 4.3-4 Ambient Air Quality in Tulare County (2022 – 2024) 4.3-8
Table 4.3-5 Current Federal and State Ambient Air Quality Standards 4.3-10
Table 4.3-6 Regional Air Pollutant Emissions – TCAG Region 4.3-31
Table 4.3-7 Fugitive Dust Particulate Matter Comparison 4.3-35
Table 4.3-8 On-Road Mobile Source Diesel Toxics Comparison 4.3-37
Table 4.4-1 Sensitive Communities and Critical Habitats Documented within the TCAG Region 4.4-16
Table 4.5-1 TCAG Region Historical Resources 4.5-5
Table 4.5-2 Caltrans Historic Bridge Inventory 4.5-7
Table 4.6-1 2023 Oil and Natural Gas Production in TCAG region 4.6-1
Table 4.6-2 2024 Electricity and Natural Gas Consumption in the TCAG Region 4.6-2

Table 4.6-3 Fuel Consumption in TCAG Region 4.6-3
Table 4.6-4 Daily and Annual VMT for the TCAG Region 2025 ..... 4.6-3
Table 4.6-5 Indirect Energy Consumption Factors 4.6-14
Table 4.6-6 Direct Transportation and Per-Household Energy Use1 ..... 4.6-16
Table 4.7-1 Paleontological Sensitivity of Geologic Units in the Project Area 4.7-2
Table 4.8-1 GHG Emissions Inventories for TCAG Member Jurisdictions 4.8-15
Table 4.8-2 Proposed 2026 RTP/SCS Total Daily VMT Data 4.8-16
Table 4.8-3 Proposed 2026 RTP/SCS Net Change in Transportation-Related Emissions (2025-2049) 4.8-21
Table 4.8-4 Per Capita Passenger Vehicle CO2 Emissions Comparison 4.8-24
Table 4.8-5 2030 and 2045 GHG Emissions Compared to 1990 Levels 4.8-26
Table 4.12-1 Noise Abatement Criteria 4.12-6
Table 4.12-2 FTA Groundborne Vibration Architectural Damage Criteria - Construction 4.12-8
Table 4.12-3 FTA Groundborne Vibration Criteria - Operation 4.12-8
Table 4.12-4 Screening Distances for Noise Assessments – Rail Transit Projects (in feet) 4.12-9
Table 4.12-5 Screening Distances for Noise Assessments – Bus Transit Projects (in feet) 4.12-9
Table 4.12-6 Typical Noise Levels for Construction Equipment (dBA) 4.12-15
Table 4.12-7 Vibration Source Levels for Construction Equipment 4.12-21
Table 4.12-8 Public and Private Airports within the TCAG Region 4.12-25
Table 4.13-1 2025 Population, Housing and Employment for the TCAG Region 4.13-1
Table 4.13-2 Forecasted Population, Housing and Employment TCAG Region 4.13-10
Table 4.14-1 Fire Service Providers and Stations in the TCAG Region 4.14-2
Table 4.14-2 Tulare County Fire Department Response Time Goals – NFPA Standards 4.14-4
Table 4.14-3 National Parks and Recreation Areas in Tulare County 4.14-7
Table 4.14-4 Tulare County Parks and Recreation Facilities 4.14-7
Table 4.14-5 City Parks in the TCAG Region 4.14-8
Figure 4.15-1 TCAG Region Roadway Network 4.15-2
Table 4.17-1 Wastewater Flows and Capacity of Facilities in Unincorporated Tulare County 4.17-3
Table 4.17-2 Active Solid Waste Landfills in the TCAG Region 4.17-8
Table 4.17-3 2024 Solid Waste Landfill Destinations Within the TCAG Region 4.17-8
Table 4.17-4 Active Transfer Stations in the TCAG Region 4.17-8
Table 6-1 Regional Emissions Analysis of the No Project Alternative 6-6
Table 6-2 No Project Per Capita Passenger Vehicle CO2 Emissions Comparison in 2049 6-9
Table 6-3 Regional Emissions Analysis of the Concentrated Growth Alternative 6-14
Table 6-4 Concentrated Growth Per Capita Passenger Vehicle CO2 Emissions Comparison in 2049 6-18
Table 6-5 Regional Emissions Analysis for the Enhanced Transit Alternative 6-25
Table 6-6 Enhanced Transit Per Capita Passenger Vehicle CO2 Emissions Comparison in 2049 6-28

Table 6-7 Regional Emissions Analysis for the Concentrated Growth and Enhanced Transit Alternative 6-35
Table 6-8 Concentrated Growth and Enhanced Transit, Net Change in Total GHG Emissions 6-39
Table 6-9 Impact Comparison of Alternatives 6-46

Figures

Figure 1-1 Environmental Review Process 1-13
Figure 2-1 TCAG Region 2-6
Figure 2-2 Existing Land Use 2-16
Figure 2-3 Urban Growth by 2049 2-18
Figure 2-4 General Project Locations – County Overview 2-20
Figure 2-5 General Project Locations – Dinuba 2-21
Figure 2-6 General Project Locations – Porterville 2-22
Figure 2-7 General Project Locations - Tulare 2-23
Figure 2-8 General Project Locations - Visalia 2-24
Figure 2-9 General Project Locations - Woodlake 2-25
Figure 4.1-1 Highways Eligible for Caltrans California Scenic Highway Designation in the TCAG Region and County-Designated Secnic Highways 4.1-3
Figure 4.2-1 Farmland, Forest Land and RTP Project Locations in Tulare County 4.2-5
Figure 4.2-2 Agricultural Preserve, Timber Production Zones and RTP Project Locations in Tulare County 4.2-6
Figure 4.3-1 SJVAB Air Quality Monitoring Stations (2025) 4.3-9
Figure 4.4-1 Vegetation Communities and Land Cover Types in the TCAG Region 4.4-2
Figure 4.4-2 Wetland and Drainages in the TCAG Region 4.4-12
Figure 4.4-3 Critical Habitat in the TCAG Region 4.4-15
Figure 4.4-4 Essential Connectivity Areas in the TCAG Region 4.4-19
Figure 4.7-1 Geologic Units within the TCAG Region 4.7-3
Figure 4.7-2 Fault Lines in the TCAG Region 4.7-4
Figure 4.7-3 Landslide Risk in the TCAG Region 4.7-6
Figure 4.7-4 Mineral Resources in the TCAG Region 4.7-8
Figure 4.10-1 Groundwater Basins within the TCAG Region 4.10-2
Figure 4.10-2 Major Regional Watersheds within the TCAG Region 4.10-3
Figure 4.10-3 Flood Hazards in the TCAG Region 4.10-9
Figure 10.3-4 Dam Inunudation Potential 4.10-11
Figure 4.10-5 Projects With Potential Flood Hazards: South TCAG Region 4.10-33
Figure 4.10-6 Projects With Potential Flood Hazards: Mid TCAG Region 4.10-34
Figure 4.10-7 Projects With Potential Flood Hazards: North TCAG Region 4.10-35
Figure 4.11-1 TCAG Planning Area 4.11-2
Table 4.15-1 TCAG Region State Highway Descriptions 4.15-3
Table 4.15-2 Baseline VMT for TCAG Region 4.15-4

Table 4.15-3 VMT Results Summary..... 4.15-24
Figure 4.18-1 Fire Hazard Severity Zone Map in the TCAG Region 4.18-3

Appendices

Appendix A NOP and Response Letters
Appendix B Air Quality Emissions Calculations
Appendix C Special Status Species
Appendix D TCAG Traffic Demand Model
Appendix E Energy Generation and Consumption Calculations
Appendix F Greenhouse Gas Emission Calculations
Appendix G Tribal Consultation
Appendix H Alternatives Calculations Data

Executive Summary

This document is an Environmental Impact Report (EIR) analyzing the environmental effects of the proposed 2026 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) proposed by the Tulare County Association of Governments (TCAG). This section summarizes the characteristics of the proposed project, alternatives to the proposed project, and the environmental impacts and mitigation measures associated with the proposed project.

Project Synopsis

This EIR has been prepared to examine the potential environmental effects of the 2026 RTP/SCS proposed by TCAG. The following is a summary of the full project description, which can be found in Chapter 2, *Project Description,* of the EIR.

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Project Location

The proposed 2026 RTP/SCS covers the entire area of Tulare County and includes the cities of Dinuba, Exeter, Farmersville, Lindsay, Porterville, Tulare, Visalia, and Woodlake, as well as unincorporated communities in the county. Capital improvement transportation projects identified in the proposed 2026 RTP/SCS are located on State highways, County roads, and locally owned streets, as well as on transit district property and public utility lands.

Project Description

The proposed 2026 RTP/SCS is an update to the current 2022 RTP/SCS that was adopted in August 2022. The proposed 2026 RTP/SCS reflects changes in legislative requirements, local land use policies, and resource constraints that have occurred since adoption of the current 2022 RTP/SCS. The 2026 update to the 2022 RTP/SCS is focused on continued implementation of the 2022 RTP/SCS, with updates to ensure consistency with federal, State, and local planning requirements.

As have past RTPs, the proposed 2026 RTP/SCS shows how the region can invest limited transportation funds to maintain, operate and improve an integrated, multi-modal transportation system with the purpose of facilitating the efficient movement of people and goods. The updated plan identifies specific strategies, policies, and actions, including a list of programmed and planned transportation projects feasibly within the region's anticipated transportation funding levels, to

meet the current and future needs of the region. The planning horizon of the proposed 2026 RTP/SCS is 2049.

The proposed 2026 RTP/SCS shows how TCAG will meet the transportation needs of the region for the period from 2026 to 2049, considering existing and projected future land use patterns as well as forecasted population and job growth. The proposed 2026 RTP/SCS plans for, and programs approximately $9.3 billion in revenues expected to be available to TCAG from all transportation funding sources over the course of the planning period. It identifies and prioritizes expenditures of anticipated funding for transportation projects that involve all transportation modes: highways, streets and roads, transit, rail, bicycle and pedestrian; transportation demand management; and transportation system management.

The proposed 2026 RTP/SCS transportation improvements project list is an update to the 2022 RTP/SCS project list. As such it removes projects that have been completed since 2022, modifies some projects that continue to be on the list based on new information, and adds new projects to the list. None of the modified projects on the proposed 2026 RTP/SCS list would be substantially different in terms of geographical location, type of project, or the size of the project to those on the 2022 RTP/SCS list (2022 RTP/SCS).

The 2026 RTP/SCS is based on a preferred land use and transportation scenario which defines a pattern of future growth and transportation system investment for the region emphasizing a transit oriented development and infill approach to land use and housing. Population and job growth are allocated principally within existing urban areas near public transit. The preferred land use and transportation scenario is based on the most recent planning assumptions, and considers local general plans and other factors such as updated specific plans and recently completed transportation planning studies.

The land use scenario envisioned by the proposed 2026 RTP/SCS is similar to that contained in the 2022 RTP/SCS. The principles of the preferred land use scenario, the Cross Valley Corridor (CVC), guide the allocation of future development sufficient to accommodate the forecasted growth in population, households, and employment through 2049. Most notable of these principles is an increase in average densities. This is articulated in a growth pattern reflective of the CVC's potential to increase multimodal travel and transit-oriented development. The scenario reflects more efficient development patterns over time, with a focus on complete streets and climate resilience. The CVC scenario also emphasizes transit and active transportation modes, fix-it-first (road repair such as potholes and rough pavement) for streets and highways, corridor-focused mobility, and connectivity improvements. This results in a de-emphasis of capacity-increasing highway projects as a means of addressing travel demand associated with new development. Projects that can increase capacity for light vehicle travel would still be part of this scenario when needed to address inter-regional travel, goods movement, and safety. The CVC scenario includes even greater investments in alternative modes that benefit the region's disadvantaged communities, such as express passenger service/bus rapid transit on State Routes 63, 65, and 198, along with Avenue 280 and other regional routes serving the CVC.

2026 RTP/SCS Organization. TCAG adopted the previous 2022 RTP/SCS in August 2022. This proposed 2026 RTP/SCS reflects changes in legislative requirements, local land use policies, and resource constraints and is organized into four elements:

1. **Policy Element.** The Policy Element provides guidance to decision-makers on the implications, impacts, opportunities, and foreclosed options that will result from implementation of the RTP. Government Code Section 65080(b)(1) states that each RTP shall include a Policy Element that:

describes the transportation issues in the region, identifies and qualifies regional needs expressed within both short and long-range planning horizons, and maintains internal consistency with the Financial Element and fund estimates.

2. **Sustainable Communities Strategy.** Demonstrates the ability of TCAG to meet the GHG targets that CARB has set for the TCAG region for emissions from on-road light-duty trucks and passenger vehicles. The proposed 2026 RTP/SCS updates the current RTP/SCS, adopted by TCAG in August 2022, and incorporates new strategies to address the rapidly changing regional, national, and global context.
3. **Action Element.** Consists of short-term and long-term activities that address regional transportation issues and needs for all transportation modes. The Action Element establishes assumptions based upon adopted goals, policies and objectives, which define acceptable conditions and are incorporated into projection methodologies used to estimate future outcomes of the RTP and SCS. Further, the Action Element is separated into two parts: a discussion of regional issues, mandated transportation services, air quality, forecasting, regionally significant roads, alternatives, social impacts and RTP analysis; and a concluding section discussing each mode of transportation.
4. **Financial Element.** Identifies the current and anticipated revenue sources and financing techniques available to fund the planned transportation investments described in the Action Element. The intent of the Financial Element is to define realistic transportation financial constraints and opportunities with currently available data. Discussion centers on three main topics: current funding revenues, transportation expenditures, and potential funding sources for the future.

Of these four chapters of the proposed 2026 RTP/SCS, the Sustainable Communities Strategy, Policy Element, and the Action Element are the three that include provisions with the potential to create physical changes to the environment and are the primary focus for analysis in this EIR.

Project Objectives

TCAG's general objectives for the proposed 2026 RTP/SCS are to ensure that the SCS and the transportation system planned for the TCAG region accomplish the following:

- **Safety**: Put safety first in all investments and system design.
- **Prosperous Economy**: Strengthen economic vitality through safe, efficient goods movement and job access.
- **Mobility & System Reliability**: Provide consistent, dependable travel options for all users.
- **Clean Air & Public Health**: Improve air quality and promote a healthier region.
- **Access and Regional Fairness**: Expand access to opportunity across all communities.

More specific goals and objectives of the proposed 2026 RTP/SCS are listed in Chapter 2, *Project Description*.

Alternatives

CEQA Guidelines Section 15126.6 requires all EIRs include a comparative evaluation of the proposed project with alternatives to the project that can attain most of the project's basic objectives but would avoid or substantially lessen any of the significant effects of the project. CEQA requires an evaluation of a "range of reasonable" alternatives, including the "no project" alternative. The

following provides brief descriptions of the alternatives evaluated in this EIR. See Chapter 6, *Alternatives*, for full details. Based on the alternatives analysis, Alternative 4 was determined to be the environmentally superior alternative.

- Alternative 1: No Project
- Alternative 2: Concentrated Growth
- Alternative 3: Enhanced Transit
- Alternative 4: Concentrated Growth and Enhanced Transit

Alternative 1 (No Project)

The No Project Alternative represents a future condition in the horizon year 2049 in which no new transportation improvements are implemented beyond those already under construction or funded in 2026. The land use pattern under this alternative reflects a continuation of existing development trends and historical growth patterns throughout the county as envisioned under the 2022 RTP/SCS, without the introduction of new policies or strategies to modify the distribution of growth.

Alternative 2 (Concentrated Growth)

The Concentrated Growth Alternative assumes a land use pattern that directs a substantial share of future growth into the county's three largest cities: Tulare, Porterville and Visalia. Specifically, approximately 85 percent of new population and employment growth would be concentrated within these urban areas, resulting in higher development intensities and a more compact urban form relative to existing trends. The transportation network under this alternative includes all the transportation projects identified for the proposed 2026 RTP/SCS.

Alternative 3 (Enhanced Transit)

The Enhanced Transit Alternative assumes a land use pattern similar to the proposed 2026 RTP/SCS, without substantial shifts in the distribution of development across the county. However, this alternative includes significant enhancements to the transit system intended to improve service quality and accessibility. Specifically, fixed-route bus service frequencies would be doubled, and fare costs would be reduced to zero, resulting in a fare-free transit system. This alternative includes all the transportation projects identified for the proposed 2026 RTP/SCS.

Alternative 4 (Concentrated Growth and Enhanced Transit)

The Concentrated Growth and Enhanced Transit Alternative combines the land use strategy of the Concentrated Growth Alternative with the transit service enhancements of the Enhanced Transit Alternative. Under this alternative, approximately 85 percent of new growth would be directed to the county's three largest cities (Tulare, Porterville, and Visalia) resulting in a more compact and urbanized development pattern. Concurrently, the transit system would be enhanced by doubling fixed-route service frequencies and eliminating fare costs, creating a fare-free system. This alternative includes all the transportation projects identified for the proposed 2026 RTP/SCS.

Areas of Known Controversy

The EIR scoping process did not identify any areas of known controversy for the proposed project. The California Department of Fish and Wildlife (CDFW) requested that the EIR list special status species with the potential to occur in the TCAG region and to include measures for projects to be

surveyed by a qualified botanist for special-status plants, include mitigation for federal and California Endangered Species Act listed species, and address the Migratory Bird Act. The San Joaquin Valley Air Pollution Control District (SJVAPCD) requested that future projects incorporate strategies from the California Air Resources Board Freight Handbook Concept Paper, reduce vehicle miles traveled (VMT) and require the cleanest available heavy-duty trucks, vehicles, and off road equipment and be mitigated to the extent feasible in compliance with National Ambient Air Quality Standards and for projects to perform either a Prioritization or Health Risk Assessment. Responses to the Notice of Preparation of a Draft EIR and input received at the EIR scoping meeting are summarized in Chapter 1, *Introduction*.

Issues to be Resolved

Issues to be resolved include the choice among alternatives, and the nature of mitigation measures to be adopted.

Issues Not Studied in Detail in the EIR

All issues from the Appendix G checklist were studied in this EIR at a programmatic level.

Summary of Impacts and Mitigation Measures

Table ES-1 summarizes the environmental impacts of the proposed project, proposed mitigation measures, and residual impacts (the impact after application of mitigation, if required). Impacts are categorized as follows:

- **Significant and Unavoidable.** An impact that cannot be reduced to below the threshold level given feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be adopted if the project is approved pursuant to CEQA Guidelines Section 15093.
- **Less than Significant with Mitigation Incorporated.** An impact that can be reduced to below the threshold level given feasible mitigation measures. Such an impact requires findings pursuant to CEQA Guidelines Section 15091.
- **Less than Significant.** An impact that may be adverse but does not exceed the identified impact threshold levels and does not require mitigation measures.
- **No Impact.** The proposed project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

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Table ES-1 Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measure(s)	Significance After Mitigation
Aesthetics		
Impact AES-1: The proposed transportation projects and land use projects envisioned under the proposed 2026 RTP/SCS would have a substantial adverse effect on scenic vistas and substantially damage scenic resources including those within highways identified to have high scenic qualities or designated by the State as eligible scenic highways. Impacts would be significant and unavoidable.	**AES-1(a) Tree Protection and Replacement.** The implementing agency for new roadways, extensions and widenings of existing roadways, trails and facility improvement projects shall, or can and should, avoid the removal of existing mature trees to the extent possible consistent with adopted local City and County policies as applicable. The implementing agency of a particular proposed 2026 RTP/SCS project shall replace any trees lost at a minimum 2:1 basis and incorporate them into the landscaping design for the roadway when feasible, or as required by local or County requirements. The implementing agency also shall ensure the continued vitality of replaced trees through periodic maintenance. **AES-1(b) Discouragement of Architectural Features that Block Scenic Views.** The implementing agency shall, or can and should, design projects to minimize contrasts in scale and massing between the project and surrounding natural forms and development. Setbacks and acoustical design of adjacent structures shall be preferentially used as mitigation for potential noise impacts arising from increased traffic volumes associated with adjacent land development. The use of sound walls, or any other architectural features that could block views from the scenic highways or other view corridors, shall be discouraged to the extent possible. Where use of a sound wall is found to be necessary, walls shall incorporate offsets, accents, and landscaping to prevent monotony. In addition, sound walls shall be complementary in color and texture to surrounding natural features.	Significant and unavoidable
Impact AES-2: The proposed transportation projects and land use patterns envisioned by the proposed 2026 RTP/SCS would in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site or its surroundings, and in an urbanized area, would conflict with applicable zoning and other regulations governing scenic quality. Impacts would be significant and unavoidable.	**AES-2 Design Measures for Visual Compatibility.** The implementing agency shall, or can and should, require measures that minimize contrasts in scale and massing between the project and surrounding natural forms and developments. Strategies to achieve this include: ▪ Siting or designing projects to minimize their intrusion into important viewsheds; ▪ Avoiding large cuts and fills when the visual environment (natural or urban) would be substantially disrupted; ▪ Ensuring that re-contouring provides a smooth and gradual transition between modified landforms and existing grade; ▪ Developing transportation systems to be compatible with the surrounding environments (e.g., colors and materials of construction material; scale of improvements); ▪ Designing and installing landscaping to add natural elements and visual interest to soften hard edges, as well as to restore natural features along corridors where possible after widening, interchange modifications, re-alignment, or construction of ancillary facilities; and ▪ Designing new structures to be compatible in scale, mass, character, and architecture with existing structures.	Significant and unavoidable
Impact AES-3: Development of proposed transportation projects and land use patterns envisioned under the proposed 2026 RTP/SCS would create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area. Impacts are significant and unavoidable.	**AES-3(a) Roadway and Project Lighting.** The implementing shall, or can and should, minimize roadway lighting to the extent possible, consistent with safety and security objectives, and shall not exceed the minimum height requirements of the local jurisdiction in which the project is proposed. This may be accomplished through the use of back shields, hoods, low intensity lighting, and using as few lights as necessary to achieve the goals of the project. As part of planning, design, and engineering for transportation and land use projects, implementing agencies shall, or can and should, ensure that projects proposed near light-sensitive uses avoid substantial spillover lighting. Potential design measures include, but are not limited to, the following: ▪ Lighting shall consist of cutoff-type fixtures that cast low-angle illumination to minimize incidental spillover of light into adjacent properties and undeveloped open space. Fixtures that project light upward or horizontally shall not be used. ▪ Lighting shall be directed away from habitat and open space areas adjacent to the project site. ▪ Light mountings shall be downcast, and the height of the poles minimized to reduce potential for backscatter into the nighttime sky and incidental spillover of light onto adjacent private properties and undeveloped open space. Light poles will be 20 feet high or shorter. Luminary mountings shall have non-glare finishes. ▪ Exterior lighting features shall be directed downward and shielded in order to confine light to the boundaries of the subject project. Where more intense lighting is necessary for safety purposes, the design shall include landscaping to block light from sensitive land uses, such as residences. **AES-3(b) Glare Reduction Measures.** Implementing agencies shall, or can and should, minimize and control glare from transportation and land use projects near glare-sensitive uses through the adoption of project design features such as: ▪ Planting trees along transportation corridors to reduce glare from the sun; ▪ Creating tree wells in existing sidewalks; ▪ Adding trees in new curb extensions and traffic circles; ▪ Adding trees to public parks and greenways; ▪ Landscaping off-street parking areas, loading areas, and service areas; ▪ Limiting the use of reflective materials, such as metal; ▪ Using non-reflective material, such as paint, vegetative screening, matte finish coatings, and masonry; ▪ Screening parking areas by using vegetation or trees; ▪ Using low-reflective glass; ▪ Complying with applicable general plan policies, municipal code regulations, city or local controls related to glare; and ▪ Tree species planted to comply with this measure shall provide substantial shade cover when mature. Utilities shall be installed underground along these routes wherever feasible to allow trees to grow and provide shade without need for severe pruning.	Significant and unavoidable

Impact	Mitigation Measure(s)	Significance After Mitigation
Impact AES-C-1: Development in the cumulative impact analysis area would have a substantial adverse effect on a scenic vista, substantially damage scenic resources including those identified to have high scenic qualities or eligible State scenic highways, degrade existing visual character, and adversely affect night sky lighting. Cumulative impacts would be significant and the contribution of the 2026 RTP/SCS would be cumulatively considerable.	**AES-1(a)** through **AES-3(b)**	Significant and cumulatively considerable
Agriculture and Forestry Resources		
Impact AG-1: Proposed transportation improvements and land use projects envisioned by the proposed 2026 RTP/SCS would result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use, and/or conflict with existing zoning for agriculture or a Williamson Act contract. This would be a significant and unavoidable impact.	**AG-1 Agricultural Land Impact Avoidance and Minimization.** Implementing agencies shall implement measures, where feasible 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 Important Farmland, agriculturally zoned land and/or land under Williamson Act contract; ▪ Manage project construction to minimize the introduction of invasive species or weeds that may affect agricultural production on agricultural land adjacent to project sites. Managing project construction may include washing construction equipment before bringing equipment on-site, using certified weed-free straw bales for construction Best Management Practices (BMPs), and other similar measures. ▪ Provide buffers, berms, setbacks, fencing, or other project design measures to protect surrounding agriculture, and to reduce conflict with farming that could result from implementation of transportation projects and/or development included as a part of the RTP/SCS. ▪ Achieve compensatory mitigation in advance of impacts through purchase or creation of mitigation credits, as deemed appropriate by permitting agencies. ▪ Require acquisition of agricultural conservation easements on land in the same jurisdiction, if feasible, and at least equal in quality and size to converted Important Farmland, to offset the loss of Important Farmland. ▪ 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.).	Significant and unavoidable
Impact AG-2: The proposed transportation projects and land use projects envisioned by the proposed 2026 RTP/SCS would not conflict with existing zoning for forest land, timberland, or timberland production, nor convert forest land to non-forest uses. Impacts would be less than significant.	No mitigation required	Less than significant
Impact AG-C-1: Development in the cumulative impact analysis area and transportation projects would result in conversion of agricultural land to non-agricultural uses. Cumulative impacts would be significant and the contribution of the 2026 RTP/SCS would be cumulatively considerable. Impacts to agricultural land would be cumulatively considerable.	**AG-1**	Significant and cumulatively considerable
Impact AG-C-2: Development In the cumulative impact analysis area and transportation projects would not result in conversion of forest land and timber resources cumulative impacts would be less than significant and the contribution of the 2026 RTP/ SCS would not be cumulatively considerable.	No mitigation required	Less than significant
Air Quality		
Impact AQ-1: The proposed 2026 RTP/SCS would not conflict with or obstruct implementation of the applicable air quality plan. Impacts would be less than significant.	No mitigation required	Less than significant
Impact AQ-2: Construction activities associated with transportation improvements and land use projects implementing the proposed 2026 RTP/SCS would result in a cumulatively considerable net increase in criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard. This impact would be significant and unavoidable.	**AQ-2(a) Application of SJVAPCD Feasible Mitigation Measures.** For all projects, the implementing agency shall incorporate the most recent SJVAPCD feasible construction mitigation measures and/or technologies for reducing inhalable particles based on analysis of individual sites and project circumstances. Additional and/or modified measures may be adopted by SJVAPCD prior to implementation of individual projects under the proposed 2026 RTP/SCS; therefore, the most current list of feasible mitigation measures at the time of project implementation shall be used. The current SJVAPCD feasible mitigation measures include the following (SJVAPCD 2015): ▪ All disturbed areas, including storage piles, which are not being actively utilized for construction purposes shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover. ▪ All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking. ▪ When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained. ▪ Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.	Significant and unavoidable

Impact	Mitigation Measure(s)	Significance After Mitigation
	▪ An owner/operator of any site with 150 or more vehicle trips per day, or 20 or more vehicle trips per day by vehicles with three or more axles shall implement measures to prevent carryout and trackout. ▪ Limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use. **AQ-2(b) Diesel Equipment Emissions Standards.** The implementing agency shall ensure, to the maximum extent technologically, logistically, and economically feasible, that diesel construction equipment meeting the most stringent CARB emissions standards for off-road heavy-duty diesel engines is used (e.g., as of 2026, this would be Tier 4 emission standards). Where the use of the most stringent CARB emissions standards for off-road heavy-duty diesel engines is not feasible, the next lower tier shall be used; where the use of the next lower tier is not feasible, the next lowest tier shall be used. **AQ-2(c) Electric Construction Equipment.** The implementing agency shall ensure that to the extent technologically, logistically, and economically feasible, construction equipment utilizes electricity from power poles rather than temporary diesel power generators and/or gasoline power generators.	
Impact AQ-3: Operation of the proposed transportation improvements and land use projects implementing the proposed 2026 RTP/SCS would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. Impacts would be significant and unavoidable.	**AQ-3(a) PM_{10} Emissions Reduction**. To help reduce regional PM_{10} emissions, TCAG, in partnership with SJVAPCD and implementing agencies, shall: ▪ Support the use of existing air quality and transportation funds and seek additional funds to continue the implementation of the CARB Carl Moyer Program, which is intended to retrofit and replace trucks and locomotives to reduce particulate matter. ▪ Incentivize the reduction of mobile PM emissions from mobile exhaust and entrained PM sources such as tire wear, brake wear, and roadway dust through funding. ▪ Hold forums and workshops to encourage land use projects to incorporate transportation demand management (TDM) strategies as part of the project design to reduce the number of vehicular trips across the transportation network. Potential strategies could include ridesharing, carpooling, subsidized public transit, flexible work hours, and parking management measures. **AQ-3(b) Long-term Regional Operational Emissions**. Implementing agencies can and should implement long-term operational emissions reduction measures. Such reduction measures include the following: ▪ Require that all interior and exterior architectural coatings for all developments utilize coatings following SJVAPCD Rule 4601, *Architectural Coatings*. ▪ Increase building envelope energy efficiency standards in excess of applicable building standards and encourage new development to achieve zero net energy use. ▪ Install energy-efficient appliances, interior lighting, and building mechanical systems. Encourage installation of solar panels for new residential and commercial development. ▪ Locate sensitive receptors more than 500 feet of a freeway, 500 feet of urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day. ▪ Locate sensitive receptors more than 1,000 feet of a major diesel rail service or railyards. Where adequate buffer cannot be implemented, implement the following: ▫ Install indoor air filtration (as part of mechanical ventilation systems or stand-alone air cleaners) to reduce indoor pollution exposure for residents and other sensitive populations in buildings that are close to transportation network improvement projects. ▫ Use air filtration devices rated MERV-13 or higher. ▪ Plant trees and/or vegetation suited to trapping roadway air pollution and/or sound walls between sensitive receptors and the pollution source. The vegetation buffer should be thick, with full coverage from the ground to the top of the canopy Install higher efficacy public street and exterior lighting. ▪ Use daylight as an integral part of lighting systems in buildings. ▪ Use passive solar designs to take advantage of solar heating and natural cooling. ▪ Install light colored “cool” roofs, cool pavements. ▪ Install solar and tankless hot water heaters. ▪ Exclude wood-burning fireplaces and stoves. ▪ Incorporate design measures and infrastructure that promotes safe and efficient use of alternative modes of transportation (e.g., neighborhood electric vehicles and bicycles) pedestrian access, and public transportation use. Such measures may include incorporation of electric vehicle charging stations, bike lanes, bicycle-friendly intersections, and bicycle parking and storage facilities. ▪ Incorporate design measures that promote ride sharing programs (e.g., by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading and waiting areas for ride sharing vehicles, and providing a web site or message board for coordinating rides). ▪ Incorporate other mitigation measures recommended by SJVAPCD.	Significant and unavoidable
Impact AQ-4: The proposed transportation improvements and land use projects implementing the proposed 2026 RTP/SCS would expose sensitive receptors to substantial particulate matter pollutant concentrations. Because the proposed 2026 RTP/SCS would increase exposure to entrained dust, impacts would be significant and unavoidable.	**AQ-2(a) through AQ-2(c), AQ-3(a), AQ-3(b), and AQ-5**	Significant and unavoidable
Impact AQ-5: The transportation improvements and land use projects implementing the proposed 2026 RTP/SCS would expose sensitive receptors to substantial TAC concentrations. Impacts would be significant and unavoidable.	**AQ-5 Health Risk Reduction Measures.** Transportation project sponsor agencies shall implement the following measures for projects that could facilitate an increase in vehicle trips:	Significant and unavoidable

Impact	Mitigation Measure(s)	Significance After Mitigation
	▪ During project-specific design and CEQA review, the potential localized particulate matter (PM_{10} and $PM_{2.5}$) impacts and their health risks shall be evaluated for individual projects. Localized particulate matter concentrations shall be estimated using procedures and guidelines consistent with the USEPA's 2015 *Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in $PM_{2.5}$ and PM_{10} Nonattainment and Maintenance Areas*. If required based on the project-level hotspot analysis, project-specific mitigation shall be added to the project design concept or scope to ensure that local particulate (PM_{10} and $PM_{2.5}$) emissions would not reach a concentration at any location that would cause estimated cancer risk to exceed the SJVAPCD threshold of 20 in one million. Per the USEPA guidance (2015), potential mitigation measures to be considered may include but shall not be limited to: providing a retrofit program for older higher emitting vehicles, anti-idling requirements or policies, controlling fugitive dust, routing traffic away from populated zones and replacing older buses with cleaner buses. These measures can and should be implemented to reduce localized particulate matter emissions. ▪ For projects that do not meet health risk assessment (HRA) screening criteria, retain a qualified air quality consultant to prepare a HRA in accordance with CARB and OEHHA requirements to determine the exposure of nearby residents to TAC concentrations. ▪ If impacts result in increased risks to sensitive receptors above significance thresholds, plant trees and/or vegetation suited to trapping TACs and/or sound walls between sensitive receptors and the pollution source. In addition, consistent with the general guidance contained in CARB's *Air Quality and Land Use Handbook* (2005) and Technical Advisory *on Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways* (2017), cities and the County shall incorporate appropriate and feasible measures into project design for land use projects, including residential, school and other sensitive uses located within 500 feet (or other appropriate distance as determined by the lead agency) of freeways, heavily travelled arterials, railways and other sources of diesel particulate matter, including roadways experiencing significant vehicle delays. The appropriate measures shall include one or more of the following methods, as applicable and as determined by a qualified professional. The implementing agency shall incorporate health risk reduction measures based on an analysis of individual sites and project circumstances. These measures may include: ▪ Avoid siting new sensitive land uses within 500 feet of a freeway or railway. ▪ Require development projects for new sensitive land uses to be designed to minimize exposure to roadway-related pollutants to the maximum extent logistically and economically feasible through inclusion of design components including air filtration and physical barriers. ▪ Do not locate sensitive receptors near the entry and exit points of a distribution center. ▪ Locate structures and outdoor living areas for sensitive uses as far as possible from the source of emissions. As feasible, locate doors, outdoor living areas and air intake vents primarily on the side of the building away from nearby high-volume roadways or other pollution source. As feasible, incorporate dense, tiered vegetation that regains foliage year-round and has a long life span between the pollution source and the project. ▪ Maintain a 50-foot buffer from a typical gas dispensing facility (under 3.6 million gallons of gas per year). ▪ Install, operate, and maintain in good working order a central heating and ventilation (HV) system or other air take system in the building, or in each individual residential unit, which meets the efficiency standard of the MERV 13. The HV system should include the following features: ▫ Installation of a high efficiency filter and/or carbon filter-to-filter particulates and other chemical matter from entering the building. ▫ Use of either HEPA filters or ASHRAE 85 percent supply filters. ▫ Completion of ongoing maintenance. ▪ Retain a qualified HV consultant or Home Energy Rating Systems rater during the design phase of the project to locate the HV system based on exposure modeling from the mobile and/or stationary pollutant sources. ▪ Maintain positive pressure within the building. ▪ Achieve a performance standard of at least one air exchange per hour of fresh outside filtered air. ▪ Achieve a performance standard of at least four air exchanges per hour of recirculation. Achieve a performance standard of 0.25 air exchanges per hour of unfiltered infiltration if the building is not positively pressurized. ▪ Require project owners to provide a disclosure statement to occupants and buyers summarizing technical studies that reflect health concerns about exposure to highway/freeway exhaust emissions. ▪ Implement feasible attenuation measures needed to reduce potential air quality impacts to sensitive receptors such as air filtration systems.	
Impact AQ-6: Construction of the transportation improvements and land use projects implementing the proposed 2026 RTP/SCS would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Impacts would be less than significant.	No mitigation required	Less than significant

Impact	Mitigation Measure(s)	Significance After Mitigation
Impact AQ-C-1: Development in the cumulative impact analysis area would result in a cumulatively considerable increase of criteria pollutants and would expose sensitive receptors to diesel particulates and toxic air contaminants. Cumulative impacts would be significant and the contribution of the 2026 RTP/SCS would be cumulatively considerable.	**AQ-2(a) through AQ-2(c), AQ-3(a), AQ-3(b), AQ-4,** and **AQ-5**	Significant and cumulatively considerable
Biological Resources		
Impact BIO-1: Implementation of transportation projects and the land use scenario envisioned by the proposed 2026 RTP/SCS would have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. Impacts would be significant and unavoidable.	**BIO-1(a) Biological Resources Screening and Assessment.** On a project-by-project basis, a preliminary biological resource screening shall be performed to determine whether the project has any potential to impact biological resources. If it is determined that the project has no potential to impact biological resources, no further action is required. If the project would have the potential to impact biological resources, prior to construction, a qualified biologist shall conduct a biological resources assessment (BRA) or similar type of study to document the existing biological resources within the project footprint plus an appropriate buffer determined by a qualified biologist and to determine the potential impacts to those resources. The BRA shall evaluate the potential for impacts to all sensitive biological resources including, but not limited to special-status species, nesting birds, wildlife movement, sensitive plant communities/critical habitat and other resources judged to be sensitive by local, state, and/or federal agencies. Pending the results of the BRA, design alterations, further technical studies (i.e., protocol surveys) and/or consultations with the USFWS, CDFW and/or other local, state, and federal agencies may be required. These protocols may include, but are not limited to: ▪ Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants (USFWS 2000) ▪ Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018) ▪ Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) ▪ Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods (USFWS 1996) ▪ Revised Guidance on Site Assessment and Field Surveys for the California Red-legged Frog (USFWS 2005) ▪ Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander (USFWS and CDFW 2003) ▪ Considerations for Conserving the Foothill Yellow-legged Frog (CDFW 2018) ▪ Visual Encounter Survey Protocol for Rana Boylii in Lotic Environments (University of California, Davis 2017) ▪ Draft USGS Western Pond Turtle (Emys marmorata) Visual Survey Protocol for the Southcoast Ecoregion (U.S. Geological Survey 2006) ▪ Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations (USFWS 2010) ▪ Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California (California Energy Commission and CDFW 2010) ▪ Staff Report on Burrowing Owl Mitigation (CDFW 2012). ▪ Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance (USFWS 1999) ▪ Bat surveys consistent with CDFW recommendations The following Mitigation Measures [BIO-1(b) through BIO-1(i)] shall be incorporated, only as applicable, into the BRA and/or the project CEQA document for projects where specific resources are present, or may be present, and may be impacted by the project. Note that specific surveys described in the mitigation measures below may be completed as part of the BRA where suitable habitat is present. **BIO1(b) Special-Status Plant Species Surveys.** If completion of the project-specific BRA determines that special-status plant species have potential to occur on-site, the implementing agency shall contract a qualified biologist to complete surveys for special-status plants prior to any vegetation removal, grubbing, or other construction activity of each project (including staging and mobilization). The surveys shall be floristic in nature and shall be seasonally timed to coincide with the target species identified in the project-specific BRA. Whenever practicable, surveys shall be conducted in accordance with the most current protocols established by the CDFW, USFWS, and the local jurisdictions if said protocols exist A report of the survey results shall be submitted by the qualified biologist to the implementing agency for review. If special-status plant species are identified, mitigation measure BIO-1(c) shall apply. **BIO-1(c) Special-Status Plant Species Avoidance, Minimization, and Mitigation**. If state or federally listed and/or CRPR 1 and 2 species are found during special-status plant surveys [pursuant to mitigation measure BIO-1(b)], then the implementing agency shall redesign the project to avoid impacting these plant species to the maximum extent feasible. Occurrences of these species that are not within the immediate disturbance footprint but are located within 50 feet of disturbance limits shall have bright orange protective fencing installed at least 30 feet beyond their extent, or other distance as approved by a qualified biologist, to protect them from harm. If CRPR 3 and 4 species are found, the qualified biologist contracted to conduct the plant surveys [pursuant to mitigation measure BIO-1(b)] shall evaluate to determine if they meet criteria to be considered special-status, and if so, the same process as identified for CRPR 1 and 2 species shall apply. If special-status plants species cannot be avoided and would be impacted by a project implemented under the proposed 2026 RTP/SCS, the implementing agency shall require all impacts to be mitigated at an appropriate ratio to fully offset project impacts, as determined by a qualified biologist for each species as a component of habitat restoration. A restoration plan shall be prepared and submitted by the qualified biologist to the implementing agency.	Significant and unavoidable

Impact	Mitigation Measure(s)	Significance After Mitigation
	BIO-1(d) Endangered/Threatened Animal Species Habitat Assessment and Protocol Surveys. If the results of the BRA determine that suitable habitat may be present for federally and/or state endangered or threatened animal species, the implementing agency shall require habitat assessments/surveys. Whenever practicable, the surveys shall be completed in accordance with CDFW and/or USFWS/NMFS protocols prior to issuance of any construction permits/project approvals. Alternatively, in lieu of conducting protocol surveys, the implementing agency may choose to assume presence within the project footprint and proceed with development of appropriate avoidance measures, consultation, and permitting, as applicable. If the target species is detected during protocol surveys, or protocol surveys are not conducted and presence assumed based on suitable habitat, mitigation measure BIO-1(e) shall apply. **BIO-1(e) Endangered/Threatened/State Candidate Animal Species Avoidance and Compensatory Mitigation.** If habitat is occupied or presumed occupied by federal and/or state listed or candidate species and would be impacted by the project, the implementing agency shall redesign the project in coordination with a qualified biologist to avoid impacting occupied/presumed occupied habitat to the extent feasible. If occupied or presumed occupied habitat cannot be avoided, the implementing agency shall estimate the total acreages for habitat that would be impacted prior to the issuance of construction permits/approvals. Compensatory mitigation shall be achieved through purchase of credits at a USFWS, NMFS and/or CDFW approved conservation bank if available for the affected species, and/or through providing compensatory mitigation to offset impacts to federal and/or state listed or candidate species habitat. Compensatory mitigation shall be provided at an appropriate ratio to fully offset project impacts, as determined by a qualified biologist for permanent impacts. Compensatory mitigation may be combined/nested with special-status plant species and sensitive community restoration where applicable. Temporary impact areas shall be restored to pre-project conditions. If on and/or off-site compensatory mitigation sites are identified, the implementing agency shall retain a qualified biologist to prepare a Habitat Mitigation and Monitoring Plan (HMMP) to ensure the success of compensatory mitigation sites that are to be conserved for compensation of permanent impacts to federal and/or state listed or candidate species. The HMMP shall identify long term site management needs, routine monitoring techniques, techniques, and success criteria, and shall determine if the conservation site has restoration needs to function as a suitable mitigation site. If restoration is required on the conservation site, the HMMP shall contain the restoration components outlined under the Restoration Plan listed in measure BIO-1(c). The HMMP shall be submitted by the qualified biologist to the implementing agency for review and approval. **BIO-1(f) Endangered/Threatened/State Candidate Species Avoidance and Minimization During Construction.** Implementing agencies shall select from these measures as appropriate depending on site conditions, the species with potential for occurrence and the results of the biological resources screening and assessment (measure BIO-1[a]). ▪ Preconstruction surveys for federal and/or state listed or candidate species with potential to occur shall be conducted by a qualified biologist where suitable habitat is present, as determined by the qualified biologist. The surveys shall occur not more than 48 hours prior to the start of construction activities. The survey area shall include the proposed disturbance area and all proposed ingress/egress routes, plus a 100-foot buffer. If any life stage of federal and/or state listed or candidate species is found within the survey area, the qualified biologist shall recommend an appropriate course of action, which may include consultation with USFWS, NMFS and/or CDFW. The results of the pre-construction surveys shall be submitted by the qualified biologist to the implementing agency for review and approval prior to start of construction. ▪ Ground disturbance shall be limited to the minimum necessary to complete the project. The project limits of disturbance shall be flagged. Areas of special biological concern shall have highly visible orange construction fencing. ▪ All projects occurring within/adjacent to aquatic habitats (including riparian habitats and wetlands) shall be completed between April 1 and October 31, to avoid impacts to sensitive aquatic species. ▪ All projects occurring within or adjacent to sensitive habitats that may support federally and/or state endangered/threatened species shall have a qualified biologist present during all initial ground disturbing/vegetation clearing activities. Once initial ground disturbing/vegetation clearing activities have been completed, said biologist shall conduct daily pre-activity clearance surveys for endangered/threatened species. Alternatively, and upon approval of the CDFW and/or USFWS/NMFS or as outlined in project permits, said biologist may conduct site inspections at a minimum of once per week to ensure all prescribed avoidance and minimization measures are begin fully implemented. ▪ No endangered/threatened species shall be captured and relocated without authorization from the CDFW and/or USFWS. ▪ If pumps are used for dewatering activities, all intakes shall be completely screened with wire mesh not larger than five millimeters to prevent animals from entering the pump system. ▪ If at any time during construction of the project an endangered/threatened species enters the construction site or otherwise may be impacted by the project, all project activities shall cease. At that point, a qualified biologist shall recommend an appropriate course of action, which may include consultation with USFWS, NMFS and/or CDFW. ▪ All vehicle maintenance/fueling/staging shall occur at a minimum 100 feet from any riparian habitat or water body. Suitable containment procedures shall be implemented to prevent spills. ▪ No equipment shall be permitted to enter wetted portions of any affected drainage channel. ▪ All equipment operating within streambeds (restricted to conditions in which water is not present) shall be in good conditions and free of leaks. Spill containment shall be installed under all equipment staged within stream areas and extra spill containment and clean up materials shall be located in close proximity for easy access.	

Impact	Mitigation Measure(s)	Significance After Mitigation
	▪ At the end of each workday, excavations shall be secured with cover or a ramp shall be provided to prevent wildlife entrapment. ▪ All trenches, pipes, culverts, or similar structures shall be inspected for animals prior to burying, capping, moving, or filling. **BIO-1(g) Non-Listed and Non-Candidate Special-status Animal Species Avoidance and Minimization.** Depending on the species identified in the BRA, the implementing agency shall select from among the following to reduce the potential for impacts to non-listed and non-candidate special-status animal species: ▪ Preconstruction clearance surveys shall be conducted within 14 days prior to the start of construction (including staging and mobilization). The surveys shall cover the entire disturbance footprint plus a minimum 100-foot buffer and shall identify all special-status animal species that may occur on-site. All non-listed special-status species shall be relocated from the site either through direct capture or through passive exclusion. A report of the preconstruction survey shall be submitted to the County by the implementing agency for their review and approval prior to the start of construction. ▪ A qualified biologist shall be present during all initial ground disturbing activities, including vegetation removal, to recover special-status animal species unearthed by construction activities. ▪ Upon completion of the project, a qualified biologist shall prepare a final compliance report documenting all compliance activities implemented for the project, including the preconstruction survey results. ▪ If special-status bat species may be present and impacted by the project, within 30 days of the start of construction a qualified biologist shall conduct presence/absence surveys for special-status bats, in consultation with the CDFW, where suitable roosting habitat is present. Surveys shall be conducted using acoustic detectors and by searching tree cavities, crevices, and other areas where bats may roost. If active bat roosts or colonies are present, the biologist shall evaluate the type of roost to determine the next step. ▫ If a maternity colony is present, all construction activities shall be postponed within a 250-foot buffer around the maternity colony until it is determined by a qualified biologist that the young have dispersed or as recommended by CDFW through consultation. Once it has been determined that the roost is clear of bats, the roost shall be removed immediately. ▫ If a roost is determined by a qualified biologist to be used by a large number of bats (large hibernaculum), alternative roosts, such as bat boxes if appropriate for the species, shall be designed and installed near the project site. The number and size of alternative roosts installed will depend on the size of the hibernaculum and shall be determined through consultations with the CDFW. ▫ If other active roosts are located, exclusion devices such as valves, sheeting or flap-style one-way devices that allow bats to exit but not re-enter roosts discourage bats from occupying the site. **BIO-1(h) Preconstruction Surveys for Nesting Birds.** For construction activities occurring during the nesting season (generally February 1 to September 15), surveys for nesting birds covered by the CFGC, the MBTA, and Bald and Golden Eagle Protection Act shall be conducted by a qualified biologist no more than 10 days prior to vegetation removal activities. A qualified biologist shall conduct preconstruction surveys for raptors. The survey for the presence of bald and golden eagles shall cover all areas within of the disturbance footprint plus a one-mile buffer where access can be secured. The survey area for all other nesting bird and raptor species shall include the disturbance footprint plus a 300-foot and 500-foot buffer, respectively. If active nests (nests with eggs or chicks) are located, the qualified biologist shall establish an appropriate avoidance buffer based on the species biology and the current and anticipated disturbance levels occurring in vicinity of the nest. All buffers shall be marked using high visibility flagging or fencing, and, unless approved by the qualified biologist, no construction activities shall be allowed within the buffers until the qualified biologist has verified that young have fledged from the nest, or the nest fails. For bald or golden eagle nests identified during the preconstruction surveys, an avoidance buffer of up to one mile shall be established by a qualified biologist on a case-by-case basis in consultation with the USFWS and CDFW. The size of the buffer may be influenced by the existing conditions and disturbance regime, relevant landscape characteristics, and the nature, timing, and duration of the expected disturbance. The buffer shall be established between February 1 and September 15; however, buffers may be relaxed earlier than September 15 if a qualified biologist determines that a given nest has failed or that all surviving chicks have fledged, and the nest is no longer in use. The qualified biologist shall prepare a report of these preconstruction nesting bird surveys and nest monitoring (if applicable) to be submitted by the qualified biologist to the implementing agency for review and approval prior to the start of construction. **BIO-1(i) Worker Environmental Awareness Program.** Prior to initiation of construction activities (including staging and mobilization), all personnel associated with project construction shall attend Worker Environmental Awareness Program training, conducted by a qualified biologist retained by the implementing agency, to aid workers in recognizing special-status resources and review of the limits of construction and mitigation measures required. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employers, and other personnel involved with construction of the project. All employees shall sign a form documenting that they have attended the training and understand the information presented to them.	

Impact	Mitigation Measure(s)	Significance After Mitigation
Impact BIO-2: Implementation of transportation projects and the land use scenario envisioned by the proposed 2026 RTP/SCS would result in substantial adverse impacts on sensitive natural communities and would result in substantial adverse impacts on state and federally protected wetlands. These impacts would be significant and unavoidable.	**BIO-2(a) Aquatic Resources Jurisdictional Delineation and Impact Avoidance.** If the results of Mitigation Measure BIO-1(a) indicates projects implemented under the proposed 2026 RTP/SCS occur within or adjacent to wetland, drainages, riparian habitats, or other sensitive natural areas that may fall under the jurisdiction of the CDFW, USACE, and/or RWQCB, a qualified biologist shall complete an aquatic resources delineation in accordance with the requirement set forth by each agency. The result shall be submitted by the qualified biologist to the implementing agency, USACE, RWQCB, and/or CDFW, as appropriate, for review and approval, and the project shall be designed to avoid and minimize impacts to jurisdictional areas to the extent feasible. The delineation shall serve as the basis to identify potentially jurisdictional areas to be protected during construction with implementation of measure BIO-2(f) to protect the resource through avoidance and minimization. **BIO-2(b) Wetland, Drainages, and Riparian Habitat Restoration**. Unavoidable impacts to jurisdictional wetlands, drainages, and riparian habitat shall be mitigated at an appropriate ratio to fully offset project impacts, as determined by a qualified biologist retained by the implementing agency and shall occur on-site or as close to the impacted habitat as possible. A mitigation and monitoring plan consistent with regulatory agency requirements shall be developed by a qualified biologist and submitted to the regulatory agency overseeing the resource for approval. Alternatively, mitigation shall be accomplished through purchase of credits at a minimum 1:1 ratio from an approved wetlands mitigation bank. **BIO-2(c) Landscaping Plan.** If landscaping is proposed for a specific project, a qualified biologist or landscape architect retained by the implementing agency shall prepare a landscape plan. Drought tolerant, locally native plant species shall be used. Noxious, invasive and/or non-native plant species that are recognized on the Federal Noxious Weed List, California Noxious Weeds List and/or California Invasive Plant Council Inventory shall not be permitted. Species selected for planting shall be regionally appropriate native species that are known to occur in the adjacent native habitat types. **BIO-2(d) Sensitive Natural Community Avoidance and Mitigation.** If the results of measure BIO-1(a) indicates projects implemented under the proposed 2026 RTP/SCS would impact sensitive natural communities, the implementing agency shall avoid impacts to sensitive natural communities through final project design modifications if feasible. If the implementing agency determines that sensitive natural communities cannot be avoided, impacts shall be mitigated on-site or offsite at an appropriate ratio to fully offset project impacts, as determined by a qualified biologist based on applicable resource agency guidelines. Temporarily impacted areas shall be restored to pre-project conditions. A Restoration Plan shall be developed by a qualified biologist and submitted by the qualified biologist to the implementing agency. **BIO-2(e) Invasive Weed Prevention and Management Program.** Prior to start of construction for each project that occurs within or adjacent to native habitats, an Invasive Weed Prevention and Management Program shall be developed by a qualified biologist retained by the implementing agency to prevent invasion of native habitat by non-native plant species. The plan shall be submitted by the qualified biologist to the implementing agency for review and approval. A list of target species shall be included, along with measures for early detection and eradication. The plan, which shall be implemented by the implementing agency, shall also include, but not be limited to, the following measures to prevent the introduction of invasive weed species: ▪ During construction, limit the use of imported soils for fill. If the use of imported fill material is necessary, the imported material must be obtained from a source that is known to be free of invasive plant species. ▪ To minimize colonization of disturbed areas and the spread of invasive species, the contractor shall stockpile topsoil and redeposit the stockpiled soil after construction or transport the topsoil to a permitted landfill or acceptable location for disposal. ▪ All erosion control materials, including straw bales, straw wattles, or mulch used on-site must be free of invasive species seed. ▪ Exotic and invasive plant species shall be excluded from any erosion control seed mixes and/or landscaping plant palettes associated with the proposed project ▪ All disturbed areas shall be hydroseeded with a mix of locally native species upon completion of work in those areas. **BIO-2(f) Wetlands, Drainages, and Riparian Habitat Best Management Practices During Construction.** The following best management practices shall be required by the implementing agency for development within or adjacent to wetlands, drainages, or riparian habitat: ▪ Access routes, staging and construction areas shall be limited to the minimum area necessary to achieve the project goal and minimize impacts to other waters including locating access routes and ancillary construction areas outside of jurisdictional areas. ▪ To control sedimentation during and after project implementation, appropriate erosion control materials shall be deployed to minimize adverse effects on jurisdictional areas in the vicinity of the project. ▪ Project activities within the jurisdictional areas should occur during the dry season (typically between June 1 and November 1) in any given year, or as otherwise directed by the regulatory agencies. ▪ During construction, no litter or construction debris shall be placed within jurisdictional areas. All such debris and waste shall be picked up daily and properly disposed of at an appropriate site. ▪ Raw cement, concrete, or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic species resulting from project related activities, shall be prevented from contaminating the soil and/or entering wetlands, drainages, or riparian habitat. ▪ All refueling, maintenance and staging of equipment and vehicles shall occur at least 100 feet from bodies of water and in a location where a potential spill would not drain directly toward aquatic habitat (e.g., on a slope that drains away from the water source). Prior to the onset of work activities, a plan must be in place for prompt and effective response to any accidental spills.	Significant and unavoidable

Impact	Mitigation Measure(s)	Significance After Mitigation
Impact BIO-3: Implementation of transportation projects and the land use scenario envisioned by the proposed 2026 RTP/SCS would 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. This impact would be significant and unavoidable.	**BIO-3(a) Project Design for Wildlife Connectivity.** All projects including long segments of fencing and lighting shall be designed to minimize impacts to wildlife movement. Fencing shall not be installed at the openings of culverts, undercrossings, or other wildlife passage structures unless required for public safety; where fencing is necessary, it shall be placed far enough from the structure entrance to avoid blocking wildlife access and shall include design features that maintain clear, functional movement pathways. Where fencing or other project components are required for public safety concerns, these project components shall be designed to permit wildlife movement by incorporating design features such as: ▪ A minimum 16 inches between the ground and the bottom of the fence to provide clearance for small animals; ▪ A minimum 12 inches between the top two wires, or top the fence with a wooden rail, mesh, or chain link instead of wire to prevent animals from becoming entangled; ▪ If privacy fencing is required near open space areas, openings at the bottom of the fence shall measure at least 16 inches in diameter and be installed at reasonable intervals as defined by a qualified biologist to allow wildlife movement, or the fence may be installed with the bottom at least 16 inches above the ground level; ▪ If fencing or other project components must be designed in such a manner that wildlife passage would not be permitted, wildlife crossing structures shall be incorporated into the project design as appropriate; and ▪ Lighting installed as part of any project shall be designed to be minimally disruptive to wildlife (see mitigation measure AES-3(a) Roadway Lighting for lighting requirements). In addition, prior to design approval, implementing agencies shall conduct wildlife movement assessments to evaluate connectivity constraints and identify opportunities to maintain or enhance wildlife movement. Postconstruction monitoring shall be conducted, where feasible, to confirm wildlife use of implemented movement features and to identify any needed adaptive management. When on-site design measures cannot fully reduce impacts, compensation shall be considered as a mitigation option, including but not limited to participation in mechanisms authorized under SB 790, to reduce unavoidable connectivity impacts at a landscape scale. **BIO-3(b) Maintain Connectivity in Drainages.** Permanent structures shall be avoided to the extent feasible within any drainage or river that serves as a wildlife migration corridor that would impede wildlife movement. In addition, upon completion of construction within any drainage, areas of stream channel and banks that are temporarily impacted shall be returned to pre-construction contours, in a condition that allows for unimpeded passage through the area once the work has been completed. If water is to be diverted around work sites, a diversion plan shall be submitted by the qualified biologist to the implementing agency for review and approval prior to issuance of project construction permits/approvals. The diversion shall be designed in a way as to not impede movement while the diversion is in place. For projects affecting drainages that serve as wildlife movement corridors, implementing agencies shall complete pre-construction evaluations of species movement patterns to guide placement, design, and timing of work. Post construction monitoring shall be conducted, where feasible, to verify that drainage related movement remains functional and to inform adaptive management if needed. **BIO-3 (c) Construction Best Management Practices to Minimize Disruption to Wildlife.** The following construction best management practices shall be incorporated by the implementing agency into all grading and construction plans to minimize temporary disruption of wildlife, which could hinder wildlife movement: ▪ Designation of a 20 mile per hour speed limit in all construction areas. ▪ Daily construction work schedules shall be limited to daylight hours only. ▪ Mufflers shall be used on all construction equipment and vehicles shall be in good operating condition. ▪ All trash shall be placed in sealed containers and shall be removed from the project site a minimum of once per week. ▪ No pets are permitted on project site during construction.	Significant and unavoidable
Impact BIO-4: Implementation of transportation projects and the land use scenario envisioned by the proposed 2026 RTP/SCS would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. This impact would be less than significant.	No mitigation required	Less than significant
Impact BIO-5: Implementation of transportation projects and the land use scenario envisioned by the proposed 2026 RTP/SCS would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Impacts would be less than significant.	No mitigation required	Less than significant
Impact BIO-C-1: Development in the cumulative impact analysis area would have substantial adverse impacts on special-status plant and animal species, sensitive natural communities, and protected wetlands, and would interfere with wildlife movement. Cumulative impacts would be significant and the contribution of the 2026 RTP/SCS would be cumulatively considerable.	**BIO-1(a)** through **BIO-3(c)**	Significant and cumulatively considerable

Impact	Mitigation Measure(s)	Significance After Mitigation
Cultural Resources		
Impact CUL-1: Transportation improvement projects and the land use scenario envisioned by the proposed 2026 RTP/SCS would cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. This impact would be significant and unavoidable.	**CUL-1 Historical Resources Impact Minimization.** Prior to individual project permit issuance, the implementing agency of a proposed 2026 RTP/SCS project involving earth disturbance or construction of permanent above ground structures or roadways shall, or can and should, prepare a map defining the Area of Potential Effects (APE). This map shall indicate the areas of primary and secondary disturbance associated with construction and operation of the facility and will determine whether known historical resources are located within the impact zone. If a structure greater than 45 years in age is within the identified APE, a survey and evaluation of the structure(s) to determine their eligibility for recognition under State, federal, or local historic preservation criteria shall be conducted. The evaluation shall be prepared by an architectural historian meeting the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, Professional Qualification Standards*. The evaluation shall comply with *CEQA Guidelines* Section 15064.5(a). The study must also analyze impacts in accordance with *CEQA Guidelines* Section 15064.5(b). Based on the findings of the study, recommendations shall be implemented, which may include, but are not limited to, the following: ▪ Realign or redesign projects to avoid impacts on known historic resources where possible ▪ If avoidance of a significant architectural/built environment resource is not feasible, additional mitigation options include, but are not limited to, specific design plans for historic districts, or plans for alteration or adaptive re-use of a historical resource that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitation, Restoring, and Reconstructing Historic Buildings ▪ Comply with existing local regulations and policies that exceed or reasonably replace any of the above measures that protect historic resources	Significant and unavoidable
Impact CUL-2: Construction activity associated with transportation improvement projects and the land use scenario envisioned by the proposed 2026 RTP/SCS may cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. Potential impacts to archaeological resources would be significant and unavoidable.	**CUL-2(a) Archaeological Resources Impact Minimization.** Before construction activities, implementing agencies shall, or can and should, retain a qualified archaeologist to conduct a record search at the Northwest Information Center to determine whether the project area has been previously surveyed and whether resources were identified. When recommended by the Information Center, implementing agencies shall, or can and should, retain a qualified archaeologist to conduct archaeological surveys before construction activities. Implementing agencies shall, or can and should, follow recommendations identified in the survey, which may include, but would not be limited to subsurface testing, designing and implementing a Worker Environmental Awareness Program (WEAP), construction monitoring by a qualified archaeologist, avoidance of sites and preservation in place, and/or data recovery if avoidance is not feasible. Recommended mitigation measures shall be consistent with *CEQA Guidelines* Section 15126.4(b)(3) recommendations and may include but not be limited to preservation in place and/or data recovery. All cultural resources work shall follow accepted professional standards in recording any find including submittal of standard DPR Primary Record forms (Form DPR 523) and location information to the appropriate California Historical Resources Information System office for the project area. **CUL-2(b) Unanticipated Discoveries During Construction.** During construction activities, implementing agencies shall, or can and should, implement the following measures. If evidence of any prehistoric or historic-era subsurface archaeological features, deposits or tribal cultural resources are discovered during construction-related earthmoving activities (e.g., ceramic shard, trash scatters, lithic scatters), all ground-disturbing activity proximate to the discovery shall be halted until a qualified archaeologist (36 CFR Section 61) and Native American monitor, pursuant to Mitigation Measure TCR-1, can assess the significance of the find. If the find is a prehistoric archaeological site, the appropriate Native American group shall be notified. If the archaeologist and Native American monitor determine that the find does not meet the CRHR standards of significance for cultural resources, construction may proceed. If the archaeologist and Native American monitor determine that further information is needed to evaluate significance, a testing plan shall be prepared and implemented. If the find is determined to be significant by the qualified archaeologist (i.e., because the find is determined to constitute either an historical resource or a unique archaeological resource), the archaeologist shall work with the implementing agency to avoid disturbance to the resources, and if complete avoidance is not feasible in light of project design, economics, logistics and other factors, shall recommend additional measures such as the preparation and implementation of a data recovery plan. All cultural resources work shall follow accepted professional standards in recording any find including submittal of standard DPR Primary Record forms (Form DPR 523) and location information to the appropriate California Historical Resources Information System office for the project area. If the find is a prehistoric archaeological site, the culturally affiliated California Native American tribe shall be notified and afforded the opportunity to monitor mitigative treatment. During evaluation or mitigative treatment, ground disturbance and construction work could continue in other parts of the project area that are distant enough from the find not to impact it, as determined by the qualified archaeologist and Native American monitor.	Significant and unavoidable
Impact CUL-3: Construction activity associated with transportation improvement projects and the land use scenario envisioned by the proposed 2026 RTP/SCS could result in disturbances to human remains including those interred outside of formal cemeteries. However, impacts to human remains would be less than significant.	No mitigation required.	Less than significant
Impact CUL-C-1: Implementation of the proposed transportation improvements and the land use scenario envisioned under the 2026 RTP/SCS would cause substantial impacts to known and unknown cultural, historical, or archaeological resources. Cumulative impacts would be significant and the contribution of the 2026 RTP/SCS would be cumulatively considerable.	**CUL-1, CUL-2(a),** and **CUL-2(b)**	Significant and cumulatively considerable

Impact	Mitigation Measure(s)	Significance After Mitigation
Energy		
Impact E-1: Future transportation improvement projects and implementation of the land use scenario envisioned by the proposed 2026 RTP/SCS would not result in a significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources. This impact would be less than significant.	No mitigation required	Less than significant
Impact E-2: The proposed 2026 RTP/SCS would not increase reliance on fossil fuels or decrease reliance on renewable energy sources. This impact would be less than significant.	No mitigation required	Less than significant
Impact E-3: The proposed 2026 RTP/SCS would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This impact would be less than significant.	No mitigation Required	Less than significant
Impact E-C-1: Development in the cumulative impact analysis area would increase demand for energy beyond existing conditions but would comply with energy efficiency and renewable energy regulations and policies. Cumulative impacts would be less than significant, and the proposed 2026 RTP/SCS contribution would not be cumulatively considerable.	No mitigation required	Less than significant, not cumulatively considerable
Geology, Soils, and Mineral Resources		
Impact GEO-1: The transportation improvements and land use projects envisioned by the proposed 2026 RTP/SCS would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides. Impacts would be less than significant.	No mitigation required	Less than significant
Impact GEO-2: The proposed transportation improvements and land use projects envisioned by the proposed 2026 RTP/SCS would not result in substantial soil erosion or the loss of topsoil. Impacts would be less than significant.	No mitigation required	Less than significant
Impact GEO-3: Implementation of transportation improvements and future projects included in the land use scenario envisioned in the proposed 2026 RTP/SCS would be located on potentially unstable geologic units or soils, in areas of lateral spreading, subsidence, or high liquefaction potentially resulting in ground failure hazards, or areas of expansive soil. Adherence to applicable policies and regulations, as well as to the CBC, impacts would reduce risk such that impacts would be less than significant.	No mitigation required	Less than significant
Impact GEO-4: The transportation improvements and land use projects envisioned by the proposed 2026 RTP/SCS in rural areas may have soils incapable of adequately supporting septic tanks or alternative wastewater disposal systems. Impacts would be less than significant.	No mitigation required	Less than significant

Impact	Mitigation Measure(s)	Significance After Mitigation
Impact GEO-5: Implementation of proposed transportation improvements and the land use scenario envisioned by the proposed 2026 RTP/SCS would directly or indirectly destroy a unique paleontological resource or site or unique geological feature. Impacts would be significant and unavoidable.	**GEO-5 Paleontological Resources Mitigation and Monitoring Program.** Implementing agencies of a project implementing the proposed 2026 RTP/SCS involving ground disturbing activities (including grading, trenching, foundation work and other excavations) can and should, retain a qualified paleontologist, defined as a paleontologist who meets the Society of Vertebrate Paleontology (SVP) standards for Qualified Professional Paleontologist (SVP 2010), to conduct a Paleontological Resources Assessment (PRA). The PRA shall determine the age and paleontological sensitivity of geologic formations underlying the proposed disturbance area, consistent with SVP Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (SVP 2010) guidelines for categorizing paleontological sensitivity of geologic units within a project area. If underlying formations are found to have a high potential (sensitivity) for paleontological resources and/or could be considered a unique geologic feature, the following measures shall apply: ▪ **Avoidance.** Avoid routes and project designs that would permanently alter unique paleontological and unique geological features. If avoidance practices cannot be implemented, the following measures shall apply. ▪ **Retention of a Qualified Paleontologist to Prepare a Paleontological Resources Monitoring and Mitigation Program.** A Qualified Paleontologist shall be retained to create a Paleontological Resources Monitoring and Mitigation Program to direct all mitigation measures related to paleontological resources. The Qualified Paleontologist shall meet the qualifications for a Qualified Professional Paleontologist, which is defined by the SVP as an individual, preferably with an M.S. or Ph.D. in paleontology or geology, who is experienced with paleontological procedures and techniques, who is knowledgeable in the geology of California, and who has worked as a paleontological mitigation project supervisor for a least two years (SVP 2010). ▪ **Paleontological Worker Environmental Awareness Program (WEAP).** Prior to the start of ground disturbance activity, construction personnel shall be informed on the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff. ▪ **Paleontological Monitoring.** Ground disturbing activity with the potential to disturb geologic units with high paleontological sensitivity, as determined by initial paleontological surveying or records search as deemed appropriate, shall be monitored on a full-time basis by a qualified paleontological monitor. Should no fossils be observed during the first 50 percent of such excavations, paleontological monitoring could be reduced, under the discretion of the qualified paleontologist, to weekly spot-checking. Monitoring shall be conducted by a qualified paleontological monitor, defined as an individual who has experience with collection and salvage of paleontological resources. ▪ **Fossil Salvage**. If fossils are discovered, the implementing agency shall be notified immediately, and the qualified paleontologist (or paleontological monitor) shall recover them. Typically, fossils can be safely salvaged quickly by a single paleontologist and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. In this case, the paleontologist shall have the authority to temporarily direct, divert or halt construction activity to ensure that the fossil(s) can be removed in a safe and timely manner. ▪ **Preparation and Curation of Recovered Fossils**. Once salvaged, fossils shall be identified to the lowest possible taxonomic level, prepared to a curation-ready condition, and curated in a scientific institution with a permanent paleontological collection, such as the Natural History Museum of Los Angeles County, along with all pertinent field notes, photos, data, and maps. ▪ **Final Paleontological Resources Mitigation and Monitoring Report.** Upon completion of ground disturbing activity (and curation of fossils, if necessary) the Qualified Paleontologist shall prepare a final mitigation and monitoring report outlining the results of the Paleontological Resources Monitoring and Mitigation Program. The report shall include discussion of the location, duration and methods of the monitoring, stratigraphic sections, any recovered fossils, and the scientific significance of those fossils, and where fossils were curated.	Significant and unavoidable
Impact GEO-6: Implementation of transportation improvements and future projects included in the land use scenario envisioned in the proposed 2026 RTP/SCS would not result in the loss of availability of known mineral resources of value or locally important resource recovery sites. This impact would be less than significant.	No mitigation required	Less than significant
Impact GEO-C-1 Development in the cumulative impacts analysis area, and projects implementing the 2026 RTP/SCS, would be subject to seismic hazards, such as fault rupture, earthquakes, and landslides, and could cause soil erosion. However, compliance with applicable requirements would reduce cumulative impacts to less than significant. Cumulative impacts to mineral resources would be less than significant, and the 2026 RTP/SCS contribution would not be cumulatively considerable.	No mitigation required	Less than significant, not cumulatively considerable
Impact GEO-C-2 Excavation and ground disturbance associated with development in the cumulative impacts analysis area would damage or destroy subsurface paleontological resources. Cumulative Impacts would be significant. Although Mitigation Measure GEO-5 would reduce paleontological resource impacts associated with 2026 RTP/SCS projects, the 2026 RTP/SCS's contribution would remain cumulatively considerable.	**GEO-5**	Significant and cumulatively considerable

Impact	Mitigation Measure(s)	Significance After Mitigation
Greenhouse Gas Emissions and Climate Change		
Impact GHG-1: Construction of the transportation improvements and land use projects implementing the proposed 2026 RTP/SCS would generate a net increase in GHG emissions by 2049 compared to baseline 2025 conditions. Impacts would be significant and unavoidable.	**GHG-1 Construction GHG Reduction Measures.** The project sponsor shall incorporate the most recent GHG reduction measures and/or technologies for reducing GHG emissions measures for off-road construction vehicles during construction. The measures shall be noted on all construction plans and the project sponsor shall perform periodic site inspections. Current GHG-reducing measures include the following: ▪ Off road diesel construction equipment meeting the most stringent CARB emissions standards for off-road heavy-duty diesel engines must be used (e.g., as of 2026, this would be Tier 4 emission standards). Where the use of the most stringent CARB emissions standards for off-road heavy-duty diesel engines is not feasible, the next lower tier shall be used; where the use of the next lower tier is not feasible, the next lowest tier shall be used. ▪ Use of on-road heavy-duty trucks that meet CARB's most stringent or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation; ▪ All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the five-minute idling limit; ▪ Substitute gasoline-powered in place of diesel-powered equipment, where feasible; ▪ Use of alternatively fueled construction equipment, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel, in place of diesel-powered equipment for 15 percent of the fleet, to the extent electric powered equipment is not feasible; ▪ Use of materials sourced from local suppliers; ▪ Recycling of at least 75 percent of construction waste materials; and ▪ Project proponents shall incentivize that construction workers carpool, and/or use electric vehicles to commute to and from the project site.	Significant and unavoidable
Impact GHG-2: Proposed transportation improvements and land use projects implementing the proposed 2026 RTP/SCS would result in a net increase in GHG emissions by 2049 compared to the existing baseline conditions and would therefore have a significant impact on the environment. Impacts would be significant and unavoidable.	**GHG-2 Land Use Project Energy Consumption and Water Use Reduction Measures.** For land use projects under their jurisdiction, cities and the County can and should implement measures to reduce energy consumption, water use, solid waste generation, and VMT, all of which contribute to GHG emissions. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions. These measures include, but are not limited to: ▪ Require new residential and commercial construction to install solar energy systems or be solar-ready ▪ Require new residential and commercial development to install low flow water fixtures ▪ Require new residential and commercial development to install water-efficient drought-tolerant landscaping, including the use of compost and mulch ▪ Require new development to exceed the applicable Title 24 energy-efficiency requirements ▪ Require new development to be fully electric ▪ Require new residential and commercial development to offer information on recycling, composting, and disposal of household hazardous waste and e-waste ▪ Require new development to implement circulation design elements in parking lots for no-residential uses to reduce vehicle queuing and improve the pedestrian environment	Significant and unavoidable
Impact GHG-3: The transportation improvements and land use projects implementing the proposed 2026 RTP/SCS would not conflict with regional SB 375 per capita passenger vehicle CO_2 emission reduction targets of 16 percent by 2035 from 2005 levels. Impacts would be less than significant.	No mitigation required	Less than significant
Impact GHG-4: Implementation of the proposed 2026 RTP/SCS would conflict with the State's ability to achieve SB 32 and AB 1279, and applicable local GHG reduction plan targets and goals. Impacts would be significant and unavoidable.	**GHG-4 Transportation-Related GHG Reduction Measures**. The implementing agency shall incorporate the most recent GHG emission reduction measures and/or technologies for reducing VMT and associated transportation related GHG emissions. Current GHG-reducing measures include the following: ▪ Installation of electric vehicle charging stations beyond those required by State and local codes ▪ Utilization of electric vehicles and/or alternatively fueled vehicles in company fleet ▪ Provision of dedicated parking for carpools, vanpool, and clean air vehicles ▪ Provision of new or improved transit amenities (e.g., covered turnouts, bicycle racks, covered benches, signage, lighting, sidewalk connectivity, and accessible crosswalks) if project site is located along an existing transit route ▪ Optimize transit route networks and service levels to boost ridership ▪ Provision of vanpool and/or shuttle service for employees ▪ Implementation of reduced parking minimum requirements ▪ Implementation of maximum parking limits ▪ Provision of bicycle parking facilities beyond those required by State and local codes ▪ Provision of a bicycle-share program ▪ Expansion of bicycle routes/lanes along the project site frontage ▪ Provision of new or improved transit amenities (e.g., covered turnouts, bicycle racks, covered benches, signage, lighting) if project site is located along an existing transit route	Significant and unavoidable

Impact	Mitigation Measure(s)	Significance After Mitigation
	▪ Expansion of existing transit routes ▪ Provision of transit subsidies ▪ Expansion of sidewalk infrastructure along the project site frontage ▪ Provision of safe, pedestrian-friendly, and interconnected sidewalks and streetscapes ▪ Provision of employee lockers and showers ▪ Provision of on-site services that reduce the need for off-site travel (e.g., childcare facilities, automatic teller machines, postal machines, food services) ▪ Provision of alternative work schedule options, such as telework or reduced schedule (e.g., 9/80 or 10/40 schedules), for employees ▪ Implementation of transportation demand management programs to educate and incentivize residents and/or employees to use transit, smart commute, and alternative transportation options	
Impact GHG-C-1 Development in the cumulative impacts analysis area, as well as projects implementing the 2026 RTP/SCS, would generate temporary short-term GHG emissions which would result in a significant cumulative impact, and the 2026 RTP/SCS contribution would be cumulatively considerable. Construction and operational GHG emissions as a result of implementation of the 2026 RTP/SCS would have a cumulatively considerable contribution to a significant cumulative impact related to exceeding State GHG reduction targets.	**AQ-2(b)** and **AQ-2(c), AQ-3(b), GHG-1, GHG-2,** and **GHG-4, T-2(a)** and **T-2(b)**	Significant and cumulatively considerable
Hazards and Hazardous Resources		
Impact HAZ-1: Transportation improvement projects and the land use scenario envisioned by the proposed 2026 RTP/SCS would facilitate the routine transport, use, or disposal of hazardous material, and may result in reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The 2026 RTP/SCS would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous material. Thus, this impact would be less than significant.	No mitigation required	Less than significant
Impact HAZ-2: Transportation improvement projects and land use projects envisioned in the proposed 2026 RTP/SCS would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school. This impact would be less than significant.	No mitigation required	Less than significant
Impact HAZ-3: The proposed 2026 RTP/SCS includes transportation improvement projects and land use scenario projects that could be located on sites on the list of hazardous material sites compiled by Government Code Section 65962.5, which has the potential to create a significant hazard to the public or environment. This impact would be significant and unavoidable.	**HAZ-1 Site Remediation.** If an individual project included in the proposed 2026 RTP/SCS is located on or near a hazardous materials and/or waste site compiled by Government Code Section 65962.5, the implementing agency shall prepare a Phase I ESA in accordance with the American Society for Testing and Materials' E-1527-05 standard. For work requiring any demolition or renovation, the Phase I ESA shall make recommendations for any hazardous building materials survey work that shall be done. All recommendations included in a Phase I ESA prepared for a site shall be implemented. If a Phase I ESA indicates the presence or likely presence of contamination, the implementing agency shall require a Phase II ESA, and recommendations of the Phase II ESA shall be fully implemented. Examples of typical recommendations provided in Phase I/II ESAs include removal of contaminated soil in accordance with a soil management plan approved by the local environmental health department; covering stockpiles of contaminated soil to prevent fugitive dust emissions; capturing groundwater encountered during construction in a holding tank for additional testing and characterization and disposal based on its characterization; and development of a health and safety plan for construction workers.	Significant and unavoidable
Impact HAZ-4: Transportation improvement projects and the land use scenario envisioned in the proposed 2022 RTP/SCS located within an airport land use plan or within two miles of a public or public use airport would not result in a safety hazard for people residing or working in the project area. This impact would be less than significant.	No mitigation required	Less than significant
Impact HAZ-C-1 Development in the cumulative impacts analysis area, as well as transportation projects implementing the 2026 RTP/SCS, could result in hazards and exposure to hazardous materials. The 2026 RTP/SCS would have cumulatively considerable contributions to significant cumulative impacts related to hazards and hazardous materials sites.	**HAZ-1**	Significant and cumulatively considerable

Impact	Mitigation Measure(s)	Significance After Mitigation
Hydrology and Water Quality		
Impact HYD-1: Implementation of proposed transportation projects and future projects included in the land use scenario envisioned in the proposed 2026 RTP/SCS would not violate water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality. These impacts would be less than significant.	No mitigation required	Less than significant
Impact HYD-2: Transportation and land use projects implementing the proposed 2026 RTP/SCS would substantially decrease groundwater supplies and interfere with groundwater recharge such that it may impede sustainable groundwater management of the basin. Impacts would be significant and unavoidable.	**HYD-2(a) Construction Dust Suppression Water Supply.** Where feasible, implementing agencies shall use reclaimed and/or recycled water for dust suppression during construction activities. This includes use of such reclaimed water in water trucks utilized for project construction occurring outside developed areas and away from water infrastructure which would otherwise provide such reclaimed water. This measure shall be noted on construction plans and shall be spot checked by the local jurisdiction. **HYD-2(b) Landscape Watering**, Implementing agencies shall design proposed 2026 RTP/SCS projects that include landscaping shall be designed with drought tolerant plants and drip irrigation. When feasible, native plant species shall be used. In addition, landscaping associated with proposed improvements shall be maintained using reclaimed water when feasible. If reclaimed water could feasibly be utilized for project landscape watering due to proximity of reclaimed water sources but is unavailable due to lack of connecting infrastructure, implementing agencies shall conduct an analysis of the upgrades needed to provide such infrastructure, which will include the potential for new connections to existing reclaimed water systems to provide reclaimed water to other nearby sources besides the proposed project in the analysis, and shall perform such steps as necessary to utilize available reclaimed water if feasible. **UTIL-2**	Significant and unavoidable
Impact HYD-3: The 2026 RTP/SCS would not substantially alter the existing drainage pattern of a site or area through alteration of the course of a stream or river or through the addition of impervious surfaces in a manner where drainage changes would result in flooding on- or off-site, redirect or impede flood flows, exceed the capacity of stormwater systems, or provide additional polluted runoff. Impacts would be less than significant.	No mitigation required	Less than significant
Impact HYD-4: Transportation and land use projects implementing the proposed 2026 RTP/SCS would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones. Impacts would be less than significant.	No mitigation required	Less than significant
Impact HYD-5: Transportation and land use projects implementing the proposed 2026 RTP/SCS have the potential to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plans. This impact would be significant and unavoidable.	**HYD-2(a), HYD-2(b),** and **UTIL-2**	Significant and unavoidable
Impact HYD-C-1: Cumulative development would increase impervious surfaces and would have the potential to increase erosion potential, alter drainage patterns, increase runoff volumes and velocity, and risk release of pollutants due to inundation. Compliance with existing regulations, such as NPDES and local stormwater management requirements, would ensure that cumulative water quality and flood impacts would be less than significant, and the 2026 RTP/SCS contribution would not be cumulatively considerable.	No mitigation required	Less than significant, not cumulatively considerable
Impact HYD-C-2: Cumulative impacts related to groundwater supplies, recharge, and sustainable groundwater management plan conflicts would be significant, and the 2026 RTP/SCS contribution would be cumulatively considerable.	HYD-2(a) and HYD 2(b), UTIL-2	Significant and cumulatively considerable
Land Use and Planning		
Impact LU-1: Implementation of proposed transportation improvements and the land use scenario envisioned by the proposed 2026 RTP/SCS would not physically divide an established community. This impact would be less than significant.	No mitigation required	Less than significant

Impact	Mitigation Measure(s)	Significance After Mitigation
Impact LU-2: The 2026 RTP/SCS would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation and result in a physical change to the environment not already addressed in the other resource chapters of this EIR. This impact would be less than significant after implementation of mitigation discussed throughout this EIR.	Mitigation measures are provided for applicable resources throughout their respective environmental issue area sections of the EIR to reduce impacts. No additional mitigation is required for this impact.	Less than significant
Impact LU-C-1: Development in the cumulative impacts analysis area would not physically divide an established community. Cumulative impacts related to conflicts with local land use plans and local plans, policies, and regulations adopted for the purpose of avoiding or mitigating environmental effects would be less than significant. Cumulative impacts related to land use and planning would therefore be less than significant, and the 2026 RTP/SCS contribution to cumulative impacts would not be cumulatively considerable.	No mitigation required	Less than significant, not cumulatively considerable
Noise		
Impact N-1: Construction activity associated with proposed transportation improvements and land use projects implementing the Proposed 2026 RTP/SCS would generate a substantial temporary increase in ambient noise levels in excess of standards established in local general plans or noise ordinances and would generate a substantial absolute noise increase over existing noise levels. This impact would be significant and unavoidable.	**N-1 Construction Noise Reduction.** To reduce construction noise levels to achieve applicable standards and prevent a substantial increase in ambient noise levels, implementing agencies for transportation and land use projects shall implement the measures identified below where feasible and necessary. a) **Compliance with Local Construction Noise Regulations.** Implementing agencies shall ensure that, where residences or other noise sensitive uses are located within 800 feet of construction sites without pile driving, appropriate measures shall be implemented to ensure consistency with local noise ordinance requirements related to construction noise. Specific techniques may include, but are not limited to, restrictions on construction timing, use of sound blankets on construction equipment, and the use of temporary walls and noise barriers to block and deflect noise. b) **Noise Complaint and Enforcement Manager.** Designate an on-site construction complaint and enforcement manager for projects within 800 feet of sensitive receivers. Implementing agencies shall post phone numbers for the on-site enforcement manager at construction sites along with complaint procedures and who to notify in the event of a problem. c) **Pile Driving**. For any project within 3,200 feet of sensitive receptors that requires pilings, the implementing agency shall require caisson drilling or sonic pile driving as opposed to pile driving, where feasible. This shall be accomplished through the placement of conditions on the project during its individual environmental review. d) **Construction Equipment Noise Control**. Implementing agencies shall ensure that equipment and trucks used for project construction utilize the best available noise control techniques including mufflers, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds. e) **Impact Equipment Noise Control.** Implementing agencies shall ensure that impact equipment (e.g., jack hammers, pavement breakers, and rock drills) used for project construction be hydraulically or electrically powered wherever feasible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatically powered tools is unavoidable, use of an exhaust muffler on the compressed air exhaust can lower noise levels from the exhaust by up to about 10 dBA. When feasible, external jackets on the impact equipment can achieve a reduction of 5 dBA. Whenever feasible, use quieter procedures, such as drilling rather than impact equipment operation. f) **Construction Activity Timing Restrictions.** The following timing restrictions shall apply to 2026 RTP/SCS activates creating noise levels at or above 65 dBA at a nearby dwelling unit, except where timing restrictions are already established in local codes or policies. Construction activities shall be limited to: ▪ Monday through Friday: 7 a.m. to 6 p.m. ▪ Saturday: 9 a.m. to 5 p.m. g) **Placement of Stationary Noise Sources.** Locate stationary construction noise sources, e.g., generators, as far from noise-sensitive receptors as possible. Stationary construction noise sources that must be located near existing receptors will be equipped with the best available mufflers.	Significant and unavoidable
Impact N-2: Proposed transportation improvements envisioned by the Proposed 2026 RTP/SCS would generate a substantial permanent increase in ambient noise levels in excess of standards or over existing noise levels and generate a substantial absolute noise increase over existing noise levels. This impact would be significant and unavoidable.	**N-2 Noise Assessment and Control for Transportation Noise Sources.** Implementing agencies for transportation projects shall complete detailed noise assessments using applicable guidelines (e.g., Caltrans Traffic Noise Analysis Protocol) for roadway projects that may impact noise sensitive receptors. The implementing agency shall ensure that a noise survey is conducted that at minimum: ▪ Determines existing and projected noise levels ▪ Determines the amount of attenuation needed to reduce potential noise impacts to applicable State and local standards ▪ Identifies potential alternate alignments that allow greater distance from, or greater buffering of, noise-sensitive areas ▪ If warranted, recommends methods for mitigating noise impacts, including: ▫ Appropriate setbacks ▫ Sound attenuating building design, including retrofit of existing structures with sound attenuating building materials ▫ Use of sound barriers (earthen berms, sound walls, or some combination of the two) Where new or expanded roadway projects are found to expose receptors to noise exceeding normally acceptable levels, the individual project lead agency shall implement techniques as recommended in the project-specific noise assessments. The preferred methods for mitigating noise impacts will be the use of appropriate	Significant and unavoidable

Impact	Mitigation Measure(s)	Significance After Mitigation
	setbacks and sound attenuating building design, including retrofit of existing structures with sound attenuating building materials where feasible. In instances where use of these techniques is not feasible, the use of sound barriers (earthen berms, sound walls, or some combination of the two) will be considered. Long expanses of walls or fences should be interrupted with offsets and provided with accents to prevent monotony. Landscape pockets and pedestrian access through walls should be provided. Whenever possible, a combination of elements shall be used, including open grade paving, solid fences, walls, and, landscaped berms. Other techniques such as rubberized asphalt or "quiet pavement" can be used where feasible to reduce road noise for new roadway segments or modifications requiring repaving. The effectiveness of noise reduction measures shall be monitored by taking noise measurements and deigning and implementing adaptive mitigation measures to achieve applicable standards.	
Impact N-3: Construction activities associated with transportation projects and land use projects implementing the Proposed 2026 RTP/SCS would generate excessive groundborne vibration levels. New truck, bus, and train traffic resulting from the Proposed 2026 RTP/SCS would generate excessive operational vibration levels. These impacts would be significant and unavoidable.	**N-3(a) Vibration Mitigation for Construction of Transportation and Land Use Projects.** If construction equipment would generate vibration levels exceeding acceptable levels as established by Caltrans, implementing agencies of the for transportation and land use projects shall, or can and should, complete the following tasks: ▪ Prior to construction, survey the project site for vulnerable buildings, and complete geotechnical testing (preconstruction assessment of the existing subsurface conditions and structural integrity), for any older or historic buildings within 50 feet of pile driving. The testing shall be completed by a qualified geotechnical engineer and qualified historic preservation professional and/or structural engineer. ▪ Prepare and submit a report to the lead agency that contains the results of the geological testing. If recommended by the preconstruction report, implementing agencies shall require ground vibration monitoring of nearby historic structures. Methods and technologies shall be based on the specific conditions at the construction site. The preconstruction assessment shall include a monitoring program to detect ground settlement or lateral movement of structures in the vicinity of pile-driving activities and identify corrective measures to be taken should monitored vibration levels indicate the potential for building damage. In the event of unacceptable ground movement with the potential to cause structural damage, all impact work shall cease, and corrective measures shall be implemented to minimize the risk to the subject, or adjacent, historic structure. ▪ To minimize disturbance withing 550 feet of pile-driving activities, implement "quiet" pile-driving technology, such as predrilling of piles and the use of more than one pile driver to shorten the duration of pile driving), where feasible, in consideration of geotechnical and structural requirements and conditions as defined as part of the geotechnical testing, if testing was feasible. ▪ Use cushion blocks to dampen noise from pile driving. ▪ Phase operations of construction equipment to avoid simultaneous vibration sources **N-3(b) Vibration Mitigation for Operation of Transportation Projects.** Implementing agencies for transportation projects shall comply with all applicable local vibration and groundborne noise standards, or in the absence of such local standards, comply with guidance provided by the FTA in *Transit Noise and Vibration Impact Assessment* (FTA 2018) to assess impacts to buildings and sensitive receptors and reduce vibration and groundborne noise. FTA recommended thresholds shall be used except in areas where local standards for groundborne noise and vibration have been established. Methods that can be implemented to reduce vibration and groundborne noise impacts include, but are not limited to: ▪ Construct noise barriers ▪ Use noise reducing tires and wheel construction on bus wheels ▪ Use vehicle skirts (i.e., a partial enclosure around each wheel with absorptive treatment) on freight vehicle wheels	Significant and unavoidable
Impact N-4: Land use projects envisioned by the Proposed 2026 RTP/SCS would encourage infill development near transit and other transportation facilities, which may place sensitive receptors in areas with noise levels in excess of standards established in the local general plan or noise ordinance, or expose them to a substantial increase in ambient noise levels. This impact would be significant and unavoidable.	**N-4 Noise Mitigation for Land Uses.** If a land use project is located in an area with exterior ambient noise levels that may exceed local noise standards, the implementing agency shall ensure that a noise study is conducted to determine the existing and projected exterior noise levels in the vicinity of the project. If the project residents would be exposed to ambient noise levels exceeding local standards or to a substantial increase in ambient noise levels, feasible attenuation measures shall be used to reduce ambient noise to meet acceptable standards. In addition, noise insulation techniques shall be utilized to reduce indoor noise levels to thresholds set in applicable State and/or local standards. Such measures may include but are not limited to: dual-paned windows, solid core exterior doors with perimeter weather stripping, air conditioning system so that windows and doors may remain closed, and situating exterior doors away from roads. The noise study and determination of appropriate mitigation measures shall be completed during the project's environmental review.	Significant and unavoidable
Impact N-5: Proposed transportation improvements and land use projects envisioned by the Proposed 2026 RTP/SCS would be located in close proximity to existing airports such that applicable exterior and interior noise thresholds would be exceeded. Impacts would be significant and unavoidable.	**N-5 Noise Mitigation Near Airports.** Local lead agencies for all new development proposed to be located within an existing airport influence zone, as defined by the locally adopted airport land use compatibility plan or local general plan, shall require a site-specific noise compatibility study. The study shall consider and evaluate existing aircraft noise, based on specific aircraft activity data for the airport in question, and shall include recommendations for site design and building construction. Such measures may include but are not limited to: dual-paned windows, solid core exterior doors with perimeter weather stripping, air conditioning system so that windows and doors may remain closed, and situating exterior doors away from roads. The noise study and determination of appropriate mitigation measures shall be completed during the project's individual environmental review.	Significant and unavoidable
Impact N-C-1: Development in the cumulative impact analysis area would result in significant cumulative impacts related to construction and operational noise and vibration, and excessive noise in proximity to airports. The 2026 RTP/SCS contribution to cumulative impacts would be cumulatively considerable.	**N-1** through **N-5**	Significant and cumulatively considerable

Impact	Mitigation Measure(s)	Significance After Mitigation
Population and Housing		
Impact POP-1: Transportation and land use projects implementing the proposed 2026 RTP/SCS would not induce substantial unplanned population growth, either directly or indirectly. This impact would be less than significant.	No mitigation required	Less than significant
Impact POP-2: Transportation and land use projects implementing the proposed 2026 RTP/SCS would temporarily displace existing housing and people but would not necessitate the construction of replacement housing elsewhere. Impacts would be less than significant.	No mitigation required	Less than significant
Impact POP-C-1: Population growth in the cumulative impacts analysis area is generally planned, and cumulative impacts to unplanned growth would be less than significant. Development in the cumulative impact analysis area would result in the temporary or permanent displacement of housing, but displacement would be localized and would not result in displacement at the regional scale. Cumulative population and housing displacement impacts would be less than significant. Cumulative population and housing impacts would be less than significant, and the 2026 RTP/SCS contribution to cumulative impacts would not be cumulatively considerable.	No mitigation required	Less than significant, not cumulatively considerable
Public Services and Recreation		
Impact PS-1: Land use projects implementing the proposed 2026 RTP/SCS would result in new or expanded governmental facilities, the implementation of which would result in substantial physical impacts. This impact would be significant and unavoidable.	**PS-1 Increased Public Service Demand.** During the CEQA review process for individual public services facilities, the implementing agency with responsibility for construction of new public service facilities or the expansion of existing facilities, including those of fire and police services, parks, and other public facilities, can and should apply necessary mitigation measures to avoid or reduce significant environmental impacts associated with the construction or expansion of such facilities. Cities and the County can and should recognize the need for these measures in CEQA reviews of land use projects. The environmental impacts associated with such construction or expansion of public services facilities should be avoided or reduced through the imposition of conditions required to be followed by those directly involved in the construction or expansion activities. Such conditions should include those necessary to avoid or reduce significant impacts associated with air quality, noise, transportation, biological resources, cultural resources, greenhouse gas emissions, hydrology and water quality, and others that apply to specific construction or expansion of new public or expanded public service facilities.	Significant and unavoidable
Impact PS-2: Land use projects implementing the proposed 2026 RTP/SCS would require the provision of new schools, the construction of which could result in substantial physical impacts. Impacts would be less than significant.	No mitigation required	Less than significant
Impact PS-3: The proposed 2026 RTP/SCS would increase the use of existing parks and recreational facilities, resulting in physical deterioration, and would require new or expanded recreational facilities that would have an adverse physical effect on the environment. This impact would be significant and unavoidable.	**PS-3 Impact Reduction from New Recreational Facilities.** During project specific design and CEQA review, the County and cities, and other agencies with responsibility for the construction of new or expanded recreation facilities, can and should apply necessary mitigation measures to avoid or reduce significant environmental impacts associated with the construction of such facilities. The environmental impacts associated with such construction should be avoided or reduced through the imposition of conditions required to be followed by those directly involved in the construction or expansion activities. Such conditions should include those necessary to avoid or reduce significant impacts associated with air quality, noise, transportation, biological resources, cultural resources, greenhouse gas emissions, hydrology and water quality, and others that apply to specific construction of new or expanded recreation facilities, including recreational trails.	Significant and unavoidable
Impact PS-C-1: Development in the cumulative impact analysis area would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities and recreational facilities, the construction of which could cause significant environmental effects. Cumulative impacts would be significant. The 2026 RTP/SCS contribution to cumulative impacts would be cumulatively considerable.	**PS-1** and **PS-3**	Significant and cumulatively considerable
Transportation		
Impact T-1: Transportation projects and land use projects implementing the proposed 2026 RTP/SCS would not conflict with any program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. This impact would be less than significant.	No mitigation required	Less than significant

Impact	Mitigation Measure(s)	Significance After Mitigation
Impact T-2: The proposed 2026 RTP/SCS would result in an overall increase in regional VMT above baseline (2025) conditions. The proposed 2026 RTP/SCS would result in a small decrease in VMT per capita below baseline (2025) conditions. Regional VMT and VMT per capita impacts from implementation of the proposed 2026 RTP/SCS would be significant and unavoidable.	**T-2(a) Regional VMT Reduction Programs.** Implementing agencies shall require implementation of VMT reduction strategies through TDM programs, impact fee programs, mitigation banks or exchange programs, in-lieu fee programs, and other land use project conditions that reduce VMT. Programs shall be designed to reduce VMT from existing land uses, where feasible, and from new discretionary residential or employment land use projects. The design of programs and project specific mitigation shall focus on VMT reduction strategies that increase travel choices and improve the comfort and convenience of sharing rides in private vehicles, using public transit, biking, or walking. Modifications may include but are not limited to: ▪ Provide car-sharing, vanpool, bike sharing, and ride-sharing programs ▪ Implement or provide access to commute reduction programs ▪ Encourage telecommute programs ▪ Purchase AB 130 VMT mitigation credits ▪ Incorporate affordable housing into the project ▪ Increase density, infill, and transit oriented development ▪ Increase mixed uses within the project area ▪ Incorporate improved pedestrian connections within the project/neighborhood ▪ Incentivize development in low VMT communities ▪ Incentivize housing near commercial and offices ▪ Increase access to goods and services, such as groceries, schools, and daycare ▪ Orient the project toward transit, bicycle, and pedestrian facilities ▪ Implement complete streets ▪ Provide traffic calming ▪ Provide bicycle parking ▪ Reduce parking requirements ▪ Separate out parking costs from project costs ▪ Provide parking cash-out programs **T-2(b) Project Level VMT Analysis and Reduction.** Implementing agencies shall evaluate transportation projects that involve increasing roadway capacity for their potential to increase VMT. Where project-level increases are found to be significant, implementing agencies shall, or can and should, identify and implement measures that reduce VMT. Examples of measures that reduce VMT include: ▪ Tolling new lanes to encourage carpools and fund transit improvements ▪ Converting existing general purpose lanes to high occupancy vehicle lanes ▪ VMT banks ▪ Implementing or funding offsite travel demand management ▪ Providing a bus rapid transit system ▪ Implement bus on shoulder operations during peak congestion periods ▪ Improving pedestrian or bicycle networks, or transit service ▪ Providing transit passes ▪ Incorporating neighborhood electric vehicle network	Significant and unavoidable
Impact T-3: The proposed 2026 RTP/SCS would not result in a substantial increase in induced travel demand due to roadway capacity expansions. This impact would be less than significant.	No mitigation required	Less than significant
Impact T-4: Proposed transportation and land use projects implementing the proposed 2026 RTP/SCS would not substantially increase hazards due to geometric design features or incompatible uses. This impact would be less than significant.	No mitigation required	Less than significant
Impact T-5: Proposed transportation and land use projects implementing the proposed 2026 RTP/SCS would not result in inadequate emergency vehicle access or interfere with an adopted emergency response plan or emergency evacuation plan. This impact would be less than significant.	No mitigation required	Less than significant

Impact	Mitigation Measure(s)	Significance After Mitigation
Impact T-C-1: Cumulative development could conflict with programs, plans, ordinances, or policies addressing the circulation system. Compliance with federal, State, regional, and local laws, regulations, and policies would ensure that cumulative transportation impacts would be less than significant, and the 2026 RTP/SCS contribution would not be cumulatively considerable**.**	No mitigation required	Less than significant and not cumulatively considerable
Impact T-C-2: Cumulative impacts related to VMT would be significant and the 2026 RTP/SCS contribution would be cumulatively considerable.	**T-2(a)** and **T-2(b)**	Significant and cumulatively considerable
Impact T-C-3: Cumulative development could increase transportation hazards or cause emergency access impacts. Compliance with federal, State, regional, and local regulations governing transportation hazards and emergency access would ensure that cumulative impacts would be less than significant, and the 2026 RTP/SCS contribution would not be cumulatively considerable.	No mitigation required	Less than significant and not cumulatively considerable
Tribal Cultural Resources		
Impact TCR-1: Transportation projects and the land use scenario envisioned in the proposed 2026 RTP/SCS would cause a substantial adverse change in the significance of a tribal cultural resource. This impact would be significant and unavoidable.	**TCR-1 Tribal Cultural Resources Impact Minimization.** Implementing agencies shall, or can and should, comply with AB 52, which may require formal tribal consultation. If the implementing agency determines that a project may cause a substantial adverse change to a tribal cultural resource, they shall implement mitigation measures identified in the consultation process required under PRC Section 21080.3.2, or shall implement the following measures where feasible to avoid or minimize the project-specific significant adverse impacts: ▪ Avoidance and preservation of the resources in place, including, but not limited to: designing and building the project to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space to incorporate the resources with culturally appropriate protection and management criteria. ▪ Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following: ▫ Protecting the cultural character and integrity of the resource ▫ Protecting the traditional use of the resource ▫ Protecting the confidentiality of the resource ▫ Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places ▪ Native American monitoring by the appropriate tribe during soil disturbance for all projects in areas identified as sensitive for potential tribal cultural resources and/or in the vicinity (within 100 feet) of known tribal cultural resources. If potential tribal cultural resources are encountered during ground-disturbing activities; work in the immediate area must halt and the appropriate tribal representative(s), the implementing agency, and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) shall be contacted immediately to evaluate the find and determine the proper course of action. **CUL-2(a)** and **CUL-2(b)**	Significant and unavoidable
Impact TCR-C-1: Implementation of the proposed transportation improvements and the land use scenario envisioned under the 2026 RTP/SCS would cause substantial adverse changes in the significance of Tribal cultural resources. Cumulative impacts would be significant, and the 2026 RTP/SCS contribution would be cumulatively considerable.	**TCR-1, CUL-2(a),** and **CUL-2(b)**	Significant and cumulatively considerable
Utilities and Service Systems		
Impact UTIL-1: Proposed transportation projects and future land scenario of the proposed 2026 RTP/SCS would require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas or telecommunications facilities, the construction of which would cause significant environmental effects. This impact would be significant and unavoidable.	**UTIL-1(a) Water and Wastewater Facilities.** During the CEQA review process for individual facilities, implementing agencies shall, or can and should, apply necessary mitigation measures to reduce significant environmental impacts associated with the construction or expansion of such facilities. The environmental impacts associated with such construction or expansion shall be avoided or reduced through the imposition of conditions required to be followed by those directly involved in the construction or expansion activities. Such conditions shall include those necessary to avoid or reduce impacts associated with air quality, noise, traffic, biological resources, cultural resources, greenhouse gas emissions, hydrology and water quality and others that apply to specific construction or expansion of water or wastewater treatment and collection facilities projects. **UTIL-1(b) Stormwater Facilities.** During the CEQA review process for individual facilities, implementing agencies, and special districts with responsibility for the construction of new stormwater drainage facilities or the expansion of existing facilities to adequately meet projected capacity needs shall, or can and should, apply necessary mitigation measures to avoid or reduce significant environmental impacts associated with the construction or expansion of such facilities. The environmental impacts associated with such construction or expansion shall be avoided or reduced through the imposition of conditions required to be followed by those directly involved in the construction or expansion activities. Such conditions shall include those necessary to avoid or reduce impacts associated with air quality, noise, traffic,	Significant and unavoidable

Impact	Mitigation Measure(s)	Significance After Mitigation
	biological resources, cultural resources, greenhouse gas emissions, hydrology and water quality, and others that apply to specific construction or expansion of stormwater drainage facilities projects. **UTIL-1(c) Stormwater Control Methods.** During the CEQA review process for individual projects, implementing agencies shall, or can and should, ensure stormwater control, retention, and infiltration features, such as detention basins, bioswales, vegetated median strips, and permeable paving, early into the design process to ensure such features are analyzed during environmental review. These agencies shall, Implement mitigation measures identified for such features on a project specific basis, where feasible and necessary based on project and site specific considerations. **UTIL-1(d) Electric Power, Natural Gas, or Telecommunications Facilities.** During the CEQA review process, implementing agencies, and TCAG region energy and telecommunications providers and other agencies with responsibility for the construction or approval of new electric power, natural gas, or telecommunications facilities or the expansion of existing facilities to adequately meet projected capacity needs, can and should apply necessary mitigation measures to avoid or reduce significant environmental impacts associated with the construction or expansion of such facilities. The environmental impacts associated with such construction or expansion shall be avoided or reduced through the imposition of conditions required to be followed by those directly involved in the construction or expansion activities. Such conditions shall include those necessary to avoid or reduce impacts associated with air quality, noise, traffic, biological resources, cultural resources, greenhouse gas emissions, hydrology and water quality, and others that apply to specific construction or expansion of natural gas and electric facilities projects.	
Impact UTIL-2: Implementation of the transportation projects and future land use scenario in the proposed 2026 RTP/SCS would increase water demand in the TCAG region, resulting in insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. Impacts would be significant and unavoidable.	**UTIL-2 General Conservation Measures.** During the CEQA review process for individual projects, implementing agencies shall, or can and should, implement water conservation measures to reduce water demand. They shall, or can and should, coordinate with relevant water services to ensure demand can be accommodated and identify a water consumption budget. Water conservation measures that reduce demand for potable water, such as reducing water use for landscape irrigation for transportation projects or use of water-conserving fixtures in envisioned land use projects, shall be employed. Reclaimed water shall be used when possible. Specific conservation measures that shall be implemented may include, but would not be limited to: ▪ Limiting planting to native and non-native plants appropriate for the project's microclimate so no water beyond natural rainfall is required for healthy plant survival after the plant establishment period ▪ Limiting supplemental water provided by irrigation to non-potable, unless not practicable ▪ Submitting written documentation of water availability prior to issuance of grading permits **HYD-2(a)** and **HYD-2(b)**	Significant and unavoidable
Impact UTIL-3: Transportation projects and land use projects implementing the proposed 2026 RTP/SCS would generate solid waste in excess of the capacity of local infrastructure or otherwise impair the attainment of solid waste reduction goals. This impact would be significant and unavoidable.	**UTIL-3 Solid Waste Generation and Disposal.** During the CEQA review process for individual facilities, implementing agencies shall, or can and should, implement the following measures where feasible: ▪ Provide an easily accessible area that is dedicated to the collection and storage of non-hazardous recycling materials. ▪ Maintain or reuse existing building structures and materials during building renovations and redevelopment. ▪ Use salvaged, refurbished, or reused materials to help divert such items from landfills. ▪ Divert construction waste from landfills, where feasible, through means such as: ▫ Submitting and implementing a construction waste management plan that identifies materials to be diverted from disposal at a landfill; ▫ Establishing diversion targets, possibly with different targets for different types and scales of development; ▫ Helping project sponsors and implementing agencies share information on available materials with one another, to aid in the transfer and use of salvaged materials.	Significant and unavoidable
Impact UTIL-4: Transportation projects and the future land use scenario of the proposed 2026 RTP/SCS would be required to comply with all relevant statues and regulations related to solid waste. This impact would be less than significant.	No mitigation required	Less than significant
Impact UTIL-C-1: Development in the cumulative impact analysis area would result in substantial adverse physical impacts associated with the provision of new or physically altered utility infrastructure, the construction of which could cause significant environmental effects, and available water supplies would be insufficient to serve reasonably foreseeable future development. Cumulative impacts would be significant. The 2026 RTP/SCS contribution to cumulative impacts would be cumulatively considerable.	**UTIL-1(a)** through **UTIL-1(d), UTIL-2, UTIL-3, HYD-2(a)** and **HYD-2(b)**	Significant and cumulatively considerable

Impact	Mitigation Measure(s)	Significance After Mitigation
Wildfire		
Impact W-1: Proposed transportation improvements and land use projects envisioned by the proposed 2026 RTP/SCS would be located in or near an SRA or very high FHSZ, and exposure of people or structures to a significant risks of loss, injury, or death from wildfires or downstream flooding or landslides would occur, or require installation and maintenance of infrastructure that may exacerbate fire risks or impacts to the environment. Impacts would be significant and unavoidable.	**WF-1 Wildfire Risk Reduction.** If an individual transportation or land use project included in the proposed 2026 RTP/SCS is within or less than two miles from a High or Very High FHSZ in the SRA as established by California Public Resources Code (PRC) Sections 4201 through 4204, or a High or Very High FHSZ in the LRA designated pursuant to California Government Code, Sections 51175 through 51189, the implementing agency shall require appropriate mitigation to reduce the risk. Examples of mitigation to reduce risk of loss, injury or death from wildlife include, but are not limited to: ▪ Require the use of fire-resistant vegetation native to Tulare County and/or the local microclimate of the project site and discourage the use of fire-prone species, especially nonnative, invasive species. ▪ Enforce defensible space regulations compliant with PRC Section 4291 or stricter as designated by the local governing body to keep overgrown and unmanaged vegetation, accumulations of trash and other flammable material away from structures. ▪ Provide public education about wildfire risk, fire prevention measures, and safety procedures and practices to allow for safe evacuation and/or options to shelter-in-place during a wildfire emergency. ▪ Require adherence to the local hazard mitigation plan, as well as the local general plan policies and programs aimed at reducing the risk of wildfires through land use compatibility, training, sustainable development, brush management, public outreach, and service standards for fire departments. ▪ Ensure sufficient emergency water supply and operations for wildland fire suppression. ▪ Encourage the development of landscaping maintenance schedules to include removal/ treatment of annual invasive species which may contribute to increased fuel loading. ▪ Require a fire safety plan be submitted to and approved by the local fire protection agency. The fire safety plan shall include all of the fire safety features incorporated into the project and the schedule for implementation of the features. The local fire protection agency may require changes to the plan or may reject the plan if it does not adequately address fire hazards associated with the project as a whole or the individual phase of the project. ▪ Prohibit certain project construction activities with potential to ignite wildfires during red-flag warnings issued by the National Weather Service for the project site location. Example activities that shall be prohibited during red-flag warnings include welding and grinding outside of enclosed buildings. ▪ Require fire extinguishers to be onsite during construction of projects. Fire extinguishers shall be maintained to function according to manufacturer specifications. Construction personnel shall receive training on the proper methods of using a fire extinguisher. ▪ Prohibit smoking and open fires at individual transportation or land use project sites implementing the proposed 2026 RTP/SCS during construction and operations. Provide the lead agency with a copy of the notification to all contractors regarding prohibited smoking and . ▪ Encourage the use of external sprinklers for new development mapped within Very High FHSZs. ▪ Complete corridor-specific evaluations and implement traffic management measures, including coordination with local emergency response agencies. ▪ Incorporate post-fire debris-flow, erosion, or landslide risk assessments during the design phase for hillside facilities or projects located in areas subject to post-fire geologic hazards.	Significant and unavoidable
Impact W-C-1: Development in the cumulative impact analysis area could be located in or near a state responsibility area or a Very High fire hazard severity zone. As significant risk of loss, injury, or death could occur as a result of exposing project occupants to wildfire, exacerbating fire risk, or exposing project occupants to wildfire-related risks, cumulative impacts related to wildfire would be significant. The 2026 RTP/SCS contribution to this impact would be cumulatively considerable.	**WF-1**	Significant and cumulatively considerable

1 Introduction

1.1 Introductory Information

This document is a Program Environmental Impact Report (EIR) that describes environmental impacts associated with the 2026 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) proposed by the Tulare County Association of Governments (TCAG). The proposed 2026 RTP/SCS (which is also referred to as the "proposed project" in this EIR) is an update of the 2022 RTP/SCS, which was adopted in 2022 following certification of a Program EIR.

Section 21000 et seq. of the California Public Resources Code (PRC), commonly referred to as the California Environmental Quality Act of 1970 (CEQA), requires the evaluation of environmental impacts associated with proposed projects such as the proposed 2026 RTP/SCS. As such, this EIR is an informational document for use by TCAG in its consideration and evaluation of the environmental consequences of implementing the proposed 2026 RTP/SCS.

This section of the EIR describes the following aspects of the proposed 2026 RTP/SCS and the EIR: Project background; EIR purpose and legal authority; EIR background; agencies involved in the Project and EIR; EIR scope, content, and format; and the environmental review process under CEQA.

1.2 Project Background

As the metropolitan planning organization (MPO) and the State-designated regional transportation planning agency (RTPA) for the Tulare County region, TCAG is charged with developing the proposed 2026 RTP/SCS in compliance with SB 375 (Government Code Section 65080 et. seq. The RTP/SCS must be updated every four years.

The most recent comprehensive update to the RTP/SCS occurred in 2022, which updated the 2018 RTP/SCS. A comprehensive Program EIR was prepared for the 2022 RTP/SCS. The 2022 RTP/SCS programmed available transportation funding through the year 2046 and included lists of programmed and planned transportation projects to improve the transportation system during the 2022-2046 planning period.[1] Among these listed projects were highway and congestion management projects, road and street projects, complete streets/pedestrian projects, rail projects, and active transportation/transit projects. As discussed in the 2022 RTP/SCS, some of projects since 2018 have been completed or have begun construction; therefore, those transportation projects yet to be completed have been incorporated into the proposed 2026 RTP/SCS, along with a few additional new projects. Completed projects are no longer listed in the proposed 2026 RTP/SCS.

1.3 Purpose of EIR

This EIR has been prepared in compliance with the *CEQA Statutes and Guidelines*. In general, the purpose of an EIR is to (see *CEQA Guidelines* Section 15121(a)):

a. Analyze the environmental effects of the adoption and implementation of the project;

[1] The 2022 RTP/SCS prepared by TCAG is available on TCAG's website: https://tularecog.org/tcag/planning/rtp/rtp-2022

b. Inform decision-makers, responsible and trustee agencies and members of the public as to the significant environmental impacts of the project;
c. Recommend a set of measures to mitigate significant adverse impacts; and
d. Analyze a range of reasonable alternatives to the proposed project.

As the Lead Agency for preparing this EIR, TCAG will rely on the EIR analysis of environmental effects in its review and consideration of the proposed 2026 RTP/SCS prior to approval. Responsible Agencies will consider the information in the EIR along with other information which may be presented prior to approval of their respective projects under their jurisdiction.

As discussed in further detail below in Section 1.4.1, *CEQA Streamlining Opportunities*, SB 375 provides streamlining benefits for certain transit-oriented projects consistent with an adopted SCS. Pursuant to these provisions of SB 375, this EIR has also been prepared to allow qualifying projects to streamline their environmental review.

1.4 Implementation Issues and Future Environmental Review

The proposed 2026 RTP/SCS contains transportation projects that will be implemented over time. Implementation of the proposed 2026 RTP/SCS will follow a schedule based on the funding and demand for individual transportation projects and improvements. Implementation of the SCS component of the proposed 2026 RTP/SCS will require cooperation of the TCAG member agencies and municipalities in the TCAG region.

Implementation of the projects addressed in the proposed 2026 RTP/SCS must individually demonstrate compliance with the requirements of CEQA. As appropriate, individual projects may be required to prepare a project-level analysis to fulfill CEQA requirements. The Lead Agency responsible for reviewing these projects would determine the level of review needed, and the scope of that analysis would depend on the specifics of the particular project. These project-level environmental documents may, however, use the discussion of impacts in this Program EIR to streamline project-specific reviews, for example as a basis of their assessment of their regional or cumulative impacts, or as a source for project-level mitigation options. These projects may also be eligible for CEQA streamlining under SB 375, as explained further below.

This Program EIR is a first-tier document that addresses the environmental impacts that may affect the TCAG region from adoption and implementation of the proposed 2026 RTP/SCS. “Tiering” generally refers to using the analysis of a broader environmental document that covers the general impacts of a program or larger-scale project so that subsequent environmental documents for a related individual project can be narrow and focused on unique or unanalyzed issues. CEQA encourages the use of tiering to reduce the time and excessive paperwork involved in the review process by eliminating repetitive analyses of issues that were addressed in the Program EIR (*CEQA Guidelines* Section 15168).

SB 375 enables certain qualifying projects consistent with an SCS (Government Code 65080 (b)(2)(H)) to tier from a Program EIR prepared for an RTP/SCS. Tiered documents may consist of Initial Studies or focused EIRs that may incorporate by reference portions of the Program EIR from which they are tiered. If the environmental effects of subsequent actions are consistent with and adequately addressed by a certified Program EIR, additional environmental analysis may be unnecessary.

Lastly, *CEQA Guidelines* Section 15183.3 (SB 226, PRC Sections 21094.5) provide tiering and streamlining tools for qualifying infill projects. .

1.4.1 Streamlining Under SB 375

SB 375 provides streamlining benefits for Transit Priority Projects (TPP) and certain mixed-use projects. (See PRC Sections 21155 et seq.) For details, see the Governor's Office of Planning and Research's flow charts on SB 375 streamlining (Governor's Office of Planning and Research 2011). A TPP is a project that meets all of the criteria summarized below. For the purposes of this EIR, geographic areas that meet the TPP requirements are referred to as Transit Priority Areas (TPAs).

- Consistent with the general land use designation, density, building intensity and applicable policies specified for the project area in the SCS;
- Located within half a mile of a major transit stop or high-quality transit corridor;
- Comprised of at least 50 percent residential use based on total building square footage, or as little as 26 percent residential use if the project has a floor area ratio of not less than 0.75; and
- Built out with a minimum of 20 dwelling units per acre (PRC Section 21155).

For the purposes of this EIR, geographic areas that meet the TPP requirements are referred to as TPAs. One of three potential streamlining benefits may apply to a TPP pursuant to SB 375, as described below.

First, TPPs that meet a detailed list of criteria set forth in PRC Section 21155.1 are termed Sustainable Communities Projects and are statutorily exempt from CEQA. Due to the extensive list of criteria that must be met to achieve this exemption, the exemption may only be available in limited circumstances.

Second, a TPP that does not qualify for the statutory exemption may be eligible to comply with CEQA using a Sustainable Communities Environmental Assessment (SCEA). An SCEA is similar to a streamlined negative declaration or mitigated negative declaration that requires a 30-day public review period (rather than the otherwise available 20-day public review period). In addition, unlike a negative declaration or mitigated negative declaration, a Lead Agency's decision to approve a TPP based on an SCEA is reviewed, if challenged, by a court under the substantial evidence standard (PRC Section 21155.2(b)(7)).

Third, a TPP that will result in one or more significant impacts after mitigation may be reviewed using a tiered TPP EIR as established by PRC Section 21155.2(c). A tiered TPP EIR is only required to address the significant or potentially significant effects of the TPP on the environment and is not required to include a discussion of (1) growth inducing impacts, (2) any project specific or cumulative impacts from cars and light duty truck trips generated by the project on global warming or the regional transportation network, (3) cumulative effects that have been adequately addressed and mitigated in prior applicable certified EIRs, (4) off-site alternatives, or (5) a reduced density alternative to address effects of car and light truck trips generated by the TPP (PRC Sections 21155.2 (c), 21159.28(a) and (b)).

In addition to the benefits provided for TPPs, SB 375 provides streamlining benefits for residential or mixed-use residential projects, as defined in PRC Section 21159.28(d), that are consistent with the use designation, density, building intensity and applicable policies specified for the project area in the SCS but do not meet the criteria for TPPs. Projects eligible for streamlining must incorporate

mitigation measures required by an applicable prior environmental document, such as this EIR after it is certified by TCAG.

Projects that qualify to use the SB 375 CEQA streamlining benefits would still need to obtain discretionary permits or other approvals from the Lead Agency and the local jurisdiction, in accordance with local codes and procedures, including any agreements related to zoning, design review, use permits and other local code requirements. The streamlining only applies to the CEQA processing of a project.

1.4.2 Streamlining Under SB 226

In 2011, the legislature enacted SB 226 to establish additional streamlining benefits applicable to infill projects that are consistent with the requirements set forth in *CEQA Guidelines* Section 15183.3 (PRC Sections 21094.5[c], 21094.5.5).

Unlike the CEQA streamlining benefits established by SB 375, the benefits created by SB 226 may apply to non-residential projects including qualifying commercial, retail, transit station, school, or public office building projects (*CEQA Guidelines* Section 15183.3 [f][1]).

1.4.3 Streamlining Under SB 743

SB 743 (2013) (PRC Section 21099 and 21555.4) created an exemption from CEQA for certain residential, employment center and mixed-use development projects that are consistent with a Specific Plan (see Public Resources Code Section 21155.4.) (A Specific Plan implements a General Plan within a smaller geographic area, such as a downtown core or along a transit corridor; see Government Code Section 65450 et seq.). The exemption applies if a project meets all of the following criteria:

a. It a residential, employment, or mixed-use project and is located within a transit priority area;
b. The project is consistent with a specific plan for which an environmental impact report was certified; and
c. It is consistent with an adopted SCS or alternative planning strategy.

The exemption cannot be applied if circumstances requiring preparation of a Subsequent or Supplemental EIR occur, for example if the project would cause new or worse significant environmental impacts compared to what was analyzed in the environmental impact report for the specific plan.

SB 743 also specifies that aesthetic and parking impacts of residential, mixed use residential, or employment center uses on infill sites within a TPA shall not be considered significant effects on the environment (see Public Resources Code Section 21099(d).)

1.4.4 Other Tiering and Streamlining Opportunities

Finally, for all other types of projects proposed to be carried out or approved by a Lead Agency within the region, the Lead Agency may utilize this EIR for the purposes of other allowed CEQA tiering (PRC Sections 21068.5, 21093-21094, *CEQA Guidelines* 15152, 15385). Tiering is the process by which general matters and environmental effects in an EIR prepared for a policy, plan, program or ordinance are relied upon by a narrower second-tier or site specific EIR (PRC Section 21068.5). Moreover, by tiering from this EIR (if certified by TCAG), a later tiered EIR would not be required to examine effects that (1) were mitigated or avoided in this EIR, (2) were examined at a sufficient level

of detail in this EIR to enable those effects to be mitigated or avoided by site specific revisions, the imposition of conditions, or by other means in connection with the approval of the later project (PRC Section 21094).

Recent CEQA legislation may a provide other CEQA streamlining opportunities for projects facilitated by the proposed 2026 RTP/SCS. Effective June 30, 2025, AB 130 introduces substantial reforms to streamline housing development under CEQA (Public Resources Code Section 21080.66). The bill establishes a statutory CEQA exemption for qualifying infill housing projects located in urban areas up to 20 acres, provided they meet specific criteria such as adjacency to urban uses and avoidance of historic or environmentally sensitive sites. This exemption is designed to reduce environmental review burdens for projects that align with local zoning and planning standards. Projects identified in the proposed 2026 RTP/SCS that meet these criteria may be eligible for this exemption, offering a pathway for CEQA compliance that reflects consistency with regional planning objectives.

AB 130 also makes permanent several provisions of the Permit Streamlining Act, including timelines for application completeness and project approval, and limits the number of public hearings for qualifying housing projects. In addition, the bill codifies elements of the Housing Accountability Act and SB 330, including protections for vested rights and restrictions on growth control measures. A notable provision is the statewide freeze on residential building code updates from October 1, 2025, through June 1, 2031, which aims to reduce regulatory uncertainty and development costs. Projects identified in the proposed 2026 RTP/SCS that meet these criteria may be eligible for this exemption, offering a pathway for CEQA compliance that reflects consistency with regional planning objectives.

SB 131, effective June 30, 2025, complements AB 130 by focusing on CEQA streamlining for infrastructure and public-serving projects (Public Resources Code Section 21080.1[b]). It introduces a new review pathway for “near miss” projects—those that narrowly fail to qualify for a CEQA exemption due to a single disqualifying condition. Under this provision, CEQA review is limited to the environmental effects of that specific condition, and such projects are exempt from analyzing alternatives or growth-inducing impacts. This approach may be applicable to certain transportation and infrastructure projects included in the RTP/SCS, where project-level review can be focused on specific environmental considerations while maintaining consistency with CEQA requirements.

SB 131 also creates or expands CEQA exemptions for a range of project types, including advanced manufacturing facilities on industrial-zoned land, broadband infrastructure in public rights-of-way, updates to climate adaptation plans, High-Speed Rail maintenance facilities, and local rezoning actions that implement Housing Element commitments. In addition, the bill mandates biennial updates to *CEQA Guidelines* to improve clarity and address ambiguities. These changes reflect a broader policy shift toward facilitating development while maintaining targeted environmental protections, and they are expected to significantly impact the planning and approval processes for both housing and infrastructure projects across California. These provisions may be relevant to RTP/SCS implementation, particularly where local jurisdictions pursue projects or planning actions that align with broader state objectives related to climate adaptation, infrastructure modernization, and housing production.

1.5 Environmental Impact Report Background

In compliance with the *CEQA Guidelines* (Section 15063), TCAG, as the Lead Agency responsible for the proposed 2026 RTP/SCS, solicited preliminary public agency comments on the proposed project and EIR through distribution of a Notice of Preparation (NOP) and receipt of public comments during a scoping meeting held virtually on Wednesday, May 21, 2025, at 1:00 p.m.

The NOP was distributed to the State Clearinghouse, Responsible Agencies, trustee agencies and the public for the required 30-day period from May 7, 2025, to June 6, 2025. It was also posted on TCAG's website, and TCAG filed the NOP with the County Clerk's office for 30 days beginning on May 7, 2025. Table 1-1 summarizes the issues relevant to the EIR that were identified in the NOP comments received and the EIR sections where the issues are addressed. The NOP and NOP comment letters received are included in Appendix A of this EIR.

Table 1-1 NOP Comments and EIR Response

Comment/Request	How and Where it was Addressed
Center for Biological Diversity	
Request to be added to the notice list for the proposed project	The EIR will be sent to the Center for Biological Diversity during public review for comments and recommendations.
California Department of Fish and Wildlife	
Provides a list of special-status species with potential to occur in the TCAG region and requests that the EIR analyze impacts to special-status species.	Refer to Section 4.4, *Biological Resources*, for an analysis of impacts of the proposed 2026 RTP/SCS on wildlife and wildlife habitat, including special-status species. Special status species with the potential to occur in Tulare County are listed in Appendix C. Impact BIO-1 analyzes 2026 RTP/SCS impacts on special status species.
Recommends that the EIR include a measure to require tiered projects to be surveyed by a qualified botanist for special-status plants	Refer to Section 4.4, *Biological Resources*, for an analysis of impacts of the proposed 2026 RTP/SCS on wildlife and wildlife habitat, including special-status plant species. It includes Mitigation Measure BIO-1(b), which calls for project-level special status species surveys.
Recommends future projects tiered from the EIR consult with CDFW and include mitigation for California Endangered Species Act listed species.	As individual projects included in the 2026 RTP/SCS are proposed and designed, project level environmental review may be required, depending on the project and site conditions. At that time, coordination with CDFW may be required to support the project level analysis. Project-level mitigation for CESA-listed species is included in Mitigation Measures BIO-1(a) through BIO-1(f).
Requests information collected during biological baseline surveys be compiled and uploaded to the California Natural Diversity Database	The EIR analyzes impacts of the 2026 RTP/SCS on a program level, as specific transportation projects and land use development site plans have yet to be developed. Because the analysis is programmatic for the entire TCAG region, baseline surveys for biological resources were unnecessary and impractical for this EIR analysis. As individual projects included in the 2026 RTP/SCS are proposed and designed, project level environmental review may be required, depending on the project and site conditions. At that time, baseline surveys may be required to support the project level analysis and the results uploaded to the California Natural Diversity Database.
Requests that the EIR's cumulative impact analysis be utilized to develop and modify the EIR alternatives.	Refer to Chapter 6, *Alternatives*, for an analysis of alternatives to the 2026 RTP/SCS and impacts of proposed alternatives, including cumulative impacts.

Comment/Request	How and Where it was Addressed
Requests that the EIR evaluate cumulative impacts to wildlife.	Refer to Section 4.4, *Biological Resources*, for an analysis of cumulative impacts of the proposed 2026 RTP/SCS on wildlife and wildlife habitat . See Impact BIO-C-1.
Recommends consulting with USFWS on potential impacts to federally listed species	Refer to Section 4.4, *Biological Resources*, for an analysis of impacts of the proposed 2026 RTP/SCS on special-status species, including federally listed species. The EIR provides a programmatic analysis of potential impacts to special-status species, as individual transportation projects included in the 2026 RTP/SCS have yet to be designed. When individual projects are designed and proposed, consultation with USFWS may be required, based on site conditions and project design.
Requests future projects tiered from the EIR retain a qualified biologist to determine if potential impacts to streams may require the need to notify pursuant to Fish and Game Code section 1602	Refer to Section 4.4, *Biological Resources*, for an analysis of impacts of the proposed 2026 RTP/SCS on rivers, lakes, or streams. The EIR provides a programmatic analysis of potential impacts to waterways, as individual transportation projects included in the 2026 RTP/SCS have yet to be designed. When individual projects are designed and proposed, notification to CDFW may be required, based on site conditions and project design.
Requests that the EIR evaluate potential impacts to migratory nesting birds and birds of prey and potential conflicts with Fish and Game Code 3503 and 3513 protecting these birds.	Refer to Section 4.4, *Biological Resources*, for an analysis impacts of the proposed 2026 RTP/SCS on wildlife and wildlife habitat, including nesting birds and birds of prey. See Impact BIO-1.
Summarizes requirements for payment of CEQA filing fees.	TCAG will provide the required filing fees with the Notice of Determination, should the 2026 RTP/SCS be approved.
California Native American Heritage Commission	
Requesting Tulare County to comply with tribal consultation laws (AB 52/SB 18), conduct cultural resource analysis, consult with tribes early, and address tribal cultural resources appropriately in the CEQA process.	Tribal consultation was conducted in accordance with statutory requirements, and the identification, evaluation, and treatment of Tribal Cultural Resources and other cultural resources are fully addressed in Section 4.5, *Cultural Resources* and Section 4.16, *Tribal Cultural Resources* of the Draft EIR.
San Joaquin Valley Air Pollution Control District	
Requests future projects tiered from the EIR incorporate strategies from the California Air Resources Board Freight Handbook Concept Paper, reduce VMT and require the cleanest available heavy-duty trucks, vehicles, and off road equipment.	The EIR analyzes potential impacts of the 2026 RTP/SCS on a program level, as specific transportation projects and land use development site plans have yet to be developed. As individual projects included in the 2026 RTP/SCS are proposed and designed, project level environmental review may be required, depending on the project and site conditions. At that time, individual air quality impacts and mitigation measures would be analyzed at the project level. Project-level mitigation for air quality impacts is included in Mitigation Measures AQ-2(a) through AQ (c), AQ-3, and AQ-5.
Requests the EIR analyze compliance with policies and future projects tiered from the EIR be mitigated to the extent feasible in compliance with National Ambient Air Quality Standards.	The EIR analyzes potential impacts of the 2026 RTP/SCS on a program level, as specific transportation projects and land use development site plans have yet to be developed. As individual projects included in the 2026 RTP/SCS are proposed and designed, project level environmental review may be required, depending on the project and site conditions. At that time, individual air quality impacts and mitigation measures would be analyzed at the project level.

Comment/Request	How and Where it was Addressed
Requests future projects tiered from the EIR perform either a Prioritization or Health Risk Assessment.	The EIR analyzes potential impacts of the 2026 RTP/SCS on a program level, as specific transportation projects and land use development site plans have yet to be developed. As individual projects included in the 2026 RTP/SCS are proposed and designed, project level environmental review may be required, depending on the project and site conditions. At that time, individual prioritization or health risk assessments may be prepared at the project level.
Requests future projects tiered from the EIR perform an Ambient Air Quality Analysis for projects that would exceed 100 pounds per day of any pollutant.	The EIR analyzes potential impacts of the 2026 RTP/SCS on a program level, as specific transportation projects and land use development site plans have yet to be developed. As individual projects included in the 2026 RTP/SCS are proposed and designed, project level environmental review may be required, depending on the project and site conditions. At that time, individual Ambient Air Quality Analyses may be prepared at the project level.
Requests the EIR include an assessment of the feasibility of implementing a Voluntary Emission Reduction Agreement	Refer to Section 4.3, *Air Quality*, for an analysis of impacts of the proposed 2026 RTP/SCS on air quality.
Requests future projects tiered from the EIR include an assessment of heavy duty truck routing patterns.	The EIR analyzes potential impacts of the 2026 RTP/SCS on a program level, as specific transportation projects and land use development site plans have yet to be developed. As individual projects included in the 2026 RTP/SCS are proposed and designed, project level environmental review may be required, depending on the project and site conditions. At that time, individual heavy duty truck routing patterns analysis may be prepared at the project level.
Suggests future development projects incorporate vegetative barriers and urban greening to reduce air pollution exposure on sensitive receptors.	The EIR analyzes potential impacts of the 2026 RTP/SCS on a program level, as specific transportation projects and land use development site plans have yet to be developed. As individual projects included in the 2026 RTP/SCS are proposed and designed, project level environmental review may be required, depending on the project and site conditions. At that time, individual mitigation measures may be prepared at the project level.
Suggest future development projects incorporate solar power systems as an emission reduction strategy.	The EIR analyzes potential impacts of the 2026 RTP/SCS on a program level, as specific transportation projects and land use development site plans have yet to be developed. As individual projects included in the 2026 RTP/SCS are proposed and designed, project level environmental review may be required, depending on the project and site conditions. At that time, individual mitigation measures may be prepared at the project level.
Suggests future development projects install electric vehicle chargers at project sites and strategic locations.	The EIR analyzes potential impacts of the 2026 RTP/SCS on a program level, as specific transportation projects and land use development site plans have yet to be developed. As individual projects included in the 2026 RTP/SCS are proposed and designed, project level environmental review may be required, depending on the project and site conditions. At that time, individual mitigation measures may be prepared at the project level.

Comment/Request	How and Where it was Addressed
Suggests future development freight and passenger train operators utilize newer and cleaner technology.	The EIR analyzes potential impacts of the 2026 RTP/SCS on a program level, as specific transportation projects and land use development site plans have yet to be developed. As individual projects included in the 2026 RTP/SCS are proposed and designed, project level environmental review may be required, depending on the project and site conditions. At that time, individual mitigation measures may be prepared at the project level.
Provides a representative list of rules and regulations for projects to reduce air quality impacts.	Compliance with applicable rules and regulations is discussed in Section 4.3, *Air Quality*.

1.6 Lead, Responsible, and Trustee Agencies

The *CEQA Guidelines* require the identification of "lead," "responsible," and "trustee" agencies. A Lead Agency is the public agency with principal responsibility for carrying out or approving a project (CEQA Guidelines Section 15381). TCAG is the Lead Agency for the proposed project because it has the principal responsibility for approving the Project.

A "Responsible Agency" is a public agency other than the Lead Agency that has discretionary approval authority over certain components of a project (CEQA Guidelines Section 15381), and uses the Lead Agency's CEQA document for the discretionary approvals. A "trustee agency" refers to a State agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California (CEQA Guidelines Section 15386.) Truste agencies for the proposed project include the California Department of Fish and Wildlife and California Department of Parks and Recreation.

While no responsible agencies are responsible for approvals associated with adoption of the proposed 2026 RTP/SCS, implementation of projects implementing the proposed 2026 RTP/SCS will require permits and approvals responsible agencies, which may include the following:

- Tulare County
- City of Dinuba
- City of Exeter
- City of Farmersville
- City of Lindsay
- City of Porterville
- City of Tulare
- City of Visalia
- City of Woodlake
- Local transit agencies
- California Transportation Commission
- California Department of Transportation (Caltrans)
- California Department of Fish and Wildlife
- Central Valley Regional Water Quality Control Board
- San Joaquin Valley Air Pollution Control District

1.7 EIR Scope, Content, and Format

This EIR includes discussions of environmental impacts related to several environmental topic areas. For each environmental topic area, the analysis of environmental impacts identifies impacts by category: significant and unavoidable, less than significant with mitigation incorporated, less than

significant, and no impact. It proposes feasible mitigation measures for identified significant environmental impacts. Environmental topic areas that are addressed in Chapter 4 of this EIR (by the order in which they are discussed) include:

- Aesthetics
- Agriculture & Forestry
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils Resources and Mineral Resources
- Greenhouse Gas Emissions and Climate Change
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

This EIR has been organized into seven chapters:

1. **Executive Summary.** Provides a summary of contents of the EIR, including a brief project description, impact determinations, mitigation measures, and alternatives.
2. **Introduction.** Provides introductory information, description of the type of environmental document and CEQA streamlining opportunities, proposed 2026 RTP/SCS background, and information about the EIR content and format.
3. **Project Description.** Discusses the Project objectives, Project locations, and specific Project characteristics.
4. **Environmental Setting.** Provides a description of the existing physical setting of the TCAG region, a description of the regional transportation system.
5. **Analysis of Environmental Issues.** Describes the EIR baseline and approach to direct and cumulative analyses. Describes existing conditions found in the Project area and assesses environmental impacts that may be generated by implementing the proposed project . These project impacts are compared to “thresholds of significance” in order to determine the nature and severity of the direct and indirect impacts. Mitigation measures, intended to reduce significant impacts , are proposed for significant impacts where feasible. Impacts that cannot be avoided or mitigated to less-than-significant levels are also identified. Cumulative impacts are also discussed.
6. **Other CEQA-Required Discussions.** Analyzes the growth-inducing impacts that may result from implementation of the proposed project, as well as significant irreversible environmental changes and significant unavoidable impacts.
7. **Alternatives.** Describes and assesses the environmental impacts of, four alternatives to the proposed 2026 RTP/SCS.
8. **References/Preparers.** Lists all published materials, federal, State, and local agencies, and other organizations and individuals consulted during the preparation of this EIR. It also lists the EIR preparers.

In addition, the EIR includes the following appendices:

- Appendix A: NOP and Response Letters
- Appendix B: Air Quality Emissions Calculations

- Appendix C: Special Status Species
- Appendix D: TCAG Traffic Demand Model
- Appendix E: Energy Generation and Consumption Calculations
- Appendix F: Greenhouse Gas Emission Calculations
- Appendix G: Tribal Consultation
- Appendix H Alternatives Calculations Data

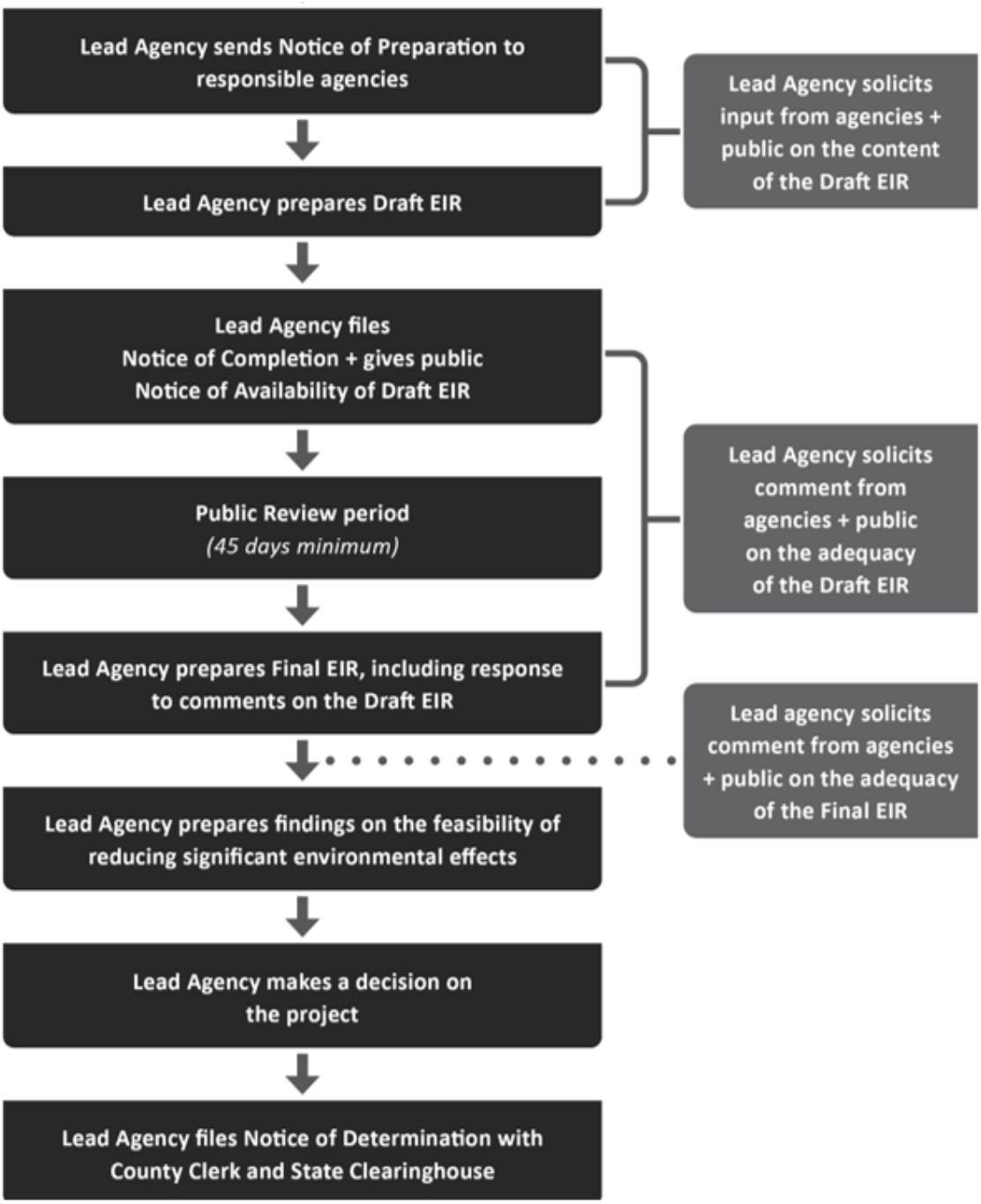
1.8 Environmental Review Process

The environmental impact review process, as required under CEQA, is summarized below and similarly illustrated in Figure 1-1. The steps are presented in sequential order.

1. **Notice of Preparation (NOP)**. After deciding that an EIR is required, the Lead Agency (TCAG) must file a NOP soliciting input on the EIR scope to the State Clearinghouse, other concerned agencies, and parties previously requesting notice in writing (*CEQA Guidelines* Section 15082; Public Resources Code Section 21092.2). The NOP must be posted in the County Clerk's office for 30 days.
2. **Draft EIR Prepared.** The Draft EIR must contain: a) table of contents or index; b) summary; c) proposed project description; d) environmental setting; e) discussion of significant impacts (direct, indirect, cumulative, growth-inducing and unavoidable impacts); f) a discussion of alternatives; g) mitigation measures; and h) discussion of irreversible changes.
3. **Notice of Availability/Completion (NOA/NOC) and Public Review.** The Lead Agency must file a Draft EIR NOC with the State Clearinghouse and prepare a Draft EIR NOA. The Lead Agency is soliciting input on the Draft from other agencies and the public and will respond in writing to all comments received (Public Resources Code Sections 21104 and 21253). TCAG's Draft EIR public review period will exceed the minimum of 45 days.
4. **Final EIR.** A Final EIR must include: a) the Draft EIR; b) copies of comments received during public review; c) list of persons and entities commenting; and d) responses to comments.
5. **Certification of Final EIR.** Prior to making a decision on a proposed project, the Lead Agency must certify that: a) the Final EIR has been completed in compliance with CEQA; b) the Final EIR was presented to the decision-making body of the Lead Agency; and c) the decision-making body reviewed and considered the information in the Final EIR prior to approving a project (*CEQA Guidelines* Section 15090).
6. **Findings/Statement of Overriding Considerations**. For each significant impact of the Project identified in the EIR, the Lead Agency must find, based on substantial evidence, that either: a) the Project has been changed to avoid or substantially reduce the magnitude of the impact; b) changes to the Project are within another agency's jurisdiction and such changes have or should be adopted; or c) specific economic, social, or other considerations make the mitigation measures or project alternatives infeasible (*CEQA Guidelines* Section 15091). If an agency approves a project with unavoidable significant environmental effects, it must prepare a written Statement of Overriding Considerations that sets forth the specific social, economic, or other reasons supporting the agency's decision (*CEQA Guidelines* Section 15092).
7. **Mitigation Monitoring Reporting Program.** When the Lead Agency makes findings on significant effects identified in the EIR, it must adopt a reporting or monitoring program for mitigation measures that were adopted or made conditions of project approval to mitigate significant effects.

8. **Lead Agency Project Decision.** The Lead Agency may a) disapprove the Project because of its significant environmental effects; b) require changes to the Project to reduce or avoid significant environmental effects; or c) approve the Project despite its significant environmental effects, if the proper findings and statement of overriding considerations are adopted (*CEQA Guidelines* Sections 15042 and 15043).
9. **Notice of Determination (NOD).** The Lead Agency must file a NOD within five business days after deciding to approve a project for which an EIR is prepared (*CEQA Guidelines* Section 15094). A local agency must file the NOD with the County Clerk and the State Clearinghouse. The NOD must be posted for 30 days and sent to anyone previously requesting notice. Posting of the NOD starts a 30-day statute of limitations on CEQA legal challenges (Public Resources Code Section 21167[c]).

Figure 1-1 Environmental Review Process



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2 Project Description

This section describes the proposed project, the proposed 2026 Regional Transportation Plan/Sustainable Communities Strategy (2026 RTP/SCS), including project objectives, the project site and surrounding land uses, major project characteristics, project objectives, and discretionary actions needed for approval.

2.1 Background

2.1.1 General Legislative Requirements

The proposed 2026 RTP/SCS is being prepared to comply with the current California Transportation Commission (CTC) Regional Transportation Plan Guidelines, pursuant to Government Code Section 14522, to prepare a regional transportation plan, a long-range transportation planning document which will provide policy guidelines regarding the planning and programming of transportation projects through 2049. The Tulare County Association of Governments (TCAG), as both the federally designated metropolitan planning organization (MPO) and the State-designated regional transportation planning agency (RTPA) for Tulare County, is required by both federal and State law to prepare a long-range (at least 20-year) transportation planning document known as a Regional Transportation Plan (RTP). The RTP is an action-oriented document used to achieve a coordinated and balanced regional transportation system.

TCAG also has the responsibility to prepare a Sustainable Communities Strategy (SCS) as part of the RTP, pursuant to the requirements of the Sustainable Communities and Climate Protection Act (Senate Bill [SB] 375) as adopted in 2008 (discussed further below). The SCS sets forth a forecasted development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, is intended to reduce greenhouse gas (GHG) emissions from passenger vehicles and light trucks to achieve the regional light-duty vehicle GHG reduction targets set by the California Air Resources Board (CARB).

The *2024 California Regional Transportation Plan Guidelines* serves as the guidance for RTP development. (California Transportation Commission 2024a). Under both federal and State law, an MPO must update its RTP every four years when in a federally designated air quality non-attainment area.

2.1.2 Sustainable Communities & Climate Protection Act Requirements (SB 375) Requirements

The Sustainable Communities and Climate Protection Act, also known as SB 375 (codified at California Government Code Sections 14522.1, 14522.2, 65080.01, 65080, 65400, 65583, 65584.01, 65584.02, 65584.04, 65587, 65588; Public Resources Code Sections 2161.3, 21155, 21159.28), is a law originally passed in 2008 by the California legislature that requires each MPO to demonstrate, through the development of an SCS, how its region will integrate transportation, housing, and land use planning to meet the GHG reduction targets set by the State. In addition to creating requirements for MPOs, it also creates requirements for the California Transportation Commission (CTC) and the California Air Resources Board (CARB). Some of the requirements include the following:

- CTC must maintain guidelines for the travel demand models that MPOs develop for use in the preparation of their RTPs;
- CARB must develop regional GHG emission reduction targets for automobiles and light trucks for 2020 and 2035 by September 30, 2010 (completed), and update at least once every eight years subsequently. The latest targets went into effect October 1, 2018;
- Each MPO must prepare an SCS as part of its RTP to demonstrate how it will meet the regional GHG targets, if feasible.
- If an SCS cannot achieve the regional GHG target, the MPO must prepare an Alternative Planning Strategy (APS) showing how it would achieve the targets with alternative development patterns, infrastructure, or transportation measures and policies;
- Each MPO must adopt a public participation plan for development of the SCS that includes informational meetings, workshops, public hearings, consultation, and other outreach efforts;
- Each MPO must prepare and circulate a draft SCS at least 55 days before it adopts a final RTP;
- After adoption, each MPO must submit its SCS to CARB for review; and
- CARB must review each SCS to determine whether, if implemented, it would meet the GHG targets. CARB must complete its review within 60 days.

CARB set targets for the TCAG region to maintain or reduce greenhouse gas emissions through 2035. On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. TCAG was assigned targets of a 13 percent reduction in GHG emissions per capita from passenger vehicles by 2020 and a 16 percent reduction by 2035, relative to 2005 levels (CARB 2026). These targets apply to the TCAG region as a whole for all on-road light-duty trucks and passenger vehicles emissions, and not to individual cities or sub-regions.

Emissions modeling for the 2026 RTP/SCS incorporates a base year of 2005 for SB 375 GHG emission reduction targets. The 2026 RTP/SCS includes estimates of CO_2 per capita for light-duty vehicles for 2005 and 2035[1]. Implementation of the proposed 2026 RTP/SCS would achieve SB 375's GHG reduction targets for TCAG of 16 percent by 2035.

SB 375 specifically states that local governments retain their autonomy to plan local General Plan policies and land uses. The proposed 2026 RTP/SCS provides a regional policy foundation that local governments may build upon, if they so choose. The proposed 2026 RTP/SCS includes and accommodates the quantitative growth projections for the region. SB 375 also requires that the RTP's forecasted development pattern for the region be consistent with eight-year regional housing needs as allocated to member jurisdictions through the Regional Housing Needs Allocation (RHNA) process under state housing law. RHNA, itself, is statutorily exempt from CEQA. TCAG's most recent RHNA was adopted August 15, 2022, which was developed for the sixth housing element cycle and covers an 8.5-year projection period (June 30, 2023 – December 31, 2031).

In addition, this EIR lays the groundwork for the streamlined review of qualifying development projects within Transit Priority Areas.[2] Qualifying projects that meet statutory criteria and are consistent with the proposed 2026 RTP/SCS are eligible for streamlined environmental review pursuant to CEQA under SB 375 and other laws. (See Sections 1.4.1 through 1.4.4.).

[1] See Table 4.8-4 of Section 4.8, *Greenhouse Gas Emissions and Climate Change*
[2] A Transit Priority Area is an area within ½-mile of high-quality transit: a rail stop or a bus corridor that provides or will provide at least 15-minute frequency service during peak hours by the year 2035.

2.1.3 Infrastructure Investment and Jobs Act

The Infrastructure Investment and Jobs Act (IIJA) (Public Law 117-58), was signed into law on November 15, 2021. The IIJA reauthorizes surface transportation programs through fiscal year 2026 and builds upon the policy framework and performance-based planning provisions established under Moving Ahead for Progress in the 21st Century Act and the Fixing America's Surface Transportation Act. The IIJA maintains the core metropolitan and statewide transportation planning requirements under 23 U.S. Code Section 134 and Section 135, while expanding the scope of planning to further address climate change, equity, resiliency, and infrastructure modernization. In the development of the MTP and RTPs, the IIJA continues to require MPOs to:

- Coordinate with officials responsible for other types of planning activities affected by transportation, such as land use, housing, economic development, environmental protection, freight, and emergency management.
- Engage traditionally underserved and disadvantaged communities to ensure equitable access to transportation planning and project benefits.
- Incorporate consideration of climate change, environmental justice, and resilience, particularly regarding the impact of extreme weather and natural disasters on transportation infrastructure.
- Improve infrastructure condition, safety, and system efficiency, while supporting economic vitality, freight mobility, and multimodal connectivity.

The IIJA adds emphasis on:

- Reducing greenhouse gas emissions through transportation planning and investments.
- Increasing resilience to natural hazards and climate-related events.
- Investing in complete streets, bicycle/pedestrian infrastructure, and multimodal transportation.
- Strengthening public involvement and interagency coordination, including with housing and health agencies.
- Supporting equitable access to transportation options for disadvantaged communities.

The proposed 2026 RTP/SCS prepared by TCAG has been developed to comply with the planning requirements of the IIJA and its associated regulations under 23 CFR Part 450.

2.1.4 Environmental Justice

TCAG is required to address social equity and environmental justice in the RTP. The legal basis for environmental justice stems from the Civil Rights Act of 1964, along with Executive Order 12898 (February 1994), which states that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." TCAG must evaluate how the proposed 2026 RTP/SCS might impact minority and low-income populations and must ensure that the proposed 2026 RTP/SCS does not have a disproportionate adverse impact on such populations. The adverse human health and environmental effects on minority and low-income populations is discussed further in the Executive Summary and Policy Element of the RTP/SCS.

In addition, per 23 C.F.R. Section 450.316(a)(1)(vii), the participation plan that TCAG must develop and use must describe explicit procedures, strategies, and desired outcomes for "[s]eeking out and considering the needs of those traditionally underserved by existing transportation systems, such as

low-income and minority households, who may face challenges accessing employment and other services."

2.1.5 Regional Transportation Plans

As noted, the procedures for developing RTPs are provided in the CTC's Regional Transportation Plan Guidelines (2024). The guidelines identify the purpose of an RTP to be as follows:

- Providing an assessment of the current modes of transportation and the potential of new travel options within the region;
- Projecting/estimating the future needs for travel and goods movement;
- Identification and documentation of specific actions necessary to address regional mobility and accessibility needs;
- Identification of guidance and documentation of public policy decisions by local, regional, state and federal officials regarding transportation expenditures, financing, and future growth patterns;
- Identification of needed transportation improvements, in sufficient detail, to serve as a foundation for the: (a) Development of the Federal Transportation Improvement Program (FTIP), and the State Transportation Improvement Program (STIP), (b) Facilitation of the National Environmental Policy Act (NEPA)/404 integration process, and (c) Identification of project purpose and need;
- Employing performance measures that demonstrate the effectiveness of the system of transportation improvement projects in meeting the intended goals;
- Promotion of consistency between the California Transportation Plan (CTP), the regional transportation plan and other plans developed by cities, counties, districts, California Tribal Governments, and state and federal agencies in responding to statewide and interregional transportation issues and needs;
- Providing a forum for: (1) participation and cooperation and (2) facilitation of partnerships that reconcile transportation issues which transcend regional boundaries; and
- Involving community-based organizations as part of the public, Federal, State and local agencies, California Tribal Governments, as well as local elected officials, early in the transportation planning process so as to include them in discussions and decisions on the social, economic, air quality and environmental issues related to transportation.

RTPs must include long-term horizons (at least 20 years) that reflect regional needs, identify regional transportation issues/problems, and develop and evaluate solutions that incorporate all modes of travel. RTPs must also recommend a comprehensive approach that provides direction for programming decisions to meet the identified regional transportation needs. RTPs must also be fully consistent with the requirements of the IIJA and other federal regulations, including conformity with the 1990 Clean Air Act Amendments and consistency with the Federal Transportation Improvement Program (FTIP).

In addition, Government Code Sections 65050, 65400, 65584.01-04, 65587, 65588 and Public Resources Code Section21155 were amended in January 2009 when SB 375 became law, requiring coordinated planning between regional land use and transportation plans to increase efficiency and reduce GHG emissions.

2.2 Project Goals and Objectives

The proposed 2026 RTP/SCS establishes planning goals and objectives to guide the development of the plan and establish the guiding principles for decision-making. Regional projects and programs are developed, funded, and implemented based on these goals. TCAG's general objectives for the proposed 2026 RTP/SCS are to ensure that the SCS and the transportation system planned for the TCAG region accomplish the following:

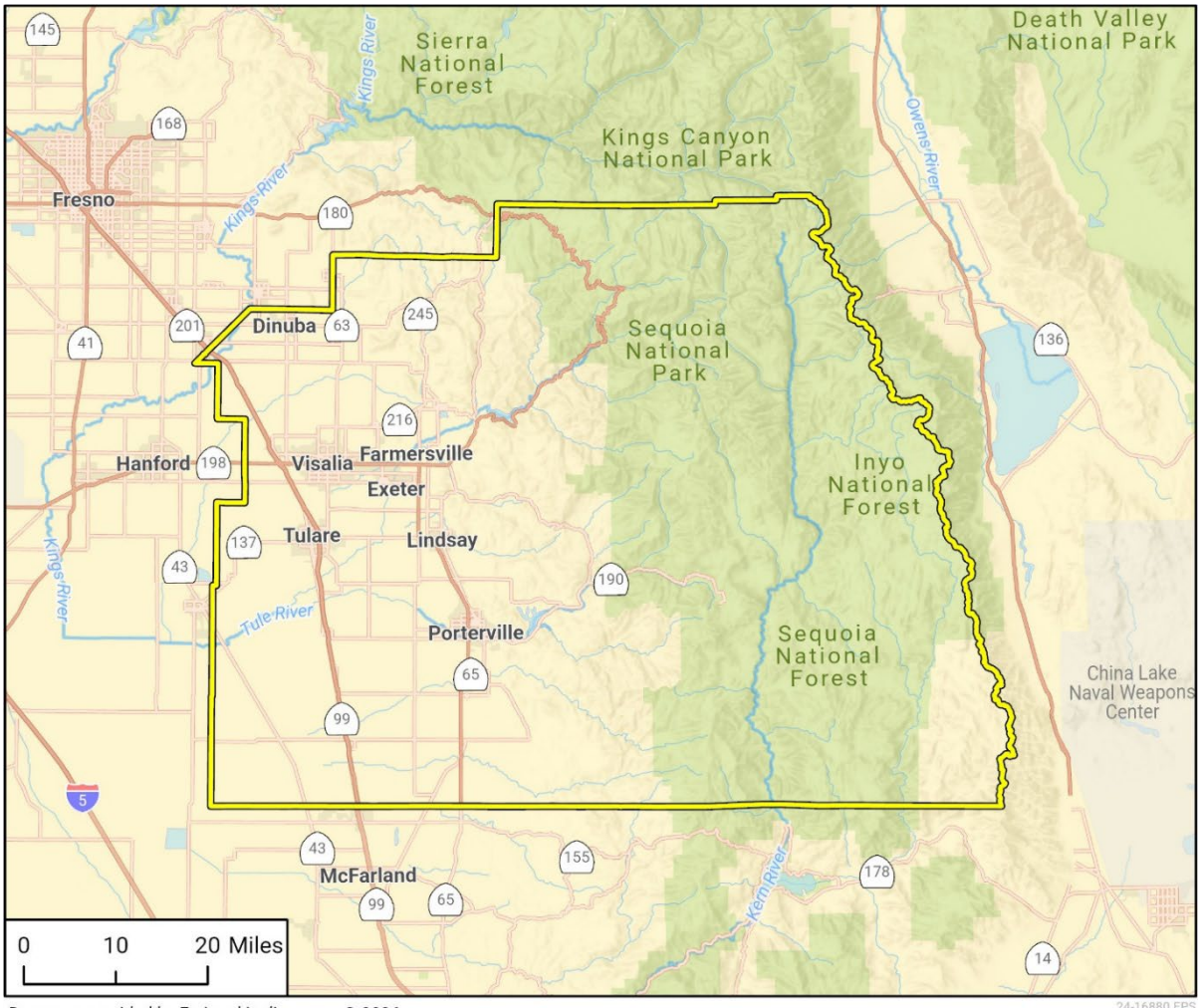
- Safety: Put safety first in all investments and system design.
- Prosperous Economy: Strengthen economic vitality through safe, efficient goods movement and job access.
- Mobility & System Reliability: Provide consistent, dependable travel options for all users.
- Clean Air & Public Health: Improve air quality and promote a healthier region.
- Access and Regional Fairness: Expand access to opportunity across all communities.

Specific goals and policies of the proposed 2026 RTP/SCS are listed in Section 2.4.1, *Policy Element.*

2.3 Project Location

As discussed in detail in Chapter 3, *Environmental Setting*, the proposed 2026 RTP/SCS covers the entire area of Tulare County and includes the cities of Dinuba, Exeter, Farmersville, Lindsay, Porterville, Tulare, Visalia, and Woodlake, as well as unincorporated communities in the county (see Figure 2-1). Capital improvement transportation projects identified in the proposed 2026 RTP/SCS, are located on State highways, County roads, and locally owned streets, as well as on transit district property and public utility lands.

Figure 2-1 TCAG Region

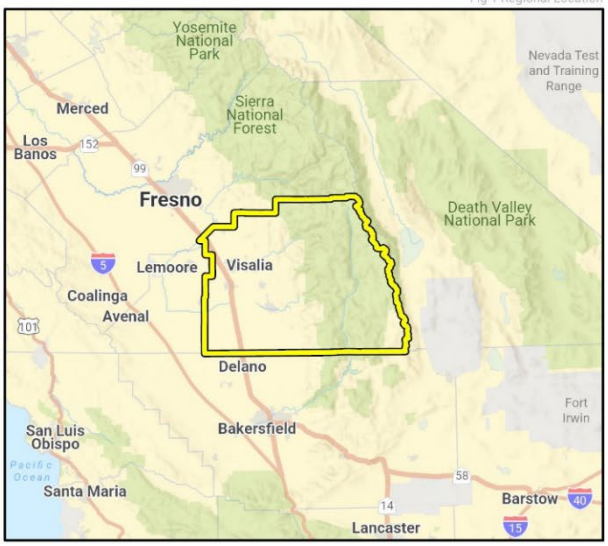


Basemap provided by Esri and its licensors © 2026.
Map created by Rincon Consultants, Inc., 2026.

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Fig 1 Regional Location

Tulare County

N



2.4 Project Characteristics

The proposed 2026 RTP/SCS is an update to the current 2022 RTP/SCS that was adopted in August 2022. The proposed 2026 RTP/SCS reflects changes in legislative requirements, local land use policies, and resource constraints that have occurred since adoption of the current 2022 RTP/SCS. The 2026 update to the 2022 RTP/SCS is focused on continued implementation of the 2022 RTP/SCS, with updates to ensure consistency with federal, State, and local planning requirements.

As have past RTPs, the proposed 2026 RTP/SCS shows how the region can invest limited transportation funds to maintain, operate and improve an integrated, multi-modal transportation system with the purpose of facilitating the efficient movement of people and goods. The updated plan identifies specific strategies, policies, and actions, including a list of programmed and planned transportation projects feasibly within the region's anticipated transportation funding levels, to meet the current and future needs of the region. The planning horizon of the proposed 2026 RTP/SCS is 2049.

The proposed 2026 RTP/SCS shows how TCAG will meet the transportation needs of the region for the period from 2026 to 2049, considering existing and projected future land use patterns as well as forecasted population and job growth. The proposed 2026 RTP/SCS plans for and programs approximately $9.3 billion in revenues expected to be available to TCAG from all transportation funding sources over the course of the planning period. It identifies and prioritizes expenditures of anticipated funding for transportation projects that involve all transportation modes: highways, streets and roads, transit, rail, bicycle and pedestrian; transportation demand management (TDM); and transportation system management (TSM).

The proposed 2026 RTP/SCS transportation improvements project list is an update to the 2022 RTP/SCS project list. As such it removes projects that have been completed since 2022, modifies some projects that continue to be on the list based on new information, and adds new projects to the list. None of the modified projects on the proposed 2026 RTP/SCS list would be substantially different in terms of geographical location, type of project, or the size of the project to those on the 2022 RTP/SCS list.

The 2026 RTP/SCS is based on a preferred land use and transportation scenario which defines a pattern of future growth and transportation system investment for the region emphasizing a transit oriented development and infill approach to land use and housing. Population and job growth are allocated principally within existing urban areas near public transit. The preferred land use and transportation scenario are based on the most recent planning assumptions, and considers local general plans and other factors such as updated specific plans and recently completed transportation planning studies.

The land use scenario envisioned by the proposed 2026 RTP/SCS is similar to that contained in the 2022 RTP/SCS. The principles of the preferred land use scenario, the Cross Valley Corridor (CVC), guide the allocation of future development sufficient to accommodate the forecasted growth in population, households, and employment through 2049. Most notable of these principles is an increase in average densities. This is articulated in a growth pattern reflective of the CVC's potential to increase multimodal travel and transit-oriented development. The scenario reflects more efficient development patterns over time, with a focus on complete streets and climate resilience. The CVC scenario also emphasizes transit and active transportation modes, fix-it-first for streets and highways, corridor-focused mobility, and connectivity improvements. This results in a de-emphasis of capacity-increasing highway projects as a means of addressing travel demand associated with

new development. Projects that can increase capacity for light vehicle travel would still be part of this scenario when needed to address inter-regional travel, goods movement, and safety. The CVC scenario includes even greater investments in alternative modes that benefit the region's disadvantaged communities, such as express passenger service/bus rapid transit on State Routes 63, 65, and 198, Avenue 280, and other regional routes serving the CVC. Reference Section 2.4.2 below for additional information regarding the Sustainable Communities Strategy (SCS) and the CVC land use scenario.

2026 RTP/SCS Organization. TCAG adopted the previous 2022 RTP/SCS in August 2022. This proposed 2026 RTP/SCS reflects changes in legislative requirements, local land use policies, and resource constraints and is organized into four chapters[3]:

Policy Element. The Policy Element provides guidance to decision-makers on the implications, impacts, opportunities, and foreclosed options that will result from implementation of the RTP. Government Code Section 65080(b)(1) states that each RTP shall include a Policy Element that: describes the transportation issues in the region, identifies and qualifies regional needs expressed within both short and long-range planning horizons, and maintains internal consistency with the Financial Element and fund estimates.

Sustainable Communities Strategy. Demonstrates the ability of TCAG to meet the GHG targets that CARB has set for the TCAG region for emissions from on-road light-duty trucks and passenger vehicles. The proposed 2026 RTP/SCS updates the current RTP/SCS, adopted by TCAG in August 2022, and incorporates new strategies to address the rapidly changing regional, national, and global context.

Action Element. Consists of short-term and long-term activities that address regional transportation issues and needs for all transportation modes. The Action Element establishes assumptions based upon adopted goals, policies and objectives, which define acceptable conditions and are incorporated into projection methodologies used to estimate future outcomes of the RTP and SCS. Further, the Action Element is separated into two parts: a discussion of regional issues, mandated transportation services, air quality, forecasting, regionally significant roads, alternatives, social impacts and RTP analysis; and a concluding section discussing each mode of transportation.

Financial Element. Identifies the current and anticipated revenue sources and financing techniques available to fund the planned transportation investments described in the Action Element. The intent of the Financial Element is to define realistic transportation financial constraints and opportunities with currently available data. Discussion centers on three main topics: current funding revenues, transportation expenditures, and potential funding sources for the future.

Of these four chapters of the proposed 2026 RTP/SCS, the Sustainable Communities Strategy, Policy Element, and the Action Element are the three that include provisions with the potential to create physical changes to the environment and are the primary focus for analysis in this EIR. These chapters are described in more detail below.

[3] The 2026 RTP/SCS appendices are available on TCAG's website: https://tularecog.org/tcag/planning/rtp/rtp-2026

2.4.1 Policy Element

The Policy Element identifies transportation goals, objectives, and policies that will help meet the needs of the region. These goals, objectives, and policies are established to determine specific courses of action to guide the Tulare County region toward implementation of the proposed 2026 RTP/SCS. The issues covered are quite expansive, ranging from policies on bicycle use, goods movement, and regional road systems to policies and objectives to achieve public health, public outreach, and environmental justice goals. The eleven policy areas and goals of the proposed 2026 RTP/SCS are identified below. Reference 2026 RTP/SCS Chapter B (Policy Element) for more detailed descriptions of the transportation goals, objectives, and policies of the proposed 2026 RTP/SCS.

Goal 1: Safety

Policy 1.1: Safe Transportation Corridors. The planning, construction, and operation of transportation facilities and system should:

1. Promote the design of transportation corridors that are safe and convenient for travel by all users, including people with disabilities, pedestrians, bicyclists, transit riders, and motorists.
2. Incorporate resilience measures into new projects to address potential future impacts from extreme weather events (e.g., findings from the V-TRANSFRM Study)[4].
3. Support improvements on regional roads that ensure safe accessibility for active modes of transportation in both rural, unincorporated areas and urban centers.
4. Develop regional implementation mechanisms through TCAG's funding process to advance safety projects and achieve established safety targets.
5. Encourage and support member agencies in prioritizing transportation projects that address identified safety issues.
6. Collaborate with law enforcement and emergency medical services to develop strategies and programs aimed at reducing accidents and fatalities.
7. Partner with responsible agencies to educate the public on safe driving practices around transit, bicycles, and pedestrians; support the development of public education programs to raise awareness of risky driving behaviors.
8. Work with federal, state, and regional partners to establish annual safety targets based on local conditions in Tulare County, ensuring alignment with statewide safety goals.
9. Assess the safety performance of the transportation system by collecting and analyzing historical collision data from official sources.
10. Continue making safety a primary consideration when selecting or identifying projects for funding under various federal funding programs.

Goal 2: Prosperous Economy

Policy 2.1: Support Business and Local Investment. The RTP/SCS should:

1. Should encourage a mix of land uses responsive to the needs of businesses, including agriculture and tourism
2. Support transportation investment that encourages the creation of high paying jobs, especially in areas with an imbalance of housing relative to jobs

[4] The Valley Transportation Resiliency Advancement for Neighborhoods Sustainable Freight Movement (V-TRANSFRM) Study analyzes the way freight travels through the San Joaquin Valley, identifies climate events that may affect the goods movement system, and proposes improvements based on those risks (TCAG 2026).

Policy 2.2: Public-Private Partnership: Promote inter-jurisdictional and public-private partnerships that:

1. Encourage the provision of transportation services and transportation infrastructure where common goals are served
2. Help public transit agencies secure private funding for transportation improvements in exchange for advertising on transit vehicles, bus shelters, benches and other transportation related public use items

Policy 2.3: Transportation Funding. TCAG and its member agencies should:

1. Aggressively seek funding necessary to implement the plan
2. Support protection of State and Federal transportation funding and efforts to increase these revenues for the region
3. Make efficient use of funding by maintaining, preserving, or enhancing existing infrastructure for all modes, using low-cost operational improvements, and using performance-based outcomes as the basis for prioritizing and funding projects, where feasible.

Goal 3: Mobility & System Reliability

Policy 3.1: Access, Circulation and Congestion. The planning, construction, and operation of transportation facilities should strive to:

1. Enhance access, circulation, and mobility throughout the Tulare County region and between neighboring regions.
2. Reduce congestion, especially on highways and arterials and in neighborhoods surrounding schools in cooperation with schools and school districts
3. Support coordinated alternative modes of transportation including transit, pedestrian, bicycle, and rideshare and vanpool programs
4. Complete transportation corridors that reduce out-of-direction travel, provide free-flow traffic connections, and improve air quality.
5. Provide for continued coordination and evaluation of the planned circulation system among cities and the county
6. Make existing road and bridge maintenance a high priority
7. Encourage alternative transportation solutions to reduce congestion including TSM, TDM, TCMs, and ITS strategies as contained in the CMP
8. Evaluate and consider current and future congestion conditions on the regional road network when investing in the transportation system
9. Encourage non-single occupancy and lower/zero emission vehicle as preferred alternatives
10. Prioritize and program the “gap closure” related capital improvements for transportation corridors for the RTP planning period, consistent with adopted goals and policies and the project eligibility requirements for each funding program
11. Support improvements of critical segments and interchanges along the State Highway System
12. Encourage improvements to the frontage roads along state highways, where appropriate

Policy 3.2: System Maintenance, Expansion and Efficiency. Transportation planning and projects should:

1. Promote the maintenance and enhancement of the existing highway and roadway system
2. Strive to increase the operational efficiency of vehicle usage through appropriate operational improvements (e.g., signal timing, left turn lane channelization, and ramp metering)
3. Preserve existing investments by applying life cycle cost principles in investment decisions, accounting for both capital and annual maintenance costs to reduce overall facility costs.
4. Increase capacity on existing highways and roadways only when:
    a. facility is projected in the near term to no longer provide an acceptable level of service, as determined by CMP standards, and
    b. Alternative capacity enhancement methods and efficiency measures have been fully explored.
5. Promote transportation demand management (TDM) to reduce demand and improve efficiency
6. Fund the development of capital improvement programs for complete streets and active transportation plans, as funding allows.
7. Provide funding, as available, for implementation of complete streets and active transportation plans, drawing from programs such as the Active Transportation Program (ATP), Congestion Mitigation and Air Quality (CMAQ), Cap-and-Trade, and others.
8. Promote equitable access to effective and viable transportation options for all, regardless of race, gender, income, national origin, age, or physical ability, with a focus on benefiting the region's most vulnerable populations and addressing existing unmet transportation needs.

Policy 3.3: Alternative Transportation Modes. Tulare County region's mobility and quality of life can be improved by expanding safe, efficient, and sustainable travel options beyond single-occupancy vehicles. Alternative transportation modes help reduce congestion, lower greenhouse gas emissions, and provide equitable access to jobs, schools, and essential services. These strategies are also important to reduce vehicle miles traveled (VMT) and supporting the region's ability to meet State greenhouse gas reduction targets under SB 375.

1. Encourage alternative transportation solutions to reduce congestion, including Transportation System Management (TSM), Transportation Demand Management (TDM), Transportation Control Measures (TCMs), and Intelligent Transportation Systems (ITS) strategies, as outlined in the Congestion Management Plan (CMP).
2. Promote alternatives to single-occupancy vehicle trips and expand the use of biking, walking, and public transit to reduce vehicle miles traveled (VMT) and increase active transportation mode share.
3. Provide for a variety of transportation modes and ensure connectivity within and between those modes, both inside Tulare County and with neighboring regional systems, to create seamless travel experiences.
4. Plan for and provide ancillary support facilities for alternative transportation, such as secure bicycle parking, transit shelters, and charging stations for micromobility devices.
5. Support shared micromobility and bike share programs, where feasible, to improve short-trip mobility and connections to transit.

6. Support the development and expansion of passenger rail and rail-supportive corridor services, including California High-Speed Rail, Amtrak, and future Cross Valley Corridor rail service.
7. Support the expansion of vanpool and rideshare programs to serve long-distance commuters, particularly in rural areas and between population centers and employment hubs.
8. Encourage telecommuting and flexible work arrangements, where feasible, to reduce commute trips and peak-period congestion.
9. Fund feasibility studies, complete streets studies, and community/neighborhood plans that evaluate and plan for transit readiness, walkability, and bikeability, as funding allows.
10. Support the development, extension, and maintenance of passenger rail service, including but not limited to Cross Valley Rail, California High-Speed Rail, and Amtrak.
11. Work toward implementing a uniform fare system among Tulare County transit providers to improve rider convenience and system efficiency.
12. Support fare-based transit programs, including student transit pass programs such as the College of the Sequoias (COS) program, to increase ridership and reduce barriers to transit use.
13. Promote Bus Rapid Transit alignments and conduct feasibility analyses where practicable to expand high-capacity transit options.
14. Improve first- and last-mile connections to transit stops throughout the region through targeted investments such as pedestrian and bicycle infrastructure, microtransit services, and enhanced access to transit facilities, with a focus on improving mobility in disadvantaged communities.
15. Participate in and support the activities of the San Joaquin Joint Powers Authority to improve services on the Amtrak San Joaquins route.
16. Support the expansion of shared mobility programs, including carsharing, to reduce vehicle ownership and vehicle miles traveled, particularly along key corridors, in activity centers, and in areas with higher population and employment density.

Policy 3.4: Freight and Goods Movements. Efficient and sustainable freight and goods movement is essential to Tulare County's economy, supporting its agricultural base, manufacturing sectors, and regional trade connections. Transportation planning and investments should facilitate the secure and efficient movement of goods while balancing community mobility needs and environmental goals.

1. Encourage the restoration and ongoing maintenance of freight rail service in Tulare County as a critical transportation mode serving commerce and industry.
2. Coordinate with other agencies to restore and enhance rail services to industrial facilities, supporting economic development and attracting new industries to the region.
3. Support the concept of Inland Intermodal Port(s) in the San Joaquin Valley to expand rail capacity at the Los Angeles/Long Beach ports and reduce regional truck congestion.
4. Maximize the efficiency of the existing freight transportation system through targeted infrastructure improvements and operational enhancements.
5. Promote projects that improve freight movement, including rail and highway upgrades, as well as improved ground access to airports and rail terminals in the region.

6. Regularly collect, analyze, and update data on freight and goods movement patterns, facility needs, and emerging industry trends to guide investment priorities.
7. Address freight facility and infrastructure improvement needs as a high priority, including those identified in the 2025 San Joaquin Valley Goods Movement Plan, with special attention to the SR 99 corridor.
8. Incorporate freight and goods movement considerations into the design and planning of all relevant transportation projects.
9. Plan for and enhance intermodal connectivity between airports, rail, and highways to improve the efficiency of freight operations and reduce system bottlenecks.

Policy 3.5: Transportation Systems Management Technologies. Transportation planning and projects should incorporate advanced technologies and operational strategies to improve safety, efficiency, and reliability while reducing travel demand and environmental impacts.

1. Encourage the use of Intelligent Transportation Systems (ITS) by supporting, maintaining, and implementing the San Joaquin Valley Intelligent Transportation System Strategic Deployment Plan and the applicable local Urban Area ITS Plan(s).
2. In partnership with the California Department of Transportation (Caltrans), the California Highway Patrol, and local public transit and public works agencies, deploy and utilize the most effective Transportation System Management (TSM) and ITS technologies to:
   - Improve travel reliability and convenience.
   - Increase the efficiency of the transportation system.
   - Reduce travel demand through coordinated system and demand management strategies.

Goal 4: Environmental – Promote Responsible Growth that Protects Natural Resources.

Policy 4.1: Supports Transportation Investments that Minimize GHG Emissions. Tulare County's transportation system plays a key role in supporting both economic vitality and environmental health. Transportation investments should be designed to reduce greenhouse gas (GHG) emissions, improve air quality, and protect the region's natural resources. By prioritizing clean technologies, integrating land use and transportation planning, and aligning with state climate goals, TCAG can help ensure a more sustainable and resilient future.

1. Prioritize projects that improve air quality and reduce greenhouse gas emissions.
2. Support the adoption of alternative fuels and other clean power sources for surface transportation, such as hydrogen, compressed natural gas (CNG), and electricity.
3. Achieve U.S. Environmental Protection Agency National Ambient Air Quality Standards (NAAQS) by required attainment dates, where practicable.
4. Promote the equitable adoption of clean, renewable energy technologies to ensure a reliable energy supply, enhance the region's economy, and improve air quality both locally and regionally.
5. Incorporate the latest scientific research and technological advancements into planning efforts when feasible.
6. Support and participate in efforts and coalitions that promote the use of State funding for projects that reduce GHG emissions in Tulare County and actively pursue State and other funding opportunities for such projects.

7. Be in conformity with the State and Federal air quality plans

Policy 4.2: Public Health. The RTP–SCS should promote integrated transportation and land use planning that supports healthier communities by reducing pollution, increasing physical activity, and providing safe, equitable access to essential destinations. Transportation investments should contribute to improved public health outcomes for all residents.

1. Expand and support active transportation options—such as walking, biking, and transit—that encourage physical activity and reduce vehicle dependence.
2. Promote the design and implementation of "Complete Streets" that safely and conveniently accommodate all transportation modes, including active transportation, transit, and vehicles, while enhancing safety for all users.

Goal 5: Access and Regional Fairness

Policy 5.1: Access. The planning, construction, and operation of transportation facilities and of the system should:

1. Provide environmental justice communities with meaningful opportunities for input into transportation plans, programs, and projects, consistent with Title VI of the 1964 Civil Rights Act and Executive Order 12898 on Environmental Justice, including prohibiting intentional discrimination and adverse disparate impacts based on race, ethnicity, or national origin.
2. Ensure safe and convenient travel for all transportation system users, including people with disabilities, pedestrians, bicyclists, transit riders, and motorists.
3. Ensure that the transportation needs of all groups, particularly disadvantaged, low-income, and minority communities, are adequately served, with equal access to transportation facilities and services.
4. Give special attention to the needs of elderly and disabled individuals by improving accessibility, removing physical barriers, and complying with provisions of the 1990 Americans with Disabilities Act (ADA).
5. Provide opportunities for the full and fair participation of all potentially affected communities in the transportation decision-making process.
6. Consider the potential adverse human health and environmental effects, including social and economic impacts, on minority and low-income populations when planning or implementing projects.

Policy 5.2: Affordable Housing. Transportation and housing are closely linked. Coordinating land use planning with transportation investments helps reduce commute times, improve access to jobs and services, and promote equitable growth. TCAG supports policies that integrate affordable housing planning with transportation strategies.

1. Support member agencies in addressing and planning forecasted regional housing needs across all economic segments of the population.
2. Encourage the development of affordable and workforce housing within existing urbanized areas, particularly near employment centers and public transit.
3. Promote the consideration of transit availability and accessibility as key factors in land use planning and project permitting, with special emphasis on serving people with disabilities, seniors, and transit-dependent populations.

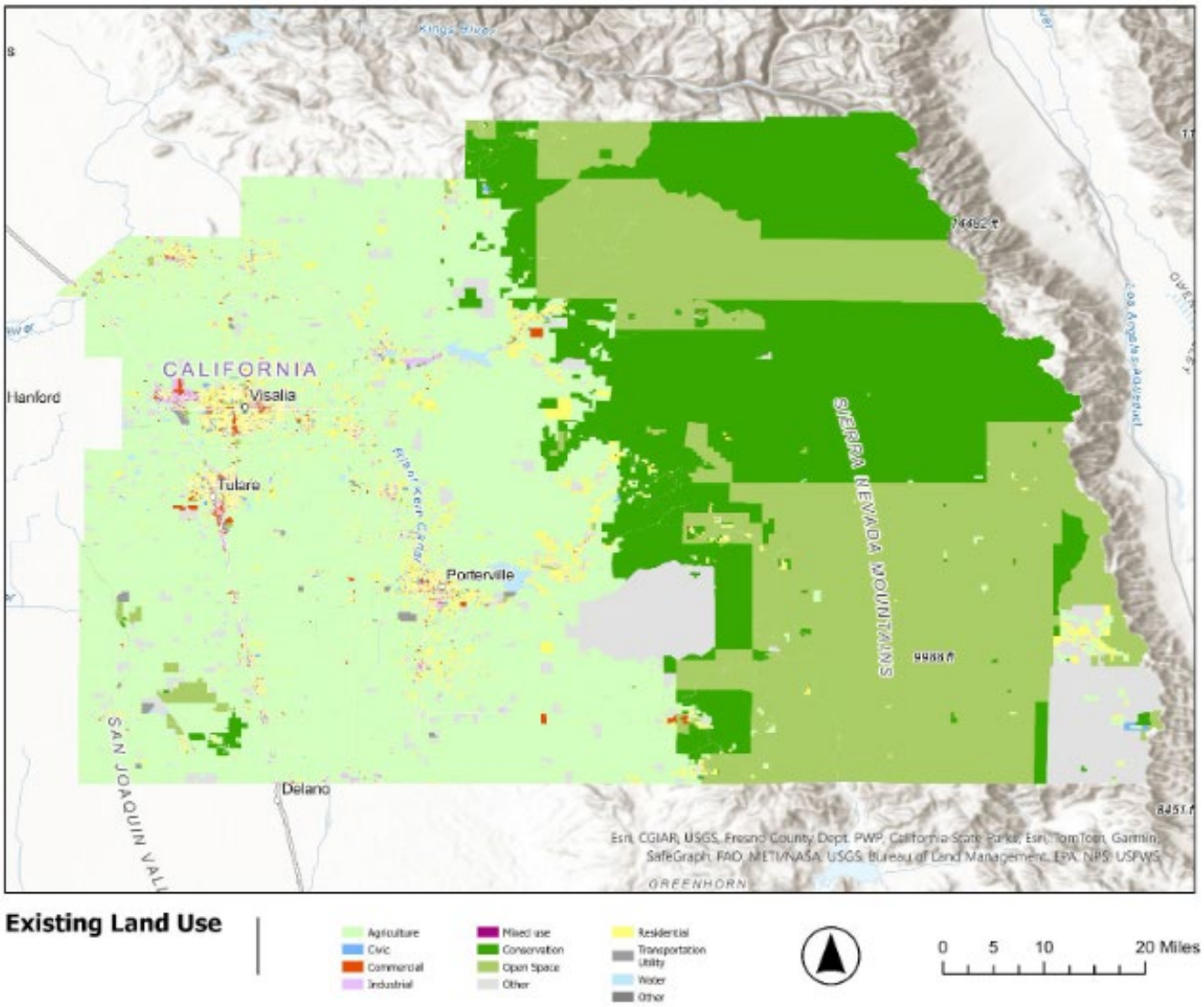
2.4.2 Sustainable Communities Strategy

As required by the Sustainable Communities and Climate Protection Act of 2008 (Senate Bill 375), the proposed 2026 RTP/SCS contains an SCS that considers both land use and transportation together in a single, integrated planning process that accommodates regional housing needs and projected growth. The proposed 2026 RTP/SCS updates the 2022 RTP/SCS, adopted by TCAG in August 2022, and incorporates new strategies to address rapidly the changing regional, national, and global context.

The RTP/SCS accounts for the land uses of the eight incorporated cities, the many thriving communities in the unincorporated areas, and the diverse rural regions (see Figure 2-2 for existing land uses). The SCS preferred scenario focuses new development in existing urbanized infill locations and transit corridors, avoiding identified resource areas (see Figure 2-3). See Chapter C of the proposed 2026 RTP/SCS, Sustainable Communities Strategy, for additional discussion regarding existing and future land uses.

A vital input to the SCS development process was an updated forecast of population, housing, and jobs. TCAG developed a new forecast for the proposed 2026 RTP/SCS based on the most comprehensive and up-to-date regional forecasts and projections available. The growth forecast, based on the study and reflected in the RTP/SCS Appendix 1-P SCS Demographic Forecast, are much lower than what was projected in previous RTPs. The new growth forecast is summarized in Table 2-1 below.

Figure 2-2 Existing Land Use



Source: 2026 RTP/SCS, Figure SCS-1.

Table 2-1 Demographic Forecast

Year	Population	Housing Units	Jobs
2025	487,209	158,315	196,590
2030	505,089	170,876	207,910
2035	521,065	182,656	213,250
2040	532,471	192,620	218,090
2045	538,978	200,168	222,200
2049	540,925	204,737	225,030

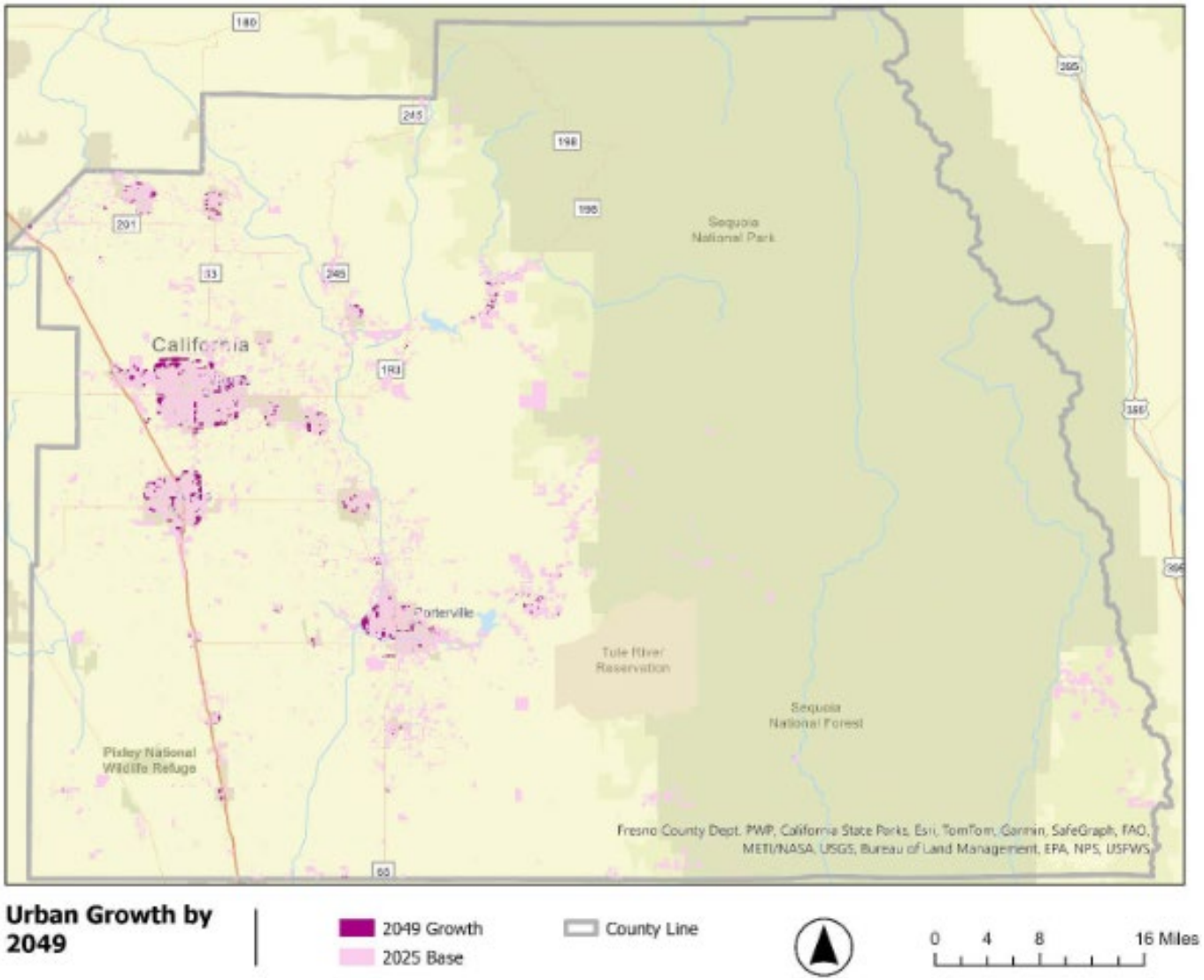
Source: Draft 2026 RTP/SCS. Chapter C, Table SCS.

SB 375 created a link between housing planning and the RTP. The RTP must be updated every four years, and the Regional Housing Needs Allocation (RHNA) Plan every eight years. Therefore, every other RTP coincides with the RHNA planning process. SB 375 requires the SCS to "identify areas within the region sufficient to house an eight-year projection of the regional housing need for the region pursuant to (Government Code) Section 65584." The most recent adopted RHNA is the Regional Housing Needs Plan for Cycle 6, which was adopted in August 2022. The 2022 Regional Housing Needs Plan describes the methodology developed to allocate the region's housing needs in four income categories among Tulare County's eight cities as well as the unincorporated county in accordance with the objectives contained in SB 375 (TCAG 2022). The SCS preferred scenario meets this requirement and supplies enough residential housing capacity by jurisdiction to meet the housing need of 33,214 units projected for the 1/1/2023 to 6/30/2031 period for the TCAG region.

Under the federal Clean Air Act, the RTP/SCS must demonstrate that it conforms with the State Implementation Plan, and that it will not cause or contribute to any new violation of any standard, increase the frequency or severity of any existing violation of any standard, or delay timely attainment of any standard or any required interim emission reductions or other milestones in each air basin. TCAG prepares and adopts concurrently with the RTP/SCS an air quality conformity analysis to ensure that the RTP/SCS meets the federal conformity requirements. Under the SCS preferred scenario, TCAG's conformity analysis is expected to find that the proposed 2026 RTP/SCS conforms to the applicable State Implementation Plan (SIP) and the Environmental Protection Agency's (EPA) Transportation Conformity Rule.

The purpose of SB 375 is to better integrate transportation, housing, and land use planning and, if feasible, achieve the state's emissions reduction targets for cars and light-duty trucks. This mandate requires CARB to determine per capita GHG emissions reduction targets for each MPO in the state at two points: 2020 and 2035. For the TCAG region, the current RTP must achieve emissions reductions of 13 percent per capita in 2020 and 16 percent per capita in 2035. The 2026 RTP/SCS SCS preferred scenario meets this requirement by achieving GHG emissions reductions of 13.7 percent in 2020 and 16 percent in 2035. TCAG has modeled GHG emissions for 2020 for illustrative purposes, though no aspect of the proposed 2026 RTP/SCS can influence the achievement or lack of achievement of target year 2020 GHG emissions. See proposed 2026 RTP/SCS Appendix F for more information on the proposed 2026 RTP/SCS meets state GHG emissions reduction targets.

Figure 2-3 Urban Growth by 2049



Source: 2026 RTP/SCS, Figure SCS-7.

2.4.3 Action Element

The Action Element of the RTP describes the programs and actions necessary to implement the RTP and assigns implementation responsibilities to the transportation planning agency preparing and adopting the plan (TCAG). The Action Element describes transportation projects that may be completed during the RTP plan horizon (2049) and that consider congestion management activities within the region. All transportation modes (highways, local streets and roads, mass transportation, rail, bicycle, pedestrian, and aviation facilities and services) are addressed. The Action Element provides direction about the MPO's and other agencies' roles and responsibilities as RTP/SCS projects and policies are implemented. It consists of short- and long-term activities that address regional transportation issues and needs.

The circulation system in Tulare County plays a significant role in the economy by moving goods and people. An intensively agricultural region, Tulare County is dependent on local highways, streets, roads, and railways to meet basic transportation needs. Goods movement is specifically dependent on road conditions and capacity. Tulare County and its cities have implemented programs to reduce congestion and improve the efficiency of our highways, streets, and roads network. Transit and active modes of transportation, such as bicycling and walking, are becoming a larger share of the transportation system. The Action Element provides a summary of existing and future conditions of the Tulare County transportation system. Existing and future circulation issues and land use trends are also addressed. This analysis is intended to support improvements in the transportation system to help meet future travel needs.

2.4.4 Proposed 2026 RTP/SCS Projects and Their Funding

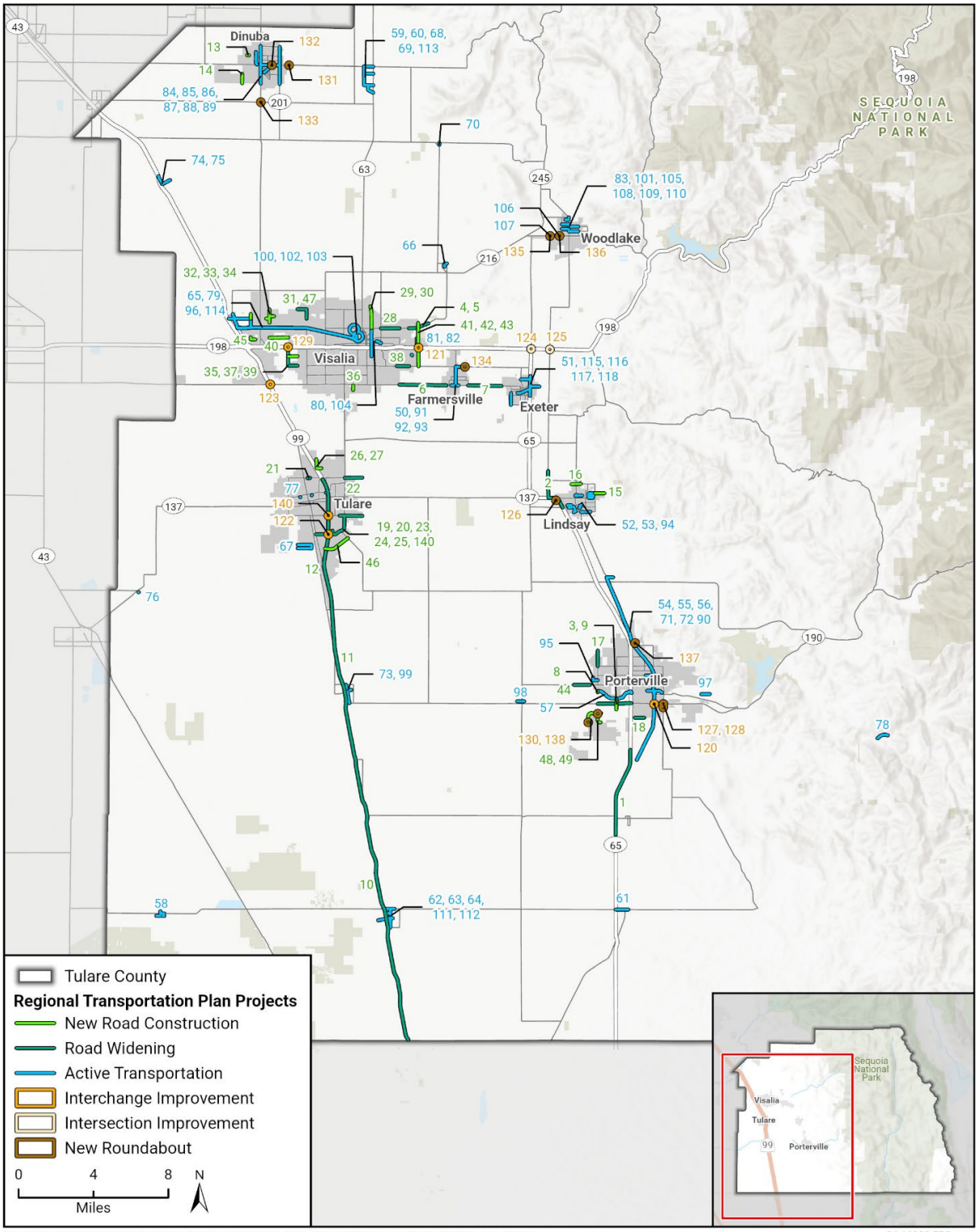
The general locations of all physical projects of the proposed 2026 RTP/SCS are identified in Figure 2-4 through Figure 2-9, and the projects are listed in Table 2-2.

The three largest sources of State funding for the TCAG region are the Transportation Development Act, State Transportation Improvement Program, and State Highway Operations and Protection Program. The Transportation Development Act was signed into law in 1971. It provides two major sources of funding for public transportation: the Local Transportation Fund and the State Transit Assistance fund. Funds for the Local Transportation Fund come from ¼ percent of the general State sales tax. The 1997 passage of Senate Bill 45 created the STIP. The STIP is a five-year capital improvement program of transportation projects on and off the State Highway System. Every two years, CTC adopts a fund estimate which identifies the amount of new funds available for the programming of transportation projects. The State Highway Operations and Protection Program (SHOPP) helps fund collision reduction, bridge preservation, roadway preservation, roadside preservation, and mobility enhancement projects, and preservation of other transportation facilities related to the State Highway System. SHOPP funds also help repair damage caused by natural disasters, civil unrest, or terrorist acts.

The largest source of regional and local funding for the TCAG region is Measure R, which is administered by TCAG, the Local Transportation Authority for Tulare County. In 2006, Measure R established a half-cent sales tax with a 30-year lifespan, estimated to generate slightly more than $652 million during that time. Regional projects are allocated 50 percent of all Measure R funds. This includes funding transportation projects across the County.

TCAG has also been successful with competitive grant programs and makes some assumptions regarding continued success. These grant programs include SB 1 programs, the Active Transportation Program, and several cap-and-trade funding programs.

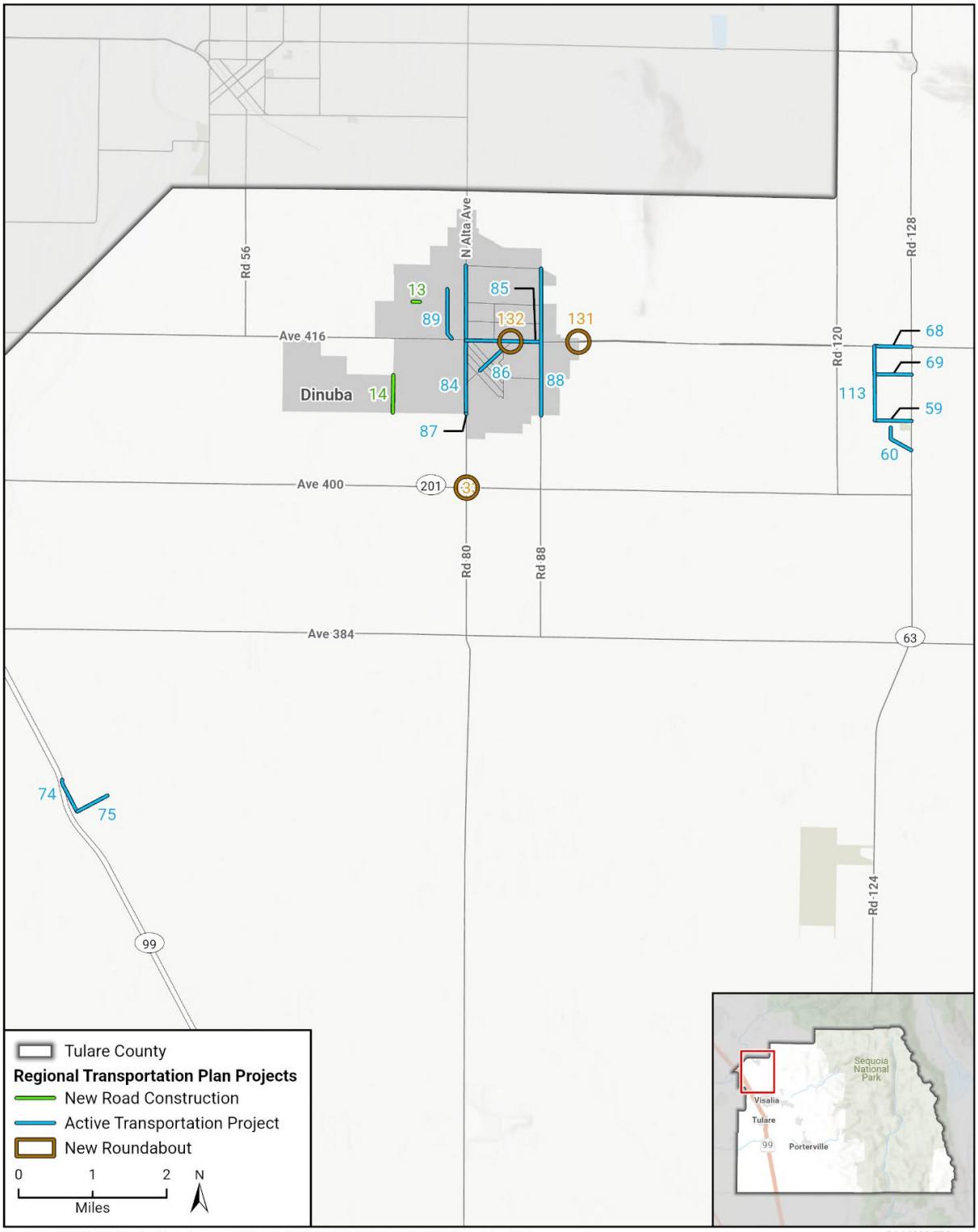
Figure 2-4 General Project Locations – County Overview



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Additional data provided by CPAD, 2025.

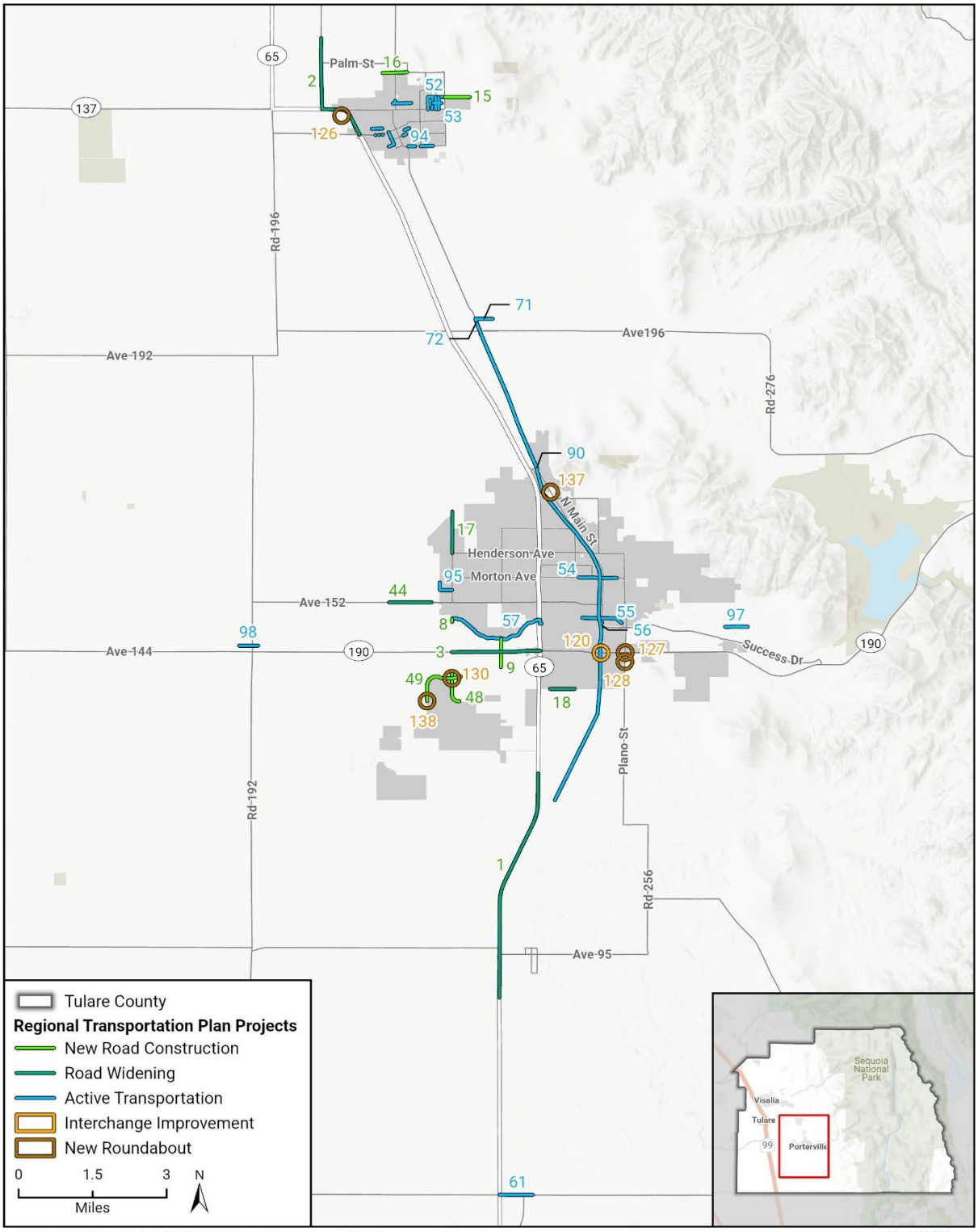
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Fig 2 Transportation Improvement Projects

Figure 2-5 General Project Locations – Dinuba



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Additional data provided by CPAD, 2025.

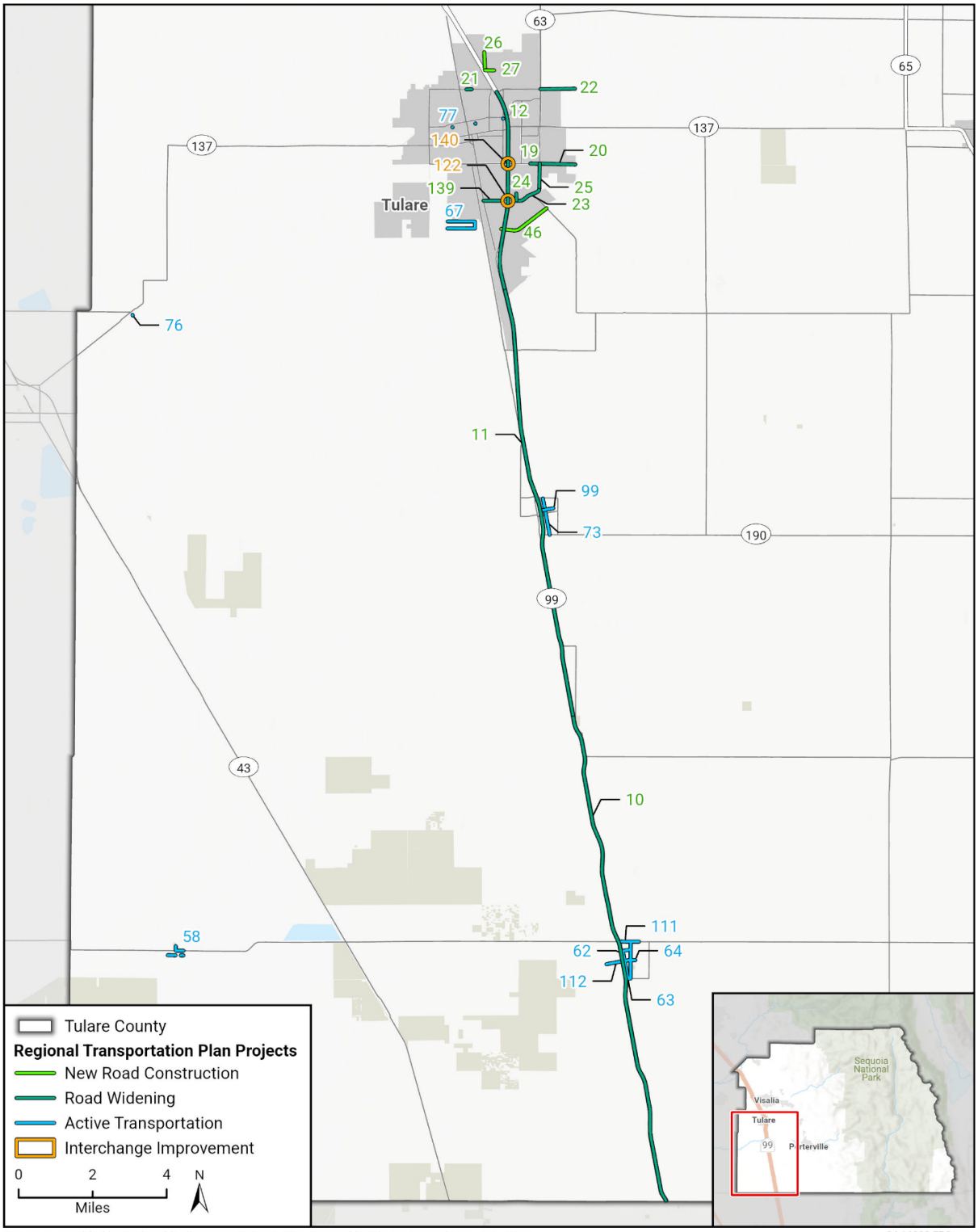
Figure 2-6 General Project Locations – Porterville



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Additional data provided by CPAD, 2025.

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Fig 2 Transportation Improvement Projects - Porterville

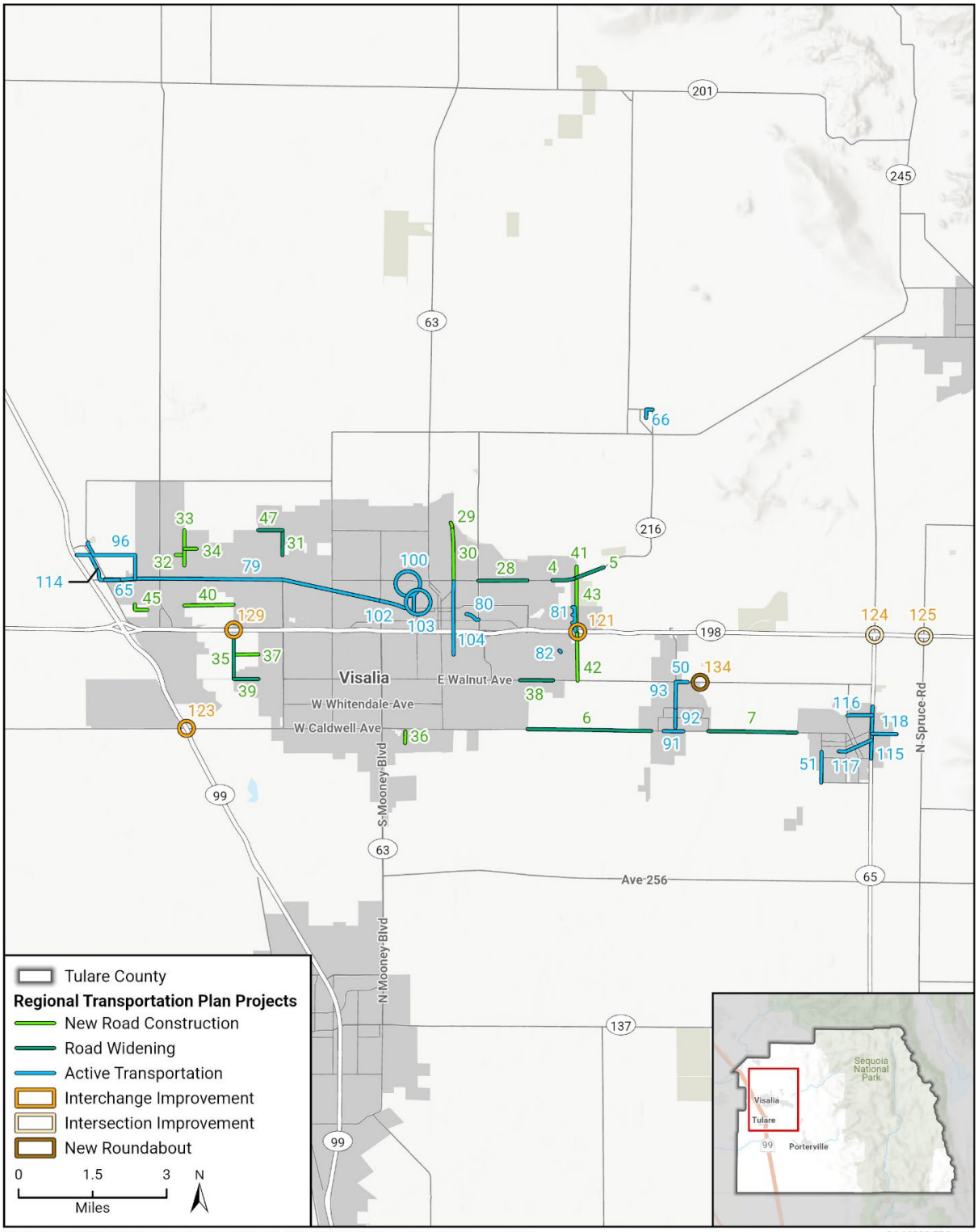
Figure 2-7 General Project Locations - Tulare



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Additional data provided by CPAD, 2025.

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Fig 2 Transportation Improvement Projects - Tulare

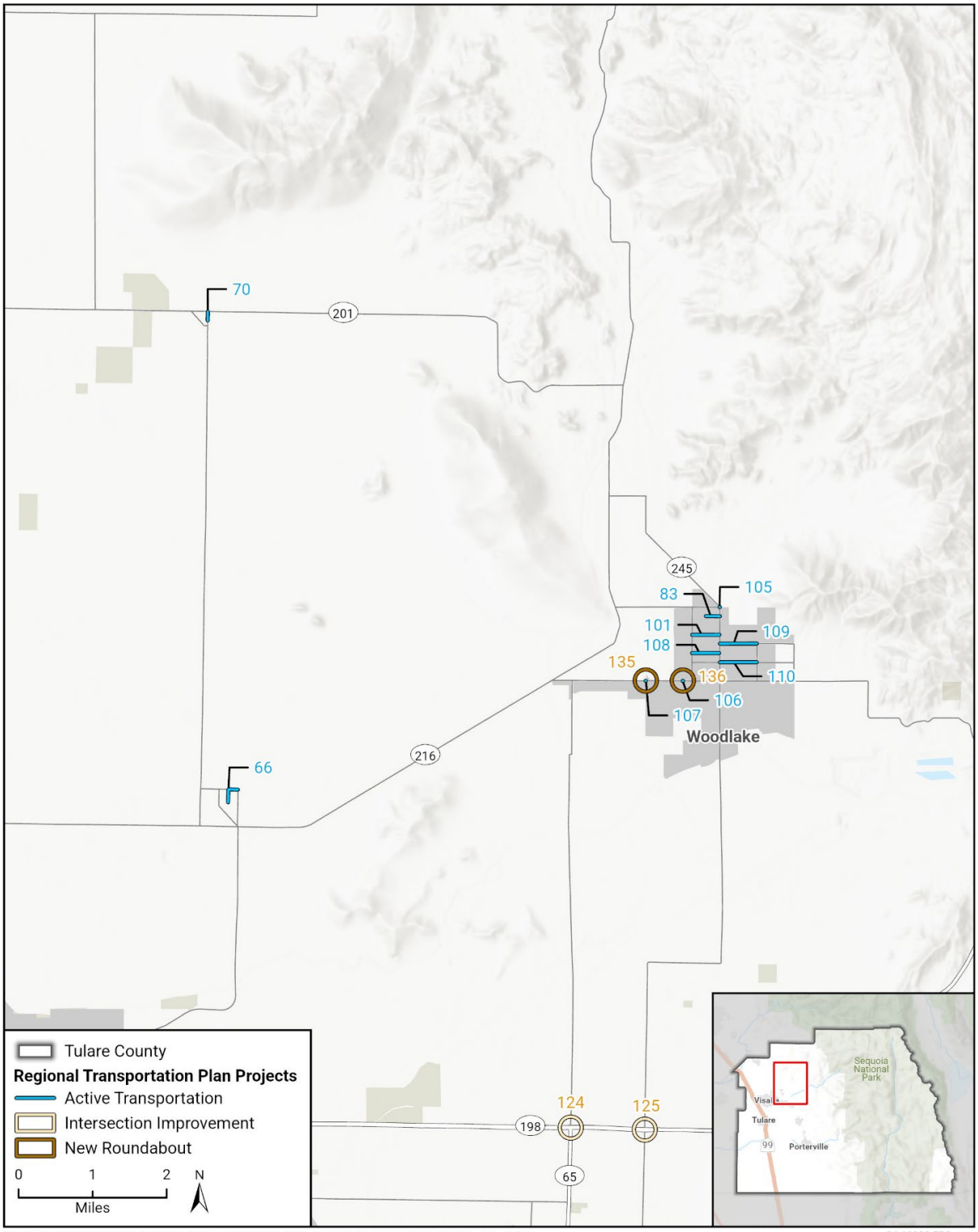
Figure 2-8 General Project Locations - Visalia



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Additional data provided by CPAD, 2025.

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Fig 2 Transportation Improvement Projects - Visalia

Figure 2-9 General Project Locations - Woodlake



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Additional data provided by CPAD, 2025.

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Fig 2 Transportation Improvement Projects - Woodlake

Table 2-2 The Proposed 2026 RTP/SCS Planned and Programmed Projects

Project Jurisdiction and Location	Improvement	Purpose and Need
Caltrans		
State Route 99 - 25.2/30.6 Tulare - Avenue 200 to Prosperity Avenue	Widen existing roadway from 4 to 6 lanes & Paige Avenue interchange reconstruction	Increase Capacity and Relieve Congestion
State Route 99 - 13.5/25.2 - 0.7 miles north of Court Ave to Avenue 200	Widen existing roadway from 4 to 6 lanes	Increase Capacity and Relieve Congestion
State Route 99 - 0.0/13.5 Near Earlimart, County Line Road to 0.7 miles north of Court Avenue	Widen existing roadway from 4 to 6 lanes	Increase Capacity and Relieve Congestion
State Route 65 - 10.9/15.6 Terra Bella - Avenue 88 to Avenue 124	Widen existing roadway from 2 to 4 lanes	Increase Capacity and Relieve Congestion
State Route 65 - 29.5/32.3 Near Lindsay-from Hermosa Road to Avenue 244	Realignment and widen existing roadway from 2 to 4 lanes	Increase Capacity and Relieve Congestion
State Route 190 - 13.2/15.0 Porterville - Westwood to State Route 65	Widen existing roadway from 2 to 4 lanes	Increase Capacity and Relieve Congestion
State Route 99 at Caldwell Avenue	Reconstruct interchange and widen bridge structure	Improve Circulation and Relieve Congestion
State Route 198 at Road 148	Construct new interchange	Improve Circulation and Relieve Congestion
State Route 190 at Main Street	Widen bridge structure, new ramps	Improve Circulation and Relieve Congestion
State Route 99 in Tulare County	Managed Lanes	Improve Circulation and Relieve Congestion
State Route 99 – South County interchanges	Turn lane, intersection, ramp improvements	Improve Circulation and Relieve Congestion
State Route 198 at State Route 65	Turn lanes, intersection improvements	Improve Circulation and Relieve Congestion
State Route 198 at Spruce Road	Roundabout at intersection	Improve Circulation and Relieve Congestion
State Route 65 at Tulare Avenue and Oak Avenue	Roundabout and local street improvements	Improve Circulation and Relieve Congestion
State Route 190 at Plano and Plano at College	Roundabouts at intersections	Improve Circulation and Relieve Congestion
Dinuba		
State Route 201 - State Route 201 (Avenue 400) at Road 80 (Alta)	Roundabout at intersection	Improve Circulation and Safety
Avenue 416 (El Monte) at Road 92	Roundabout at intersection	Improve Circulation and Safety
El Monte at Perry	Roundabout at intersection	Improve Circulation and Safety
Saginaw Street - Lyndsay to Viscaya; 1 mile	Railroad crossing	Improve Circulation

Project Jurisdiction and Location	Improvement	Purpose and Need
Road 72 - Sierra to Kamm Avenue; 6 miles	New two lane collector	Improve Circulation and Relieve Congestion
Lindsay		
Sierra View Street - Foothill Avenue to Strathmore Avenue; 0.5-mile	New two lane collector	Improve Circulation and Relieve Congestion
Fir Street - Sequoia Avenue to Bellah Avenue	New two lane collector	Improve Circulation and Relieve Congestion
Farmersville		
Road 168 at Walnut	Roundabout at intersection	Improve Circulation and Safety
Porterville		
Westwood Street - South of Orange Avenue to south of Tule River	Widen existing road bridges from 2 to 4 lanes	Increase Capacity and Relieve Congestion
Newcomb Street - North of Tule River to south of Poplar Ditch	New 4 lane overcrossing over SR 190	Improve Circulation and Relieve Congestion
North Grand at Main	Roundabout at intersection	Improve Circulation and Safety
West at Scranton and Westwood at Worth	Roundabouts at intersection	Improve Circulation and Safety
Westwood Street – Henderson Avenue to Friant-Kern Canal	Widen existing roadway from 2 to 4 lanes	Increase Capacity and Relieve Congestion
Gibbons Avenue – Jaye Street to Indiana Street; 0.5-mile	Widen existing roadway from 2 to 4 lanes	Increase Capacity and Relieve Congestion
Scranton/Westwood	New roads and roundabouts	Improve Circulation and Safety
Westwood Street Bridge at Porter Slough	Bridge Widening	Increase Capacity and Relieve Congestion
Tulare		
Bardsley Avenue – Irwin Street to Mooney Boulevard; 0.3 mile	Widen existing roadway from 2 to 4 lanes	Increase Capacity and Relieve Congestion
Bardsley Avenue – Mooney Boulevard to Oakmore Street; 1 mile	Widen existing roadway from 2 to 4 lanes	Increase Capacity and Relieve Congestion
Prosperity Avenue – Oaks Street to West William Street; 0.2 mile	Widen existing roadway from 2 to 4 lanes	Increase Capacity and Relieve Congestion
Prosperity Avenue – Mooney Boulevard to Oakmore Street; 1 mile	Widen existing roadway from 2 to 4 lanes	Increase Capacity and Relieve Congestion
Paige Avenue - K Street to Blackstone; 0.2 mile	Widen existing roadway from 2 to 4 lanes	Increase Capacity and Relieve Congestion
Foster Drive – Laspina Street to Mooney Boulevard; 0.6-mile	Widen existing roadway from 2 to 4 lanes	Increase Capacity and Relieve Congestion
Laspina Street 0 Paide Avenue to Aspen Avenue; 0.2-mile	Widen existing roadway from 2 to 4 lanes	Increase Capacity and Relieve Congestion
Mooney Boulevard – Foster Drive to Bardsley Avenue; 0.7-mile	Widen existing roadway from 2 to 4 lanes	Increase Capacity and Relieve Congestion

Project Jurisdiction and Location	Improvement	Purpose and Need
Akers Street – Corvina Avenue to Cartmill Avenue; 0.5 mile	New construction	Increase Capacity and Relieve Congestion
International Agri-Center Way – Laspina Street to Turner Drive; 0.75 mile	New 4-lane roadway	Increase Capacity and Relieve Congestion
Corvina Avenue – Akers Street to Hillman Street; 0.25 mile	New 2-lane roadway	Increase Capacity and Relieve Congestion
Visalia		
State Route 198 at Shirk Street	Interchange operational improvements	Improve Circulation and Safety
Riggin Avenue – Roeben to Akers Street	Widen existing roadway from 2 to 4 lanes	Increase Capacity and Relieve Congestion
Houston Avenue – Ben Maddox to Lovers Lane	Widen existing roadway from 2 to 4 lanes	Increase Capacity and Relieve Congestion
Santa Fe Street – Riggin to Shannon Parkway	New 4-lane arterial	Increase Capacity and Relieve Congestion
Santa Fe Street – Houston to Riggin	New 4-lane collector	Increase Capacity and Relieve Congestion
Akers Street – Ferguson to Riggin	Widen existing roadway from 3 to 4 lanes	Increase Capacity and Relieve Congestion
Ferguson Avenue – East of Plaza to Kelsey	New 2-lane collector	Increase Capacity and Relieve Congestion
Kelsey Street – Doe to Riggin	New 2-lane collector	Increase Capacity and Relieve Congestion
Sunnyview Avenue – Kelsey to west of Clancy	New 2-lane collector	Increase Capacity and Relieve Congestion
Shirk Road – Noble to Walnut Avenue	Widen existing roadway from 2 to 4 lanes	Increase Capacity and Relieve Congestion
Stonebrook Street – Caldwell to Cameron	New 2-lane collector	Increase Capacity and Relieve Congestion
Tulare Avenue – Shirk to Roeben	New 2- lane collector	Increase Capacity and Relieve Congestion
Walnut Avenue – Cedar to McAuliff	Widen existing roadway from 2 to 4 lanes	Increase Capacity and Relieve Congestion
Walnut Avenue – Shirk to Roeben	Widen existing roadway from 2 to 4 lanes	Increase Capacity and Relieve Congestion
Hurley Avenue – Kelsey to Shirk	New 2-lane collector	Increase Capacity and Relieve Congestion
Hurley Avenue – Road 76 to Plaza	New 2-lane collector	Increase Capacity and Relieve Congestion
Road 76 (American) – Ferguson (Avenue 308) to Avenue 310	New 2-lane collector	Increase Capacity and Relieve Congestion
Road 148 – Houston (State Route 216) to St. John Parkway	New 4-lane collector	Increase Capacity and Relieve Congestion
Road 148 – Mineral King to Houston	New 4-lane collector	Increase Capacity and Relieve Congestion
Road 148 – Walnut to Noble	New 4-lane collector	Increase Capacity and Relieve Congestion

Project Jurisdiction and Location	Improvement	Purpose and Need
Tulare County		
Avenue 280 - Lovers Ln (Visalia) to Virginia (Farmersville)	Widen existing roadway from 2 to 4 lanes and multi-use path	Increase Capacity and Relieve Congestion
Avenue 280 - Brundage (Farmersville) to Elberta (Exeter)	Widen existing roadway from 2 to 4 lanes and multi-use path	Increase Capacity and Relieve Congestion
Avenue 152 (Olive) – West of Friant-Kern Canal to East of Redwood Road	Widen existing roadway from 2 to 4 lanes and bridge	Improve Circulation and Safety

Source: TCAG 2026

2.5 Transportation Components Contained within the Proposed 2026 RTP/SCS

The circulation system in Tulare County plays a significant role in the economy by moving goods and people. An intensively agricultural region, Tulare County is dependent on local highways, streets, roads, and railways to meet basic transportation needs. Goods movement is dependent on road conditions and capacity. Tulare County and its cities have implemented programs to reduce congestion and improve the efficiency of our highways, streets, and roads network. Transit and active modes of transportation, such as bicycling and walking, are becoming a larger share of the transportation system. The Action Element provides a summary of existing and future conditions of the Tulare County transportation system. Existing and future circulation issues and land use trends are also addressed. This analysis is intended to support improvements in the system to help meet future travel needs.

A summary of the proposed 2026 RTP/SCS major transportation features is described below based on the proposed 2026 RTP/SCS Action Element and a listing of the RTP-constrained transportation projects is included in Table 2-2. Reference Chapter D of the 2026 RTP/SCS, Action Element, for more detailed background information on each of the transportation components described below.

Highways, Streets and Roads

TCAG works with its partners at Caltrans District 6 to identify transportation system deficiencies, establish priorities, and work to secure funding to meet the greatest needs. Caltrans identifies needs and deficiencies in several ways, such as system plans and corridor studies, and development of the SHOPP.

The purpose of the SHOPP is to operate, maintain, and preserve the State Highway System. The SHOPP identifies needs and is updated every other year. Capital improvements programmed in the SHOPP are limited to maintenance, safety, and rehabilitation of the system. Caltrans determines which projects will be funded with SHOPP funds, and local agencies have an opportunity to comment on the SHOPP.

Another funding program available to Caltrans and TCAG is the STIP, described above. Caltrans and Regional Transportation Planning Agencies (RTPAs) like TCAG establish priorities and nominate projects in coordination with one another in order to prepare transportation improvement plans (TIPs). RTPAs prepare Regional Transportation Improvement Plans (RTIPs), which receive 75 percent of the STIP, and Caltrans prepares an Interregional Transportation Improvement Plan (ITIP), which receives 25 percent of the STIP. The California Transportation Commission (CTC) adopts the ITIP.

Major Regional Projects in the 2026 RTP/SCS

Some of the major projects included in TCAG's 2026 RTP/SCS include:

- State Route 99 Prosperity Avenue to Avenue 200 and Paige Avenue Interchange
- SR 99 Delano to Pixley (under construction)
- Avenue 280 Lovers Lane to Virginia Avenue
- Avenue 280 Brundage to Elberta St
- State Route 198 at Road 148 Interchange

Passenger Rail

In 2014, the California High-Speed Rail Authority (Authority) examined and environmentally cleared a high-speed rail (HSR) station for future construction in the Kings and Tulare Counties (Kings/Tulare) region. The planned HSR station will be located near the intersection of State Routes (SR) 198 and 43. The location is just east of the City of Hanford and about 12.5 miles west of the City of Visalia (California High Speed Rail Authority 2025). Although the station has received environmental clearance and remains a planned component of the statewide HSR system, it has not yet been completed.

The High Speed Rail Authority and TCAG worked together to develop the Cross Valley Corridor Plan, a regional vision identifying how the Kings/Tulare Regional HST Station will serve as a transit hub for the two counties and how the Cross Valley Corridor may act as a connector to surrounding communities and their residents (TCAG n.d.). The HSR station are components of the county's long-term transportation system; however, they are independent of and not part of the proposed 2026 RTP/SCS.

The 2018 Cross Valley Corridor Plan was followed by the Cross Valley Corridor Phase 1 Operations Plan in 2024, which presented a more detailed blueprint for beginning transit service on the corridor (TCAG n.d.). High frequency Cross Valley Express bus service beginning in 2028 and a Bus Rapid Transit system along the Mooney Boulevard (SR 63) corridor will serve as local connectors to the Kings/Tulare regional highspeed train (HST) station and other HSR destinations throughout the state. As the corridor develops and ridership increases, the Cross Valley Express is expected to transition to Cross Valley Corridor commuter rail.

The communities along the Cross Valley Corridor will serve as access points to statewide HSR services for the surrounding localities and their residents, providing convenient connections to regional express trains. These feeder services will initially be introduced to Farmersville, Visalia, Hanford, and City of Tulare and expand eastwards towards Porterville and westwards towards Huron as the demand for high-frequency transit service increases.

While Cross Valley Corridor and fixed route transit services are expected to bring large numbers of people to and from Kings/Tulare Station, the facility is being planned with accessibility to other modes in mind. Design considerations will be made and amenities provided for pedestrians, cyclists, transit riders, and motorists alike to ensure that all members of the community enjoy unhindered access to high-speed trains.

In addition to supporting planning efforts for the HSR system and the Cross Valley Corridor, this effort will serve as a catalyst that will promote further Transit Oriented Development (TOD), encourage revitalization and economic development.

Aviation

Tulare County's airport system can be divided into three components: publicly-owned and operated airports; privately owned airports open to public general aviation use; and private "special use" airfields and airstrips.

The primary publicly-owned and operated airports include Visalia Municipal Airport, Porterville Municipal Airport, Woodlake Airport, and Mefford Field in Tulare. The airports serve a range of aviation needs from private and corporate flights to agricultural operations and air ambulance services. Visalia Municipal Airport, the largest in the county, also offers limited commercial service and serves as a hub for air cargo, flight training, and aircraft maintenance. These airports are

essential for connecting rural communities to larger metropolitan areas and supporting industries such as agriculture, logistics, and tourism. Porterville Airport is currently in the planning stages of expanding its runway to accommodate larger aircraft. The expansion is seen a pivotal step in revitalizing the airport and positioning the City as a hub for aviation activity. Planned airport expansions are components of the county's long-term transportation system; however, they are independent of and not part of the proposed 2026 RTP/SCS.

The two privately owned public use airports are Eckert and Thunderhawk (Exeter). The remaining airstrips that presently exist throughout the County are used for agricultural or other private aviation activities

2.6 Intended Uses of the EIR

To complete the 2026 RTP/SCS process, TCAG will first certify the EIR and then consider adopting the 2026 RTP/SCS. Approval of the proposed 2026 RTP/SCS is at the discretion of TCAG. It should be noted that additional environmental review will have to be conducted by project sponsors, as the lead agencies for the individual projects implementing the proposed 2026 RTP/SCS, prior to project implementation. Depending on the location of the project, future approvals for individual transportation projects identified in the proposed 2026 RTP/SCS would be completed by one or more of the following agencies:

- Tulare County Association of Governments
- Caltrans
- California Public Utilities Commission's Rail Crossings Engineering Section
- Cities of:
  - Dinuba
  - Exeter
  - Farmersville
  - Lindsay
  - Porterville
  - Tulare
  - Visalia
  - Woodlake
- County of Tulare
- Tulare County Regional Transit Agency
- Visalia Transit

Sponsor agencies would use this EIR in preparing project-specific CEQA documents. The relationship of this EIR to future environmental review of individual transportation projects is further discussed in Chapter 1, *Introduction.*

Individual projects may also require permits from the following agencies, which may use the EIR in their environmental reviews and consultations:

- California Department of Fish and Wildlife
- Central Valley Regional Water Quality Control Board
- San Joaquin Valley Air Pollution Control District

2.7 Relationship with Other Plans and Programs

The proposed 2026 RTP/SCS provides a sound basis for the allocation of state and federal transportation funds for transportation projects within Tulare County over the subsequent 20 years. The proposed 2026 RTP/SCS follows guidelines established by the State of California Transportation Commission (CTC 2024) to:

- Describe the transportation issues and needs facing the county;
- Identify goals and policies for how TCAG will meet those needs;
- Identify the amount of money that will be available for identified projects; and
- Include a list of prioritized transportation projects to serve the county's long-term needs consistent with the funds allocated while considering environmental impacts and planning for future land use.

The proposed 2026 RTP/SCS has been evaluated for consistency with the land use goals, policies and objectives currently being implemented by municipal and county planning agencies within the region. The proposed 2026 RTP/SCS is based on the most recent planning assumptions. A consistency discussion of the proposed 2026 RTP/SCS and other land use plans is provided in Section 4.11, *Land Use and Planning*. The proposed 2026 RTP/SCS would be implemented with several other existing TCAG programs designed to reduce adverse impacts to transportation resources, air quality, GHG emissions, and energy.

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3 Environmental Setting

This section provides a general overview of the environmental setting of the TCAG region and the regional transportation system. More detailed descriptions of the environmental setting for each environmental issue area can be found in the topic-specific subchapters in Chapter 4, *Environmental Impact Analysis*.

3.1 Regional Setting

The TCAG region is a single-county Metropolitan Planning Organization comprised of Tulare County. Generally, the western portion of Tulare County is located within California's Southern San Joaquin Valley and the eastern portion is located within the Sierra Nevada mountains. Encompassing 4,839 square miles, the County is situated along State Route (SR) 99 approximately 175 miles north of Los Angeles. The highest point is the summit of Mount Whitney on the eastern edge of the County, at 14,505 feet. Tulare County is the seventh largest (in terms of area) county in California and is 93 miles in length from the northwestern boundary to the southeastern boundary. There are eight incorporated cities within Tulare County: Dinuba, Exeter, Farmersville, Lindsay, Porterville, Tulare, Visalia, and Woodlake. Tulare County is comprised of two separate regions based on significant variations in terrain, climate, geographic and environmental factors. The Valley Region includes the southern San Joaquin Valley below an elevation of 1,000 feet mean sea level and the Mountain Region includes easternmost and central portion of the County above the 1,000-foot mean sea level in the Sierra Nevada Mountains.

3.2 Regional Transportation System

3.2.1 Highways and Roadways

There are no Interstate or US Highways in Tulare County, however there are 10 State Routes which include: State Routes 43, 63, 65, 99, 137, 190, 198, 201, 216 and 245. State Route 43 is a state highway in the southwest edge of the County, connecting Bakersfield to Selma, intersected by SR 198, a state highway with portions of expressway and freeway which runs east to west, connecting the California Central Coast to the Central Valley, from US 101 to the Sequoia National Park. SR 198 is intersected by SR 99, also known as the Golden State Highway, connecting most major Central Valley cities from Sacramento to the Grapevine in Los Angeles County, through the Tejon Pass in the Tehachapi Mountains and Los Padres National Forest. SR 99 connects to SR 201, SR 190, and SR 137, which run east to west, connecting the cities of Dinuba, Tulare, Lindsay, and Porterville to the State Highway system. SR 190 contains a roundabout and multiple planned roundabouts as well as portions of freeway, running east/west from SR 99 to the Sequoia National Forest. SR 65 is a highway with portions of freeway in Porterville, connecting the eastern cities of Porterville, Lindsay, and Exeter to Visalia and Tulare, with SR 63 connecting the urbanized area of Visalia and Tulare. SR 63 is also known as Mooney Boulevard, with portions from 4-6 lanes, high volume, and high frequency transit in Visalia. SR 245 and SR 216 are state highways east of Visalia connecting to the city of Woodlake, with SR 245 running north/south, near to the entrance of Kings Canyon National Park.

Major local roads in the County include Road 80, a north-south roadway that connects SR 198 and SR 180 through Visalia and Dinuba, and Avenue 280, an east-west roadway that connects SR 99 and SR 65 through Visalia, Farmersville, and Exeter.

3.2.2 Transit Services

Tulare County transit services include local and intercity fixed routes, dial-a-ride paratransit, and demand response microtransit. Fixed route services are offered by Porterville Transit, RIDE Tulare County, and Visalia Transit. Cities with Transit Centers include Dinuba, Farmersville, Porterville, Tulare, Visalia, and Woodlake. Other carriers within Tulare County include Greyhound, FlixBus, and Kings Area Regional Transit (KART). Ridesharing services include Uber, Lyft, and others are also available.

Statewide rail connectivity is expected to improve in the future with completion the California High Speed Rail (CA HSR) project, which will provide frequent service between Bakersfield and Merced. Connectivity to the California High Speed Rail could be enhanced from the Cross Valley Corridor project, which is a long-term plan to provide high frequency, eastbound-westbound commuter service across the valley, connecting to CA HSR at the future Kings/Tulare Station (TCAG 2018). Cross Valley Corridor service will begin in the form of Cross Valley Express bus service by the early 2030s. The service is expected to transition to light rail operations as it matures and the regional travel demand grows. In preparation of the eventual transition to passenger rail, TCAG assisted the City of Porterville in purchasing approximately 8.2 miles of rail right-of-way which had been abandoned by the San Joaquin Valley Railroad.

Major transit operations in Tulare County and individual cities are discussed below.

Tulare County

Tulare County Regional Transit Agency (TCRTA), which operates TIME (Tulare Intermodal Express), DART (Dinuba Area Rural Transit), and TCAT (Tulare County Area Transit), provides rural commuter service connecting unincorporated communities to cities within the county, as well as the cities of Delano and Reedley in neighboring Kern and Fresno counties. RIDE Tulare County operates ten intercity and long-distance fixed routes, with connections to Porterville Transit, Visalia Transit, KART, Delano Area Rapid Transit (DART), Kern Transit, and Fresno County Rural Transit Agency (FCRTA). TCRTA also provides complementary ADA paratransit service throughout its service area and operates five on-demand microtransit zones, most of which offer access to the nearest city from outlying areas. ADA-certified riders may request route deviations of up to 0.75 miles on rural routes to accommodate mobility needs.

City of Dinuba

RIDE Tulare County operates four local fixed routes within the City of Dinuba. The Dinuba Connection offers regular weekday service to and from Reedley, where connections are available to Fresno County Regional Transit Agency (FCRTA) routes.

City of Porterville

The Porterville Transit system began operating a demand response service in 1981 and currently offers four fixed routes, complementary paratransit, and on-demand microtransit. The system serves roughly 70,000 residents of Porterville and operates seven days per week. Porterville Transit

introduced electronic, contactless payments for its transit fares in 2026 to offer greater convenience and flexibility to its riders.

City of Tulare

RIDE Tulare County operates six local fixed routes within the City of Tulare and an express route between downtown Tulare and the City of Visalia. Complementary paratransit is available within the city and in adjoining unincorporated areas such as Matheny Tract and East Tulare Villa. On-demand microtransit is available within the city of Tulare for intracity trips and trips to Visalia. On-demand zones also connect the City of Tulare with smaller unincorporated communities in the southern portion of Tulare County. A bus rapid transit route is currently being planned that will connect the City of Tulare with the City of Visalia via Mooney Boulevard.

City of Visalia

Visalia Transit operates fixed routes, paratransit, and on demand microtransit services. Visalia Transit was created in 1981 and today serves a population of over 145,000 people. Visalia Transit operates seven days a week, with exceptions for major holidays. Its fixed route system consists of 13 routes, including routes serving the nearby cities of Exeter and Farmersville. Visalia Transit provides the most frequent transit service in Tulare County with its Route 1, which serves downtown Visalia and the Mooney Boulevard commercial corridor. Route 1 runs on 15-minute headways on weekdays and every 20 minutes on Saturdays and Sundays. Intercity V-Line service connects Visalia to Fresno, with direct access to California State University at Fresno and Fresno Yosemite International Airport. Visalia Transit also offers seasonal Sequoia Shuttle service to Sequoia National Park, from May to September, and has partnered with the National Park Service (NPS) to operate a complementary shuttle service within the park itself. Visalia Transit vehicles feature free WiFi and automatic vehicle location (AVL), which enables riders to track the whereabouts and estimated arrival time of buses.

City of Woodlake

RIDE Tulare County serves the City of Woodlake with its C30 Northeast County route, which operates seven days a week. Paratransit and on-demand microtransit are also available, with coverage extending into nearby unincorporated communities.

Aviation/Rail

Tulare County's airports primarily serve hobbyists, pilots who own aircraft, the agricultural industry, police, and medical services. Visalia Municipal Airport, Tulare County's largest airport, recently stopped offering commercial flights. Together, the airports provide another mobility option for the County's residents and businesses. The County has seven public-use airports. Locations include Mefford Field, Sequoia, Porterville, Visalia Municipal, Eckert, Exeter/Thunderhawk, and Woodlake), and sixteen personal-use or special-use airports.

Amtrak, California's primary interregional passenger rail service provider, does not directly serve Tulare County with a rail line. Previous Amtrak Thruway bus service between Visalia and Hanford was discontinued on May 31, 2026. In its place, the San Joaquins Joint Powers Authority now promotes KART as the primary connection between Visalia and Hanford Station. KART's Route K15 provides service from Visalia to Hanford, with anticipated reciprocal service by Visalia Transit in the near future. At Hanford Station, Amtrak's Gold Runner route provides multiple daily trips, connecting County residents to destinations including the San Francisco Bay Area and Sacramento

to the north, and Bakersfield to the south. Amtrak also provides Thruway bus service and coordinated connections to other major cities throughout the state.

3.2.3 Active Transportation/Complete Streets

Active transportation includes human-powered modes of transportation, including but not limited to walking, bicycling, and the use of strollers and other mobility devices. Complete streets, or streets that support a variety of transportation modes including walking and bicycling, facilitate active transportation. The Cities of Farmersville and Visalia in the TCAG region have adopted an active transportation plan, and TCAG adopted its Regional Active Transportation Plan for the Tulare County Region in February 2026 (TCAG 2025). The City of Exeter adopted its plan in 2024, while the cities of Porterville and Tulare are currently in the process of developing their own active transportation plans. These plans identify areas and roadways in their jurisdictions which could be improved to better support active transportation with the implementation of complete streets.

Also included in the RTP by reference is the Tulare County Regional Active Transportation Plan, known more informally as Walk ‘n Bike Tulare County (TCAG 2025). It was prepared in response to the growing interest among residents in active transportation and its contribution to a more diverse transportation system for the region. Put simply, the objective of the plan is to make active transportation in the region safer and easier. Within this objective, the plan has two main purposes: (1) to provide a foundation for the active transportation component of the RTP and (2) to help position the high-priority projects to compete well for competitive funding.

4 Environmental Impact Analysis

Introduction

This section discusses the environmental effects of the proposed Project for the specific environmental topic areas that were identified through the scoping process as having the potential to experience significant effects. A "significant effect" as defined by the *CEQA Guidelines* Section 15382 is:

> [A] substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.

The assessment of each environmental topic area begins with a discussion of the environmental setting related to the issue, which is followed by the impact analysis. In the impact analysis, the first subsection identifies the methodologies used and the "significance thresholds," which are those criteria adopted by TCAG, universally recognized, or developed specifically for this analysis to determine whether potential effects are significant. Significance thresholds are generally based on *CEQA Guidelines* Appendix G, unless otherwise indicated. The next subsection describes each impact of the proposed project, mitigation measures for significant impacts, and the level of significance after mitigation. Each effect under consideration for an environmental topic area is separately listed in bold text with the discussion of the effect and its significance. Each bolded impact statement also contains a statement of the significance determination for the environmental impact as follows:

- **Significant and Unavoidable**. An impact that cannot be reduced to below the threshold level with incorporation of feasible mitigation measures.
- **Less than Significant with Mitigation Incorporated**. An impact that is significant, but can be reduced to below the threshold level with incorporation of feasible mitigation measures.
- **Less than Significant**. An impact that may be adverse but does not exceed the threshold levels and does not require mitigation measures.
- **No Impact.** The proposed project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

Following each environmental impact discussion is a list of mitigation measures and the residual effects or level of significance remaining after implementation of the measure(s). In cases where the mitigation measure for an impact could have an environmental impact in another environmental topic area, this impact is discussed.

The impact analysis concludes with a discussion of cumulative effects, which are defined and discussed in detail below.

Chapter 0, *Executive Summary*, of this EIR, provides an overview of the project and a summary of the impacts, mitigation measures, and level of significance after implementation of mitigation measures that apply to the proposed project.

Mitigation Approach, EIR Baseline, Approach for Direct and Cumulative Analyses

Mitigation Approach

This EIR includes mitigation measures to reduce significant impacts and identifies agencies for implementation of those mitigation measures. TCAG has Lead Agency status and therefore has authority to directly enforce mitigation measures for projects it has discretionary authority over. However, TCAG does not have direct authority to require mitigation measures that would be implemented by other agencies (e.g., Caltrans, cities, transit agencies, etc.). These agencies are "responsible agencies" for this Program EIR but will be lead agencies for transportation and land use development projects implementing the 2026 RTP/SCS. While TCAG cannot mandate that these other agencies implement the mitigation measures, ongoing interagency consultation during project-specific environmental review processes would ensure that mitigation contained herein is considered and implemented where applicable. It is the responsibility of the lead agency implementing specific 2026 RTP/SCS projects to conduct environmental review consistent with CEQA, and where applicable, incorporate or modify mitigation measures provided herein and developed specifically for that project. Project-specific environmental documents may adjust the mitigation measures identified in this EIR as necessary to respond to site-specific conditions.

EIR Baseline

Under CEQA, the impacts of a proposed project must be evaluated by comparing expected environmental conditions after project implementation to conditions at a point in time referred to as the baseline. *CEQA Guidelines* Section 15125 states that an EIR should describe physical environmental conditions of the project as they exist at the time the Notice of Preparation (NOP) is published, or if no NOP is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant.

As the *CEQA Guidelines* Section 15125 states, ordinarily the appropriate baseline will be the actual environmental conditions existing at the time of CEQA analysis, typically when the NOP is published. However, the *CEQA Guidelines* also contemplate times when a deviation from the use of the NOP date to establish the baseline is appropriate to present an accurate description of the expected environmental impacts of a proposed project. This EIR evaluates potential impacts against existing conditions at the time of the release of the NOP (May 2025), where information is available, for all environmental topic areas.

For air quality, greenhouse gas emissions, noise, and transportation, for informational purposes this EIR also compares potential proposed project impacts against forecast future no project conditions, controlling for impacts caused by demographic and economic factors that would occur whether or not the RTP/SCS is adopted. The RTP/SCS is a long-term, approximately 25 year plan that includes transportation projects and land use patterns to the year 2049. Population growth, urbanization, and volume of average daily traffic generated in the TCAG region will increase by 2049, with or without implementation of the RTP/SCS, as a result of demographic and economic factors independent of policy and land use decisions by TCAG and its member agencies.

Interim Timeframes

The RTP/SCS is a long-term plan that includes transportation projects and land use patterns to the year 2049. The year 2049 serves as the horizon year for the proposed 2026 RTP/SCS and was selected in coordination with other Valley MPOs to align with air quality conformity requirements and related planning objectives. While the proposed 2026 RTP/SCS would be implemented gradually over the planning period, this EIR does not analyze interim time frames because the four-year update cycle of the RTP/SCS prepared by TCAG already requires short-term adjustments to the Plan. The one exception to this approach is in Section 4.8, *Greenhouse Gas Emissions/Climate Change*, which discusses years 2035 and 2049, as well as a comparative baseline of 1990 and 2005, to satisfy statutory requirements and address state goals related to GHG emissions, such as SB 375 (Health & Safety Code, Section 38551(b)). The cumulative impact analysis area for GHG emissions consists of the TCAG region, adjoining counties, and the entire State of California. A summary of the scenarios considered in the GHG analysis is provided in Section 4.8.2 in Section 4.8, *Greenhouse Gas Emissions/Climate Change.* As previously noted, TCAG has modeled GHG emissions for 2020 for illustrative purposes, though no aspect of the proposed 2026 RTP/SCS can influence the region's prior achievement of target year 2020 GHG emissions.

Approach for Direct Impact Analysis

The programmatic nature of the proposed 2026 RTP/SCS necessitates a general approach to the evaluation of existing conditions and impacts associated with the proposed Project. As a program document, this EIR presents a regionwide assessment of the impacts of the proposed 2026 RTP/SCS. These impacts are examined for both transportation network improvements and the regional growth and land use changes forecasted. Because the EIR is a long-term document intended to guide actions over 20 years into the future, program-level and qualitative evaluation is involved. Regional quantitative analyses are provided where applicable with available information. During future stages in planning and implementation of specific projects envisioned by the proposed 2026 RTP/SCS, including land development resulting from regional growth and transportation improvements identified in the proposed 2026 RTP/SCS, project-specific CEQA documents would be prepared by the appropriate project implementation agency.

Approach for Cumulative Analysis

CEQA defines cumulative impacts as "two or more individual effects which, when considered together, are considerable, or which can compound or increase other environmental impacts." Section 15130 of the *CEQA Guidelines* requires that an EIR evaluate environmental impacts that are individually limited but cumulatively considerable. These impacts can result from the proposed Project alone, or together with other projects. The *CEQA Guidelines* state: "The cumulative impact from several projects is the change in the environment which results from the incremental impact of the Project when added to other closely related past, present and reasonably foreseeable probable future projects" (*CEQA Guidelines*, Section 15355). Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

CEQA Guidelines Section 15130 requires a discussion of the cumulative impacts of a project when the project's incremental contribution to a significant cumulative effect is "cumulatively considerable." This means that the project's incremental effects are considerable when viewed in connection with the effects of past, current, and probable future projects. CEQA does not require an analysis of incremental effects that are not cumulatively considerable nor is there a requirement to discuss impacts which do not result in part from the project evaluated in the EIR.

Cumulative Impact Methodology

The proposed Project integrates transportation investments with land use strategies for an entire region of the state that shares, or is connected by, common economic, social, and environmental characteristics. This Program EIR contains detailed analysis of regional impacts, which are differentiated from localized impacts that may occur at the city level, that is essentially already a cumulative impact analysis.

When evaluating cumulative impacts, CEQA allows the use of either a list of past, present, and probable future projects, including projects outside the control of the Lead Agency, or a summary of projections in an adopted planning document, or a combination of the two approaches. The cumulative analysis presented below uses a projections-based approach, taking into account future regional growth and development in the surrounding counties, combined with the regional growth and development in the TCAG region [see *CEQA Guidelines* Section 15130(B)(1)]. Under the projections-based approach, land use and growth projections for the region, which are the subject of analysis throughout this Program EIR, are combined with the growth and VMT projections for the adjoining counties, Inyo, Kern, and Kings. The cumulative impact analysis in this Program EIR considers the impacts of planned growth and increased VMT in these adjoining counties. While Inyo County adjoins to the east, it is separated by the crest of the Sierra Nevada with no direct road connection.

The "cumulative impact analysis area" thus includes the TCAG region and the above-referenced adjoining counties. As shown in Table 4-1, the population for the cumulative impact analysis area is projected to grow by approximately 150,123 people by 2050 and this growth is considered in the cumulative impact analyses included in this EIR.

Table 4-1 Population, Housing Units and Employment Projections of Cumulative Impact Analysis Area, 2025-2050

	Population		Housing Units		Jobs	
Adjoining County	**2025**	**2050**	**2025**	**2050**	**2025**	**2050**
Fresno	1,026,859	1,026,477	331,200	399,000	443,300	512,100
Inyo	18,727	17,757	8,100	8,400	7,830	7,880
Kern	919,820	992,011	288,800	345,200	363,900	425,700
Kings	155,498	180,983	45,700	56,400	52,400	63,000
Tulare	487,209	541,008	158,315	205,556	196,590	225,660
Total	**2,608,113**	**2,758,236**	**832,115**	**1,014,556**	**1,064,020**	**1,234,340**

[1] Department of Transportation 2025, TCAG 2025

Based on the numbers shown in Table 4-1, in the cumulative impact analysis area the TCAG region comprises approximately 18.7 percent of the existing population, 19 percent of the existing number of households and 18.5 percent of the existing number of jobs. By 2050, this proportion is expected to remain relatively similar (19.6 percent of the population, 20.3 percent of housing units, and 18.3 percent of jobs). Thus, under both current and forecasted future conditions, the TCAG region represents a relatively smaller portion of the growth in the cumulative analysis impact area.

Fresno County

Fresno County encompasses approximately 3.84 million acres (about 6,000 square miles). The majority of the county is unincorporated and designated for agriculture, grazing, open space, and resource management uses, with irrigated agriculture predominating on the valley floor and rangeland in the western foothills. Incorporated cities occupy a small proportion of the county's land area and include Fresno, Clovis, Selma, Kingsburg, Reedley, Sanger, Coalinga, Huron, Firebaugh, Mendota, Orange Cove, Parlier, Kerman, Fowler, and San Joaquin. Numerous unincorporated communities are distributed throughout the county.

Fresno County maintains approximately 3,446 miles of county roads, while Caltrans maintains approximately 713 miles of state highways within the county. The roadway system serves a mix of urban, suburban, and rural agricultural areas and supports local, regional, and interregional travel.

The state highway system in Fresno County includes Interstate 5 (I-5) along the western county boundary and State Routes (SR) 41, 43, 99, 145, 168, 180, and 198. SR 99 functions as the primary north–south transportation corridor through the county, providing regional commuter access and serving as a major freight route through the cities of Fresno, Clovis, Selma, Kingsburg, and Reedley. SR 41 provides north–south access between Fresno and Madera County and serves as a principal route to Yosemite National Park. SR 180 provides east–west connectivity across the county, linking the west side agricultural areas with the Fresno metropolitan area and Sequoia and Kings Canyon National Parks. I-5 primarily serves interregional traffic and goods movement along the western edge of the county.

Public transit services in Fresno County are provided by multiple agencies. Fresno Area Express provides fixed-route bus service and ADA paratransit within the City of Fresno, while Clovis Transit serves the City of Clovis. Transit service in rural incorporated cities and unincorporated areas is provided by the Fresno County Rural Transit Agency, which operates fixed-route and demand-responsive services connecting rural communities to urban centers and regional transit hubs.

Passenger rail service is provided by Amtrak, which operates along the SR 99 corridor with stops in the City of Fresno and other Central Valley cities. Freight rail service within the county is provided primarily by Union Pacific Railroad and BNSF Railway, supporting agricultural, industrial, and intermodal goods movement.

Bicycle and pedestrian facilities are concentrated within incorporated cities, particularly Fresno and Clovis, where Class I shared-use paths, Class II bike lanes, and sidewalks are generally provided along arterial and collector roadways. In unincorporated areas, bicycle and pedestrian facilities are limited and typically consist of roadway shoulders and localized sidewalks within community centers, with discontinuous facilities common in rural areas.

Fresno County contains multiple public-use airports. Fresno Yosemite International Airport serves as the region's primary commercial airport. Additional public airports include Fresno-Chandler Executive Airport, Reedley Municipal Airport, Firebaugh Airport, Coalinga Municipal Airport, Selma Airport, Sierra Sky Park Airport, and William Robert Johnston Municipal Airport, supporting general aviation and agricultural operations.

Inyo County

The county encompasses approximately 10,200 square miles, making it the second largest county in California, with a roadway network characterized by long rural segments and limited parallel routes. Inyo County is predominantly composed of publicly owned land, with approximately 98 percent of the county under federal, state, or other public agency ownership, including lands managed by the Bureau of Land Management, U.S. Forest Service, National Park Service, State of California, and the Los Angeles Department of Water and Power. Private lands are largely confined to valley floors and established communities. Land uses within the county are dominated by open space, resource conservation, recreation, and limited agriculture, with development primarily concentrated within existing communities along the U.S. Route 395 (US 395) corridor. The City of Bishop is the primary population center, containing more than half of the county's residents, while the remaining population is distributed among small unincorporated communities.

The state highway system in Inyo County is primarily oriented north–south and east–west to accommodate interregional travel and access to rural communities. US 395 is the principal transportation corridor, traversing the county from north to south along the eastern Sierra Nevada and serving as the primary access route to communities including Bishop, Big Pine, Independence, Lone Pine, and Olancha. SR 168 provides east–west connectivity between Bishop, the White Mountains, and western Nevada, while also providing access to recreational areas. SR 190 serves the southern portion of the county, providing east–west access to Death Valley National Park and connecting to U.S. Route 95 in Nevada. These highways serve local travel needs as well as regional tourism, interregional goods movement, and recreational travel.

Local roadways in Inyo County primarily provide access to rural communities, public lands, and recreational destinations. Due to the county's geographic scale, mountainous terrain, and constrained private land base, the roadway system is limited in redundancy and is sensitive to weather events, natural hazards, and seasonal travel demand.

Public transit service in Inyo County is provided by Eastern Sierra Transit Authority, which operates fixed-route and demand-response services along the US 395 corridor and between Inyo County communities and regional destinations in Mono County, Kern County, and the City of Los Angeles. Transit service is generally limited in frequency and coverage due to low population density and long travel distances between communities.

Regional passenger rail access is available outside the county via Amtrak services in the San Joaquin Valley and southern California, accessed indirectly by highway travel.

Bicycle and pedestrian facilities in Inyo County are generally limited and localized. Sidewalks, marked bike routes, and shared-use paths are primarily concentrated within developed community centers, particularly in the City of Bishop, which is the county's only incorporated city. In rural and unincorporated areas, bicycle and pedestrian travel typically occurs along roadway shoulders, with limited formal infrastructure.

Inyo County contains several public-use airports that support general aviation and emergency services. Eastern Sierra Regional Airport, located near Bishop, provides limited commercial air service and general aviation functions. Additional public airports include Independence Airport, Lone Pine Airport, Benton Field, and Olancha Airport, which primarily support general aviation, emergency response, and recreational access.

Kern County

Kern County encompasses approximately 8,160 square miles, making it one of the largest counties in California. Land uses and transportation infrastructure reflect a combination of urban development, intensive agriculture, energy production, and extensive rural and desert areas.

Kern County's land use pattern reflects a diverse and resource-intensive economy. The county includes over 2.3 million acres of agricultural land, making it one of the most productive agricultural counties in the United States, with extensive irrigated cropland concentrated in the San Joaquin Valley portion of the county. Major land uses also include petroleum and natural gas extraction, renewable energy production, military installations, open space, and desert lands. Development is concentrated within incorporated cities, while unincorporated areas remain predominantly agricultural, industrial, or open space in character.

The roadway system in Kern County includes a network of state highways, interstate highways, and county-maintained roads serving urban, rural, and remote desert areas. I-5 traverses the western portion of the county and serves as a major north–south interregional goods movement corridor. SR 99 runs north–south through the eastern San Joaquin Valley portion of the county and is the primary regional transportation corridor serving the cities of Bakersfield, Delano, Wasco, Shafter, McFarland, and Arvin. Additional major highways include SR 58, which provides east–west connectivity between Bakersfield, Tehachapi, and the Mojave Desert; SR 178, which links Bakersfield to Lake Isabella and the eastern Sierra Nevada; SR 119 and SR 43, which serve westside agricultural areas; and SR 14, which connects the southeastern portion of the county to Los Angeles County and the Antelope Valley. Local roadways are maintained by Kern County Public Works and provide access to incorporated cities, agricultural lands, energy production facilities, and rural communities.

Public transit service in Kern County is provided by multiple agencies. Golden Empire Transit District operates fixed-route bus service and ADA paratransit within the Bakersfield metropolitan area. Kern Transit provides countywide rural transit services, including fixed-route and demand-response service linking unincorporated communities and smaller cities to Bakersfield and regional destinations. Transit service in outlying desert and mountain communities is limited due to long distances and low population density.

Passenger rail service in Kern County is provided by Amtrak, which operates along the SR 99 corridor with stations in Bakersfield and other Central Valley cities. Bakersfield also serves as a southern terminus for Amtrak bus connections to Southern California. Freight rail service is provided by Union Pacific Railroad and BNSF Railway, supporting regional and interregional goods movement, particularly agricultural and industrial freight.

Bicycle and pedestrian facilities in Kern County are primarily concentrated within incorporated urban areas, particularly the City of Bakersfield, where sidewalks, on-street bike lanes, and shared-use paths are more prevalent. In unincorporated areas and rural communities, pedestrian and bicycle infrastructure is generally limited and often consists of roadway shoulders and discontinuous sidewalks.

Kern County contains multiple public-use airports supporting commercial, general aviation, military, and aerospace activities. Meadows Field Airport (Bakersfield) is the county's primary commercial airport, providing domestic passenger service and air cargo operations. Other public airports include Mojave Air and Space Port, Tehachapi Municipal Airport, Shafter-Minter Field, Inyokern Airport, California City Municipal Airport, and several additional general aviation facilities supporting agriculture, emergency response, and military operations.

Kings County

Kings County encompasses approximately 1,390 square miles in the southern San Joaquin Valley and is characterized by intensive agricultural land use with development concentrated in a limited number of incorporated cities and unincorporated communities.

Land use in Kings County is dominated by agriculture, with extensive irrigated cropland supporting some of the most productive agricultural operations in California. Urban development is concentrated within the incorporated cities of Hanford, Lemoore, Corcoran, and Avenal, while the majority of unincorporated land remains in agricultural or open space uses. The county's planning framework emphasizes the preservation of farmland, efficient agricultural production, and the concentration of growth within existing communities.

The regional roadway system includes state highways and county-maintained roads that support agricultural operations, commuter travel, and interregional movement. SR 99 serves as the primary north–south transportation corridor along the eastern edge of the county, providing regional connectivity to Fresno County to the north and Tulare County to the south. SR 198 is the principal east–west corridor, connecting Kings County with Fresno County, the City of Hanford, Visalia in Tulare County, and regional destinations beyond. Additional state highways include SR 43, which serves westside agricultural areas and the City of Corcoran, and SR 41, which provides connectivity to Fresno County and Kettleman City.

Local roadways maintained by Kings County provide access to agricultural lands, rural communities, and military facilities, including Naval Air Station Lemoore, which is a major regional employment center and traffic generator.

Public transit service in Kings County is provided primarily by Kings Area Regional Transit, which operates fixed-route and demand-response services within and between the cities of Hanford, Lemoore, Corcoran, Avenal, and surrounding unincorporated areas. Kings Area Regional Transit also provides intercounty connections to Fresno and Visalia. Corcoran Area Transit provides local demand-response service within the City of Corcoran. Transit services are overseen regionally by the Kings County Association of Governments.

Passenger rail service in Kings County is provided by Amtrak, which operates along the SR 99 corridor with service near the eastern portion of the county. Kings County is also planned to be served by the California High-Speed Rail system at the future Kings/Tulare High Speed Rail Station near Hanford, which is expected to function as a major regional rail and multimodal hub and is currently under development.

Bicycle and pedestrian facilities in Kings County are generally concentrated within incorporated cities, where sidewalks and designated bicycle routes are provided along arterial and collector streets. In unincorporated and agricultural areas, pedestrian and bicycle infrastructure is limited and often consists of roadway shoulders or discontinuous facilities, reflecting the rural character of much of the county.

Kings County includes several public-use aviation facilities. Naval Air Station Lemoore is a major military aviation installation with regional land use and transportation implications. Hanford Municipal Airport and Avenal Airport support general aviation, emergency services, and agricultural operations.

The cumulative impact area for air quality differs from the above as the TCAG region is located within the San Joaquin Valley Air Basin (SJVAB), which includes San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and western Kern County counties. The SJVAB is approximately 250

miles long and 35 miles in width (on average) and is bordered by the Coast Range Mountains on the west, the Sierra Nevada mountains on the east, and the Tehachapi Mountains to the south.

Cumulative Impact Area for Air Quality

California is divided geographically into 15 air basins for managing the air resources of the state on a regional basis. Areas within each air basin are considered to share the same air masses and, therefore, are expected to have similar ambient air quality. Depending on whether the federal and state standards are met or exceeded, the local air basin is classified as in "attainment" or "non-attainment." Once a nonattainment area has achieved the air quality standards for a particular pollutant, it may be redesignated to an attainment area for that pollutant. SJVAPCD is required to monitor air pollutant levels to assure the standards are met and, if they are not, to develop strategies to meet these standards. Therefore the SJVAB is used as the cumulative impact area for air quality in this EIR.

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4.1 Aesthetics

This section analyzes the impacts of the proposed 2026 RTP/SCS to aesthetics, including the existing visual character of, and scenic views in, the TCAG region.

4.1.1 Setting

Visual Character of the Region

The TCAG region is known as a predominately agricultural region of central California. The terrain varies, with flat agricultural areas in the western portion of the region that gradually transform into the foothills and the Sierra Nevada Mountain range to the east. Many communities are small and rural, surrounded by agricultural uses such as row crops, orchards, and dairies. From several locations on major roads and highways throughout the region, electrical towers and telephone poles are noticeable.

Mature trees, development, utility structures, and other vertical forms are highly visible in the Valley portion of the region because of the flat terrain; however, where such vertical elements are absent, views are expansive. Most new structures are small, usually one story in height, through occasionally two-story structures can be seen. Exceptions can be found in the downtown commercial areas of urban locations and in industrial agricultural complexes. The aesthetic quality of the TCAG region has been affected by various forms of transportation (i.e., highways, freeways, and railroad infrastructure).

The visual character of the TCAG region consists of the following: agricultural land and pastures, mountain views, open space, habitat and protected lands, residential and commercial development, and transportation networks. The transportation networks will be discussed further below in Primary Viewing Corridors.

Agricultural Land and Pasture

Agricultural lands are a dominant visual landscape in the region, with approximately 1,310,768 in 2022 (Tulare County 2022). Agriculture is a prominent economic industry for the region, but unlike most industrial uses, agricultural lands contribute to the scenic value of the region and contrast with urban landscapes. Agriculture provides an open space visual resource, characterized by no form, limited line (e.g., row crops), color, or textural features. The main agricultural uses in the region include row crops, field crops, orchards, and nursery crops. Adding additional character to the visual landscape are agricultural buildings, including barns, processing and packing facilities, storage areas, and farm housing.

Mountain Views

The mountains of the Sierra Nevada are prominent in the views within the eastern portions of the TCAG region. These ranges reach elevations up to approximately 14,505 feet at the highest point, Mt. Whitney, located on the eastern edge of Tulare County. Due to extensive open space and development patterns, some areas of the region's eastern valley offer panoramic views of the surrounding mountain ranges. On good or clear air quality days, areas of the western valley offer panoramic scenic views of the mountain ranges.

Open Space, Habitat, and Protected Lands

The TCAG region is home to substantial open space areas, including national and state parks, and habitat conservation areas. National parks in the County include Sequoia National Park and portions of Sequoia National Forest, Sequoia National Monument, Inyo National Forest, and Kings Canyon National Park. State parks include Colonel Allensworth State Historic Park and Mountain Home Demonstration State Forest. In addition, the Golden Trout Wilderness area, and portions of the Domeland Wilderness and South Sierra Wilderness areas, are public lands within the County's boundaries. Public views of and within these areas vary according to the type of open space, and may include open grasslands, rolling hills, forested areas, and cultural sites.

Residential and Commercial Development

Residential and commercial development within the TCAG region is primarily concentrated within the cities of Visalia, Tulare, and Porterville. Other population centers include Dinuba, Lindsay, Farmersville, Exeter, and smaller cities such as Woodlake. Residential and commercial development in these cities is a mix of older and newer construction and is generally not more than two or three stories tall.

Primary Viewing Corridors

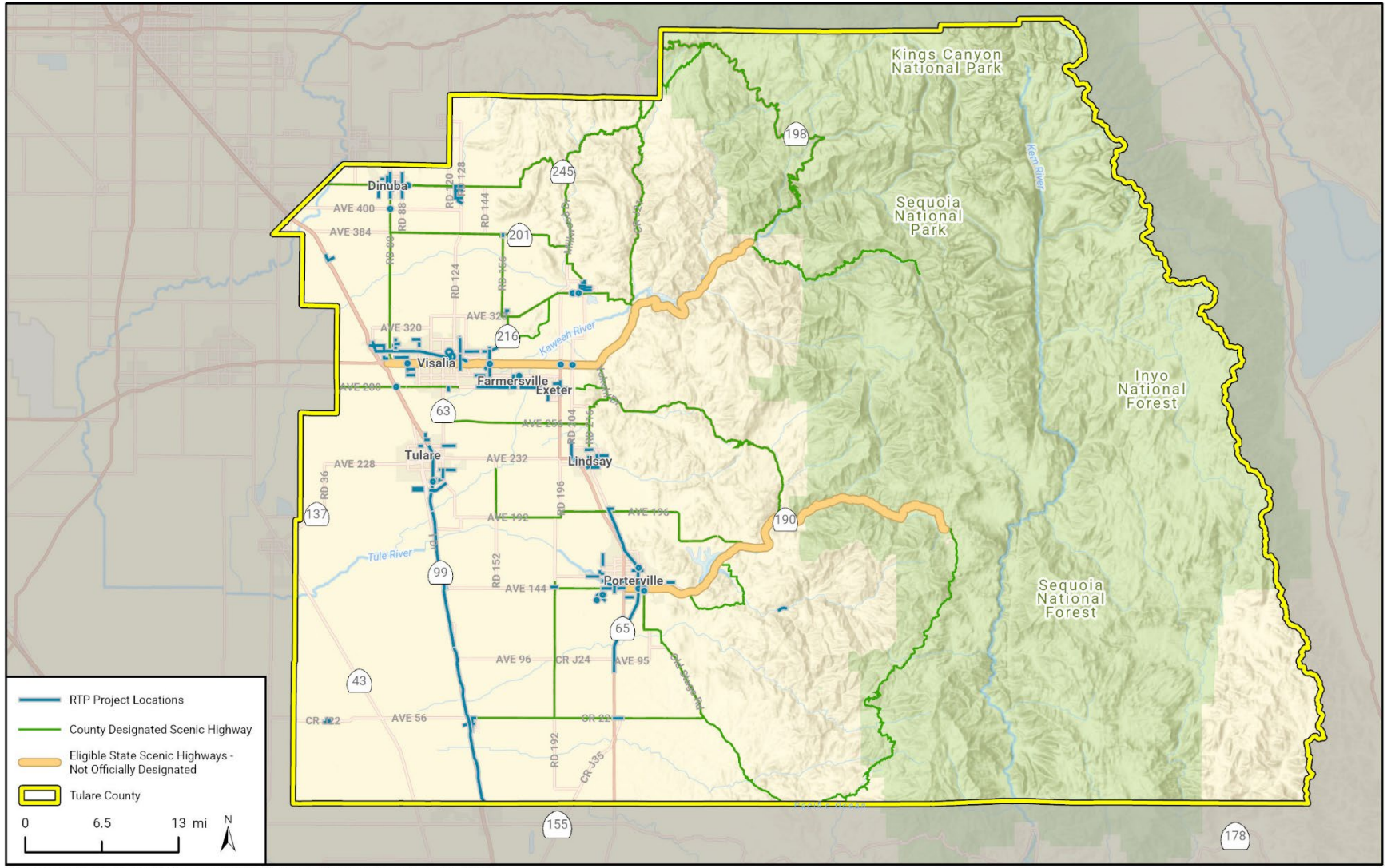
There are no officially designated State Scenic Highways in Tulare County, according to the Caltrans California Scenic Highway Mapping System (Caltrans 2021). However, two highways are designated as eligible for Scenic Highway designation:

- SR 198 (from SR 99 near Goshen to the Sequoia National Park Entrance), and
- SR 190 (from SR 65 to SR 127 near Death Valley Junction)

Figure 4.1-1 depicts the location of these eligible highways. SR 190 follows the Tule River and passes by Lake Success, while SR 198 circumvents Lake Kaweah and the Kaweah River. Both eligible scenic highways travel through agricultural areas of the valley floor to the foothills and the Sierra Nevada Range. In addition to State designations, the Tulare County General Plan identifies the following 16 routes, also shown on Figure 4.1-1, as County-designated scenic highways (Tulare County 2012):

- Road 80 from Dinuba to Visalia
- El Monte Way to the west and east of Dinuba
- Road 168 from El Monte Way to State Route 245
- State Route 201 to the east of Road 80
- State Route 63 from State Route 201 to Visalia
- State Route 245 from Woodlake to State Route 180
- State Route 216 from near Ivanhoe to State Route 198
- Avenue 280 from the Kings County line to Visalia
- Avenue 256 from south of Visalia to Road 216
- Dry Creek Road from State Route 245 to State Route 198
- Rocky Hill Drive east of Exeter
- Avenue 196 north of Porterville
- Avenue 128 south of Porterville

Figure 4.1-1 Highways Eligible for Caltrans California Scenic Highway Designation in the TCAG Region and County-Designated Secnic Highways



Basemap provided by Esri and its licensors © 2026. Map created by Rincon Consultants, Inc., 2026.

- Old Stage Road from Porterville to the south
- Road 192 from State Route 190 to Avenue 56
- Avenue 56 from State Route 99 to Old Stage Road

There are no scenic roads formally designated by the cities within the TCAG region.

4.1.2 Regulatory Setting

a. Federal Laws, Regulations, and Policies

Federal Land Policy and Management Act

The Federal Land Policy and Management Act was established to authorize the Bureau of Land Management to own and manage public lands across the United States. There are several areas of land within Tulare County that are managed by the BLM.

National Trails System Act

The National Trails System Act was established to create a national system of recreation, scenic, and historic trails. This act establishes four classes of trails: national scenic trails, national historic trails, national recreation trails, and side and connecting trails. Under this law, national historic trails recognize original trails or routes of travel of national historic significance. Sequoia and Kings Canyon National Parks are within Tulare County and include the Giant Sequoia National Monument Trails. Additionally portions of the Pacific Crest National Scenic Trail pass through Tulare County.

U.S. Department of Transportation Act, Section 4(f)

Section 4(f) of the Department of Transportation Act (DOT Act) of 1966 (49 United States Code Section 303) was enacted to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites. Section 4(f) requires a comprehensive evaluation of all environmental impacts resulting from federal-aid transportation projects administered by the FHWA, Federal Transit Administration (FTA), and Federal Aviation Administration (FAA) that involve the use, or interference with use, of the following types of land:

- Public park lands;
- Recreation areas;
- Wildlife and waterfowl refuges; and
- Publicly- or privately-owned historic properties of federal, state, or local significance.

This evaluation, called the Section 4(f) statement, must be sufficiently detailed to permit the U.S. Secretary of Transportation to determine that:

- There is no feasible and prudent alternative to the use of such land;
- The program includes all possible planning to minimize harm to any park, recreation area, wildlife and waterfowl refuge, or historic site that would result from the use of such lands; or
- If there is a feasible and prudent alternative, a proposed project using Section 4(f) lands cannot be approved the by Secretary; or if there is no feasible and prudent alternative, the proposed project must include all possible planning to minimize harm to the affected lands.

Detailed inventories of the locations and likely impacts on resources that fall into the Section 4(f) category are required in project level environmental assessments.

In August 2005, Section 4(f) was amended to simplify the process for approval or projects that have only minimal impacts on lands affected by Section 4(f). Under the new provisions, the U.S. Secretary of Transportation may find such a minimal impact if consultation with the State Historic Preservation Officer (SHPO) results in a determination that a transportation project will have no adverse effect on the historic site or that there will be no historic properties affected by the proposed action. In this instance, analysis of avoidance alternatives is not required and the Section 4(f) evaluation process is complete.

b. State Laws, Regulations, and Policies

California Scenic Highway Program

Recognizing the value of scenic areas and view from roads in such areas, the State Legislature established the California Scenic Highway Program in 1963 (Streets and Highways Code Sections 260 et seq). This legislation preserves and protects scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to highways. The goal of the Scenic Highway Program is to preserve and enhance the natural beauty of California. Under this program, a number of State Routes have been designated as eligible for inclusion as scenic highways. Once the local jurisdiction through which the roadway passes have established a corridor protection program and the Departmental Transportation Advisory Committee recommends designation of the roadway, the State may officially designate roadways as scenic highways. Interstate highways, State Routes and county roads may be designated as scenic under the program. The Master Plan of State Highways Eligible for Official Scenic Highway Designation maps designated highway segments, as well as those that are eligible for designation. Changes to the map require an act of the State Legislature.

As noted, a corridor protection program must be adopted by the local governments with land use jurisdiction over the area through which the roadway passes as the first step in moving a road from “eligible” to “designated” status. Each designated corridor is monitored by the State and designation may be revoked if a local government fails to enforce the provisions of the corridor protection program. While there are no restrictions on scenic highway projects, local agencies and Caltrans must coordinate on transportation and development projects and ensure the protection of the corridor’s scenic value to the greatest extent possible, including undergrounding all visible electric distribution and communication utilities within 1,000 feet of a Scenic Highway. In some cases, local governments have their own land use and site planning regulations in place to protect scenic values along a designated corridor. At a minimum, each corridor protection program must include:

- Regulation of land use and density of development;,
- Detailed land and site planning;
- Control of outdoor advertising devices;
- Control of earthmoving and landscaping; and
- Regulation of the design and appearance of structures and equipment.

The Master Plan of State Highways Eligible for Official Scenic Highway Designation requires that proposed realignments and route improvements be evaluated for their impact on the scenic qualities of the corridor.

California Building Energy Efficiency Standards

California Code of Regulations Title 24, Part 6 contains California's Energy Efficiency Standards for Residential and Non-residential Buildings. California Building Energy Efficiency Standards were established by CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy efficiency standards for residential and nonresidential buildings. The 2025 Energy Code contains standards to reduce energy consumption for outdoor lighting application in residential and non-residential developments, which can reduce light and glare from lighting in new development.

Caltrans Adopt-a-Highway Program

To improve and maintain the visual quality of California highways, Caltrans administers the Adopt-a-Highway program, which was established in 1989. The program provides an avenue for individuals, organizations, or businesses to help maintain sections of roadside within California's State Highway System. Groups have the option to participate as volunteers or to hire a maintenance service provider to perform the work on their behalf. Adoptions usually span a two-mile stretch of roadside, and permits are issued for five-year periods. Since 1989, more than 120,000 California residents have kept 15,000 shoulder miles of state roadways clean by engaging in litter removal, tree and flower planting, graffiti removal and vegetation removal.

c. Local Laws, Regulations, and Policies

The general plans and zoning ordinances of the cities within the TCAG region regulate design and the built environment within those communities, while the general plans for the County performs the same function within unincorporated areas. In all cases, the general plans and zoning typically prescribe visual resource policies and, in some cases, require design review of projects. In general, little direction is provided regarding the design of roadways, which are typically subject to adopted Caltrans or local engineering standards related to safety and capacity, rather than aesthetics. Outlined below are the policies for Tulare County and major cities within the TCAG region.

Tulare County

The Tulare County General Plan, Scenic Landscapes Element (Chapter 7) designates 16 County scenic roads and includes visual goals in an effort to preserve the visual characteristics of the County, the following general plan policies include (Tulare County 2012):

> **Policy SL-1:** To protect and feature the beauty of Tulare County's views of working and natural landscapes;
>
> **Policy SL-2:** To protect the scenic views for travelers along the County's roads and highways;
>
> **Policy SL-3:** To provide distinctive communities, rural development patterns and character that is compatible with the best features of Tulare County's traditional community centers and agricultural landscapes; and
>
> **Policy SL-4:** To design infrastructure to visually enhance the built environment while minimizing visual impact on rural and natural places.

The Scenic Landscapes Element of the General Plan also includes policies addressing community design, to ensure that communities and natural landscapes are enhanced, preserved, and protected. Relevant goals and policies to the proposed 2026 RTP/SCS EIR include the following:

Policy SL-3.1 Community Centers and Neighborhoods: The County shall support investments in unincorporated communities and hamlets to improve the image, quality of urban infrastructure, amenities, and visual character by:

a. Encouraging restoration of existing historic buildings and developing new buildings that reflect the local culture and climate;
b. Creating or enhancing overall community design frameworks with a hierarchy of connected block and street patterns, open spaces, town centers, neighborhoods, and civic facilities;
c. Reducing the need for sound-walls and gated neighborhoods by having residential and nonresidential uses interface along streets and open spaces (not adjoining property lines) and locating residential uses on local-serving streets;
d. Planning residential development as interconnected neighborhoods with definable social and physical centers that incorporate parks, schools, and commercial services;
e. Enhancing the comfort and scenic experience of transit riders, cyclists, and pedestrians; and
f. Developing open spaces, streets, and pedestrian facilities that include landscaping and streetscaping that improve the image of the community and make it a more comfortable pedestrian environment.

Policy SL-3.2 Urban Expansion Edges: The County shall design and plan the edges and interface of communities with working and natural landscapes to protect their scenic qualities by:

Maintaining urban separators between cities and communities;

a. Encouraging cities to master plan mixed-density neighborhoods at their edges, locating compatible lower density uses adjacent to working and natural landscapes; and
b. Protecting important natural, cultural, and scenic resources located within areas that may be urbanized in the future.

Policy SL-3.4 Planned Communities: If planned communities are allowed, the County shall require that they are designed to minimize visual impact on scenic working and natural landscapes by:

Avoiding development along ridgelines and other highly visible locations;

a. Siting development in a manner that reduces the visibility of new development;
b. Mitigating light pollution on night sky conditions;
c. Utilizing architectural and site planning concepts that appropriately reflect local climate and site conditions; and
d. Integrating cultural, architectural, and historic resources into their plans.

Policy ERM-5.8 Watercourse Development: The County, in approving recreational facilities along major watercourses, shall require a buffer of at least 100 feet from the high-water line edge/bank and screening vegetation as necessary to address land use compatibility issues. The establishment of a buffer may not be required when mitigated or may not apply to industrial uses that do not impact adjoining uses identified herein.

City of Porterville

Porterville's General Plan Land Use Element and Circulation Element contain policies and implementation actions that are used to compliment the City's Open Space & Conservation Action

Plan. The Land Use Element fosters a compact development pattern with strong urban "edges" in order to protect adjacent agricultural lands, the Tule River Parkway and hillsides, and contribute to the sense of place for the community. While the expanded and interconnected trail and circulation network in the Circulation Element links Porterville's residents directly to these resources. Some guiding policies related to regulating design and community character include LU-G-1 which promotes a sustainable, balanced land use pattern that responds to existing needs and future needs of the City and LU-G-4 which requires the need to provide transitions between types and intensities of land use using high-quality urban design and greenway buffers (Porterville 2008). Additionally, to conserve the existing open space and unique landscape features and protect views, the City has a Hillside Zone Overlay District which details design and planning standards for the foothills area (Porterville 2008).

City of Tulare

Tulare's General Plan sets out a hierarchy of goals, policies, and implementation programs to guide future development in the city, encouraging infill development and providing guidance for the city's orderly expansion in a manner that is economically sustainable. Several General Plan Land Use Element policies are related to preserving the community character and design as no officially designated scenic resources are within the City. Some policies include: LU-P13.1 which would reinforce the city's unique character, scale, and identity through urban design programs, including principles and guidelines, LU-P13.12 this policy would enhance key gateways (e.g., city limit entries on Highways 99/137) and major thoroughfares using street trees, welcome signs, decorative lighting, archways, and other streetscape design techniques and LU-P13.14 this policy would preserve the City's scenic features and view corridors to the mountains (Tulare 2014).

City of Visalia

Visalia adopted its Scenic Highways Element in February 1976, in which Highway 198 is identified as a scenic resource. The City of Visalia's Scenic Landscapes Element includes policies to protect views of working and natural landscapes; protect views for travelers along the County's roads and highways; plan the edges of communities to protect the scenic qualities of natural landscapes; and design infrastructure that minimizes visual impacts on rural and natural places. The City's General Plan Land Use Element also provides a framework to guide future land use decisions and development in Visalia, while also enhancing community character and improving the city's look and feel. The element forms the core of the General Plan, and its policies articulate the community's land use and growth management priorities through 2030.

A number of the General Plan's policies and local ordinances protect the City's scenic resources, including trees, creeks, and historic buildings to ensure that they remain visible from scenic roadways. For example, a 200-foot conservation buffer on either side of Highway 198 has been established to create a scenic entry corridor to the City and to maintain the visual separation between Highway 99 and the core of the city (Visalia 2014).

Other City General Plans

Dinuba, Exeter, Farmersville, Lindsay, and Woodlake address scenic and visual resources in their General Plans, primarily within Land Use, Open Space, Conservation, and community design policies. Across these cities, scenic considerations focus on maintaining small-town character, ensuring compatibility of new development, preserving the agricultural edge, and enhancing gateways and streetscapes. Exeter places comparatively greater emphasis on visual identity, including its historic

downtown and Sierra foothill backdrop, while Woodlake specifically recognizes nearby natural features such as the lake and riparian areas as visual amenities. Dinuba, Farmersville, and Lindsay rely more on general policies that promote orderly growth, urban design compatibility, and buffering between urban and agricultural uses, treating visual quality as a secondary outcome of land use planning rather than a protected scenic resource.

4.1.3 Impact Analysis

a. Methodology and Significance Thresholds

Environmental assessment of a proposed project's impacts to the aesthetic and visual resources of a site begins with identification of the existing visual resources on and off that site, including the site's physical attributes, its relative visibility, and its relative uniqueness. The assessment of aesthetic impacts involves qualitative analysis that is inherently subjective in nature. Different viewers react to viewsheds and aesthetic conditions differently. This evaluation measures the existing visual resource against the proposed action, analyzing the nature of the anticipated change.

It is important to distinguish between public and private views. Private views are those views seen from privately-owned land, including views from private residences, and are typically enjoyed by individuals. Public views are experienced by the collective public. These include views of significant landscape features such as the Sierra Nevada, as seen from public viewing space, not privately-owned properties. California Environmental Quality Act (CEQA) (PRC Section 21000 et seq.) case law has established that generally only public views, not private views, need be analyzed under CEQA. See Association for Protection etc. Values v. City of Ukiah (1991) 2 Cal. App. 4th 720 and Topanga Beach Renters Assn. v. Department of General Services (1976) 58 Cal. App. 3d 188. Therefore, for this analysis, only public views will be considered when analyzing the visual impacts of implementing the proposed 2026 RTP/SCS.

Appendix G of the *CEQA Guidelines* identifies the following criteria for determining whether a project's impacts would have a significant impact related to aesthetics:

1. Have a substantial adverse effect on a scenic vista;
2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
3. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site or its surroundings; if the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality; and/or
4. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

b. Project Impacts and Mitigation Measures

The following section discusses scenic and visual impacts and mitigation measures associated with transportation projects and the land use scenario implementing the proposed 2026 RTP/SCS. Due to the programmatic nature of the proposed 2026 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 improvement projects and future projects under the land use scenario envisioned by the proposed 2026 RTP/SCS could result in the impacts as described in the following section.

Threshold 1:	Would the project have a substantial adverse effect on a scenic vista?
Threshold 2:	Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Impact AES-1 THE PROPOSED TRANSPORTATION PROJECTS AND LAND USE PROJECTS ENVISIONED UNDER THE PROPOSED 2026 RTP/SCS WOULD HAVE A SUBSTANTIAL ADVERSE EFFECT ON SCENIC VISTAS AND SUBSTANTIALLY DAMAGE SCENIC RESOURCES INCLUDING THOSE WITHIN HIGHWAYS IDENTIFIED TO HAVE HIGH SCENIC QUALITIES OR DESIGNATED BY THE STATE AS ELIGIBLE SCENIC HIGHWAYS. IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

There are no officially designated State Scenic Highways in the TCAG region and two eligible scenic highways. There are also 16 County scenic highways. Visual resource impacts from construction on or adjacent to these roadways would include blockage of views by construction equipment and staging areas; disruption of views by temporary signage; and exposure of slopes and removal of vegetation. These effects would be temporary during the construction phase.

In the long-term, implementation of the proposed 2026 RTP/SCS would generally result in modification of existing transportation facilities within existing highway, roadway, or railroad rights-of-way. Many of the proposed projects are at-grade with the surrounding environment. As such, most of the road and highway improvements are not likely to result in massive obstructions or blockages of surrounding views nor modify or substantially alter existing scenic resources viewed from a scenic vista or identified scenic highway.

Similarly, land use development envisioned by the proposed 2026 RTP/SCS would be focused primarily in urban infill areas, although some development in outlying areas would occur. Scenic vistas and designated scenic highways are generally located in undeveloped, rural areas, such that most future land use development envisioned in the proposed 2026 RTP/SCS would not be likely to block or substantially alter scenic vistas.

Impacts of both transportation and land use projects near state-designated scenic highway corridors would be minimized to some extent through compliance with the Caltrans CPP (under the Scenic Highway Program), which requires that the local jurisdiction adopt ordinances, zoning and/or planning policies to preserve the scenic quality of the state-designated scenic highway corridor or document such regulations that already exist in various portions of local codes. However, this would not officially apply until the two identified highways were formally designated. Many local jurisdictions also have their own general plan policies relating to the protection of scenic vistas such as the conservation buffers along SR 198 in Visalia, Policy LU-P13.14 to preserve scenic views of the mountains in Tulare, and the hillside overlay zone district in Porterville. These policies would limit the amount or type of development in designated scenic corridors or require special design guidelines when developing in certain areas. However, because scenic vistas and scenic resources are protected unevenly among the various jurisdictions in the TCAG region, the proposed 2026 RTP/SCS could result in a substantial adverse effect on a scenic vista or substantially damage scenic resources including those within a state scenic highway or locally identified scenic highway. This could include SR 65 road widenings south of Porterville and improvements to SR 198 in Visalia.

Similarly, the future land use scenario envisioned by the proposed 2026 RTP/SCS is intended to encourage in-fill development and development near existing transportation corridors. This type of development would help to avoid the loss of scenic resources overall by concentrating development within existing urbanized areas when compared to a future scenario without the proposed 2026 RTP/SCS. This land use scenario would intensify the built environment within existing urban areas

through planned in-fill development. In addition, this land use scenario would concentrate development near transportation corridors in urban areas, which would further increase the visibility of future in-fill and transit-oriented development from these corridors and potentially impact views of background scenic resources. However, not all projects and development included in the proposed 2026 RTP/SCS would be infill projects in urbanized areas, and some projects would inevitably be located in rural and other areas in the TCAG region.

Therefore, the proposed 2026 RTP/SCS could also result in a substantial adverse effect on a scenic vista or substantially damage scenic resources, including those within an eligible scenic highway or a locally identified scenic highway in rural areas of the TCAG region. The following mitigation measures would reduce this impact.

Mitigation Measures

For transportation projects under their jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures where applicable for transportation projects implementing the proposed 2026 RTP/SCS that would result in impacts to scenic vistas or scenic resources, including those within highways identified to have high scenic qualities or designated by the State as eligible scenic highways. Cities and the County can and should implement these measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project specific environmental documents may adjust these mitigation measures as necessary to respond to site specific conditions.

AES-1(a) Tree Protection and Replacement

The implementing agency for new roadways, extensions and widenings of existing roadways, trails and facility improvement projects shall, or can and should, avoid the removal of existing mature trees to the extent possible consistent with adopted local City and County policies as applicable. The implementing agency of a particular proposed 2026 RTP/SCS project shall replace any trees lost at a minimum 2:1 basis and incorporate them into the landscaping design for the roadway when feasible, or as required by local or County requirements. The implementing agency also shall ensure the continued vitality of replaced trees through periodic maintenance.

IMPLEMENTATION AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are the cities within Tulare County and the County. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during construction where appropriate.

AES-1(b) Discouragement of Architectural Features that Block Scenic Views

The implementing agency shall, or can and should, design projects to minimize contrasts in scale and massing between the project and surrounding natural forms and development. Setbacks and acoustical design of adjacent structures shall be preferentially used as mitigation for potential noise impacts arising from increased traffic volumes associated with adjacent land development. The use of sound walls, or any other architectural features that could block views from the scenic highways or other view corridors, shall be discouraged to the extent possible. Where use of a sound wall is found to be necessary, walls shall incorporate offsets, accents, and landscaping to prevent monotony. In addition, sound walls shall be complementary in color and texture to surrounding natural features.

IMPLEMENTATION AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are the cities within Tulare County and the County. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during construction where appropriate.

Significance After Mitigation

Although identified mitigation would help reduce impacts related to state-designated scenic highway corridors and scenic resources, individual transportation infrastructure projects as well as land use development included in the proposed 2026 RTP/SCS could still result in impacts to scenic vistas and resources. And because this EIR evaluates impacts at the programmatic level, all project circumstances are not foreseeable, and these mitigation measures may not be feasible or effective for some projects. Therefore, given the extent of planned land use development and transportation projects, and the potential for site-specific impact from those projects, impacts on scenic vistas and resources, including scenic highways, would be significant and unavoidable. No additional mitigation measures to reduce this impact to less-than-significant levels are feasible.

Threshold 3:	Would the project in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site or its surroundings; in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality?

Impact AES-2 THE PROPOSED TRANSPORTATION PROJECTS AND LAND USE PATTERNS ENVISIONED BY THE PROPOSED 2026 RTP/SCS WOULD IN NON-URBANIZED AREAS, SUBSTANTIALLY DEGRADE THE EXISTING VISUAL CHARACTER OR QUALITY OF PUBLIC VIEWS OF THE SITE OR ITS SURROUNDINGS, AND IN AN URBANIZED AREA, WOULD CONFLICT WITH APPLICABLE ZONING AND OTHER REGULATIONS GOVERNING SCENIC QUALITY. IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

The proposed 2026 RTP/SCS includes improvements to existing facilities such as road widenings, intersection or interchange improvements, auxiliary and transition lanes, highway maintenance and other improvements. The proposed 2026 RTP/SCS would include some new road and highway facilities such as new interchanges, new roadways and overcrossings and road extensions. Most road and highway projects would occur in areas where transportation infrastructure is already a dominant feature of the landscape and therefore would not likely degrade the existing visual character of the region. In less developed areas of the region, adding new transportation infrastructure could add an element of urban character to previously undeveloped lands.

The proposed 2026 RTP/SCS emphasizes infill development and development near existing transportation corridors, which are generally located in urbanized areas of cities and unincorporated communities. Prioritizing infill development can be beneficial at the regional scale, in terms of visual character, in that it occurs in areas already designated for and receiving growth and replaces growth in undeveloped and/or agricultural and rural areas. Infill development, in general, does not significantly change the existing visual character or quality at the regional level, but rather preserves the undeveloped character and quality in the agricultural and rural areas.

However, when compared to existing conditions, the proposed 2026 RTP/SCS land use scenario would intensify the built environment within existing urban areas through the implementation of infill and transit-oriented development (TOD) projects, thereby resulting in an overall change in the character of existing urbanized areas to a denser development pattern that could conflict with applicable zoning and other regulations governing scenic quality. For example, development along

SR 99, SR 65 and SR 198 near the cities of Visalia, Tulare, Porterville, Dinuba, and Lindsay would be visible from public roadways and surrounding land uses and could incrementally intensify the urban visual character along established transportation corridors. Intensifying development in or on the boundary of existing urban areas in the TCAG region may result in changes to visual character. For example, land use projects that would occur in rural or agricultural areas, or along the urban-rural interface near the edges of Exeter, Farmersville, and Terra Bella, would introduce urban development to areas that were previously undeveloped and/or are currently characterized by agricultural or semi-rural visual settings. Depending on the design and siting of these projects, the resulting change would degrade the visual character or quality of their surroundings. Some projects would inevitably be located in the more rural areas of the TCAG region near Terra Bella, Exeter and Dinuba. New development under the proposed 2026 RTP/SCS would be required to comply with applicable zoning standards or acquire an approved zoning amendment which would help to reduce impacts related to scenic resources.

Projects implemented under the proposed 2026 RTP/SCS would be subject to existing regulations that would help to minimize impacts to visual character. For example, in visually sensitive areas, local land use agencies would apply development standards and guidelines to maintain compatibility with surrounding natural areas, including site coverage, building height and massing, building materials and color, landscaping and site grading. Nevertheless, even with compliance with these standards, in urban areas some projects could still conflict with regulations governing scenic quality, and in rural areas the overall visual effect of transportation and land use projects would contribute to an incremental, but irreversible transformation in visual character from rural or semi-rural to more urban or suburban throughout the TCAG region. The following mitigation measures would reduce this impact.

Mitigation Measures

For transportation projects under their jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures where applicable for transportation projects implementing the proposed 2026 RTP/SCS that would result in impacts to visual character. Tulare County and the cities within it can and should implement these measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project specific environmental documents may adjust these mitigation measures as necessary to respond to site specific conditions.

AES-2 Design Measures for Visual Compatibility

The implementing agency shall, or can and should, require measures that minimize contrasts in scale and massing between the project and surrounding natural forms and developments. Strategies to achieve this include:

- Siting or designing projects to minimize their intrusion into important viewsheds;
- Avoiding large cuts and fills when the visual environment (natural or urban) would be substantially disrupted;
- Ensuring that re-contouring provides a smooth and gradual transition between modified landforms and existing grade;
- Developing transportation systems to be compatible with the surrounding environments (e.g., colors and materials of construction material; scale of improvements);

- Designing and installing landscaping to add natural elements and visual interest to soften hard edges, as well as to restore natural features along corridors where possible after widening, interchange modifications, re-alignment, or construction of ancillary facilities; and
- Designing new structures to be compatible in scale, mass, character, and architecture with existing structures.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are the cities within Tulare County and the County. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during construction where appropriate.

Significance After Mitigation

Implementation of mitigation measures AES-2 would reduce project specific impacts to the extent feasible. Mitigation Measures AES-1(a) and AES-1(b), discussed above for Impact AES-1, would also reduce impacts associated with visual character. Nevertheless, the alteration of current rural or semi-rural character to a more suburban environment is considered a significant and unavoidable impact because mitigation measures may not be feasible for all projects. Additionally, in urban areas, while these mitigation measures may reduce impacts from urban and infill development, some project specific impacts may be unavoidable. No additional mitigation measures to reduce this impact to less than significant levels are feasible.

Threshold 4:	Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Impact AES-3 DEVELOPMENT OF PROPOSED TRANSPORTATION PROJECTS AND LAND USE PATTERNS ENVISIONED UNDER THE PROPOSED 2026 RTP/SCS WOULD CREATE A NEW SOURCE OF SUBSTANTIAL LIGHT OR GLARE THAT WOULD ADVERSELY AFFECT DAYTIME OR NIGHTTIME VIEWS IN THE AREA. IMPACTS ARE SIGNIFICANT AND UNAVOIDABLE.

Existing sources of light and glare within the TCAG region are primarily focused in the cities, towns, and other urban development boundary areas. Most of the County is used for agricultural purposes (with some scattered rural residential uses) and therefore currently contains limited sources of light and glare. Implementation of the proposed 2026 RTP/SCS would result in new or intensified lighting from land use development envisioned in the proposed land use patterns, which focuses on infill and TOD development. This would concentrate the existing sources of light and glare. In these infill areas, such increases may not adversely affect nighttime views because these existing sources of light, glare and shadow are already a dominant feature of the urban landscape. However, the intensity of light and glare in these urban areas would increase as a result of infill and TOD projects under the proposed 2026 RTP/SCS, depending on site specific conditions and lighting design associated with new structures. Additionally, intersection improvement projects could introduce a greater intensity of light and glare in rural areas that are characterized by dark night skies. Exterior lighting in some areas would be limited by compliance with existing lighting regulations, as discussed in the *Regulatory Setting*, Section 4.1.2.

Transportation projects envisioned in the proposed 2026 RTP/SCS to the existing roadways and highways in the TCAG region would not significantly increase the amount of light and, as these improvements would take place on existing facilities that have existing sources of light and glare.

Increases in light and glare from new reflective signage, streetlights, intersection control devices and other improvements would be relatively minor compared to existing conditions. However, the expansion and widening of existing roadways or construction of new roadways would allow a greater volume of vehicles to travel through a given segment of roadway or highway throughout the day, or introduce vehicles into a new area, which would have the potential to introduce new or additional vehicle headlights as new light sources. In addition, some of the new transportation facilities included in the proposed 2026 RTP/SCS would directly introduce light, including: the replacement/improvements of existing lighting along the various freeways, highways, and bridges, construction of pedestrian lighting along various city streets, bus and transportation facility improvements and installation of lighting along bike paths and trails in the TCAG region. The introduction of light and glare could adversely affect day or nighttime views. Example transportation projects would be similar to those identified in Impact AES-2 along SR 99, SR 65 and SR 198, and road widening on Saginaw Street and Road 72 in Dinuba and Sierrea View Street and Fir Street in Lindsey.

Overall, light and glare impacts from land use and transportation projects implementing the proposed 2026 RTP/SCS would be significant because there would be new sources of substantial light or glare. The following mitigation measures would reduce this impact.

Mitigation Measures

For transportation projects under their jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures where applicable for transportation projects implementing the proposed 2026 RTP/SCS that would result in impacts to daytime and nighttime views. Cities and the County can and should implement these measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project specific environmental documents may adjust these mitigation measures as necessary to respond to site specific conditions.

AES-3(a) Roadway and Project Lighting

The implementing shall, or can and should, minimize roadway lighting to the extent possible, consistent with safety and security objectives, and shall not exceed the minimum height requirements of the local jurisdiction in which the project is proposed. This may be accomplished through the use of back shields, hoods, low intensity lighting, and using as few lights as necessary to achieve the goals of the project.

As part of planning, design, and engineering for transportation and land use projects, implementing agencies shall, or can and should, ensure that projects proposed near light-sensitive uses avoid substantial spillover lighting. Potential design measures include, but are not limited to, the following:

- Lighting shall consist of cutoff-type fixtures that cast low-angle illumination to minimize incidental spillover of light into adjacent properties and undeveloped open space. Fixtures that project light upward or horizontally shall not be used.
- Lighting shall be directed away from habitat and open space areas adjacent to the project site.
- Light mountings shall be downcast, and the height of the poles minimized to reduce potential for backscatter into the nighttime sky and incidental spillover of light onto adjacent private properties and undeveloped open space. Light poles will be 20 feet high or shorter. Luminary mountings shall have non-glare finishes.

- Exterior lighting features shall be directed downward and shielded in order to confine light to the boundaries of the subject project. Where more intense lighting is necessary for safety purposes, the design shall include landscaping to block light from sensitive land uses, such as residences.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are the cities within Tulare County and the County. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during construction, as applicable.

AES-3(b) Glare Reduction Measures

Implementing agencies shall, or can and should, minimize and control glare from transportation and land use projects near glare-sensitive uses through the adoption of project design features such as:

- Planting trees along transportation corridors to reduce glare from the sun;
- Creating tree wells in existing sidewalks;
- Adding trees in new curb extensions and traffic circles;
- Adding trees to public parks and greenways;
- Landscaping off-street parking areas, loading areas, and service areas;
- Limiting the use of reflective materials, such as metal;
- Using non-reflective material, such as paint, vegetative screening, matte finish coatings, and masonry;
- Screening parking areas by using vegetation or trees;
- Using low-reflective glass;
- Complying with applicable general plan policies, municipal code regulations, city or local controls related to glare; and
- Tree species planted to comply with this measure shall provide substantial shade cover when mature. Utilities shall be installed underground along these routes wherever feasible to allow trees to grow and provide shade without need for severe pruning.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are the cities within Tulare County and County. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during construction, as applicable.

Significance After Mitigation

In the absence of regulations specifically addressing light and glare impacts, the aforementioned mitigation measures would limit the use of reflective building materials and the potential spillage of light both upward and onto adjacent properties from exterior lighting fixtures. However, mitigation measures maybe not be feasible for all projects. Therefore, this impact would remain significant and unavoidable.

4.1.4 Cumulative Impacts

IMPACT AES-C-1 DEVELOPMENT IN THE CUMULATIVE IMPACT ANALYSIS AREA WOULD HAVE A SUBSTANTIAL ADVERSE EFFECT ON A SCENIC VISTA, SUBSTANTIALLY DAMAGE SCENIC RESOURCES INCLUDING THOSE IDENTIFIED TO HAVE HIGH SCENIC QUALITIES OR ELIGIBLE STATE SCENIC HIGHWAYS, DEGRADE EXISTING VISUAL CHARACTER, AND ADVERSELY AFFECT NIGHT SKY LIGHTING. CUMULATIVE IMPACTS WOULD BE SIGNIFICANT AND THE CONTRIBUTION OF THE 2026 RTP/SCS WOULD BE CUMULATIVELY CONSIDERABLE.

The cumulative impact analysis area for aesthetics consists of the TCAG region and adjoining counties. The TCAG region is adjacent to four counties: Fresno, Kings, Kern, and Inyo. The cumulative analysis presented below relies on a projections-based approach, using regional growth forecasts for the TCAG region and adjoining counties to evaluate cumulative conditions. Impacts of the 2026 RTP/SCS are added to the impacts of growth and development in the adjoining counties, and a determination is made as to whether cumulative impacts would be significant, and whether the 2026 RTP/SCS incremental contribution would be cumulatively considerable. Refer to Chapter 4, *Environmental Impact Analysis*, *Cumulative Impact Methodology*.

The land between each of the adjoining counties and the TCAG region is largely undeveloped agricultural land or open space; however, the City of Reedley in Fresno County is in close proximity to the City of Dinuba in Tulare County. The existing land use scenarios in the TCAG region would continue to develop and could result in expansion of light and glare in urban areas and into undeveloped land.

Some types of impacts to aesthetic resources are localized and not cumulative in nature. For example, the creation of glare or shadows at one location is not worsened by glare or shadows created at another location. Rather these effects are independent and the determination as to whether they are adverse is specific to the project and location where they are created. Projects that block a view or affect the visual quality of a site also result in localized impacts. The impact occurs specific to a site or area and remains independent from another project elsewhere that may block a view or degrade the visual environment of a specific site. However, from some vantage points, such as mountain ridges or open valley floors, the viewshed can span for miles. Because development may be seen from distances or into the distance from some locations, the cumulative impact analysis area for aesthetics includes the TCAG region and adjoining counties.

There are two types of aesthetic impacts that may be additive in nature and thus cumulative: night sky lighting and overall changes in the visual environment as the result of increasing urbanization of the larger urban areas in the TCAG region. As development in one area, such as a relatively large city adjoining agricultural land (the cities of Tulare, Visalia, and Porterville) increases and possibly expands over time, this would meet or connect with development in an adjoining non-urban, rural area; the effect of night sky lighting experienced outside of the region may increase in the form of larger and/or more intense nighttime glow in the viewshed. Although growth envisioned in the proposed 2026 RTP/SCS is primarily focused on infill areas, development outside of those geographies with long-distance views may result in nighttime lighting becoming more visible, covering a larger area and/or appearing in new areas as a result of projected development under the proposed 2026 RTP/SCS.

With regard to the visual environment experienced throughout the cumulative impact analysis area, as planned cumulative development occurs over time the overall visual environment will change. The combination of forecasted development in the TCAG region and planned development in neighboring counties would result in a different visual environment than currently exists. The

cumulative impacts associated changes in the visual environment (including scenic vistas and scenic resources) and night sky lighting are considered significant and the contribution of the proposed 2026 RTP/SCS to these impacts is cumulatively considerable. Mitigation measures described earlier in this section would reduce the 2026 RTP/SCS impacts to aesthetics; however, even with implementation of those mitigation measures, impacts of the proposed 2026 RTP/SCS would remain cumulatively considerable.

4.2 Agriculture and Forestry Resources

This section evaluates impacts on agriculture and forestry resources from implementation of the proposed 2026 RTP/SCS.

4.2.1 Setting

a. Overview of Regional Agriculture and Forestry

Agricultural Lands

Tulare County is in California's San Joaquin Valley, one of the richest agricultural areas in the world. The County is home to 1.3 million acres of productive farmland, contributing $8.34 billion a year to the California economy. The agricultural industry is vitally important to both the County's economy and nation's food supply; it is home to 857,672 acres of important farmland and 40,179 acres of grazing land (Tulare County Agricultural Commissioner 2024; California Department of Conservation [DOC]2020).

Tulare County is among California's leaders in the production of dairy, citrus, and nuts. In 2020, approximately 1.3 million acres of land in Tulare County were classified as agricultural land (DOC 2020; latest available data). Of this land, 365,490 acres were classified as "Prime Farmland." Due to conversion to other/nonagricultural uses, the amount of prime farmland in Tulare County has been declining since the Department started compiling such information in 1998 (DOC 2020).

Agriculture has deep roots in the region's history and future. The 2024 crop year's gross value of all agricultural commodities produced in Tulare County was $8,344,115,750 (Tulare County Crop and Livestock Report 2024). This represented an increase (6 percent) from the 2023 crop value ($7,866,730,100). Tulare County consistently ranks in the top five counties of the State in overall agricultural productivity. Agriculture continues to be the main producing industry in Tulare County. The top ten revenue products in the County include milk, cattle and calves, grapes, oranges, tangerines, almonds, pistachios, lemons, nectarines, and corn (Tulare County Agricultural Commissioner 2024). The 11 major state highways that traverse the County, combined with its local road system, provide access to the more remote areas of the County. The County's transportation system traverses and connects these agricultural areas to their markets. Tulare County's agricultural areas also provide benefits such as wildlife habitat, flood control, groundwater recharge, and energy production (Tulare County 2012).

Important Farmland

To characterize the environmental baseline for agricultural resources, Important Farmland Maps produced by the DOC Farmland Mapping and Monitoring Program (FMMP) were reviewed. Unless otherwise expressed, the future use of "Important Farmland" in this EIR specifically includes the following definitions provided by the DOC (DOC 2026):

Prime Farmland

Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

Farmland of Statewide Importance

Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

Unique Farmland

Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include nonirrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

According to the most recent FMMP data from the California Department of Conservation, Tulare County contains a total of 857,672 acres of Important Farmland (DOC 2020).

Williamson Act Lands

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. Tulare County currently contains approximately 1.1 million acres of prime and non-prime agricultural land under preserve status as of 2024 (Tulare County 2024). See Figure 4.2-2 for location of Williamson Act agricultural preserves.

Important Farmland Trends

As of 2020, Tulare County’s Important Farmland totaled 857,672 acres. The Important Farmland breaks down to 365,490 acres of Prime Farmland, 327,522 acres of Farmland of Statewide Importance, 11,800 acres of Unique Farmland (see Table 4.2-1 and Figure 4.2-1). As shown in Figure 4.2-1, western Tulare County includes a substantial amount of Important Farmland. For purposes of this EIR, Important Farmland, as defined above, is limited to Prime Farmland, Farmland of Statewide Importance and Unique Farmland.

Table 4.2-1 shows Tulare County experienced a 340-acre net decrease in Important Farmland between 2018 and 2020 (DOC 2020). Net increases in acreages occurred for Farmland of Statewide Importance and Unique Farmland, and a net decrease occurred for Prime Farmland. Prime Farmland decreased by 452 net acres; however, Farmland of Statewide Importance increased by 1,044 net acres. Furthermore, there was a decrease of 11 net acres of Unique Farmland and 921 acres in Farmland of Local Importance (DOC 2020).

Table 4.2-1 Important Farmland Conversion in Tulare County 2018-2020

Land Use Category	Total Acreage Inventoried		2018-2020 Acreage Changes			
	2018	2020	Acres Lost (-)	Acres Gained (+)	Total Acreage Changed	Net Acreage Changed
Prime Farmland	365,942	365,490	2,304	1,852	4,156	-452
Farmland of Statewide Importance	326,478	327,522	2,022	3,066	5,088	1,044
Unique Farmland	11,811	11,800	207	196	403	-11
Farmland of Local Importance	153,781	152,860	4,876	3,955	8,831	-921
Important Farmland Total[1]	858,012	857,672	9,409	9,069	18,478	-340

[1] Important Farmland represents all Prime Farmland, Farmland of Statewide, Unique Farmland, and Farmland of Local Importance within Tulare County.
Sources: California Department of Conservation (DOC). 2020. *Tulare County 2018-2020 Land Use Conversion*; latest available data.

Forest Lands and Oak Woodlands

The TCAG region has forestry resources, primarily within the eastern portion of the County in the Sierra Nevada Mountains and controlled by federal agencies including the Bureau of Land Management, National Parks Service, and the U.S. Forest Service. Several types of forest land are found in the County, including red fir, pine, and conifer forest land. See Section 4.4, *Biological Resources***,** for more discussion of forest lands and oak woodlands found in Tulare County.

Oak woodlands consist of Blue Oak Woodland and Valley Oak Woodland. Generally, these woodlands have an over story of scattered trees, although the canopy can be nearly closed. The canopy is dominated by broad-leaved trees 16 ft to 50 ft tall, commonly forming open savanna-like stands on dry ridges and gentle slopes. Blue oak is typically the dominant tree species. Valley Oak Woodland can range in structure from savanna-like to forest-like stands. The canopies tend to be partially closed and comprised mostly of winter-deciduous, broad-leaved species such as valley oak. Dense stands typically grow in valley soils along natural drainages and decrease with the transition from lowlands to uplands. Woodland is found in the eastern portion of the County.

Forestry resources include forestland, timberland, and timberland production zones. Definitions used for forest land and timberland are those found in the California Public Resources Code (PRC) Sections 12220(g) and 4789.2(g) and California Government Code (CGC) Section 51104(g). These sections define forestland, timberland, and timberland production zones as follows:

Forest Land

Forest land is land that can support, under natural conditions, 10 percent native tree cover of any species, including hardwoods, and that allows for the preservation or management of forest-related resources such as timber, aesthetic value, fish and wildlife, biodiversity, water quality, recreational facilities, and other public benefits (PRC Section 12220(g)).

Timberland

Timberland means land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees

of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species are determined by the board on a district basis (PRC Section 4526(g)).

Timberland Production Zones

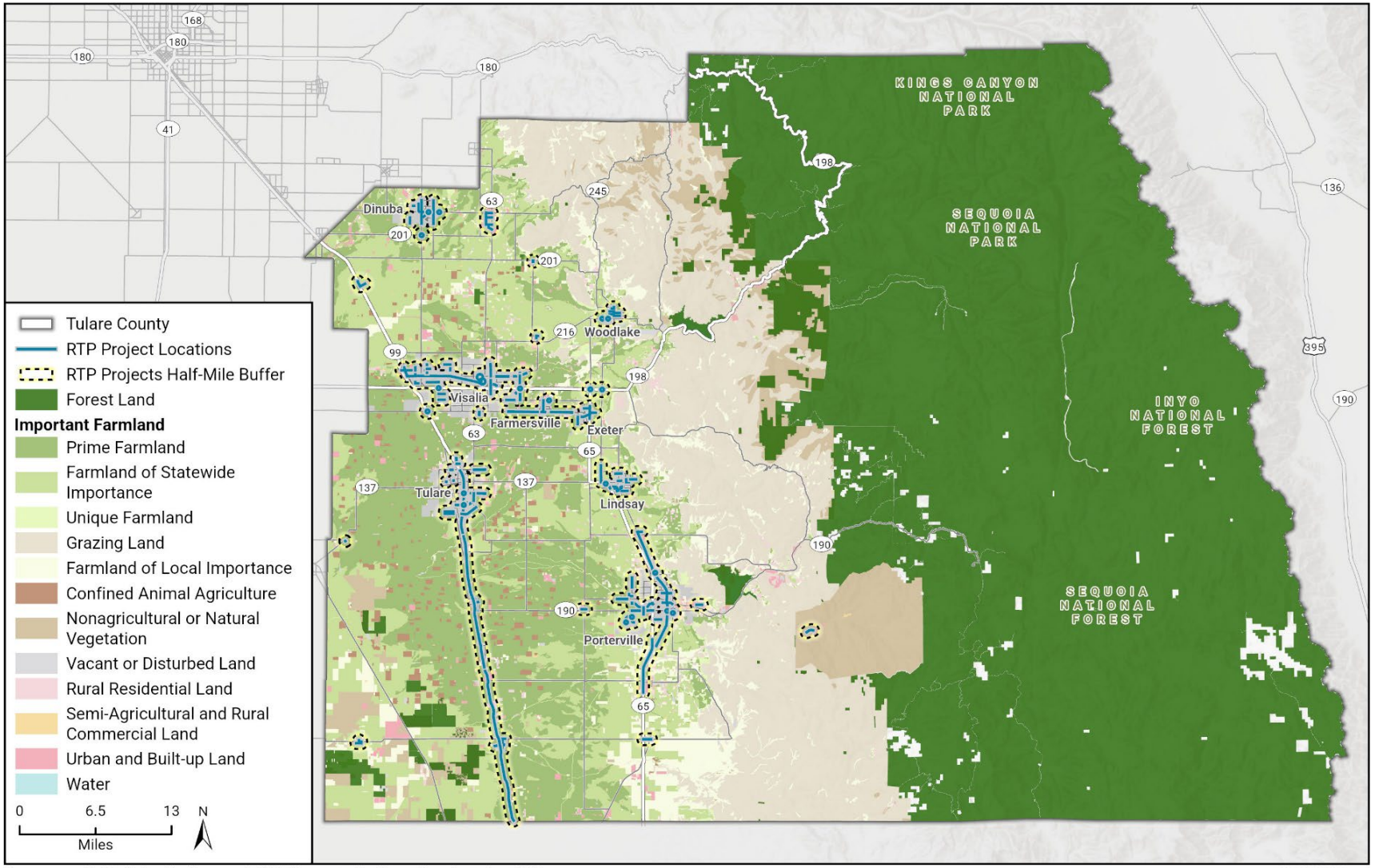
Timberland production zone or "TPZ" means an area which has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision (h) (CGC Section 51104). There are four Timber Preserve Zones in central and northern Tulare County. See Figure 4.2-2 for location.

There are also Resource Conservation Zone Districts in the central and southeastern areas of the County. Resource Conservation Zone Districts are local, non-regulatory special districts which seek to provide technical and financial assistance to landowners for conservation projects in their districts (Resource Conservation District Project Tracker 2026).

Land Conservation Trusts

A land trust works to preserve land or conservation easement acquisition. A land conservation trust is another type of organization devoted to protecting open space, agricultural lands, wildlife habitats, and natural resource lands. There are approximately 80 established trusts in California. Local and regional land trusts, organized as charitable organizations under federal tax laws, are directly involved in conserving land for its natural, recreational, scenic, historical, and productive values. Local governments and special districts, either on their own or working with land trusts and conservancies, can acquire fee title to agricultural and open space lands or purchase development rights to preserve rural and agricultural areas, watersheds, or critical habitat, or to create public parks and recreational areas. Two conservation trusts have trust lands in Tulare County, the Tulare Basin Land and Water Conservation Trust, and the Sequoia Riverlands Trust.

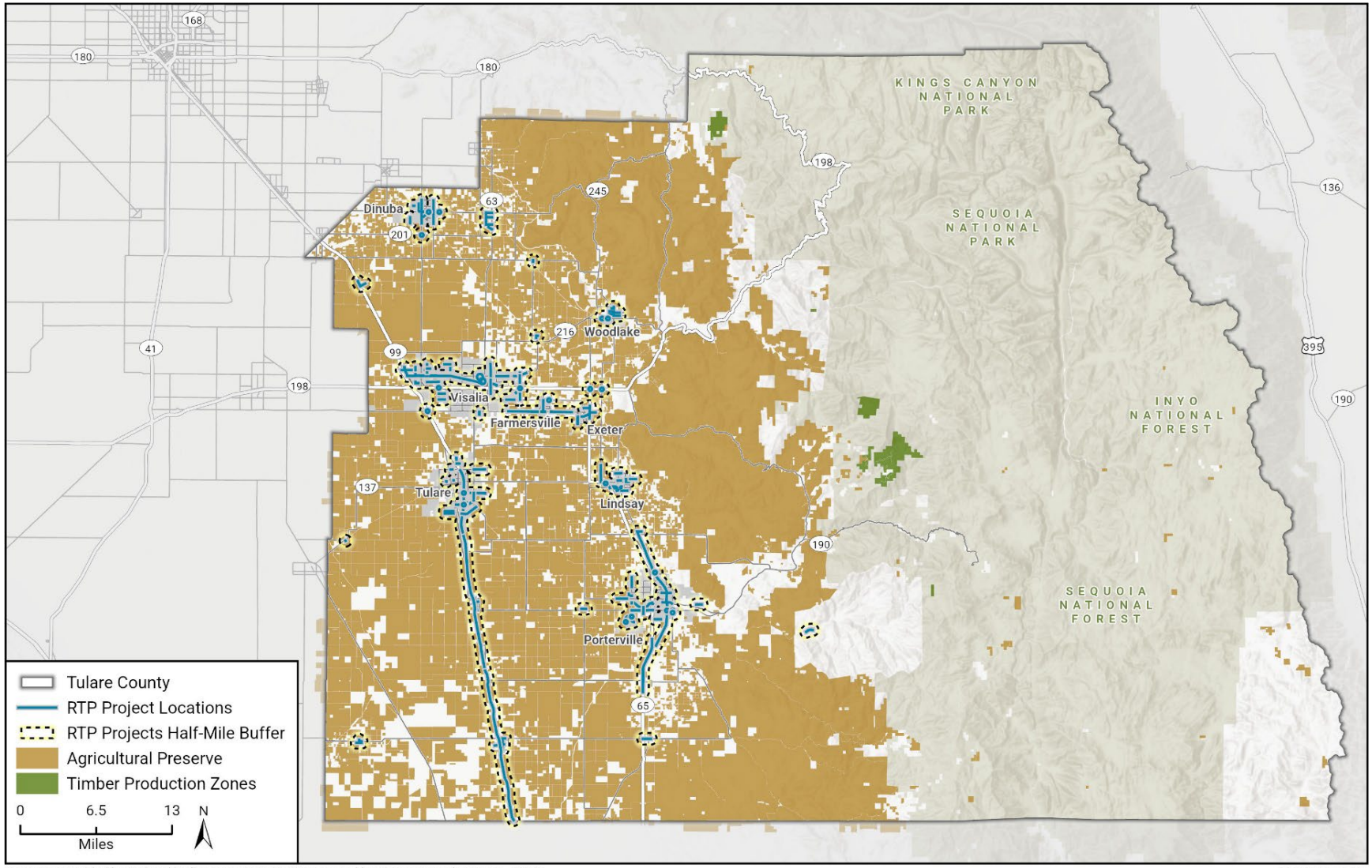
Figure 4.2-1 Farmland, Forest Land and RTP Project Locations in Tulare County



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Additional data provided by CPAD, 2025; FMMP, 2022.

24-16880 EPS.aprx
Fig X Important Farmland and Forest Land

Figure 4.2-2 Agricultural Preserve, Timber Production Zones and RTP Project Locations in Tulare County



Basemap provided by Esri and its licensors © 2026. Map created by Rincon Consultants, Inc., 2026.
Additional data provided by CPAD, 2025; Williamson Act, 2024; Tulare County Zoning, 2025.

24-16880 EPS.aprx
Fig X Agricultural Preserve and Timber Production Zones

4.2.2 Regulatory Setting

a. Federal Laws, Regulations, and Policies

Farmland Protection Policy Act

The Farmland Protection Policy Act (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.

Federal Farm and Ranchland Protection Program

The Federal Farm and Ranchland Protection Program is a voluntary easement purchase program that helps farmers and ranchers keep their land in agriculture. Pursuant to sections 1539 to 1549 of the FPPA of 1981, the Secretary of Agriculture is directed to establish and carry out a program to "minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses, and to the extent practicable, will be compatible with state, unit of local government, and private programs and policies to protect farmland." (7 USC 4201-4209 & 7 USC 658). The program provides matching funds to state, tribal, or local governments and nongovernmental organizations with existing farmland protection programs to purchase conservation easements or other interests in land. The FRPP was re-authorized by the Farm Security and Rural Investment Act of 2002 (Farm Bill). The NRCS manages the program. The Technical Committee awards funds to qualified entities to conduct their farmland protection programs. Although a minimum of 30 years is required for conservation easements, priority is given to applications with perpetual easements.

Federal Forest Legacy Program

The Federal Forest Legacy Program was a part of the 1990 Farm Bill. Its purpose is to identify and protect environmentally important forestlands that are threatened by present or future conversion to non-forest uses. The program provides conservation easements and gives priority to lands that can be effectively protected and managed, as well as lands that have significant scenic, recreational, timber, riparian, fish and wildlife, threatened and endangered species, and other cultural or environmental values. Properties that are "working forests," whereby the forestland is managed for the production of forest products, are also eligible under this program. Involvement in this program by private landowners is voluntary.

b. State Laws, Regulations, and Policies

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 but has not updated Tulare County mapping since 2020 (DOC 2020).

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.

The Right to Farm Act

The Right to Farm Act of 1981 (Civ. Code, Section 3482.5) is meant to protect commercial agricultural operations from nuisance complaints that may occur when agricultural operations are conducting business in a "manner consistent with proper and accepted customs." The code states operations that have been in business for three or more years and are not nuisances upon commencement of operation shall not be considered a nuisance because of a new land use being developed adjacent or nearby.

California Farmland Conservancy Program Act

The California Farmland Conservancy Program Act of 2010 formed the California Farmland Conservancy Program and provides grants for agricultural conservation easements. Agricultural conservation easements are created to support agriculture and prevent development on the subject parcels. Easements funded by the Program must be suitable for commercial agriculture.

California Timberland Productivity Act

The California Timberland Productivity Act of 1982 describes the powers and duties of local government in protecting timberlands. The law is designed to maintain an optimum amount of timberland, ensuring its current and continued availability by establishing TPZ on all qualifying timberland, which restrict land use to growing and harvesting timber and other compatible uses. The Act discourages premature or unnecessary conversion of timberland to urban or other uses and expansion of urban services into timberland and encourages investment in timberlands based on reasonable expectation of harvest. The Act also provides that timber operations conducted in accordance with California forest practice rules shall not be restricted or prohibited due to land uses in or around the location of the timber operations.

The Cortese-Knox-Hertzberg Local Government Reorganization Act

The Cortese-Knox-Hertzberg Local Government Reorganization Act (Government Code Sections 56000 et seq.) establishes procedures for local government changes of organization, including city incorporations, annexations to a city or special district and city and special district consolidations. This act requires that development or use of land for other than open space will be guided away from existing prime agricultural lands in open space use toward areas containing nonprime agricultural lands, unless that action would not promote that planned, orderly, efficient development of an area.

Forest Practice Act

CAL FIRE enforces the laws that regulate logging on privately owned lands in California under the Forest Practice Act. Under the Forest Practice Act of 1973, timber operations may only be conducted pursuant to an approved Timber Harvesting Plan (THP), an environmental review document prepared by a Registered Professional Forester and submitted by landowners to CAL FIRE. The THP outlines the timber they want to harvest, how it will be harvested, and the steps that will be taken to prevent damage to the environment. Because a THP is the functional equivalent to an EIR for tree removal activities, the approval of a THP could depend on the inclusion of required mitigation.

A landowner that proposes to carry out a project that will result in timberland being converted to a non-timber growing use must apply for either a Timberland Conversion Permit or a notice of exemption. Grounds for exemption include conversions of less than three acres, conversions to construct or maintain a right–of-way by a public agency or a public or private utility, and development of subdivisions on forest land where approved by local government. When a Timberland Conversion Permit is issued, restocking of the timber resources is not required, as the land is converted to a non-timber growing use.

c. Local Laws, Regulations, and Policies

Tulare County Right-to-Farm Ordinance

Tulare County adopted a right-to-farm ordinance with the purpose of preventing non-agricultural land uses from encroaching upon agricultural land. The purpose of the ordinance is to allow nuisances associated with agricultural operations to continue as long as nearby property owners are notified, thereby excluding those activities from being considered “nuisances” (Ordinance Code section 7-29-1000 et seq.).

Tulare County General Plan

Tulare County’s 2030 General Plan Agriculture Element focuses on the long-term preservation of productive and potentially productive farmland. To achieve this goal, Policy AG-1.1 stresses the importance of agriculture within the County due to its economic value, conservation of open space, and natural resources (Tulare County 2021). The Foothill Growth Management Plan, within the General Plan, is a specialized area plan within the Tulare County General Plan that regulates land use and development in the Sierra Nevada foothills. It primarily applies to lands located above the 600-foot elevation line, covering approximately 675,641 acres between the San Joaquin Valley floor and federally owned mountain lands. The plan serves as a guide for balancing residential development with the preservation of natural resources and agricultural land. The Tulare County Rural Valley Lands Plan (Section 11) is a policy framework within the County General Plan designed to protect agricultural land by establishing minimum parcel sizes (typically 10-20+ acres) and directing development toward urban areas. It acts as a guide to prevent the fragmentation of prime agricultural land by subdividing for rural residential development or through non-agricultural development. It restricts non-agricultural land uses and development in rural areas outside of established Urban Development Boundaries and Hamlet Development Boundaries.

Rural Valley Lands Plan

The Rural Valley Lands Plan is an element of the Tulare County General Plan and was initiated in order to establish minimum parcel sizes for areas zoned for agriculture and to develop a policy that

is fair, logical, legally supportable, and which consistently utilizes resource information to determine the suitability of rural lands for nonagricultural uses.

Foothill Growth Management Plan

The Foothill Growth Management Plan, an element of the Tulare County General Plan, evolved following the completion of the Foothill Growth Management Study. The Foothill Growth Management Plan provides a comprehensive statement of the development policies and standards that set forth land use and circulation patterns for the foothill region of Tulare County. The Foothill Growth Management Plan was prepared to meet the Board of Supervisors' objectives of rationally directing growth in the foothill areas of the County, maintaining the viability of foothill agriculture, and reducing County expenditures through a more efficient means of delivering services.

City of Dinuba General Plan

The City of Dinuba General Plan contains two objectives directly related to agriculture, (1) the preservation of Prime Farmland, Farmland of Statewide Importance and Farmland Local Importance; and (2) to provide a greenbelt around the City's perimeter, in part to protect agriculture. Policy 3.1 states the continuation of agricultural production is an important economic activity to be designated and maintained as part of the City's greenbelt (City of Dinuba 2021).

City of Exeter General Plan

Like other General Plans in the TCAG region, preservation of agricultural land in the Exeter 2020 General Plan is achieved through compact development and efficient land use are balanced with residential, commercial, and industrial growth (City of Exeter 2021).

City of Farmersville General Plan

The City of Farmersville 2025 General Plan attempts to balance agricultural protection and the potential impacts of urbanization as the city grows. Specifically, the City's goal is to preserve and protect agricultural lands so that new development is not forced to expand onto prime agricultural lands (City of Farmersville 2026).

City of Lindsay General Plan

The City of Lindsay General Plan states that urban development should be guided away from prime agricultural land unless the action would not promote planned patterns of land use, or unless there is no other reasonable choice available to meet the needs of the City for urban annexation. Annexation is mentioned as an alternative to guide development away from prime agricultural land if the land does not contain prime agricultural soils and is not classified as prime or unique farmland. However, it should be noted that the General Plan has not been updated since 1989 (City of Lindsay 1989).

City of Porterville General Plan

The City of Porterville 2030 General Plan, within the Open Space and Conservation Element, Guiding Policy OSC-G-4 promotes the preservation of agricultural lands within and adjacent to its Planning Area. The implementation of this goal is promoted through five policies, each addressing various aspects of agricultural preservation. Specifically, Policy OSC-I-17 prohibits the conversion of prime agricultural land for urban development through General Plan amendments unless there are no other feasible alternatives for development (City of Porterville 2008).

City of Tulare General Plan

The City of Tulare General Plan was adopted in October 2014. In the Conservation and Open Space Element, the General Plan discusses policies to achieve Goal COS-3, to promote the productivity of agricultural lands surrounding Tulare and the continued viability of Tulare County agriculture (City of Tulare 2014).

City of Visalia General Plan

The City of Visalia General Plan has an Open Space and Conservation Element that includes policy OSC-O-2, which directs the City to work with the County and other stakeholders to protect Prime Farmland and Farmland of Statewide Importance outside of the City's Urban Development Boundary for agricultural production (City of Visalia 2014).

City of Woodlake General Plan

The City of Woodlake 2008-2028 General Plan's overall goal is to establish policies to reduce the impact of urbanization on agricultural lands, while allowing the city to grow. Efficient land use, buffers, infill development, and "hard edges" to preserve open space are the policies used to balance growth with the protection of agricultural land (City of Woodlake 2014).

4.2.3 Impact Analysis

a. Methodology and Significance Thresholds

The methodology used for the following evaluation is based on a review of publicly available data and planning documents to determine the potential for implementation of the proposed 2026 RTP/SCS to result in impacts to agriculture and forestry resources in the TCAG region. This includes land use and zoning maps, the California Important Farmland Finder, Timberland Production Zone data, and relevant city and county General Plans. Due to the regional scale and programmatic nature of the analysis, site-specific analyses were not conducted. Instead, the evaluation focuses on typical impacts associated with transportation and land use changes, and considers consistency with applicable policies and the potential for land conversion or disruption of resource-related activities.

Appendix G of the *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; 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.

b. Project Impacts and Mitigation Measures

The following section discusses agriculture and forestry impacts and mitigation measures associated with transportation projects and the land use scenario implementing the proposed 2026 RTP/SCS.

Due to the programmatic nature of the proposed 2026 RTP/SCS, a precise, project-level analysis of the specific impacts associated with individual transportation projects and land use projects is not possible at this time. In general, however, implementation of proposed transportation projects and future projects under the land use scenario envisioned by the proposed 2026 RTP/SCS could result in the impacts as described in the following section.

Threshold 1:	Would the project 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 2:	Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?
Threshold 5:	Would the project 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 PROJECTS ENVISIONED BY THE PROPOSED 2026 RTP/SCS WOULD RESULT IN THE CONVERSION OF PRIME FARMLAND, UNIQUE FARMLAND, OR FARMLAND OF STATEWIDE IMPORTANCE TO NONAGRICULTURAL USE, AND/OR CONFLICT WITH EXISTING ZONING FOR AGRICULTURE OR A WILLIAMSON ACT CONTRACT. THIS WOULD BE A SIGNIFICANT AND UNAVOIDABLE IMPACT.

The FMMP has identified 704,992 acres of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance("Farmland") in the TCAG region, and 857,672 acres of Important Farmland, which in addition includes Farmland of Local Importance. (refer to Table 4.2-1). This impact analysis considers impacts on all categories of Important Farmland. In addition, the TCAG region has agricultural lands zoned for agriculture and 1.1 million acres of land under Williamson Act contract, as shown in Figure 4.2-2.

The proposed 2026 RTP/SCS emphasizes 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 result in agricultural resource impacts as they would be located within existing urban areas. However, limited development would occur outside of urban areas of the TCAG region. Due to the proposed 2026 RTP/SCS projects and the proposed land use pattern, which emphasizes infill development in conjunction with mixed use and transit-oriented development within existing urbanized areas and limited development in outlying areas along transportation corridors, the majority of Important Farmland would remain available for agricultural use, though some Important Farmland would be converted to other land uses.

Transportation projects under the proposed 2026 RTP/SCS adjacent to agricultural areas, particularly those requiring new rights-of-way, could also convert Important Farmland to non-agricultural use, or conflict with agricultural zoning and/or Williamson Act contracts through the involvement of other changes in the existing environment which, due to their location or nature, could result in conversion of farmland, to a non-agricultural use. Although incorporated cities in Tulare County are fairly urbanized, many cities border agriculture, including FMMP-designated Important Farmland. Transportation 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, such as the Westwood Street Bridge widening over Porter Slough in the

City of Porterville and widening of SR 99, SR 65 and SR 190. 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. Construction of projects adjacent to agricultural fields could also result in introduction of invasive species or weeds, which could out-compete agricultural crops. 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 of these projects on agricultural resources by completing the Farmland Conversion Impact Rating form (AD-1006). The Farmland Protection Policy Act assures that to the extent possible, federal programs are administered to be compatible with state and local programs and policies to protect farmland.

The proposed 2026 RTP/SCS would also relieve traffic congestion in urban areas and in the spheres of influence around the cities which could change which communities are on the periphery of the cities. This could change which communities are closest to certain farming activities. Some new residents may be sensitive to the noise, pesticide use, and dust generated by certain farming practices, resulting in pressure to change zoning or other laws related to those farming activities. According to the County's Right-to-Farm Ordinance, the County would condition discretionary permits for special uses and residential development within or adjacent to agricultural uses upon recording a Right-to-Farm Notice. As such, an established agricultural operation would not be considered a nuisance due to changes in the surrounding area. The right-to-farm ordinance promotes understanding and cooperation between urban residents and agricultural operators. Adherence to the Rural Valley Lands Plan and the Foothill Growth Plan would further reduce impacts to Farmland (Tulare County 2021).

A determination of the impacts to Important Farmland, agricultural zoning and conflicts with Williamson Act contracts would be made on a case-by-case basis as individual land use and transportation projects are implemented. Many individual projects would likely not 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, because implementation of the proposed 2026 RTP/SCS may directly result in conversion of Farmland and/or conflict with agricultural zoning and Williamson Act contracts, impacts would be significant. Implementation of Mitigation Measure AG-1 would reduce these impacts.

Mitigation Measures

For transportation projects under their jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures where applicable for transportation projects that would result in impacts to Important Farmland and/or conflict with agricultural zoning and Williamson Act contracts. Cities and the County can and should implement these measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project specific environmental documents may adjust these mitigation measures as necessary to respond to site specific conditions.

AG-1 Agricultural Land Impact Avoidance and Minimization

Implementing agencies shall implement measures, where feasible 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 Important Farmland, agriculturally zoned land and/or land under Williamson Act contract;

- Manage project construction to minimize the introduction of invasive species or weeds that may affect agricultural production on agricultural land adjacent to project sites. Managing project construction may include washing construction equipment before bringing equipment on-site, using certified weed-free straw bales for construction Best Management Practices (BMPs), and other similar measures.
- Provide buffers, berms, setbacks, fencing, or other project design measures to protect surrounding agriculture, and to reduce conflict with farming that could result from implementation of transportation projects and/or development included as a part of the RTP/SCS.
- Achieve compensatory mitigation in advance of impacts through purchase or creation of mitigation credits, as deemed appropriate by permitting agencies.
- Require acquisition of agricultural conservation easements on land in the same jurisdiction, if feasible, and at least equal in quality and size to converted Important Farmland, to offset the loss of Important Farmland.
- 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.).

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are Tulare County and incorporated cities within the County. This mitigation measure shall, or can and should, be applied during project permitting and environmental review and implemented during construction, as applicable.

Significance After Mitigation

Implementation of Mitigation Measure AG-1 would require avoidance, minimization, or compensation for Important Farmland impacts by specific projects included in the proposed 2026 RTP/SCS, thereby reducing the impact of conversion of Important Farmland to non-agriculture use and conflicts with agricultural zoning and Williamson Act contracts. However, the mitigation would not ensure that all future land use and transportation projects could reduce impacts on Important Farmland, lands zoned for agriculture, and lands under Williamson Act contract to a less than significant level. As a result, the aforementioned mitigation would reduce impacts, but impacts would remain significant and unavoidable. No additional mitigation measures to reduce this impact to less-than-significant levels are feasible.

Threshold 3:	Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))
Threshold 4:	Would the project result in the loss of forest land or conversion of forest land to non-forest use

Impact AG-2 THE PROPOSED TRANSPORTATION PROJECTS AND LAND USE PROJECTS ENVISIONED BY THE PROPOSED 2026 RTP/SCS WOULD NOT CONFLICT WITH EXISTING ZONING FOR FOREST LAND, TIMBERLAND, OR TIMBERLAND PRODUCTION, NOR CONVERT FOREST LAND TO NON-FOREST USES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Forest lands are generally located in the eastern, mountainous areas of the TCAG region that are under state and federal control (national parks and national forests). Due to existing state and federal protections for these areas, the rate of forest land loss due to urbanization would be low. As shown in Figure 4.2-1, the proposed 2026 RTP/SCS, County and city polices focus development in areas that do not include forest land or timberland, as defined by statutes. Land use strategies contained within the proposed 2026 RTP/SCS encourage growth in developed areas rather than a more dispersed land use pattern that could result in conversion of forest land, timberland, or Timberland Production zones. Proposed 2026 RTP/SCS transportation projects would be limited to similar areas of the TCAG region. As such, the proposed 2026 RTP/SCS would not conflict with existing zoning for forest land, timberland, or timber production, nor convert forest land to non-forest use.

Because land use strategies contained within the proposed 2026 RTP/SCS would help to encourage growth in developed areas, and because the forest lands and timber areas are outside the identified land use development and transportation project areas in the TCAG region, impacts on conversion of forest land or conflicts with land zoned for forest land, timberland, or timberland production would be less than significant.

Mitigation Measures

Mitigation measures are not required because this impact would be less than significant.

4.2.4 Cumulative Impacts

IMPACT AG-C-1 DEVELOPMENT IN THE CUMULATIVE IMPACT ANALYSIS AREA AND TRANSPORTATION PROJECTS WOULD RESULT IN CONVERSION OF AGRICULTURAL LAND TO NON-AGRICULTURAL USES. CUMULATIVE IMPACTS WOULD BE SIGNIFICANT AND THE CONTRIBUTION OF THE 2026 RTP/SCS WOULD BE CUMULATIVELY CONSIDERABLE. IMPACTS TO AGRICULTURAL LAND WOULD BE CUMULATIVELY CONSIDERABLE.

The cumulative impact analysis area for agriculture and forestry resources consists of the TCAG region and adjoining counties. The cumulative analysis presented below relies on a projections-based approach, using regional growth forecasts for the TCAG region and adjoining counties to evaluate cumulative conditions. Impacts of the 2026 RTP/SCS are added to the impacts of growth and development in the adjoining counties, and a determination is made as to whether cumulative impacts would be significant, and whether the 2026 RTP/SCS incremental contribution would be cumulatively considerable. Refer to Chapter 4, *Environmental Impact Analysis, Cumulative Impact Methodology*.

Future development within the cumulative impact analysis area would convert agricultural land, including Important Farmland, to non-agricultural uses and may result in conflicts with agricultural zoning and Williamson Act contracts. In addition, future development adjacent to agricultural land has the potential to result in a loss of agricultural land due to land use conflicts, which adds to the cumulative conversion of agricultural lands, including areas designated as Important Farmland. Cumulative impacts to agricultural resources would be significant.

Implementation of Mitigation Measure AG-1 would reduce the contribution of the proposed 2026 RTP/SCS to cumulative agricultural land impacts. However, the mitigation would not ensure that the future land use and transportation projects could feasibly relocate, realign, or compensate to avoid impacts, and impacts would remain significant and unavoidable. The contribution of the proposed 2026 RTP/SCS to cumulative impacts to agricultural and Williamson Act lands would therefore remain cumulatively considerable post-mitigation.

IMPACT AG-C-2 DEVELOPMENT IN THE CUMULATIVE IMPACT ANALYSIS AREA AND TRANSPORTATION PROJECTS WOULD NOT RESULT IN CONVERSION OF FORESTLAND AND TIMBER RESOURCES. CUMULATIVE IMPACTS WOULD BE LESS THAN SIGNIFICANT AND THE CONTRIBUTION OF THE 2026 RTP/SCS WOULD NOT BE CUMULATIVELY CONSIDERABLE.

In the geographic scope of this cumulative impact analysis, forestland and timber resources are primarily located in Fresno County and Inyo County, including, in particular, in the Sierra National Forest, Inyo National Forest, and Kings Canyon National Park. National forests and national parks are protected by Federal law and greatly restrict any type of urban development that can occur in these areas. Thus, future development within the cumulative impact analysis area would not significantly convert forestland to non-forest uses and thus would not result in conflicts with forest zoning. Cumulative impacts to forestland and timber resources would therefore be less than significant. The proposed 2026 RTP/SCS would not conflict with existing zoning for forest land, timberland, or timber production, nor convert forest land to non-forest use. Cumulative impacts on forestland and timber resources would therefore not be significant, and the contribution of the proposed 2026 RTP/SCS to cumulative impacts to forestland and timber resources would not be cumulatively considerable.

4.3 Air Quality

This section evaluates the air quality impacts resulting from implementation of the proposed 2026 RTP/SCS. Both temporary impacts relating to construction activities and long-term impacts associated with population and employment growth and associated growth in vehicle traffic and energy consumption are discussed. In addition, the potential health risks associated with the proposed 2026 RTP/SCS land use scenario are discussed. Greenhouse gas emissions are analyzed in Section 4.8, G*reenhouse Gas Emissions and Climate Change.*

4.3.1 Setting

a. Climate and Meteorology

Air quality is affected by the rate and location of pollutant emissions and by climatic conditions that influence the movement and dispersion of pollutants. Atmospheric conditions, such as wind speed, wind direction and air temperature gradients, along with local and regional topography, mediate the relationship between air pollutant emissions and air quality.

The TCAG region is located within the San Joaquin Valley Air Basin (SJVAB), which includes San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and western Kern County counties. The SJVAB is approximately 250 miles long and 35 miles in width (on average) and is bordered by the Coast Range Mountains on the west, the Sierra Nevada mountains on the east, and the Tehachapi Mountains to the south. On the valley floor, the SJVAB is open only to the north, which heavily influences prevailing winds. Northwesterly winds are common during summer months, and air masses are often channeled towards the southeastern end of the San Joaquin Valley. Winds are often weaker in the winter, which contribute to stagnation events in which transport of pollutants is very limited (San Joaquin Valley Air Pollution Control District [SJVAPCD] 2015).

The SJVAB is generally considered to have a Mediterranean climate, characterized by sparse rainfall and hot, dry summers. With an average of over 260 sunny days per year, the SJVAB provides favorable conditions for ozone formation. While precipitation and fog during the winter block sunlight and reduce ozone concentrations, wintertime fog provides favorable conditions for the formation of particulate matter (SJVAPCD 2015).

Local climate conditions for the TCAG region are shown in Table 4.3-1. As summarized therein, the warmest month of the year is July, and the coldest month of the year is December. The annual average maximum temperature is 77 degrees Fahrenheit (°F), while the annual average minimum temperature is 50°F (Weather Spark 2026).

Table 4.3-1 Tulare County Climate Conditions

Temperature Condition	Amount
Average annual rainfall	12.5 inches
Average annual maximum temperature	77°F
Average annual minimum temperature	50°F
Warmest month	July
Coolest month	December
Average annual mean temperature	62°F

Temperature Condition	Amount
Average wind speed	4.5 miles per hour
Predominant wind direction	northwest

°F = degrees Fahrenheit

Note: Averages are based on the period of record from January 2018 to December 2026.

Source: WeatherSpark 2026

b. Sources of Air Pollution

Air pollutant emissions in the SJVAB are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories:

- Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat.
- Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products.

Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and can also be divided into two major subcategories:

- On-road sources may be legally operated on roadways and highways.
- Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles.

c. Air Pollutants of Primary Concern

The federal and State Clean Air Acts mandate the control and reduction of certain air pollutants. Under these laws, described more below in Section 4.3.2, *Regulatory Setting*, the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) for "criteria pollutants" and other pollutants. Some pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere, including carbon monoxide, volatile organic compounds (VOC)/reactive organic gases (ROG),[1] nitrogen oxides (NO_X), particulate matter with diameters of up to ten microns (PM_{10}) and up to 2.5 microns ($PM_{2.5}$), sulfur dioxide, and lead. Other pollutants are created indirectly through chemical reactions in the atmosphere, such as ozone, which is created by atmospheric chemical and photochemical reactions, primarily between ROG and NO_X. Secondary pollutants include oxidants, ozone, and sulfate and nitrate particulates (smog). The characteristics, sources and effects of criteria pollutants are discussed in the following subsections. Table 4.3-2 describes the characteristics, sources, and health and atmospheric effects of air pollutants of primary concern.

[1] CARB defines VOC and ROG similarly as, "any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate," with the exception that VOC are compounds that participate in atmospheric photochemical reactions. For the purposes of this analysis, ROG and VOC are considered comparable in terms of mass emissions, and the term ROG is used in this EIR.

Table 4.3-2 Description of Selected Air Contaminants

Air Contaminants of Concern
Photochemical Oxidant (Ox)
Characteristics. The term "photochemical oxidant" can include several different pollutants but consists primarily of ozone (more than 90 percent) and a group of chemicals called organic peroxynitrates. Photochemical oxidants are created in the atmosphere rather than emitted directly into the air. Reactive organic gases and oxides of nitrogen are the emitted contaminants, which participate in the reaction. Ozone is a pungent, colorless toxic gas, which is produced by the photochemical process. Photochemical oxidant is a characteristic of southern California-type smog and reaches highest concentrations during the summer and early fall. **Sources.** Ozone is caused by complex atmospheric reactions involving oxides of nitrogen and reactive organic gases with ultraviolet energy from sunlight. Motor vehicles are the major source of oxides of nitrogen and reactive organic gases in the basin. **Effects.** The common manifestations of ozone and other photochemical oxidants are damage to vegetation and cracking of untreated rubber. Ozone in high concentrations (ranging from 0.15 ppm to 0.50 ppm) can also directly affect the lungs, causing respiratory and coronary irritation and possible changes in lung functions. These health problems are particularly acute in children and elderly people exposed to these pollutants.
Carbon Monoxide (CO)
Characteristics. CO is a colorless, odorless, toxic gas produced through the incomplete combustion of fossil fuels. Concentrations are higher in winter when more fuel is burned for heating purposes and weather conditions favor the build-up of directly emitted contaminants. **Sources.** The use of gasoline-powered engines is the major source of this contaminant, with automobiles being the primary contributor. The CO emissions from gasoline-powered engines are higher during winter months due to poor engine efficiency in cold temperatures. Various industrial processes also produce CO emissions through incomplete combustion of fossil fuels. **Effects.** CO does not irritate the respiratory tract. However, it passes through the lungs directly into the blood stream and, by interfering with the transfer of oxygen, deprives sensitive tissues of oxygen.
Nitrogen Oxides (NO_X)
Characteristics. NO_X primarily consists of nitric oxide (NO) (a colorless, odorless gas formed from atmospheric nitrogen and oxygen when petroleum combustion takes place under high temperatures and/or pressure) and nitrogen dioxide (NO_2) (a reddish-brown irritating gas formed by the combination of nitric oxide with oxygen). Due to the role they play as ozone precursors, oxides of nitrogen are one of the two criteria pollutants subject to federal ozone requirements. **Sources.** High combustion temperatures cause nitrogen and oxygen to combine and form nitric oxide. Further reaction produces additional oxides of nitrogen. Combustion in motor vehicle engines, power plants, refineries, and other industrial operations are the primary sources in the region. Ships, railroads and aircraft are other significant emitters. **Effects.** Oxides of nitrogen are direct participants in photochemical smog reactions. The emitted compound, nitric oxide, combines with oxygen in the atmosphere in the presence of sunlight, to form nitrogen dioxide and ozone. Nitrogen dioxide, the most significant of these pollutants, can color the atmosphere at concentrations as low as 0.5 ppm on days of 21 0-mile visibility. NO_2 is an important air pollutant in the region because it is a primary receptor of ultraviolet light. The latter initiates photochemical reactions, helping to form ozone and/or particulate nitrate. It will also react in the air to form nitrate particulates.
Sulfur Dioxide (SO_2)
Characteristics. SO_2 is a colorless, pungent, irritating gas formed primarily by the combustion of sulfur-containing fossil fuels. In humid atmospheres, SO_2 can form sulfur trioxide and sulfuric acid mist, with some of the latter eventually reacting to produce sulfate particulates. **Sources.** This contaminant is the natural combustion product of sulfur or sulfur-containing fuels. Fuel combustion is the major source, while chemical plants, sulfur recovery plants and metal processing are minor contributors. **Effects.** At sufficiently high concentrations, sulfur dioxide irritates the upper respiratory tract. At lower concentrations, when in conjunction with particulates, SO_2 appears able to do still greater harm by injuring lung tissues. Sulfur oxides, in combination with moisture and oxygen, can yellow the leaves of plants, dissolve marble and eat away iron and steel. Sulfur oxides can also react to form sulfates, which reduce visibility.

Air Contaminants of Concern

Particulates (Total Suspended Particles and PM_{10})

Characteristics. Atmospheric particulates are made up of finely divided solids or liquids, such as soot, dust, aerosols, fumes and mists. About 90 percent by weight of the emitted particles are larger than 10 microns in diameter, but about 10 percent by weight, or 90 percent of the total *number* of particulates, are less than 5 microns in diameter. The aerosols formed in the atmosphere, primarily sulfate and nitrate, are usually smaller than 1 micron. In areas close to major sources, particulate concentrations are generally higher in the winter, when more fuel is burned for heating and meteorological conditions favor the build-up of directly-emitted contaminants. However, in areas remote from major sources and subject to photochemical smog (ozone), particulate concentrations can be higher during summer months because the presence of ozone increases the potential for SO_2 and NO_2 to convert to sulfate and nitrate particulates.

Sources. Particulate matter consists of particles in the atmosphere resulting from many kinds of dust and fume-producing industrial and agricultural operations, from combustion and from atmospheric photochemical reactions. Re-entrained road dust from vehicles is a significant source of particulates. Natural activities also put particulates into the atmosphere; wind-raised dust and ocean spray are two such sources of particulates.

Effects. In the respiratory tract, very small particles of certain substances may produce injury by themselves, or may contain absorbed gases that are injurious. Suspended in the air, particulates less than 5 microns in diameter can both scatter and absorb sunlight, producing haze and reducing visibility. They can also cause a wide range of damage to materials.

Diesel Particulate Matter (DPM)

Characteristics. Diesel particulate matter is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is commonly found throughout the environment. Diesel exhaust is composed of two phases, either gas or particle, and both phases contribute to the risk. The gas phase is composed of many of the urban hazardous air pollutants, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde and polycyclic aromatic hydrocarbons. Diesel exhaust has a distinct odor, which is primarily a result of hydrocarbons and aldehydes contained in diesel fuel. The particle phase also has many different types of particles that can be classified by size or composition. The size of diesel particulates that are of greatest health concern are those that are in the categories of fine and ultra-fine particles. The composition of these fine and ultra-fine particles may be composed of elemental carbon with adsorbed compounds such as organic compounds, sulfate, nitrate, metals and other trace elements.

Sources. Diesel exhaust is emitted from a broad range of diesel engines: the on-road diesel engines of trucks, buses and cars and the off-road diesel engines that include locomotives, marine vessels and heavy-duty equipment.

Effects. Acute exposure to diesel exhaust may cause irritation to the eyes, nose, throat and lungs and some neurological effects such as lightheadedness. Acute exposure may also elicit a cough or nausea as well as exacerbate asthma. Chronic exposure in experimental animal inhalation studies has shown a range of dose-dependent lung inflammation and cellular changes in the lung and there are also diesel exhaust immunological effects. Based upon human and laboratory studies, there is considerable evidence that diesel exhaust is a likely carcinogen. Human epidemiological studies demonstrate an association between diesel exhaust exposure and increased lung cancer rates in occupational settings.

Hydrocarbons and Other Organic Gases (Total Hydrocarbons, CH_4NMHC (non-methane), AHC, NHC)

Characteristics. Any of the vast family of compounds consisting of hydrogen and carbon in various combinations are known as hydrocarbons. Fossil fuels are included in this group. Many hydrocarbon compounds are major air pollutants, and those which can be classified as olefins or aromatics are highly photochemically reactive. Atmospheric hydrocarbon concentrations are generally higher in winter because the reactive hydrocarbons react more slowly in the winter and meteorological conditions are more favorable to their accumulating in the atmosphere to higher concentration before producing photochemical oxidants. Due to the role they play as ozone precursors, reactive hydrocarbons are one of the two criteria pollutants subject to federal ozone requirements.

Sources. Motor vehicles are a major source of anthropogenic hydrocarbons (AHC) in the basin. Other sources include evaporation of organic solvents, and petroleum refining and marketing operations. Trees are the principal emitters of biogenic or natural hydrocarbons (NHC).

Effects. Certain hydrocarbons can damage plants by inhibiting growth and causing flowers and leaves to fall. Levels of hydrocarbons currently measured in urban areas are not known to cause adverse effects in humans. However, certain members of this contaminant group are important components in the reactions which produce photochemical oxidants.

Air Contaminants of Concern
Lead (Pb)
Characteristics. Lead is an elemental heavy metal found naturally in the environment as well as in manufactured products. Lead can be released directly into the air, as suspended particles. It is soft, malleable and melts at a relatively low temperature. When freshly cut, it has a bluish-white tint; it tarnishes to a dull gray upon exposure to air. Lead has several properties that make it useful: high density, low melting point, ductility, and relative inertness to oxidation. Combined with relative abundance and low cost, these factors resulted in the extensive worldwide use of lead. Lead is persistent in the environment and accumulates in soils and sediments through deposition from air sources, direct discharge of waste streams to water bodies, mining, and erosion.
Sources. The major sources of lead emissions historically have been mobile and industrial sources. As a result of phasing out leaded gasoline, metal processing currently is the primary source of Pb emissions. The highest level of lead in the air is generally found near lead smelters. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers.
Effects. Humans may be exposed to lead from air pollution directly, through inhalation, or through the incidental ingestion of lead that has settled out from the air onto soil or dust. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems and the cardiovascular system. Lead exposure also affects the oxygen carrying capacity of the blood. The lead effects most commonly encountered in current populations are neurological effects in children and cardiovascular effects (e.g., high blood pressure and heart disease) in adults. Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits and lowered IQ. Elevated lead in the environment can result in decreased growth and reproductive rates in plants and animals and neurological effects in vertebrates.

Source: USEPA 2025a

Toxic Air Contaminants

A toxic air contaminant (TAC) is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or which may pose a present or potential hazard to human health. TACs may result in long-term health effects such as cancer, birth defects, neurological damage, asthma, or genetic damage, or short-term acute effects such as eye watering, respiratory irritation, runny nose, throat pain, and headaches. TACs are considered either carcinogenic or non-carcinogenic based on the nature of the health effects associated with exposure. For carcinogenic TACs, potential health impacts are evaluated in terms of overall relative risk expressed as excess cancer cases per one million exposed individuals. Non-carcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

TACs include both organic and inorganic chemical substances. One of the main sources of TACs in California is diesel engines that emit exhaust containing solid material known as diesel particulate matter (DPM; CARB 2025); however, TACs may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities.

CARB reports that diesel particulate matter represents about 70 percent of the potential cancer risk from vehicle travel on a typical urban freeway (CARB 2005). Residences and communities in proximity to TAC sources are disproportionately impacted. To protect people from TACs and reduce exposure, CARB recommends avoiding locating new sensitive land uses, such as residences, schools, daycare centers, playgrounds, or medical facilities, within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day. Additional non-cancer health risk attributable to proximity to freeways was seen within 1,000 feet and was strongest within 300 feet. California freeway studies show about a 70 percent drop-off in particulate pollution levels at 500 feet (CARB 2005).

Diesel Particulate Matter

One of the main sources of TACs in California is diesel engine exhaust that contains solid material known as diesel particulate matter (DPM). Diesel exhaust is composed of two phases, either gas or particle, and both phases contribute to the health risk associated with sensitive receptor exposure. The gas phase is composed of many of the urban hazardous air pollutants, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde, and polycyclic aromatic hydrocarbons. Diesel exhaust has a distinct odor, which is primarily a result of hydrocarbons and aldehydes contained in diesel fuel. The particle phase also has many different types of particles that can be classified by size or composition. The size of diesel particulates that are of greatest health concern are those that are in the categories of fine and ultra-fine particles. The composition of these fine and ultra-fine particles may be composed of elemental carbon with adsorbed compounds such as organic compounds, sulfate, nitrate, metals, and other trace elements.

More than 90 percent of DPM is less than one micron in diameter (about $1/70^{th}$ the diameter of a human hair) and thus is a subset of $PM_{2.5}$. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs (CARB 2025). The particles have hundreds of chemicals adsorbed onto their surfaces, including many known or suspected mutagens and carcinogens. The California Office of Environmental Health Hazard Assessment (OEHHA) completed a comprehensive health assessment of diesel exhaust in 1998, which formed the basis for CARB to formally identify the particles in diesel exhaust as a TAC. In California, DPM has a significant impact since it is estimated that 70 percent of total known cancer risk related to air toxics is attributable to DPM. According to CARB, DPM is estimated to increase statewide cancer risk by 520 cancers per million residents exposed over a lifetime (CARB 2025).

DPM can also be responsible for elevated localized exposures (“hotspots”). Risk characterization scenarios conducted by CARB have determined the potential cancer risk resulting from proximity to DPM sources, such as school buses and high-volume freeways. Acute exposure to diesel exhaust may cause irritation to the eyes, nose, throat and lungs and some neurological effects such as lightheadedness. Acute exposure may also elicit a cough or nausea as well as exacerbate asthma. Chronic exposure in experimental animal inhalation studies has shown a range of dose-dependent lung inflammation and cellular changes in the lung and there are also diesel exhaust immunological effects. Based upon human and laboratory studies, there is considerable evidence that diesel exhaust is a likely carcinogen. Human epidemiological studies demonstrate an association between diesel exhaust exposure and increased lung cancer rates in occupational settings.

Besides DPM, several other pollutants are emitted by vehicle exhaust are a public health concern. The USEPA has identified five pollutants of highest priority in addition to DPM: acrolein, acetaldehyde, formaldehyde, benzene, and 1,3-butadiene. The latter five pollutants are found in organic gases emitted by vehicles.

d. Current Air Quality

California is divided geographically into 15 air basins for managing the air resources of the state on a regional basis. Areas within each air basin are considered to share the same air masses and, therefore, are expected to have similar ambient air quality. Depending on whether the federal and state standards are met or exceeded, the local air basin is classified as in “attainment” or “non-attainment.” Once a nonattainment area has achieved the air quality standards for a particular pollutant, it may be redesignated to an attainment area for that pollutant. SJVAPCD is required to monitor air pollutant levels to assure the standards are met and, if they are not, to develop strategies to meet these standards.

Monitoring of ambient air pollutant concentrations is conducted by CARB and SJVAPCD. Some monitors are operated specifically for use in determining attainment status, while others are operated for different] purposes, such as generating daily air quality forecasts. In total, SJVAPCD utilizes data from monitors operating at 29 sites in the SJVAB, five of which are in the TCAG region. Figure 4.3-1 shows the locations of all monitoring stations in the SJVAB, including those in Tulare County that were in operation in 2025. The Tulare County portion of the SJVAB is classified as a nonattainment area for the federal 8-hour ozone and 24-hour and annual $PM_{2.5}$ standards and State 1-hour and 8-hour ozone, 24-hour and annualPM_{10} and 24-annual $PM_{2.5}$ standards. The SJVAB is classified as in attainment (or unclassifiable/attainment) for all other State and federal standards (USEPA 2026b). Table 4.3-3 presents a ten-year summary of the days that the SJVAB exceeded NAAQS and CAAQS for ozone, $PM_{2.5}$, and PM_{10}. Table 4.3-4 presents the number of days Tulare County exceeded NAAQS and CAAQS for ozone, NO_2, $PM_{2.5}$, and PM_{10}.

Table 4.3-3 Ten-Year SJVAB Air Quality Summary (2015-2024) for Days Over the Ozone, $PM_{2.5}$, and PM_{10} NAAQS and CAAQS

Year	Ozone 1-Hour CAAQS	Ozone 8-Hour NAAQS	Ozone 8-Hour CAAQS	$PM_{2.5}$ 24 Hour NAAQS	$PM_{2.5}$ 24 Hour CAAQS	PM_{10} 24 Hour NAAQS	PM_{10} 24 Hour CAAQS
2015	47	97	99	38	*	0	121
2016	51	112	113	26	*	0	158
2017	48	122	126	34	*	8	146
2018	42	111	112	42	*	10	164
2019	24	96	100	21	*	16	130
2020	50	119	121	52	*	39	157
2021	41	101	104	53	*	16	152
2022	31	102	105	41	*	4	171
2023	26	73	77	11	*	3	126
2024	55	105	108	15	*	10	161

CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; PM_{10} = particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = particulate matter with a diameter of 2.5 microns or less;

* Insufficient data available to determine the value

Note: No measurement data available post-2024

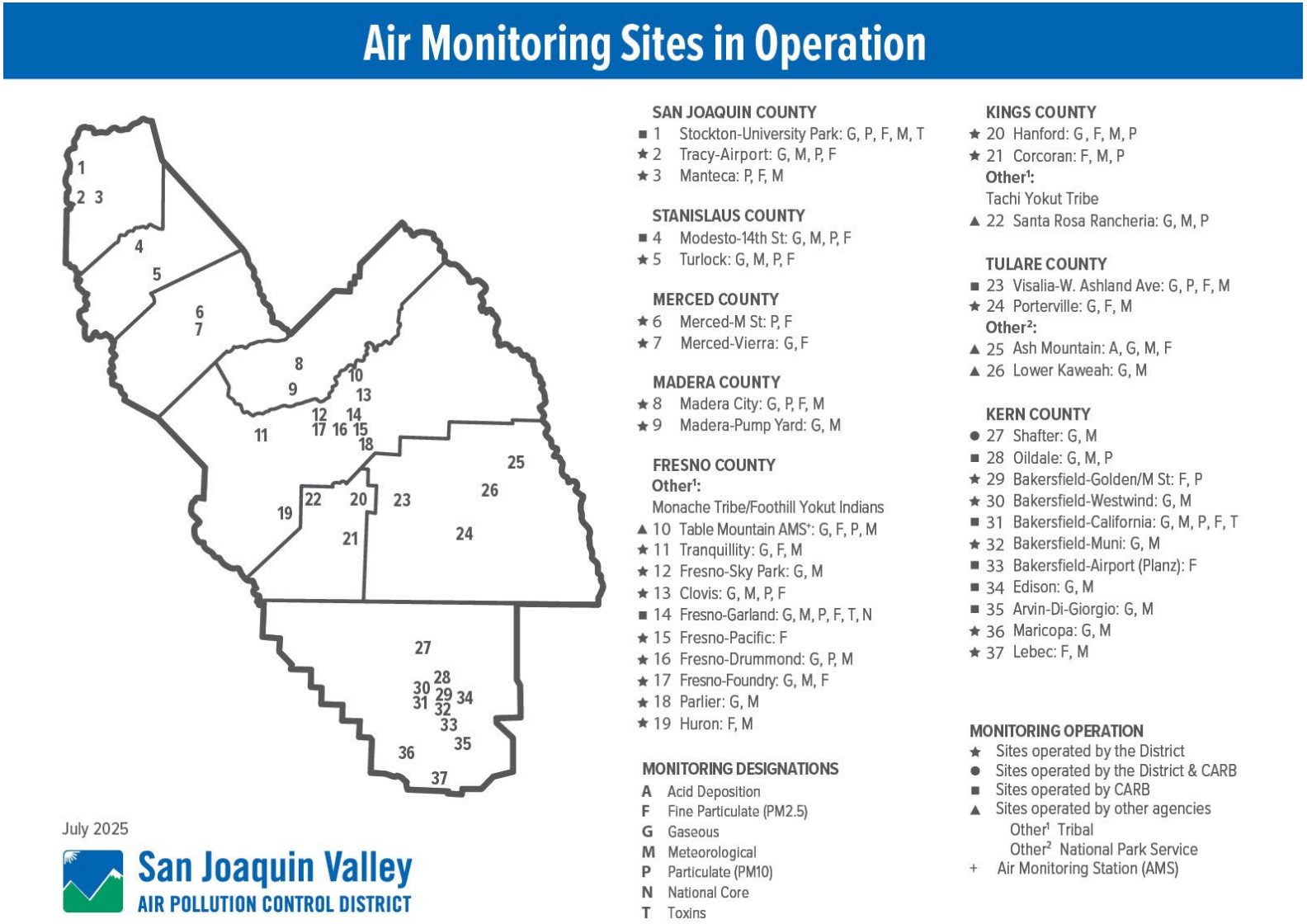
Source: CARB 2026a

Table 4.3-4 Ambient Air Quality in Tulare County (2022 – 2024)

Pollutant	2022	2023	2024
Ozone (ppm), Eight-Hour Average	0.113	0.095	0.099
Number of days of state exceedances (>0.070 ppm)	82	54	95
Number of days of federal exceedances (>0.070 ppm)	102	73	105
Ozone (ppm), Worst Hour	0.141	0.117	0.121
Number of days of state exceedances (>0.09 ppm)	31	26	55
Nitrogen Dioxide (ppm), Worst Hour	0.0676	0.0635	0.0748
Number of days of state exceedances (>0.18 ppm)	0	0	0
Particulate Matter <10 microns ($\mu g/m^3$), Worst 24 Hours[1]	250.8	270.4	188.6
Number of days of state exceedances (>50 $\mu g/m^3$)	178	146	158
Number of days of federal exceedances (>150 $\mu g/m^3$)	1	1	5
Particulate Matter <2.5 microns ($\mu g/m^3$), Worst 24 Hours	62.9	123.1	71.9
Number of days of federal exceedances (>35 $\mu g/m^3$)	59	33	23

ppm = parts per million
Source: CARB 2026b

Figure 4.3-1 SJVAB Air Quality Monitoring Stations (2025)



Source: SJVAPCD 2025a

4.3.2 Regulatory Setting

a. Federal Laws, Regulations, and Policies

Clean Air Act

The federal Clean Air Act (CAA) governs air quality in the United States and is administered by the USEPA at the federal level. Air quality in California is also governed by regulations under the California Clean Air Act, which is administered by CARB at the state level. At the regional and local levels, local air districts such as SJVAPCD typically administer the federal and California Clean Air Acts.

USEPA is responsible for enforcing the federal CAA, which defines non-attainment areas as geographic regions designated as not meeting one or more of the national ambient air quality standards (NAAQS) that are required under the 1977 CAA and subsequent amendments. The federal CAA requires that a State Implementation Plan (SIP) be prepared for each non-attainment area and a maintenance plan be prepared for each former non-attainment area that subsequently demonstrated compliance with the standards. A SIP is a compilation of a state's air quality control plans and rules, approved by the USEPA. Section 176(c) of the CAA provides that federal agencies cannot engage, support, or provide financial assistance for licensing, permitting, or approving any project unless the project conforms to the applicable SIP. The state and USEPA's goals are to eliminate or reduce the severity and number of violations of the NAAQS and to achieve expeditious attainment of these standards.

Table 4.3-5 summarizes the NAAQS and California Ambient Air Quality Standards (CAAQS). The CAAQS are more restrictive than the NAAQS for several pollutants, including the one-hour standard for carbon monoxide, the 24-hour standard for sulfur dioxide, and the 24-hour standard for PM_{10}.

Table 4.3-5 Current Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	Federal Primary Standards	California Standards
Ozone	1-Hour	–	0.09 ppm
	8-Hour	0.070 ppm	0.070 ppm
Carbon Monoxide	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide	Annual	0.053 ppm	0.030 ppm
	1-Hour	0.10 ppm	0.18 ppm
Sulfur Dioxide	Annual	–	–
	24-Hour	–	0.04 ppm
	1-Hour	0.075 ppm	0.25 ppm
PM_{10}	Annual	–	20 µg/m^3
	24-Hour	150 µg/m^3	50 µg/m^3
$PM_{2.5}$	Annual	9 µg/m^3	12 µg/m^3
	24-Hour	35 µg/m^3	–
Lead	30-Day Average	–	1.5 µg/m^3
	3-Month Average	0.15 µg/m^3	–

Pollutant	Averaging Time	Federal Primary Standards	California Standards
Visibility Reducing Particles	8-Hour	–	Extinction of 0.23 per kilometer*
Sulfates	24-Hour	–	25 µg/m^3
Hydrogen Sulfide	1-Hour	–	0.03 ppm (42 µg/m^3)
Vinyl Chloride	24-Hour	–	0.01 ppm 0.02 (26 µg/m^3)

ppm = parts per million; µg/m^3 = micrograms per cubic meter

* In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Source: CARB 2024a

1990 Amendments to the Clean Air Act

The 1990 amendments to the CAA included a provision to address air toxics. Under Title III of the CAA, USEPA establishes and enforces National Emission Standards for Hazardous Air Pollutants, which are nationally uniform standards oriented toward controlling particular hazardous air pollutants. Section 112(b) of the CAA identifies 189 "Air Toxics" (hazardous air pollutants), directs the USEPA to identify sources of the 189 pollutants, and establishes a 10-year time period for the USEPA to issue technology-based emissions standards for each source category. Title III of the CAA provides for a second phase under which the USEPA is to assess residual risk after the implementation of the first phase of standards and impose new standards, when appropriate, to protect public health.

Federal Fuel Economy and Emissions Standards

Corporate Average Fuel Economy Standards

The Energy Policy and Conservation Act in 1975 established the Corporate Average Fuel Economy Standards (CAFE) standards are Federal rules established by the National Highway Traffic Safety Administration (NHTSA) that set fuel economy standards for all new passenger cars and light trucks sold in the United States. In 2024, CAFE standards were finalized for model years (MYs) 2027 through 2031. The final rule establishes standards that require an industry-wide fleet average of approximately 49 miles per gallon (mpg) for passenger cars and light trucks.

On February 12, 2026, the USEPA rescinded the Clean Air Act Endangerment Finding for GHGs and repealed all GHG emission standards for light-duty, medium-duty, and heavy-duty vehicles and engines pursuant to CAA Section 202(a); the final rule was published February 18, 2026, and became effective April 20, 2026 (USEPA 2026c). This action removes GHG-related regulatory provisions from 40 CFR part 600 but does not affect provisions related to CAFE standards and fuel economy labeling. The rule is currently subject to ongoing litigation.

Federal Motor Vehicle GHG Emissions Standards

The federal motor vehicle GHG emissions standards were adopted by USEPA under Section 202(a) of the CAA following the 2009 Endangerment Finding, which determined that GHG emissions from motor vehicles contribute to air pollution that may endanger public health and welfare. As mentioned above, USEPA rescinded the Endangerment Finding on February 12, 2026, and published

the final rule in the *Federal Register* on February 18, 2026. The EPA states that without the Endangerment Finding, it lacks statutory authority to regulate GHG emissions from motor vehicles under Clean Air Act §202(a). USEPA also finalized the repeal of all subsequent GHG emission standards from its regulations for light-, medium-, and heavy-duty on-highway vehicles and engines USEPA 2026c). The rule is currently subject to ongoing litigation.

b. State Laws, Regulations, and Policies

California Clean Air Act

The California Clean Air Act (CCAA) was enacted in 1988 (California Health & Safety Code Section 39000 et seq.) and amended in 1992. The CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles (see Table 4.3-4). Air basins or areas that exceed the CAAQS are designated non-attainment until compliance is disclosed in an attainment plan. In California, CARB is responsible for meeting the State requirements of the federal CAA, administering the California CAA, and establishing the California ambient air quality standards (CAAQS). The California CAA, as amended in 1992, requires all air districts in the State to endeavor to achieve and maintain the CAAQS. CARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county level.

Assembly Bill 32 and Scoping Plan

The "California Global Warming Solutions Act of 2006," (AB 32), outlines California's major legislative initiative for reducing GHG emissions. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the main state strategies for reducing GHG emissions to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 target of 431 MMT CO_2e, which was achieved in 2016. CARB approved the Scoping Plan on December 11, 2008, which included GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among others (CARB 2008). Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted since the Scoping Plan's approval.

CARB approved the 2013 Scoping Plan update in May 2014. The update defined the CARB's climate change priorities for the next five years, set the groundwork to reach post-2020 statewide goals, and highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluated how to align the state's longer term GHG reduction strategies with other state policy priorities, including those for water, waste, natural resources, clean energy, transportation, and land use (CARB 2014).

Senate Bill 32 and 2017 Scoping Plan

On September 8, 2016, the governor signed Senate Bill (SB) 32 into law, extending the California Global Warming Solutions Act of 2006, by requiring the state to further reduce GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, the CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target (CARB 2017). The 2017 Scoping Plan relies on the continuation and

expansion of existing policies and regulations, such as the Cap-and-Trade Program, and implementation of recently adopted policies and legislation, such as SB 1383 and SB 100 (discussed later). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally appropriate quantitative thresholds consistent with statewide per capita goals of six MT CO_2e by 2030 and two MT CO_2e by 2049. As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, sub-regional, or regional level), but not for specific individual projects because they include all emissions sectors in the state.

Assembly 1279 and 2022 Scoping Plan

AB 1279, the California Climate Crisis Act, was passed on September 16, 2022, and declares the State would achieve net zero GHG emissions as soon as possible, but no later than 2045, and to achieve and maintain net negative GHG emissions thereafter. In addition, the bill states that the State would reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045.

In response to the passage of AB 1279 and the identification of the 2045 GHG reduction target, CARB published the 2022 Climate Change Scoping Plan in November 2022 (CARB 2022a). The 2022 Scoping Plan builds upon the framework established by the 2008 Scoping Plan and previous updates while identifying new, technologically feasible, cost-effective, and equity-focused path to achieve California's climate target. The 2022 Scoping Plan includes policies to achieve a significant reduction in fossil fuel combustion, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon.

The 2022 Scoping Plan assesses the progress California is making toward reducing its GHG emissions by at least 40 percent below 1990 levels by 2030, as called for in SB 32 and laid out in the 2017 Scoping Plan, addresses recent legislation and direction from Governor Gavin Newsom, extends and expands upon these earlier plans, and implements a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045, as well as taking an additional step of adding carbon neutrality as a science-based guide for California's climate work. As stated in the 2022 Scoping Plan, "The plan outlines how carbon neutrality can be achieved by taking bold steps to reduce GHGs to meet the anthropogenic emissions target and by expanding actions to capture and store carbon through the state's natural and working lands and using a variety of mechanical approaches" (CARB 2022). Specifically, the 2022 Scoping Plan:

- Identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030.
- Identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045, and a reduction in anthropogenic emissions by 85 percent below 1990 levels.
- Focuses on strategies for reducing California's dependency on petroleum to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth and clean sector jobs.
- Integrates equity and protecting California's most impacted communities as driving principles throughout the document.

- Incorporates the contribution of natural and working lands to the State's GHG emissions, as well as their role in achieving carbon neutrality.
- Relies on the most up-to-date science, including the need to deploy all viable tools to address the existential threat that climate change presents, including carbon capture and sequestration, as well as direct air capture.
- Evaluates the substantial health and economic benefits of taking action.
- Identifies key implementation actions to ensure success.

Under the Scoping Plan Scenario, California's 2030 emissions are anticipated to be 48 percent below 1990 levels, representing an acceleration of the current SB 32 target. Cap-and-Trade regulation continues to play a large factor in the reduction of near-term emissions for meeting the accelerated 2030 reduction target. Every sector of the economy will need to begin to transition in this decade to meet the GHG emissions reduction goals and achieve carbon neutrality no later than 2045. The 2022 Scoping Plan approaches decarbonization from two perspectives, managing a phasedown of existing energy sources and technologies, as well as increasing, developing, and deploying alternative clean energy sources and technology.

Senate Bill 656

In 2003, the California Legislature enacted Senate Bill (SB) 656 (Chapter 738, Statutes of 2003), codified as Health and Safety Code Section 39614, to reduce public exposure to PM_{10} and $PM_{2.5.}$ SB 656 required that, by January 1, 2005, CARB, in consultation with local air pollution control and air quality management districts, must develop and adopt a list of the most readily available, feasible, and cost-effective control measures that could be employed by CARB and the air districts to reduce PM_{10} and $PM_{2.5}$ (collectively referred to as PM). The legislation established a process for achieving near-term reductions in PM throughout California ahead of federally required deadlines for $PM_{2.5}$ and provided new direction on PM reductions in those areas not subject to federal requirements for PM. Measures adopted as part of SB 656 complement and support those required for federal $PM_{2.5}$ attainment plans, as well as for State ozone plans. This ensures continuing focus on PM reduction and progress toward attaining California's more health protective standards. This list of air district control measures was adopted by CARB on November 18, 2004. SJVAPCD also complied with this legislation; staff developed a Particulate Matter Implementation Schedule that was adopted in December 2005 (SJVAPCD 2005).

Toxic Air Contaminant Identification and Control Act

The Toxic Air Contaminant Identification and Control Act (Assembly Bill 1807 of 1983) created California's program to reduce exposure to air toxics. The program involves a two-step process: risk identification and risk management. In the risk identification step, and upon CARB's request, the Office of Environmental Health Hazard Assessment evaluates the health effects of substances other than pesticides and their pesticidal uses. Substances with the potential to be emitted or that are currently being emitted into the ambient air may be identified as a TAC. In the risk management step, once a substance is identified as a TAC, and with the participation of local air districts, industry, and interested public, CARB prepares a report that outlines the need and degree to regulate the TAC through a control measure.

Air Toxics "Hot Spots" Information and Assessment Act

The Air Toxics "Hot Spots" Information and Assessment Act (Assembly Bill 2588) was enacted in 1987 to require stationary sources to report the types and quantities of substances identified as having a localized health risk. This act aims to ascertain health risks, notify nearby residents of significant risks, and reduce significant risks to acceptable levels. The California Office of Environmental Health Hazard Assessment (OEHHA) is the lead agency for the assessment of health risks posed by environmental contaminants. OEHHA, which is an office within the California Environmental Protection Agency, aims to protect human health and the environment through scientific evaluation of risks posed by hazardous substances. In addition, OEHHA develops health-protective exposure levels for contaminants in air, water, and soil as guidance for regulatory agencies and the public. These include public health goals for contaminants in drinking water and both cancer potency factors and non-cancer reference exposure levels for the Air Toxics Hot Spots Program.

Executive Order N-79-20

Executive Order N-79-20, issued in 2020, established a Statewide goal that 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035 and a further goal of the State that 100 percent of medium- and heavy-duty vehicles in the State be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks.

California Building Energy Efficiency Standards

The California Code of Regulations Title 24 is referred to as the Building Energy Efficiency Standards or California Energy Code. This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings to reduce California's energy demand. New construction and major renovations must demonstrate their compliance with the current Energy Code through submittal and approval of a Title 24 Compliance Report to the local building permit review authority and the CEC.

Future land use projects would be subject to the 2025 California Building Energy Efficiency Standards, codified in Title 24, Part 6 of the California Code of Regulations, which took effect on January 1, 2026. These standards are designed to reduce energy consumption in residential and non-residential buildings, support California's climate goals, and improve indoor environmental quality.

Key updates to the 2025 standards include expanded requirements for heat pump technologies, electric readiness for future electrification, enhanced ventilation and indoor air quality measures, and battery storage system readiness for homes with larger electrical service capacities. These measures are expected to reduce building energy demand, lower greenhouse gas emissions, and support integration of distributed energy resources.

AB 130 of 2025 imposes a moratorium on changes to California building codes affecting residential units, including both state and local amendments, through 2031, with limited exemptions. Essentially, AB 306 would prohibit CEC or any other adopting agency from considering, approving, or adopting any proposed building standards affecting residential units, unless certain conditions are met, including that the CEC deems those changes necessary as emergency standards to protect health and safety. The 2025 Energy Code will proceed as planned with an effective date of January 1, 2026, and the 2031 Energy Code cycle is anticipated to be unaffected.

California Green Building Standards Code

The 2026 California Green Building Standards Code (CALGreen), codified in Title 24, Part 11 of the California Code of Regulations, and effective in 2025, establishes mandatory minimum environmental performance standards for newly constructed residential and non-residential buildings statewide. These standards are enforced by local jurisdictions and address key sustainability areas including energy efficiency, water conservation, material resource efficiency, and indoor environmental quality.

CALGreen also includes voluntary tiers (Appendices A4 and A5) that provide enhanced environmental performance options. These voluntary measures are intended as model provisions for jurisdictions considering above-code ordinances (also known as "reach codes") or for builders seeking additional compliance flexibility under the California Energy Code.

CARB Air Quality and Land Use Handbook and 2017 Technical Advisory

CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* recommends that local agencies avoid siting new, sensitive land uses within specific distances of potential sources of TACs, such as freeways and high-traffic roads, distribution centers, railroads, and ports (CARB 2005). Specifically, CARB recommends that local agencies avoid siting new, sensitive land uses within 500 feet of a freeway. The primary concern is the effect of diesel exhaust particulate on sensitive uses.

CARB *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways* technical advisory (2017) identifies effective strategies that planners and other land use decision-makers can implement locally and in the near-term to reduce exposure to near-roadway pollution from increased infill development while also protecting public health. These strategies complement the state's many efforts to reduce air pollution from all sources, including cars and trucks.

Diesel Risk Reduction Program

In August 1998, CARB identified particulate emissions from diesel-fueled engines (diesel PM) as TACs, based on data linking diesel PM emissions to increased risks of lung cancer and respiratory disease. Following the identification process, CARB was required to determine if there was a need for further control, which led to creation of the Diesel Advisory Committee to assist in the development of a risk management guidance document and risk reduction plan. In September 2000, CARB adopted the Diesel Risk Reduction Plan, which recommends control measures to reduce the risks associated with diesel PM and achieve a goal of 75 percent diesel PM reduction by 2010 and 85 percent by 2020 (CARB 2000).

CARB met its original Diesel Risk Reduction Plan goal of reducing Diesel PM emissions by 85 percent by 2020. Building on this success, CARB has adopted more ambitious targets focused on transitioning to zero-emission technologies across all sectors, including mandates for 100 percent zero-emission sales of new passenger vehicles by 2035 and full transition of on- and off-road fleets to zero emissions by 2045, with the broader aim of achieving health-protective air quality standards statewide by the mid-2030s (CARB 2022a; CARB 2022b).

Airborne Toxic Control Measures

Under the California Health and Safety Code, Division 26 (Air Resources), CARB is authorized to adopt regulations to protect public health and the environment through the reduction of TACs and other air pollutants with adverse health effects. CARB has promulgated several mobile and stationary source airborne toxic control measures (ATCMs) pursuant to this authority. For instance,

effective as of July 2003, CARB approved an ATCM that limits school bus idling and idling at or near schools to only when necessary for safety or operational concerns (13 CCR Chapter 10, Section 2480). This ATCM is intended to reduce diesel PM and other TACs and air pollutants from heavy-duty motor vehicle exhaust. It applies to school buses, transit buses, school activity buses, youth buses, general public paratransit vehicles, and other commercial motor vehicles. This ATCM focuses on reducing public exposure to diesel PM and other TACs, particularly for children riding in and playing near school buses and other commercial motor vehicles, who are disproportionately exposed to pollutants from these sources. In addition, effective February 2005, CARB approved an ATCM to limit the idling of diesel-fueled commercial motor vehicles with gross vehicular weight ratings of greater than 10,000 pounds, regardless of the state or country in which the vehicle is registered (13 CCR Chapter 10, Section 2485).

Drayage Truck Regulation

CARB established the Drayage Truck Regulation as part of its ongoing efforts to reduce PM and NOx emissions from diesel-fueled engines and improve air quality associated with goods movement. The purpose of this regulation is to reduce emissions and public exposure to diesel PM, NOx, and other air contaminants by setting emission standards for in-use, heavy-duty diesel-fueled vehicles.

CARB adopted the Advanced Clean Fleets (ACF) Regulation (CCR Title 13, § 2015-2015.6) in 2023, which included updated requirements for drayage trucks operating at seaports and intermodal railyards. Beginning January 1, 2024, only zero-emission drayage trucks can be newly registered in CARB's Truck Regulation Upload, Compliance, and Reporting System (TRUCRS). Existing legacy trucks must meet annual operational and useful life requirements to remain in service, with non-compliant vehicles removed from the registry starting in 2025. By 2035, all drayage trucks operating in California must be zero-emission, supporting statewide goals to reduce diesel particulate matter, NOx, and greenhouse gas emissions, particularly in communities disproportionately impacted by freight-related pollution.

In a January 13, 2025, letter to USEPA, CARB withdrew its request for a Clean Air act waiver for the ACF Regulation. CARB is not enforcing the federal and private fleets portions of the ACF that require a Clean Air Act waiver, but is enforcing portions of the ACF Regulation that do not require a Clean Air Act waiver, such as the state and local government fleets portion, which will still be required to be fully electric by 2045.

Advanced Clean Trucks and Low-NOx Regulation

The Advanced Clean Trucks rule (CCR Title 13, Division 3, Chapter 1, Article 3.1) is a CARB regulation that requires medium and heavy-duty truck manufacturers to gradually increase the percentage of zero-emission vehicles (ZEVs) they sell in the state. Effective in March 2021, the rule mandates that by 2035, 55 percent of Class 2b-3 truck sales, 75 percent of Class 4-8 straight truck sales, and 40 percent of truck tractor sales must be ZEVs. The goal is to accelerate the transition to zero-emission trucks. USEPA granted the waiver request under the CAA to enact the more stringent fuel economy components of the ACT regulation on April 6, 2023. However, Public Law 119-15 enacted on June 12, 2025, disapproves of this regulation under the Congressional Review Act, retroactively revoking the state's waiver issued by USEPA under the Clean Air Act to implement the Advanced Clean Trucks regulation.

The Heavy-Duty Low-NOX Omnibus Regulation was adopted by CARB in 2021 (effective December 22, 2021; amended in May 2024), and mandates steep reductions in NO_X and PM emissions from new medium- and heavy-duty diesel and Otto-cycle engines starting with model year 2024. By full

rollout, the regulation is projected to eliminate approximately 17–23 tons/day of NO_X by 2031. However, Public Law 119-17, enacted on June 12, 2025, disapproves of this regulation under the Congressional Review Act, retroactively revoking the state's waiver issued by USEPA under the Clean Air Act to implement the Advanced Clean Trucks regulation.

The implications of these laws on the State's capability to enforce its ACT and Low NOx rules are uncertain at this time, as the California Attorney filed a lawsuit challenging P.L. Nos. 119-15 and 17 on June 12, 2025. Whether this action will be successful is unknown, as is the possibility that a federal judge will issue a stay to halt the implementation of the ACT and Low NOx rules during the legal process.

Proposition 1B: Goods Movement Emission Reduction Program

The $1 billion Proposition 1B Goods Movement Emission Reduction Program is a partnership between CARB and local agencies, air districts, and seaports to quickly reduce air pollution emissions and health risk from freight movement along California's trade corridors. Local agencies apply to CARB for funding. Then those agencies offer financial incentives to owners of equipment used in freight movement to upgrade to cleaner technologies. Projects funded under this program must achieve early or extra emission reductions not otherwise required by law or regulation. As of April 2025, Executive Order G-25-093 was adopted under this program, providing modifications to the Program Guidelines for Year 5 and Year 6 locomotive, cargo handling equipment, and TRU projects.

Assembly Bill 1493

Assembly Bill (AB) 1493 (Chapter 200, Statutes of 2002), known as the "Pavley bill," amended Health and Safety Code Sections 42823 and 43018.5 requiring CARB to develop and adopt regulations that achieve maximum feasible and cost-effective reduction of GHG emissions from passenger vehicles, light-duty trucks and other vehicles used for noncommercial personal transportation in California.

Implementation of new regulations prescribed by AB 1493 required that the State of California apply for a waiver under the federal Clean Air Act. Although the USEPA initially denied the waiver in 2008, the USEPA approved a waiver in June 2009, and in September 2009, CARB approved amendments to its initially adopted regulations to apply the Pavley standards that reduce GHG emissions to new passenger vehicles in model years 2009 through 2016. In 2012, CARB approved the Low-Emission Vehicle III GHG regulation, which requires further reductions in passenger GHG for 2017 and subsequent vehicle model years. According to CARB, implementation of the Pavley regulations is expected to reduce fuel consumption while also reducing GHG emissions (CARB 2025).

In 2022, CARB approved the Advanced Clean Cars II rule regulating model years from 2026 to 2035. The rule establishes a year-by-year roadmap so that by 2035, 100 percent of new cars and light trucks sold in California would be zero-emission vehicles, including plug-in hybrid electric vehicles. The regulation realizes and codifies the light-duty vehicle goals set out in Governor Newsom's Executive Order N-79-20. By 2040, CARB anticipates that the rule would reduce GHG emissions from light-duty vehicles by 50 percent for a cumulative total of 395 MMT CO*2*e from 2026 through 2040. The USEPA granted CARB its California's Clean Air Act waiver request for the Advanced Clean Cars II rule on December 18, 2024. However, Public Law 119-16 enacted on June 12, 2025, disapproves of this regulation under the Congressional Review Act, retroactively revoking the state's waiver issued by the USEPA under the Clean Air Act to implement the Advanced Clean Cars II rule. The implications of this law on the State's capability to enforce its ACC II rule are uncertain at this time,

as the California Attorney filed a lawsuit challenging P.L. No. 119-16 on June 12, 2025. Whether this action will be successful is unknown, as is the possibility that a federal judge will issue a stay to halt the implementation of the ACC II rule during the legal process.

c. Regional Laws, Regulations, and Policies

San Joaquin Valley Air Pollution Control District

Air Quality Management Plans

The federal Clean Air Act Amendments of 1990 set a schedule for the attainment of the NAAQS. States are required to prepare a State Implementation Plan (SIP) to develop strategies to bring about attainment of the standards. In addition, the California Clean Air Act of 1988 requires areas that exceed the California ambient air quality standards to plan for the eventual attainment of the CAAQS. SJVAPCD monitors and regulates local air quality in the SJVAB and implements Air Quality Management Plans (AQMPs). Since 1992, SJVAPCD has adopted numerous attainment plans to reduce ozone and particulate emissions.

The 2022 Ozone Plan for 8-hour ozone standard is the most recent ozone attainment plan, adopted on December 15, 2022, by SJVAPCD (SJVAPCD 2022). Implementation of each of the plans has contributed to the adoption of over 600 rules and amendments aimed at reducing air pollution concentrations. These measures have substantially reduced ozone precursor pollutants, which include NO_X and ROG. It should be noted that, while not formally adopted, the SJVAPCD is currently in the process of drafting the 2026 State Implementation Plan Revisions for the California Extreme Ozone Nonattainment Areas (2026 Extreme Ozone SIP Revision), which would revise the 2022 State SIP Strategy measure commitments, aggregate emissions reduction commitments, and other elements as needed for the South Coast Air Basin, Coachella Valley, and San Joaquin Valley nonattainment areas (CARB 2026d).

The District adopted the *2024 Plan for the 2012 Annual $PM_{2.5}$ Standard* on June 20, 2024, to fulfill the remaining CAA requirements, including the final modeling analysis, attainment strategy and emission reduction commitments, reasonable further progress/quantitative milestones, and contingency measures. This Plan demonstrates expeditious attainment of the 2012 $PM_{2.5}$ standard by 2030 (SJVAPCD 2024).

The 2024 Plan for the 2012 $PM_{2.5}$ Standards is the most recent attainment plan for particulate matter adopted by SJVAPCD, for the annual $PM_{2.5}$ standard. (SJVAPCD 2024). The USEPA initially designated SJVAPCD as Moderate nonattainment for the 2012 $PM_{2.5}$ standard in 2015. The District submitted the *2016 $PM_{2.5}$ Plan* to address Moderate area requirements for the 2012 $PM_{2.5}$ standard and to request to be reclassified to Serious nonattainment. USEPA approved the Moderate Plan and reclassified the District to Serious nonattainment, effective December 2021. SJVAPCD also prepared a 2018 Plan for achieving both the 24-hour and annual $PM_{2.5}$ standards (SJVAPCD 2018).

The District adopted the *Initial State Implementation Plan (SIP) Requirements for the 2012 Annual $PM_{2.5}$ Standard* on October 19, 2023, to fulfill the first portion of SIP elements required by the CAA for Serious $PM_{2.5}$ nonattainment areas, including an updated emissions inventory, precursor demonstration, and the demonstration that Best Available Control Measure (BACM) requirements continue to be satisfied in the Valley. Additionally, the District fulfilled Nonattainment New Source Review (NNSR) requirements through amendments to District Rule 2201 (New and Modified Stationary Source Review Rule) in April 2023.

Voluntary Emissions Reduction Agreements

Within the SJVAPCD, Voluntary Emissions Reduction Agreements (VERAs) are implemented through District-administered programs that allow project applicants to fund off-site emission reduction projects to offset project-related criteria pollutant emissions. These agreements are typically formalized as Emission Reduction Agreements or participation in District mitigation programs, such as the VERA program, and are designed to achieve real, surplus, quantifiable, and enforceable emission reductions within the San Joaquin Valley Air Basin (CARB 2024b).

Under CEQA, participation in SJVAPCD VERAs is not required but may be used, at the discretion of the lead agency, to reduce a project's contribution to significant or cumulatively considerable air quality impacts. Such agreements must be supported by substantial evidence demonstrating that the reductions are appropriately tied to the project's emissions and consistent with District guidance. Because VERAs are voluntary and project-specific, they are generally considered supplemental to established regulatory requirements and do not substitute for compliance with applicable District rules or CEQA significance thresholds.

Rules and Regulations

SJVAPCD has adopted numerous rules and regulations directed at improving regional air quality. The following District rules would be applicable to individual projects:

- **Rule 2201 New and Modified Stationary Source Review Rule:** Rule 2201 applies to all proposals for new or modified sources of pollution that must obtain a permit from the District. The rule requires that the proposed emissions from any such new or modified equipment be controlled with the Best Available Control Technology (BACT), and that large projects offset their increased emissions by surrendering emission reduction credits that have been generated by companies that have voluntarily reduced their emissions. Compliance with this rule must be demonstrated prior to the District issuing a permit and prior to constructing the new or modified source of pollution.
- **Rule 4102 Nuisance:** A person shall not discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such person or the public or which cause or have a natural tendency to cause injury or damage to business or property.
- **Rule 8021 Earthmoving Activities:** Requires construction, demolition, excavation, extraction, and other earthmoving activities to include implementation of measures designed to limit fugitive dust emissions.
- **Rule 8041 Carryout and Trackout:** Requires owners and operators to sufficiently prevent or cleanup carryout and trackout as described in SJVAPCD Regulation VIII. The use of blower devices, or dry rotary brushes or brooms, for removal of carryout and trackout on public roads is expressly prohibited. The removal of carryout and trackout from paved public roads does not exempt an owner/operator from obtaining state or local agency permits which may be required for the cleanup of mud and dirt on paved public roads.
- **Rule 8061 Paved and Unpaved Roads:** Requires implementation of control measures and design criteria to limit fugitive dust emissions from any new or existing public or private paved or unpaved road, road construction project, or road modification project.

- **Rule 9510 Indirect Source Review (ISR):** Requires new developments expected to create a substantial amount of air pollution to incorporate on-site mitigation or emission reducing designs and practices into the project.
- **Regulation VIII Fugitive PM10 Prohibitions:** The Regulation VIII rules were adopted in November 2001, and subsequently amended in 2004 to incorporate more stringent requirements. These rules reduce fugitive dust from construction sites, earthmoving activities, parking and staging areas, open areas, agricultural operations, carryout and trackout, paved and unpaved roads, and material storage sites.
- **Rule 2010 (Permits Required):** Rule 2010 requires any person constructing, modifying, replacing, or operating equipment or processes that may emit air contaminants to obtain an Authority to Construct and a Permit to Operate from the SJVAPCD. It establishes the District's permitting framework to ensure that new or modified stationary sources comply with applicable emission standards prior to operation.
- **Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt Paving and Maintenance Operations):** Rule 4641 regulates asphalt paving and maintenance activities by limiting the use of high-VOC asphalt materials and requiring the use of lower-emission alternatives where feasible. The rule is designed to reduce reactive organic gas (ROG) emissions from paving operations, which contribute to ozone formation in the San Joaquin Valley.
- **Rule 9410 (Employer Based Trip Reduction [eTRIP]):** Rule 9410 requires certain large employers to implement trip reduction programs to reduce employee commute-related vehicle miles traveled and associated emissions. Applicable employers must prepare and implement an eTRIP plan and demonstrate ongoing compliance through surveys and reporting to the District.

d. Local Laws, Regulations, and Policies

City and county general plans within the TCAG region contain policies to protect air quality. Listed below are the policies from the County of Tulare and cities in the TCAG region applicable to air quality. Cities in the region have generally similar policies, and examples are provided in more detail below.

County of Tulare

The County of Tulare has established a series of goals, policies, and implementation measures in the Tulare County General Plan 2030 Air Quality Element to improve air quality through a regional approach and interagency cooperation, reduce air emissions related to transportation, improve air quality and minimize impacts to human health and the economy of the County through smart land use planning and design, and implement the best available controls and monitoring necessary to regulate air emissions (County of Tulare 2012). Applicable policies related to air quality are as follows:

- **AQ-1.3 Cumulative Air Quality Impacts:** The County shall require development to be located, designed, and constructed in a manner that would minimize cumulative air quality impacts. Applicants shall be required to propose alternatives as part of the State CEQA process that reduce air emissions and enhance, rather than harm, the environment.
- **AQ-1.4 Air Quality Land Use Compatibility:** The County shall evaluate the compatibility of industrial or other developments which are likely to cause undesirable air pollution with regard to proximity to sensitive land uses, and wind direction and circulation in an effort to alleviate effects upon sensitive receptors.

- **AQ-1.5 California Environmental Quality Act (CEQA) Compliance**: The County shall ensure that air quality impacts identified during the CEQA review process are consistently and reasonably mitigated when feasible.
- **AQ-2.2 Indirect Source Review:** The County shall require major development projects, as defined by the SJVAPCD, to reasonably mitigate air quality impacts associated with the project. The County shall notify developers of SJVAPCD Rule 9510 – Indirect Source Review requirements and work with SJVAPCD to determine mitigations, as feasible, that may include, but are not limited to the following:
  - Providing bicycle access and parking facilities,
  - Increasing density,
  - Encouraging mixed use developments,
  - Providing walkable and pedestrian-oriented neighborhoods,
  - Providing increased access to public transportation,
  - Providing preferential parking for high-occupancy vehicles, carpools, or alternative fuels vehicles, and
  - Establishing telecommuting programs or satellite work centers.
- **AQ-2.4 Transportation Management Associations:** The County shall encourage commercial, retail, and residential developments to participate in or create Transportation Management Associations (TMAs) that may assist in the reduction of pollutants through strategies that support carpooling or other alternative transportation modes.
- **AQ-2.5 Ridesharing:** The County shall continue to encourage ridesharing programs such as employer-based rideshare programs.
- **AQ-3.3 Street Design:** The County shall promote street design that provides an environment which encourages transit use, biking, and pedestrian movements.
- **AQ-3.6 Mixed Land Uses:** The County shall encourage the clustering of land uses that generate high trip volumes, especially when such uses can be mixed with support services and where they can be served by public transportation.
- **AQ-4.3 Paving or Treatment of Roadways for Reduced Air Emissions:** The County shall require that all new roads be paved or treated to reduce dust generation where feasible as required by SJVAPCD Regulation VIII, Rule 8061- Paved and Unpaved Roads. For new projects with unpaved roads, funding for roadway maintenance shall be adequately addressed and secured.
- **AQ-4.6 Asbestos Airborne Toxic Control and Dust Protection:** Asbestos is of concern to Tulare County because it occurs naturally in surface deposits of several types of ultramafic materials (materials that contain magnesium and iron and a very small amount of silica). Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining.

City of Visalia

The Air Quality and Greenhouse Gas Element of the Visalia General Plan (2014) contains the following policies related to air quality:

- **AQ-P-1:** Amend the Zoning Ordinance to prohibit locating new “sensitive receptor” uses—hospitals, residential care facilities and childcare facilities—within 500 feet of a limited access state highway (SR 99 and SR 198), except as provided by approved master plans.

- **AQ-P-11:** Continue to work in conjunction with the SJVAPCD and others to put in place additional Transportation Control Measures that will reduce vehicle travel and improve air quality and to implement Air Quality Plans.

City of Porterville

The City of Porterville includes policies relating to air quality in the Open Space and Conservation Element of its 2030 General Plan (2008). Some of the policies include:

- **Policy OSC-I-58**. Continue to assess air quality impacts through environmental review and require developers to implement best management practices to reduce air pollutant emissions associated with the construction and operation of development projects.
- **Policy OSC-I-59.** Require preparation of a Health Risk Assessment for any development subject to the Air Toxics "Hot Spots" Act.
- **Policy OSC-I-60.** Require dust control measures as a condition of approval for subdivision maps, site plans, and all grading permits.
- **Policy OSC-I-61.** Coordinate air quality planning efforts with other local, regional and State agencies.
- **Policy OSC-I-62.** Be proactive in educating the public about the linkages between land use, transportation and air quality.
- **Policy OSC-I-63.** Notify local and regional jurisdictions of proposed projects that may affect regional air quality.

City of Tulare

The City of Tulare General Plan Air Quality Element (2014) contains policies that pertain to air quality, including the following:

- **Policy AQ-P1.1.** The City shall cooperate with other local, regional, federal, and State agencies in developing and implementing air quality plans to achieve State and Federal Ambient Air Quality Standards. The City shall partner with the SJVAPCD, TCAG, and the State Air Pollution Control Board to achieve better air quality conditions locally and regionally.
- **Policy AQ-P1.2**. The City shall require developments to be located, designed, and constructed in a manner that would minimize cumulative air quality impacts. Developers shall be required to present alternatives that reduce air emissions and enhance, rather than harm, the environment.
- **Policy AQ-P2.3:** When developing the regional transportation system, the City shall work with TCAG to comprehensively study methods of transportation which may contribute to a reduction in air pollution in the City of Tulare. Some possible alternatives that should be studied are:
  - Public transportation such as buses and light rail, to serve between communities of the valley, publicly subsidized if feasible.
  - Intermodal public transit such as buses provided with bicycle racks, bicycle parking at bus stations, and park and ride facilities.
  - Community bus or other public transportation systems, such as cycling or walking trails, with particular attention to high-density areas

Other Cities

Other cities within the TCAG region include Dinuba, Lindsay, Farmersville, Exeter, and Woodlake. The General Plans of these cities include goals and policies pertaining to air quality that are similar to those outlined above.

4.3.3 Impact Analysis

a. Methodology and Significance Thresholds

This analysis uses the guidance and methodologies recommended in the SJVAPCD's 2015 *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI) (SJVAPCD 2015) to determine whether the proposed 2026 RTP/SCS impacts exceed the thresholds identified in CEQA Guidelines Appendix G.

Short-Term Emissions Methodology

Emissions from construction activities represent temporary impacts, with the length of construction activities determined by the size, phasing, and type of project. Despite the short-term nature of construction, air quality impacts can nevertheless be acute during construction periods, resulting in significant localized impacts to air quality. Quantified construction-related emissions are speculative at the RTP/SCS level because such emissions are dependent on the characteristics of individual development projects. However, because construction of projects under the proposed 2026 RTP/SCS would generate temporary criteria pollutant emissions, primarily due to the operation of construction equipment and truck trips, a qualitative analysis is provided.

Long-Term Emissions Methodology

The methodology for determining the significance of air quality impacts compares baseline conditions in 2025 to the future 2049 conditions, as required in CEQA Guidelines Section 15126.2(a). The analysis of air quality also includes a comparison between the expected future conditions under the proposed 2026 RTP/SCS and the expected future conditions if the proposed 2026 RTP/SCS was not adopted ("No Project" scenario) for informational purposes only. State and federal clean air laws require that emissions of pollutants for which NAAQS or CAAQS are violated be reduced from current levels. Therefore, for Impact AQ-3, the project's long-term mobile source impacts to air quality would be considered significant if the proposed 2026 RTP/SCS would result in mobile source emissions that exceed existing levels. In this case, the pollutants of concern are ozone precursors (NO_x and ROG), fine particulate matter, and PM_{10}, as these are the primary pollutants associated with vehicle transportation.

Projected air emissions from mobile sources were calculated using the EMFAC2021 model with data for vehicle miles traveled (VMT) from the RTP/SCS transportation analysis completed by TCAG. Data from EMFAC outputs and TCAG's transportation analysis were used to calculate projected vehicle emissions. The 2025 Baseline scenario and 2049 scenarios also use CARB's *EMFAC2021 Off-Model Adjustment Factors to Remove the Impact of Advanced Clean Trucks, Zero-Emission Airport Shuttle, Heavy-Duty Omnibus and Warranty Phase I Regulations* guidance to incorporate off-model adjustments to remove emission factors of recently revoked federal waivers, as discussed in Section 4.3.2, *Regulatory* Setting. These adjustment factors for the 2025 Baseline emissions scenario and

2049 scenarios were applied per CARB recommended guidance (CARB 2026c).[2] Calculations are available in Appendix B. Projected vehicle emissions for the year 2049 under the proposed 2026 RTP/SCS were compared to 2025 existing conditions and, for informational purposes, with future conditions under the 2049 No Project scenario.

Health Impacts

Short-term and long-term exposure to criteria pollutants and TACs may result in adverse health effects, based on the information presented in Section 4.3(c), *Air Pollutants of Primary Concern*. As discussed in that section, these effects may include aggravated asthma, increases in respiratory symptoms like coughing and difficult or painful breathing, chronic bronchitis, decreased lung function, increased cancer risk, heart attack, and premature death.

The NAAQS and CAAQS are health-based standards. Therefore, in this impact analysis, if the proposed 2026 RTP/SCS would result in cumulatively considerable net increase of any criteria pollutant for which the TCAG region is nonattainment under an applicable federal or state ambient air quality standard, or if projects implementing the proposed 2026 RTP/SCS would exceed SJVAPCD significance thresholds for criteria pollutants, they would also contribute to these adverse health effects.

SJVAPCD has determined thresholds of significance for TAC emissions from the operation of both permitted and non-permitted sources (SJVAPCD 2015). The significance threshold for long-term public health risk is set at 20 excess cancer cases in a million for cancer risk. For non-cancer risk (i.e., chronic or acute risk), the significance threshold is set at a hazard index of greater than 1.0. The health impacts of TACs are discussed under Impact AQ-4.

Significance Thresholds

Appendix G of the CEQA Guidelines identifies general criteria for determining whether a project's impacts would have a significant impact on air quality. TCAG has modified the language of the second criterion to provide specific quantities of criteria pollutants that would contribute to a significant impact based on SJVAPCD thresholds (SJVAPCD 2015).

The significance thresholds used for this EIR, based on CEQA Guidelines Appendix G, are:

1. Conflict with or obstruct implementation of the applicable air quality plan;
2. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard:
    a. During construction:
        i. Emit greater than 15 tons per year of PM_{10};
        ii. Emit greater than 15 tons per year of $PM_{2.5}$;
        iii. Emit greater than 100 tons per year of CO_0;
        iv. Emit greater than 10 tons per year of NOx;
        v. Emit greater than 10 tons per year of ROG; or
        vi. Emit greater than 27 tons per year of SOx.

[2] Heavy-duty (HD) and inspection/maintenance (I/M) adjustments approved by the U.S. Environmental Protection Agency (EPA) for EMFAC2021 on May 6, 2026 are not incorporated in this analysis; exclusion of these adjustments represents a conservative modeling approach.

b. During operations:
   i. Generate emissions of ROG that exceed 10 tons per year;
   ii. Generate emissions of NO_x that exceed 10 tons per year
   iii. Generate emissions of PM_{10} exceeding 15 tons per year;
   iv. Generate emissions of $PM_{2.5}$ exceeding 15 tons per year;
   v. Generate emissions of CO exceeding 100 tons per year; or
   vi. Generate emissions of SO_X exceeding 27 tons per year.

3. Expose sensitive receptors to substantial pollutant concentrations; or
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

b. Project Impacts and Mitigation Measures

The following section discusses impacts and mitigation measures associated with transportation projects and the land use scenario implementing the proposed 2026 RTP/SCS. Due to the programmatic nature of the proposed 2026 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 improvement projects and future projects under the land use scenario implementing the proposed 2026 RTP/SCS could result in the impacts as described in the following section.

Threshold 1:	Would the project conflict with or obstruct implementation of the applicable air quality plan?

Impact AQ-1 THE PROPOSED 2026 RTP/SCS WOULD NOT CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF THE APPLICABLE AIR QUALITY PLAN. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Air quality plan conflicts would be significant if the 2026 RTP/SCS conflicted with the goals of the SJVAPCD's 2022 Ozone Plan or PM2.5 plans for non-attainment pollutants, or obstructed implementation of these plans. The policies and land use patterns facilitated by the proposed 2026 RTP/SCS are projected to reduce emissions of ozone precursors and $PM_{2.5}$ below 2025 baseline levels (as well as the 2049 "No Project" alternative), as discussed in Impact AQ-3 (see Table 4.3-6), which is consistent with the goals and policies of SJVAPCD's 2022 Ozone Plan and $PM_{2.5}$ plans for non-attainment pollutants. Although VMT would increase as compared to baseline levels, emissions would decrease due to increasingly fuel-efficient vehicles, improving emissions control technology, and an increased share of electric vehicle adoption. In addition, implementation of proposed transportation improvements and land use projects implementing the proposed 2026 RTP/SCS, among other strategies, would improve alternative transportation options and circulation. To accommodate future growth in the region while reducing emissions, the strategy of the proposed 2026 RTP/SCS is to develop an efficient circulation network with multi-modal transportation in addition to promoting congestion management; coordinating land use, housing, and transportation systems; and providing incentives that reduce vehicle use in comparison to a future scenario in the absence of the proposed 2026 RTP/SCS. Implementation of these strategies would help reduce future VMT, which would reduce regional criteria air pollutant emissions and TAC emissions from mobile sources.

The goals of the SJVAPCD's 2022 Ozone Plan and $PM_{2.5}$ plans are to reduce precursor pollutants, which include NO_X and ROG, and PM2.5 within the TCAG region. The above RTP/SCS strategies and other actions in the proposed 2026 RTP/SCS would align with the emissions reduction goals of these SJVAPCD attainment plans. Therefore, implementation of the proposed 2026 RTP/SCS would not conflict with or obstruct implementation of the applicable air quality plans, and this impact would be less than significant.

Mitigation Measures

No mitigation measures are required.

Threshold 2:	Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (construction)?

Impact AQ-2 CONSTRUCTION ACTIVITIES ASSOCIATED WITH TRANSPORTATION IMPROVEMENTS AND LAND USE PROJECTS IMPLEMENTING THE PROPOSED 2026 RTP/SCS WOULD RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE IN CRITERIA POLLUTANTS FOR WHICH THE PROJECT REGION IS NON-ATTAINMENT UNDER AN APPLICABLE FEDERAL OR STATE AMBIENT AIR QUALITY STANDARD. THIS IMPACT WOULD BE SIGNIFICANT AND UNAVOIDABLE.

There are three primary sources of short-term emissions that would be generated by construction of future transportation projects under the proposed 2026 RTP/SCS. These sources include:

- Operation of construction vehicles (i.e., scrapers, loaders, dump trucks);
- The creation of fugitive dust during clearing and grading; and
- The use of asphalt or other oil-based substances during the final construction phases, which also generate nuisance odors.

The significance of daily emissions, particularly ROG and NO_X emissions, generated by construction equipment utilized to build RTP/SCS transportation improvements, as well as future development facilitated by the SCS land use scenario, would depend on the quantity of equipment used and the hours of operation. The significance of fugitive dust ($PM_{2.5}$ and PM_{10}) emissions would depend upon the following factors:

- The areal extent of disturbed soils;
- The length of disturbance time;
- Whether existing structures are demolished;
- Whether excavation is involved (including the potential removal of underground storage tanks); and
- Whether transport of excavated materials offsite is necessary.

Intersection improvements, such as signalization or signal coordination, are small-scale projects and are not expected to generate significant short-term emissions. However, other RTP/SCS projects as well as future development facilitated by the SCS land use scenario may involve grading and paving, or the construction of permanent facilities. For example, substantial grading and paving would be required for roadway widening and other large improvements on State Routes and regional roadways. Such projects would include road widenings on SR 65, SR 99, and SR 190. The precise quantity of emissions would need to be determined at the time of proposed construction of a given

transportation improvement or development project. When project-specific CEQA documents are prepared, these emissions would be compared to SJVAPCD's construction thresholds, as listed in Section 4.3.3(a), *Methodology and Significance Thresholds* under Threshold 2(a). Although any individual transportation improvement or development project may not generate significant short-term emissions, it is probable that several projects would be under construction simultaneously, generating cumulative construction emissions that could impact air quality.

SJVAPCD construction emissions thresholds listed in Section 4.3.3(a), *Methodology and Significance Thresholds* under Threshold 2(a) would be used to determine whether construction impacts of individual projects are significant, individually and cumulatively. In addition, construction equipment would be subject to the stringent rules and regulations adopted by the USEPA and CARB to reduce criteria pollutant and hazardous emissions limits from on-road vehicles and off-road equipment. For example, CARB has the In-Use Off-Road Diesel-Fueled Fleets Regulation to reduce particulate matter and NOx from off-road heavy-duty diesel vehicles from various industries including air travel, manufacturing, and landscaping. In addition, the USEPA and CARB both have ignition diesel engine standards for non-road portable equipment, such as diesel generators and air compressors, which require the non-road equipment engines to be rated a cleaner tier by specific years, which will result in reduced emissions (CARB 2026c).

Even though these regulations exist, it cannot be assumed that projects under the proposed 2026 RTP/SCS would be constructed using the latest and lowest emitting construction equipment for a majority of their construction fleet. Therefore, short-term impacts would be significant because construction emissions could exceed SJVAPCD significance thresholds and result in cumulatively considerable net increases in $PM_{2.5}$ and PM_{10} and/or ozone precursor emissions. The following mitigation measures would reduce this impact.

Mitigation Measures

For transportation projects under their jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures developed for the proposed 2026 RTP/SCS program where applicable for transportation projects that would result in fugitive dust and ozone precursor emissions. Cities and the County can and should implement these measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions.

AQ-2(a) Application of SJVAPCD Feasible Mitigation Measures

For all projects, the implementing agency shall incorporate the most recent SJVAPCD feasible construction mitigation measures and/or technologies for reducing inhalable particles based on analysis of individual sites and project circumstances. Additional and/or modified measures may be adopted by SJVAPCD prior to implementation of individual projects under the proposed 2026 RTP/SCS; therefore, the most current list of feasible mitigation measures at the time of project implementation shall be used. The current SJVAPCD feasible mitigation measures include the following (SJVAPCD 2015):

- All disturbed areas, including storage piles, which are not being actively utilized for construction purposes shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.

- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
- When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.
- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.
- An owner/operator of any site with 150 or more vehicle trips per day, or 20 or more vehicle trips per day by vehicles with three or more axles shall implement measures to prevent carryout and trackout.
- Limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during construction where appropriate.

AQ-2(b) Diesel Equipment Emissions Standards

The implementing agency shall ensure, to the maximum extent technologically, logistically, and economically feasible, that diesel construction equipment meeting the most stringent CARB emissions standards for off-road heavy-duty diesel engines is used (e.g., as of 2026, this would be Tier 4 emission standards). Where the use of the most stringent CARB emissions standards for off-road heavy-duty diesel engines is not feasible, the next lower tier shall be used; where the use of the next lower tier is not feasible, the next lowest tier shall be used.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during construction where appropriate.

AQ-2(c) Electric Construction Equipment

The implementing agency shall ensure that to the extent technologically, logistically, and economically feasible, construction equipment utilizes electricity from power poles rather than temporary diesel power generators and/or gasoline power generators.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during construction where appropriate.

Significance After Mitigation

Implementation of Measures AQ-2(a) through AQ-2(c) would reduce short-term construction emissions from individual projects and thus reduce the severity of impacts by requiring best practices for dust and exhaust emissions via readily available, lower-emitting diesel equipment, and/or equipment powered by alternative cleaner fuels (e.g., propane) or electricity, as well as on-road trucks using particulate exhaust filters. To the extent that an implementing agency requires an individual project to implement all feasible mitigation measures described above, individual project impacts may be reduced to a less than significant level. Implementation of Mitigation Measure GHG-1 would also reduce construction emissions from the proposed 2026 RTP/SCS projects. However, these mitigation measures may not be feasible or effective for all projects. Therefore, this impact would remain significant and unavoidable. No additional mitigation measures to reduce this impact to less than significant levels are feasible at the programmatic level.

Threshold 2:	Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (operation)?

Impact AQ-3 OPERATION OF THE PROPOSED TRANSPORTATION IMPROVEMENTS AND LAND USE PROJECTS IMPLEMENTING THE PROPOSED 2026 RTP/SCS WOULD RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE OF A CRITERIA POLLUTANT FOR WHICH THE PROJECT REGION IS NON-ATTAINMENT UNDER AN APPLICABLE FEDERAL OR STATE AMBIENT AIR QUALITY STANDARD. IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Transportation Emissions

Projected on-road vehicle emissions on the TCAG transportation network for the years 2025 and 2049 under proposed 2026 RTP/SCS conditions were compared to existing (2025) conditions. For informational purposes, projected on-road vehicle emissions on the TCAG transportation network for the years 2025 and 2049 under proposed 2026 RTP/SCS conditions were also compared with those projected under the future 2049 “No Project” scenario, which accounts for future growth but in which the transportation improvements identified in the proposed 2026 RTP/SCS are not implemented. Table 4.3-6 shows the results of the long-term emissions analysis based on annual VMT for the TCAG region.

Table 4.3-6 Regional Air Pollutant Emissions – TCAG Region

Scenario	VMT	ROG (tons/day)	NO_X (tons/day)	$PM_{2.5}$ (tons/day)[1]	PM_{10} (tons/day)[1]
2025 Baseline[2]	10,662,601	1.99	3.86	0.140	0.34
2049 No Project	12,458,425	1.04	3.12	0.149	0.40
2049 with the Proposed 2026 RTP/SCS	11,566,124	0.96	2.89	0.138	0.37
Net Change from 2025 Baseline	**903,523**	**(1.02)**	**(0.96)**	**(0.002)**	**0.03**
Net Change from 2049 No Project	**(892,301)**	**(0.07)**	**(0.22)**	**(0.011)**	**(0.03)**

( ) denotes a negative number

[1] $PM_{2.5}$ and PM_{10} includes tire wear and brake wear emissions.

[2] Emission factors were adjusted to account for recent regulatory changes to state emissions reduction policies. Specifically, emissions represent those without Advanced Clean Trucks (ACT), Zero-Emission Airport Shuttle, and HD Omnibus and Warranty Phase I emissions reductions.

Notes: The on-road mobile source criteria pollutant emissions estimates for the proposed 2026 RTP/SCS were calculated using CARB's EMFAC2021 v 1.0.2 emission inventory model. VMT data was provided by TCAG. Heavy-duty (HD) and inspection/maintenance (I/M) adjustments approved by the U.S. Environmental Protection Agency (EPA) for EMFAC2021 on May 6, 2026 are not incorporated in this analysis; exclusion of these adjustments represents a conservative modeling approach.

Source: See Appendix B for EMFAC2021 modeling results

As shown in Table 4.3-6 , emissions of PM_{10} increase slightly, while ROG, NO_X, and $PM_{2.5}$ under the proposed 2026 RTP/SCS would decrease as compared to TCAG's 2025 baseline despite a projected increase in VMT. Project-related increases in VMT would incrementally increase PM_{10} emissions from mobile sources due to increased non-exhaust particulate generation, including brake and tire wear; because these emissions scale with vehicle activity, increased travel demand would result in a corresponding increase in PM_{10} concentrations.

The decrease in emissions for ROG, NO_X, and $PM_{2.5}$ is consistent with the statewide downward trend for these pollutants as a result of CARB rules designed to reduce emissions from cars and trucks. The transportation improvements and future projects under the land use scenario implementing the RTP/SCS encourage improved circulation and higher density development along transportation corridors, and increased transit and active transportation funding, which would further reduce on-road mobile emissions. Active transportation projects would include bikeways in Dinuba, Exeter, Farmersville, Lindsey, and in Tulare County unincorporated communities. The proposed 2026 RTP/SCS is intended to increase residential and commercial land use capacity within existing transit corridors, shifting a greater share of future growth to these corridors and ultimately increasing density, improving circulation and multi-modal connections, and leading to lower per capita VMT, which would have a beneficial effect on air quality.

Conditions under the proposed 2026 RTP/SCS were compared to 2049 "No Project" conditions for informational purposes. The proposed 2026 RTP/SCS would result in a net decrease in VMT compared to the 2049 "No Project" scenario due to transportation improvements and land use patterns identified in the proposed 2026 RTP/SCS. As such, on-road vehicle emissions would also be reduced under proposed 2026 RTP/SCS conditions when compared to the "No Project" scenario.

As previously noted, Tulare County is currently in nonattainment for federal and state $PM_{2.5}$ and ozone standards and state PM_{10} standards. As shown in Table 4.3-6, under the "No Project" and "proposed 2026 RTP/SCS" scenarios, emissions levels for ozone precursors are forecast to decline despite projected future growth. NO_X emissions are primarily generated by trucks and are expected

to decrease over time due in part to the impact of CARB rules designed to reduce NO_X emissions from diesel trucks and buses. ROG emissions are primarily due to gasoline vehicles and are lower due to improvements in vehicle emission rates. PM_{10} emissions are also generally consistent with statewide trends.

In addition to specific transportation improvements and land use scenarios, the proposed 2026 RTP/SCS also includes several policies that would contribute to a reduction of air pollutants. Below is a summary of the proposed 2026 RTP/SCS goals and policies that promote improvements to air quality:

- Encourage mixed-use developments in urbanized areas.
- Encourage provision of an adequate supply of housing for the region's workforce and adequate sites to accommodate business expansion to minimize interregional trips and long-distance commuting.
- Support coordinated alternative modes of transportation including transit, pedestrian, bicycle, and rideshare and vanpool programs.
- Support the implementation of alternative fuel and other power sources for surface transportation, such as Compressed Natural Gas and electricity.
- Evaluate and consider current and future congestion conditions on the regional road network when investing in the transportation system.
- Encourage jurisdictions in the TCAG region to consider bicycle lanes, public transit, transit-oriented and mixed-use development, pedestrian networks, rail, and other complete streets development during updates of general plans and other local planning processes.
- Encourage non-single occupancy and lower/zero emission vehicle as preferred alternatives.

Furthermore, the results in Table 4.3-6 do not account for some proposed VMT reduction strategies, such as a transportation demand management plan, telecommuting, and transit service enhancements, because these strategies are off-model reductions that cannot be included in EMFAC. The mobile air contaminant emissions from the proposed 2026 RTP/SCS are expected to further decrease with the inclusion of these VMT reduction strategies, such that the analysis herein represents a reasonable worst-case scenario for air contaminant emissions. However, because total PM_{10} emissions would slightly increase under the proposed 2026 RTP/SCS due to increased tire and brake wear (fugitive dust) emissions, this impact is significant. The following mitigation measures would reduce this impact.

Other Land Use Emissions

In addition to the transportation-related GHG emissions shown in Table 4.3-6, land use projects implementing the land use scenario in the proposed 2026 RTP/SCS would also result in criteria air pollutant emissions due to sources such as architectural coatings, consumer products, fireplaces, landscaping equipment, and natural gas usage. Over the planning period, per capita emissions associated with consumer products, architectural coatings, fireplaces, landscaping equipment, and natural gas consumption are anticipated to decline, primarily as a result of increasingly stringent CARB and SJVAPCD rules and regulations. Nevertheless, the proposed land use scenario would most likely increase countywide ROG, PM_{10}, and $PM_{2.5}$ emissions based on growth forecasts, which would increase the likelihood that Tulare County continues to exceed the federal and state $PM_{2.5}$ and ozone standards and state PM_{10} standards for which Tulare County is currently in non-attainment. Also, individual land use projects could exceed the SJVAPCD operational significance thresholds as

listed in Section 4.3.3(a), *Methodology and Significance Thresholds* under Threshold 2(b). Therefore, because the operational emissions generated by the proposed 2026 RTP/SCS land use scenario would contribute to existing non-attainment conditions in the SJVAB, impacts would be significant. The following mitigation measures would reduce this impact.

Mitigation Measures

For transportation projects under their jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures developed for the proposed 2026 RTP/SCS program where applicable for transportation projects that would result in fugitive dust and ozone precursor emissions. Cities and the County can and should implement these measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions.

AQ-3(a) PM_{10} Emissions Reduction

To help reduce regional PM_{10} emissions, TCAG, in partnership with SJVAPCD and implementing agencies, shall:

a. Support the use of existing air quality and transportation funds and seek additional funds to continue the implementation of the CARB Carl Moyer Program, which is intended to retrofit and replace trucks and locomotives to reduce particulate matter.
b. Incentivize the reduction of mobile PM emissions from mobile exhaust and entrained PM sources such as tire wear, brake wear, and roadway dust through funding.
c. Hold forums and workshops to encourage land use projects to incorporate transportation demand management (TDM) strategies as part of the project design to reduce the number of vehicular trips across the transportation network. Potential strategies could include ridesharing, carpooling, subsidized public transit, flexible work hours, and parking management measures.

IMPLEMENTING AGENCIES AND TIMING

TCAG and transportation project sponsors are responsible for implementing this measure. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during operation where appropriate.

AQ-3(b) Long-term Regional Operational Emissions

Implementing agencies can and should implement long-term operational emissions reduction measures. Such reduction measures include the following:

- Require that all interior and exterior architectural coatings for all developments utilize coatings following SJVAPCD Rule 4601, *Architectural Coatings*.
- Increase building envelope energy efficiency standards in excess of applicable building standards and encourage new development to achieve zero net energy use.
- Install energy-efficient appliances, interior lighting, and building mechanical systems. Encourage installation of solar panels for new residential and commercial development.
- Locate sensitive receptors more than 500 feet of a freeway, 500 feet of urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.

- Locate sensitive receptors more than 1,000 feet of a major diesel rail service or railyards. Where adequate buffer cannot be implemented, implement the following:
  - Install indoor air filtration (as part of mechanical ventilation systems or stand-alone air cleaners) to reduce indoor pollution exposure for residents and other sensitive populations in buildings that are close to transportation network improvement projects.
  - Use air filtration devices rated MERV-13 or higher.
- Plant trees and/or vegetation suited to trapping roadway air pollution and/or sound walls between sensitive receptors and the pollution source. The vegetation buffer should be thick, with full coverage from the ground to the top of the canopy Install higher efficacy public street and exterior lighting.
- Use daylight as an integral part of lighting systems in buildings.
- Use passive solar designs to take advantage of solar heating and natural cooling.
- Install light colored "cool" roofs, cool pavements.
- Install solar and tankless hot water heaters.
- Exclude wood-burning fireplaces and stoves.
- Incorporate design measures and infrastructure that promotes safe and efficient use of alternative modes of transportation (e.g., neighborhood electric vehicles and bicycles) pedestrian access, and public transportation use. Such measures may include incorporation of electric vehicle charging stations, bike lanes, bicycle-friendly intersections, and bicycle parking and storage facilities.
- Incorporate design measures that promote ride sharing programs (e.g., by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading and waiting areas for ride sharing vehicles, and providing a web site or message board for coordinating rides).
- Incorporate other mitigation measures recommended by SJVAPCD.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during operation where appropriate.

Significance After Mitigation

If implementing agencies adopt and require the mitigation described above, emission impacts would be reduced because said measures reduce PM_{10} emissions, and encourage the use of cleaner vehicles and reduce vehicle trips. Implementation of Mitigation Measures GHG-4(a) and GHG-4(b), described in Section 4.8, *Greenhouse Gas Emissions and Climate Change,* would also reduce operational emissions from the proposed 2026 RTP/SCS. However, since the implementation is not project or site specific, reductions cannot be estimated and cannot be guaranteed on a project-by-project basis. Therefore, this impact would remain significant and unavoidable. No additional feasible mitigation measures are available that would reduce daily emissions such that emissions would not contribute to existing nonattainment conditions in the SJVAB.

Threshold 3:	Would the project expose sensitive receptors to substantial pollutant concentrations?

Impact AQ-4 THE PROPOSED TRANSPORTATION IMPROVEMENTS AND LAND USE PROJECTS IMPLEMENTING THE PROPOSED 2026 RTP/SCS WOULD EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL PARTICULATE MATTER POLLUTANT CONCENTRATIONS. BECAUSE THE PROPOSED 2026 RTP/SCS WOULD INCREASE EXPOSURE TO ENTRAINED DUST, IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Re-entrained dust refers to roadway dust that is "kicked up" by moving vehicles on paved and unpaved roadways. This type of dust would be generated by roadway activity under the proposed 2026 RTP/SCS. In addition, dust from construction activity would add to regional dust levels. The synergistic effects of road dust (typically measured as PM_{10}) with ozone and the hazardous constituents of re-entrained road dust itself (carcinogens, irritants, pathogens) may affect human heath by contributing to respiratory illnesses such as asthma and allergies. Although motor vehicle emission control advances have allowed vehicle tailpipe emissions of some pollutants to decrease over the last 20 years, the number of vehicles in use and the amount of vehicle activity has continued to increase. This would suggest that re-entrained road dust has increased as well, as the amount of re-entrained dust is related to the number of vehicles on a road.

Table 4.3-7 compares fugitive dust particulate emissions for the baseline conditions in 2025 and 2049 with implementation of the proposed 2026 RTP/SCS. The conditions in 2049 without implementation of the proposed 2026 RTP/SCS are also shown for informational purposes.

Table 4.3-7 Fugitive Dust Particulate Matter Comparison

Scenario	PM_{10} Emissions (tons/day)	$PM_{2.5}$ Emissions (tons/day)
2025 Baseline	0.29	0.09
2049 No Project	0.35	0.11
2049 RTP/SCS	0.32	0.10
Net Change from 2025 Baseline	**0.03**	**0.01**
Percent Change from 2025 Baseline	**9%**	**8%**

Source: Appendix B

Note: The fugitive dust values presented here differ from those used in federal conformity analysis due to methodological differences. Fugitive dust associated with on-road vehicle activity is conservatively represented using EMFAC tire wear and brake wear emissions as a proxy.

As shown in Table 4.3-7, fugitive dust particulate emissions would be higher with implementation of the proposed 2026 RTP/SCS as compared to 2025 baseline conditions. This is due to an increase in VMT within the TCAG region. Project-related increases in VMT would result in increased fugitive dust emissions due to greater vehicle activity, particularly on paved and unpaved roadways and in disturbed areas. Increased traffic would generate additional roadway dust re-entrainment and surface abrasion, and where applicable, travel on unpaved surfaces would further contribute to fugitive particulate generation; as these emissions are directly proportional to vehicle activity, higher VMT would result in a corresponding incremental increase in fugitive dust levels. basis. Therefore, the proposed 2026 RTP/SCS would expose sensitive receptors to substantial pollutant concentrations associated with re-entrained road dust above baseline levels, and impacts would be significant. Therefore, implementation of Mitigation Measures AQ-3(a*) PM_{10} Emissions Reduction* and 3(b) *Long-term Regional Operational Emissions* in Impact AQ-3 would be required to reduce re-entrained road dust exposure to sensitive receptors.

Mitigation Measures

See Impact AQ-3 for Mitigation Measures AQ-3(a) and AQ-3(b).

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. These mitigation measures shall, or can and should, be applied during permitting and environmental review and implemented during operation where appropriate.

Significance After Mitigation

If implementing agencies adopt and require the mitigation described above, emission impacts would be reduced because said measures reduce PM_{10} emissions and exposure to fugitive dust emissions. However, since the implementation is not project or site specific, reductions cannot be estimated and cannot be guaranteed on a project-by-project basis. Therefore, this impact would remain significant and unavoidable. No additional feasible mitigation measures are available that would reduce daily emissions such that emissions would not expose sensitive receptors to significant fugitive dust concentrations.

Threshold 3:	Would the project expose sensitive receptors to substantial pollutant concentrations?

Impact AQ-5 THE TRANSPORTATION IMPROVEMENTS AND LAND USE PROJECTS IMPLEMENTING THE PROPOSED 2026 RTP/SCS WOULD EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL TAC CONCENTRATIONS. IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

As described in Section 4.3.1, *Setting*, TACs are air pollutants that pose a potential hazard to human health by causing or contributing to an increase in mortality or serious illness. Common sources of TAC include high traffic freeways and roads, gas dispensing facilities, industrial facilities, and diesel engines. DPM is classified as the primary airborne carcinogen in California. CARB reports that diesel particulate matter represents about 70 percent of the potential cancer risk from vehicle travel on a typical urban freeway. To protect people from TACs and reduce exposure, CARB recommends avoiding siting new sensitive land uses, such as residences, schools, daycare centers, playgrounds, or medical facilities, within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day (CARB 2005).

According to the SJVAPCD GAMAQI, sensitive receptors are defined as people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling unit(s). The location of sensitive receptors is needed to assess toxic impacts on public health.

Although no high capacity urban or rural roadways exist in the TCAG region, there are several major state routes (State Routes 43, 63, 65, 99, 137, 190, 198, 201, 216, and 245). Within the TCAG region, the sensitive receptors residing close to freeways or busy roadways may experience adverse health effects beyond those typically found in urban areas. Because exposure of TACs is primarily based on local parameters (e.g., average daily traffic on local roadway segments and wind direction in relation to source and receptor), health risks adjacent to high volume roadways and transportation facilities would remain higher than regional averages.

As discussed above, the SJVAPCD significance threshold for long-term public health risk is set at 20 excess cancer cases per million for cancer risk. For non-cancer risk (i.e., chronic or acute risk), the significance level is set at a hazard index of greater than 1.0. If a formal health risk assessment shows that a project would exceed these thresholds, such that a significant impact results, mitigation measures to reduce the predicted levels of toxic air pollutants from the facility to a less-than-significant level may be imposed by the lead agency.

To assess the impact of the proposed 2026 RTP/SCS on diesel emissions on regional roadways, an analysis of on-road mobile source diesel $PM_{2.5}$ and PM_{10} emissions (primary pollutants) and diesel NO_X, SO_X, and CO (as surrogates for secondary PM_{10}) is shown in Table 4.3-8. This table compares proposed 2026 RTP/SCS 2049 conditions with existing (2025) conditions, and with future 2049 "No Project" conditions for informational purposes. Projected emissions for 2049 with implementation of the proposed 2026 RTP/SCS would result in reductions of diesel NO_X, diesel CO, diesel $PM_{2.5}$, diesel PM_{10}, and diesel SO_X emissions.

Table 4.3-8 On-Road Mobile Source Diesel Toxics Comparison

Scenario	Diesel $PM_{2.5}$ (tons/day)	Diesel PM_{10} (tons/day)	Diesel NO_X (tons/day)	Diesel SO_X (tons/day)	Diesel CO (tons/day)
2025 Baseline	0.03	0.04	2.55	0.013	0.70
2049 No Project	0.02	0.03	2.61	0.013	0.69
2049 RTP/SCS	0.02	0.02	2.42	0.012	0.64
Net Change from 2025 Baseline	**(0.01)**	**(0.01)**	**(0.13)**	**(0.001)**	**(0.06)**
Percent Change from 2025 Baseline	**(32%)**	**(32%)**	**(5%)**	**(8%)**	**(8%)**

( ) denotes a negative number

Source: Appendix B

While overall toxic air contaminant concentrations and associated health risks within any given distance of mobile sources in the region would generally decrease with implementation of the proposed 2026 RTP/SCS compared to existing (2025) levels (refer to Table 4.3-8), exposure is primarily based on local parameters such as average daily traffic (ADT) on local roadway segments, or wind direction in relation to source and receptor. As such, the health risks adjacent to heavily trafficked roadways and transportation facilities (e.g., State Routes 99 and 198) would remain higher than regional averages. See Section 4.15, *Transportation*, for a summary of ADT on heavily trafficked roadways in the TCAG region.

As discussed in Chapter 2, *Project Description*, as a result of proposed 2026 RTP/SCS policies and the proposed land use scenario, the proposed growth pattern would facilitate improved circulation and expanded roadway networks, which could result in more people being exposed to elevated health risks as compared to more remote areas of the region. However, the location and pattern of the proposed 2026 RTP/SCS growth would influence travel behavior. An efficient and well-maintained circulation network facilitates a reduction in individual vehicle trips and associated congestion (refer to Section 4.15, *Transportation).* Reduced congestion and vehicle trips are directly linked to reduced regional criteria air pollutant emissions and toxic air emissions from mobile sources.

It is important to note that a variety of other factors contribute to the decline in contaminant emissions compared to existing conditions, including vehicle technology, cleaner fuels, and fleet turnover. However, in order to achieve the greatest VMT reductions from an efficient circulation network, development also must necessarily be in relatively close proximity to public transit and

major roadway corridors. Although the precise location and density of such development is not known at this time, the proposed 2026 RTP/SCS could result in new sensitive receptors sited close to existing and new TAC sources, potentially resulting in the exposure of sensitive receptors to substantial TAC concentrations. Therefore, impacts related to TAC emissions would be significant.

Mitigation Measures

For transportation projects under their jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures developed for the proposed 2026 RTP/SCS where applicable for transportation projects that would result in fugitive dust and ozone precursor emissions. Cities and the County can and should implement these measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions.

AQ-5 Health Risk Reduction Measures

Transportation project sponsor agencies shall implement the following measures for projects that could facilitate an increase in vehicle trips:

- During project-specific design and CEQA review, the potential localized particulate matter (PM_{10} and $PM_{2.5}$) impacts and their health risks shall be evaluated for individual projects. Localized particulate matter concentrations shall be estimated using procedures and guidelines consistent with the USEPA's 2015 *Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in $PM_{2.5}$ and PM_{10} Nonattainment and Maintenance Areas*. If required based on the project-level hotspot analysis, project-specific mitigation shall be added to the project design concept or scope to ensure that local particulate (PM_{10} and $PM_{2.5}$) emissions would not reach a concentration at any location that would cause estimated cancer risk to exceed the SJVAPCD threshold of 20 in one million. Per the USEPA guidance (2015), potential mitigation measures to be considered may include but shall not be limited to: providing a retrofit program for older higher emitting vehicles, anti-idling requirements or policies, controlling fugitive dust, routing traffic away from populated zones and replacing older buses with cleaner buses. These measures can and should be implemented to reduce localized particulate matter emissions.
- For projects that do not meet SJVAPCD screening criteria, retain a qualified air quality consultant to prepare a health risk assessment (HRA) in accordance with CARB and OEHHA requirements to determine the exposure of nearby residents to TAC concentrations.
- If impacts result in increased risks to sensitive receptors above significance thresholds, plant trees and/or vegetation suited to trapping TACs and/or sound walls between sensitive receptors and the pollution source.

In addition, consistent with the general guidance contained in CARB's *Air Quality and Land Use Handbook* (2005) and Technical Advisory *on Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways* (2017), cities and the County shall incorporate appropriate and feasible measures into project design for land use projects, including residential, school and other sensitive uses located within 500 feet (or other appropriate distance as determined by the lead agency) of freeways, heavily travelled arterials, railways and other sources of diesel particulate matter, including roadways experiencing significant vehicle delays. The appropriate measures shall include one or more of the following methods, as applicable and as determined by a qualified professional.

The implementing agency shall incorporate health risk reduction measures based on an analysis of individual sites and project circumstances. These measures may include:

- Avoid siting new sensitive land uses within 500 feet of a freeway or railway.
- Require development projects for new sensitive land uses to be designed to minimize exposure to roadway-related pollutants to the maximum extent logistically and economically feasible through inclusion of design components including air filtration and physical barriers.
- Do not locate sensitive receptors near the entry and exit points of a distribution center.
- Locate structures and outdoor living areas for sensitive uses as far as possible from the source of emissions. As feasible, locate doors, outdoor living areas and air intake vents primarily on the side of the building away from nearby high-volume roadways or other pollution source. As feasible, incorporate dense, tiered vegetation that regains foliage year-round and has a long life span between the pollution source and the project.
- Maintain a 50-foot buffer from a typical gas dispensing facility (under 3.6 million gallons of gas per year).
- Install, operate, and maintain in good working order a central heating and ventilation (HV) system or other air take system in the building, or in each individual residential unit, which meets the efficiency standard of the MERV 13. The HV system should include the following features:
    - Installation of a high efficiency filter and/or carbon filter-to-filter particulates and other chemical matter from entering the building.
    - Use of either HEPA filters or ASHRAE 85 percent supply filters.
    - Completion of ongoing maintenance.
- Retain a qualified HV consultant or Home Energy Rating Systems rater during the design phase of the project to locate the HV system based on exposure modeling from the mobile and/or stationary pollutant sources.
- Maintain positive pressure within the building.
- Achieve a performance standard of at least one air exchange per hour of fresh outside filtered air.
- Achieve a performance standard of at least four air exchanges per hour of recirculation. Achieve a performance standard of 0.25 air exchanges per hour of unfiltered infiltration if the building is not positively pressurized.
- Require project owners to provide a disclosure statement to occupants and buyers summarizing technical studies that reflect health concerns about exposure to highway/freeway exhaust emissions.
- Implement feasible attenuation measures needed to reduce potential air quality impacts to sensitive receptors such as air filtration systems.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during operation where appropriate.

Significance After Mitigation

Although implementation of the above mitigation would reduce health risks associated with TAC emissions, individual receptors may still be exposed to substantial TAC concentrations that would have significant health risk effects. Therefore, this impact remains significant and unavoidable. No additional mitigation measures to reduce this impact to less-than-significant levels are feasible.

Threshold 4:	Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Impact AQ-6 CONSTRUCTION OF THE TRANSPORTATION IMPROVEMENTS AND LAND USE PROJECTS IMPLEMENTING THE PROPOSED 2026 RTP/SCS WOULD NOT RESULT IN OTHER EMISSIONS (SUCH AS THOSE LEADING TO ODORS) ADVERSELY AFFECTING A SUBSTANTIAL NUMBER OF PEOPLE. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

While offensive odors rarely cause physical harm, they can be unpleasant, leading to considerable distress among the public (SJVAPCD 2015). The degree to which an odor is offensive is based on an individual's sensitivity and tolerance for said odor. Some people may find an odor acceptable (e.g., odors from a coffee roaster), while others may find it off-putting. Since odors are subjective, the sensory and physical response experienced by an individual varies based on their perception of the quality and intensity of the odor. Quality refers to the nature of the smell (e.g., flowery or sour) and intensity refers to the strength of the odor. Furthermore, the distance between the odor source and receptor, the wind direction, and sensitivity of the receptor can influence how the impact is perceived. Common sources of odors include landfills, agricultural uses, wastewater treatment plants, refineries, and vehicle exhaust.

Construction

Construction implementing the proposed 2026 RTP/SCS would generate oil and diesel fuel odors during construction from equipment use. The odors would be limited to the construction period and would be intermittent and temporary. Furthermore, these odors would dissipate rapidly with distance from in-use construction equipment. Accordingly, construction activities would not generate other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Operation

Development associated with the proposed 2026 RTP/SCS is related to transportation improvements such as roadway widening, interchange improvements, and installation of bicycle lanes. These types of projects are not typical operational sources of odors. However, all proposed 2026 RTP/SCS projects would be subject to SJVAPCD Rule 4102, *Nuisance*, which prohibits the discharge of air contaminants or other material that would cause injury, detriment, nuisance, or annoyance to any considerable number of persons. Furthermore, the projects would be required to adhere to local policies, zoning designations, and municipal codes that would limit odors. As discussed in Section 4.3.2, *Regulatory Setting*, counties and cities within the TCAG region have air quality-related policies in their General Plans that promote multi-modal transportation, electric-vehicles, and transit-oriented development. These types of policies aim to reduce travel with fossil-fueled vehicles and indirectly reduce odors from vehicle exhaust. However, if offensive odors are present and become a nuisance, complaints can be filed by email or phone call with SJVAPCD, who will then investigate the source. Because odorous emissions associated with the operation of the

projects under the proposed 2026 RTP/SCS would be regulated by local governing bodies (i.e., SJVAPCD, County of Tulare, and local cities), implementation of the proposed 2026 RTP/SCS would not result in other emissions (such as odors) adversely affecting a substantial number of people. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

4.3.4 Cumulative Impacts

Impact AQ-C-1 DEVELOPMENT IN THE CUMULATIVE IMPACT ANALYSIS AREA WOULD RESULT IN A CUMULATIVELY CONSIDERABLE INCREASE OF CRITERIA POLLUTANTS AND WOULD EXPOSE SENSITIVE RECEPTORS TO DIESEL PARTICULATES AND TOXIC AIR CONTAMINANTS. CUMULATIVE IMPACTS WOULD BE SIGNIFICANT AND THE CONTRIBUTION OF THE 2026 RTP/SCS WOULD BE CUMULATIVELY CONSIDERABLE.

For the purposes of evaluating cumulative impacts to air quality, the geographic scope of the cumulative impacts analysis is the SJVAB, which includes the TCAG planning region as well as Kern, Kings, Fresno, Madera, Merced, Stanislaus, and San Joaquin counties. As detailed in Section 4.3.1(d), *Current Air Quality*, Tulare County is in nonattainment for federal ozone and $PM_{2.5}$ standards and state ozone, PM_{10}, and $PM_{2.5}$ standards. Any growth within Tulare County would contribute to existing exceedances of ambient air quality standards. SJVAPCD has prepared air quality plans for both ozone and $PM_{2.5}$ to address this cumulative impact, improve conditions, and meet federal and state air quality standards. As stated in the SJVAPCD GAMAQI (2015), any proposed development project that would individually have a significant air quality impact related to criteria air pollutant emissions would also be considered to have a cumulatively considerable contribution to existing significant cumulative impacts related to criteria air pollutant emissions. For TACs, the SJVAPCD GAMAQI (2015) states that because impacts from TACs are localized and the thresholds of significance for TACs have been established at such a conservative level, emissions exceeding the individual thresholds of significance are also considered cumulatively significant.

Construction activities associated with transportation projects under the proposed 2026 RTP/SCS, as well as the land use projects implementing the proposed 2026 RTP/SCS, would create fugitive dust and ozone precursor emissions and have the potential to result in temporary adverse impacts on air quality. As discussed under Impact AQ-2, although any individual improvement or development project may not generate significant short-term emissions, it is probable that several projects would be under construction simultaneously, generating cumulative construction emissions that could impact air quality. Short-term impacts would be significant because construction emissions could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment. Implementation of Mitigation Measures AQ-2(a) through AQ-2(c) for individual projects would reduce PM and ozone precursor emissions. However, the contribution of construction emissions facilitated by the proposed 2026 RTP/SCS would remain cumulatively considerable and unavoidable because it cannot be guaranteed that all future project-level impacts can be mitigated to a less-than-significant level.

As discussed under Impact AQ-3, regional ozone precursor emissions from on-road mobile sources would decrease by 2049 with the proposed 2026 RTP/SCS compared to existing 2025 conditions, but PM_{10} emissions would slightly increase, a significant impact. As a result, the long-term operational mobile source emissions under the proposed 2026 RTP/SCS would result in a cumulatively considerable contribution to existing significant cumulative air quality impacts. In addition, land use

operational emissions would be significant and therefore cumulatively considerable before and after mitigation because land use projects under the proposed 2026 RTP/SCS may contribute to an increase in ozone precursor and PM emissions. As discussed under Impact AQ-4, impacts from entrained dust would be significant and therefore cumulatively considerable as fugitive dust emissions would increase compared to baseline 2025 conditions. As discussed under Impact AQ-5, impacts from TAC emissions would also be significant and cumulatively considerable despite a decrease in TAC emissions from existing 2025 conditions because TAC impacts are localized and dependent on proximity to sources, prevailing wind, and other factors. As discussed under Impact AQ-6, impacts from other emissions (such as odors) adversely affecting a substantial number of people would not be significant, and cumulative odor impacts would not be significant due to the short-term nature of construction odors and compliance with local odor prevention regulations . The proposed 2026 RTP/SCS may result in the siting of sensitive receptors in close proximity to existing or new sources of TACs. Mitigation Measures AQ-3(a), AQ-3(b), and AQ-4,and AQ-5 would reduce impacts from PM_{10} emissions, fugitive dust, and TACs; however it cannot be guaranteed that impacts resulting from the proposed 2026 RTP/SCS can be mitigated to a less-than-significant level and therefore the impact would remain cumulatively considerable after mitigation.

4.4 Biological Resources

This section evaluates biological resources impacts within the TCAG region that would result from implementation of the proposed 2026 RTP/SCS.

4.4.1 Setting

a. Vegetation Communities and Land Cover Types

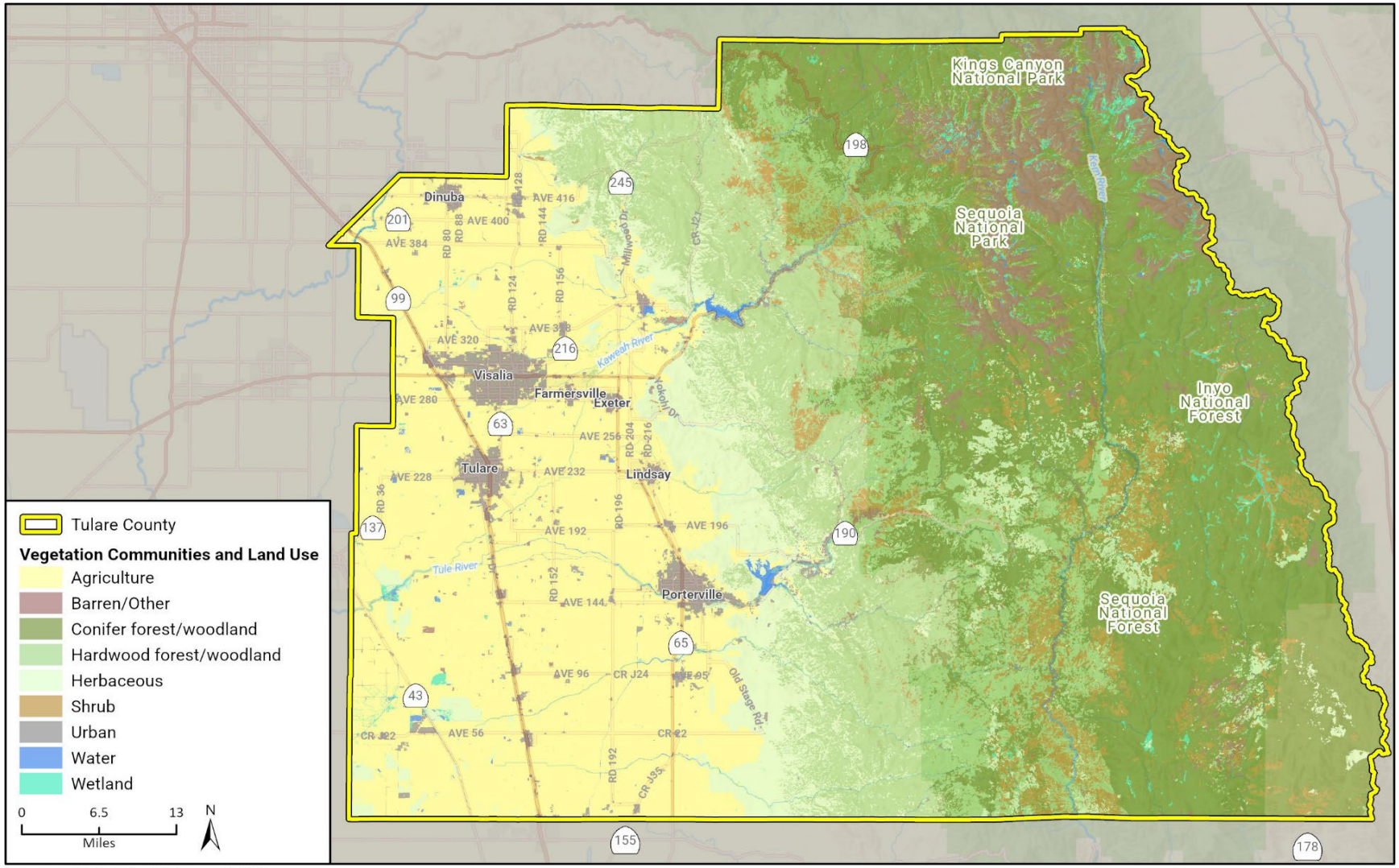
The TCAG region contains a wide diversity of tree, shrub, and herbaceous vegetation communities and land cover types. The countywide vegetation map identifies 37 vegetation communities and land-cover types, classified using the California Department of Fish and Wildlife's Vegetation Classification and Mapping Program (VegCAMP). Vegetation types are reported using naming conventions consistent with the California Wildlife Habitat Relationships (CWHR) system, which provides a standardized, statewide framework for describing wildlife habitats (CDFW 2025). Of the 37 vegetation communities and land cover types, 18 are tree dominated, seven are shrub dominated, three are herbaceous, and nine are either developed, sparsely/non-vegetated or cropland (see Figure 4.4-1). Because of the scale of vegetation data at the County level, the vegetation communities and land covers presented in Figure 4.4-1 depict a broad illustration of the distribution of CWHR categories (i.e., tree, shrub, herbaceous, etc.) found within Tulare County.

A description of each of the vegetation communities and land covers adapted from *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1988) is presented in below. The vegetation classifications from *A Manual of California Vegetation*, online edition (CNPS 2026) that most closely resemble those classified by the CWHR are also presented in each description where possible. It should be noted that these vegetation communities and land covers are generalized, and that site-specific variation is likely to be present. Also note that the CWHR classification system maps vegetation communities and land covers from a broad perspective and that in many areas it is expected that two or more vegetation communities and land cover types may blend with one another. As such, due to the large scale at which vegetation communities and land covers are mapped using the CWHR classification system, vernal pools, wetlands, and drainages are discussed separately in Section 4.4.1.b, utilizing sources of information that better capture aquatic and wetland habitats that are of smaller scale in the landscape. Vegetation communities and land covers which occur within populated areas can also show variation because of a greater exposure to anthropogenic influences, such as the introduction of exotic plant species.

Tree-Dominated Vegetation Communities

The TCAG region contains a variety of hardwood, coniferous, mixed woodlands, and forests (see Figure 4.4-1). These tree-dominated vegetation communities can support diverse wildlife populations. Riparian vegetation communities are generally the terrestrial areas adjacent to freshwater bodies forming a vegetated corridor from stream edge to floodplain edge. Riparian habitats occur in and along the county's four major rivers (Kings River, Kaweah River, Tule River, and White River/Deer Creek), as well as along the many creeks, streams, arroyos, and ravines in the county. Riparian areas are rich in wildlife species, providing foraging, migration, roosting, and nesting/breeding habitat. The following are descriptions of types of tree-dominated vegetation communities that occur within three miles of construction projects outlined in the proposed 2026 RTP/SCS.

Figure 4.4-1 Vegetation Communities and Land Cover Types in the TCAG Region



Aspen Forest

Mature stands of quaking aspen (*Populus tremuloides*) characterize this vegetation community and usually have relatively open canopies, often shared with other deciduous trees and a few conifer species, typically pine. All stands spread by root suckering, resulting in stands comprised of clones of different age classes. Aspen stands in California occur primarily at higher elevations near seeps, streams, and meadows on the eastern slopes of the Sierra Nevada and Cascade Ranges. Aspen forests typically correspond to the *Populus tremuloides* Forest Alliance as described by Sawyer et al. (2009).

Blue Oak-Foothill Pine Woodland

This vegetation community is typically diverse in structure both vertically and horizontally and is composed primarily of a mix of hardwoods, conifers, and shrubs. Shrub distributions tend to be clumped, with interspersed patches of annual grassland. Woodlands of this type generally tend to only have small accumulations of dead and downed woody material, compared with other tree vegetation communities in California. Blue oak (*Quercus douglassii*) and foothill pine (*Pinus sabiniana*) typically comprise the overstory of this vegetation community, with blue oak usually most abundant. In the foothills of the Sierra Nevada, other tree species typically associated with this vegetation community are interior live oak (*Quercus wislizeni*) and California buckeye.

At lower elevations, where blue oaks make up most of the canopy, the understory tends to be primarily annual grasses and forbs. At higher elevations, where foothill pines and even interior live oaks sometimes comprise the canopy, the understory usually includes patches of shrubs in addition to the annual grasses and forbs. Shrub species that can be associated with this vegetation community include various buckbrush (*Ceanothus* spp.) species and manzanita (*Arctostaphylos* spp.). Other species found in this vegetation community can include California coffeeberry (*Rhamnus californicus*), poison-oak (*Toxicodendron diversilobum*), and silver lupine (*Lupinus albifrons*). This vegetation community is generally located in the foothills of the Central Valley, between 500 and 3000 feet (ft) in elevation. Blue oak-foothill pine typically corresponds to the *Quercus douglasii* Woodland Alliance or *Pinus sabiniana* Woodland Alliance as described by Sawyer et al. (2009).

Blue Oak Woodland

Generally, these woodlands have an over story of scattered trees, although the canopy can be nearly closed. The canopy is dominated by broad-leaved trees 16 ft to 50 ft tall, commonly forming open savanna-like stands on dry ridges and gentle slopes. Blue oak is typically the dominant tree species. Shrubs such as poison oak, California coffee berry (*Frangula californica*), buckbrush (*Ceanothus cuneatus*), and redberry (*Rhamnus crocea*) are often present but rarely extensive, and often occur on rock outcrops. Typical understory is composed of an extension of Annual Grassland vegetation described below. Blue oak woodland typically corresponds to the *Quercus douglasii* Woodland Alliance (Sawyer et al. 2009).

Jeffrey Pine Forest

The structure of the Jeffrey pine forest varies over its distribution. A single tree layer is characteristic of Jeffrey pine (*Pinus jeffreyi*) stands on moderately dry sites. On moist and mesic sites, a second tree layer exists which is composed of deciduous hardwood species. Jeffrey Pine vegetation communities are dominated by Jeffrey pine. A sclerophyllous shrub layer is common to most Jeffrey

pine stands except on serpentine soils and extremely xeric sites. Jeffrey pine forests occur in mountainous regions such as the Sierra Nevada and ranges in elevation from 500 to 9,500 ft. Jeffrey pine forest typically corresponds to the *Pinus jeffreyi* Forest Alliance (Sawyer et al. 2009).

Juniper Woodland

Juniper vegetation communities are characterized as woodlands of open to dense aggregations of junipers (*Juniperus* spp.) in the form of arborescent shrubs or small trees. Juniper woodlands generally occur at middle elevations forming a transition between habitats at higher elevations. Juniper woodlands occur on virtually all exposures and slopes but are common on level to gently rolling topography. Junipers may be found on soils ranging from rocky to well-drained. Slope aspect has a strong influence on the elevational distribution of junipers. On north facing slopes, junipers range from 4,000 to 6,000 ft; whereas, on south facing slopes, junipers range from 6,000 to 8,000 ft. Juniper woodland typically corresponds to the *Juniperus californicus* Woodland Alliance or *Juniperus grandis* Woodland Alliance as described by Sawyer et al. (2009).

Lodgepole Pine Forest

Lodgepole pine forests typically form open stands of similarly sized trees in association with few other species and with a sparse understory. Lodgepole pine (*Pinus contorta*) overwhelmingly dominates the vegetation community. Occasional associates include aspen and mountain hemlock (*Tsuga martensiana*). The understory may be virtually absent, consisting of scattered shrubs and herbs, or a rich herbaceous layer at meadow margins. Many lodgepole stands are associated with meadow edges and streams, where the understory consists of grasses, forbs, and sedges. Lodgepole pine forest typically corresponds to the *Pinus contorta* ssp. *murrayana* Forest Alliance as described by Sawyer et al. (2009).

Montane Hardwood Forest

A typical montane hardwood vegetation community is composed of a pronounced hardwood tree layer, with an infrequent and poorly developed shrub stratum, and a sparse herbaceous layer. At higher elevations, scattered huckleberry oak (*Quercus vacciniifolia*) is present amongst an overstory of various conifers including ponderosa pine (*Pinus ponderosa*), Coulter pine (*Pinus coulteri*), California white fir (*Abies concolor*), and Jeffrey pine. At mid–elevations, typical associates include Douglas-fir (*Pseudotsuga menziesii*), tanoak (*Notholithocarpus densiflorus*), Pacific madrone (*Arbutus menziesii*), California black oak (*Quercus kelloggii*), and bristlecone fir (*Abies bracteata*). At lower elevations knobcone pine (*Pinus attenuata*), foothill pine, Oregon white oak (*Quercus garryana*). Understory vegetation is mostly scattered woody shrubs and a few forbs. Elevations range from 300 ft near the Pacific Ocean up to 9000 ft. Montane hardwood typically corresponds to the *Quercus chrysolepis* Forest Alliance as described by Sawyer et al. (2009).

Montane Riparian Forest

The vegetation of montane riparian forests is variable and often structurally diverse. Usually, these riparian areas occur as a narrow, often dense grove of broad-leaved, winter deciduous trees with a sparse understory. At high mountain elevations, more shrubs tend to occur in the understory. In the Sierra Nevada, characteristic species can include thinleaf alder (*Alnus incana*), black cottonwood (*Populus trichocarpa*), and dogwood (*Cornus* spp.). Montane riparian forest can correspond to the *Acer macrophyllum* Forest Alliance, *Umbellularia californica* Forest Alliance or *Populus trichocarpa* Forest Alliance as described by Sawyer et al. (2009).

Valley Oak Woodland

This vegetation community can range in structure from savanna-like to forest-like stands. The canopies tend to be partially closed and comprised mostly of winter-deciduous, broad-leaved species such as valley oak. Dense stands typically grow in valley soils along natural drainages and decrease with the transition from lowlands to uplands. Shrubs are also associated with this vegetation community in lowland areas, especially along drainages. Valley oak stands with little, or no grazing tend to develop a partial shrub layer of bird dispersed species, such as poison oak, toyon (*Heteromeles arbutifolia*, and California coffeeberry. Ground cover consists of a well-developed carpet of annual grasses and forbs, such as species of wild oat (*Avena* spp.), bromes (*Bromus* spp.), and ryegrass (*Lolium* spp.). Valley oak woodland typically corresponds to the *Quercus lobata* Woodland Alliance as described by Sawyer et al. (2009).

Valley Foothill Riparian

This vegetation community is associated with drainages, particularly those with low-velocity flows, flood plains, and gentle topography. This vegetation community is generally comprised of a sub-canopy tree layer dominated by cottonwoods (*Populus* spp.), sycamore (*Platanus racemosa*), and/or valley oak, and an understory shrub layer typically consisting of willows (*Salix* spp.) and/or mulefat (*Baccharis salicifolia*). Valley foothill riparian can correspond to multiple alliances, depending upon the species composition. These alliances can include, but are not limited to, *Platanus racemosa* Woodland Alliance, and the various *Populus* alliances, depending upon dominant species present (Sawyer et al. 2009).

Eucalyptus Forest

This vegetation community ranges from single-species thickets with little or no shrubby understory to scattered trees over a well-developed herbaceous and shrubby understory. Eucalyptus is a non-native, invasive species that arrived in California in the mid-1800's. Its unique appearance and various uses enticed entrepreneurs to plant large forests and it has survived and spread since, in many places successfully dominating native hardwoods. In most cases, eucalyptus forms a dense stand with a closed canopy. Blue gum eucalyptus (*Eucalyptus globulus*) and red gum eucalyptus (*E. camaldulensis*) are the most common eucalyptus species found in these stands. The understory of these areas tends to have extensive patches of leaf litter but may include species such as poison oak. Trees within this vegetation community are typically planted in rows for use as a wind break.

Montane Hardwood-Coniferous Forest

These forests include both conifers and hardwoods, often as a closed forest. To be considered montane hardwood-coniferous forest, at least one-third of the trees must be conifer and at least one-third must be broad-leaved. The vegetation community often occurs in a mosaic-like pattern with small pure stands of conifers interspersed with small stands of broad-leaved trees. Most of the broad-leaved trees are sclerophyllous evergreen, but winter-deciduous species also occur. Relatively little understory occurs under the dense, dual layered canopy. However, considerable ground and shrub cover can occur in ecotones or following disturbance. Montane hardwood-coniferous forest can correspond to multiple alliances as described by Sawyer et al. (2009) depending upon the species composition. These alliances can include, but are not limited to, *Arbutus menziesii* Forest Alliance, *Pinus coulteri* Forest Alliance, *Lithocarpus densiflorus* Forest Alliance, *Quercus chrysolepis* Forest Alliance, and *Sequoia sempervirens* Forest Alliance.

Pinyon-Juniper Woodland

Pinyon-juniper woodland typically is an open woodland of low, round-crowned, bushy trees that are needle-leaved, evergreen, and depending on site suitability, range from less than 30 ft to 50 ft in height. Stand structure varies depending on site quality and elevation. On favorable sites with little disturbance, pinyon-juniper forms dense cover, whereas on drier sites, spacing between trees increases. Overstory species composition at lower- and mid-level elevations ranges from pure stands of pinyon (*Pinus monophylla*) to stands of pinyon mixed with juniper and oaks (shrub live, California scrub, or canyon live). At higher elevations, ponderosa pine and Jeffrey pine may be found in this habitat. Pinyon-juniper vegetation communities generally are found on slopes that are steep, rocky, dry, and face east. Most pinyon-juniper habitats are found east of the Sierra Nevada from 6,000 to 9,000 ft. Pinyon-juniper woodland typically corresponds to the *Juniperus osteosperma* Woodland Alliance or *Pinus monophylla* Woodland Alliance (Sawyer et al. 2009).

Ponderosa Pine Forest

Tree spacing in ponderosa pine forests varies from open to dense. The ponderosa pine forest includes pure stands of ponderosa pine as well as stands of mixed species, in which at least 50 percent of the canopy area is ponderosa pine. Associated species vary depending on location in the state and site conditions. Typical tree associates include but are not limited to white fir, incense-cedar (*Calocedrus decurrens*), Coulter pine (*Pinus coulteri*), Jeffrey pine, sugar pine (*Pinus lambertiana*), Douglas-fir, Bigcone Douglas-fir (*Pseudotsuga macrocarpa*). Associated shrubs include manzanita, buckbrush, and Pacific dogwood (*Cornus nuttallii*). This vegetation community is found on all aspects, depending on soils and location within the local elevational range. Ponderosa pine forest is found on suitable mountain and foothill sites throughout California except in the immediate area of San Francisco Bay, in the north coast area, south of Kern County in the Sierra Nevada and east of the Sierra Nevada Crest. Ponderosa pine forest typically corresponds to the *Pinus ponderosa* Forest Alliance (Sawyer et al. 2009).

Red Fir Forest

Large expanses of nearly monotypic stands of red fir (*Abies magnifica*) are common throughout its range, with very few other plant species in any layer. Heavy shade and a thick layer of duff tend to inhibit understory vegetation, especially in dense stands. Red fir vegetation communities are found on frigid soils over a wide range of topography, exclusive of very wet sites. Red fir is distributed in an elevational band from about 6,000 to 9,000 ft. Red fir forest extends from northern Lake County northward through the North Coast Ranges and from Kern County northward through the Sierra Nevada into the Cascade Range of southwestern Oregon. Red fir forest typically corresponds to the *Abies magnifica* Forest Alliance as described by Sawyer et al. (2009).

Sierran Mixed Conifer Forest

The Sierran mixed conifer forest is an assemblage of conifer and hardwood species that forms a multilayered forest. Five conifers and one hardwood characterize the mixed conifer forest: white fir, Douglas-fir, ponderosa pine, sugar pine, incense-cedar, and California black oak. Some species common to the understory of this habitat type include deerbrush (*Ceanothus integerrimus*), manzanita, and chinquapin (*Chrysolepis chrysophylla*). The Sierran mixed conifer forest generally forms a vegetation band ranging in elevation from 2,500 to 4,000 ft in the north and 4,000 to 10,000 ft in the southern Sierra Nevada. Sierran mixed conifer forest can correspond to multiple alliances described by Sawyer et al. (2009), depending upon the species composition.

Subalpine Conifer Forest

Subalpine conifer forests are open forests with needle-leaved evergreen trees of low to medium stature, such as Engelmann spruce (*Picea engelmannii*), subalpine fir (*Abies lasiocarpa*), and lodgepole pine. Stand density and tree height are typically greater at lower limits of its elevational range. These forests typically occupy extremely harsh environments. Stands on exposed sites and windy ridges near tree line are shaped into krummholz stunted, mat-like forms. Shrubby vegetation and herbaceous ground cover are generally sparse or lacking. Soils are generally thin and of low-quality, coarse sand, gravel, volcanic debris, and rocks derived from decomposing parent material. Subalpine coniferous forest is generally distributed at high elevations in all significant mountain ranges of the State. Subalpine conifer forest can correspond to multiple alliances described by Sawyer et al. (2009) depending upon the species composition.

White Fir Forest

The white fir forest vegetation community is characterized by nearly monotypic even aged white fir. This vegetation community is found throughout California on a variety of soils developed from different parent material, including volcanic and igneous rocks, granitics, various metamorphics, and sedimentary material. Soils are coarse-textured, well-drained, have poorly developed profiles, and are often rocky. This vegetation community occurs at about 5,500 ft in the Southern Sierra Nevada. White fir forest typically corresponds to the *Abies concolor* Forest Alliance (Sawyer et al. 2009).

Shrub Dominated Vegetation Communities

Shrub-dominated vegetation communities, such as various chaparral, are comprised primarily of woody, evergreen shrubs and occur predominantly along the foothills of the Sierra Nevada Range in eastern Tulare County. The following are descriptions of shrub-dominated vegetation communities that occur within three miles of projects outlined in the proposed 2026 RTP/SCS.

Alpine Dwarf-Shrub

This vegetation community is comprised of primarily low graminoid and forb communities with an admixture of dwarf-shrubs including creambush oceanspray (*Holodiscus discolor*), Greene goldenweed (*Ericameria greenei*), and white mountain heather (*Cassiope martensiana*). The perennial herbs or dwarf shrubs comprising these communities are usually less than 18 inches tall. Coverage may reach 100 percent at lower elevations but becomes increasingly open as elevation increases. On mesic sites, a continuous turf contrasts with patches of bunchgrasses and cushion plants on drier sites. This vegetation community is typically found above the timberline in the Sierra Nevada Mountains.

Bitterbrush Shrubland

This vegetation community comprised of Bitterbrush (*Purshia tridentata*) stands ranging from small, widely spaced shrubs to large, closely spaced shrubs with more than 90 percent canopy cover. Bitterbrush is only occasionally found in pure stands; however, most often bitterbrush occurs as a codominant with big sagebrush (*Artemisia tridentata*) or rubber rabbitbrush (*Ericameria nauseosa*). Bitterbrush vegetation communities are found on flats and slopes with deep, well-drained, rapidly permeable, slightly acidic soils.

Chamise-Redshank Chaparral

This vegetation community can range from nearly pure stands of chamise (*Adenostoma fasciculatum*) or redshank (*A. sparsifolium*) to a mixture of both. Mature chamise-redshank chaparral is single layered, generally lacking well-developed herbaceous ground cover and over story trees. Shrub canopies frequently overlap, producing a nearly impenetrable canopy of interwoven branches. Redshank stands tend to be slightly taller and more open than chamise dominated stands. Fire occurs regularly in chamise-redshank chaparral and influences community structure. Chamise-redshank chaparral typically corresponds to the *Adenostoma fasciculatum* Shrubland Alliance and *Adenostoma sparsifolium* Shrubland Alliance as described by Sawyer et al. (2009).

Low Sage Shrubland

This vegetation community is generally dominated by broad-leaved, evergreen shrubs ranging in height from about four to 19 inches, typically averaging about 15 percent cover but sometimes with crowns touching. The vegetation community may be dominated by low sagebrush (*Artemisia arbuscula*) or black sagebrush (*Artemisia nova*), often in association with antelope bitterbrush (*Purshia tridentata*), or big sagebrush (*Artemisia tridentata*); black sagebrush is also commonly associated with winterfat (*Krascheninnikovia lanata*) and Mormon-tea (*Ephedra viridis*). Low sagebrush communities are generally restricted to elevated arid plains along the eastern flanks of the Sierra Nevada, from Inyo County northward through Modoc and Siskiyou Counties.

Mixed Chaparral

Mixed Chaparral is a structurally homogeneous brushland type dominated by shrubs with thick, stiff, heavily cutinized evergreen leaves. Shrub height and crown cover vary with age since last burn, precipitation, aspect, and soil type. At maturity, cismontane mixed chaparral typically is a dense, nearly impenetrable thicket. On poor sites, serpentine soils, or transmontane slopes, shrub cover may be considerably reduced, and shrubs may be shorter. Leaf litter and standing dead material may accumulate in stands that have not burned for several decades. Mixed chaparral can correspond to multiple alliances, depending upon the species composition. These alliances can include, but are not limited to, *Ceanothus cuneatus* Shrubland Alliance and the *Arctostaphylos glauca* Shrubland Alliance (Sawyer et al. 2009).

Montane Chaparral

The growth form of montane chaparral species can vary from treelike (up to 10 ft) to prostrate. Montane chaparral varies markedly throughout California. Species composition changes with elevational and geographical range, soil type, and aspect. Species that usually characterize montane chaparral communities include, but are not limited to, whitethorn Ceanothus (*Ceanothus cordulatus*), snowbrush Ceanothus (*Ceanothus velutinus*), and greenleaf manzanita (*Arctostaphylos patula*). Montane chaparral can be found on shallow to deep soils, on all exposures, and from gentle to relatively steep slopes. Montane chaparral is associated with mountainous terrain from mid to high elevation at 3,000 to 10,000 ft. Montane chaparral can correspond to multiple alliances, depending upon the species composition. These alliances can include, but are not limited to, the Ceanothus cordulatus Shrubland Alliance as described by Sawyer et al. (2009).

Sagebrush Shrubland

Sagebrush stands are typically large, open, discontinuous stands of big sagebrush (*Artimisia tridentata*) of uniform height. Often the community is composed of pure stands of big sagebrush, but many stands include other species of sagebrush (*Artimisia* spp.), rabbitbrush (*Ericameria nauseosa*), horsebrus (*Tetradymia canescens*), and gooseberry (*Ribes* spp.). The sagebrush vegetation community is a discontinuous strip along the east and northeast borders of California south to the 37th parallel. It occupies dry slopes and flats from about 1,600 ft to 10,500 ft in elevation. Sagebrush shrubland can correspond to multiple alliances, depending upon the species composition. These alliances can include, but are not limited to, the *Artimisia tridentata* Shrubland Alliance (Sawyer et al. 2009).

Herbaceous Dominated Vegetation Communities

These vegetation communities are generally comprised of areas dominated by grasses and other non-woody species. Most herbaceous communities in the TCAG region are comprised of non-native grasslands. Native grasslands, which are dominated by perennial bunch grasses such as purple needlegrass (*Nassella pulchra*) were historically abundant within the TCAG region but are now currently patchy in distribution. The following are descriptions of the herbaceous dominated vegetation communities that occur within three miles of projects outlined in the proposed 2026 RTP/SCS.

Annual Grasslands

This vegetation community is composed primarily of non-native annual herbs and forbs and typically lacks shrub or tree cover. The physiognomy and species composition of annual grasslands is highly variable and varies considerably on a temporal scale. Grazing is a common land use within this vegetation community. Common grass species include wild oats, soft chess brome (*Bromus hordeaceous*), ripgut brome (*Bromus diandrus*), and red brome (*Bromus madritensis*). Common forb species can include species of filaree (*Erodium* spp.), and bur clover (*Medicago* spp.). California poppy can also be quite common in this vegetation community. Annual grassland can correspond to multiple alliances as described by Sawyer et al. (2009) depending upon the species composition. These alliances can include, but are not limited to, *Avena (barbata, fatua)* semi-natural stands and *Bromus (diandrus, hordeaceous) – Brachypodium distachyon* semi-natural stands.

Wet Meadow

Wet meadows at all elevations generally have a simple structure consisting of a layer of herbaceous plants. Shrub or tree layers are usually absent or very sparse; but may be found along the meadow edge. Within the herbaceous plant community, a microstructure is frequently present. Species composition generally differs between sites and includes a variety of members of the following genera: Agrostis, Carex, Danthonia, Juncus, Salix, and Scirpus. Fewer species tend to occur as surface water depth increases during spring runoff. The single most important characteristic of a wet meadow is its hydrology. Seasonality and reliability of yearly water inflows and outflows largely determine the vegetational stability of wet meadows. In the Sierra Nevada and Cascade ranges, wet meadows usually occur above 3,940 feet in the north, and above 5,900 feet in the south. Because of the high amount of variation in composition, multiple alliances as described by Sawyer et al. (2009) can describe this vegetation community.

Pasture

Pasture vegetation is a mix of perennial grasses and legumes, with typically complete canopy closure. Structurally this land cover type resembles annual grassland habitats. Height of vegetation varies, according to season and livestock stocking levels. Old or poorly drained pastures may have patches of weeds more than two feet in height. The mix of grasses and legumes varies according to management practices such as seed mixture, fertilization, soil type, irrigation, weed control, and the type of livestock on the pasture.

Developed and Sparsely/Non-Vegetated Habitats

Developed and sparsely/non- vegetated land covers are abundant in Tulare County. Developed land covers are usually sparsely or non-vegetated, are associated with urban and agricultural areas, and are highly disturbed. Species that occur in these areas are typically adapted to anthropogenic disturbance and/or comprised of ornamental species. Sparsely vegetated land covers also tend to be associated with rock outcrops. The following are descriptions of developed and sparsely/non-vegetated land cover types that could be impacted by development (transportation projects and land use changes) proposed under the proposed 2026 RTP/SCS.

Cropland

This land cover type is characterized by areas in active agriculture and is an entirely man-made habitat. The structure of vegetation can vary in size, shape, and growing pattern. The dominant cropland use is row crops. Typical crops consist of grasses, brassicas, and forbs. Subcategories of cropland habitat classifications in the TCAG region include dryland grain crop, irrigated hayfield crop, irrigated row and field crop, and irrigated grain crop. Orchards and vineyards are classified separately.

Orchard

This land cover type is characterized by typically open, single-species, tree-dominated areas. Depending on the tree type and pruning methods, they are usually low, bushy trees with an open understory to facilitate harvest. Trees such as citrus, avocados, and olives are evergreen; others are deciduous. The understory is usually composed of low-growing grasses and other herbaceous plants but may be managed to prevent understory growth totally or partially, such as along tree rows. Currently two subcategories of orchard land cover classifications that are recognized occur in the TCAG region: deciduous orchard and evergreen orchard.

Vineyard

Vineyards are composed of single species planted in rows, usually supported on wood and wire trellises. Vines are normally intertwined in the rows, but open between rows. Rows under the vines are usually sprayed with herbicides to prevent growth of herbaceous plants. Between rows of vines, grasses and other herbaceous plants may be planted or allowed to grow as a cover crop to control erosion. Vineyards can be found on flat alluvial soils in the valley floors, in rolling foothill areas, or on relatively steep slopes. Most vineyards are in valley or foothill areas.

Urban

This land cover type is completely man-made, comprising residential, commercial, and industrial developed areas. Plant species within urban land cover types are typically comprised of ornamental and other non-native invasive plant species, with large, developed areas lacking vegetation.

Barren

This land cover type is defined by the absence of vegetation. Any area with less than two percent total vegetation cover and less than 10 percent cover by tree or shrub species is defined as barren. Structure and composition of the substrate is largely determined by the region of the state as well as surrounding environment. An example of a barren land cover includes areas of exposed parent rock and talus slope.

b. Drainages and Wetlands

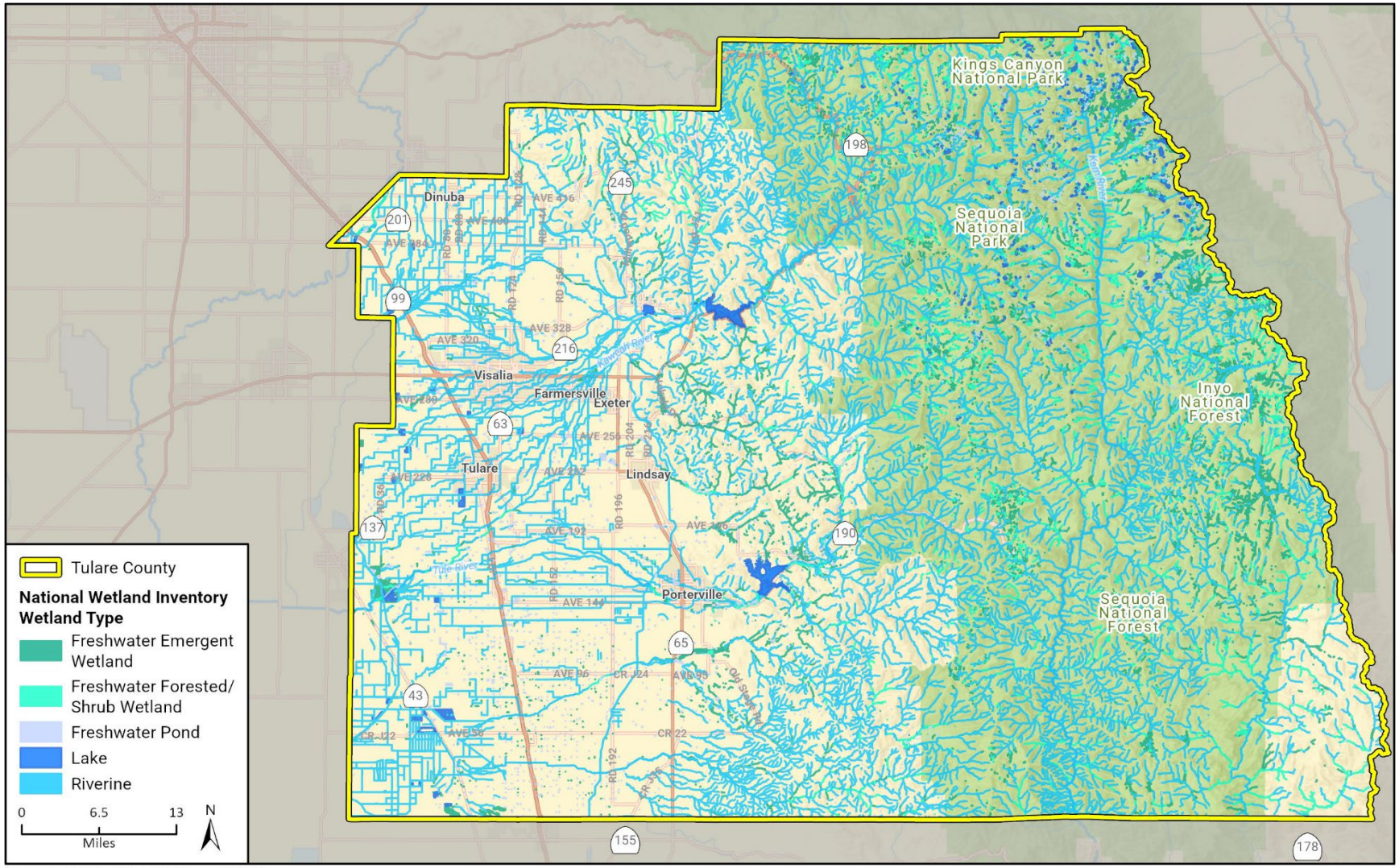
The TCAG region covers a diverse area that includes several types of waters and wetlands. These waters range from concrete-lined urban streams, reservoirs, and agricultural ditches to natural rivers, desert washes, and mountain lakes. Lakes, rivers, streams, and other water bodies are termed "jurisdictional waters" when they are protected by federal and/or state law. Special aquatic sites, which include wetlands, are considered an important subset of jurisdictional waters. State and federal resource agencies regulate activities that take place within or could affect jurisdictional waters and associated riparian resources. To identify jurisdictional features and define the jurisdictional limits, state and federal resource agencies have developed regulations (discussed below), which serve as legal definitions for jurisdictional waters and wetlands.

Drainages

The TCAG region contains four principal rivers and their watersheds: Kings River; Kaweah River; Tule River; and White River/Deer Creek. Several creeks and tributaries are associated with each one of these watersheds and generally flow from the Sierra Nevada Mountains westwards towards the San Joaquin Valley (Figure 4.4-2). The drainages within these watersheds are of biological importance as they provide valuable foraging habitat, breeding habitat, and movement habitat for a wide variety of animal species, including sensitive species such as Little Kern golden trout (*Oncorhynchus aguabonita whitei*), California red-legged frog (*Rana draytonii*), and western pond turtle (*Actinemys marmorata*). Information regarding each watershed is provided below (Tulare County 2010).

- Kings River Watershed: This watershed encompasses 1,742 square miles, ranging in elevation from 500 to 14,000 feet.
- Kaweah Watershed: The Kaweah Watershed is south of the Kings River Watershed. The Kaweah River is a tributary to the Tule River and drains 561 square miles of the Sierra Nevada Mountains.
- Tule River Watershed: the Tule River Watershed is primarily supplied by the Tule River, which drains 390 square miles above Lake Success (capacity 82,300 acre-feet).
- Deer Creek/White River Watershed: this watershed is in the southern portion of the County. Surface supplies emanate from a low-elevation stream group.

Figure 4.4-2 Wetland and Drainages in the TCAG Region



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Additional Data provided by USGS, 2025

Wetlands and Aquatic Habitats

Wetlands are regarded as important biological resources both because of their rarity in California and because they serve a variety of functional values. The County includes numerous wetlands mapped by the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI; USFWS 2026c). Some wetlands may not have been mapped. A general description of each of the classifications is provided below. Of those wetland types mapped by the NWI, freshwater emergent wetland, riverine and lacustrine habitats are also mapped by the CWHR.

Freshwater Emergent Wetlands

Freshwater emergent wetlands include all non-tidal waters dominated by emergent herbaceous plant species, mosses, and/or lichens. Wetlands of this type are also low in salinity. Wetlands which lack vegetation can be included in this class if they are less than 20 acres, do not have an active wave-formed or bedrock shoreline feature, have a low water depth less than 6.6 feet. This wetland type is also mapped by the CWHR. Freshwater emergent wetlands are characterized by erect, rooted herbaceous hydrophytes.

Dominant vegetation is generally perennial monocots. All emergent wetlands are flooded frequently enough so that the roots of the vegetation prosper in an anaerobic environment. The vegetation may vary in size from small clumps to vast areas covering several kilometers. The acreage of freshwater emergent wetlands in California has decreased dramatically since the turn of the century due to drainage and conversion to other uses, primarily agriculture.

This wetland type can include vernal pools which are seasonal wetlands are small depressions that fill with water during the winter, gradually drying during the spring and becoming completely dry in the summer. These pools are found in only a few places in the world outside of California. Vernal pool vegetation is characterized by herbaceous plants that begin their growth as aquatic or semi- aquatic plants and transition to a dry land environment as the pool dries. Most vernal pool plants are annual herbs. Wildlife species supported by vernal pools include the California tiger salamander (*Ambystoma californiense*) and vernal pool fairy shrimp (*Branchinecta lynchi*).

Freshwater Forested/Shrub Wetlands

These wetlands include non-tidal waters which are dominated by trees and shrubs, with emergent herbaceous plants, mosses and/or lichens. Wetlands which lack vegetation can be included in this class if they also exhibit the same criteria as described for freshwater emergent wetlands. The vegetation found in freshwater forested/shrub wetlands are generally dominated by woody vegetation such as shrubs and trees.

Freshwater Ponds

Freshwater ponds include non-tidal waters with vegetative cover along its edges such as trees, shrubs, emergent herbaceous plants, mosses, and/or lichens. Freshwater ponds can be man-made or natural and typically consist of an area of standing water with variable amounts of shoreline. These wetlands and deep-water habitats are dominated by plants that grow on or below the surface of the water. This wetland type is also mapped by the CWHR and categorized as lacustrine habitat which includes vernal pools.

Lakes

Lakes are a lacustrine system which includes wetlands and deep-water habitats that are in a topographic depression or dammed river channel. These areas tend to be greater than 20 acres. Vegetation cover within this habitat is generally less than 30 percent and often occurs in the form of emergent or surface vegetation. Substrates are composed of at least 25 percent cover of particles smaller than stones. This wetland type is also mapped by the CWHR and categorized as lacustrine habitat which also includes vernal pools.

Riverine

Riverine habitats are a riverine system which includes all wetlands and deep-water habitats contained in natural or artificial channels that contain periodically or continuously flowing water. This system may also form a connecting link between two bodies of standing water. Substrates generally consist of rock, cobble, gravel, or sand.

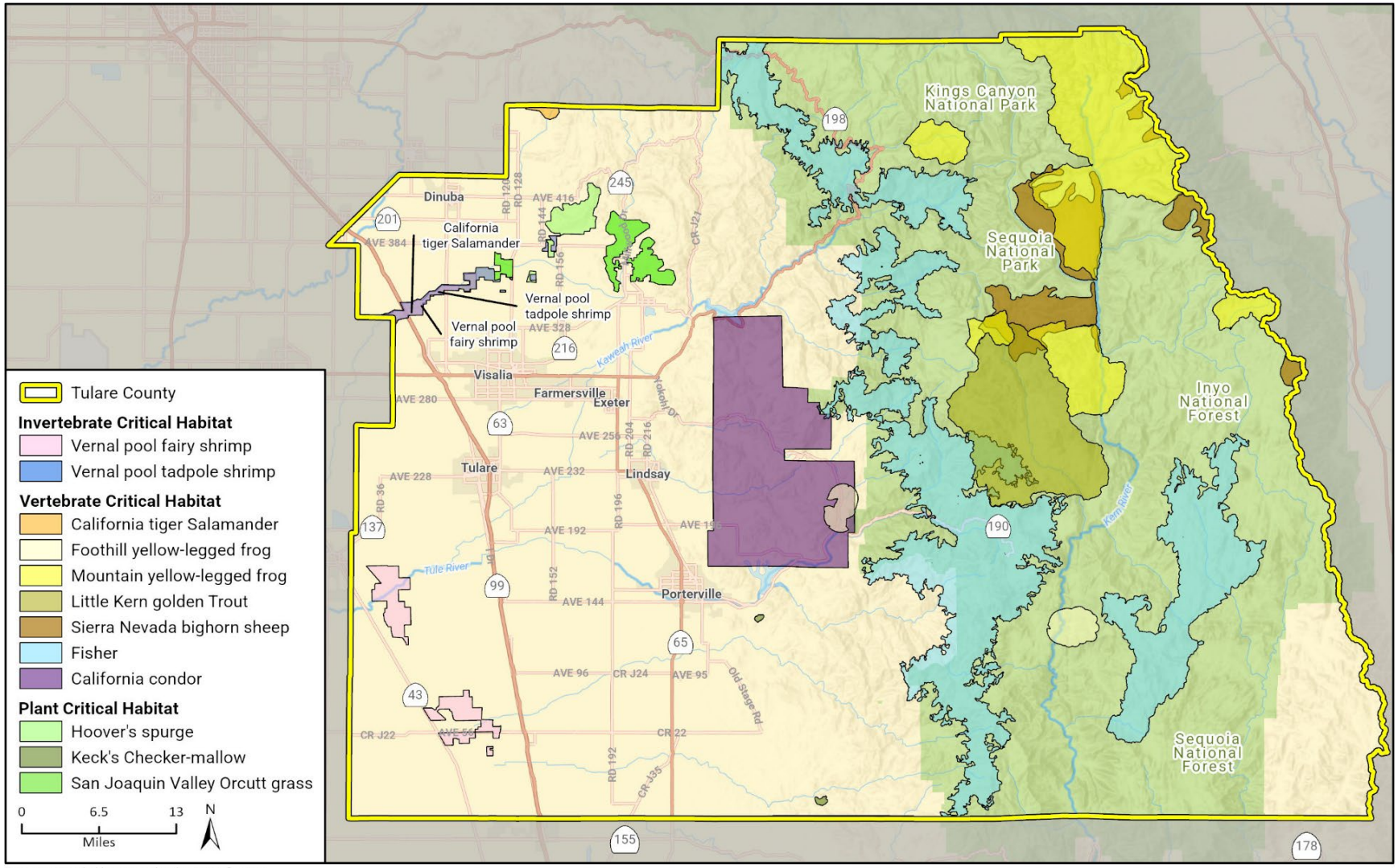
c. Sensitive Natural Communities and Critical Habitat

Sensitive natural communities are those listed by the CDFW due to the rarity of the community in the state or throughout its entire range (globally). The California Natural Diversity Database (CNDDB) lists 10 natural communities that occur with Tulare County (CDFW 2026a). CDFW maintains the California Natural Community List to identify vegetation types that are rare, threatened, or declining in California. These communities have long been part of the state's Natural Heritage Program and were originally classified using the Holland (1986) system within the CNDDB. Sensitive natural communities are identified based on vegetation alliances and associations, and ranked by global and state rarity ranks, with communities ranked S1–S3 considered sensitive[1] (CDFW 2025). According to the CDFW's Vegetation Program, alliances with State ranks of S1-S3 are considered to be imperiled, and thus, potentially of special concern. Because this analysis is at the county level and programmatic, vegetation mapping and analysis at the alliance and association levels would be speculative at this time and would need to be conducted at the project level. That said, some sensitive vegetation alliances and associations are already known to occur within the TCAG region as a subset of the habitats described above in Sections 4.4.1.a and 4.4.1.b. For instance, some oak woodland alliances within Tulare County, notably Quercus lobata Woodland Alliance, which most resembles the valley oak woodland described in Section 4.4.1.a, are considered sensitive.

Critical habitat is a specific geographic area(s) that is essential for the conservation of a threatened or endangered species and that may require special management and protection. Federally designated critical habitat for 11 species, and proposed critical habitat for one species, also occurs in the TCAG region (Figure 4.4-3). In the region, there are approximately 428,800 acres of critical habitat, most of which is located along the Tulare/Inyo County border in Sequoia National Park. These sensitive communities and critical habitats are also listed in Table 4.4-1.

[1] CDFW classifies vegetation at the two finest levels of alliance and association. The alliance is defined by plant species composition, habitat conditions, physiognomy, and diagnostic species; at least one of the diagnostic species is typically found in the uppermost or dominant stratum (Jennings et al. 2009). The association is the most detailed classification level and reflects more specific characteristics of vegetation such as finer-level differences in species composition, topography, soils, substrate, climate, hydrology, and disturbance regime (Federal Geographic Data Committee 2008). Unlike alliances, associations often recognize two or more diagnostic species found in different vegetation layers (Sawyer et al. 2009).

Figure 4.4-3 Critical Habitat in the TCAG Region



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Additional Data provided by USFWS, 2025

Table 4.4-1 Sensitive Communities and Critical Habitats Documented within the TCAG Region

Communities Considered Sensitive by the CDFW
Big Tree Forest
Central Valley Drainage Hardhead/Squawfish Stream
Great Valley Oak Riparian Forest
Northern Claypan Vernal Pool
Northern Hardpan Vernal Pool
Southern Interior Cypress Forest
Sycamore Alluvial Woodland
Valley Sacaton Grassland
Valley Saltbush Scrub
Valley Sink Scrub
Critical Habitats
California condor (*Gymnogyps californianus*)
California tiger salamander (*Ambystoma californiense*)
Fisher - southern Sierra Nevada ESU (*Pekania pennanti* pop. 2)[1]
Foothill yellow-legged frog (*Rana Boylii*, proposed)
Hoover's spurge (*Euphorbia hooveri*)
Keck's checker-mallow (*Sidalcea keckii*)
Little Kern golden trout (*Oncorhynchus mykiss whitei*)
Mountain yellow-legged frog (*Rana muscosa*)
San Joaquin Orcutt grass (*Orcuttia inaequalis*)
Sierra Nevada yellow-legged frog (*Rana sierrae*)
Sierra Nevada bighorn sheep (*Ovis canadensis sierrae*)
Vernal pool fairy shrimp (*Branchinecta lynchi*)
Vernal pool tadpole shrimp (*Lepidurus packardi*)

[1] Proposed Critical Habitat

Sources: CNDDB (CDFW 2026a); USFWS IPaC (2026a), USFWS Critical Habitat Mapper (2026b)

a. Special-Status Species

For the purpose of this EIR, special-status species are those plants and animals listed, proposed for listing, or candidates for listing as threatened or endangered by the USFWS under the federal Endangered Species Act (ESA); those listed or proposed for listing as rare, threatened, or endangered by the CDFW under the California Endangered Species Act (CESA); and animals designated as "Species of Special Concern," "Fully Protected," or "Watch List" by the CDFW. Those plants ranked as California Rare Plant Rank (CRPR) 1 or 2 are typically regarded as rare, threatened, or endangered under CEQA by lead agencies and were considered as such in this EIR. The CRPR utilizes the following code definitions:

- **List 1A =** Plants presumed extinct in California;
- **List 1B.1** = Rare or endangered in California and elsewhere; seriously endangered in California (over 80 percent of occurrences threatened/high degree and immediacy of threat);

- **List 1B.2** = Rare or endangered in California and elsewhere; fairly endangered in California (20-80 percent occurrences threatened);
- **List 1B.3** = Rare or endangered in California and elsewhere, not very endangered in California (<20 percent of occurrences threatened, or no current threats known); and
- **List 2** = Rare, threatened or endangered in California, but more common elsewhere.

CRPR List 3 species are "review list," and CRPR 4 species are considered "watch list" species. CRPR 3 and 4 species do not typically warrant analysis under CEQA except where they are part of a unique community, from the type locality, or designated as rare or significant by local governments, or where cumulative impacts could result in population–level effects. The CRPR 3 and 4 species reported from the region are not locally designated as rare or significant by the County of Tulare General Plans and are not part of a unique community. Additionally, the County is not known to be the type locality for any ranked plant species. Therefore, impacts to CRPR 3 and CRPR 4 species were not considered in this analysis.

Species of Special Concern (SSC) is a category used by the CDFW for those species which are considered indicators of regional habitat changes or are considered to be potential future protected species. The SSC category is intended by the CDFW for use as a management tool to include these species into special consideration when decisions are made concerning the development of natural lands, and these species are considered "sensitive," as the term is used in the CEQA Appendix G questions.

Queries of the USFWS *Information for Planning and Consultation* (IPaC; USFWS 2026a), the CDFW CNDDB (CDFW 2026a), and CNPS *Online Inventory of Rare, Threatened and Endangered Plants of California* (CNPS 2026a) were conducted. These queries were conducted to obtain comprehensive information regarding special-status species considered to have potential to occur within Tulare County.

Special-status Plants and Animals

The TCAG region is home to several species protected by federal and state agencies (USFWS 1998). Important animal species can be found in a variety of Tulare County habitats. The CNDDB (CDFW 2026a), CNPS (2026a), and USFWS IPaC (2026a) together list 175 special-status plant and animal species (125 plant species and 50 animal species) that occur or have the potential to occur within Tulare County. The status and habitat requirements of those species are presented in Appendix C as Tables C-1 and C-2, respectively.

b. Wildlife Movement Corridors

Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network.

The habitats within the link do not necessarily need to be the same as the habitats that are being linked. Rather, the link merely needs to contain sufficient cover and forage to allow temporary inhabitation by ground-dwelling species. Typically, habitat linkages are contiguous strips of natural

areas, though dense plantings of landscape vegetation can be used by certain disturbance-tolerant species. Depending upon the species using a corridor, specific physical resources (such as rock outcroppings, vernal pools, or oak trees) may need to be located within the habitat link at certain intervals to allow slower-moving species to traverse the link. For highly mobile or aerial species, habitat linkages may be discontinuous patches of suitable resources spaced sufficiently close together to permit travel along a route in a short period of time. Wildlife movement corridors can be both large and small scale.

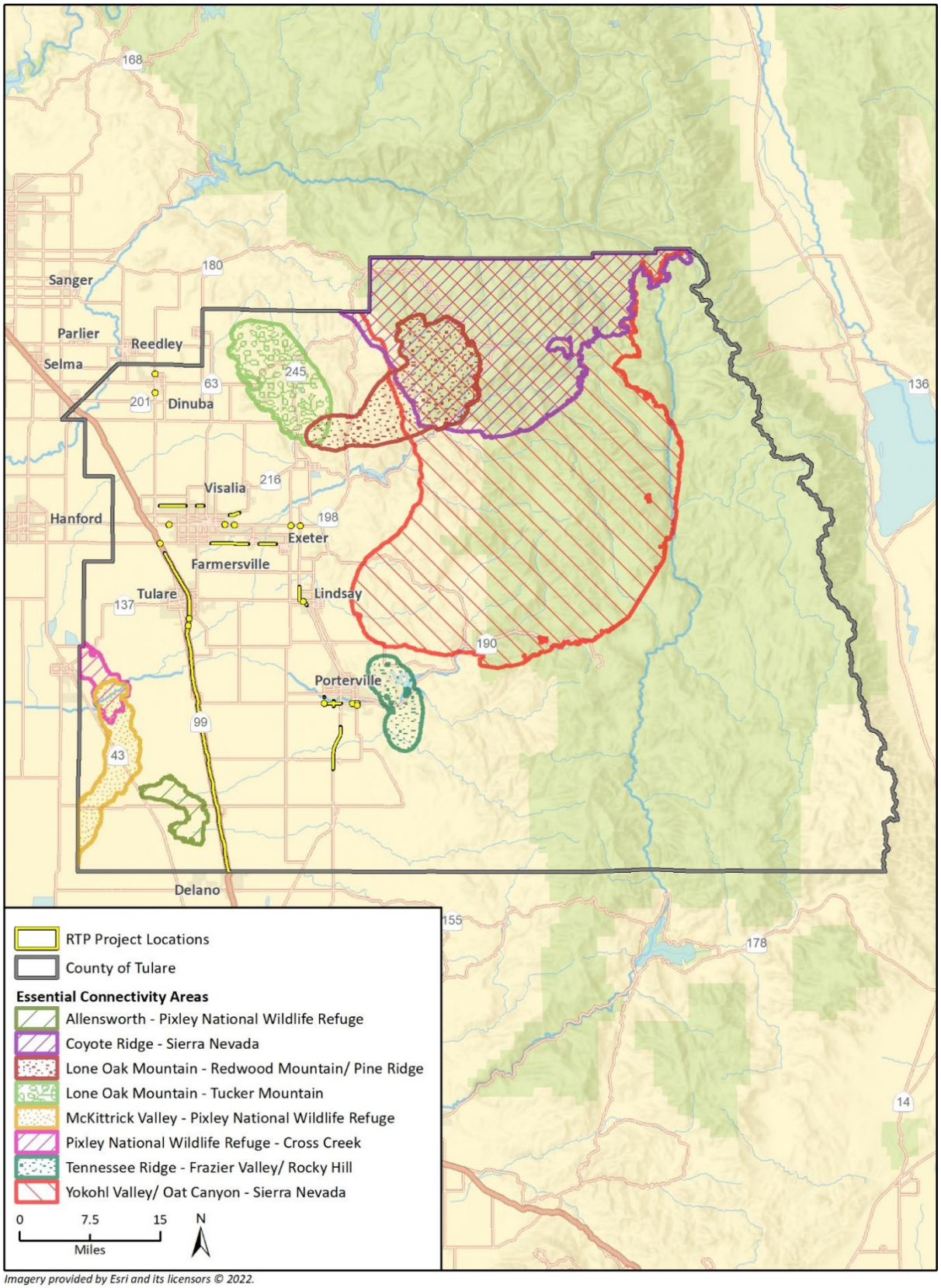
Wildlife movement corridors can be both large and small scale. Essential Connectivity Areas (ECA) as mapped in the report *California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California* (Spencer et al. 2010) represent connectivity at the state level. ECAs are regions in which land conservation and management actions should be prioritized to maintain and enhance connectivity between areas of high ecological importance. ECAs are mapped based on coarse ecological condition indicators, rather than the needs of particular species and thus serve the majority of species in each region. It is important to recognize that even areas outside of Natural Landscape Blocks and ECAs support important ecological values and should not be immediately discounted as lacking conservation value without further review.

The mountainous regions of Tulare County may support wildlife movement on a regional scale while riparian corridors, waterways, flood control channels, canals, contiguous habitat, and upland habitat on levees may provide more local scale opportunities for wildlife movement throughout the TCAG region.

The CDFW *Biogeographical Information and Observation System* (CDFW 2026b) mapped four ECAs within Tulare County (see Figure 4.4-4). Two are in the southwestern portion of the TCAG region, one is in the center, and the largest runs down through the center and eastern portions of the TCAG region from the north. In western Tulare County, one ECA is associated with Lakeland and Homeland Canals and a portion of the Tule River while the other occurs in the vicinities of Deer Creek and the White River. ECAs in western Tulare County show considerable overlap with the Pixley National Wildlife Refuge. The most significant ECA in eastern Tulare County occurs along the foothills of the Sierra Nevada Range.

Seven important movement corridors are also identified in Tulare County from the report, *Missing Linkages: Restoring Connectivity to the California Landscape* (Penrod et al. 2001). These areas are identified as important movement corridors for species such as San Joaquin kit fox, steelhead, beaver, riparian birds, and other small carnivores.

Figure 4.4-4 Essential Connectivity Areas in the TCAG Region



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Additional Data provided by CDFW, 2020.

c. Habitat Conservation Plans

There are two habitat conservation plans (HCPs) that apply to portions of the TCAG region.

The Kern Water Bank HCP applies to covered activities restricted to the Allensworth area of Tulare County. Created in 1997 with the intention of protecting wetland habitats in Kern County, the Kern Water Bank HCP establishes a land management system that allows the land to be used primarily as a water bank, but also encourages the re-emergence of native habitat (Kern Water Bank Authority 1997).

The Pacific Gas and Electric (PG&E) San Joaquin Valley Operations & Maintenance HCP applies to the western half of Tulare County that operates within the PG&E service area, as well as nine other counties in the Central Valley, covering a total of 276,350 acres. This HCP applies to covered activities within the PG&E service area of Tulare County or cities within the County that fall into the Plan Area. Beginning in 2007 for a duration of 30 years, the HCP intends to mitigate and minimize any adverse impacts on species by operations and maintenance activities by PG&E in the area (PG&E 2006).

4.4.2 Regulatory Setting

a. Federal Laws, Regulations, and Policies

Endangered Species Act

Under the ESA, authorization is required to "take" a listed species. Take is defined under ESA Section 3 as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Under federal regulation (50 CFR Sections 17.3, 222.102). At the time of Draft EIR preparation, "harm" was further defined to include habitat modification or degradation where it would be expected to result in death or injury to listed wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering; in 2025 a proposed regulation was published that would rescind this definition (90 Federal Register 16102, April 17, 2025). Critical habitat is a specific geographic area(s) that is essential for the conservation of a threatened or endangered species and that may require special management and protection. Critical habitat may include an area that is not currently occupied by the species but that will be needed for its recovery. ESA Section 7 outlines procedures for federal interagency cooperation to conserve federally listed species and designated critical habitat.

Section 7(a)(2) of ESA and its implementing regulations require federal agencies to consult with USFWS or National Marine Fisheries Service (NMFS) to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species, or result in the destruction or adverse modification of critical habitat. For projects where federal action is not involved and take of a listed species may occur, the project proponent may seek to obtain an incidental take permit under ESA Section 10(a). Section 10(a) allows USFWS or NMFS to permit the incidental take of listed species if such take is accompanied by an HCP that includes components to minimize and mitigate impacts associated with the take.

The USFWS and NMFS share responsibility and regulatory authority for implementing ESA (7 USC Section 136, 16 USC Section 1531 et seq.).

Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act

The federal Migratory Bird Treaty Act, 16 U.S.C. Section 703, prohibits killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. The Migratory Bird Treaty Act protects whole birds, parts of birds, and bird eggs and nests; and prohibits the possession of all nests of protected bird species whether they are active or inactive. An active nest is defined as having eggs or young, as described by the Department of the Interior in its April 16, 2003, Migratory Bird Permit Memorandum. Nest starts (nests that are under construction and do not yet contain eggs) are not protected from destruction. The Bald and Golden Eagle Protection Act is the primary law protecting eagles, including individuals and their nests and eggs. The USFWS implements the Migratory Bird Treaty Act (16 USC Section 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668). Under the Bald and Golden Eagle Protection Act's Eagle Permit Rule (50 CFR 22.26), USFWS may issue permits to authorize limited, non-purposeful take of bald eagles and golden eagles.

Clean Water Act

Under Section 404 of the Clean Water Act , the U.S. Army Corps of Engineers (USACE), with U. S. Environmental Protection Agency (USEPA) oversight, has authority to regulate activities that result in discharge of dredged or fill material into wetlands or other "waters of the United States." Perennial and intermittent creeks are considered waters of the United States if they are hydrologically connected to other jurisdictional waters. In achieving the goals of the Act, USACE seeks to avoid adverse impacts and offset unavoidable adverse impacts on existing aquatic resources. Any discharge of dredged or fill material into jurisdictional wetlands or other jurisdictional "waters of the United States" would require a Section 404 permit from the USACE prior to the start of work. Typically, when a project involves impacts to waters of the United States, the goal of no net loss of wetlands is met by compensatory mitigation; in general, the type and location options for compensatory mitigation should comply with the hierarchy established by the USACE/EPA 2008 Mitigation Rule (U.S. Environmental Protection Agency 2021) (in descending order): (1) mitigation banks; (2) in-lieu fee programs; and (3) permittee-responsible compensatory mitigation. Also, in accordance with Section 401 of the Clean Water Act, applicants for a Section 404 permit must obtain water quality certification from the appropriate Regional Water Quality Control Board (RWQCB).

b. State Laws, Regulations, and Policies

Endangered Species Act and Fully Protected Species

CESA (Fish and Game Code Section 2050 et. seq.) prohibits take of State-listed threatened and endangered, and candidate species without a CDFW incidental take permit. Take under CESA is restricted to direct harm of a listed species and does not include indirect harm by way of habitat modification.

Protection of fully protected species is described in Fish and Game Code Sections 3511, 4700, 5050 and 5515. These statutes prohibit take or possession of fully protected species. Incidental take of fully protected species may be authorized under an approved Natural Community Conservation Plan (NCCP), or for transportation projects that do not increase capacity, by a permitting process established by SB 147 of 2023.

California Fish and Game Code Sections 3503, 3503.5 and 3511

California Fish and Game Code (CFGC) sections 3503, 3503.5 and 3511 describe unlawful take, possession, or destruction of birds, nests, and eggs. Fully protected birds (CFGC Section 3511) may not be taken or possessed except under specific permit. Section 3503.5 protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs.

California Fish and Game Code Sections 1360-1372

Sections 1360 through 1372 of the CFGC comprise the Oak Woodlands Conservation Act. The act was enacted to protect oak woodland habitats that were being diminished by development, firewood harvesting, and agricultural conversions. The Oak Woodlands Conservation Program was established because of the Act and is intended to provide project funding opportunities for private landowners, conservation organizations, and cities and counties to conserve and restore oak woodlands. The program authorizes the Wildlife Conservation Board to purchase oak woodland conservation easements and provide grants for land improvements and oak restoration efforts. CEQA (PRC Section 21083.4) requires counties to determine if a project within their jurisdiction may result in conversion of oak woodlands that would have a significant adverse effect on the environment. If the lead agency determines that a project would result in a significant adverse effect on oak woodlands, mitigation measures to reduce the significant adverse effect of converting oak woodlands to other land uses are required.

Native Plant Protection Act

CDFW also has authority to administer the Native Plant Protection Act (NPPA) (CFGC Section 1900 et seq.). The NPPA requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare. Under Section 1913(c) the NPPA (CFGC Section 1913(c), the owner of land where a rare or endangered native plant is growing is required to notify the department at least 10 days in advance of changing the land use to allow for salvage of the plant(s).

Section 1600 et seq. of the California Fish and Game Code

Section 1600 et seq. of the CFGC prohibits, without prior notification to CDFW, the substantial diversion or obstruction of the natural flow of, or substantial change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. For these activities to occur, the CDFW must receive written notification regarding the activity in the manner prescribed by the department and may require a lake or streambed alteration agreement. Lakes, ponds, perennial, and intermittent streams and associated riparian vegetation, when present, are subject to this regulation.

Natural Community Conservation Planning Act

The NCCP Act was established by the California Legislature, is directed by the CDFW, and is implemented by the state, as well as public and private partnerships to protect habitat in California. The NCCP Act takes a regional approach to preserving habitat. An NCCP identifies and provides for the regional protection of plants, animals, and their habitats, while allowing compatible and appropriate economic activity. Once an NCCP has been approved, CDFW may provide take authorization for all covered species, including fully protected species, Section 2835 of the CFGC.

Porter-Cologne Water Quality Control Act

The State Water Resources Control Board (SWRCB) and each of nine local RWQCB has jurisdiction over "waters of the State" pursuant to the Porter-Cologne Water Quality Control Act which are defined as any surface water or groundwater, including saline waters, within the boundaries of the State. SWRCB adopted a State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures), for inclusion in the Water Quality Control Plan for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California (SWRCB 2021). The Procedures consist of four major elements: 1) a wetland definition; 2) a framework for determining if a feature that meets the wetland definition is a water of the state; 3) wetland delineation procedures; and 4) procedures for the submittal, review, and approval of applications for Water Quality Certifications and Waste Discharge Requirements for dredge or fill activities (SWRCB 2021).

California Department of Transportation - California Streets and Highways Code Section 156.3

Streets and Highways Code Section 158, established by Assembly Bill 2344 (2022), directs Caltrans—working in consultation with the California Department of Fish and Wildlife—to identify, prioritize, and remediate barriers to wildlife movement along the State Highway System. The statute requires development and maintenance of a statewide inventory of fish and wildlife connectivity needs and supports planning and implementation of wildlife passage features to reduce wildlife-vehicle collisions and improve ecological connectivity. These requirements are implemented through Caltrans' Fish and Wildlife Connectivity Program, which provides the technical framework, data, and prioritization tools used in project development and environmental review.

Senate Bill 790

Senate Bill 790 of 2021 added Fish and Game Code Sections 1955–1958, authorizing CDFW to create and approve compensatory mitigation credits for wildlife connectivity actions, including structures such as wildlife overpasses and underpasses designed to improve habitat connectivity where movement is impeded by infrastructure. These credits may be used to satisfy state or federal mitigation requirements and are supported by CDFW's Wildlife Connectivity Advance Mitigation Guidelines, which establish criteria and processes for evaluating and crediting connectivity improvements (CDFW 2024).

c. Local Laws, Regulations, and Policies

Tulare County General Plan

The Tulare County General Plan 2030 includes policies for the protection of biological resources in Tulare County (Tulare County 2010). The goals and policies of the Environmental Resources Management Chapter of Tulare County General Plan are aimed at protecting and conserving listed and candidate species and their habitat, critical habitat, as well as environmentally sensitive areas including riparian areas and wetlands. In addition, the County's General Plan includes Policy ERM-1.16 which requires the County to cooperate with State and federal wildlife agencies to address linkages between habitat areas and provide movement opportunities for wildlife.

City General Plans and Regulations

The City of Visalia has numerous goals and policies related to biological resources in the General Plan, especially in the Biological Resources section of the Open Space and Conservation element which covers special-status resources such as riparian corridors, wetlands, and special-status species (City of Visalia 2014). The Open Space and Conservation Element focuses on Objective OSC-O-10 to protect and enhance natural vegetation throughout the city, especially those considered sensitive by CDFW. This objective is implemented by Policies such as OSC-P-27 (No net loss for sensitive habitat), OSC-P-28 (valley oak woodland protection and conservation), OSC-P-30 (require biological resources assessments for development projects) and OSC-P-31 (protect habitat for special-status species). The Visalia Municipal Code contains oak tree preservation requirements in Chapter 12.24, and requirements for the care, preservation, pruning, replanting, or removal of street trees in Chapter 12.20.

The City of Tulare contains a Biological Resources section of the Open Spaces and Conservation element of its 2035 General Plan, including several goals and policies related to the protection of biological resources and sensitive habitats within the city (City of Tulare 2014). Goal COS-2 is focused on preserving and protecting sensitive significant habitats, enhancing biodiversity, and promoting healthy ecosystems throughout the urban development boundary for the City of Tulare. Implementation Policies include COS-P2.1 (protection of rare and endangered species), COS-P2.2 (protection of natural areas), COS-P2.3 (protection of environmentally sensitive areas), and COS-P2.7 (valley oaks preservation). The Tulare City Code has numerous regulations and ordinances related to biological resources, including Chapter 8.32 to protect street trees and designate heritage trees throughout the city for preservation.

Many cities in the TCAG Region, such as Porterville and Exeter, have similar provisions, goals, policies, and regulations in their General Plans and municipal ordinances.

4.4.3 Impact Analysis

a. Methodology and Significance Thresholds

Data on biological resources were collected from numerous sources, including relevant literature, aerial photographs, maps of natural resources, and data on special-status species and sensitive habitat information obtained from the CDFW CNDDB (2026a), CDFW BIOS (2026b), CWHR (CDFW 2014), CNPS online Inventory of Rare and Endangered Plants of California (2026), and the USFWS IPaC (2026b). The USFWS NWI (2026a) and Critical Habitat Mapper (2026c) were also queried. Potential areas of disturbance associated with construction projects or land use development included in the proposed 2026 RTP/SCS were compared to the identified biological resource occurrences to determine whether an impact may occur.

Based on Appendix G of the CEQA Guidelines a project may be deemed to have a significant impact on biological resources if it would:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;

3. Have a substantial adverse effect on state and federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
4. 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;
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and/or
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

b. Project Impacts and Mitigation Measures

The following section discusses biological resource impacts and mitigation measures associated with transportation projects and the land use scenario implementing the proposed 2026 RTP/SCS. Due to the programmatic nature of the proposed 2026 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 projects and future projects under the land use scenario envisioned by the proposed 2026 RTP/SCS could result in impacts as described in the following section.

Threshold 1:	Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Impact BIO-1 IMPLEMENTATION OF TRANSPORTATION PROJECTS AND THE LAND USE SCENARIO ENVISIONED BY THE PROPOSED 2026 RTP/SCS WOULD HAVE A SUBSTANTIAL ADVERSE EFFECT, EITHER DIRECTLY OR THROUGH HABITAT MODIFICATIONS, ON SPECIES IDENTIFIED AS A CANDIDATE, SENSITIVE, OR SPECIAL-STATUS SPECIES IN LOCAL OR REGIONAL PLANS, POLICIES, OR REGULATIONS, OR BY THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE OR U.S. FISH AND WILDLIFE SERVICE. IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

For the purposes of this analysis, special-status plant and wildlife species include those designations described under 4.4.1.d above. Most of the transportation projects proposed under the proposed 2026 RTP/SCS consist of expansions or modifications of existing facilities that would likely not involve construction in habitats for candidate, sensitive, or special-status species. However, several projects could affect areas occupied by special-status plant and wildlife species. As mentioned above, there are 175 special-status species known to occur or with potential to occur within Tulare County. Thirty-six (36) of these species are given high levels of protection by the federal government through listing under ESA or by the State government through listing under CESA or designation of Fully Protected status (wildlife only). The remaining species shown in Tables C-1 and C-2 in Appendix C are protected through CEQA and/or through local ordinances. Most special-status species have very limited ranges within the County and are associated with sensitive habitats, such as riparian habitats and drainages.

Because of the programmatic nature of the proposed 2026 RTP/SCS EIR, a precise, project-level analysis of the specific impacts of individual transportation projects on special-status species is not possible. As future transportation system improvement projects identified in the proposed 2026

RTP/SCS are planned and designed, site-specific environmental review will be conducted by the agencies responsible for implementing such projects. Nevertheless, some special-status species would experience substantial adverse effects at the locations where projects under the proposed 2026 RTP/SCS would occur; significant impacts would therefore occur.

For example, transportation projects such as those that occur over or in the vicinity of rivers and creeks are within suitable habitat for species such as California red-legged frog (Federally Threatened and State SSC) and Little Kern golden trout (Federally Threatened). Bridge widening or replacement sites proposed under proposed 2026 RTP/SCS may contain potentially suitable habitat for California red-legged frog and Little Kern golden trout. Examples include Westwood Street Bridge widenings over Porter Slough and south of Orange Avenue in the City of Porterville, SR 190 at Main Street, and Avenue 152 (Olive Street) in Tulare County.

In addition to the rivers and creeks that may be impacted, future transportation projects under the proposed 2026 RTP/SCS could impact upland habitats and the sensitive species that may occupy them. For example, coast horned lizards (*Phrynosoma blainvillii*), a State SSC, may be present in scrub, grassland, and some woodland habitats in the western portion of the TCAG region near roads where projects could occur. The federally threatened and state threatened California tiger salamander can also occupy annual grassland habitats containing small mammal burrows if such habitat is within 1.24 miles (the dispersal distance of the species) of known or potentially suitable breeding habitat. Several special-status bat species may be affected by proposed projects where they occur under bridges or similar structures, or in native habitats adjacent to construction areas. Furthermore, the wide variety of habitats within the proposed 2026 RTP/SCS area can support many species of nesting birds, including sensitive species such as the state fully protected white-tailed kite (*Elanus luecurus*) and the state candidate endangered burrowing owl (*Athene cunicularia*). Disturbance of special-status plants could result in reductions in local population size, habitat fragmentation, or lower reproductive success.

Direct impacts to special-status species include injury or mortality occurring during implementation of the proposed 2026 RTP/SCS. Direct impacts also include habitat modification and loss such that it results in mortality or otherwise alters the foraging and breeding behavior substantially enough to cause injury. Indirect impacts could occur due to the spread of invasive non-native species that out-compete native species and/or alter habitat towards a state that is unsuitable for special-status species. For example, the spread of certain weed species can reduce the biodiversity of native habitats, potentially eliminating special-status plant species and reduce the availability of suitable forage and breeding sites for special-status wildlife species. Indirect impacts could also result due to increased access by humans and domestic animals, particularly in areas where trails may be planned. Increased human and domestic animal (especially dogs and cats) presence fosters the spread of non-native invasive plant species and disrupts the normal behaviors of animal species.

In addition to direct and indirect impacts that may result from transportation improvement projects, the proposed 2026 RTP/SCS also contains a land use scenario that emphasizes infill development and transit-oriented development (TOD). This land use scenario focuses future development concentrated in existing urbanized areas, which would minimize impacts to biological resources in non-urbanized areas, but also includes some development in outlying areas. Sensitive plant and animal species may be located on future infill and TOD sites, as well as more undeveloped project sites. As a result, future development projects would impact special-status plant and animal species that may be present on or in proximity to undeveloped areas. Many special-status animal species are associated with creeks even in the most densely developed urban areas. Both native and non-native trees and shrubs throughout urban areas may support nesting birds. Impacts of land use

projects would be significant because substantial adverse effects on special-status species would occur.

In conclusion, implementation of the proposed 2026 RTP/SCS would have substantial adverse impacts on special-status species either directly or through habitat modifications, and therefore this impact is significant. The following mitigation measures would reduce this impact.

Mitigation Measures

For transportation projects under TCAG jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures for applicable transportation projects that would result in biological impacts. The County and cities in the TCAG region can and should implement these measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions.

BIO-1(a) Biological Resources Screening and Assessment

On a project-by-project basis, a preliminary biological resource screening shall be performed to determine whether the project has any potential to impact biological resources. If it is determined that the project has no potential to impact biological resources, no further action is required. If the project would have the potential to impact biological resources, prior to construction, a qualified biologist shall conduct a biological resources assessment (BRA) or similar type of study to document the existing biological resources within the project footprint plus an appropriate buffer determined by a qualified biologist and to determine the potential impacts to those resources. The BRA shall evaluate the potential for impacts to all sensitive biological resources including, but not limited to special-status species, nesting birds, wildlife movement, sensitive plant communities/critical habitat and other resources judged to be sensitive by local, state, and/or federal agencies. Pending the results of the BRA, design alterations, further technical studies (i.e., protocol surveys) and/or consultations with the USFWS, CDFW and/or other local, state, and federal agencies may be required. These protocols may include, but are not limited to:

- Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants (USFWS 2000)
- Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018)
- Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023)
- Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods (USFWS 1996)
- Revised Guidance on Site Assessment and Field Surveys for the California Red-legged Frog (USFWS 2005)
- Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander (USFWS and CDFW 2003)
- Considerations for Conserving the Foothill Yellow-legged Frog (CDFW 2018)
- Visual Encounter Survey Protocol for Rana Boylii in Lotic Environments (University of California, Davis 2017)

- Draft USGS Western Pond Turtle (Emys marmorata) Visual Survey Protocol for the Southcoast Ecoregion (U.S. Geological Survey 2006)
- Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations (USFWS 2010)
- Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California (California Energy Commission and CDFW 2010)
- Staff Report on Burrowing Owl Mitigation (CDFW 2012).
- Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance (USFWS 1999)
- Bat surveys consistent with CDFW recommendations

The following Mitigation Measures [BIO-1(b) through BIO-1(i)] shall be incorporated, only as applicable, into the BRA and/or the project CEQA document for projects where specific resources are present, or may be present, and may be impacted by the project. Note that specific surveys described in the mitigation measures below may be completed as part of the BRA where suitable habitat is present.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during project permitting and environmental review.

BIO1(b) Special-Status Plant Species Surveys

If completion of the project-specific BRA determines that special-status plant species have potential to occur on-site, the implementing agency shall contract a qualified biologist to complete surveys for special-status plants prior to any vegetation removal, grubbing, or other construction activity of each project (including staging and mobilization). The surveys shall be floristic in nature and shall be seasonally timed to coincide with the target species identified in the project-specific BRA. Whenever practicable, surveys shall be conducted in accordance with the most current protocols established by the CDFW, USFWS, and the local jurisdictions if said protocols exist A report of the survey results shall be submitted by the qualified biologist to the implementing agency for review. If special-status plant species are identified, mitigation measure BIO-1(c) shall apply.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during project permitting and environmental review, prior to project construction but no earlier than one year before construction commences.

BIO-1(c) Special-Status Plant Species Avoidance, Minimization, and Mitigation

If state or federally listed and/or CRPR 1 and 2 species are found during special-status plant surveys [pursuant to mitigation measure BIO-1(b)], then the implementing agency shall redesign the project to avoid impacting these plant species to the maximum extent feasible. Occurrences of these species that are not within the immediate disturbance footprint but are located within 50 feet of

disturbance limits shall have bright orange protective fencing installed at least 30 feet beyond their extent, or other distance as approved by a qualified biologist, to protect them from harm. If CRPR 3 and 4 species are found, the qualified biologist contracted to conduct the plant surveys [pursuant to mitigation measure BIO-1(b)] shall evaluate to determine if they meet criteria to be considered special-status, and if so, the same process as identified for CRPR 1 and 2 species shall apply.

If special-status plants species cannot be avoided and would be impacted by a project implemented under the proposed 2026 RTP/SCS, the implementing agency shall require all impacts to be mitigated at an appropriate ratio to fully offset project impacts, as determined by a qualified biologist for each species as a component of habitat restoration. A restoration plan shall be prepared and submitted by the qualified biologist to the implementing agency.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be implemented prior to issuance of project construction permits and approvals.

BIO-1(d) Endangered/Threatened Animal Species Habitat Assessment and Protocol Surveys

If the results of the BRA determine that suitable habitat may be present for federally and/or state endangered or threatened animal species, the implementing agency shall require habitat assessments/surveys. Whenever practicable, the surveys shall be completed in accordance with CDFW and/or USFWS/NMFS protocols prior to issuance of any construction permits/project approvals.

Alternatively, in lieu of conducting protocol surveys, the implementing agency may choose to assume presence within the project footprint and proceed with development of appropriate avoidance measures, consultation, and permitting, as applicable.

If the target species is detected during protocol surveys, or protocol surveys are not conducted and presence assumed based on suitable habitat, mitigation measure BIO-1(e) shall apply.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be implemented prior to issuance of project construction permits and approvals.

BIO-1(e) Endangered/Threatened/State Candidate Animal Species Avoidance and Compensatory Mitigation

If habitat is occupied or presumed occupied by federal and/or state listed or candidate species and would be impacted by the project, the implementing agency shall redesign the project in coordination with a qualified biologist to avoid impacting occupied/presumed occupied habitat to the extent feasible. If occupied or presumed occupied habitat cannot be avoided, the implementing agency shall estimate the total acreages for habitat that would be impacted prior to the issuance of construction permits/approvals.

Compensatory mitigation shall be achieved through purchase of credits at a USFWS, NMFS and/or CDFW approved conservation bank if available for the affected species, and/or through providing compensatory mitigation to offset impacts to federal and/or state listed or candidate species habitat. Compensatory mitigation shall be provided at an appropriate ratio to fully offset project impacts, as determined by a qualified biologist for permanent impacts. Compensatory mitigation may be combined/nested with special-status plant species and sensitive community restoration where applicable. Temporary impact areas shall be restored to pre-project conditions.

If on and/or off-site compensatory mitigation sites are identified, the implementing agency shall retain a qualified biologist to prepare a Habitat Mitigation and Monitoring Plan (HMMP) to ensure the success of compensatory mitigation sites that are to be conserved for compensation of permanent impacts to federal and/or state listed or candidate species. The HMMP shall identify long term site management needs, routine monitoring techniques, techniques, and success criteria, and shall determine if the conservation site has restoration needs to function as a suitable mitigation site. If restoration is required on the conservation site, the HMMP shall contain the restoration components outlined under the Restoration Plan listed in measure BIO-1(c). The HMMP shall be submitted by the qualified biologist to the implementing agency for review and approval.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be implemented prior to issuance of project construction permits and approvals.

BIO-1(f) Endangered/Threatened/State Candidate Species Avoidance and Minimization During Construction

Implementing agencies shall select from these measures as appropriate depending on site conditions, the species with potential for occurrence and the results of the biological resources screening and assessment (measure BIO-1[a]).

- Preconstruction surveys for federal and/or state listed or candidate species with potential to occur shall be conducted by a qualified biologist where suitable habitat is present, as determined by the qualified biologist. The surveys shall occur not more than 48 hours prior to the start of construction activities. The survey area shall include the proposed disturbance area and all proposed ingress/egress routes, plus a 100-foot buffer. If any life stage of federal and/or state listed or candidate species is found within the survey area, the qualified biologist shall recommend an appropriate course of action, which may include consultation with USFWS, NMFS and/or CDFW. The results of the pre-construction surveys shall be submitted by the qualified biologist to the implementing agency for review and approval prior to start of construction.
- Ground disturbance shall be limited to the minimum necessary to complete the project. The project limits of disturbance shall be flagged. Areas of special biological concern shall have highly visible orange construction fencing.
- All projects occurring within/adjacent to aquatic habitats (including riparian habitats and wetlands) shall be completed between April 1 and October 31, to avoid impacts to sensitive aquatic species.

- All projects occurring within or adjacent to sensitive habitats that may support federally and/or state endangered/threatened species shall have a qualified biologist present during all initial ground disturbing/vegetation clearing activities. Once initial ground disturbing/vegetation clearing activities have been completed, said biologist shall conduct daily pre-activity clearance surveys for endangered/threatened species. Alternatively, and upon approval of the CDFW and/or USFWS/NMFS or as outlined in project permits, said biologist may conduct site inspections at a minimum of once per week to ensure all prescribed avoidance and minimization measures are begin fully implemented.
- No endangered/threatened species shall be captured and relocated without authorization from the CDFW and/or USFWS.
- If pumps are used for dewatering activities, all intakes shall be completely screened with wire mesh not larger than five millimeters to prevent animals from entering the pump system.
- If at any time during construction of the project an endangered/threatened species enters the construction site or otherwise may be impacted by the project, all project activities shall cease. At that point, a qualified biologist shall recommend an appropriate course of action, which may include consultation with USFWS, NMFS and/or CDFW.
- All vehicle maintenance/fueling/staging shall occur at a minimum 100 feet from any riparian habitat or water body. Suitable containment procedures shall be implemented to prevent spills.
- No equipment shall be permitted to enter wetted portions of any affected drainage channel.
- All equipment operating within streambeds (restricted to conditions in which water is not present) shall be in good conditions and free of leaks. Spill containment shall be installed under all equipment staged within stream areas and extra spill containment and clean up materials shall be located in close proximity for easy access.
- At the end of each workday, excavations shall be secured with cover or a ramp shall be provided to prevent wildlife entrapment.
- All trenches, pipes, culverts, or similar structures shall be inspected for animals prior to burying, capping, moving, or filling.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be implemented prior to and ongoing through project construction.

BIO-1(g) Non-Listed and Non-Candidate Special-status Animal Species Avoidance and Minimization

Depending on the species identified in the BRA, the implementing agency shall select from among the following to reduce the potential for impacts to non-listed and non-candidate special-status animal species:

- Preconstruction clearance surveys shall be conducted within 14 days prior to the start of construction (including staging and mobilization). The surveys shall cover the entire disturbance footprint plus a minimum 100-foot buffer and shall identify all special-status animal species that may occur on-site. All non-listed special-status species shall be relocated from the site either through direct capture or through passive exclusion. A report of the preconstruction survey shall

be submitted to the County by the implementing agency for their review and approval prior to the start of construction.

- A qualified biologist shall be present during all initial ground disturbing activities, including vegetation removal, to recover special-status animal species unearthed by construction activities.
- Upon completion of the project, a qualified biologist shall prepare a final compliance report documenting all compliance activities implemented for the project, including the preconstruction survey results.
- If special-status bat species may be present and impacted by the project, within 30 days of the start of construction a qualified biologist shall conduct presence/absence surveys for special-status bats, in consultation with the CDFW, where suitable roosting habitat is present. Surveys shall be conducted using acoustic detectors and by searching tree cavities, crevices, and other areas where bats may roost. If active bat roosts or colonies are present, the biologist shall evaluate the type of roost to determine the next step.
    - If a maternity colony is present, all construction activities shall be postponed within a 250-foot buffer around the maternity colony until it is determined by a qualified biologist that the young have dispersed or as recommended by CDFW through consultation. Once it has been determined that the roost is clear of bats, the roost shall be removed immediately.
    - If a roost is determined by a qualified biologist to be used by a large number of bats (large hibernaculum), alternative roosts, such as bat boxes if appropriate for the species, shall be designed and installed near the project site. The number and size of alternative roosts installed will depend on the size of the hibernaculum and shall be determined through consultations with the CDFW.
    - If other active roosts are located, exclusion devices such as valves, sheeting or flap-style one-way devices that allow bats to exit but not re-enter roosts discourage bats from occupying the site.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be implemented prior to, during, and after project construction.

BIO-1(h) Preconstruction Surveys for Nesting Birds

For construction activities occurring during the nesting season (generally February 1 to September 15), surveys for nesting birds covered by the CFGC, the MBTA, and Bald and Golden Eagle Protection Act shall be conducted by a qualified biologist no more than 10 days prior to vegetation removal activities.

A qualified biologist shall conduct preconstruction surveys for raptors. The survey for the presence of bald and golden eagles shall cover all areas within of the disturbance footprint plus a one-mile buffer where access can be secured. The survey area for all other nesting bird and raptor species shall include the disturbance footprint plus a 300-foot and 500-foot buffer, respectively.

If active nests (nests with eggs or chicks) are located, the qualified biologist shall establish an appropriate avoidance buffer based on the species biology and the current and anticipated disturbance levels occurring in vicinity of the nest. All buffers shall be marked using high visibility flagging or fencing, and, unless approved by the qualified biologist, no construction activities shall

be allowed within the buffers until the qualified biologist has verified that young have fledged from the nest, or the nest fails.

For bald or golden eagle nests identified during the preconstruction surveys, an avoidance buffer of up to one mile shall be established by a qualified biologist on a case-by-case basis in consultation with the USFWS and CDFW. The size of the buffer may be influenced by the existing conditions and disturbance regime, relevant landscape characteristics, and the nature, timing, and duration of the expected disturbance. The buffer shall be established between February 1 and September 15; however, buffers may be relaxed earlier than September 15 if a qualified biologist determines that a given nest has failed or that all surviving chicks have fledged, and the nest is no longer in use.

The qualified biologist shall prepare a report of these preconstruction nesting bird surveys and nest monitoring (if applicable) to be submitted by the qualified biologist to the implementing agency for review and approval prior to the start of construction.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be implemented once prior to commencement of project construction, and then during construction activities if needed.

BIO-1(i) Worker Environmental Awareness Program

Prior to initiation of construction activities (including staging and mobilization), all personnel associated with project construction shall attend Worker Environmental Awareness Program training, conducted by a qualified biologist retained by the implementing agency, to aid workers in recognizing special-status resources and review of the limits of construction and mitigation measures required. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employers, and other personnel involved with construction of the project. All employees shall sign a form documenting that they have attended the training and understand the information presented to them.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during project permitting and environmental review.

Significance After Mitigation

Compliance with the above mitigation measures would reduce impacts to special-status species and their habitat because the mitigation measures require pre-project surveys and biological monitoring, focused biological surveys, avoidance or minimization of project related disturbance or loss of special-status species, compensation for disturbed or loss of special-status species habitat and coordination with permitting agencies, as required prior to project implementation. However, it cannot be guaranteed that all future project level impacts to special-status species can be mitigated to a less than significant level for all species. Additionally, complete avoidance is typically the only acceptable mitigation for protected species, which may not be feasible under some circumstances. There are no other feasible mitigation measures. Therefore, impacts would remain significant and unavoidable.

Threshold 2:	Would the project 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 the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
Threshold 3:	Would the project have a substantial adverse effect on state or federally protected wetlands (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Impact BIO-2 IMPLEMENTATION OF TRANSPORTATION PROJECTS AND THE LAND USE SCENARIO ENVISIONED BY THE PROPOSED 2026 RTP/SCS WOULD RESULT IN SUBSTANTIAL ADVERSE IMPACTS ON SENSITIVE NATURAL COMMUNITIES AND WOULD RESULT IN SUBSTANTIAL ADVERSE IMPACTS ON STATE AND FEDERALLY PROTECTED WETLANDS. THESE IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Transportation projects and land use development that may be implemented under the proposed 2026 RTP/SCS have the potential to impact sensitive habitats, including sensitive natural communities and wetlands as mapped on Figure 4.4-1 and Figure 4.4-2. Due to the programmatic nature of this analysis, the project-specific extent and severity of the impacts is not known at this time. Some examples of potential impacts include culvert improvements or construction and bridge improvements over rivers and creeks, including the Kaweah and Tule Rivers, and Outside, Lewis, Deer, and Packwood Creeks. These types of projects would have potential to impact riparian areas, as well as water bodies. In addition, projects such as multiuse trails and bike paths may also involve development along riparian corridors or construction of bridges across rivers and creeks. Riparian areas provide wildlife habitat and movement corridors, enabling both terrestrial and aquatic organisms to move along river systems between areas of suitable habitat.

Construction of the transportation and land use projects implementing the 2026 RTP/SCS could have both direct impacts associated with the disturbance of riparian flora and fauna and indirect impacts caused by increased erosion and sedimentation, which can adversely affect downstream water quality. Construction could also impact aquatic features protected by CDFW and require a Lake and Streambed Alteration Agreement. These features include rivers, streams, and lakes, including the banks of these features. Examples include Westwood Street Bridge widenings over Porter Slough and south of Orange Avenue in the City of Porterville, SR 190 at Main Street, and Avenue 152 (Olive) in Tulare County.

In addition, other sensitive habitats, including oak woodlands, could occur at locations of transportation improvement projects and land use development sites. As noted in Section 4.4.1.c, vegetation alliances with State ranks of S1-S3 are considered imperiled and thus, potentially of special concern and sensitivity (CDFW 2025). Impacts to these sensitive communities, including oak woodlands, would be significant.

Direct impacts to sensitive habitats include loss of habitat during construction of individual projects. Indirect impacts include habitat degradation caused by the introduction of invasive plant species incidentally from construction equipment and through selection of invasive landscape plants, as well as erosion of disturbed areas.

The land use scenario envisioned by the proposed 2026 RTP/SCS would emphasize development within existing urbanized areas, although some development would occur in more undisturbed outlying areas. As a result, future infill and TOD projects are likely to result in only limited impacts to riparian habitat or sensitive habitat, though project areas that have been relatively free of ground disturbance may contain sensitive native habitats such as vernal pools, oak woodlands, valley sink or

saltbush scrub, or other vegetation alliances and associations that are deemed sensitive by the CDFW. Furthermore, some areas mapped by CWHR as somewhat disturbed habitats, such as annual grasslands, may include sensitive native vegetation with unique assemblages of native plants, such as areas dominated by native wildflowers, vernal pools, and native grasslands. Impacts would be significant.

In conclusion, implementation of the proposed 2026 RTP/SCS would have substantial adverse impacts on sensitive habitats, including state and federally protected wetlands, and therefore this impact is significant. The following mitigation measures would reduce this impact.

Mitigation Measures

For transportation projects under TCAG jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures for applicable transportation projects. The County and cities in the TCAG region can and should implement these measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions.

BIO-2(a) Aquatic Resources Jurisdictional Delineation and Impact Avoidance

If the results of Mitigation Measure BIO-1(a) indicates projects implemented under the proposed 2026 RTP/SCS occur within or adjacent to wetland, drainages, riparian habitats, or other sensitive natural areas that may fall under the jurisdiction of the CDFW, USACE, and/or RWQCB, a qualified biologist shall complete an aquatic resources delineation in accordance with the requirement set forth by each agency. The result shall be submitted by the qualified biologist to the implementing agency, USACE, RWQCB, and/or CDFW, as appropriate, for review and approval, and the project shall be designed to avoid and minimize impacts to jurisdictional areas to the extent feasible. The delineation shall serve as the basis to identify potentially jurisdictional areas to be protected during construction with implementation of measure BIO-2(f) to protect the resource through avoidance and minimization.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during project permitting and environmental review.

BIO-2(b) Wetland, Drainages, and Riparian Habitat Restoration

Unavoidable impacts to jurisdictional wetlands, drainages, and riparian habitat shall be mitigated at an appropriate ratio to fully offset project impacts, as determined by a qualified biologist retained by the implementing agency and shall occur on-site or as close to the impacted habitat as possible. A mitigation and monitoring plan consistent with regulatory agency requirements shall be developed by a qualified biologist and submitted to the regulatory agency overseeing the resource for approval. Alternatively, mitigation shall be accomplished through purchase of credits at a minimum 1:1 ratio from an approved wetlands mitigation bank.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during project permitting and environmental review.

BIO-2(c) Landscaping Plan

If landscaping is proposed for a specific project, a qualified biologist or landscape architect retained by the implementing agency shall prepare a landscape plan. Drought tolerant, locally native plant species shall be used. Noxious, invasive and/or non-native plant species that are recognized on the Federal Noxious Weed List, California Noxious Weeds List and/or California Invasive Plant Council Inventory shall not be permitted. Species selected for planting shall be regionally appropriate native species that are known to occur in the adjacent native habitat types.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during project permitting and environmental review.

BIO-2(d) Sensitive Natural Community Avoidance and Mitigation

If the results of measure BIO-1(a) indicates projects implemented under the proposed 2026 RTP/SCS would impact sensitive natural communities, the implementing agency shall avoid impacts to sensitive natural communities through final project design modifications if feasible.

If the implementing agency determines that sensitive natural communities cannot be avoided, impacts shall be mitigated on-site or offsite at an appropriate ratio to fully offset project impacts, as determined by a qualified biologist based on applicable resource agency guidelines. Temporarily impacted areas shall be restored to pre-project conditions. A Restoration Plan shall be developed by a qualified biologist and submitted by the qualified biologist to the implementing agency.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during project permitting and environmental review.

BIO-2(e) Invasive Weed Prevention and Management Program

Prior to start of construction for each project that occurs within or adjacent to native habitats, an Invasive Weed Prevention and Management Program shall be developed by a qualified biologist retained by the implementing agency to prevent invasion of native habitat by non-native plant species. The plan shall be submitted by the qualified biologist to the implementing agency for review and approval. A list of target species shall be included, along with measures for early detection and eradication.

The plan, which shall be implemented by the implementing agency, shall also include, but not be limited to, the following measures to prevent the introduction of invasive weed species:

- During construction, limit the use of imported soils for fill. If the use of imported fill material is necessary, the imported material must be obtained from a source that is known to be free of invasive plant species.
- To minimize colonization of disturbed areas and the spread of invasive species, the contractor shall stockpile topsoil and redeposit the stockpiled soil after construction or transport the topsoil to a permitted landfill or acceptable location for disposal.
- All erosion control materials, including straw bales, straw wattles, or mulch used on-site must be free of invasive species seed.
- Exotic and invasive plant species shall be excluded from any erosion control seed mixes and/or landscaping plant palettes associated with the proposed project
- All disturbed areas shall be hydroseeded with a mix of locally native species upon completion of work in those areas.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during project permitting and environmental review, and implemented prior to project construction and during construction activities.

BIO-2(f) Wetlands, Drainages, and Riparian Habitat Best Management Practices During Construction

The following best management practices shall be required by the implementing agency for development within or adjacent to wetlands, drainages, or riparian habitat:

- Access routes, staging and construction areas shall be limited to the minimum area necessary to achieve the project goal and minimize impacts to other waters including locating access routes and ancillary construction areas outside of jurisdictional areas.
- To control sedimentation during and after project implementation, appropriate erosion control materials shall be deployed to minimize adverse effects on jurisdictional areas in the vicinity of the project.
- Project activities within the jurisdictional areas should occur during the dry season (typically between June 1 and November 1) in any given year, or as otherwise directed by the regulatory agencies.
- During construction, no litter or construction debris shall be placed within jurisdictional areas. All such debris and waste shall be picked up daily and properly disposed of at an appropriate site.
- Raw cement, concrete, or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic species resulting from project related activities, shall be prevented from contaminating the soil and/or entering wetlands, drainages, or riparian habitat.
- All refueling, maintenance and staging of equipment and vehicles shall occur at least 100 feet from bodies of water and in a location where a potential spill would not drain directly toward aquatic habitat (e.g., on a slope that drains away from the water source). Prior to the onset of work activities, a plan must be in place for prompt and effective response to any accidental spills.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during project permitting and environmental review, and implemented prior to project construction and during construction activities.

Significance After Mitigation

Compliance with the above mitigation measures would reduce impacts to sensitive communities and wetlands because the mitigation measures require focused biological surveys, best management practices for avoidance or minimization impacts, compensation for disturbed or loss of sensitive communities and wetlands and coordination with permitting agencies, as required prior to project implementation. However, it cannot be guaranteed that all future project level impacts can be mitigated to a less than significant level for all sensitive habitats. There are no other feasible mitigation measures. As such, impacts would remain significant and unavoidable.

Threshold 4:	Would the project 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?

Impact BIO-3 IMPLEMENTATION OF TRANSPORTATION PROJECTS AND THE LAND USE SCENARIO ENVISIONED BY THE PROPOSED 2026 RTP/SCS WOULD 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. THIS IMPACT WOULD BE SIGNIFICANT AND UNAVOIDABLE.

As discussed above in Section 4.4.1 *Setting*, the TCAG region contains four mapped ECAs (CDFW 2021b). These areas are composed primarily of wildlands located within the eastern portion of the TCAG region, but also include some agricultural and developed areas (mostly rural residential) and some are bisected by major roadways. As such, several transportation projects in the proposed 2026 RTP/SCS may overlap with areas of mapped ECAs or other locally important wildlife movement corridors including rivers and watercourses within the region.

Due to the programmatic nature of the proposed 2026 RTP/SCS, a precise, project-level analysis of the specific impacts of individual transportation projects on wildlife movement and nurseries is not possible. Transportation projects in the proposed 2026 RTP/SCS primarily involve expansion of existing facilities in urbanized or already developed areas, rather than the construction of new or extension of existing infrastructure into undeveloped portions of the TCAG region. None of the proposed transportation projects are located within essential connectivity areas, or the foothills of the Sierra Navada mountain range. However, expansion of existing roadways can decrease connectivity as widening of roads creates a larger barrier and makes movement more difficult, especially if roadways prior to widening and expansion were narrow enough and traffic volumes low enough that movement was still possible. Construction of new roadways and crossings (across rivers and drainages) would introduce new potential barriers to movement. In addition to the roadways themselves, transportation improvement projects could include new segments of fencing or walls that that could hinder wildlife movement. Temporary disruption of wildlife movement could also occur during construction if temporary water diversions are required for projects located within creeks and rivers. For example, temporary water diversions may impact movement of native and migratory fish species, such as the Kern River rainbow trout and Little Kern golden trout. Likewise,

improperly designed culverts beneath roadways can impede fish migration. In addition, construction activity and noise could also temporarily alter the behavior of wildlife in the area and therefore temporarily disrupt wildlife movement patterns.

New roadways, bike paths, and trails would also increase human activity in areas where sensitive biological resources could occur and have the potential to indirectly disrupt behavior of animals which could in turn disrupt wildlife movement patterns. In particular, proposed bridge, trail, bikeway, and new road construction projects could increase human activity (and domestic animals) in the vicinity of riparian areas, wildlife nurseries or corridors and potentially sensitive habitats. Increased noise and human presence during construction, as well as increased trash which may attract predators to the project site and discourage wildlife use of surrounding natural habitat. Indirect impacts include invasion of natural habitats by non-native species and increased presence of humans and domestic animals over the long-term. In addition, transportation improvement projects could include new segments of fencing or walls that that could hinder wildlife movement.

The land use scenario envisioned by the proposed 2026 RTP/SCS would encourage infill and TOD within existing urbanized areas. Most of the future infill and TOD projects would likely be in areas that provide limited or no wildlife movement, although some development would occur in more undisturbed outlying areas. However, even the elimination of limited wildlife movement opportunities could further isolate areas of native habitat occupied by both sensitive and common native wildlife species. As noted in Section 4.4.2, the County of Tulare and several city general plans include policies that require projects within the region to be designed to maintain wildlife movement and habitat connectivity

Impacts related to transportation projects and impacts related to the land use scenario envisioned by the proposed 2026 RTP/SCS would be significant because substantial impacts on wildlife movement and native wildlife nursery sites would occur. The following mitigation measures would reduce this impact.

Mitigation Measures

For transportation projects under TCAG jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures for applicable transportation projects. The County and cities in the TCAG region can and should implement these measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions.

BIO-3(a) Project Design for Wildlife Connectivity

All projects including long segments of fencing and lighting shall be designed to minimize impacts to wildlife movement. Fencing shall not be installed at the openings of culverts, undercrossings, or other wildlife passage structures unless required for public safety; where fencing is necessary, it shall be placed far enough from the structure entrance to avoid blocking wildlife access and shall include design features that maintain clear, functional movement pathways.

Where fencing or other project components are required for public safety concerns, these project components shall be designed to permit wildlife movement by incorporating design features such as:

- A minimum 16 inches between the ground and the bottom of the fence to provide clearance for small animals;

- A minimum 12 inches between the top two wires, or top the fence with a wooden rail, mesh, or chain link instead of wire to prevent animals from becoming entangled;
- If privacy fencing is required near open space areas, openings at the bottom of the fence shall measure at least 16 inches in diameter and be installed at reasonable intervals as defined by a qualified biologist to allow wildlife movement, or the fence may be installed with the bottom at least 16 inches above the ground level;
- If fencing or other project components must be designed in such a manner that wildlife passage would not be permitted, wildlife crossing structures shall be incorporated into the project design as appropriate; and
- Lighting installed as part of any project shall be designed to be minimally disruptive to wildlife (see mitigation measure AES-3(a) Roadway Lighting for lighting requirements).

In addition, prior to design approval, implementing agencies shall conduct wildlife movement assessments to evaluate connectivity constraints and identify opportunities to maintain or enhance wildlife movement. Postconstruction monitoring shall be conducted, where feasible, to confirm wildlife use of implemented movement features and to identify any needed adaptive management. When on-site design measures cannot fully reduce impacts, compensation shall be considered as a mitigation option, including but not limited to participation in mechanisms authorized under SB 790, to reduce unavoidable connectivity impacts at a landscape scale.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during project permitting and environmental review and implemented prior to project construction and during construction activities.

BIO-3(b) Maintain Connectivity in Drainages

Permanent structures shall be avoided to the extent feasible within any drainage or river that serves as a wildlife migration corridor that would impede wildlife movement.

In addition, upon completion of construction within any drainage, areas of stream channel and banks that are temporarily impacted shall be returned to pre-construction contours, in a condition that allows for unimpeded passage through the area once the work has been completed.

If water is to be diverted around work sites, a diversion plan shall be submitted by the qualified biologist to the implementing agency for review and approval prior to issuance of project construction permits/approvals. The diversion shall be designed in a way as to not impede movement while the diversion is in place.

For projects affecting drainages that serve as wildlife movement corridors, implementing agencies shall complete pre-construction evaluations of species movement patterns to guide placement, design, and timing of work. Post construction monitoring shall be conducted, where feasible, to verify that drainage related movement remains functional and to inform adaptive management if needed.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during project permitting and environmental review and implemented prior to project construction and during construction activities.

BIO-3 (c) Construction Best Management Practices to Minimize Disruption to Wildlife

The following construction best management practices shall be incorporated by the implementing agency into all grading and construction plans to minimize temporary disruption of wildlife, which could hinder wildlife movement:

- Designation of a 20 mile per hour speed limit in all construction areas.
- Daily construction work schedules shall be limited to daylight hours only.
- Mufflers shall be used on all construction equipment and vehicles shall be in good operating condition.
- All trash shall be placed in sealed containers and shall be removed from the project site a minimum of once per week.
- No pets are permitted on project site during construction.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be implemented prior to the issuance of project grading and construction permits, prior to project construction, and during construction activities.

Significance After Mitigation

Compliance with the above mitigation measures would reduce impacts to wildlife movement by requiring projects to be designed in a way that maintains connectivity. However, it cannot be guaranteed that movement of wildlife species will not be impeded due to the large scale of the proposed 2026 RTP/SCS and the multiple projects that would implement it. No additional feasible mitigation measures are available to reduce impacts on wildlife movement. Therefore, impacts would remain significant and unavoidable.

Threshold 5:	Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Impact BIO-4 IMPLEMENTATION OF TRANSPORTATION PROJECTS AND THE LAND USE SCENARIO ENVISIONED BY THE PROPOSED 2026 RTP/SCS WOULD NOT CONFLICT WITH ANY LOCAL POLICIES OR ORDINANCES PROTECTING BIOLOGICAL RESOURCES, SUCH AS A TREE PRESERVATION POLICY OR ORDINANCE. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Most municipalities in the TCAG region have local ordinances and policies in place that protect native habitat and/or native and non-native trees in urban landscapes, as well as in unincorporated County lands. These ordinances and policies vary in their definitions of protected trees (e.g., certain species, percent within the public right-of-way, aesthetically suitable, deep-rooted trees, or a

combination thereof) and in the requirements for ordinance or policy compliance. In addition, the County and cities may have local ordinances or policies that are intended to protect other biological resources such as wetlands and drainages, riparian habitat, and other sensitive habitat areas.

Protected trees and other biological resources which are protected by city and/or county ordinances and/or policies would be encountered at the locations where projects administered under the proposed 2026 RTP/SCS would occur and therefore there is potential for conflict with local ordinances and/or policies. Most of the transportation projects in the proposed 2026 RTP/SCS are expansions or maintenance of existing roads, although some transportation projects may result in development or infrastructure improvements in undisturbed outlying areas. Because ground disturbances of previously undisturbed areas would be fairly limited as a result, the removal of native trees and disturbances to other biological resources protected by local policies or ordinances would likely be minimal for most projects, although the potential for conflicts with local policies and/or ordinances to some degree remains.

In addition to potential conflicts with local policies and/or ordinances that may result from transportation projects, the proposed 2026 RTP/SCS also contains a land use scenario that emphasizes infill development and TOD. This land use scenario focuses future development in existing urbanized areas, although some development would occur in more undisturbed outlying areas. This would reduce impacts to biological resources that are protected by city or county ordinances; however, there remains some potential for conflict with local policies and ordinances from development associated with the land use scenario.

All future development projects as part of the land use scenario as well as the transportation projects proposed for implementation under the proposed 2026 RTP/SCS would be required to follow city and county development requirements, including compliance with local policies, ordinances and applicable permitting procedures related to protection biological resources. Project-level analysis would identify significant conflicts with local policies and ordinances as well as plans to minimize, mitigate, and/or avoid those impacts. Through the design, siting and permitting process the project would provide mitigation for any significant impacts related to local policies or ordinances protecting biological resources as a condition of project approval. Therefore, the potential for development projects under the land use scenario as well as proposed transportation projects to conflict with local policies or ordinances protecting biological resources is considered a less than significant impact.

Mitigation Measures

Mitigation measures are not required because this impact would be less than significant, as jurisdictions are required to follow the protection policies and ordinances as described above.

Threshold 6:	Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Impact BIO-5 IMPLEMENTATION OF TRANSPORTATION PROJECTS AND THE LAND USE SCENARIO ENVISIONED BY THE PROPOSED 2026 RTP/SCS WOULD NOT CONFLICT WITH THE PROVISIONS OF AN ADOPTED HABITAT CONSERVATION PLAN, NATURAL COMMUNITY CONSERVATION PLAN, OR OTHER APPROVED LOCAL, REGIONAL, OR STATE HABITAT CONSERVATION PLAN. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

There are two adopted HCPs within Tulare County: the Kern Water Bank HCP (1997) and the PG&E San Joaquin Valley Operations & Maintenance HCP (PG&E 2006). These HCPs have been developed specifically for use by these agencies to address, or cover, identified impacts from their projects within their respective HCP plan area. Therefore, individual proposed 2026 RTP/SCS transportation and development projects do not qualify as covered projects under either HCP as they are not Kern Water Bank or PG&E projects, and as such no conflict with the HCPs would occur. Therefore, the potential for development projects under the land use scenario as well as proposed transportation projects to conflict with existing adopted or approved local, regional, or state conservation plans is considered a less than significant impact.

Mitigation Measures

Mitigation measures are not required because this impact would be less than significant, as no conflict with HCPs would occur.

4.4.4 Cumulative Impacts

IMPACT BIO-C-1 DEVELOPMENT IN THE CUMULATIVE IMPACT ANALYSIS AREA WOULD HAVE SUBSTANTIAL ADVERSE IMPACTS ON SPECIAL-STATUS PLANT AND ANIMAL SPECIES, SENSITIVE NATURAL COMMUNITIES, AND PROTECTED WETLANDS, AND WOULD INTERFERE WITH WILDLIFE MOVEMENT. CUMULATIVE IMPACTS WOULD BE SIGNIFICANT AND THE CONTRIBUTION OF THE 2026 RTP/SCS WOULD BE CUMULATIVELY CONSIDERABLE.

The cumulative impact analysis area for biological resources consists of the TCAG region and the adjoining counties, as further described in Chapter 4, *Environmental Impact Analysis, Cumulative Impact Methodology*. This geographic scope is appropriate for biological resources because it encompasses the mosaic of representative land cover and habitat types (and associated biological resources) affected by the proposed 2026 RTP/SCS, including creeks and drainages, natural communities, and agricultural land uses. Future transportation projects and growth in the region, including growth in adjoining counties, could impact resources in the surrounding counties, and the interaction between the affected environment and the proposed 2026 RTP/SCS projects would occur throughout this larger cumulative impact analysis area.

The cumulative analysis presented below relies on a projections-based approach, using regional growth forecasts for the TCAG region and adjoining counties to evaluate cumulative conditions. Impacts of the 2026 RTP/SCS are added to the impacts of growth and development in the adjoining counties, and a determination is made as to whether cumulative impacts would be significant, and whether the 2026 RTP/SCS incremental contribution would be cumulatively considerable. Refer to Chapter 4 Environmental Impact Analysis, *Cumulative Impact Methodology*.

Biological resources impacts resulting from cumulative development within the cumulative impact analysis area would include direct and indirect impacts to sensitive/special status species or their

habitat; impacts to riparian, wetland, or other sensitive natural communities; and interference with wildlife movement. Given the extent of future development anticipated in the cumulative impact analysis area, these cumulative impacts would be significant. Implementation of the transportation projects and land use development patterns under the proposed 2026 RTP/SCS would contribute to these impacts, as described above in Section 4.4.3. Due to the potential direct and indirect impacts that may occur as a result of the proposed 2026 RTP/SCS, the proposed 2026 RTP/SCS's contribution to this impact would be cumulatively considerable.

Mitigation Measures BIO-1(a) through BIO-3(c) in Section 4.3.3.b establish survey requirements and define actions to be implemented when biological resources could be affected by proposed 2026 RTP/SCS projects or the land use scenario. Adoption of these measures by implementing agencies and project sponsors, together with compliance with applicable State, local, and federal regulations, would reduce the proposed 2026 RTP/SCS contribution to cumulative biological resource impacts. However, even with implementation of these measures, the proposed 2026 RTP/SCS would continue to make a cumulatively considerable contribution to significant cumulative impacts on special-status species and their habitats; riparian, wetland, and other sensitive natural communities; and wildlife movement.

4.5 Cultural Resources

This section analyzes impacts to cultural resources within the TCAG region that would result from implementation of the proposed 2026 RTP/SCS. Tribal cultural resources are addressed in Section 4.16, *Tribal Cultural Resources*.

4.5.1 Setting

The TCAG region is located in the center of California, 200 miles south of San Francisco and 180 miles north of Los Angeles. The region stretches across a vast and varied landscape, extending from center of the San Joaquin Valley in the west to the crest of the Sierra Nevada in the east, with elevations ranging from approximately 280 feet above mean sea level down in the valley to 14,494 feet above mean sea level at the summit of Mount Whitney. The western half of Tulare County lies within the San Joaquin Valley. The eastern half, situated within the southern Sierra Nevada mountains, transitions west to east from lower rolling foothills and ridge and canyon systems to meadows and rugged peaks in the higher country. Tulare County was inhabited by several aboriginal California Native American groups including the Southern Valley Yokuts, Foothill Yokuts, Tübatulabal, Monache, and the Owens Valley Paiute[1]. Of the main groups inhabiting the TCAG region, the Southern Valley Yokuts occupied the largest territory. This is described in more detail in Section 4.16 Tribal Cultural Resources.

a. Indigenous History

The indigenous history of California is generally divided into three broad time periods: Paleoindian period (ca. 11,550-8,550 BCE), Archaic Period (8,550 BCE-CE. 1100) and Emergent Occupation (CE 1000- European Contact) (Fredrickson 1973a, 1973b; Moratto 1984; Rosenthal et al. 2007). Little archaeological work has been completed around Tulare Lake, but the research that has been conducted has shown that humans have inhabited the Tulare lakeshore continuously since as early as 9,000 BCE (Gardner et al. 2005). The prehistoric chronological sequence for the Central Valley presented below is based on Rosenthal et al. (2007) and Moratto (1984). Geoarchaeological studies have demonstrated that erosion and deposition have buried or destroyed many early archaeological deposits. Currently, the earliest accepted date of human occupation in the Central Valley ranges from 11,550 to 9,550 BCE.

Climate change at the end of the Pleistocene caused significant periods of alluvial deposition beginning around 9,050 BCE with hunting being an important subsistence activity. The relationship between foothill and valley floor adaptations is largely unknown during the Lower Archaic. However, distinct adaptations are apparent in the Middle Archaic, and it is possible that these divergent traditions first emerged in the Lower Archaic (Rosenthal et al. 2007).

The Middle Archaic began with substantial climate change to much warmer, drier conditions. Tulare Lake shrank and eventually disappeared sometime around 5,500 BCE (Blunt et al. 2015) during this time span. What is available of the Middle Archaic record has revealed a pattern of organized subsistence strategies and increased residential stability. Middle Archaic sites are relatively common in the foothills surrounding the Central Valley and show relatively little change from the Lower Archaic (McGuire 1995). During this time, the mortar and pestle become more widespread, suggesting a shift toward more intensive subsistence practices. Fishing technologies, such as bone

[1] The territory of the Western Shoshone overlaps just slightly on the southeastern edge of the county on the crest of the Sierra Nevada; because that overlapping area is so minimal, the Western Shoshone will not be discussed in further detail here.

gorges, hooks, and spears, also appear during the Middle Archaic suggesting a new focus on fishing. Several other technologies also become apparent during this time. Baked-clay impressions of twined basketry, simple pottery, and other baked clay objects have been found at several sites. Personal adornment items additionally became more frequent. Exchange with outside groups is evidenced by the presence of obsidian, shell beads and ornaments (Rosenthal et al. 2007; Moratto 1984). Trade seemed to be focused on utilitarian items such as obsidian or finished obsidian tools from at least five separate sources (Moratto 1984).

The Upper Archaic is better represented in the archaeological record than earlier periods. Cultural diversity was more pronounced and is marked by contrasting material cultures throughout the valley (Rosenthal et al. 2007). Upper Archaic period economies varied by region throughout the Central Valley. Economies were apparently primarily focused on seasonal resources such as acorns, salmon, shellfish, rabbits, and deer (Rosenthal et al. 2007).

The stable climatic conditions of the Upper Archaic continued into the Emergent Period. After 1000 CE, many of the technologies witnessed during the Archaic disappeared to be replaced by cultural traditions witnessed at European contact. During the Emergent Period, the bow and arrow replaced the atlatl as the preferred hunting method sometime between 1000 and 1300 CE. Increased social complexity is evidenced by increased variation in burial types and offerings and larger residential communities. Grave offerings such as shell beads, ornaments, and ritually “killed” mortars and pestles are often found in burials. Pottery was frequently obtained through trade with groups living in the foothills to the east.

As with the Archaic Period, Emergent Period economies varied geographically, though throughout the Central Valley fishing and plant harvesting increased in importance. Most Emergent residential sites contain diverse assemblages of mammal and bird remains and large amounts of fish bone. After 1,000 years ago, the mortar and pestle become the dominant tool type and small seeds increase in archaeological deposits over time (Rosenthal et al. 2007).

b. Post-Contact History

Post-contact history for the state of California is generally divided into three periods: the Spanish Period (1769 – 1822), Mexican Period (1822 – 1848), and American Period (1848 – present). Although Spanish, Russian, and British explorers visited the area for brief periods between 1529 and 1769, the Spanish Period in California begins in 1769 with the establishment of a settlement at San Diego and the founding of Mission San Diego de Alcalá. Independence from Spain in 1821 marks the beginning of the Mexican Period, and the signing of the Treaty of Guadalupe Hidalgo in 1848, ending the Mexican American War, signals the beginning of the American Period when California became a territory of the United States.

In 1542, Juan Rodriguez Cabrillo led the first European expedition to observe what is now called southern California. For more than 200 years, Cabrillo and other Spanish, Portuguese, British, and Russian explorers sailed the Alta (upper) California coast and made limited inland expeditions but did not establish permanent settlements (Bean 1968; Rolle 2003).

Gaspar de Portolá and Franciscan Father Junipero Serra established the first Spanish settlement in Alta California at Mission San Diego de Alcalá in 1769. This was the first of 21 missions erected by the Spanish between 1769 and 1823. Portolá continued north, eventually reaching the San Francisco Bay in 1769. In 1772, Pedro Fages led the first Europeans to enter the San Joaquin Valley (Wallace 1978; Johnson et al. 1993). Fages led a small expedition into the southernmost part of the valley, stopping at a village on the shores of Buena Vista Lake, before heading towards San Luis Obispo

(Wallace 1978). The next European to enter the valley was Francisco Garcés in 1776 (Wallace 1978). In the early 1800s, numerous expeditions were made into the Central Valley to search for land for new missions or to recapture runaway neophytes (Hoover et al. 2002). However, the Spanish never succeeded in taking control of the region and no missions were established in the Central Valley.

During this period, Spain also deeded ranchos to prominent citizens and soldiers, though very few in comparison to the subsequent Mexican Period. To manage and expand their herds of cattle on these large ranchos, colonists enlisted the labor of the surrounding Native American population (Engelhardt 1927). Very few of the Central Valley tribes came under the control of the Spanish missions or ranchos. However, numerous runaway neophytes fled to the Central Valley, influencing local populations (Wallace 1978). The increased local settler population and contact with diseases brought by Europeans greatly reduced the Native American population (McCawley 1996).

The Mexican Period commenced when news of the success of the Mexican Revolution (1810-1821) against the Spanish crown reached California in 1822. This period was an era of extensive interior land grant development and exploration by American fur trappers west of the Sierra Nevada Mountains. Beginning in 1833, mission lands were conferred as rancho grants. However, no ranchos were established in the Central Valley proper (Wallace 1978).

The American Period officially began with the signing of the Treaty of Guadalupe Hidalgo in 1848, in which the United States agreed to pay Mexico $15 million for the conquered territory, including California, Nevada, Utah, and parts of Colorado, Arizona, New Mexico, and Wyoming. Settlement of southern California continued dramatically in the early American Period. The discovery of gold in northern California in 1848 led to the California Gold Rush (Guinn 1915; Workman 1935). In 1850, California was admitted into the United States and by 1853, the population of California exceeded 300,000. Thousands of settlers and immigrants continued to move into the state, particularly after the completion of the transcontinental railroad in 1869.

The Mediterranean climate of San Joaquin Valley attracted many settlers to the area and established the valley as a key producer of several varieties of crops. Today, the region is a leading producer of raisins and yields more than half of the grapes grown in the United States. Key themes in the areas' history include mining, agriculture, transportation, and military use.

Tulare County History and Historic Development

Located in central California, Tulare County was established in 1852 after separating from Mariposa County. Later, Tulare County was divided again to create Fresno, Kings, and Inyo counties (Tulare County 2019). The name Tulare stems from the tule plant that used to flourish among the area's marshland. Prior to the introduction of agriculture, Tulare Lake was the largest freshwater lake west of the Mississippi until the construction of dams, levees, and canals diverted natural water flow (The Leader 2015).

Early settlement in the County focused on ranching (Tulare County 2012). The Southern Pacific Railroad (SPRR) established the town of Tulare in 1872 to serve as its San Joaquin Valley headquarters (City of Tulare 2017). At approximately the same time, settlers developed water conveyance systems including canals, dams, and ditches across the valley. With reliable water supplies and rail transport, various farming colonies were established throughout the region. Crops included grain, fruit, and row crops. Some of those colonies grew to become cities such as Porterville, Visalia and Hanford. Visalia later became the county seat and the service, processing and distribution center for the area farms, dairies, and cattle ranches. By 1900, the county had a

population of 18,000 residents. Transportation improvements such as major roads, and the development of light industry, supported the valley's continued growth (Tulare County 2012).

Like much of the San Joaquin Valley, the TCAG region experienced an influx of migrants from the U.S. Southwest seeking farm jobs in the region during the Great Depression. A result of the Great Depression-era boom, the TCAG region's population increased by more than 38 percent between 1935 and 1940 (Autobee n.d.). World War II-era demand for farm products led to an expansion of local agricultural economy (City of Porterville 2021; Autobee n.d.). To meet the needs of military production, many growers in the region shifted to cotton farming, and cotton quickly surpassed citrus as the area's chief farm product (Autobee n.d.).

Growth in the region accelerated in the post-World War II era, thanks to the construction of the Central Valley Project (CVP) federal water management system, which helped to ensure a reliable supply of water for crop irrigation in the San Joaquin Valley. Although the CVP was formalized with the passage of the federal Rivers and Harbors Acts of 1935 and 1937, the benefits were not realized in Tulare County until 1951, when the Friant-Kern Canal was completed as part of a system of dams and canals intended to "[impound or divert] the entire flow of the San Joaquin River, except for flood control and irrigation releases" (Stene n.d.). Improved water distribution through the CVP supported more intensive forms of farming in the San Joaquin Valley and, as a result, promoted post-World War II-era population growth in the TCAG region (City of Porterville 2021).

Since 1950, the TCAG region has experienced steady, decade-over-decade growth, increasing from 149,000 in 1950 to an estimated 466,000 in 2019. Today, the county spans over a geographically diverse region which today includes 7,826 square kilometers. The eastern part of the county includes the Sierra Nevada range and recreational public lands, and the western half of the county, with its fertile valley floor, makes the County a top agricultural producer in the United States. Tulare County is home to 1.3 million acres of productive farmland, contributing $7.14 billion a year to the California economy (TULCOFB 2026). Packing and shipping operations, as well as light and medium manufacturing plants have also increased in number in the County (Tulare County 2019).

c. Cultural Resources Inventory

To compile a listing of recognized significant historic and prehistoric resources in the TCAG region, information was obtained from the State Office of Historic Preservation. The statewide Historical Resources Inventory is not available for public review according to the California Historical Information System Information Center Rules of Operation Manual (Section III.A). Therefore, this section does not include a complete list of all recorded cultural resources in the TCAG region. A review of the NRHP and the California Office of Historic Preservation (OHP) website identified a list of California Historical Landmarks and NRHP listed historical resources located in the County. However, there may be other known and potential historical resources located in the County. Resources identified on the OHP web site are listed in Table 4.5-1. Table 4.5-2 lists in-service bridges in the Caltrans Bridge Inventory that may have historical significance and are eligible or are potentially eligible for inclusion in the NRHP, pending further evaluation.

Table 4.5-1 TCAG Region Historical Resources

Reference Number	Location	Resource Name	Address and/or Date Listed
California Historical Landmarks			
388	Porterville	First Tule River Indian Reservation	Alta Vista School, 2293 E Crabtree, Porterville – Listed 8/19/1947
389	Kaweah	Kaweah Post Office, Kaweah Colony	43795 N Fork Dr, Kaweah – Listed 8/26/1947
410	Visalia	Charter Oak/Election Tree	On Charter Oak Dr. 0.3 mi West of Road 180, 7 mi East of Visalia – Listed 11/15/1948
413	Fountain Springs	Tailholt	SW corner of County Hwy M109 (old Springville Stage Route) and County Hwy M12, 8 mi South of Fountain Springs – Listed 11/15/1948
417	Lindsay	Butterfield Stage Route	SW corner of Hermosa St. (Ave 228) and State Hwy 65, 1 mi West of Lindsay – Listed 8/30/1950
473	Porterville	Tule River Stage Station	Porterville Public Park, SW corner of N Main St. and W Henderson Ave. – Listed 9/11/1950
648	Fountain Springs	Fountain Springs	SW corner of County Roads J22 and M109 (old Springville Stage Route), Fountain Springs – Listed 5/29/1958
934	Tulare	Temporary Detention Camps for Japanese Americans – Tulare Assembly Center	Tulare County Fairgrounds, Tulare – Listed 5/13/1980
1047	Colonel Allensworth State Historic Park	Allensworth Historic Town Site	State Highway 43, 9 mi West of State Highway 99, Colonel Allensworth State Historic Park – Listed 8/5/2012
National Register of Historic Places			
N158	Allensworth	Allensworth Historic District	Town of Allensworth and its environs along CA 43—Listed 2/23/1972
N595	Three Rivers	Ash Mountain Entrance Sign	N of Three Rivers in Sequoia National Park, Three Rivers—Listed 4/27/1978
N1086	Visalia	Bank of Italy Building	128 E. Main Street, Visalia—Listed 4/1/1982
N573	Mineral King	Barton-Lackey Cabin	North of Mineral King in Kings Canyon National Park—Listed 3/30/1978
N596	Wilsonia	Cabin Creek Ranger Residence and Dormitory	Southeast of Wilsonia on Generals' Highway in Sequoia National Park—Listed 4/27/1978
N518	Three Rivers	Cattle Cabin	Northeast of Three Rivers on Sequoia National Park—Listed 9/15/1977
N1082	Springville	Elster, C.A., Building	Intersection of CA 190 and Tule River Drive, Springville—Listed 3/25/1982
N1665	Exeter	Exeter Public Library	309 S. E Street, Exeter—Listed 12/10/1990
N2043	Porterville	First Congregational Church	165 E. Mill Street, Porterville—Listed 1/5/1999
N663	Mineral King	Generals' Highway Stone Bridges	North of Mineral King in Sequoia National Park—Listed 9/13/1978
N603	Three Rivers	Giant Forest Lodge Historic District	Northeast of Three Rivers in Sequoia National Park—Listed 5/5/1978
N619	Three Rivers	Giant Forest Village-Camp Kaweah Historic District	North of Three Rivers in Sequoia National Park—Listed 5/22/1978

Reference Number	Location	Resource Name	Address and/or Date Listed
N574	Three Rivers	Groenfeldt Site	Address restricted—Listed 3/30/1978
N597	Silver City	Hockett Meadow Ranger Station	South of Silver City in Sequoia National Park—Listed 4/27/1978
N515	Three Rivers	Hospital Rock	Address restricted—Listed 8/29/1977
N770	Visalia	Hyde House	500 S. Court Street, Visalia—Listed 4/26/1979
N2217	Mineral King	Mineral King Road Cultural Landscape	Mineral King Road, Sequoia National Park—Listed 10/24/2003
N736	Three Rivers	Moro Rock Stairway	North of Three Rivers in Sequoia National Park—Listed 12/29/1978
N1230	Orosi	Orosi Branch Library	12662 Avenue 416, Orosi—Listed 8/25/1973
N604	Mineral King	Pear Lake Ski Hut	North of Mineral King on Sequioa National Park—Listed 5/5/1978
N493	Visalia	The Pioneer	27000 S. Mooney Boulevard, Visalia—Listed 5/5/1977
N1718	Lemoncove	Pogue Hotel	32792 Sierra Drive, Lemoncove—Listed 8/5/1991
N488	Mineral King	Quinn Ranger Station	South of Mineral King on Sequoia National Park—Listed 4/13/1977
N587	Three Rivers	Redwood Meadow Ranger Station	Northeast of Three Rivers in Sequoia National Park—Listed 4/13/1978
N2097	Visalia	Sequoia Field – Visalia-Dinuba School of Aeronautics	Near the junction of Avenue 368 and Road 112, 9 mi. North of Visalia—Listed 6/9/2000
N475	Lone Pine	Smithsonian Institution Shelter	West of Lone Pine in Sequoia National Park—Listed 3/8/1977
N476	Three Rivers	Squatter's Cabin	Northeast of Three Rivers—Listed 3/8/1977
N1460	Porterville	Tenalu	Address restricted—Listed 9/4/1986
N477	Three Rivers	Tharp's Log	Northeast of Three Rivers—Listed 3/8/1977
N2078	Tulare	Tulare Union High School Auditorium and Administration Building	755 E. Tulare Avenue, Tulare—Listed 12/17/1999
N1339	Porterville	US Post Office – Porterville Main	65 W. Mill Avenue, Porterville—Listed 1/11/1985
N1340	Visalia	US Post Office – Visalia Town Center Station	11 W. Acequia Street, Visalia—Listed 1/11/1985
N1938	Wilsonia	Wilsonia Historic District	Roughly bounded by Pine Lane, Fern Lane, Hillcrest Road, Sierra Lane, Kaweah Lane, Goddard Lane, and Park Road, Wilsonia—Listed 3/14/1996
N1494	Porterville	Zalud House	393 N. Hockett Street, Porterville—Listed 3/31/1987
N/A	Three Rivers	Bearpaw High Sierra Camp	Along High Sierra Trail, 11 miles east of Crescent Meadow, Sequoia National Park—Listed 4/21/2016

* This list may not include all historical resources listed on the NRHP and CRHR.

Sources: California Office of Historic Preservation 2026; NRHP 2026

Table 4.5-2 Caltrans Historic Bridge Inventory

Bridge Number	Bridge Name	Location	Historical Significance	Year Built
Local Agency Bridges				
46C0182	Friant-Kern Canal	0.5 mi south of SR 198	2. Bridge is Eligible for the NRHP	1949
46C0196	East Fork Kaweah River	6.68 mi east of SR 198	2. Bridge is Eligible for the NRHP	1923
46C0239	Friant-Kern Canal	0.1 mi east of Road 204	2. Bridge is Eligible for the NRHP	1949
46C0410	Cameron Creek	0.5 mi east of 63	2. Bridge is Eligible for the NRHP	1915
State Agency Bridges				
12 0038	North Fork Feather River	03-BUT-070-40.99	2. Bridge is eligible for NRHP	1932
12 0109	Arch Rock Tunnel	03-BUT-070-47.15	2. Bridge is eligible for NRHP	1937
12 0134	W. Br. Feather River (Lake Oroville)	03-BUT-070-28.22	2. Bridge is eligible for NRHP	1962

Source: California Department of Transportation 2019

4.5.2 Regulatory Setting

a. Federal Laws, Regulations, and Policies

National Historic Preservation Act

The NHPA of 1966, as amended, is the primary mandate governing projects under federal jurisdiction that may affect cultural resources. Section 106 of the NHPA requires federal agencies, or those they fund or permit, to consider the effects of their actions on the properties that may be eligible for listing or that are listed in the National Register. The regulations implementing Section 106 are codified in 36 CFR Part 800. To determine whether an undertaking could affect National Register-eligible properties, cultural resources must be inventoried and evaluated for listing in the National Register.

National Register of Historic Places

The National Register of Historic Places (NRHP) was established by the National Historic Preservation Act of 1966 as "an authoritative guide to be used by Federal, state, and local governments, private groups and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment" (36 Code of Federal Regulations 60.2). The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it meets any one of the following criteria:

- **Criterion A:** Are associated with events that have made a significant contribution to the broad patterns of our history
- **Criterion B:** Are associated with the lives of persons significant in our past
- **Criterion C:** Embody the distinctive characteristics of a type, period, or method of installation, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction

- **Criterion D:** Have yielded, or may be likely to yield, information important in prehistory or history

In addition to meeting at least one of the above designation criteria, resources must also retain integrity. The National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven qualities, defined in the following manner:

- **Location:** The place where the historic property was constructed or the place where the historic event occurred
- **Design:** The combination of elements that create the form, plan, space, structure, and style of a property
- **Setting:** The physical environment of a historic property
- **Materials:** Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property
- **Workmanship:** The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory
- **Feeling:** A property's expression of the aesthetic or historic sense of a particular period of time
- **Association:** The direct link between an important historic event or person and a historic property

The Department of Transportation Act

Passed in 1966, the Department of Transportation Act (49 United States Code 303, formerly 49 United States Code 1651(b)(2) and 49 United States Code 1653f) includes Section 4(f), which states that the Federal Highway Administration and other U.S. Department of Transportation agencies cannot approve the use of land from public and private historical sites unless certain conditions apply. These conditions are the following: If there is no feasible and prudent avoidance alternative to the use of land, and if the action includes all possible planning to minimize harm to the property resulting from such use; or if the Federal Highway Administration determines the use of the property will have a *de minimis* impact.

Archaeological Resources Protection Act

This regulation was enacted to protect archaeological resources and sites that are on public lands and tribal lands, to foster increased cooperation and exchange of information between government representatives, the professional archaeological community, and private individuals. Section 4 of the statute and Sections 16.5-16.12 of the uniform regulations describe the requirements that must be met before federal authorities can issue a permit to excavate or remove any archaeological resource on federal or tribal lands. The curation requirements of artifacts, other materials excavated or removed, and the records related to the artifacts and materials are described in Section 5 of the Act. This section also authorizes the Secretary of the Interior to issue regulations describing in more detail the requirements regarding these collections.

b. State Laws, Regulations, and Policies

California Register of Historical Resources

The California Register of Historical Resources (CRHR) program was designed for use by state and local agencies, private groups, and citizens to identify, evaluate, register, and protect California's historical resources. A historical resource can include any object, building, structure, site, area, or place that is determined to be historically or archaeologically significant. The CRHR is an authoritative guide to the state's significant archaeological and historic architectural resources. The list of these resources can be used for state and local planning purposes; the eligibility determinations can be used for state historic preservation grant funding and listing in the CRHR provides a certain measure of protection under CEQA.

California Historical Landmarks Program

The Historical Landmarks Program was instated to register buildings or landmarks of historical interest. Historical Landmarks are defined as sites, buildings, or features that have a statewide historical, cultural, anthropological, or other significance. To be designated as a Historical Landmark by the Director of California State Parks, the resource must meet set criteria, be recommended for designation by the State Historical Resources Commission and be approved by the property owners. The goals of the program include the preservation and maintenance of registered landmarks, most of which include missions, early settlements, battles, and gold rush sites (PRC Sections 5020.4, 5021, 5022, 5022.5, 5031 and 5032).

California Environmental Quality Act

ARCHAEOLOGICAL RESOURCES

CEQA requires lead agencies to consider whether projects would affect unique archaeological resources. PRC Section 21083.2(g) states that "unique archaeological resource" means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions. And there is a demonstrable public interest in that information
2. Has a special and particular quality, such as being the oldest of its type or the best available example of its type
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person

IMPACTS TO HISTORICAL RESOURCES

Section 15064.5 of the *CEQA Guidelines* states that "a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment." The *CEQA Guidelines* (Section 15064.5(a)) define an "historical resource" as including the following:

- A resource listed in, or eligible for listing in, the California Register of Historical Resources
- A resource listed in a local register of historical resources (as defined at PRC Section 5020.1(k)

- A resource identified as significant in a historical resources survey meeting the requirements of PRC Section 5024.1(g)
- Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. (Generally, a resource is considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the CRHR

CEQA Guidelines (Section 15064.5(b)[1]) define "substantial adverse change" as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired." Generally, the significance of a historical resource is "materially impaired" when a project demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in or eligibility for the CRHR, or its inclusion in a local register of historical resources (*CEQA Guidelines* Section 15064.5(b)(2)).

Standard Mitigation Measures Under CEQA

HISTORICAL RESOURCES

Mitigation measures for historical resources impacts are discussed in *CEQA Guidelines* Section 15126.4. Generally, by following the Secretary of the Interior's Standards for the Treatment of Historic Properties or the Secretary of the Interior's Standards for Rehabilitation, impacts can be considered as mitigated to a level less than significant. For historical resources that are archaeological sites, according to the *CEQA Guidelines* Section 15126.4(b)(3), public agencies should, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature.

UNIQUE ARCHEOLOGICAL RESOURCES

A cultural resource is also significant if it is a *unique archaeological resource*, which is defined in Section21083.2(g) as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information
- Has a special and particular quality such as being the oldest of its type or the best available example of its type
- Is directly associated with a scientifically recognized important prehistoric or historic event or person

If an archaeological resource qualifies as a "historical resource," potential adverse impacts must be considered in the same manner as a historical resource *CEQA Guidelines* Section 15064.5(c)(2)). If the archaeological site does not qualify as a historical resource but does qualify as a unique archaeological resource, then the archaeological site is treated in accordance with PRC Section 21083.2 (*CEQA Guidelines* Section 15064.5(c)(3)).

California Public Resources Code Section 5024 and State-Owned Lands

Historical resources on State-owned lands are subject to the requirements of PRC Section 5024. PRC Section 5024.5(f) requires State agencies to submit to SHPO for comment documentation for any project having the potential to affect historical resources under its jurisdiction listed in or potentially eligible for inclusion in the NRHP or registered or eligible for registration as California Historical Landmarks. The SHPO has 30 days after receipt of the notice for review and comment. If the SHPO determines that a proposed action would have an adverse effect on a listed historical resource, the relevant State agency shall adopt prudent and feasible measures that will eliminate or mitigate the adverse effects.

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act (PRC Section 5097.9) applies to both State and private lands. The act requires, upon discovery of human remains, that construction or excavation activity cease and that the county coroner be notified. If the remains are those of a Native American, the coroner must notify the NAHC, which notifies and has the authority to designate the most likely descendant (MLD) of the deceased. The act stipulates the procedures that the descendants may follow for treating or disposing of the remains and associated grave goods.

Health and Safety Code Section 7050.5

Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If they are determined to be Native American, the coroner must contact the NAHC.

Public Resources Code Section 5097

PRC Section 5097 specifies the procedures to be followed in the event of the unexpected discovery of human remains on nonfederal land. The disposition of Native American burial falls within the jurisdiction of the NAHC. Section 5097.5 of the PRC states the following:

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

California Health and Safety Code Sections 7050.5, 7051, and 7054

HSC Sections 7050.5, 70051, and 7051, and 7054 specify the provisions for the protection of human burial remains. Section 7050.5 of the HSC states the following:

> In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and

> cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

Section 7051 of the HSC states the following:

> Every person who removes any part of any human remains from any place where it has been interred, or from any place where it is deposited while awaiting interment, cremation, or hydrolysis, with intent to sell it or to dissect it, without authority of law, or written permission of the person or persons having the right to control the remains under Section 7100, or with malice or wantonness, has committed a public offense that is punishable by imprisonment pursuant to subdivision (h) of Section 1170 of the Penal Code.

Section 7054 of the HSC states the following:

(a) (1) Except as authorized pursuant to the sections referred to in subdivision (b), every person who deposits or disposes of any human remains in any place, except in a cemetery, is guilty of a misdemeanor.

(2) Every licensee or registrant pursuant to Chapter 12 (commencing with Section 7600) of Division 3 of the Business and Professions Code and the agents and employees of the licensee or registrant, or any unlicensed person acting in a capacity in which a license from the Cemetery and Funeral Bureau is required, who, except as authorized pursuant to the sections referred to in subdivision (b), deposits or disposes of any human remains in any place, except in a cemetery, is guilty of a misdemeanor that shall be punishable by imprisonment in a county jail not exceeding one year, by a fine not exceeding ten thousand dollars ($10,000), or both that imprisonment and fine.

(b) Cremated remains or hydrolyzed human remains may be disposed of pursuant to Sections 7054.6, 7116, 7117, and 103060.

(c) Subdivision (a) of this section shall not apply to the reburial of Native American remains under an agreement developed pursuant to subdivision (l) of Section 5097.94 of the Public Resources Code, or implementation of a recommendation or agreement made pursuant to Section 5097.98 of the Public Resources Code.

Public Resources Code Section 5097.98

PRC Section 5097.98 addresses the disposition of Native American burials, protects such remains, and established the NAHC to resolve any related disputes. Section 5097.98 of the PRC states the following:

(a) Whenever the commission receives notification of a discovery of Native American human remains from a county coroner pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, it shall immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission

of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American human remains and may recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site.

(b) Upon the discovery of Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section, with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.

California Native American Graves Protection and Repatriation Act

Health and Safety Code Sections 8010–8011 establishes a State repatriation policy intent that is consistent with and facilitates implementation of the federal Native American Graves Protection and Repatriation Act. The act strives to ensure that all California Indian human remains and that cultural and cultural items by publicly funded agencies and museums in California. It also states the intent for the State to provide mechanisms for aiding California Indian tribes, including non-federally recognized tribes, in filing repatriation claims and getting responses to those claims.

California Health and Safety Code Sections 18950 through 18961

The State Historic Building Code (Health and Safety Code, Sections 18950–18961) provides alternative building regulations and building standards for the rehabilitation, preservation, restoration (including related reconstruction), or relocation of buildings or structures designated as historic buildings. Such alternative building standards and building regulations are intended to facilitate the restoration or change of occupancy to preserve their original or restored architectural elements and features, to encourage energy conservation and a cost-effective approach to preservation, and to provide for the safety of the building occupants.

c. Local Laws, Regulations, and Policies

The general plans and zoning ordinances of the cities within the TCAG region regulate design and the built environment within those communities, while the general plan and zoning for Tulare County perform the same function within unincorporated areas. In all cases, the general plans typically prescribe policies related to the protection of cultural resources.

Tulare County General Plan

Chapter 8, Environmental Resources Management, of the Tulare County General Plan includes several policies related to cultural resources. These include, but are not limited to:

- **ERM-6.1 Evaluation of Cultural and Archaeological Resources**. The County shall participate in and support efforts to identify its significant cultural and archaeological resources using appropriate State and Federal standards.

- **ERM-6.2 Protection of Resources with Potential State or Federal Designations**. The County shall protect cultural and archaeological sites with demonstrated potential for placement on the National Register of Historic Places and/or inclusion in the California State Office of Historic Preservation's California Points of Interest and California Inventory of Historic Resources. Such sites may be of Statewide or local significance and have anthropological, cultural, military, political, architectural, economic, scientific, religious, or other values as determined by a qualified archaeological professional.
- **ERM-6.3 Alteration of Sites with Identified Cultural Resources**. When planning any development or alteration of a site with identified cultural or archaeological resources, consideration should be given to ways of protecting the resources. Development can be permitted in these areas only after a site-specific investigation has been conducted pursuant to CEQA to define the extent and value of resource, and mitigation measures proposed for any impacts the development may have on the resource.
- **ERM-6.4 Mitigation**. If preservation of cultural resources is not feasible, every effort shall be made to mitigate impacts, including relocation of structures, adaptive reuse, preservation of facades, and thorough documentation and archival of records.
- **ERM-6.6 Historic Structures and Sites**. The County shall support public and private efforts to preserve, rehabilitate, and continue the use of historic structures, sites, and parks. Where applicable, preservation efforts shall conform to the current Secretary of the Interior's Standards for the Treatment of Historic Properties and Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings
- **ERM-6.8 Solicit Input from Local Native Americans**. The County shall continue to solicit input from the local Native American communities in cases where development may result in disturbance to sites containing evidence of Native American activity and/or to sites of cultural importance.

City General Plans

CITY OF VISALIA

The City of Visalia General Plan has a Historic Preservation Element that identifies known historic resources and groupings of historic structures within the City. The City also has a Historic Preservation Ordinance, adopted in 1979 and updated in 2001, established the Historic Preservation Advisory Committee (HPAC). The Committee is responsible for periodically updating the Local Register, nominating properties to the State and Federal Registers, and reviewing planning actions related to historic structures or in the Historic District. Objectives and policies promote the updating of the Historic Preservation Ordinance, historic districts, and to facilitate the conversion of older structures to new uses, with minimal alterations to building or site appearance. The City's Open Space Element identifies the need to preserve open space for the protection of Native American sites including places, features and objects of historic, cultural, or sacred significance to Native Americans.

CITY OF PORTERVILLE

The City of Porterville General Plan identifies the need to preserve open space for the protection of Native American sites. It has a policy to develop an agreement with Native American representatives for consultation in the cases where new development may result in disturbance to Native American sites and another policy requiring new development to analyze and avoid any

potential impacts to archaeological, paleontological, and historic resources. The Land Use Element has a policy to establish an incentive program for development that includes historic preservation and enhancing their downtown that reflects local history and culture, and is sensitive to and preserves historic sites.

CITY OF TULARE

The City of Tulare General Plan has a guiding principle to protect significant cultural and archaeological resources to ensure the preservation and maintenance of Tulare's heritage. The Land Use Element has a policy to encourage cultural and historic heritage and have development planned to ensure its compatibility with existing historic structures. Their Conservation and Open Space Element has policies to support efforts to protect and/or recover archaeological resources, evaluate and protect historic resources, and coordination with descendants of the deceased Native Americans if such remains are found.

The other cities within the TCAG region have similar policies and objectives for the preservation and protection of historic, archaeological, and Native American resources in their open space, conservation, land use, or other elements.

4.5.3 Impact Analysis

a. Methodology and Significance Thresholds

For this discussion, the term cultural resource broadly includes archaeological and built environment resources. The significance of a cultural resource impact is determined by whether that resource meets PRC Section 21083.2 (g) and Section 15064.5. Cultural resources that meet the above criteria are considered significant and qualify as historical resources or unique archaeological resources, or both, pursuant to CEQA. Where the significance of a site is unknown, it is presumed to be a significant resource for the purpose of identifying potential areas of disturbance associated with construction projects or development in urban infill areas near high-quality transportation corridors as outlined in the proposed 2026 RTP/SCS. Listings of historical resources in the TCAG region were obtained from the State Office of Historic Preservation. Potential areas of disturbance associated with the proposed 2026 RTP/SCS projects were compared to the identified historical sites listed on Table 4.5-1 and Table 4.5-2. to determine whether an impact to a known cultural resource may occur. As discussed above, Table 4.5-1 and Table 4.5-2 are based on information available online through the State Historic Preservation Office and do not reflect the complete California Historical Resources Information System, which would be consulted on a project-by-project basis.

Based on Appendix G of the *CEQA Guidelines* a project may be deemed to have a significant impact on cultural resources if it would:

1. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5;
2. Cause a substantial adverse change in the significant of an archaeological resource pursuant to Section 15064.5; or
3. Disturb any human remains, including those interred outside of formal cemeteries.

b. Project Impacts and Mitigation Measures

The following section discusses cultural resource impacts and mitigation measures associated with transportation projects and the land use scenario implementing the proposed 2026 RTP/SCS. Due to

the programmatic nature of the proposed 2026 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 proposed 2026 RTP/SCS would result in the impacts as described in the following section.

Threshold 1:	Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Impact CUL-1 TRANSPORTATION IMPROVEMENT PROJECTS AND THE LAND USE SCENARIO ENVISIONED BY THE PROPOSED 2026 RTP/SCS WOULD CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF A HISTORICAL RESOURCE PURSUANT TO SECTION 15064.5. THIS IMPACT WOULD BE SIGNIFICANT AND UNAVOIDABLE.

With regard to known significant historic structures, the location and nature of the proposed 2026 RTP/SCS projects were evaluated relative to the location of the historic properties listed in Table 4.5-1 and Table 4.5-2. Projects that involve bridge replacements and removal of other structures older than 50 years could generate an impact to historic structures. Furthermore, projects that are adjacent to or near historic structures would alter the integrity of those structures by changing their environmental context.

The proposed 2026 RTP/SCS also has a future land use scenario that emphasizes infill development near transit, such as train stations and multimodal transportation hubs in existing urbanized areas and includes some development in outlying areas. There are no specific development projects pursuant to the land use scenario envisioned by the proposed 2026 RTP/SCS identified and, thus, a project-specific evaluation is not possible. However, because future infill near transit could be located near or adjacent to existing historic structures, the integrity of such structures could be indirectly or directly impacted as a result. Moreover, if future infill near transit would involve redevelopment/demolition of existing structures, such structures could have historical significance (as determined by site specific evaluation) given the presence of structures that are over 50 years old within the TCAG region, particularly within existing urbanized areas. Redevelopment or demolition could result in the permanent loss of historic structures.

Similarly, while proposed transportation projects would not impact known historic structures, such projects may require reconstruction or demolition of transportation infrastructure or other structures that are over 50 years old, and which may be considered historically significant as determined by site specific evaluation. Examples may include demolition, modification, and/or reconstruction of historical bridges and roadways and transportation improvements near potentially eligible buildings (over 45 years old) in downtown areas such as Dinuba, Lindsey, and Woodlake. Such reconstruction or demolition would result in the permanent loss of historic structures.

In general, prior to commencement of any action, development, or land use changes on lands subject to federal jurisdiction or for projects involving federal funding, a cultural resource survey and an environmental analysis must be prepared, including a historic resources assessment. Historic structures are protected under the regulations of the National Historic Preservation Act and the Department of Transportation Act of 1966. TCAG-sponsored projects would be subject to local requirements within the jurisdiction in which they occur, including General Plan provisions that protect cultural resources. Nevertheless, impacts would be significant because there would be substantial adverse changes to historic structures that meet the definition of “historical resources.” The following mitigation measure would reduce this impact.

Mitigation Measures

For transportation projects under their jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measure, where applicable for transportation projects implementing the proposed 2026 RTP/SCS that would result in impacts to historical resources. Where applicable, cities and the County can and should implement these measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project-specific environmental documents may adjust this mitigation measure as necessary to respond to site-specific conditions.

CUL-1 Historical Resources Impact Minimization

Prior to individual project permit issuance, the implementing agency of a proposed 2026 RTP/SCS project involving earth disturbance or construction of permanent above ground structures or roadways shall, or can and should, prepare a map defining the Area of Potential Effects (APE). This map shall indicate the areas of primary and secondary disturbance associated with construction and operation of the facility and will determine whether known historical resources are located within the impact zone. If a structure greater than 45 years in age is within the identified APE, a survey and evaluation of the structure(s) to determine their eligibility for recognition under State, federal, or local historic preservation criteria shall be conducted. The evaluation shall be prepared by an architectural historian meeting the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, Professional Qualification Standards*. The evaluation shall comply with *CEQA Guidelines* Section 15064.5(a). The study must also analyze impacts in accordance with *CEQA Guidelines* Section 15064.5(b). Based on the findings of the study, recommendations shall be implemented, which may include, but are not limited to, the following:

- Realign or redesign projects to avoid impacts on known historic resources where possible
- If avoidance of a significant architectural/built environment resource is not feasible, additional mitigation options include, but are not limited to, specific design plans for historic districts, or plans for alteration or adaptive re-use of a historical resource that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitation, Restoring, and Reconstructing Historic Buildings
- Comply with existing local regulations and policies that exceed or reasonably replace any of the above measures that protect historic resources

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during construction where appropriate.

Significance After Mitigation

Redevelopment or demolition that may be required to implement transportation improvements or land use projects may result in the permanent loss or damage to historic structures. While implementation of Mitigation Measure CUL-1 would reduce impacts to the extent feasible, some project-specific impacts may be unavoidable. Therefore, this impact is significant and unavoidable. No additional mitigation measures to reduce this impact to less-than-significant levels are feasible.

Threshold 2:	Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Impact CUL-2 CONSTRUCTION ACTIVITY ASSOCIATED WITH TRANSPORTATION IMPROVEMENT PROJECTS AND THE LAND USE SCENARIO ENVISIONED BY THE PROPOSED 2026 RTP/SCS MAY CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF AN ARCHAEOLOGICAL RESOURCE PURSUANT TO SECTION 15064.5. POTENTIAL IMPACTS TO ARCHAEOLOGICAL RESOURCES WOULD BE SIGNIFICANT AND UNAVOIDABLE.

It is known that archaeological resources are present throughout the TCAG region. Therefore, it is possible to encounter known and unknown archaeological resources during implementation of transportation improvement projects under the proposed 2026 RTP/SCS. Many of the transportation improvements proposed under the 2026 RTP/SCS consist of minor expansions of existing facilities that would not involve construction in previously undisturbed areas. However, depending on the location and extent of the proposed improvement and ground disturbance, known and/or unknown cultural resources could be impacted. In particular, projects including new infrastructure, roadway or bridge widening or extension have the most potential to impact archaeological resources, such as the Westwood Street Bridge widening over Porter Slough in the City of Porterville and widenings of SR 99, SR 65 and SR 190. Construction activities may disturb resources thereby exposing them to potential vandalism or causing them to be displaced from the original context and integrity. Project specific analysis would be required as individual projects are proposed.

The proposed 2026 RTP/SCS considers a future land use scenario that emphasizes infill near transit and in existing urbanized areas but also includes development in less urbanized areas. However archaeological resources could be located on or near future infill development sites, and in undisturbed areas that would be developed during implementation of the proposed 2026 RTP/SCS. Project grading and excavation for development sites would disturb these known or undiscovered resources.

In general, prior to commencement of any action, development, or land use changes on lands subject to federal jurisdiction or for projects involving federal funding, a cultural resource survey and an environmental analysis must be prepared. Projects would be subject to local requirements, including General Plan provisions that protect cultural resources. Nevertheless, impacts to archaeological resources would be significant because there would be substantial adverse changes to the significance of archaeological resources, i.e., archaeological resources that meet the definition of “historical resources” or “unique archaeological resources.” Mitigation Measures CUL-2(a) and CUL-2(b) would reduce these impacts.

Mitigation Measures

For transportation projects under their jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures, where applicable for transportation projects implementing the proposed 2026 RTP/SCS that would result in impacts to historical resources. Cities and the County can and should implement these measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project specific environmental documents may adjust these mitigation measures as necessary to respond to site specific conditions.

CUL-2(a) Archaeological Resources Impact Minimization

Before construction activities, implementing agencies shall, or can and should, retain a qualified archaeologist to conduct a record search at the Northwest Information Center to determine whether the project area has been previously surveyed and whether resources were identified. When recommended by the Information Center, implementing agencies shall, or can and should, retain a qualified archaeologist to conduct archaeological surveys before construction activities. Implementing agencies shall, or can and should, follow recommendations identified in the survey, which may include, but would not be limited to subsurface testing, designing and implementing a Worker Environmental Awareness Program (WEAP), construction monitoring by a qualified archaeologist, avoidance of sites and preservation in place, and/or data recovery if avoidance is not feasible. Recommended mitigation measures shall be consistent with *CEQA Guidelines* Section 15126.4(b)(3) recommendations and may include but not be limited to preservation in place and/or data recovery. All cultural resources work shall follow accepted professional standards in recording any find including submittal of standard DPR Primary Record forms (Form DPR 523) and location information to the appropriate California Historical Resources Information System office for the project area.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during construction where appropriate.

CUL-2(b) Unanticipated Discoveries During Construction

During construction activities, implementing agencies shall, or can and should, implement the following measures. If evidence of any prehistoric or historic-era subsurface archaeological features, deposits or tribal cultural resources are discovered during construction-related earthmoving activities (e.g., ceramic shard, trash scatters, lithic scatters), all ground-disturbing activity proximate to the discovery shall be halted until a qualified archaeologist (36 CFR Section 61) and Native American monitor, pursuant to Mitigation Measure TCR-1, can assess the significance of the find. If the find is a prehistoric archaeological site, the appropriate Native American group shall be notified. If the archaeologist and Native American monitor determine that the find does not meet the CRHR standards of significance for cultural resources, construction may proceed. If the archaeologist and Native American monitor determine that further information is needed to evaluate significance, a testing plan shall be prepared and implemented. If the find is determined to be significant by the qualified archaeologist (i.e., because the find is determined to constitute either an historical resource or a unique archaeological resource), the archaeologist shall work with the implementing agency to avoid disturbance to the resources, and if complete avoidance is not feasible in light of project design, economics, logistics and other factors, shall recommend additional measures such as the preparation and implementation of a data recovery plan. All cultural resources work shall follow accepted professional standards in recording any find including submittal of standard DPR Primary Record forms (Form DPR 523) and location information to the appropriate California Historical Resources Information System office for the project area. If the find is a prehistoric archaeological site, the culturally affiliated California Native American tribe shall be notified and afforded the opportunity to monitor mitigative treatment. During evaluation or mitigative treatment, ground disturbance and construction work could continue in other parts of the project area that are distant

enough from the find not to impact it, as determined by the qualified archaeologist and Native American monitor.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during construction where appropriate.

Significance After Mitigation

Implementation of Mitigation Measures CUL-2(a) and CUL-2(b) would reduce impacts to archaeological resources to the extent feasible, but some project-specific impacts may be unavoidable. Therefore, this impact is significant and unavoidable. No additional mitigation measures to reduce this impact to less-than-significant levels are feasible.

Threshold 3:	Would the project disturb any human remains, including those interred outside of formal cemeteries?

Impact CUL-3 CONSTRUCTION ACTIVITY ASSOCIATED WITH TRANSPORTATION IMPROVEMENT PROJECTS AND THE LAND USE SCENARIO ENVISIONED BY THE PROPOSED 2026 RTP/SCS COULD RESULT IN DISTURBANCES TO HUMAN REMAINS INCLUDING THOSE INTERRED OUTSIDE OF FORMAL CEMETERIES. HOWEVER, IMPACTS TO HUMAN REMAINS WOULD BE LESS THAN SIGNIFICANT.

Human burials outside of formal cemeteries are often associated with prehistoric archaeological contexts. Therefore, unknown human burials could be encountered because of implementation of transportation improvement projects and land use projects under the proposed 2026 RTP/SCS. Excavation during construction activities in the TCAG region would have the potential to disturb these resources, including Native American burials.

In addition to being potential archaeological resources, human burials have specific provisions for treatment in PRC Section 5097, as listed under Section 4.5.2, *Regulatory Setting*. The California Health and Safety Code (Sections 7050.5, 7051 and 7054), as discussed in Section 4.5.2, *Regulatory Setting,* also includes requirements for the protection of human burial remains. Existing laws and regulations address the illegality of interfering with human burial remains, and protects them from disturbance, vandalism, or destruction, and establish procedures to be implemented if Native American skeletal remains are discovered. PRC Section 5097.98 also addresses the disposition of Native American burials, protects such remains, and established the NAHC to resolve any related disputes. Implementation of these regulations would ensure that proposed 2026 RTP/SCS impacts to disturbance of human remains, including those interred outside of formal cemeteries, would be less than significant.

Mitigation Measures

Mitigation measures are not required because this impact would be less than significant, as jurisdictions are required to follow the protection policies and ordinances as described above.

4.5.4 Cumulative Impacts

IMPACT CUL-C-1 IMPLEMENTATION OF THE PROPOSED TRANSPORTATION IMPROVEMENTS AND THE LAND USE SCENARIO ENVISIONED UNDER THE 2026 RTP/SCS WOULD CAUSE SUBSTANTIAL IMPACTS TO KNOWN AND UNKNOWN CULTURAL, HISTORICAL, OR ARCHAEOLOGICAL RESOURCES. CUMULATIVE IMPACTS WOULD BE SIGNIFICANT AND THE CONTRIBUTION OF THE 2026 RTP/SCS WOULD BE CUMULATIVELY CONSIDERABLE.

The cumulative impact analysis area for cultural resources consists of the TCAG region and the adjoining counties, based on the historic, ethnographic, and prehistoric period use patterns of the region. Information regarding these adjoining counties can be found in Chapter 4, *Environmental Impact Analysis*. This is appropriate because cultural resources identified in this larger region will be similar in type and style to those that are or may be present in the TCAG region. Cumulative impacts were analyzed based on growth projections within the cumulative study area. As discussed in Section 4.5.3, the transportation projects and land use scenario envisioned in the proposed 2026 RTP/SCS could require substantial ground disturbance in undisturbed areas or in infill areas, which could impact historic built environment resources and archaeological resources.

The increase in growth in previously undisturbed areas contributes to regional impacts on existing and previously undisturbed and undiscovered historic and archaeological resources, including CEQA-defined "historical resources" and "unique archaeological resources." While most cultural resources are site specific, with impacts that are project specific, others may have regional significance; for example, an historic structure that represents the last known example of its kind would constitute a regional impact if it were affected by future proposed 2026 RTP/SCS project implementation. In addition, there are historic districts or areas that can be affected by multiple or successive projects over time, resulting in a cumulative impact to the historic resource. For such resources, cumulative impacts would be significant, and the proposed 2026 RTP/SCS contribution to them would be cumulatively considerable, since Impacts CUL-1 and CUL-2 are significant. Mitigation Measures CUL-1, CUL-2(a), and CUL-2(b) would reduce impacts associated with proposed 2026 RTP/SCS projects through impact minimization for historic and archaeological resources. However, it cannot be guaranteed that all future project level impacts can be mitigated to a less than significant level. As such, the proposed 2026 RTP/SCS contribution would remain cumulatively considerable after mitigation.

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4.6 Energy

This section discusses the energy impacts of implementing transportation projects in the proposed Plan, as well as the energy related consequences of land use projects that are consistent with the proposed 2026 RTP/SCS.

4.6.1 Setting

Energy relates directly to environmental quality. Energy use can adversely affect air quality and other natural resources. The vast majority of California's air pollution is caused by burning fossil fuels. Consumption of fossil fuels is linked to changes in global climate and depletion of stratospheric ozone. Transportation energy use is related to the fuel efficiency of cars, trucks, and public transportation; choice of different travel modes (auto, carpool, and public transit); vehicle speeds; and miles traveled by these modes. Construction and routine operation and maintenance of transportation infrastructure also consume energy. In addition, residential, commercial, and industrial land uses consume energy, typically through the use of natural gas and electricity.

a. Energy Supply

According to the U.S. Energy Information Administration (EIA), California's primary sources of fuel production in 2022 included approximately 44.6 percent crude oil, 11.5 percent nuclear energy, 11.5 percent natural gas, and 7.7 percent wood and waste, with the remainder derived from other renewable sources such as biofuels (U.S. EIA 2025a). In terms of electricity generation, California's 2022 energy mix consisted of approximately 47.3 percent non-hydroelectric renewable energy, 35.2 percent natural gas, 11.5 percent hydroelectric power, 5.9 percent nuclear energy, and 0.1 percent coal-fired generation (U.S. EIA 2025a).

Petroleum fuels are regulated by the California Geologic Energy Management Division (CalGEM). This includes oil and gas activities within Tulare County by performing annual inspections of wells, facilities, pipelines, and other pertinent equipment throughout oil production leases. CalGEM is also responsible for protecting the health, safety, public welfare, physical environment, and natural resources of the County by the reasonable regulation of petroleum facilities and operations, including but not limited to: exploration (drilling), production, storage, processing, disposal, well plugging, and well abandonment (CalGEM 2025; CalGEM 2026). According to CalGEM there are several oil and gas wells of unknown status within the County including wells that are classified as orphaned, abandoned, or operating oil wells in the Porterville and Deer Creek areas (CalGEM 2026). Tulare County contains approximately 69 active oil wells (CalGEM 2026), which produced 28,509 barrels (bbl) of oil in 2023 (CalGEM 2025).

Table 4.6-1 2023 Oil and Natural Gas Production in TCAG region

Natural Resource	California	TCAG Region Total	TCAG Region Proportion of Statewide Production
Crude Oil (bbl)	123,223,770	28,509	0.02%
Natural Gas (Mcf)	129,984,429	-	0.00%

Source: CalGEM 2025; CalGEM 2026.

b. Energy Consumption and Sources

Total energy consumption in the U.S. in 2023 was estimated at approximately 93,558 trillion Btu (U.S. EIA 2023a). Petroleum provided approximately 37.9 percent of the energy used in 2023 in the U.S. (U.S. EIA 2023b). In the same year, coal provided approximately 8.7 percent of energy consumed, natural gas provided approximately 35.9 percent, nuclear energy provided approximately 8.7 percent and total renewable sources supplied the rest at approximately 8.8 percent (U.S. EIA 2023b). On a per-capita basis, California is ranked second lowest of the states in terms of energy use in 2023 (173.9 million Btu per person), or about 37 percent less than the U.S.'s average per-capita consumption of 278 million Btu per person (U.S. EIA 2023c).

Electricity and Natural Gas

In 2024, California used 282,783 gigawatt hours (GWh) of electricity; approximately 62 percent of California's electricity supply came from renewable energy sources, such as wind, solar photovoltaic, geothermal, and biomass (CEC 2026a; CEC 2026b). In 2024, California also consumed approximately 11,104 million U.S. therms of natural gas (CEC 2026b). Table 4.6-2 illustrates the electricity and natural gas consumption within the TCAG region and their proportion of statewide consumption in 2024. In 2024, Tulare County consumed 156.4 million therms of natural gas (CEC 2026c

In addition, many rural areas within the TCAG region rely on wood, propane, or other liquefied petroleum gases (LPGs) as heating fuels.

Table 4.6-2 2024 Electricity and Natural Gas Consumption in the TCAG Region

County	Electricity Consumption 2024 Consumption (GWh)[1]	Electricity Consumption Per-Capita Consumption (kWh)	Electricity Consumption Statewide Proportion (%)	Natural Gas Consumption 2024 Consumption (MMthm)[2]	Natural Gas Consumption Per-Capita Consumption (thm)	Natural Gas Consumption Statewide Proportion (%)
Tulare	4,615	9,544	1.6%	156.4	323	1.4%

[1] Electricity consumption is quantified in Millions of Kilowatt-Hours (GWh), while per-capita electricity is quantified in Kilowatt-Hours (kWh).

[2] Natural Gas consumption is quantified in Millions of Therms (MMthm), while per-capita natural gas consumption is quantified in Therms (thm).

Note: The per-capita consumption for natural gas and electricity are determined by using 2024 data from the CEC for overall county-wide consumption and divided by the 2024 county population retrieved from the United States Census Bureau database (483,546 persons). Individual entries may not add up to exact total amounts as a result of rounding to a single decimal point.

Sources: CEC 2026a; CEC 2026b; U.S. Census Bureau 2024

As shown in Table 4.6-2, Tulare County accounted for approximately 1.6 percent of the State's electricity consumption and 1.4 percent of the State's natural gas consumption in 2024. The Southern California Edison Company (SCE) provides electric service to most of Tulare County. SCE obtains its electricity from natural gas, fossil fuels, nuclear power, hydroelectric power, and renewable resources. The northern and southeastern corners of the TCAG region are served by the Pacific Gas & Electric Company (PG&E). This includes electricity to Dinuba and unincorporated communities and areas in the northern portion of Tulare County. In 2024, Tulare County consumed 156.4 million therms of natural gas (CEC 2026c).

Petroleum

Energy consumed by the transportation sector accounts for roughly 50.4 percent of California's energy demand, amounting to approximately 3,030 trillion Btu in 2023 (U.S. EIA 2025a). California's transportation sector, including on-road and rail transportation, consumed roughly 491,570,248 bbl of petroleum fuels in 2023 (U.S. EIA 2025a). Furthermore, petroleum-based fuels are used for approximately 98.0 percent of the State's transportation activity (U.S. EIA 2025a). Most gasoline and diesel fuel sold in California for motor vehicles is refined in California to meet state-specific formulations required by the California Air Resources Board (CARB). Major petroleum refineries in California are concentrated in three counties: Contra Costa, Kern, and Los Angeles (CEC 2026b).

As shown in Table 4.6-3, total fuel consumption in the TCAG region in 2024 was 226 million gallons annually (25,836,759 million Btu), with gasoline contributing roughly three times the energy use of diesel. As shown in Table 4.6-4 below, the TCAG region generated 10,662,601 vehicle miles traveled (VMT) per day in 2025.

Table 4.6-3 Fuel Consumption in TCAG Region

Fuel	2024 Annual Fuel Use (million gallons)	2024 Annual Fuel Use (million Btu)	2024 Daily Energy Use (million Btu)	2024 Daily Per-Capita Energy Use (million Btu)[1]
Gasoline	168	18,444,079	50,532	0.10
Diesel	58	7,392,680	20,254	0.04
Total	**226**	**25,836,759**	**70,786**	**0.15**

[1] The per-capita consumption for fuel was determined by using 2024 data divided by the 2024 county population retrieved from the U.S. Census Bureau.

[2] Retail Fuel Sales data aggregates sales for the County of Tulare

Note: Totals may not add up due to rounding.

Sources: CEC 2026a; CEC 2026b; CEC 2026c; U.S. Census Bureau 2024

Table 4.6-4 Daily and Annual VMT for the TCAG Region 2025

Daily VMT	Annual VMT
10,662,601	3,891,849,193

Source: TCAG Traffic Demand Model, Appendix D

Alternative Fuels

A variety of alternative fuels are used to reduce petroleum-based fuel demand. The use of these fuels is encouraged through various statewide regulations and plans, such as the Low Carbon Fuel Standard and Senate Bill (SB) 32. Conventional gasoline and diesel may be replaced, depending on the capability of the vehicle, with transportation fuels including the following:

- **Hydrogen** is being explored for use in combustion engines and fuel cell electric vehicles. The interest in hydrogen as an alternative transportation fuel stems from its clean-burning qualities, its potential for domestic production, and the fuel cell vehicle's potential for high efficiency, which is two to three times more efficient than gasoline vehicles. Currently, 46 hydrogen refueling stations are located in California, none of which are within the TCAG region (U.S. Department of Energy [DOE] 2025).

- **Biodiesel** is a renewable alternative fuel that can be manufactured from vegetable oils, animal fats, or recycled restaurant greases. Biodiesel is biodegradable and cleaner-burning than petroleum-based diesel fuel. Biodiesel can run in any diesel engine generally without alterations; however, fueling stations have been slow to make it available. There are currently 453 biodiesel refueling stations in California, with only one located in the TCAG region (DOE 2025).
- **Electricity** can be used to power electric and plug-in hybrid electric vehicles directly from the power grid. Electricity used to power vehicles is generally provided by the electricity grid and stored in the vehicle's batteries. Fuel cells are being explored as a way to use electricity generated onboard the vehicle to power electric motors. There are approximately 19,290 public electric Level 2 and DC Fast charging stations in California, of which 219 are located in the TCAG region (DOE 2025; Tulare, County of 2026).

4.6.2 Regulatory Setting

Programs and policies at the State and national levels have emerged to bolster the previous trend towards energy efficiency, as discussed below.

c. Federal Laws, Regulations, and Policies

Federal Fuel Economy and Emissions Standards

Corporate Average Fuel Economy Standards

The Energy Policy and Conservation Act in 1975 established the Corporate Average Fuel Economy Standards (CAFE) standards are Federal rules established by the National Highway Traffic Safety Administration (NHTSA) that set fuel economy standards for all new passenger cars and light trucks sold in the United States. The CAFE standards (40 CFR Parts 531, 531.5 and 533) become more stringent each year, reaching an estimated 38.3 miles per gallon for the combined industry-wide fleet for model year 2020 (77 Federal Register 62624 et seq. [October 15, 2012 Table I-1]). In August 2016, the U.S. Environmental Protection Agency and NHTSA announced the adoption of the phase two programs related to the fuel economy and greenhouse gas (GHG) standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi- trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. These standards are expected to lower carbon dioxide (CO_2) emissions by approximately 1.1 billion metric tons (MT) and reduce oil consumption by up to two billion barrels over the lifetime of the vehicles sold under the program.

On June 7, 2024, the NHTSA issued new vehicle fuel economy standards. In this final rule, fuel economy will increase 2 percent per year for model years 2027-2031 for passenger cars, while light trucks will increase 2 percent per year for model years 2029-2031. These increases will bring the average light-duty vehicle fuel economy up to approximately 50.4 miles per gallon by model year 2031.

Heavy-duty pickup truck and van fuel efficiency will increase 10 percent per year for model years 2030-2032 and 8 percent per year for model years 2033-2035. This will result in a fleetwide average of approximately 35 miles per gallon by model year 2035. These improved standards will save almost 70 billion gallons of gasoline through 2050, preventing more than 710 million metric tons of carbon dioxide emissions by 2050.

In 2024, CAFE standards were finalized for model years (MYs) 2027 through 2031. The final rule establishes standards that require an industry-wide fleet average of approximately 49 miles per gallon (mpg) for passenger cars and light trucks.

On February 18, 2026, USEPA rescinded the Clean Air Act Endangerment Finding for GHGs and repealed all GHG emission standards for light-duty, medium-duty, and heavy-duty vehicles and engines pursuant to CAA Section 202(a) (USEPA 2026). The proposed rule removed GHG-related provisions from 40 CFR part 600 without affecting provisions related to CAFE standards and fuel economy labeling.

Executive Order 14154

Issued on January 20, 2025, Executive Order 14154 establishes a national policy aimed at expanding domestic energy production, with a particular emphasis on fossil fuels and critical minerals. The order revokes several prior climate-focused executive orders and terminates the American Climate Corps. It eliminates federal support for electric vehicle mandates and energy efficiency standards for appliances. Additionally, it directs federal agencies to expedite permitting under the National Environmental Policy Act and revise National Environmental Policy Act regulations to prioritize permitting efficiency over environmental considerations. Funding under the Inflation Reduction Act and the Infrastructure Investment and Jobs Act is suspended pending review for consistency with the Administration's energy policy.

Executive Order 14156 (Energy Emergency Provisions)

Also issued on January 20, 2025, Executive Order 14156 declared a national emergency due to insufficient domestic energy supply and infrastructure. It invokes emergency authorities under the Defense Production Act and the Clean Water Act to accelerate energy infrastructure development. The order directs agencies to prioritize permitting and leasing for energy projects on federal lands and requires streamlined consultations under the Endangered Species Act, including convening the Endangered Species Act Committee to address regulatory barriers. Energy security is emphasized as a national defense priority, particularly in regions with 'constrained supply' such as the Northeast and West Coast.

Executive Order 14260

Issued on April 8, 2025, Executive Order 14260 challenges state-level climate and energy regulations that are deemed to exceed constitutional authority. It directs the Attorney General to identify and pursue legal action against state laws that impose retroactive fines, carbon caps, or other climate-related claims. The order specifically targets policies in states such as California, New York, and Vermont that regulate emissions or energy infrastructure in ways that may affect interstate commerce. It asserts federal primacy over energy regulation and seeks to prevent states from influencing national energy policy through environmental justice or environmental, social, and governance frameworks.

Executive Order 14361

Also issued on April 8, 2025, Executive Order 14261 designates coal as a "critical mineral" and prioritizes its development and export. The order directs federal agencies to remove barriers to coal leasing and expedite environmental reviews. It terminates the Jewell Coal Leasing Moratorium and encourages reductions in royalty rates. The order promotes coal-powered infrastructure for artificial

intelligence data centers and steel production, and calls for expanded use of categorical exclusions under National Environmental Policy Act for coal-related projects.

Executive Order 14262

Issued on April 8, 2025, Executive Order 14262 addresses rising electricity demand driven by artificial intelligence and manufacturing. It directs the Department of Energy to streamline emergency orders under the Federal Power Act to prevent grid failures. The order mandates the development of a national methodology to assess reserve margins and identify regions at risk of reliability issues. It also requires the retention of critical generation resources, including fossil-fueled power plants, to ensure grid reliability.

d. State Laws, Regulations, and Policies

Warren-Alquist Act

The 1975 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as CEC. The Act established a State policy to reduce wasteful, uneconomical, and unnecessary uses of energy by employing a range of measures. The California Public Utilities Commission (CPUC) regulates privately-owned utilities in the energy, rail, telecommunications, and water fields.

Integrated Energy Policy Report

Senate Bill (SB) 1389 (Chapter 568, Statutes of 2002) required CEC to conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The CEC shall use these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety.

CEC prepares an Integrated Energy Policy Report (IEPR) every two years, with updates published in alternating years, pursuant to Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002). The 2025 IEPR Update provides a comprehensive assessment of California's energy system and outlines strategies to support the state's goals for reliable, affordable, and environmentally responsible energy (CEC 2026d). Topics addressed include electricity and natural gas demand forecasts, transportation energy trends, energy efficiency savings, distributed energy resources, strategic transmission planning, climate adaptation and resilience, and emerging technologies such as wave and tidal energy.

The report highlights California's progress toward decarbonization, including the retirement of over 16,000 megawatts (MW) of fossil fuel generation since 2010 and the addition of more than 22,000 MW of clean energy resources. Battery storage capacity has expanded from 770 MW in 2019 to over 13,000 MW in 2024. In the first nine months of 2024 alone, California added nearly 4,000 MW of new energy resources, primarily from solar and battery storage.

California Renewables Portfolio Standard Program

Senate Bill 1078 (Chapter 516, Statutes of 2002) established California's initial Renewables Portfolio Standard (RPS), requiring retail sellers of electricity—including investor-owned utilities and community choice aggregators—to procure 20 percent of their electricity from renewable sources

by 2017. The legislation also mandated annual increases in renewable procurement of at least one percent.

This goal was later accelerated by Senate Bill 107 (2006), which moved the 20 percent target forward to 2010. California successfully met this revised target and has continued to expand its RPS program through subsequent legislation. The RPS has since evolved to require 33 percent renewable electricity by 2020 (SB 2 [1X]), 50 percent by 2030 (SB 350 of 2015), and 60 percent by 2030 with a goal of 100 percent carbon-free electricity by 2045 (SB 100 of 2018). SB 350 (2015) established the CPUC's Integrated Resources Plan (IRP) framework, requiring load-serving entities such as SCE (the utility provider for the majority of the County) to prepare plans demonstrating how they will meet electricity demand while achieving the State's GHG reduction and clean energy goals. SCE's IRP therefore operationalizes SB 350 by identifying a long-term portfolio of resources and procurement strategies that align utility planning with statewide climate and energy policy objectives.

The RPS program is jointly implemented by the CPUC and CEC and has been instrumental in driving the development of solar, wind, geothermal, and other renewable energy resources statewide.

2022 Scoping Plan

The 2022 Scoping Plan outlines California's strategy to achieve carbon neutrality by 2045 through a comprehensive transformation of the state's energy systems (CARB 2022). The Scoping Plan calls for a dramatic reduction in fossil fuel combustion, particularly petroleum, by deploying clean technologies, expanding renewable energy generation, and electrifying end uses across sectors. It recommends building no new fossil gas-fired power plants and accelerating the retirement of existing ones, while increasing investments in zero-emission vehicles, building decarbonization, and clean fuels. The Scoping Plan emphasizes the need for unprecedented build-out of renewable and zero-carbon electricity generation and storage to meet rising demand from electrification in transportation and buildings. It also supports a multi-agency process to ensure an equitable transition away from oil extraction and refining, especially in communities disproportionately burdened by pollution. These energy recommendations are designed to help reduce greenhouse gas emissions by 85 percent below 1990 levels, cut air pollution by 71 percent, and improve public health and economic resilience statewide.

Senate Bill X1-2

Senate Bill X1-2, signed into law by Governor Brown in 2011, expanded California's RPS program by requiring retail sellers of electricity, including investor-owned utilities, publicly owned utilities, and community choice aggregators, to procure at least 20 percent of electricity retail sales from eligible renewable energy resources by 2010, and 33 percent by 2020. This legislation built upon earlier RPS mandates and established a more aggressive timeline for renewable energy integration.

CPUC and CEC jointly implement the statewide RPS program through rulemaking, compliance monitoring, and oversight of procurement activities. The program has been instrumental in accelerating the deployment of solar, wind, geothermal, and other renewable energy technologies across the state.

California successfully met the 33 percent RPS target by 2020 and continues to advance toward more ambitious goals established under subsequent legislation, including Senate Bill 100, which mandates 60 percent renewable electricity by 2030, and 100 percent zero-carbon electricity by 2045.

Senate Bill 350

In 2015, Governor Brown signed SB 350, which established new renewable portfolio standard targets, requiring retail sellers of electricity to provide at least 50 percent of electricity retail sales from renewable sources by 2030. SB 350 also set a goal of doubling energy efficiency savings in electricity and natural gas by 2030.

Senate Bill 100

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard Program. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 50 percent by 2026, 60 percent by 2030, and 100 percent by 2045.

Assembly Bill 1493 and Advanced Clean Cars

Assembly Bill (AB) 1493 (Chapter 200, Statutes of 2002), known as the "Pavley bill," amended Health and Safety Code Sections 42823 and 43018.5 requiring CARB to develop and adopt regulations that achieve maximum feasible and cost-effective reduction of GHG emissions from passenger vehicles, light-duty trucks and other vehicles used for noncommercial personal transportation in California.

Implementation of new regulations prescribed by AB 1493 required that the State of California apply for a waiver under the federal Clean Air Act. Although the USEPA initially denied the waiver in 2008, the USEPA approved a waiver in June 2009, and in September 2009, CARB approved amendments to its initially adopted regulations to apply the Pavley standards that reduce GHG emissions to new passenger vehicles in model years 2009 through 2016. In 2012, CARB approved the Low-Emission Vehicle III GHG regulation, which requires further reductions in passenger GHG for 2017 and subsequent vehicle model years. According to CARB, implementation of the Pavley regulations is expected to reduce fuel consumption while also reducing GHG emissions.

In 2022, CARB approved the Advanced Clean Cars II rule regulating model years from 2026 to 2035. The rule establishes a year-by-year roadmap so that by 2035, 100 percent of new cars and light trucks sold in California would be zero-emission vehicles, including plug-in hybrid electric vehicles. The regulation realizes and codifies the light-duty vehicle goals set out in Governor Newsom's Executive Order N-79-20. By 2040, CARB anticipates that the rule would reduce GHG emissions from light-duty vehicles by 50 percent for a cumulative total of 395 MMT CO_2e from 2026 through 2040. The EPA granted CARB its California's Clean Air Act waiver request for the Advanced Clean Cars II rule on December 18, 2024. However, Public Law 119-16 enacted on June 12, 2025, disapproves of this regulation under the Congressional Review Act, retroactively revoking the state's waiver issued by the USEPA under the Clean Air Act to implement the Advanced Clean Cars II rule.

Advanced Clean Trucks and Low-NOx Regulation

The Advanced Clean Trucks rule is a CARB regulation (CCR, Title 13, Section 1963 – 1963.5) that requires medium and heavy-duty truck manufacturers to gradually increase the percentage of zero-emission vehicles they sell in the state. Effective in March 2021, the rule mandates that by 2035, 55 percent of Class 2b-3 truck sales, 75 percent of Class 4-8 straight truck sales, and 40 percent of truck tractor sales must be zero-emissions vehicles. The goal is to accelerate the transition to zero-emission trucks. The USEPA granted the waiver request under the CAA to enact the more stringent fuel economy components of the ACT regulation on April 6, 2023. However,

Public Law 119-15 enacted on June 12, 2025, disapproves of this regulation under the Congressional Review Act, retroactively revoking the state's waiver issued by the USEPA under the Clean Air Act to implement the Advanced Clean Trucks regulation.

The Heavy-Duty Low-NO_X Omnibus Regulation was adopted by CARB in 2021 (effective December 22, 2021; amended in May 2024), and mandates steep reductions in NO_X and PM emissions from new medium- and heavy-duty diesel and Otto-cycle engines starting with model year 2024. By full rollout, the regulation is projected to eliminate approximately 17–23 tons/day of NO_X by 2031. However, Public Law 119-17, enacted on June 12, 2025, disapproves of this regulation under the Congressional Review Act, retroactively revoking the state's waiver issued by the USEPA under the Clean Air Act to implement the low-NO_X regulation.

Drayage Truck Regulation

CARB established the Drayage Truck Regulation as part of its ongoing efforts to reduce PM and NOx emissions from diesel-fueled engines and improve air quality associated with goods movement. The purpose of this regulation is to reduce emissions and public exposure to diesel PM, NOx, and other air contaminants by setting emission standards for in-use, heavy-duty diesel-fueled vehicles.

CARB adopted the Advanced Clean Fleets (ACF) Regulation (CCR Title 13, Division 3, Chapter 1, Article 4) in 2023, which included updated requirements for drayage trucks operating at seaports and intermodal railyards. Beginning January 1, 2024, only zero-emission drayage trucks can be newly registered in CARB's Truck Regulation Upload, Compliance, and Reporting System. Existing legacy trucks must meet annual operational and useful life requirements to remain in service, with non-compliant vehicles removed from the registry starting in 2025. By 2035, all drayage trucks operating in California must be zero-emission, supporting statewide goals to reduce diesel particulate matter, NOx, and greenhouse gas emissions, particularly in communities disproportionately impacted by freight-related pollution.

On January 23, 2025, CARB withdraw is request for a Clean Air act waiver for the ACF Regulation. CARB is not enforcing the federal and private fleets portions of the ACF that require a Clean Air Act waiver, but is enforcing portions of the ACF Regulation that do not require a Clean Air Act waiver, such as the state and local government fleets portion.

Assembly Bill 1007

AB 1007 (Chapter 371, Statutes of 2005) required CEC to prepare a State plan to increase the use of alternative fuels in California. CEC prepared the State Alternative Fuels Plan in partnership with the CARB and in consultation with other State, federal and local agencies. The plan presents strategies and actions California must take to increase the use of alternative non- petroleum fuels in a manner that minimizes costs to California and maximizes the economic benefits of in-state production. The plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

Executive Order S-01-07

Executive Order S-01-07, issued in 2007, directed CARB to develop and implement a Low Carbon Fuel Standard (LCFS) aimed at reducing the carbon intensity of transportation fuels used in California. Codified in 17 California Code of Regulations Section 95480 et seq., the LCFS originally

required a 10 percent reduction in average fuel carbon intensity by 2020 and was designated as an early action measure under Assembly Bill 32 (Global Warming Solutions Act of 2006).

CARB has amended the LCFS multiple times to align with California's evolving climate and energy goals. In 2018, amendments extended carbon intensity reduction targets through 2030 and introduced crediting mechanisms for zero-emission vehicles, alternative jet fuels, carbon capture and sequestration, and other advanced technologies. In 2025, CARB adopted further amendments that took effect on July 1, 2025, establishing new targets to reduce fuel carbon intensity by 30 percent by 2030 and 90 percent by 2045.

The LCFS remains in effect and continues to be a cornerstone of California's strategy to decarbonize the transportation sector. Since its inception, the program has displaced over 30 billion gallons of petroleum fuel, reduced fuel carbon intensity by nearly 13 percent, and generated approximately $4 billion annually in private sector investment. It is projected to reduce greenhouse gas emissions by 558 million metric tons, NO_x by 25,500 tons, and $PM_{2.5}$ by 4,200 tons between 2025 and 2045.

Executive Order N-79-20

Executive Order N-79-20 established a Statewide goal that 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035. A further goal of the State is that 100 percent of medium- and heavy-duty vehicles in the State be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks.

California Building Energy Efficiency Standards

The California Code of Regulations Title 24 is referred to as the Building Energy Efficiency Standards or California Energy Code. This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings to reduce California's energy demand. New construction and major renovations must demonstrate their compliance with the current Energy Code through submittal and approval of a Title 24 Compliance Report to the local building permit review authority and the CEC.

Future land use projects would be subject to the 2025 California Building Energy Efficiency Standards, codified in Title 24, Part 6 of the California Code of Regulations, which take effect on January 1, 2026. These standards are designed to reduce energy consumption in residential and non-residential buildings, support California's climate goals, and improve indoor environmental quality.

Key updates to the 2025 standards include expanded requirements for heat pump technologies, electric readiness for future electrification, enhanced ventilation and indoor air quality measures, and battery storage system readiness for homes with larger electrical service capacities. These measures are expected to reduce building energy demand, lower greenhouse gas emissions, and support integration of distributed energy resources.

AB 130 of 2025 imposes a moratorium on changes to California building codes affecting residential units, including both state and local amendments, through 2031, with limited exemptions. Essentially, AB 306 would prohibit CEC or any other adopting agency from considering, approving, or adopting any proposed building standards affecting residential units, unless a certain condition is met, including that the CEC deems those changes necessary as emergency standards to protect health and safety. The 2025 Energy Code will proceed as planned with an effective date of January 1, 2026, and the 2031 Energy Code cycle is anticipated to be unaffected.

California Green Building Standards Code

The 2026 California Green Building Standards Code (CALGreen), codified in Title 24, Part 11 of the California Code of Regulations, and effective in 2025, establishes mandatory minimum environmental performance standards for newly constructed residential and non-residential buildings statewide. These standards are enforced by local jurisdictions and address key sustainability areas including energy efficiency, water conservation, material resource efficiency, and indoor environmental quality.

CALGreen also includes voluntary tiers (Appendices A4 and A5) that provide enhanced environmental performance options. These voluntary measures are intended as model provisions for jurisdictions considering above-code ordinances (also known as "reach codes") or for builders seeking additional compliance flexibility under the California Energy Code.

e. Local Laws, Regulations, and Policies

County of Tulare

The County of Tulare has established a series of goals, policies, and implementation measures in the Tulare County General Plan 2030 Energy Element, which was adopted in August 2012, that guide development to ensure the efficient use of energy and use of renewable energy sources. The Energy Element includes the following goals and policies regarding energy consumption:

- **ERM-4.1 Energy Conservation and Efficiency Measures:** The County shall encourage the use of solar energy, solar hot water panels, and other energy conservation and efficiency features in new construction and renovation of existing structures in accordance with State law.
- **ERM-4.2 Streetscape and Parking Area Improvements for Energy Conservation**: The County shall promote the planting and maintenance of shade trees along streets and within parking areas of new urban development to reduce radiation heating.
- **ERM-4.3 Local and State Programs:** The County shall participate, to the extent feasible, in local and State programs that strive to reduce the consumption of natural or man-made energy sources.
- **ERM-4.4 Promote Energy Conservation Awareness:** The County should coordinate with local utility providers to provide public education on energy conservation programs.
- **ERM-4.5 Advance Planning:** The County shall participate with energy providers in identifying long range energy strategies and facilities.
- **ERM-4.6 Renewable Energy:** The County shall support efforts, when appropriately sited, for the development and use of alternative energy resources, including renewable energy such as wind, solar, bio-fuels and co-generation.
- **ERM-4.7 Reduce Energy Use in County Facilities:** The County Shall continue to integrate energy efficiency and conservation into all County functions.
- **ERM-4.8 Energy Efficiency Standards:** The County shall encourage renovations and new development to incorporate energy efficiency and conservation measures that exceed State Title 24 standards. When feasible, the County shall offer incentives for use of energy reduction measures such as expedited permit processing, reduced fees, and technical assistance.

Additionally, the County of Tulare's Climate Action Plan, updated in 2018 (Tulare County 2018), addresses climate change issues for the County of Tulare community in the period to the year 2030,

in accordance with directives of the Tulare General Plan and the California Global Warming Solutions Act (AB 32) (Tulare County 2018). The Climate Action Plan also supports statewide GHG emissions reduction goals identified in SB 375 and includes measures pertaining to building energy efficiency, construction equipment fuel usage, and transportation emissions.

City of Visalia

The Air Quality and Greenhouse Gas Element of the Visalia General Plan (2014) contains the following policies related to reducing overall energy consumption and improving energy efficiency:

- **AQ P-12:** Support the implementation of Voluntary Emissions Reduction Agreements (VERA) with the San Joaquin Valley Air Pollution Control District for individual development projects that may exceed District significance thresholds.
- **AQ P-16**: Support State efforts to reduce greenhouse gas emissions through local action that will reduce motor vehicle use, support alternative forms of transportation, require energy conservation in new construction, and energy management in public buildings, in compliance with AB 32.

City of Tulare

The City of Tulare includes policies relating to energy consumption in the Conservation and Open Space Element of its General Plan (2014). These policies include:

- **COS-P6.1** The City shall require the use of energy conservation features in new construction and renovation of existing structures in accordance with State law. New features that map be applied to construction and renovation include:
  - Green building techniques (such as recycled, renewable and reused materials; efficient lighting/power sources; design orientation; building techniques, etc.);
  - Cool roofs;
  - Enhanced insulation;
  - Application of solar technologies (e.g., photovoltaic, water heating, etc.); and
  - Energy Star compliance programs.
- **COS-P7.17** When developing the regional transportation system, the City shall work with TCAG to comprehensively study methods of transportation which may contribute to a reduction in air pollution in the City of Tulare. Some possible alternatives that should be studied are:
  - Public transportation such as buses and light rail, to serve between communities of the valley, publicly subsidized if feasible.
  - Intermodal public transit such as buses provided with bicycle racks, bicycle parking at bus stations, and park and ride facilities.
  - Community bus or other public transportation systems, such as cycling or walking trails, with particular attention to high density areas.

City of Porterville

The City of Porterville includes policies relating to energy consumption in the Open Space and Conservation Element of its 2030 General Plan (2008). Some of the policies include:

- **OSC-I-66**: Adopt guidelines and incentives for using green building standards in new construction.
- **OSC-I-70**: Ensure the City codes allow for environmentally acceptable alternative forms of energy production and green building techniques.

Other Cities

Other cities within the TCAG region include Dinuba, Lindsay, Farmersville, Exeter, and Woodlake. The General Plans of these cities include goals and policies pertaining to air quality that are similar to those outlined above.

4.6.3 Impact Analysis

a. Methodology and Significance Thresholds

Direct and Indirect Energy Consumption

As this analysis is programmatic and specific details related to construction and timing for transportation and land use development projects implementing the 2026 RTP/SCS are not known at this time, energy consumption from construction activities and future land use operations is assessed qualitatively. Construction energy use, such as fuel consumption from equipment, worker commutes, and material delivery, is typically short-term and would vary depending on the nature and timing of individual projects. Similarly, operational energy use from buildings (e.g., electricity and natural gas) is also speculative due to the absence of detailed project-specific information. In accordance with CEQA Guidelines Appendix F, this section provides a qualitative discussion of potential energy impacts from construction of and operation land use projects.

The calculation of total energy consumption from transportation during operation for this analysis follows the Input-Output methodology suggested by Caltrans (Caltrans 1983). Caltrans methodology provides the calculation of the cumulative transportation energy consumption, including energy consumption that would be due to the construction of 2026 RTP/SCS projects, and energy consumption that is not due to the 2026 RTP/SCS, but rather is due to changes in VMT caused by socioeconomic growth (e.g., population and employment), land use policies, and the existing transportation infrastructure.

Energy consumption from transportation projects is categorized in terms of direct and indirect energy, defined below. Appendix E contains information on the transportation modeling used for the project to estimate VMT for use in calculating energy consumption (see Appendix E).

Direct Energy Consumption

Direct energy is that energy used in the daily operation of the transportation system, including the propulsion of passenger vehicles (automobiles, vans, and trucks) and transit vehicles, including buses and trains. The direct energy analysis for the project is based on baseline (2025), and 2049 VMT with and without the proposed 2026 RTP/SCS (as analyzed in Section 4.15, *Transportation*).

The baseline gasoline and diesel fuel consumption data for the TCAG region was converted to Btu (refer to Table 4.6-3) and divided by region wide daily VMT (refer to Table 4.6-4) to derive a regional Btu/VMT conversion factor of 6,639 Btu per VMT.

It should be noted that the Btu/VMT factor is forecast to continue to decrease into the future as a result of improved fuel economy. Applying the 2025-based factor to future year (2049) VMT

therefore provides a reasonable worst-case evaluation of energy consumption as the energy efficiency of vehicles in 2049 is anticipated to be higher than the fuel efficiency of current vehicles.

Indirect Energy Consumption

Indirect energy is the energy required to construct, operate, and maintain the transportation network, as well as to manufacture and maintain on-road vehicles and transit vehicles. Therefore, construction-related impacts associated with the proposed 2026 RTP/SCS are included in the indirect energy analysis. The indirect energy analysis was conducted using the Input-Output methodology developed by Caltrans (1983). This method converts VMT, lanes miles, or construction dollars into energy consumption based on data from other transportation projects in the United States. Table 4.6-5 shows the indirect energy consumption factors used in this analysis. It should be noted that indirect energy consumption due to production of fuel and transportation/transmission to the end users is not included in this analysis, as any such analysis would be speculative.

Table 4.6-5 Indirect Energy Consumption Factors

Mode	Factor
Manufacturing	
Passenger Vehicles	1,410 Btu/VMT
Transit Buses	3,470 Btu/VMT
Roadway (construction)	27,300 Btu/VMT
Maintenance	
Passenger Vehicles	1,400 Btu/VMT
Transit Buses	13,142 Btu/VMT
Rail	7,060 Btu/VMT

Source: Caltrans 1983

Appendix G of the CEQA Guidelines identifies the following criteria for determining whether a project's impacts would have a significant impact to energy resources. This is consistent with the programmatic nature of the EIR. For the purposes of this EIR, implementation of the RTP/SCS would have a significant impact if it would:

1. Result in significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation (including transportation), based on whether the project would:
   a. Result in an increase in overall per-capita energy consumption relative to baseline conditions;
   b. Result in an increased reliance on fossil fuels and decreased reliance on renewable energy sources
2. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

b. Project Impacts and Mitigation Measures

This section describes energy impacts associated with the transportation projects and land use scenario included in the proposed 2026 TCAG RTP/SCS. Due to the programmatic nature of the proposed 2026 RTP/SCS, a precise, project level analysis of the specific impacts associated with individual transportation and land use projects is not possible. In general, implementation of the

proposed transportation improvements and future projects under the land use scenario envisioned by the proposed 2026 RTP/SCS could result in energy impact as described in the following sections.

Threshold 1a:	Would the project result in significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation (including transportation), based on whether the project would result in an increase in overall per-capita energy consumption relative to baseline conditions?

Impact E-1 FUTURE TRANSPORTATION IMPROVEMENT PROJECTS AND IMPLEMENTATION OF THE LAND USE SCENARIO ENVISIONED BY THE PROPOSED 2026 RTP/SCS WOULD NOT RESULT IN A SIGNIFICANT ENVIRONMENTAL IMPACT DUE TO WASTEFUL, INEFFICIENT, OR UNNECESSARY CONSUMPTION OF ENERGY RESOURCES. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Construction and maintenance of the transportation and land use projects implementing the proposed 2026 RTP/SCS would result in short-term consumption of energy resulting from the use of construction equipment and processes. In addition, roadway and transit construction materials, such as asphalt, concrete, surface treatments, steel, rail ballast, as well as building materials, require energy to be produced, and would likely be used in projects that involve new construction or replacement of older materials, as well as construction of future infill and transit oriented development projects/developments envisioned by the 2026 RTP/SCS. Construction of transportation projects, as well as land use projects, implementing the proposed 2026 RTP/SCS, would be required to comply with relevant provisions of CALGreen, and would thus result in efficient construction energy consumption.

Daily operation of the TCAG region's transportation system uses energy in the form of fuel consumed by passenger vehicles (automobiles, vans, and trucks) and transit vehicles (buses and trains). Some highway and roadway improvements included in the proposed 2026 RTP/SCS would increase vehicle capacity, allowing a greater number of vehicles to use facilities in the region. Increases in motor vehicle trips are primarily a combined function of population and employment growth. As discussed in Section 4.15, *Transportation*, the expansion of highway capacity in the TCAG region, such as adding additional travel lanes to State Route 99 near Tulare, are examples of projects that increase vehicle capacity but also add efficiency in travel through reduced congestion and more efficient routes. Operational energy use is shown in Table 4.6-6. As shown in the table, daily VMT and total daily energy use would increase over time as the result of regional socioeconomic (population and employment) growth and the proposed 2026 RTP/SCS energy usage would increase. However, the proposed 2026 RTP/SCS would result in an 15 percent decrease in per-household energy usage when compared to 2025 baseline conditions and a 2 percent decrease in per-capita energy usage when compared to 2025 baseline conditions. The per-household and per-capita reductions in energy use would be partially attributed to reduced traffic congestion, more efficient road network, alternative modes of transportation, increases in vehicle fuel efficiency over time, and more efficient transit-oriented land use patterns.

It should be noted that population growth and growth in VMT would occur within the region regardless of whether the 2026 RTP/SCS is implemented. However, many 2026 RTP/SCS projects (e.g., bikeway and pedestrian projects, rail projects, transit projects, Transportation Demand Management and Transportation System Management projects) would improve the availability of alternative transportation modes and help reduce congestion and resultant air pollutants in the

TCAG region. Further, many 2026 RTP/SCS projects would facilitate a decrease in the reliance on fossil fuels by making active transportation or zero emission transit services more widely available.

Table 4.6-6 shows daily VMT and estimated fuel consumption translated into energy use (Btu) in the TCAG region under 2025 baseline conditions and 2049 conditions with implementation of the RTP/SCS.

Table 4.6-6 Direct Transportation and Per-Household Energy Use[1]

Year	Daily VMT	Direct Energy Use (Daily MMBtu)	Per-Household Energy Use (Million Btu per year)[2]	Per-Capita Energy Use Daily (MMBtu)
2025 Baseline	10,662,601	70,786	173.1	0.145
2026 RTP/SCS in 2049	11,566,124	76,784	146.4	0.142
Change % (Baseline vs. Proposed 2026 RTP/SCS) [1]	8%	8%	-15%	-2%

[1] A negative percentage represents a decrease

[2] Appendix E. Energy use per-household reflects energy usage in new development areas

As shown in Table 4.6-6, per-household direct transportation energy consumption would be reduced by 15 percent in comparison to baseline conditions and per-capita direct transportation energy consumption would be reduced by 2 percent in comparison to baseline conditions. This per-household and per-capita reduction demonstrates that the 2026 RTP/SCS would result in a more efficient use of energy, not a wasteful, inefficient, or unnecessary consumption of energy resources during operation. The Low Carbon Fuel Standard, encouraging the use of more efficient fuels, along with the Energy Policy and Conservation Act, the Energy Independence and Security Act, and the CAFE fuel efficiency standards, among other regulations, all require increased fuel efficiency in vehicles to further increase energy efficiency, further reducing wasteful and inefficient use of energy through 2049.

Transportation Projects

The transportation improvements under the proposed 2026 RTP/SCS would result in a more efficient transit system. The proposed 2026 RTP/SCS also would result in greater availability of public transit and other alternative modes of transportation, such as bicycling, which does not consume fuel energy and would reduce traffic congestion. As mentioned previously, improvements to State fuel efficiency standards for vehicles and State mandated increases in the supply and use of alternative transportation fuels would further reduce fuel consumption, such as implementation of an electric vehicle charging station plan.

New transportation facilities that require energy for operation, such as signal lighting, roadway or parking lot lighting, and electronic equipment would increase energy demand. New landscaping irrigation would also increase energy demand through water pumping and treatment. However, energy consumption would not be unnecessary or wasteful, as all lighting, signage and irrigation systems would comply with applicable energy efficiency requirements within the California Building Code. Therefore, the transportation improvement projects included in the proposed 2026 RTP/SCS would not result in inefficient, unnecessary, or wasteful consumption of gasoline or diesel fuel or an increased reliance on fossil fuels relative to baseline conditions.

Land Use Changes

The proposed 2026 RTP/SCS emphasizes a regional land use scenario that promotes land development in existing commercial corridors, enhanced transit corridors, express bus and improved bicycle and pedestrian infrastructure. Mixed use and infill projects would help reduce VMT and energy use because they would locate people closer to existing goods and services, thereby resulting in shorter vehicle trips and/or promoting walking or biking, and they would locate people closer to existing transportation hubs, thereby encouraging the use of alternative modes of transit (e.g., buses) resulting in fewer vehicle trips. Operation of future land use projects would be subject to Policy ERM-4.6 Renewable Energy contained within the County's General Plan. Specifically, the policy states "[t]he County shall support efforts, when appropriately sited, for the development and use of alternative energy resources, including renewable energy such as wind, solar, bio-fuels and co-generation." Other County and city general plan policies encourage energy conservation and efficient energy use.

Even though there would be an increased demand for energy as the TCAG region grows, such development would not require unusual, unnecessary, or wasteful amounts of energy. Future land use projects would be constructed using standard building practices subject to the CALGreen Code and Title 24 of the California Energy Code, which set forth specific energy efficiency requirements related to design, construction methods and materials.

In summary, the proposed 2026 RTP/SCS would reduce energy consumption per-capita and per-household; thus, it would not result in wasteful or inefficient energy consumption within the region relative to baseline conditions. Also, transportation and land use projects implementing the proposed 2026 RTP/SCS would incorporate renewable energy options, as explained in Impact E-2. Therefore, the proposed 2026 RTP/SCS impacts on energy consumption would be less than significant.

Mitigation Measures

No mitigation measures are required.

Threshold 1b:	Would the project result in a significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resource, during project construction or operation (including transportation), based on whether the project would result in an increased reliance on fossil fuels and decreased reliance on renewable energy sources?

Impact E-2 THE PROPOSED 2026 RTP/SCS WOULD NOT INCREASE RELIANCE ON FOSSIL FUELS OR DECREASE RELIANCE ON RENEWABLE ENERGY SOURCES. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

The proposed 2026 RTP/SCS, resulting transportation projects, and implementation of the land use scenario envisioned by proposed 2026 RTP/SCS are required to follow State regulations, such as California's Green Building Standards, by incorporating alternative energy use. SCE is the utility provider for the vast majority of the TCAG region, while PG&E serves the northern and southeastern corners of the TCAG region. SB 350 (2015) established the CPUC's Integrated Resources Plan (IRP) framework, requiring load-serving entities such as SCE (the utility provider for the majority of the County) to prepare plans demonstrating how they will meet electricity demand while achieving the State's GHG reduction and clean energy goals. SCE's IRP therefore operationalizes SB 350 by identifying a long-term portfolio of resources and procurement strategies that align utility planning

with statewide climate and energy policy objectives. Pursuant to CPUC regulations, utilities such as SCE and PG&E utilize a long-term planning process to plan for increased energy demand in the future with its publication of ten-year integrated resource plans.

The most recent SCE plan, titled Southern California Edison's 2022 Integrated Resource Plan, presents SCE's strategy for developing resource portfolios that support California's decarbonization goals while maintaining electric system reliability (SCE 2022). The plan evaluates a range of modeled portfolios (e.g., 25 and 30 MMT GHG scenarios for 2035), incorporates high electrification demand forecasts, and identifies preferred resource mixes and action plans to meet projected system needs, including renewable generation and energy storage. Additionally, the plan emphasizes the role of the Integrated Resource Planning process in achieving statewide climate targets by guiding long-term procurement and system planning decisions in coordination with CPUC policies and the broader electric grid planning framework. The most recent PG&E plan, titled PG&E's 2022 Integrated Resource Plan, details planned projects between 2022 and 2035 that aim to ensure compliance with North American Electric Reliability Corporation standards, improve transmission system access for renewable generation to meet Renewable Portfolio Standard (RPS) goals and targets, improve service reliability for end users and coordinate long-term plans for PG&E's transmission system (PG&E 2022). Within this plan, PG&E has introduced ambitious emissions reduction goals that include achieving net zero GHG emissions by 2040 and being climate positive by 2050. Thus, renewable energy options would be incorporated in the proposed 2026 RTP/SCS projects as future transportation improvements and implementation of the land use scenario envisioned by the proposed 2026 RTP/SCS rely on the aforementioned service providers, and each has integrated a reduction in reliance on fossil fuels as part of their standards and goals.

Each Integrated Resource Plan published is a ten-year planning document; thus, each utility will continue to assess the reliability and capacity of its energy facilities every ten years based on critical system conditions, growth assumptions and study years agreed upon by the California Independent System Operator Corporation and participating stakeholders.

Furthermore, as described under Impact E-1, construction and operation of land use development envisioned under the proposed 2026 RTP/SCS would be required to comply with relevant provisions of CALGreen and Title 24 of the California Energy Code. In addition, land use and transportation projects would be required to comply with the State's Alternative Fuels Plan (AB 1007), among other regulatory standards to reduce GHG emissions and encourage alternative energy use.

Transportation Projects

As shown in Table 4.6-6 and discussed above, the proposed 2026 RTP/SCS would result in a 15 percent reduction in per-household direct transportation energy usage when compared to the 2025 baseline condition and a 2 percent reduction in direct transportation per-capita energy usage when compared to 2025 baseline conditions. Projects that would support alternative energy use and potentially decrease VMT would be roadway improvements that incorporate multi-use paths along existing corridors. For instance, there are three projects planned by the proposed 2026 RTP/SCS in Visalia, Farmersville, and Exeter which would construct multi-use paths concurrently with roadway improvements. These specific projects support alternative energy use by providing County residents with non-motorized transportation options, thereby lessening energy usage within the region. Also, as mentioned above, the proposed 2026 RTP/SCS includes other transportation projects which are subject to the State's Alternative Fuels Plan, thereby encouraging alternative energy use.

Land Use Projects

The proposed 2026 RTP/SCS emphasizes a regional land use scenario that promotes mixed use and infill development in existing commercial corridors in combination with high quality transit service and improved bicycle and pedestrian infrastructure, which would reduce direct transportation per-capita energy use by 2 percent and direct transportation energy use per-household by 15 percent. Operation of future infill projects would increase the overall demand for energy beyond existing demand; however, such development would not require unusual, unnecessary, or wasteful amounts of energy. As mentioned above, land use projects would incorporate renewable energy options through reliance on service providers that have integrated a reduction in reliance on fossil fuels as part of their standards and goals.

In summary, the proposed 2026 RTP/SCS would not increase reliance on fossil fuels or decrease reliance on renewable energy sources. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Threshold 2:	Would the project conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

Impact E-3 THE PROPOSED 2026 RTP/SCS WOULD NOT CONFLICT WITH OR OBSTRUCT A STATE OR LOCAL PLAN FOR RENEWABLE ENERGY OR ENERGY EFFICIENCY. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

As discussed in Section 4.6.2*, Regulatory Setting*, several State plans, the County's adopted General Plan, city General Plans, and local Climate Action Plans include renewable energy. energy conservation, and energy efficiency strategies intended to enable the State and the County to achieve GHG reduction and energy conservation goals. A full discussion of the proposed 2026 RTP/SCS's consistency with GHG reduction plans is included in Section 4.8, *Greenhouse Gas Emissions and Climate Change*.

Transportation Projects

As discussed in Impact E-1, the proposed 2026 RTP/SCS would result in a 15 percent decrease in per-household energy use and a 2 percent decrease in per-capita energy use in the region and would not result in energy used in an unnecessary or wasteful manner. Accordingly, there are no inconsistencies between the proposed 2026 RTP/SCS and adopted plans and policies related to renewable energy or energy conservation. The discussion below further examines consistency with adopted plans related to energy conservation.

Regulations related to fuel efficiency standards and alternative fuel vehicles are described in Section 4.6.2, *Regulatory Setting*. The proposed 2026 RTP/SCS would not conflict with such regulations (e.g., Energy Policy and Conservation Act and CAFE Standards, EPAct, Energy Independence and Security Act of 2007, AB 1493: Reduction of Greenhouse Gas Emissions, AB 1007: State Alternative Fuels.)

In addition, the 2025 IEPR includes a set of strategies to address California's future energy needs (CEC 2026d). Key topics covered in the report include electricity resource and supply plans; electricity and natural gas demand forecasts; natural gas outlooks; transportation energy demand forecasts; energy efficiency savings; integrated resource planning; a barriers study; climate adaptation and resilience; renewable gas; distributed energy resources; strategic transmission

investment plans; and existing power plan reliability issues. The proposed 2026 RTP/SCS would not conflict with these policies.

Land Use Projects

The proposed 2026 RTP/SCS would be consistent with the Tulare County General Plan and city general plans that include goals and policies that encourage renewable energy, energy conservation, and energy efficiency. The proposed 2026 RTP/SCS encourages the use of renewable energy, energy conservation and energy efficiency techniques in all new building designs, orientation, construction, and support of alternative transportation and fuels. Local general plans include similar goals and policies.

The proposed 2026 RTP/SCS would be consistent with the State and local plans, as the proposed 2026 RTP/SCS's Chapter 2 Policy 1.3 Alternative Fuels and Energy would

1. Encourage the use of alternative fuels, and the application of advanced transportation and energy technologies to reduce vehicular emission production and energy consumption, and;
2. Promote renewable energy and energy conservation, consistent with applicable federal, State, and local energy programs, goals, and objectives.

Therefore, the proposed 2026 RTP/SCS would be consistent with State renewable energy and energy efficiency plans, the County's adopted energy conservation and efficiency strategies contained in its General Plan, and local General Plans' renewable energy and energy efficiency policies. Therefore, this impact would be less than significant.

Mitigation Measures

No mitigation measures are required.

4.6.4 Cumulative Impacts

Impact E-C-1 DEVELOPMENT IN THE CUMULATIVE IMPACT ANALYSIS AREA WOULD INCREASE DEMAND FOR ENERGY BEYOND EXISTING CONDITIONS, BUT WOULD COMPLY WITH ENERGY EFFICIENCY AND RENEWABLE ENERGY REGULATIONS AND POLICIES. CUMULATIVE IMPACTS WOULD BE LESS THAN SIGNIFICANT, AND THE PROPOSED 2026 RTP/SCS CONTRIBUTION WOULD NOT BE CUMULATIVELY CONSIDERABLE.

The cumulative impact analysis area for energy consists of the TCAG region and adjoining counties. The cumulative analysis presented below relies on a projections-based approach, using regional growth forecasts for the TCAG region and adjoining counties to evaluate cumulative conditions. Impacts of the 2026 RTP/SCS are added to the impacts of growth and development in the adjoining counties, and a determination is made as to whether cumulative impacts would be significant, and whether the 2026 RTP/SCS incremental contribution would be cumulatively considerable. Refer to Chapter 4, *Environmental Impact Analysis*, *Cumulative Impact Methodology*. This cumulative impact analysis area is used to evaluate potential wasteful or inefficient use of energy resulting in an increase overall per-capita energy consumption, or result in increased reliance on fossil fuels and decreased reliance on renewable energy sources, or conflict with state or local plans for renewable energy or energy efficiency.

Future development in the cumulative impact analysis area would result in short term consumption of energy resulting from construction equipment and use of fuel for vehicles. Operation of future developments would also require energy but would be subject to CALGreen and California Building

Energy Efficiency Standards. Furthermore, pursuant to the California Public Utilities Commission, utilities such as PG&E and SCE must utilize a long-term planning process to plan for increased energy demand in the area and would account for increased development and an increase in population. As such, growth in the cumulative impact analysis area and increased energy demand would be accounted for and would not result in the inefficient, unnecessary, or wasteful use of energy. Transportation fuel use would be subject to the Low Carbon Fuel Standard, encouraging the use of more efficient fuels, along with the Energy Policy and Conservation Act, the Energy Independence and Security Act, and the CAFE fuel efficiency standards, among other regulations, all requiring increased fuel efficiency in vehicles to further increase energy efficiency, further reducing wasteful and inefficient use of energy through 2049.

Demand for energy resources such as natural gas, electricity, and transportation fuels would increase as the population of the TCAG region grows. However, proposed transportation improvements and land use projects envisioned under the proposed 2026 RTP/SCS would conserve transportation energy by relieving congestion and contributing towards other transportation efficiencies such as transit and active transportation, resulting in lower per-capita transportation energy consumption in 2049 than in the 2025 baseline year. In addition, renewable energy sources steadily constitute a larger proportion of California's energy supply makeup, resulting in a trend of decreased dependency on fossil fuels and increased dependency on renewable energy sources throughout the cumulative impact analysis area. As a result, the proposed 2026 RTP/SCS would not contribute to significant cumulative impacts related to increased reliance on fossil fuels or decreased reliance on renewable energy sources, or conflicts with plans for renewable energy or energy efficiency.

In summary, cumulative impact related to wasteful or inefficient use of energy, increased reliance on fossil fuels or decreased reliance on renewable energy sources, and conflicts with plans for renewable energy or energy efficiency would be less than significant. The proposed 2026 RTP/SCS contribution to these cumulative impacts would not be a cumulatively considerable.

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4.7 Geology, Soils, and Mineral Resources

This section evaluates impacts on geology and soils, paleontological resources, and mineral resources from implementation of the proposed 2026 RTP/SCS.

4.7.1 Setting

Tulare County is situated in the Great Valley and Sierra Nevada geomorphic provinces, which are two of the eleven major geomorphic provinces in California. The Great Valley is defined as an alluvial plain while the Sierra Nevada is a tilted fault block (California Geologic Survey [CGS] 2002). Existing geologic and soils conditions for the TCAG region are briefly summarized below. Figure 4.7-1 shows geologic units in the TCAG region, Figure 4.7-2 shows known fault lines within the TCAG region, and Figure 4.7-3 shows landslide risk within the TCAG region. There are 12 different generalized rock types in TCAG region, two having high sensitivity to resources and the remaining having a low to no sensitivity to paleontological resources. There are nine Mineral Resources Zones (MRZs) in the TCAG region (Taylor 1997a). Of these nine, four MRZs are classified as MRZ-2a or MRZ-2b, meaning areas underlain by mineral deposits where geologic data indicates significant measured, indicated, or inferred resources are present as shown in Figure 4.7-4.

a. Geology and Soils

Great Valley

The western portion of the TCAG region sits in the Great Valley geomorphic province (CGS 2002). The Great Valley is an elongate lowland approximately 50 miles wide and 400 miles long. It is bounded to the east by the Sierra Nevada Range and to the west by the Coast Range. A relatively undeformed basin, the Great Valley rises from about sea level to approximately 400 feet in elevation at the north and south ends. The northern portion of the valley, referred to as the Sacramento Valley, is drained by the Sacramento River, while the southern portion of the valley, referred to as the San Joaquin Valley, is drained by the San Joaquin River. Consequently, the Great Valley is predominantly alluvial, flood, and delta plains formed by these two major river systems (Weissmann 2005).

Sierra Nevada

The eastern portion of the TCAG region sits in the Sierra Nevada geomorphic province (CGS 2002; Jennings et al. 2010). The Sierra is a tilted fault block nearly 400 miles long. Its east face is a high, rugged scarp, contrasting with the gentle western slope that disappears under sediments of the Great Valley. Their upper courses, especially in massive granites of the higher Sierra, are modified by glacial sculpturing, forming such scenic features as Yosemite Valley. The high crest culminates in Mount Whitney with an elevation of 14,505 feet above sea level near the eastern scarp. The northern Sierra boundary is marked where bedrock disappears under the Cenozoic volcanic cover of the Cascade Range (CGS 2002).

Geologic Units

The TCAG region was mapped at a scale of 1:750,000 by Jennings et al. (2010). These authors mapped the entire state of California, so they primarily divided geologic units based on their general lithology and age. Jennings et al. (2010) identified 13 geologic units within the TCAG region as shown in Figure 4.7-1 and described in Table 4.7-1.

Table 4.7-1 Paleontological Sensitivity of Geologic Units in the Project Area

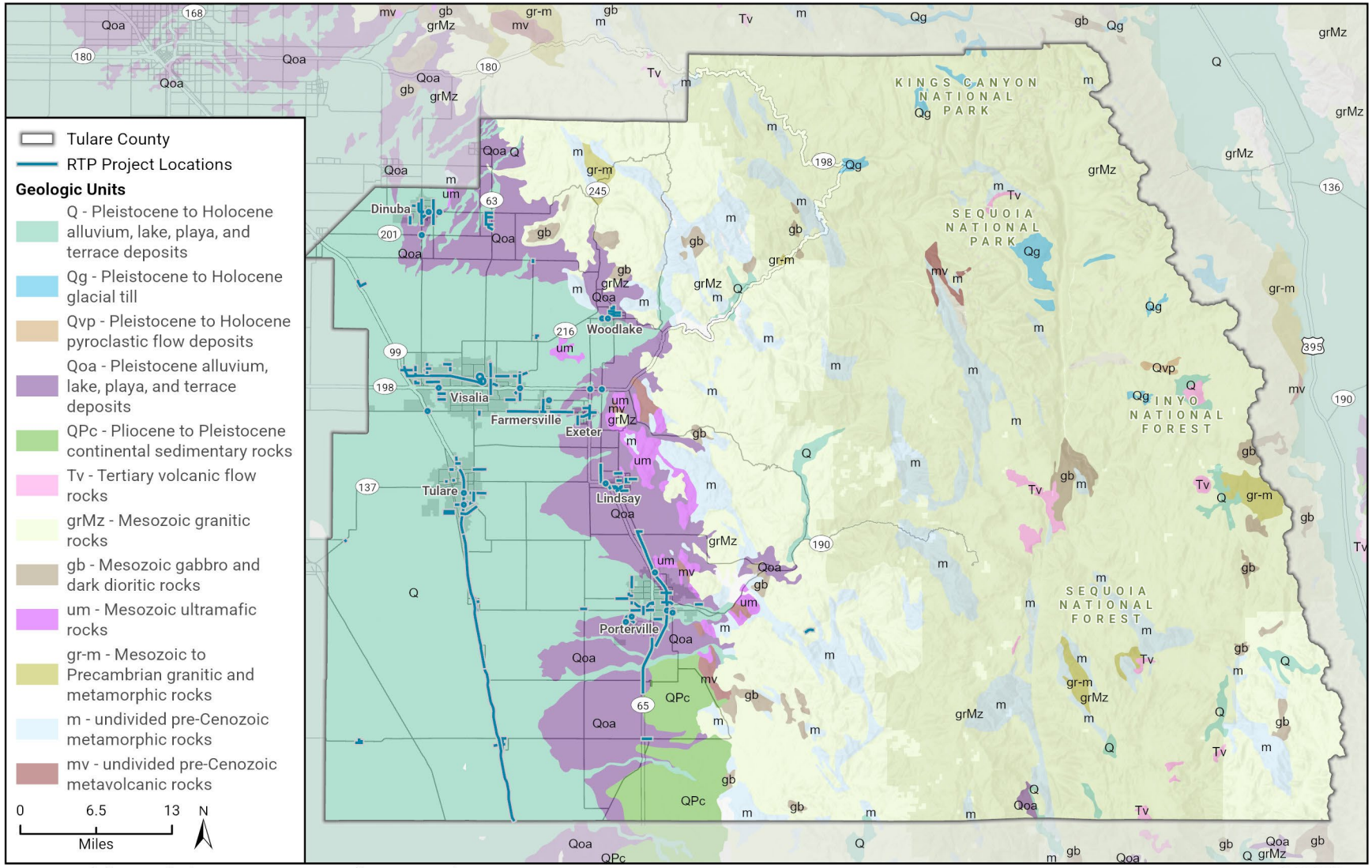
Geologic Unit	Abbreviation	Paleontological Sensitivity
Pleistocene to Holocene alluvium, lake, playa, and terrace deposits	Q	High
Pleistocene to Holocene glacial till	Qg	Low
Pleistocene to Holocene pyroclastic flow deposits	Qvp	Low
Pleistocene alluvium, lake, playa, and terrace deposits	Qoa	High
Pliocene to Pleistocene continental sedimentary rocks	QPc	Low
Tertiary volcanic flow rocks	Tv	None
Mesozoic gabbro and dark dioritic rocks	gb	None
Mesozoic granitic rocks	grMz	None
Mesozoic ultramafic rocks	um	None
Mesozoic to Precambrian granitic and metamorphic rocks	gr-m	None
Undivided pre-Cenozoic metamorphic rocks	m	None
Undivided pre-Cenozoic metavolcanic rocks	mv	None

Source: Jennings et al. 2010

Earthquake Ground-Shaking and Fault Rupture

According to the Tulare County General Plan, although a number of faults have been located along the western edge of the Sierra Nevada Mountains, none are known to be active. The Owens Valley Fault Group poses the greatest seismic threat. The center of the fault zone is thought to be able to produce a maximum probable earthquake of 7.0 on the Richter Scale at a recurrence interval of 125 years, while the central area is thought to be capable of producing an earthquake of 8.25 magnitude every 300 to 10,000 years (Tulare County 2010a). The San Andreas Fault is located approximately 40 miles west of the Tulare County boundary. This fault has a long history of activity and is thus the primary focus in determining seismic activity within the county. Seismic activity along the fault varies along its span from the Gulf of California to Cape Mendocino. Just west to Tulare County lies the “Central California Active Area,” where many earthquakes have originated (Tulare County 2010b). The Clovis Fault is considered to be active within the Quaternary Period (within the past two million years), although there is no historic evidence of its activity. The Clovis Fault lies approximately six miles south of the Madera County boundary in Fresno County. Activity along this fault could potentially generate more seismic activity in Tulare County than the San Andreas or Owens Valley fault system. However, because of the lack of historic activity along the Clovis Fault, inadequate evidence exists for assessing maximum earthquake impacts (Tulare County 2010b). Fault lines in the TCAG region can be found on Figure 4.7-2.

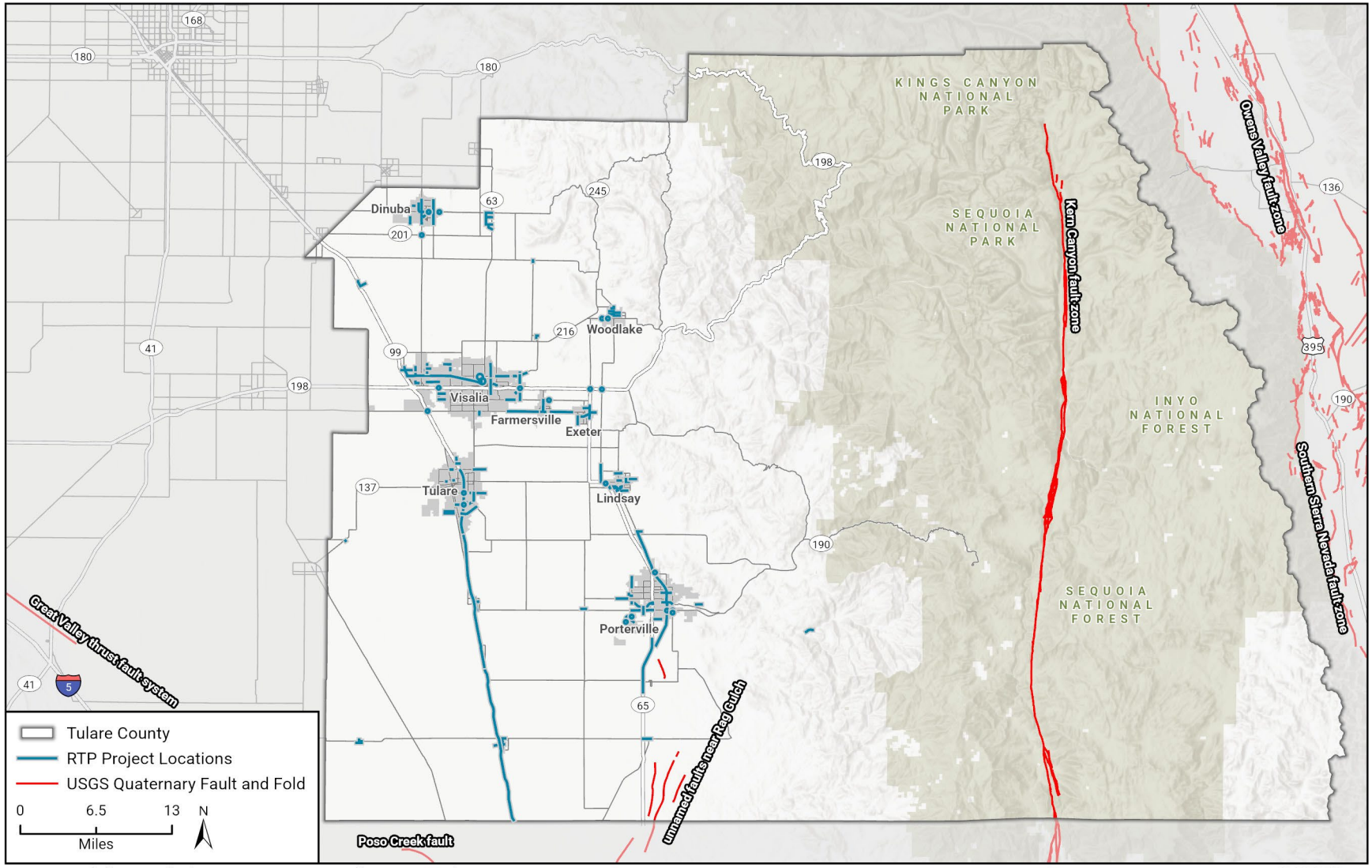
Figure 4.7-1 Geologic Units within the TCAG Region



Basemap provided by Esri and its licensors © 2026. Map created by Rincon Consultants, Inc., 2026.
Additional data provided by CPAD, 2025; CADOC, 2013; CGS, 2013

24-16880 EPS.aprx
Fig 4.X Geologic Units

Figure 4.7-2 Fault Lines in the TCAG Region



Basemap provided by Esri and its licensors © 2026. Map created by Rincon Consultants, Inc., 2026.
Additional data provided by CPAD, 2025; USGS 2020

24-16880 EPS.aprx
Fig 4.X Fault Lines

Liquefaction and Lateral Spreading

Liquefaction, or the loss of soil bearing strength during a strong earthquake, is a potential occurrence in several areas with younger soils as well as in areas where the groundwater table is less than 50 feet deep. Specifically, in areas of loose sand and silt that is saturated with water, soils can behave like liquid during earthquakes. In addition to necessary soil conditions, ground acceleration and duration of the earthquake must be of sufficient energy to induce liquefaction. Areas where groundwater is less than 30 feet below the surface primarily occur within the valley. However, soil types in the valley are not conducive to liquefaction because they are either too coarse or too high in clay content. Areas subject to ground shaking are located in a small section of the Sierra Nevada Mountains along the Tulare-Inyo County boundary. However, the depth to groundwater in such areas is greater than in the valley, which minimizes liquefaction potential (Tulare County 2010b).

Slope Stability

Landslides and surficial slope failures are most likely to occur in areas of greater than 25 percent slope (hillside areas) and along steep bluffs. Landslides also occur due to specific events, such as loss of vegetation after fires or earthquakes adding loads to barely stable slopes. The foothill and mountain areas of the TCAG region, where steep slopes are present, less consolidated or weathered soils overlie bedrock, and inadequate ground cover that accelerates erosion, are more susceptible to unstable slopes and landslides. Roadways such as SR 198 and SR 190 in eastern Tulare County could be affected by landslides in the event of an earthquake or heavy rain. There is no risk of large landslides in the valley area of the county due to its relatively flat topography (Tulare County 2010b). Landslide risk in the TCAG region can be found on Figure 4.7-3.

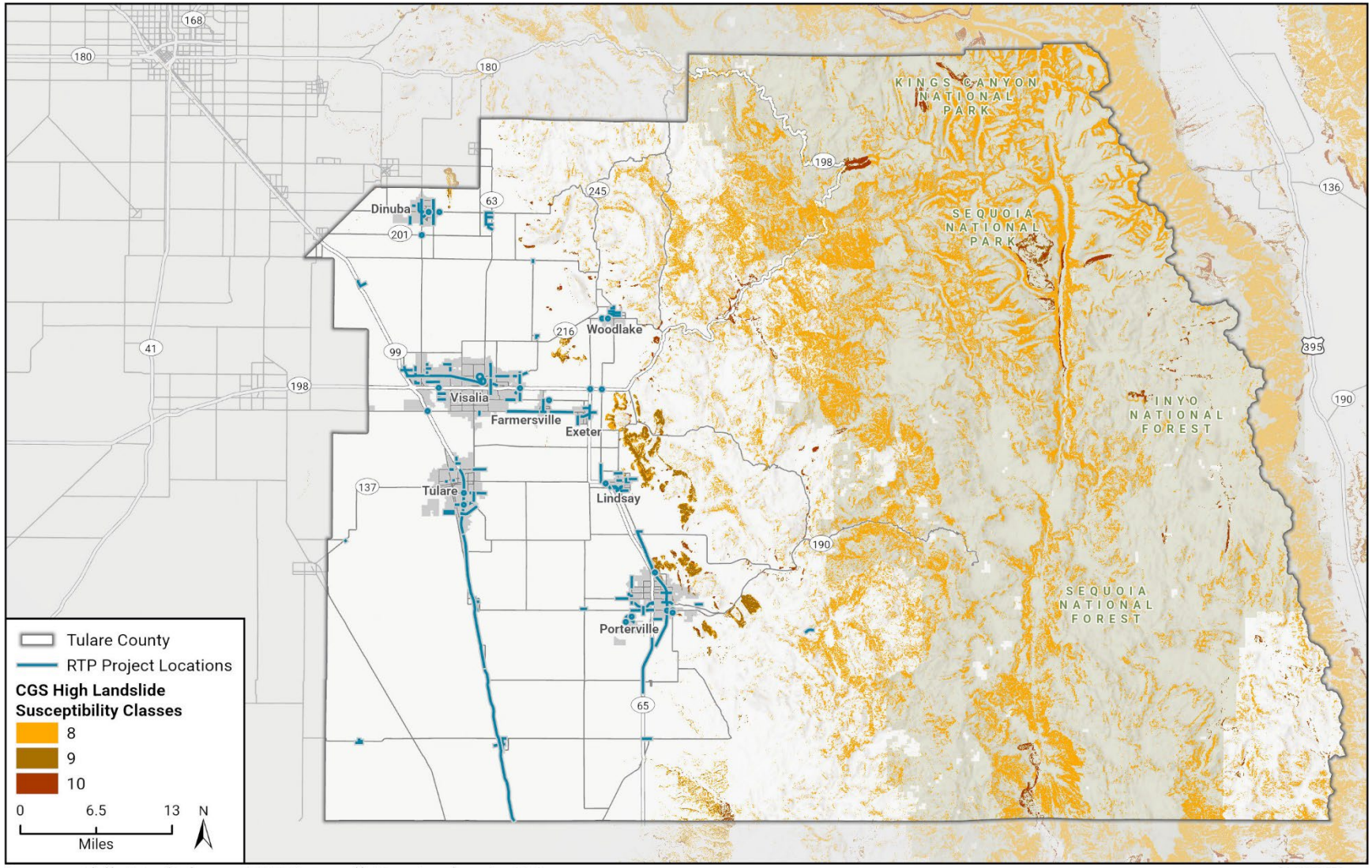
Expansive Soils

Soils with relatively high clay content are expansive due to the capacity of clay minerals to take in water and swell (expand) to greater volumes. Because the bedrock and soils contain relatively substantial amounts of clay, this can be a condition experienced along numerous roadways in the area. Western areas of the TCAG region contains soils characterized by loam, loamy sand, silty clay, and sandy loam with low shrink-swell potential (United States Bureau of Reclamation [USBR] 2015). Soils in the central-western part of the county consist of loamy sand and sandy loam and have mainly low shrink-swell potentials with some minor areas of moderate and high shrink-swell potentials. In the foothill area of the central part of the TCAG region soils have mainly low shrink-swell potentials with some areas of moderate to high shrink-swell potentials (USBR 2015).

Subsidence

Subsidence is a gradual settling or sudden sinking of the Earth's surface due to removal or displacement of subsurface earth materials. Principal causes include aquifer-system compaction associated with groundwater withdrawals; drainage of organic soils; underground mining; or natural compaction or collapse, such as with sinkholes or thawing permafrost (USGS 2019). Some areas of the Central Valley have subsided more than 20 feet during the past 50 years (Tulare County 2010b).

Figure 4.7-3 Landslide Risk in the TCAG Region



Basemap provided by Esri and its licensors © 2026. Map created by Rincon Consultants, Inc., 2026.
Additional data provided by CPAD, 2025; CADOC, 2026

24-16880 EPS.aprx
Fig 4.X Landslide Risk

Mineral Resources

The primary mineral commodities currently mined in the eastern areas of the foothills in the TCAG region are sand, gravel, crushed rock, and natural gas (Tulare County 2010a). Other minerals that could be mined commercially include tungsten, chromite, copper, gold, lead, manganese, silver, zinc, barite, feldspar, limestone, and silica (Tulare County 2010a). However, construction-grade aggregate (sand, gravel, and crushed rock) is the most abundant and valuable mineral resource in the region because it is a major element of Portland cement concrete and asphaltic concrete.

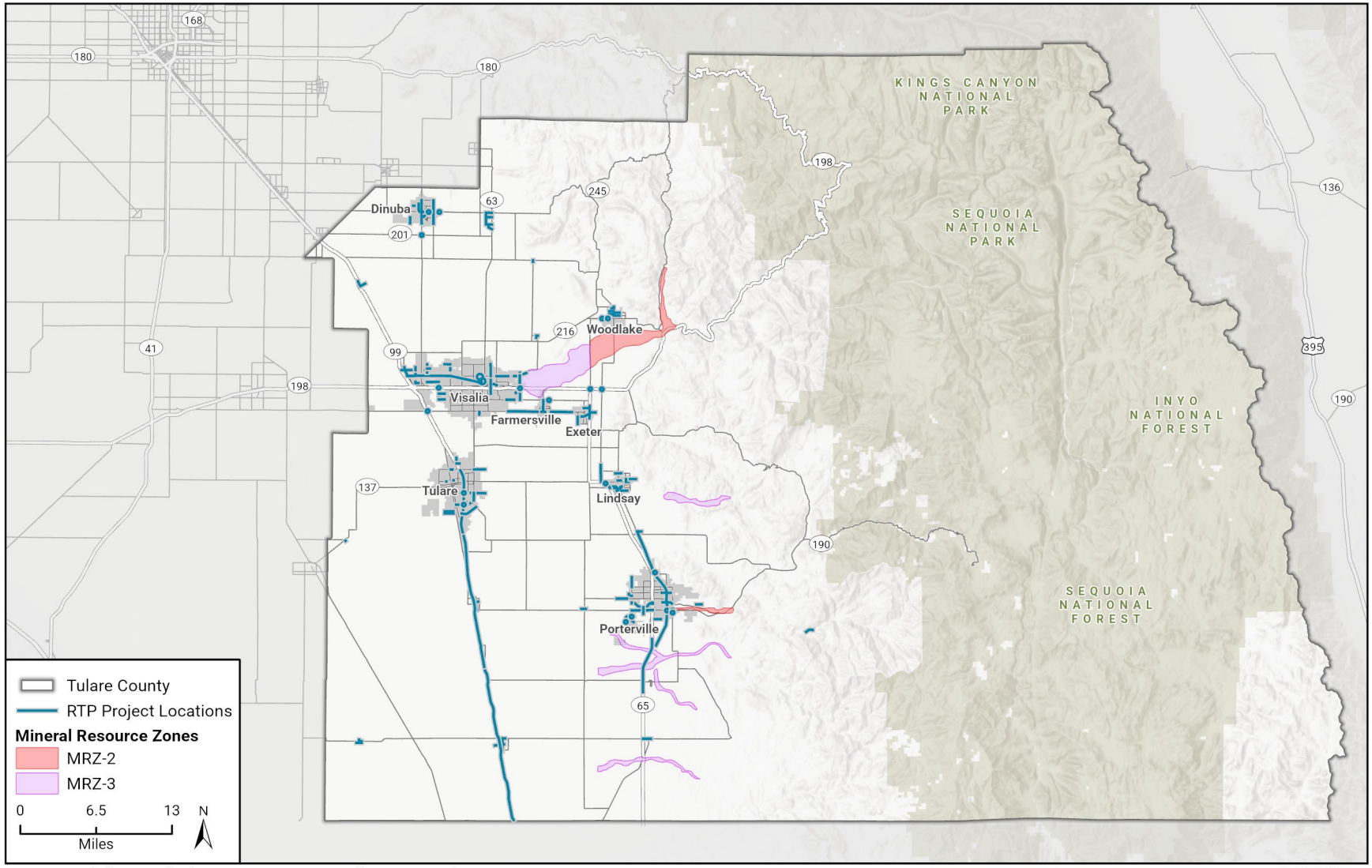
According to the Department of Conservation, Division of Mines and Geology *Mineral Land Classification of Concrete Aggregate Resources in the Tulare County Production-Consumption Region, California*, there are nine Mineral Resources Zones (MRZs) in the TCAG region (Taylor 1997a). These are shown in Figure 4.7-4. Of these nine, four MRZs are classified as MRZ-2a or MRZ-2b, meaning areas underlain by mineral deposits where geologic data indicates significant measured, indicated, or inferred resources are present. These include the Kaweah-St. Johns Rivers located approximately 1.2 miles northwest of the City of Lemon Cove, the Dry Creek located approximately four miles northeast of the City of Lemon Cove, the Tule River which bisects the City of Porterville's southern boundary, and the Deer-Creek Foundation Springs Area located approximately five miles southeast of the City of Porterville. Five MRZs are classified as MRZ-3a, meaning areas of known mineral occurrences of undetermined mineral resource significance. These areas include Kaweah-St. Johns River Floodplain Deposits located approximately five miles east of the City of Visalia, the Lewis Creek Area located approximately five miles southeast of the City of Lindsay, the Deer Creek-Old Deer Creek Channel located approximately 4.6 miles southwest of the City of Porterville, Fountain Springs Gulch approximately six miles south of the City of Porterville, and the White River Area approximately 6.5 miles south of Terra Bella (Taylor 1997a; Taylor 1997b).

b. Paleontological Resources

Paleontological resources, or fossils, are the evidence of once-living organisms preserved in the rock record. They include both the fossilized remains of ancient plants and animals and the traces thereof (e.g., trackways, imprints, burrows, etc.). Paleontological resources are not found in "soil" but are contained within the geologic deposits or bedrock that underlies the soil layer. Typically, fossils are greater than 5,000 years old (i.e., older than middle Holocene in age) and are typically preserved in sedimentary rocks. Although rare, fossils can also be preserved in volcanic rocks and low-grade metamorphic rocks under certain conditions (Society of Vertebrate Paleontology [SVP] 2010). Fossils occur in a non-continuous and often unpredictable distribution within some sedimentary units, and the potential for fossils to occur within sedimentary units depends on several factors. It is possible to evaluate the potential for geologic units to contain scientifically important paleontological resources, and therefore evaluate the potential for impacts to those resources and provide mitigation for paleontological resources if they are discovered during construction of a project.

Paleontological sensitivity refers to the potential for a geologic unit to produce scientifically significant fossils. Direct impacts to paleontological resources occur when earthwork activities, such as grading or trenching, cut into the geologic deposits within which fossils are buried and physically destroy the fossils. Since fossils are the remains of prehistoric animal and plant life, they are considered to be nonrenewable. Such impacts have the potential to be significant and, under the *CEQA Guidelines*, may require mitigation. Sensitivity is determined by rock type, history of the geologic unit in producing significant fossils, and fossil localities recorded from that unit.

Figure 4.7-4 Mineral Resources in the TCAG Region



Basemap provided by Esri and its licensors © 2026. Map created by Rincon Consultants, Inc., 2026.
Additional data provided by CPAD, 2025; CADOC, 1997

24-16880 EPS.aprx
Fig 4.X Mineral Resources

Paleontological sensitivity is derived from the known fossil data collected from the entire geologic unit, not just from a specific survey. Vertebrate fossils are almost always significant because they occur more rarely than invertebrates or plants. Thus, geological units having the potential to contain vertebrate fossils are considered the most sensitive.

The SVP outlines in its Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010) guidelines for categorizing paleontological sensitivity of geologic units within a project area. The SVP (2010) describes sedimentary rock units as having a high, low, undetermined, or no potential for containing significant nonrenewable paleontological resources. This criterion is based on rock units within which vertebrates or significant invertebrate fossils have been determined by previous studies to be present or likely to be present.

The geographic distribution, general characteristics, and paleontological sensitivities of each geologic unit in Tulare County is discussed below. Table 4.7-1 summarizes the paleontological sensitivities of each geologic unit.

Pleistocene to Holocene Alluvium, Lake, Playa, and Terrace deposits (Q)

Pleistocene to Holocene alluvium, lake, playa, and terrace deposits (Q) are mapped extensively in the San Joaquin Valley in western Tulare County (Figure 4.7-1). In Tulare County, the majority of these sediments originate from alluvial fans, but in some areas, they represent recent low-energy basin or fluvial deposition that are loose or poorly consolidated (Matthews and Burnett 1965).

Sediments classified as Q range from Pleistocene to Holocene in age. Several localities bearing taxa such as mammoths (*Mammuthus*), horses (*Equus*), mastodon (*Mammut*), and camels (*Camelops*) are known from sediments classified as Q in Tulare County (Jefferson 2010; UCMP 2026, PBDB 2026). Younger Holocene sediments (i.e., less than 5,000 years before present) are too young to preserve scientifically significant paleontological resources, but these sediments grade into older, more paleontologically sensitive sediments in the subsurface, sometimes at shallow depths, especially in eastern regions mapped as Q, closer to the foothills of the Sierra Nevada. For these sediments' fossil-producing history in Tulare County, Q is assigned a high paleontological sensitivity.

Pleistocene to Holocene Glacial Till (Qg)

Pleistocene to Holocene glacial till (Qg) is mapped in the northeastern portion of Tulare County at high elevations within the Sierra Nevada (Figure 4.7-1). Glacial till consists of sediment eroded and transported by glaciers and deposited at their toe. Glacial erosion and transportation are very high-energy processes that would very likely destroy any fossils beyond a point where they are scientifically useful. For this reason, Qg is assigned a low paleontological sensitivity.

Pleistocene to Holocene Pyroclastic Flow Deposits (Qvp)

Pleistocene to Holocene pyroclastic flow deposits (Qvp) occur in small areas of eastern Tulare County, within the Sierra Nevada (Figure 4.7-1). Pyroclastic flows are landslides or debris flows consisting of recently erupted volcanic material. The high temperatures and violent nature of this mode of deposition makes fossil preservation very rare. Therefore, Qvp is assigned a low paleontological sensitivity.

Pleistocene Alluvial, Lake, Playa, and Terrace Deposits (Qoa)

Pleistocene alluvium, lake, playa, and terrace deposits (Qoa) are found in the western foothills of the Sierra Nevada, along the edges of the San Joaquin Valley in Tulare County (Figure 4.7-1). They are derived from river transport from the Sierra Nevada mountains and deposited on the eastern edge of the Great Valley and underlie Holocene alluvium west of areas mapped as Qoa (Weissmann 2005). Tulare County has 10 recorded vertebrate localities consisting of Pleistocene alluvium (Jefferson 2010; PBDB 2026; UCMP 2026). The localities have yielded a range of mammal fossils such as horse (*Equus*), mammoth (*Mammuthus*), mastodon (*Mammut*) and camel (*Camelops*). Qoa has a prolific fossil-producing history in Tulare County, so it is assigned a high paleontological sensitivity.

Pliocene to Pleistocene Continental Sedimentary Rocks (QPc)

Pliocene to Pleistocene continental sedimentary rocks (QPc) are found in southern Tulare County along the border of the Great Valley and Sierra Nevada geomorphic provinces (Figure 4.7-1). Per the map of Bartow and Doukas (1978), these sediments are grouped as the Kern River Formation. The Kern River Formation is generally brownish with poor bedding and is loosely consolidated. The lower part of the unit consists of alternating beds of pebbly cross-bedded sandstone and gray-green mudstone, but it coarsens upward to become a coarse sandstone to conglomerate. No fossil localities are reported from this unit in Tulare County or similar sediments nearby in Kern County (Jefferson 2010; UCMP 2026, PBDB 2026); therefore, QPc is assigned a low paleontological sensitivity.

Tertiary Volcanic Flow Rocks (Tv)

Tertiary volcanic flow rocks (Tv) are mapped sporadically in eastern Tulare County within the Sierra Nevada (Figure 4.7-1). Tv in Tulare County typically consists of basaltic rocks (Ross 1995). Basaltic rocks are formed by the cooling of surficial lava, which is not conducive to fossil preservation; therefore, Tv has no paleontological sensitivity.

Mesozoic granitic rocks (grMz)

Mesozoic granitic rocks form the single largest unit in Tulare County and underlie much of the Sierra Nevada (Figure 4.7-1). Granitic rocks form by the crystallization of magma below the Earth's surface, conditions which cannot preserve fossils. Therefore, grMz has no paleontological sensitivity.

Mesozoic Gabbro and Dark Dioritic Rocks (gb)

Mesozoic gabbro and dark dioritic rocks (gb) are found sporadically in eastern Tulare County within the Sierra Nevada (Figure 4.7-1). Gabbro and dioritic rocks form by the crystallization of magma below the Earth's surface, conditions with cannot preserve fossils. Therefore, gb has no paleontological sensitivity.

Mesozoic Ultramafic Rocks (um)

Mesozoic ultramafic rocks (um) are found sporadically in Tulare County, within the interior of the Sierra Nevada and its western foothills (Figure 4.7-1). In Tulare County, um typically consists of serpentinite (Ross 1995; Sisson and Moore 2013). Ultramafic rocks are volcanic rocks formed by the cooling of molten rock that may or may not have undergone metamorphism. These conditions are not conducive to the preservation of fossils; therefore, um is assigned no paleontological sensitivity.

Undivided pre-Cenozoic Metamorphic Rocks (m)

Undivided pre-Cenozoic metamorphic rocks are found sporadically throughout Tulare County within the Sierra Nevada (Figure 4.7-1). Metamorphic rocks are produced by subjecting other rocks to intense heat and/or pressure, conditions which would destroy any fossils that may have been contained within those rocks. Therefore, m is assigned no paleontological sensitivity.

Undivided Pre-Cenozoic Metavolcanic Rock (mv)

Undivided pre-Cenozoic metavolcanic rock is mapped sporadically in the border region of the Great Valley and Sierra Nevada geomorphic provinces in Tulare County (Figure 4.7-1). Tulare County, rocks mapped as mv typically consist of metabasalt, meta-andesite, metadacite tuff, and amphibolite (Ross 1995; Sisson and Moore 2013). Volcanic rocks are formed by the cooling of molten rock, and metavolcanic rocks are the result of subjection of those rocks to intense heat and pressure. Neither of these processes is conducive to the preservation of fossils; therefore, mv is assigned no paleontological sensitivity.

4.7.2 Regulatory Setting

a. Federal Laws, Regulations, and Policies

Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act was enacted in 1977 to "reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program." To accomplish this, the act established the National Earthquake Hazard Reduction Program (NEHRP). NEHRP's mission includes improved understanding and characterization of hazards and vulnerabilities, improvement of building codes and land use practices, risk reduction through post-earthquake investigations and education, development and improvement of design and construction techniques, improvement of mitigation capacity, development of alternative performance objectives to advance functional recovery, and accelerated application of research results. The NEHRP designates the National Institute of Standards and Technology as the lead agency of the program and assigns it several planning, coordinating, and reporting responsibilities. Programs under the NEHRP help inform and guide planning and building code requirements, such as emergency preparedness responsibilities and seismic code standards.

Disaster Recovery Reform Act

The Disaster Recovery Reform Act was signed into law in 2018. The reforms acknowledge the shared responsibility for disaster response and recovery, are intended to reduce the complexity of the Federal Emergency Management Agency and build the nation's capacity for the next catastrophic event. The law, which amends the Robert T. Stafford Disaster Relief and Emergency Assistance Act, contains 56 distinct provisions that require Federal Emergency Management Agency policy or regulation changes for full implementation. Examples of the provisions include expanding eligible hazard mitigation activities including the replacement of electric utility poles resilient to extreme winds (Section 1204) and earthquake early warning technology (Section 1233).

b. State Laws, Regulations, and Policies

Alquist-Priolo Earthquake Fault Zoning Act

The purpose of the Alquist-Priolo Earthquake Fault Zoning Act (PRC 2621 et seq.) is to regulate development near active faults so as to mitigate the hazard of surface fault rupture. The Alquist-Priolo Act prohibits the location of most types of structures intended for human occupancy across the traces of active faults and strictly regulates construction in the corridors along active faults (Earthquake Fault Zones). It also defines criteria for identifying active faults, giving legal weight to terms such as "active," and establishes a process for reviewing building proposals in and adjacent to Earthquake Fault Zones. Under the Alquist-Priolo Act, faults are zoned, and construction along or across them is strictly regulated if they are "sufficiently active" and "well-defined." A fault is considered sufficiently active if one or more of its segments or strands shows evidence of surface displacement during Holocene time (defined as within the last 11,000 years). A fault is considered well-defined if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria and judgment (CGS 2018).

Additionally, the Alquist-Priolo Act requires lead agencies to prepare site specific fault identification investigations conducted by licensed geotechnical professionals, or to otherwise comply with any existing local policies that exceed or reasonably replace any of the Alquist-Priolo Act's requirements. Fault identification studies required by the Alquist-Priolo Act involve on-site trenching and excavation for site specific identification and location of fault rupture planes where any future rupture would be anticipated. Structures intended for human occupancy (defined in the Act as a structure that might be occupied more than 2,000 hours per year) must be located at a minimum distance of 50 feet from any identified active fault traces.

Seismic Hazards Mapping Act

Like the Alquist-Priolo Act, the Seismic Hazards Mapping Act of 1990 (PRC 2690–2699.6) is intended to reduce damage resulting from earthquakes. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including liquefaction, earthquake-induced landslides, and amplified ground shaking. Its provisions are similar in concept to those of the Alquist-Priolo Act: the State is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides and other corollary hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones (CGS 2026).

California Building Code

The California Building Code (CBC) has been codified in the California Code of Regulations as Title 24, Part 2. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. The purpose of the CBC is to establish minimum standards to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, and general stability by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures within its jurisdiction. The 2025 CBC is based on the 2024 International Building Code (IBC) published by the International Code Council, is in effect as of January 2026. In addition, the CBC contains necessary California amendments, which are based on reference standards obtained from various technical committees and organizations, such as the American Society of Civil Engineers (ASCE), the American Institute of Steel Construction, and the American Concrete Institute. ASCE Minimum Design Standard (ASCE 7) provides requirements for general structural design and

includes means for determining earthquake loads, as well as other loads (e.g., flood, snow, wind), for inclusion into building codes. The provisions of the CBC apply to the construction, alteration, movement, replacement, and demolition of every building or structure, or any appurtenances connected or attached to such buildings or structures throughout California.

The earthquake design requirements consider the occupancy category of the structure, site class, soil classifications, and various seismic coefficients that are used to determine a Seismic Design Category (SDC) for a project as described in Chapter 16 of the CBC. The SDC is a classification system that combines the occupancy categories with the level of expected ground motions at the site and ranges from SDC A (very small seismic vulnerability) to SDC E (very high seismic vulnerability and near a major fault) and SDC F (hospitals, police stations, emergency control centers in areas near major active faults). Design specifications are then determined according to the SDC in accordance with Chapter 16 of the CBC. Chapter 16, Section 1613 provides earthquake loading specifications for design and construction to resist the effects of earthquake motions in accordance with ASCE 7.

Chapter 18 of the CBC covers the requirements of geotechnical investigations (Section 1803); excavation, grading, and fills (Section 1804); load-bearing of soils (1806); foundations (Section 1808); shallow foundations (Section 1809); and deep foundations (Section 1810). Chapter 18 also describes analysis of expansive soils and the determination of the depth to groundwater table. For SDC D, E, and F, Chapter 18 requires analysis of slope instability, liquefaction, and surface rupture attributable to faulting or lateral spreading, plus an evaluation of lateral pressures on basement and retaining walls, liquefaction and soil strength loss, and lateral movement or reduction in foundation soil-bearing capacity. It also addresses mitigation measures to be considered in structural design, which may include ground stabilization, selection of appropriate foundation type and depths, selection of appropriate structural systems to accommodate anticipated displacements, or any combination of these measures. The potential for liquefaction and soil strength loss must be evaluated for site specific peak ground acceleration magnitudes and source characteristics consistent with the design earthquake ground motions.

Specifically, Section 1803.7 of the CBC requires geologic and earthquake engineering reports for all proposed construction. The purpose of the engineering report is to identify geologic and seismic conditions that may require mitigation. The reports, which are prepared by a California certified engineering geologist in consultation with a California-registered geotechnical engineer, assess the nature of the site and potential for earthquake damage based on appropriate investigations of the regional and site geology, project foundation conditions, and potential seismic shaking at the site. These reports must consider the most recent CGS Note 48 (Checklist for the Review of Engineering Geology and Seismology Reports for California Public Schools, Hospitals, and Essential Services Buildings), CGS Special Publication 42: Fault Rupture Hazard Zones in California (for project sites proposed within an Alquist-Priolo Zone), and the most recent version of CGS Special Publication 117: Guidelines for Evaluating and Mitigating Seismic Hazard in California (for project sites proposed within a Seismic Hazard Zone). All conclusions must be fully supported by satisfactory data and analysis.

The geotechnical report required by Section 1803 provides completed evaluations of the foundation conditions of the site and the potential geologic and seismic hazards. It includes site specific evaluations of design criteria related to the nature and extent of foundation materials, groundwater conditions, liquefaction potential, and settlement potential and slope stability, as well as the results of the analysis of problem areas identified in the engineering geologic report. The geotechnical report incorporates estimates of the characteristics of site ground motion provided in the engineering geologic report. The geotechnical report must be prepared by a geotechnical engineer

registered in the State of California with the advice of the certified engineering geologist and other technical experts, as necessary. The approved engineering geologic report is submitted with, or as part of, the geotechnical report. Local jurisdictions in the AMBAG region typically regulate construction activities through a process that requires the preparation of and compliance with a site specific geotechnical investigation, consistent with Title 24, Part 2, Chapter 18 of the CBC.

Moreover, construction within seismic zones as identified by the Alquist-Priolo Act and the Seismic Hazards Mapping Act of 1990 (PRC 2690 -2699.6) are required by the CBC to follow more stringent regulations to withstand fault ruptures and ground shaking effects from seismic activities. The CBC provides standards for various aspects of construction, including but not limited to: excavation, grading and earthwork construction; fills and embankments; expansive soils; foundation investigations; liquefaction potential; and soil strength loss. In accordance with California law, proponents of specific projects are required to comply with all provisions of the CBC for certain aspects of design and construction.

California Department of Transportation Regulations and Seismic Design Criteria

The California Department of Transportation (Caltrans) has Seismic Design Criteria (SDC) which contain new and currently practiced seismic design and analysis methodologies for the design of new bridges in California. The SDC adopts a performance-based approach specifying minimum levels of structural system performance, component performance, analysis and design practices for ordinary standard bridges. The SDC has been developed with input from the Caltrans Offices of Structure Design, Earthquake Engineering and Design Support and Materials and Foundations. Memo 20-1 outlines the bridge category and classification, seismic performance criteria, seismic design philosophy and approach, seismic demands and capacities on structural components and seismic design practices that collectively comprise Caltrans' seismic design methodology (Caltrans 2010).

Clean Water Act Section 402

Section 402 of the Clean Water Act authorizes the California State Water Resources Control Board (SWRCB) to issue National Pollutant Discharge Elimination System (NPDES) General Construction Storm Water Permit (Order Number 2022-0057-DWQ, as amended), referred to as the "General Construction Permit." Construction activities can comply with and be covered under the General Construction Permit provided that the permittee:

- Develops and implements a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will reduce the risk of construction pollutants from contacting stormwater and with the intent of minimizing sediment from moving off-site into receiving waters.
- Eliminates or reduces non-stormwater discharges to storm sewer systems and other waters of the nation.
- Performs inspections of all BMPs

California Surface Mining and Reclamation Act

The California Surface Mining and Reclamation Act (SMARA) mandated the initiation by the State geologist of mineral land classification to help identify and protect mineral resources in areas within the State subject to urban expansion or other irreversible land uses that would preclude mineral

extraction. Areas are classified into MRZs based on the presence of deposits and how much evaluation of the resource has occurred.

SMARA also allowed the State Mining and Geology Board (SMGB), after receiving classification information from the State geologist, to designate lands containing mineral deposits of regional or Statewide significance. Areas designated by SMGB are incorporated by regulation into Title 14, Division 2 of the California Code of Regulations. Such designations require that a lead agency's land use decisions involving designated areas be made in accordance with its mineral resource management policies and that the lead agency consider the importance of the mineral resource to the region or the State as a whole and not just the lead agency's jurisdiction. In 1979, SMGB adopted guidelines for the management of mineral resources and preparation of local plans. The guidelines require local general plans to reference the State-identified mineral deposits and sites that are identified by the State geologist for conservation and/or future mineral extraction. Subsequently, SMGB identified urbanized areas where irreversible land uses precluded mineral extraction.

Assembly Bill 885 – On -Site Wastewater Treatment Systems

Assembly Bill (AB) 885 (Chapter 781, Statutes of 2000) required SWRCB to draft and implement regulations for siting, installation, operation, and maintenance of on-site wastewater treatment systems. Proposed regulations were issued in 2009 and adopted in June 2012.

California Public Resources Code

Section 5097.5 of the Public Resources Code states:

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

Here "public lands" means those owned by, or under the jurisdiction of, the state or any city, county, district, authority, or public corporation, or any agency thereof. Consequently, public agencies are required to comply with Public Resources Code Section 5097.5 for their own activities, including construction and maintenance, and for permit actions (e.g., encroachment permits) undertaken by others.

Phase II Municipal Stormwater Permit

The Municipal Stormwater Permitting Program regulates stormwater discharges from municipal separate storm sewer systems (MS4s). The National Pollution Discharge Elimination System (NPDES) MS4 permits in California are issued in two phases by SWRCB and the Regional Water Quality Control Boards. Phase I MS4 permits are issued by the Regional Water Quality Control Boards to medium (i.e., serving between 100,000 and 250,000 people) and large (i.e., serving more than 250,000 people) municipalities. Most of these permits are issued to a group of co-permittees encompassing an entire metropolitan area. No Phase I MS4 permits apply within the TCAG region. The Phase II MS4 Permit is issued by the SWRCB and is applicable to smaller municipalities (i.e., populations of less than 100,000 people) and nontraditional small MS4s (e.g., military bases, public campuses, prison, and hospital complexes). The Phase II MS4 Permit (*Waste Discharge*

Requirements [WDRs] for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems [MS4s] General Permit], Order No. 2013-0001-DWQ, NPDES No. CAS000004, as amended by Order Nos. 2015-0133-EXEC, 2016-0069-EXEC, 2017-0031-DWQ, 2018-0001-EXEC, 2018-0007-EXEC, and ORDER WQ 2019-0009-EXEC) became effective on July 1, 2013, last amended February 8, 2019, and covers Phase II permittees statewide, including most municipal jurisdictions within the TCAG region. Both Phase I and Phase II MS4 Permits require permittees to develop a stormwater management program and individual dischargers to develop and implement Stormwater Management Plans.

Construction Stormwater General Permit

The *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, Order No. 2022-0057-DWQ, NPDES No. CAS000002 (Construction Stormwater General Permit), adopted by SWRCB, regulates construction activities that include clearing, grading, and excavation resulting in soil disturbance of at least one acre of total land area. The Construction Stormwater General Permit authorizes the discharge of stormwater to surface waters from construction activities and requires all developers of land where construction activities will occur over more than one acre to do the following:

- Complete a Risk Assessment to determine pollution prevention requirements pursuant to the three risk levels established in the Construction Stormwater General Permit;
- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the United States;
- Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) that specifies construction BMPs that will reduce pollution in stormwater discharges to the Best Available Technology/Economically Achievable/Best Conventional Pollutant Control Technology standards;
- Perform inspections and maintenance of all BMPs; and
- Conduct stormwater sampling, if required based on risk level.

To obtain coverage under the Construction Stormwater General Permit, a project applicant must electronically file all permit registration documents with SWRCB prior to the start of construction. Permit registration documents must include a Notice of Intent, Risk Assessment, site map, SWPPP, annual fee, and signed certification statement. The SWPPP must contain a visual monitoring program; a chemical monitoring program for “non-visible” pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a waterbody listed on the 303(d) list for sediment.

Typical BMPs contained in SWPPPs are designed to minimize erosion during construction, stabilize construction areas, control sediment, control discharges from groundwater dewatering, and control pollutants from construction materials. The SWPPP must also include a discussion of the program to inspect and maintain all BMPs.

The Construction Stormwater General Permit also contains post-construction requirements for projects not covered under a Phase I or Phase II MS4 Permit. The Construction Stormwater General Permit requires implementation of operational BMPs and low impact development features to reduce runoff and pollutants in stormwater discharge.

The Construction Stormwater General Permit also includes groundwater dewatering requirements for projects not covered under a De Minimis or Low Threat Discharge Permit. The dewatering requirements mandate dischargers to implement BMPs to control the volume and velocity of dewatering discharges. The Construction Stormwater General Permit also requires testing and treatment, if necessary, of groundwater discharge to verify the discharge meets or exceeds the effluent limitations specified in the permit.

California Department of Transportation Stormwater Permit

The National Pollutant Discharge Elimination System Statewide Stormwater Permit And Waste Discharge Requirements For State Of California Department Of Transportation (Caltrans MS4 Permit), Order No. 2022-0033-DWQ, regulates stormwater and non-stormwater discharges from Caltrans properties and facilities associated with operation and maintenance of the state highway system. It contains four basic requirements:

- Caltrans must comply with the requirements of the Construction Stormwater General Permit;
- Caltrans must implement a year-round program in all parts of the state to effectively control stormwater and non-stormwater discharges;
- Caltrans stormwater discharges must meet water quality standards through implementation of construction and operational BMPs, and other measures deemed necessary by SWRCB and/or other agency having authority in reviewing the stormwater component of the project; and
- Caltrans must comply with the prohibition of discharge of trash to surface waters of the State or deposition of trash where it may be discharged into surface waters of the State through compliance with the requirements of Attachment E of the Caltrans Stormwater Permit, with a demonstration of full compliance by December 2, 2030.

The Caltrans MS4 Permit incorporates the requirements of SWRCB Resolution 2015-0019, which amended the Water Quality Control Plan for Ocean Waters of California and the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California to include trash-related requirements, referred to in the order as the "Trash Provisions." Implementation of the Trash Provisions includes the following:

- Caltrans must install, operate, and maintain any combination of full capture systems, other treatment controls, and/or institutional controls for all storm drains that capture runoff from Significant Trash Generating Areas (where trash accumulates in substantial amounts). Caltrans must develop and implement monitoring plans that demonstrate such combinations achieve full capture system equivalency.
- Caltrans must coordinate efforts with MS4 permittees subject to NPDES permits that implement the Trash Provisions to install, operate, and maintain full capture systems, other treatment controls, and/or institutional controls in Significant Trash Generating Areas and/or Priority Land Uses.

To comply with the permit, Caltrans developed the Statewide Stormwater Management Plan to address stormwater pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The Statewide Stormwater Management Plan assigns responsibilities within Caltrans for implementing stormwater management procedures and practices, as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The Statewide Stormwater Management Plan describes the Caltrans stormwater management program and the minimum procedures and practices Caltrans

uses to reduce pollutants in stormwater and non-stormwater discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of BMPs. Projects on Caltrans facilities are required to follow the guidelines and procedures outlined in the latest Statewide Stormwater Management Plan and include BMPs in the project design to address stormwater runoff.

California Green Building Standards Code

The California Green Building Standards Code (CalGreen; Cal. Code Regs., Title 24, Part 11) establishes statewide mandatory green building standards for residential and nonresidential development with the purpose of reducing environmental impacts associated with construction and operation, including effects on water quality and stormwater runoff. CalGreen includes provisions intended to minimize pollutant discharges from development sites through the incorporation of BMPs, low impact development measures, and site design features that promote on-site retention and filtration of stormwater.

For nonresidential development, Section 5.106.1 (Stormwater Pollution Prevention) requires newly constructed projects, as well as additions that disturb less than one acre, to reduce pollutants in stormwater runoff. Compliance is achieved either through adherence to applicable local stormwater ordinances or through implementation of BMPs that address erosion control, soil stabilization, and sediment reduction. These measures are intended to prevent or reduce the discharge of sediments and other pollutants during and after construction, complementing requirements under applicable NPDES permits and supporting broader water quality protection objectives.

c. Local Laws, Regulations, and Policies

Tulare County

The Health and Safety Element of the Tulare County General Plan (County of Tulare 2012) guides land use planning by providing pertinent data regarding geologic, soil, seismic, fire and flood hazards. HS Goal 2 would protect the community to the extent feasible from risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche and dam failure; slope instability leading to mudslides and landslides; subsidence, liquefaction and other seismic hazards pursuant to Government Code Section65302(g)(1), Chapter 7.8 (commencing with Section 2690) of Division 2 of the Public Resources Code. In addition, Chapter 14 of the Tulare County Code requires all grading work to conform to the County's standards and requirements pertaining to construction plans and the recommendations of the soils engineer and engineering geologist.

The Environmental Resources Management Element of the Tulare County General Plan (County of Tulare 2012) defines paleontological resources as:

> … any fossilized remains, traces, or imprints of organisms, preserved in or on the earth's crust, that are of paleontological interest and that provide information about the history of life on earth, with the exception of materials associated with an archaeological resource [as defined in Section 3(1) of the Archaeological Resources Protection Act of 1979 (16 U.S.C. 470bb[1]), or any cultural item as defined in Section 2 of the Native American Graves Protection and Repatriation Act (25 U.S.C. 3001)].

Measure 55B, "Discovery of Archaeological Resources," which implements policies ERM 6.2 and ERM 6.3, states (County of Tulare 2012):

> In the event that archaeological or paleontological resources are discovered during site excavation, the County shall require that grading and construction work on the project site be suspended until the significance of the features can be determined by a qualified archaeologist or paleontologist. The County will require that a qualified archeologist / paleontologist make recommendations for measures necessary to protect any site determined to contain or constitute an historical resource, a unique archaeological resource, or a unique paleontological resource or to undertake data recovery, excavation, analysis, and curation of archaeological or paleontological materials. County staff shall consider such recommendations and implement them where they are feasible in light of project design as previously approved by the County.

City of Porterville General Plan

The City of Porterville Public Health and Safety Section 7.1 contains Guiding Policy PHS-G-1 which focuses to minimize risks of property damage and personal injury posed by geologic and seismic hazards. Policies PHS-I-1 through PHS-I-4 require the City of Porterville to enforce building standards, support State agencies' investigation of geologic conditions, provide information and incentives to property owners to retrofit existing buildings to protect against seismic hazards, and amend their Zoning Ordinance to include provisions for a geologic hazards abatement district for hillside areas (City of Porterville 2008):

> Article 501: Hillside Zone (HZ) Overlay District- Applies to all properties within the incorporated boundaries of the city of Porterville, and within the city's official sphere of influence, which are designated as within the hillside development zone in the Porterville 2030 General Plan, and that have an average slope equal to or greater than six percent (6%) (City of Porterville 2013).

Chapter 6: Open Space & Conservation of the Porterville 2030 General Plan addresses paleontological resources (City of Porterville 2008). Implementation Policy OSC-I-73, which implements Guiding Policy OSC-G-11, states:

> Require that new development analyze and avoid any potential impacts to archaeological, paleontological, and historic resources by:
>
> - Requiring a records review for development proposed in areas that are considered archaeologically sensitive, including hillsides and near the Tule River;
> - Studying the potential effects of development and construction (as required by CEQA);
> - Developing, where appropriate, mitigation measures to minimize potential impacts; and
> - Implementing appropriate measures to avoid the identified impacts.

City of Tulare General Plan

The City of Tulare General Plan Safety Element contains Goal SAF-4 which focuses on the protection of people and property from seismic and geotechnical hazards. To achieve this goal, Policies SAF-P4.1 through SAF-P4.7 are in place in order to evaluate earthquake risk, determine seismic standards compliance for buildings, request financial assistance to implement seismic safety measures, and ensure emergency facilities have adequate earthquake resistant capacities (City of Tulare 2014).

The Conservation and Open Space Element of the Tulare General plan addresses paleontological resources (City of Tulare 2014). Policy COS-P5.9, "Discovery of Archaeological Resources" which implements Goal COS-5, "To Manage and protect sites of cultural and archaeological importance for the benefit of present and future generations," states:

> In the event that archaeological/paleontological resources are discovered during site excavation, grading, or construction, the City shall require that work on the site be suspended within 100 feet of the resource until the significance of the features can be determined by a qualified archaeologist /paleontologist. If significant resources are determined to exist, an archaeologist shall make recommendations for protection or recovery of the resource. City staff shall consider such recommendations and implement them where they are feasible in light of project design as previously approved by the City.

City of Visalia General Plan

The City of Visalia General Plan Safety and Noise Section 8.1 specifically focuses on minimizing risks of property damage and personal injury posed by geologic and seismic hazards. Policies S-P-1 through S-P-7 require the City of Visalia to retrofit local ramps and freeway overpass bridges, retrofit public works and emergency response facilities, establish community awareness programs tailored to emergency preparedness, update emergency preparedness plans and zoning ordinance review criteria, develop condemnation procedures for dangerous building ordnances, and periodically review the Safety Element (City of Visalia 2025).

Chapter 6: Open Space & Conservation of the Visalia General Plan addresses paleontological resources (City of Visalia 2014). Implementation Policy OSC-I-39, which implements Objective OSC-O-11, states:

> Establish requirements to avoid potential impacts to sites suspected of being archeologically, paleontologically, or historically significant or of concern, by:
>
> - Requiring a records review for development proposed in areas that are considered archaeologically or paleontologically sensitive;
> - Determining the potential effects of development and construction on archaeological or paleontological resources (as required by CEQA);
> - Requiring pre-construction surveys and monitoring during any ground disturbance for all development in areas of historical and archaeological sensitivity; and
> - Implementing appropriate measures to avoid the identified impacts, as conditions of project approval.

In the event that previously unidentified historical, archaeological, or paleontological resources are discovered during construction, grading activity in the immediate area shall cease and materials and their surroundings shall not be altered or collected. A qualified archaeologist or paleontologist must make an immediate evaluation and avoidance measures, or appropriate mitigation should be completed, according to *CEQA Guidelines*. The State Office of Historic Preservation has issued recommendations for the preparation of Archaeological Resource Management Reports that will be used as guidelines. See the Historic Preservation Element for objectives and policies focused specifically on historic districts and landmarks and their preservation (City of Visalia 2014).

Other City General Plans

Other cities within the TCAG region include the City of Dinuba, City of Exeter, City of Farmersville, City of Lindsay, and City of Woodlake. The City of Farmersville and City of Lindsay have incorporated aforementioned geological and seismic safety measures and analysis into their own General Plans. The City of Dinuba, City of Exeter, and City of Woodlake all contain similar goals and policies mentioned in discussed General Plans.

4.7.3 Impact Analysis

a. Methodology and Significance Thresholds

To evaluate the impacts of the transportation projects and land use scenario included in the 2026 RTP/SCS related to geologic and seismic hazards as well as soil erosion, analysis is conducted in relation to known geologic hazards and features, including earthquake faults, ground failure, underlying geology, and soils. In determining the level of significance, the analysis assumes the proposed buildout would comply with relevant laws, regulations, and guidelines. The analysis is based on review of available documentation, including applicable general plans, local hazard mitigation plans, the CGS website, and USGS data and publications. The evaluations of the paleontological impacts of the proposed buildout is based on review of available documentation, including primary literature and online fossil databases available from the Paleobiology Database, Society of Vertebrate Paleontology and the University of California Museum of Paleontology. The evaluations of the impacts to mineral resources related to the proposed buildout are based on applicable county general plans and DOC mineral land classifications and special reports.

Appendix G of the *CEQA Guidelines* identifies criteria for determining whether a project would have a significant impact related to geology and soils. Potential significance is evaluated based on relative geologic risks of the project area and if existing geotechnical regulations would be able to minimize such risks. The project would have a significant impact related to geology and soils if it would:

1. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides;
2. Result in substantial soil erosion or the loss of topsoil;
3. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;
4. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property;
5. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater;
6. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;
7. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; or
8. 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.

b. Project Impacts and Mitigation Measures

The following section discusses geology soils and mineral resources impacts and mitigation measures associated with transportation projects and the land use scenario implementing the proposed 2026 RTP/SCS. Due to the programmatic nature of the proposed 2026 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 proposed 2026 RTP/SCS could result in the impacts as described in the following section.

Threshold 1:	Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides?

Impact GEO-1 THE TRANSPORTATION IMPROVEMENTS AND LAND USE PROJECTS ENVISIONED BY THE PROPOSED 2026 RTP/SCS WOULD NOT DIRECTLY OR INDIRECTLY CAUSE POTENTIAL SUBSTANTIAL ADVERSE EFFECTS, INCLUDING THE RISK OF LOSS, INJURY, OR DEATH INVOLVING RUPTURE OF A KNOWN EARTHQUAKE FAULT, STRONG SEISMIC GROUND SHAKING, SEISMIC-RELATED GROUND FAILURE, INCLUDING LIQUEFACTION, OR LANDSLIDES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Fault Rupture

Fault rupture can occur along or immediately adjacent to faults during an earthquake. Fault rupture is characterized by ground cracks and displacement which could endanger life and property. Damage is typically limited to areas close to the moving fault.

As indicated by Figure 4.7-2, transportation projects across the TCAG region would not be vulnerable to fault rupture as none of the roadway projects for the proposed 2026 RTP/SCS are located within or near an active fault system. Land use growth envisioned under the proposed 2026 RTP/SCS includes a variety of land uses that could potentially be exposed to hazards as a result of surface fault rupture. The land use growth envisioned under the proposed 2026 RTP/SCS would neither fully nor partially intersect any earthquake faults as growth would be created within cities and unincorporated areas that are not within or near an active fault system.

In compliance with the Alquist-Priolo Act, as well as with any existing local policies that exceed or reasonably replace any of the Alquist-Priolo Act's requirements, a site-specific fault identification investigation would be conducted by licensed geotechnical professionals as required for specific planned transportation projects as well as for any reasonably foreseeable future development facilitated under the land use scenario envisioned by the 2026 RTP/SCS. Fault identification studies required by the Alquist-Priolo Act involve on-site trenching and excavation for site specific identification and location of fault rupture planes where any future rupture would be anticipated. Regulatory compliance would ensure structures intended for human occupancy be located at a minimum distance of 50 feet from any identified active fault traces and would minimize potential risk related to fault rupture.

The land use growth envisioned under the proposed 2026 RTP/SCS would concentrate growth in cities and unincorporated areas which would are not located within or near earthquake fault zones, as shown in Figure 4.7-2. However, land use growth envisioned under the proposed 2026 RTP/SCS

includes a variety of land uses that could potentially be exposed to hazards as a result of surface fault rupture.

Ground Shaking

Ground shaking effects are also the result of an earthquake, but the impacts can be widespread. Although a function of earthquake intensity, ground shaking effects can be magnified by the underlying soils and geology, which may amplify shaking at great distances. It is difficult to predict the magnitude of ground shaking following an earthquake, as shaking can vary widely within a relatively small area.

Although a function of earthquake intensity, ground-shaking effects can be magnified by the underlying soils and geology, which may amplify shaking at great distances. It is difficult to predict the magnitude of ground-shaking following an earthquake, as shaking can vary widely within a relatively small area. The types of transportation and land use projects proposed under the proposed 2026 RTP/SCS are unlikely to exacerbate seismic activity, fault rupture, or increases in ground shaking due to the nature of the project's effects, including construction, being near or on the ground surface. Footings and pilings that could extend below the surface would be localized to the project site and require geological testing for specific impacts. Any potential structural damage and the exposure of people to the risk of injury or death from structural failure would be minimized by compliance with California Building Code engineering design and construction measures reviewed in the regulatory setting section. Foundations and other structural support features would be designed to resist or absorb damaging forces from strong ground shaking.

Ground Failure

Seismic related ground failure such as liquefaction or landslides may result from an earthquake in the TCAG region. According to the Tulare County General Plan, no specific countywide assessments to identify liquefaction hazards have been performed in Tulare County (Tulare County 2012). Areas where groundwater is less than 30 feet below the surface occur primarily in the valley. However, soil types in the area are not conducive to liquefaction because they are either too coarse or too high in clay content. Areas subject to 0.3g acceleration or greater are located in a small section of the Sierra Nevada Mountains along the Tulare-Inyo County boundary (Tulare County 2010b). However, the depth to groundwater in such areas is greater than in the valley, which would minimize any liquefaction potential. Detailed project-specific geotechnical engineering investigations would be necessary to evaluate liquefaction potential more accurately in specific areas and to identify and map the areal extent of locations subject to liquefaction (Tulare County 2010b).

Projects near the foothills in the cities of Exeter, Lindsay, and Porterville are particularly susceptible to landslides. Roadway projects in mountainous areas along the 198 and the cities along the foothills or along steeply sloped streambanks are most susceptible to landslide or mudflows which may be triggered during an earthquake however no roadway projects are proposed in these areas. As shown in Figure 4.7-3, projects near the mountainous areas are classified as landslide susceptibility class of 5 or greater. Few to no land use projects and no transportation projects envisioned in the proposed 2026 RTP/SCS would be built in these areas as most mountainous land is within national forests that strictly limit development. Projects are proposed to be concentrated within cities in more transit-oriented areas where landslide occurrence is low.

All Projects

All projects are required to adhere to design standards described in the CBC and all standard geotechnical investigation, design, grading, and construction practices to avoid or reduce impacts from earthquakes, ground shaking, ground failure, and landslides. These requirements would partially reduce seismic impacts. Moreover, construction within seismic zones as identified by the Alquist-Priolo Act and the Seismic Hazards Mapping Act of 1990 (PRC 2690 -2699.6) is required by the CBC to follow more stringent regulations to withstand fault ruptures and ground shaking effects from seismic activities.

The CBC provides standards for various aspects of construction, including but not limited to: excavation, grading and earthwork construction; fills and embankments; expansive soils; foundation investigations; liquefaction potential; and soil strength loss. In accordance with California law and regulation, proponents of specific projects are required to comply with all provisions of the CBC for certain aspects of design and construction.

There are limited instances where the proposed land use pattern and planned transportation investments of 2026 RTP/SCS may result in growth in or near a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides prone areas, substantial geologic-related effects could still occur. As shown in Figure 4.7-2, mapped Quaternary faults are located primarily within the eastern portion of, or outside of, the TCAG region. Although proposed development south of the City of Porterville along State Route 65 would occur near an unnamed mapped fault, there is no direct overlap between any 2026 RTP/SCS project locations and mapped faults within the TCAG region. Similarly, as shown in Figure 4.7-3, areas with the highest landslide susceptibility are primarily confined to the Sequoia National Forest, Inyo National Forest, and Kings Canyon National Park on the eastern side of the region, whereas transportation and land use projects implementing the 2026 RTP/SCS would occur exclusively within the western portion of the region. Although some transportation and land use projects implementing the proposed by the 2026 RTP/SCS, particularly in the vicinity of the cities of Woodlake, Exeter, Lindsay, and Porterville, would occur adjacent to areas of elevated landslide susceptibility, these projects would not be developed within those areas mapped as having high landslide susceptibility. The types of transportation and land use projects planned under the proposed 2026 RTP/SCS are unlikely to exacerbate seismic activity, fault rupture, or increases in ground shaking due to the nature of the project's effects, including construction, being near or on the ground surface. Footings and pilings that could extend below the surface would be localized to the project site and require geological testing for specific impacts.

The proposed 2026 RTP/SCS would not have the potential to exacerbate risks related to seismic activity including fault rupture, ground shaking, and ground failure. Compliance with the CBC and provisions of the Alquist-Priolo Act, including the preparation of a site-specific geotechnical investigation, would reduce the potential for seismic damage to occur as a result of implementation of proposed 2026 RTP/SCS projects. Compliance with the CBC and provisions of the Alquist-Priolo Act, including the preparation of a site-specific geotechnical investigation, would minimize the potential for seismic damage to occur as a result of implementation of proposed 2026 RTP/SCS projects. Based on the above analysis, impacts would be less than significant.

Mitigation Measures

Mitigation measures are not required because this impact would be less than significant, as jurisdictions are required to follow the laws and regulations described above.

Threshold 2: Would the project result in substantial soil erosion or the loss of topsoil?

Impact GEO-2 THE PROPOSED TRANSPORTATION IMPROVEMENTS AND LAND USE PROJECTS ENVISIONED BY THE PROPOSED 2026 RTP/SCS WOULD NOT RESULT IN SUBSTANTIAL SOIL EROSION OR THE LOSS OF TOPSOIL. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Transportation projects and future land use development under the proposed 2026 RTP/SCS would include earthwork activities that expose soils to the effects of erosion or loss of topsoil. Once disturbed, either through removal of vegetation, asphalt, or demolition of a structure, stockpiled soils would be exposed to the effects of wind and water. Construction of additional lanes and other transportation facilities would result in loss of topsoil if work includes grading, trenching, excavation, or soil removal of any kind in an area not previously used as a paved transportation facility. These areas would contain soils that would be less compacted than those found at a previously developed site, particularly if prior development involved grading or paving activities. Grading activities involve soil compaction, and paving introduces impervious surfaces which reduce water infiltration into soil. Both activities associated with prior development would reduce localized risk of soil erosion.

Buildout under the 2026 RTP/SCS would comply with applicable policies and regulations related to grading, erosion, and drainage controls, including but not limited to those contained within relevant general plans, county codes, and municipal codes, as discussed in Section 4.7.2, Regulatory Setting. Adherence to applicable policies and regulations would require measures to reduce erosion resulting from implementation of transportation and land use projects under the 2026 RTP/SCS, thus reducing erosion impacts. Areas within the TCAG region with high potential for soil erosion potential occur along the eastern side of cities of Porterville, Lindsay and Exeter in the foothill areas. No transportation projects are proposed in these areas.

Erosion control can be accomplished on steep slopes — those slopes that are exposed to wind, water, and other factors which may accelerate erosion — through conformance with local grading regulations and other state requirements as discussed in Section 4.7.2, Regulatory Setting. Projects implementing the proposed 2026 RTP/SCS would conform with Chapter 14 of the Tulare County Code for grading and erosion standards and guidelines. The City of Porterville, situated within the foothill region, requires adherence to Article 15: HZ Overlay District for building and development standards on the hillside as discussed in the Regulatory Setting. These ordinances would require the appropriate measures to prevent erosion as a result of implementation of transportation and land use projects under the proposed 2026 RTP/SCS, thus reducing erosion impacts.

In addition, the Construction General Permit would require a project specific SWPPP to be prepared for each project that disturbs an area one acre or larger. The SWPPPs would include project specific BMPs designed to control drainage and erosion. Project BMPs to control erosion may include, but would not be limited to silt fencing, fiber rolls, slope stabilization and sandbags. These BMPs would be required as part of each individual project permit and would minimize impacts related to soil erosion and loss of topsoil as a result of construction or grading. Projects that would disturb less than one acre would be subject to the CalGreen requirements related to stormwater drainage that have been designed to prevent or reduce discharges of sediments through BMPs that include on-site retention and filtration. In addition, CalGreen regulations (Cal. Code Regs. Title 24, Part 11) include mandatory measures for residential and nonresidential development. Section 5.106.1 requires newly constructed nonresidential projects and additions of less than one acre to reduce the pollution of storm water runoff through compliance with a local ordinance or implementing BMPs that address soil loss. Specific projects would be subject to future project-level environmental

review and would be required to comply with all applicable policies and regulations, including those applied at a local level.

As described in Section 4.7.2, *Regulatory Setting*, in California, stormwater discharges from MS4s are regulated under NPDES permits. MS4 permittees include cities, counties, and other public agencies that own or operate municipal storm drain systems, including many smaller municipalities within Tulare County. The City of Visalia and unincorporated portions of the County are covered by separate Phase I MS4 permits, while other municipalities within Tulare County are regulated under the Statewide Phase II MS4 Permit. Phase I and Phase II MS4 Permits require permittees to implement stormwater management programs and require individual development projects to incorporate stormwater and erosion control BMPs that reduce sediment transport and the loss of topsoil at project sites. The state Phase II MS4 Permits, as adopted by the SWRCB and Region 5 RWQCB, would apply to all projects envisioned by the proposed 2026 RTP/SCS that create or replace greater than 2,500 square feet of impervious surface. These requirements would reduce soil erosion and potential loss of topsoil associated with post-construction runoff from new or expanded impervious surfaces to less-than-significant levels.

For Caltrans projects, the Caltrans specific Stormwater Permit, as discussed Section 4.7.2, *Regulatory Setting,* and in greater detail in Section 4.10.2, *Regulatory Setting,* of Section 4.10, *Hydrology and Water Quality*, regulates stormwater and non-stormwater discharges from Caltrans properties and facilities associated with operation and maintenance of the State highway system. Additionally, Caltrans developed a Statewide Stormwater Management Plan which describes the Caltrans stormwater management program and the minimum procedures and practices used to reduce pollutants in stormwater and non-stormwater discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of BMPs. Projects on Caltrans facilities are required to follow the guidelines and procedures outlined in the latest Statewide Stormwater Management Plan and include BMPs in the project design to address stormwater runoff and thus erosion.

Adherence to the applicable local codes and other local, State, and regulatory programs, as discussed above, would ensure that project-specific erosion and topsoil loss would be minimized. Because such effects would not be substantial, impacts related to erosion and loss of topsoil would be less than significant.

Mitigation Measures

Mitigation measures are not required because this impact would be less than significant, as jurisdictions are required to follow the laws and regulations described above.

Threshold 3:	Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?
Threshold 4:	Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Impact GEO-3 IMPLEMENTATION OF TRANSPORTATION IMPROVEMENTS AND FUTURE PROJECTS INCLUDED IN THE LAND USE SCENARIO ENVISIONED IN THE PROPOSED 2026 RTP/SCS WOULD BE LOCATED ON POTENTIALLY UNSTABLE GEOLOGIC UNITS OR SOILS, POTENTIALLY RESULTING IN GROUND FAILURE HAZARDS, OR AREAS OF EXPANSIVE SOIL. ADHERENCE TO APPLICABLE POLICIES AND REGULATIONS, AS WELL AS TO THE CBC, WOULD REDUCE RISK SUCH THAT IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Implementation of proposed transportation improvements and future projects under the land use scenario envisioned by the proposed 2026 RTP/SCS would potentially site new development in areas prone to slope instability, liquefaction, and other soil-related hazards. However, the growth pattern envisioned by the proposed 2026 RTP/SCS concentrates the majority of new development and transportation investments within existing urbanized areas in the Valley portion of the region, which are generally characterized by flat topography and lower susceptibility to slope instability.

Ground failure, including liquefaction, lateral spreading, and subsidence, caused by an earthquake could occur in the TCAG region depending on the underlying conditions including ground water level, relative size of soil particles, and density of subsurface materials within 50 feet of ground surface. Damage from earthquake-induced ground failure associated with liquefaction, lateral spreading, and subsidence could be high in buildings with foundations not properly constructed for such hazards. Areas that are exposed to liquefaction hazard may also have lateral spreading or differential settlement and subsidence concerns. Areas not at risk of liquefaction do not have lateral spreading potential. Ground failure associated with liquefaction would result in damage to transportation projects if not engineered appropriately. The foothill and mountain areas of the TCAG region are more likely to experience landslides than the Valley floor. Susceptible areas include areas where fractured and steep slopes are present or where inadequate ground cover accelerates erosion. Erosion and ground slumping of soils can also occur along bluffs and banks of the Kaweah, Kings, and Tule Rivers. As shown in Figure 4.7-2 and Figure 4.7-3, no proposed 2026 RTP/SCS transportation projects are set in the mountains or foothill areas susceptible to ground failure, including liquefaction, lateral spreading, and subsidence, caused by an earthquake. As previously described under Impact GEO-1, although some development envisioned in the proposed 2026 RTP/SCS would occur adjacent to an unmapped fault and/or small localized areas of elevated landslide potential, such development would not occur directly within these areas.

The probability of soil liquefaction actually taking place in the County is considered to be a low to moderate hazard. Soil types in the area are not conducive to liquefaction because they are either too coarse or too high in clay content. However, due to the high clay content, there is potential for some subsidence to occur. Impacts related to these types of geological hazards are site specific and need to be evaluated on a project-by-project basis (Tulare County 2010a).

No transportation projects are proposed in mountainous areas or along steeply sloped streambanks which are most susceptible to landslide or mudflows, especially when soils are wet and in areas adjacent to unstabilized cut or fill. Although projects involving cut slopes of over 20 feet in height or projects located in areas of bedded or jointed bedrock are more likely to result in a landslide, future

development envisioned by the proposed 2026 RTP/SCS would occur primarily within incorporated cities and established urban areas along the Valley floor, rather than in hillside or mountainous terrain.

New land use development and transportation projects constructed on expansive soils could be subject to damage or could become unstable when the underlying soil shrinks or swells. Soils with high clay content have the highest potential for shrink-swell. Within the TCAG region, expansive soils are more common along the Western edge of the Southern foothills (Tulare County 2010a). In most developed areas, the existing layer of clay has been blended into more granular soils as a part of general site excavation, which helps to reduce the overall soil's expansiveness. No proposed transportation improvement projects in the 2026 RTP/SCS are located within known areas prone to expansive soils, as transportation projects and projected growth under the 2026 RTP/SCS would primarily occur within previously developed urban areas where expansive soils have either been addressed through prior grading or would be addressed through standard engineering practices. However, if expansive soils were to be found on site, this can be remediated, as structures and foundations would be engineered to withstand the forces of expansive soil to ensure compliance with the California Building Code (CBC).

The preparation of site-specific geotechnical studies prepared in accordance with requirements as set forth by the CBC, the Seismic Hazards Mapping Act, and standard industry practices would reduce impacts related to slope instability, liquefaction, soil expansion, and ground failure. Future projects under the proposed 2026 RTP/SCS would also be required to comply with local general plans and local building code requirements that contain seismic safety policies to resist ground failure through construction techniques, including structural design. Potential structural damage and the exposure of people to the risk of injury or death from structural failure would be minimized by compliance with California Building Code engineering design and construction measures. Foundations and other structural support features would be designed to resist or absorb damaging forces from expansive soils, liquefaction, or landslides. Land use and transportation projects implementing the proposed 2026 RTP/SCS would be required to comply with the CBC and local building standards, including the implementation of geotechnical practices such as ground treatments or replacing existing soils with engineered fill. Transportation projects that would involve the construction or improvements of bridge or overpass design would also be required to comply with Caltrans seismic design criteria which would reduce potential ground failure hazards. The proposed 2026 RTP/SCS would not have the potential to exacerbate risks related to ground failure.

Based on the above analysis, impacts related to ground failure hazards due to unstable geologic units or soils, including liquefaction, lateral spreading, and subsidence, and impacts related to expansive soils, would be less than significant with compliance with the CBC, local general plans and building standards, and Caltrans design criteria for transportation projects where applicable.

Mitigation Measures

Mitigation measures are not required because this impact would be less than significant, as jurisdictions are required to follow the laws and regulations as described above.

Threshold 5:	Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Impact GEO-4 THE TRANSPORTATION IMPROVEMENTS AND LAND USE PROJECTS ENVISIONED BY THE PROPOSED 2026 RTP/SCS IN RURAL AREAS MAY HAVE SOILS INCAPABLE OF ADEQUATELY SUPPORTING SEPTIC TANKS OR ALTERNATIVE WASTEWATER DISPOSAL SYSTEMS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The proposed 2026 RTP/SCS does not include transportation projects that would require the use of septic tanks or alternative wastewater disposal systems. The expansion and/or improvement of streets, highways, transit facilities, airports and related transportation infrastructure would not include elements that would require wastewater treatment or otherwise necessitate the development of septic systems.

Most future land use development projects implementing the proposed 2026 RTP/SCS land use scenario would connect to centralized wastewater infrastructure; the few development projects in rural areas requiring septic tanks or alternative wastewater disposal systems would be required to comply with local regulatory requirements that assure soils would adequately support these systems. Septic and alternative wastewater disposal systems would be required to comply with AB 885 and applicable County or City regulations. Septic systems in Tulare County would be required to comply with requirements as set forth by the Tulare County Division of Environmental Health, Tulare County Municipal Code 7-01-1395 Sewage Disposal: Septic Tanks. Cities within the TCAG region would further require compliance with municipal code requirements as set forth by individual jurisdictions. Therefore, impacts related to having soils incapable of adequately supporting septic tanks or alternative wastewater disposal systems would be less than significant due to the land use pattern envisioned by the 2026 RTP/SCS, which concentrates development within incorporated urbanized communities that are served by existing wastewater and require compliance with applicable regulations in areas not served by centralized wastewater systems.

Septic and alternative wastewater disposal systems would be required to comply with AB 885 and applicable County or City regulations. Septic systems in Tulare County would be required to comply with code requirements as set forth by Chapter 7.2 of the County Code; Cities within the County would further require compliance with municipal code requirements as set forth by individual jurisdictions. Compliance with applicable regulations and design guidelines, as described above, would ensure appropriate siting and design of existing and potential future septic systems, minimizing the risk of siting septic systems where existing conditions, soil or otherwise, are inadequate to support system operation. Therefore, impacts related to having soils incapable of adequately supporting the use of septic tanks and alternative wastewater disposal systems would be less than significant.

Mitigation Measures

Mitigation measures are not required because this impact would be less than significant, as jurisdictions are required to follow the laws and regulations as described above.

Threshold 6:	Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Impact GEO-5 IMPLEMENTATION OF PROPOSED TRANSPORTATION IMPROVEMENTS AND THE LAND USE SCENARIO ENVISIONED BY THE PROPOSED 2026 RTP/SCS WOULD DIRECTLY OR INDIRECTLY DESTROY A UNIQUE PALEONTOLOGICAL RESOURCE OR SITE OR UNIQUE GEOLOGICAL FEATURE. IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Paleontological resources are present throughout Tulare County. Therefore, known and unknown paleontological resources may be encountered as a result of implementation of transportation and land use projects pursuant to the proposed 2026 RTP/SCS.

The *CEQA Guidelines* provide no definition to the term "unique geologic feature." This phrase also has no common definition. However, for purposes of this analysis, a geologic unit is considered unique if it is a stratotype, contributes to scientific research, or is exclusive to the region.

Many of the transportation projects proposed under the proposed 2026 RTP/SCS consist of minor expansions of existing facilities that would not involve construction in previously undisturbed areas. However, depending on the location and extent of the proposed improvement and ground disturbance, paleontological resources or unique geologic features could be impacted. There are mapped areas with a higher occurrence of paleontological features, but it should be noted that any project overlying a geologic unit with high paleontological sensitivity could result in impacts, regardless of location relative to existing development. It is also possible that construction activities associated with some of the proposed roadway or bridge widening or extension projects could adversely impact paleontological resources by exposing them to potential vandalism or causing displacement from the original context and integrity. Project-specific analysis would be required as individual projects are proposed.

In addition, the proposed 2026 RTP/SCS also contains a future land use scenario that emphasizes infill near transit and within existing urbanized areas. Therefore, new development would primarily occur on previously disturbed sites where the likelihood that a unique geologic feature might exist is low. However, it is possible that paleontological resources could be located on or near future site infill sites, as well as on undisturbed sites that may be developed under the future land use scenario. As shown in Table 4.7-1 and Figure 4.7-1, geologic units with high paleontological sensitivity in Tulare County include Pleistocene to Holocene alluvium, lake, playa, and terrace deposits (Q) and Pleistocene alluvium, lake, playa, and terrace deposits (Qoa). These geologic units are widespread throughout the Valley portion of the TCAG region, including the areas in which the 2026 RTP/SCS would facilitate the development of transportation and land use projects. Therefore, although t transportation and land use projects would be concentrated within previously disturbed sites, project grading and excavation for 2026 RTP/SCS transportation and land use project sites would likely disturb these undiscovered resources. Example transportation projects could include road widenings on SR 65, 99, and 190 within the identified sensitive paleontological areas. Compliance with and implementation of assessment requirements set forth by the Paleontological Resources Preservation Act, the Federal Land Policy and Management Act, the Antiquities Act, Section 5097.5 of the PRC, adopted county and city general plans would reduce impacts to paleontological resources and unique geologic features. However, projects envisioned under the 2026 RTP/SCS would still have the potential to directly or indirectly destroy localized paleontological resources and unique geologic features that are of regional significance, and impacts would be significant.

Mitigation Measures

For transportation projects under their jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures developed for the proposed 2026 RTP/SCS where applicable for transportation projects that would result in impacts to paleontological resources. Cities and the County can and should implement these measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project specific environmental documents may adjust these mitigation measures as necessary to respond to site specific conditions.

GEO-5 Paleontological Resources Mitigation and Monitoring Program

Implementing agencies of a project implementing the proposed 2026 RTP/SCS involving ground disturbing activities (including grading, trenching, foundation work and other excavations) can and should, retain a qualified paleontologist, defined as a paleontologist who meets the Society of Vertebrate Paleontology (SVP) standards for Qualified Professional Paleontologist (SVP 2010), to conduct a Paleontological Resources Assessment (PRA). The PRA shall determine the age and paleontological sensitivity of geologic formations underlying the proposed disturbance area, consistent with SVP Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (SVP 2010) guidelines for categorizing paleontological sensitivity of geologic units within a project area. If underlying formations are found to have a high potential (sensitivity) for paleontological resources and/or could be considered a unique geologic feature, the following measures shall apply:

- **Avoidance.** Avoid routes and project designs that would permanently alter unique paleontological and unique geological features. If avoidance practices cannot be implemented, the following measures shall apply.
- **Retention of a Qualified Paleontologist to Prepare a Paleontological Resources Monitoring and Mitigation Program.** A Qualified Paleontologist shall be retained to create a Paleontological Resources Monitoring and Mitigation Program to direct all mitigation measures related to paleontological resources. The Qualified Paleontologist shall meet the qualifications for a Qualified Professional Paleontologist, which is defined by the SVP as an individual, preferably with an M.S. or Ph.D. in paleontology or geology, who is experienced with paleontological procedures and techniques, who is knowledgeable in the geology of California, and who has worked as a paleontological mitigation project supervisor for a least two years (SVP 2010).
- **Paleontological Worker Environmental Awareness Program (WEAP).** Prior to the start of ground disturbance activity, construction personnel shall be informed on the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff.
- **Paleontological Monitoring.** Ground disturbing activity with the potential to disturb geologic units with high paleontological sensitivity, as determined by initial paleontological surveying or records search as deemed appropriate, shall be monitored on a full-time basis by a qualified paleontological monitor. Should no fossils be observed during the first 50 percent of such excavations, paleontological monitoring could be reduced, under the discretion of the qualified paleontologist, to weekly spot-checking. Monitoring shall be conducted by a qualified paleontological monitor, defined as an individual who has experience with collection and salvage of paleontological resources.

- **Fossil Salvage**. If fossils are discovered, the implementing agency shall be notified immediately, and the qualified paleontologist (or paleontological monitor) shall recover them. Typically, fossils can be safely salvaged quickly by a single paleontologist and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. In this case, the paleontologist shall have the authority to temporarily direct, divert or halt construction activity to ensure that the fossil(s) can be removed in a safe and timely manner.
- **Preparation and Curation of Recovered Fossils**. Once salvaged, fossils shall be identified to the lowest possible taxonomic level, prepared to a curation-ready condition, and curated in a scientific institution with a permanent paleontological collection, such as the Natural History Museum of Los Angeles County, along with all pertinent field notes, photos, data, and maps.
    - **Final Paleontological Resources Mitigation and Monitoring Report.** Upon completion of ground disturbing activity (and curation of fossils, if necessary) the Qualified Paleontologist shall prepare a final mitigation and monitoring report outlining the results of the Paleontological Resources Monitoring and Mitigation Program. The report shall include discussion of the location, duration and methods of the monitoring, stratigraphic sections, any recovered fossils, and the scientific significance of those fossils, and where fossils were curated.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during construction where appropriate.

Significance After Mitigation

Implementation of the above mitigation measure would reduce impacts to paleontological resources and unique geologic features by requiring a Paleontological Resources Assessment, avoidance, monitoring, and collection measures for any projects under the proposed 2026 RTP/SCS that may impact sensitive paleontological resources. While implementation of Mitigation Measure GEO-5 would reduce impacts to the extent feasible, some project-specific impacts may be unavoidable. Therefore, this impact is significant and unavoidable, particularly when activities such as pile driving, boring, or other forms of excavation utilizing heavy machinery are involved in project- specific construction. No additional mitigation measures to reduce this impact to less than significant levels are feasible.

Threshold 7:	Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
Threshold 8:	Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

Impact GEO-6 IMPLEMENTATION OF TRANSPORTATION IMPROVEMENTS AND FUTURE PROJECTS INCLUDED IN THE LAND USE SCENARIO ENVISIONED IN THE PROPOSED 2026 RTP/SCS WOULD NOT RESULT IN THE LOSS OF AVAILABILITY OF KNOWN MINERAL RESOURCES OF VALUE OR LOCALLY IMPORTANT RESOURCE RECOVERY SITES. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

The proposed 2026 RTP/SCS primarily involves modifications to existing roadways, including improvements related to safety and widening, intersection improvements, roadway expansions, and on and off-ramp modifications. In addition, most future land use development facilitated by the proposed 2026 RTP/SCS would be infill and TOD would be located within exiting urbanized areas. Areas within and near Porterville and Exeter have MRZ-2 designations, as shown in Figure 4.7-4. These cities have policies that manage mineral resource recovery areas designated as MRZ-2 locations under SMARA (Taylor 1997). The MRZ-2 designation is an area where significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists. In accordance with the Tulare County General Plan Policy ERM-2.10, proposed land uses incompatible with mineral extraction in unincorporated Tulare County shall not be on lands containing or adjacent to identified mineral deposits unless adequate mitigation measures to reduce the conflict or a statement of overriding considerations is adopted. As such, development would avoid known mineral resources that would be of value to the region and residents of the State, to the extent feasible. Consistent with General Plan Policy ERM-2.10, any projects located within MRZ-2 areas are required to identify and mitigate impacts during the environmental review for project-specific impacts pertaining to mineral resources to allow for the recovery of identified minerals. There are no proposed transportation projects within any identified MRZ-2 zone.

There are no projects implementing the proposed 2026 RTP/SCS that would directly result in the extraction, exploration, or digging for mineral resources, or prevent such activities.

Therefore, the proposed 2026 RTP/SCS would not result in the loss of a known mineral resource that would be of value to the region and the residents of the State or result in the loss of availability of a locally important mineral resource recovery site. Impacts pertaining to mineral resources would therefore be less than significant.

Mitigation Measures

Mitigation measures are not required because this impact would be less than significant, as jurisdictions are required to follow the protection policies and ordinances as described above.

4.7.4 Cumulative Impacts

IMPACT GEO-C-1 DEVELOPMENT IN THE CUMULATIVE IMPACTS ANALYSIS AREA, AND PROJECTS IMPLEMENTING THE 2026 RTP/SCS, WOULD BE SUBJECT TO SEISMIC HAZARDS, SUCH AS FAULT RUPTURE, EARTHQUAKES, AND LANDSLIDES, AND COULD CAUSE SOIL EROSION. HOWEVER, COMPLIANCE WITH APPLICABLE REQUIREMENTS WOULD REDUCE CUMULATIVE IMPACTS TO LESS THAN SIGNIFICANT. CUMULATIVE IMPACTS TO MINERAL RESOURCES WOULD BE LESS THAN SIGNIFICANT, AND THE 2026 RTP/SCS CONTRIBUTION WOULD NOT BE CUMULATIVELY CONSIDERABLE.

The cumulative impact analysis area for geology and soils and mineral resources consists of the TCAG region and adjoining counties. Information regarding these adjoining counties can be found in Chapter 4, *Environmental Impact Analysis, Cumulative Impact Methodology*. Future development in this region that could impact geology and soils and mineral resources is considered in the analysis. This cumulative extent is used to evaluate potential direct and indirect, permanent and temporary impacts to increased exposure to seismic hazards, increased erosion and/or loss of topsoil, the presence of unstable or expansive soils, and impacts to loss of availability of known and/or local important mineral resources within the context of the cumulative impact analysis area. This analysis is based on growth projections within the cumulative impact analysis area.

Geology and soils impacts may be related to increased exposure to seismic hazards, increased erosion and/or loss of topsoil, the presence of unstable/expansive soils and alternative waste disposal or septic systems. Individual projects and developments in the cumulative impacts analysis area would be subject to geologic hazards based on site-specific conditions and project design. These effects occur independently of one another and are caused by site specific and project specific characteristics and conditions. In addition, existing regulations, such as the California Building Code, specify mandatory actions that must occur during project development which would minimize effects from construction and operation of projects related to geology, soils, and seismicity as discussed above. Cumulative impacts related to geology, soils and seismicity would therefore be less than significant.

While projects envisioned under the proposed 2026 RTP/SCS may be subject to seismic hazards, including fault rupture, ground-shaking, liquefaction, and landslides, compliance with applicable requirements would reduce impacts. Future development envisioned under the proposed 2026 RTP/SCS would be required to comply with the California Building Code, Seismic Hazards Mapping Act, Alquist Priolo Act, local building codes, and general plan goals and policies. Furthermore, geology and soils impacts are site specific by nature and would not result in significant cumulative impacts to the surrounding area. The proposed 2026 RTP/SCS would not have a cumulatively considerable contribution to significant cumulative impacts related to geology, soils and seismicity.

Mineral resources impacts would occur if there were loss of availability of a known or locally important mineral. This would occur if an individual project were to directly result in the extraction, exploration, or digging for mineral resources, or prevent such activities. Existing state and local regulations, such as SMARA and the General Plans, require specific actions in the cumulative impacts analysis area to conserve mineral deposits. Therefore, cumulative impacts to mineral resources would be less than significant and the 2026 RTP/SCS contribution would not be cumulatively considerable.

IMPACT GEO-C-2 EXCAVATION AND GROUND DISTURBANCE ASSOCIATED WITH DEVELOPMENT IN THE CUMULATIVE IMPACTS ANALYSIS AREA WOULD DAMAGE OR DESTROY SUBSURFACE PALEONTOLOGICAL RESOURCES. CUMULATIVE IMPACTS WOULD BE SIGNIFICANT. ALTHOUGH MITIGATION MEASURE GEO-5 WOULD REDUCE PALEONTOLOGICAL RESOURCE IMPACTS ASSOCIATED WITH 2026 RTP/SCS PROJECTS, THE 2026 RTP/SCS'S CONTRIBUTION WOULD REMAIN CUMULATIVELY CONSIDERABLE.

The cumulative impact analysis area for paleontological resources consists of the TCAG region and adjoining counties. Information regarding these adjoining counties can be found in Chapter 4, *Environmental Impact Analysis, Cumulative Impact Methodology*. Future development in this region that could impact paleontological resources is considered in the analysis. This cumulative extent is used to evaluate potential direct and indirect, permanent and temporary impacts to the presence of paleontological resources or unique geologic features within the context of the cumulative impact analysis area. This analysis is based on growth projections within the cumulative impact analysis area. Development and construction in the cumulative impacts analysis area would require excavation and ground disturbance. Excavation and ground disturbance could encounter and damage or destroy subsurface paleontological resources, depending on underlying geologic units and soils. While most paleontological resources are typically site specific, with impacts that are project specific, others may have regional significance. For example, fossils may capture a particular type of organism that was endemic to a region and therefore have regional significance. Due to the potential for a fossil of regional significance to be uncovered during excavation and ground disturbing activities of projects in the cumulative impact analysis area, cumulative impacts would be significant.

The proposed 2026 RTP/SCS could cause a substantial adverse change in or disturb known and unknown paleontological resources and would therefore result in a cumulatively considerable contribution to the significant cumulative impact. Mitigation measures outlined in Impact GEO-5, would reduce paleontological resource impacts associated with implementing proposed 2026 RTP/SCS projects. However, the proposed 2026 RTP/SCS contribution would remain cumulatively considerable after mitigation because it cannot be guaranteed that all future project level impacts can be mitigated to a less than significant level.

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4.8 Greenhouse Gas Emissions and Climate Change

This section evaluates impacts related to greenhouse gas (GHG) emissions and climate change facilitated by the proposed 2026 RTP/SCS. Air quality impacts are discussed in Section 4.3, *Air Quality.*

4.8.1 Setting

a. Climate Change and Greenhouse Gases

Climate change is the observed increase in the average temperature of Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period. The term "climate change" is often used interchangeably with the term "global warming," but "climate change" is preferred to "global warming" because it helps convey other changes in addition to rising temperatures. The baseline against which these changes are measured originates in historical records identifying temperature changes that have occurred in the past, such as during previous ice ages. The global climate changes continuously, as evidenced by repeated episodes of substantial warming and cooling documented in the geologic record. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed substantial acceleration in the rate of warming during the past 150 years (Intergovernmental Panel on Climate Change [IPCC] 2021). The understanding of anthropogenic warming and cooling influences on climate has led to an unequivocal understanding that human activities have been the dominant cause of warming since the mid-nineteenth century (IPCC 2021).

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). The GHGs that are the principal contributors to human-induced climate change include carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are primarily determined by natural processes, such as oceanic evaporation.

GHGs are emitted by both natural processes and human activities. Of these gases, CO_2, CH_4, and N_2O are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills. N_2O is produced by microbial processes in soil and water, including those reactions that occur in fertilizers that contain nitrogen, fossil fuel combustion, and other chemical processes. Man-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases and SF_6.

Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "carbon dioxide equivalent" (CO_2e) and is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 28, meaning its warming effect is 28 times greater than carbon dioxide on a molecule-per-molecule basis (IPCC 2014). N_2O has a GWP of 265 (IPCC 2014).

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat-trapping effect of GHGs, the earth's surface would be about 33 degrees Celsius (°C) cooler (World Meteorological Organization 2021). However, since 1750, estimated concentrations of CO_2, CH_4, and N_2O in the atmosphere have increased by 47 percent, 156 percent, and 23 percent, respectively, primarily due to human activity (IPCC 2021). GHG emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, are believed to have elevated the concentration of these gases in the atmosphere beyond the level of concentrations that occur naturally.

b. Greenhouse Gas Emissions Inventories

United States Emissions Inventory

Total U.S. GHG emissions were 6,343 MMT of CO_2e in 2022. Emissions increased in 2022 by 1 percent (after accounting for sequestration from the land sector) compared to the previous year. The increase in total greenhouse gas emissions was driven largely by an increase in CO_2 emissions from fossil fuel combustion. In 2022, CO_2 emissions from fossil fuel combustion increased by 1 percent relative to the previous year. This increase in fossil fuel emissions was from increased energy use, due in part to the continued rebound in economic activity after the height of the COVID-19 pandemic. GHG emissions in 2022 (after accounting for sequestration from the land sector) were 17 percent below 2005 levels. In 2022, the industrial and transportation end-use sectors accounted for 23 percent and 28 percent, respectively, of nationwide GHG emissions while the commercial and residential end-use sectors accounted for 13 percent of nationwide GHG emissions (U.S. Environmental Protection Agency [USEPA] 2025c).

California Emissions Inventory

Based on the California Air Resources Board (CARB) California GHG Inventory for 2000-2023, California produced 360.4 million metric tons of CO_2e in 2023 (CARB 2025a). The largest single source of GHG in California is transportation, contributing 37.1 percent of the State's total GHG emissions. In the transportation sector, passenger vehicles are the main contributor with 28.3 percent of emissions generated by these vehicles. Heavy-duty vehicles account for approximately 6.4 percent and the remaining two percent is from other sources of transportation (e.g., aviation, ships, and rail). Industrial sources are the second-largest source of the state's GHG emissions, contributing 18.6 percent of the State's GHG emissions (CARB 2025a). Emissions from this sector are primarily produced from refineries, oil and gas extraction, cement plans, and general fuel use. The electric power sector contributed 15.9 percent of the State's GHG emissions, with emissions from in-state power generation and imported electricity being the primary sources. Residential and commercial fuel combustion (e.g., natural gas and other fuels for space heating, cooking, and hot water or steam generation) account for 12 percent of the State's GHG emissions. The agriculture sector contributes 8.1 percent of the State's GHG emissions with the major emissions sources being enteric fermentation and manure management from livestock, crop production, and fuel combustion for agriculture activities. The remaining 8 percent of the State's GHG emissions are due to high GWP gases (5.8 percent) and waste (2.4 percent). High GWP gases include ozone depleting substance substitutes, SF_6 emissions from electricity transmission and distribution, and gases emitted by the semiconductor manufacturing process. Waste sources include landfills and commercial-scale composting.

c. Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. Long-term trends have found that each of the past four decades has been warmer than all the previous decades in the instrumental record and the decade from 2011 through 2020 has been the warmest. The observed global mean surface temperature (GMST) for the decade from 2011 to 2020 was approximately 1.09°C (0.95°C to 1.20°C) higher than the average GMST over the period from 1850 to 1900. Anthropogenic GHG emissions are increasing global mean surface temperature at a rate of 0.2°C per decade. In addition to these findings, the latest IPCC report states that "human-induced climate change is already affecting many weather and climate extremes in every region across the globe" (IPCC 2021). These climate change impacts include climate change sea level rise, increased weather extremes, and substantial ice loss in the Arctic over the past three decades.

According to *California's Fourth Climate Change Assessment*, statewide temperatures from 1986 to 2016 were approximately 0.6 to 1.1°C higher than those recorded from 1901 to 1960. Impacts of climate change in California may include reduced water supply from snowpack, sea level rise, more extreme heat days per year, more frequent large forest fires, and more drought years (State of California 2018). In addition to statewide projections, *California's Fourth Climate Change Assessment* includes regional reports that summarize climate impacts and adaptation solutions for nine regions of the state and regionally specific climate change case studies (State of California 2018). However, while there is growing scientific consensus about the possible effects of climate change at a global and statewide level, current scientific modeling tools are unable to predict what local impacts may occur with a similar degree of accuracy. A summary follows of some of the potential effects that could be experienced in California and the TCAG region as a result of climate change.

Public Health

Climate change is expected to cause a number of impacts which could negatively affect public health in the TCAG region. As temperatures increase, the Central Valley is set to experience an increased number of extreme heat days, which may lead to increases in the number of heat-related deaths and illnesses (State of California 2018). An increase in the frequency and severity of wildfires may contribute to worsening air quality and cause additional illnesses such as asthma. Higher temperatures could also lead to increased air pollution formation and potentially accelerate the spread of certain diseases and pests. These adverse impacts may also disproportionately burden vulnerable populations.

Air Quality

Scientists project that the annual average maximum daily temperatures in California could rise by 2.4 to 3.2°C in the next 50 years and by 3.1 to 4.9°C in the next century (State of California 2018). Higher temperatures are conducive to air pollution formation, and rising temperatures could therefore result in worsened air quality in California. As a result, climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. In addition, as temperatures have increased in recent years, the area burned by wildfires throughout the state has increased, and wildfires have occurred at higher elevations in the Sierra Nevada Mountains (State of California 2018) with the smoke from those fires impacting

the San Joaquin Valley. If higher temperatures continue to be accompanied by an increase in the incidence and extent of large wildfires, air quality could worsen. Severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state.

Air quality effects for the TCAG region would be similar or worse to those expected statewide. Temperature increases are expected to facilitate smog production, with the potential for adverse effects on public health. Increased risk of drought and wildfires could also lead to higher particulate matter levels (County of Tulare 2018).

Water Supply

Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Uncertainty remains with respect to the overall impact of climate change on future precipitation trends and water supplies in California. Year-to-year variability in statewide precipitation levels has increased since 1980, meaning that wet and dry precipitation extremes have become more common (California Department of Water Resources 2018). This uncertainty regarding future precipitation trends complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. The average early spring snowpack in the western U.S., including the Sierra Nevada Mountains, decreased by about 10 percent during the last century. During the same period, sea level rose over 0.15 meters along the central and southern California coasts (State of California 2018).

The Sierra snowpack provides the majority of California's water supply as snow that accumulates during wet winters is released slowly during the dry months of spring and summer. A warmer climate is predicted to reduce the fraction of precipitation that falls as snow and the amount of snowfall at lower elevations, thereby reducing the total snowpack (State of California 2018). Projections indicate that average spring snowpack in the Sierra Nevada and other mountain catchments in central and northern California will decline by approximately 66 percent from its historical average by 2050 (State of California 2018).

Increased amounts of winter runoff resulting from rainfall in Tulare County could be accompanied by increases in flood event severity and warrant additional dedication of wet season storage space for flood control instead of using the water for supply conservation, as is the standard practice. This change in water management could lead, in turn, to more frequent water shortages during periods of high-water demand. Many regional studies have shown that only small changes in inflows into reservoirs could result in large changes in the reliability of water yields from those reservoirs (County of Tulare 2018). Sudden and unexpected changes in precipitation could leave water managers unprepared, which, in extreme situations could have significant implications for California’s water supplies (County of Tulare 2018).

Agriculture

California has a roughly $49 billion annual agricultural industry that produces nearly a third of the country’s vegetables and over half of the country’s fruits and nuts (California Department of Food and Agriculture 2021). Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, certain regions of agricultural production could experience water shortages of up to 16 percent, which would increase water demand as hotter conditions lead to the loss of soil moisture. In addition, crop yield could be

threatened by water-induced stress and extreme heat waves, and plants may be susceptible to new and changing pest and disease outbreaks (State of California 2018). Temperature increases could also change the time of year that certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality (California Climate Change Center 2006).

In the TCAG region, higher temperatures, including extreme temperatures, may negatively affect crop growth during various stages of their development, as well as cattle and poultry health and reproduction. More intense downpours and fewer chill hours may also have negative impacts on vegetable, fruit, and nut crops (County of Tulare 2018).

Ecosystems and Wildlife

Climate change and the potential resultant changes in weather patterns could have ecological effects at the global and local scale. Rising temperatures could have four major impacts on plants and animals: timing of ecological events; geographic distribution and range of species; species composition and the incidence of nonnative species within communities; and ecosystem processes, such as carbon cycling and storage (Parmesan 2006; State of California 2018).

As temperatures rise in the TCAG region, species are moving north in California or to higher elevations. This change in migration disrupts the food chain and prevents some plant species from being pollinated. Water and food supplies are expected to be more variable and to shift as the seasons change on different timeframes. With vegetation, reduction in soil moisture will result in early die-back of many plants, potentially leading to conflicts with animal breeding seasons and other natural processes (County of Tulare 2018).

4.8.2 Regulatory Setting

The following regulations address both climate change and GHG emissions.

a. Federal Laws, Regulations, and Policies

There is no overarching federal law specifically related to climate change or the reduction of GHG emissions. Additionally, in March 2025, the current administration announced that the U.S. Environmental Protection Agency (USEPA) will undertake 31 actions, focusing primarily on reconsidering actions adopted by previous administrations, including numerous actions and regulations related to climate change and the reduction of GHG emissions (USEPA 2025d). These include, but are not limited to, reconsideration of regulations on power plants, the Mandatory Reporting Rule, the Endangerment Finding, and fuel economy standards, among others.

On February 12, 2026, USEPA finalized a rule rescinding the 2009 GHG Endangerment Finding and repealing all GHG emission standards for light-duty, medium-duty, and heavy-duty vehicles and engines under CAA Section 202(a); the rule was published in the Federal Register on February 18, 2026, and became effective on April 20, 2026 (USEPA 2025e). This action removes federal GHG emission standards for on-road vehicles and engines and associated regulatory provisions (including those in 40 CFR Part 600), while not affecting requirements related to criteria pollutants, Corporate Average Fuel Economy (CAFE) standards, or fuel economy labeling, and is currently subject to ongoing legal challenges that may influence its implementation.

Federal Fuel Economy and Emissions Standards

Corporate Average Fuel Economy Standards

The Energy Policy and Conservation Act of 1975 established CAFE standards, which are federal regulations administered by the National Highway Traffic Safety Administration that set fuel economy requirements for new passenger cars and light trucks sold in the United States. In 2024, National Highway Traffic Safety Administration finalized CAFE standards for model years 2027 through 2031, which are projected to achieve an industry-wide fleet average of approximately 49 miles per gallon for passenger cars and light trucks.

On February 12, 2026, USEPA rescinded the 2009 GHG Endangerment Finding and repealing all GHG emission standards for light-duty, medium-duty, and heavy-duty vehicles and engines under CAA Section 202(a); the rule was published on February 18, 2026, and became effective on April 20, 2026 (USEPA 2025e). This action removes federal GHG-related regulatory provisions, including those in 40 CFR part 600, while leaving CAFE standards and fuel economy labeling requirements administered by National Highway Traffic Safety Administration unaffected; however, the rule is subject to ongoing legal challenges that may influence its implementation.

Federal Motor Vehicle GHG Emissions Standards

The federal motor vehicle GHG emission standards were adopted by USEPA under Section 202(a) of the CAA following the 2009 Endangerment Finding, which determined that GHG emissions from motor vehicles contribute to air pollution that may endanger public health and welfare.

As mentioned above, on February 12, 2026, USEPA rescinded the 2009 Endangerment Finding and repealing all federal GHG emission standards for light-, medium-, and heavy-duty vehicles and engines; the rule was published in the Federal Register on February 18, 2026, and became effective on April 20, 2026 (USEPA 2025e). This action removes the federal regulatory basis for GHG emission standards under CAA Section 202(a) and eliminates associated compliance obligations for manufacturers, although the rule is currently subject to ongoing legal challenges that may affect its implementation.

Accordingly, federal motor vehicle GHG emission standards are no longer in effect as of the rule's effective date; however, regulatory conditions may continue to evolve pending the outcome of litigation and related federal actions.

Executive Order 14260

Issued on April 8, 2025, Executive Order 14260 challenges state-level climate and energy regulations that are deemed to exceed constitutional authority. It directs the Attorney General to identify and pursue legal action against state laws that impose retroactive fines, carbon caps, or other climate-related claims. The order specifically targets policies in states such as California, New York, and Vermont that regulate emissions or energy infrastructure in ways that may affect interstate commerce. It asserts federal primacy over energy regulation and seeks to prevent states from influencing national energy policy through environmental justice or environmental, social, and governance frameworks.

b. State Laws, Regulations, and Policies

CARB is responsible for the coordination and oversight of state and regional GHG emissions reduction programs in California. There are numerous regulations aimed at reducing the state's GHG emissions. These initiatives are summarized below.

Executive Order S-3-05

Executive Order S-3-05, among other things, established the following GHG emission reduction goals for California: reduction to 2000 levels by 2010; to 1990 levels by 2020; and to 80 percent below 1990 levels by 2050.

Assembly Bill 1493 and Advanced Clean Cars

Assembly Bill (AB) 1493 (Chapter 200, Statutes of 2002), known as the "Pavley bill," amended Health and Safety Code Sections 42823 and 43018.5 requiring CARB to develop and adopt regulations that achieve maximum feasible and cost-effective reduction of GHG emissions from passenger vehicles, light-duty trucks and other vehicles used for noncommercial personal transportation in California.

Implementation of new regulations prescribed by AB 1493 required that the State of California apply for a waiver under the federal Clean Air Act. Although USEPA initially denied the waiver in 2008, USEPA approved a waiver in June 2009, and in September 2009, CARB approved amendments to its initially adopted regulations to apply the Pavley standards that reduce GHG emissions to new passenger vehicles in model years 2009 through 2016. In 2012, CARB approved the Low-Emission Vehicle III GHG regulation, which requires further reductions in passenger GHG for 2017 and subsequent vehicle model years. According to CARB, implementation of the Pavley regulations is expected to reduce fuel consumption while also reducing GHG emissions (CARB 2025).

In 2022, CARB approved the Advanced Clean Cars II rule regulating model years from 2026 to 2035. The rule establishes a year-by-year roadmap so that by 2035, 100 percent of new cars and light trucks sold in California would be zero-emission vehicles, including plug-in hybrid electric vehicles. The regulation realizes and codifies the light-duty vehicle goals set out in Governor Newsom's Executive Order N-79-20. By 2040, CARB anticipates that the rule would reduce GHG emissions from light-duty vehicles by 50 percent for a cumulative total of 395 MMT CO2e from 2026 through 2040. USEPA granted CARB its California's Clean Air Act waiver request or the Advanced Clean Cars rule on December 18, 2024. However, Public Law 119-16 enacted on June 12, 2025, disapproves of this regulation under the Congressional Review Act, retroactively revoking the state's waiver issued by USEPA under the Clean Air Act to implement the Advanced Clean Cars II rule. The implications of this law on the State's capability to enforce its ACC II rule are uncertain at this time, as the California Attorney filed a lawsuit challenging P.L. No. 119-16 on June 12, 2025. Whether this action will be successful is unknown, as is the possibility that a federal judge will issue a stay to halt the implementation of the ACC II rule during the legal process.

Advanced Clean Trucks and Low-NOx Regulation

The Advanced Clean Trucks rule is a CARB regulation that requires medium and heavy-duty truck manufacturers to gradually increase the percentage of zero-emission vehicles (ZEVs) they sell in the state. Effective in March 2021, the rule mandates that by 2035, 55 percent of Class 2b-3 truck sales, 75 percent of Class 4-8 straight truck sales, and 40 percent of truck tractor sales must be ZEVs. The goal is to accelerate the transition to zero-emission trucks. USEPA granted the waiver request under the CAA to enact the more stringent fuel economy components of the ACT regulation on April 6,

2023. However, Public Law 119-15 enacted on June 12, 2025, disapproves of this regulation under the Congressional Review Act, retroactively revoking the state's waiver issued by USEPA under the Clean Air Act to implement the Advanced Clean Trucks regulation.

The Heavy-Duty Low-NO_x Omnibus Regulation was adopted by CARB in 2021 (effective December 22, 2021; amended in May 2024), and mandates steep reductions in NO_x and PM emissions from new medium- and heavy-duty diesel and Otto-cycle engines starting with model year 2024. By full rollout, the regulation is projected to eliminate approximately 17–23 tons/day of NO_x by 2031. However, Public Law 119-17 enacted on June 12, 2025, disapproves of this regulation under the Congressional Review Act, retroactively revoking the state's waiver issued by USEPA under the Clean Air Act to implement the low-NO_x regulation.

The implications of these laws on the State's capability to enforce its ACT and Low NOx rules are uncertain at this time, as the California Attorney filed a lawsuit challenging P.L. Nos. 119-15 and 17 on June 12, 2025. Whether this action will be successful is unknown, as is the possibility that a federal judge will issue a stay to halt the implementation of the ACT and Low NOx rules during the legal process.

Advanced Clean Fleets

CARB adopted the Advanced Clean Fleets (ACF) Regulation in 2023, which included updated requirements for drayage trucks operating at seaports and intermodal railyards. Beginning January 1, 2024, only zero-emission drayage trucks can be newly registered in CARB's Truck Regulation Upload, Compliance, and Reporting System (TRUCRS). Existing legacy trucks must meet annual operational and useful life requirements to remain in service, with non-compliant vehicles removed from the registry starting in 2025. By 2035, all drayage trucks operating in California must be zero-emission, supporting statewide goals to reduce diesel particulate matter, NOx, and greenhouse gas emissions, particularly in communities disproportionately impacted by freight-related pollution.

On January 23, 2025, CARB withdrew its request for a Clean Air act waiver for the ACF Regulation. CARB is not enforcing the federal and private fleets portions of the ACF that require a Clean Air Act waiver but is enforcing portions of the ACF Regulation that do not require a Clean Air Act waiver, such as the state and local government fleets portion.

Assembly Bill 1007

AB 1007 (Chapter 371, Statutes of 2005) required the California Energy Commission to prepare a State plan to increase the use of alternative fuels in California. The California Energy Commission prepared the State Alternative Fuels Plan in partnership with CARB and in consultation with other State, federal and local agencies (DOE 2007). The State Alternative Fuels Plan presents strategies and actions California must take to increase the use of alternative non- petroleum fuels in a manner that minimizes costs to California and maximizes the economic benefits of in-state production. The State Alternative Fuels Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

Assembly Bill 32 and Scoping Plan

The California Global Warming Solutions Act of 2006, AB 32, outlines California's major legislative initiative for reducing GHG emissions. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the main state strategies for reducing GHG emissions to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 target of 431 MMT CO2e, which was achieved in 2016. CARB approved the Scoping Plan on December 11, 2008, which included GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among others (CARB 2008). Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted since the Scoping Plan's approval.

CARB approved the 2013 Scoping Plan update in May 2014 (CARB 2014). The update defined the CARB's climate change priorities for the next five years, set the groundwork to reach post-2020 statewide goals, and highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluated how to align the state's longer term GHG reduction strategies with other state policy priorities, including those for water, waste, natural resources, clean energy, transportation, and land use (CARB 2014).

Senate Bill 32 and 2017 Scoping Plan

On September 8, 2016, the governor signed Senate Bill (SB) 32 into law, extending the California Global Warming Solutions Act of 2006, by requiring the state to further reduce GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, the CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target (CARB 2017). The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, and implementation of recently adopted policies and legislation, such as SB 1383 and SB 100 (discussed later). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally appropriate quantitative thresholds consistent with statewide per capita goals of six MT CO2e by 2030 and two MT CO2e by 2050 (CARB 2017). As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, sub-regional, or regional level), but not for specific individual projects because they include all emissions sectors in the state (CARB 2017).

Assembly Bill 1279 and 2022 Scoping Plan

AB 1279, the California Climate Crisis Act, was passed on September 16, 2022, and declares the State would achieve net zero GHG emissions as soon as possible, but no later than 2045, and to achieve and maintain net negative GHG emissions thereafter. In addition, the bill states that the State would reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045.

In response to the passage of AB 1279 and the identification of the 2045 GHG reduction target, CARB published the Final 2022 Climate Change Scoping Plan in November 2022 (CARB 2022). The 2022 Scoping Plan builds upon the framework established by the 2008 Climate Change Scoping Plan

and previous updates while identifying new, technologically feasible, cost-effective, and equity focused path to achieve California's climate target. The 2022 Scoping Plan includes policies to achieve a significant reduction in fossil fuel combustion, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon.

The 2022 Scoping Plan assesses the progress California is making toward reducing its GHG emissions by at least 40 percent below 1990 levels by 2030, as called for in SB 32 and laid out in the 2017 Scoping Plan, addresses recent legislation and direction from Governor Gavin Newsom, extends and expands upon these earlier plans, and implements a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045, as well as taking an additional step of adding carbon neutrality as a science-based guide for California's climate work. As stated in the 2022 Scoping Plan, "The plan outlines how carbon neutrality can be achieved by taking bold steps to reduce GHGs to meet the anthropogenic emissions target and by expanding actions to capture and store carbon through the state's natural and working lands and using a variety of mechanical approaches" (CARB 2022). Specifically, the 2022 Update:

- Identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030.
- Identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045, and a reduction in anthropogenic emissions by 85 percent below 1990 levels.
- Focuses on strategies for reducing California's dependency on petroleum to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth and clean sector jobs.
- Integrates equity and protecting California's most impacted communities as driving principles throughout the document.
- Incorporates the contribution of natural and working lands to the State's GHG emissions, as well as their role in achieving carbon neutrality.
- Relies on the most up-to-date science, including the need to deploy all viable tools to address the existential threat that climate change presents, including carbon capture and sequestration, as well as direct air capture.
- Evaluates the substantial health and economic benefits of taking action.
- Identifies key implementation actions to ensure success.

In addition to reducing emissions from transportation, energy, and industrial sectors, the 2022 Scoping Plan includes emissions and carbon sequestration in natural and working lands and explores how natural and working lands contribute to long-term climate goals. Under the Scoping Plan Scenario, California's 2030 emissions are anticipated to be 48 percent below 1990 levels, representing an acceleration of the current SB 32 target. Cap-and-Trade regulation continues to play a large factor in the reduction of near-term emissions for meeting the accelerated 2030 reduction target. Every sector of the economy will need to begin to transition in this decade to meet the GHG emissions reduction goals and achieve carbon neutrality no later than 2045. The 2022 Scoping Plan approaches decarbonization from two perspectives, managing a phasedown of existing energy sources and technologies, as well as increasing, developing, and deploying alternative clean energy sources and technology.

Executive Order B-55-18

On September 10, 2018, the governor issued Executive Order B-55-18, which established a new statewide goal of achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter. This goal is in addition to the existing statewide GHG reduction targets. The 2022 Scoping Plan Update assesses progress towards achieving the SB 32 target and layout out a path to achieve carbon neutrality. This goal is in addition to the existing statewide GHG reduction targets established by SB 375, SB 32, SB 1383, and SB 100.

Executive Order S-01-07

Executive Order S-01-07 (17 CCR 95480 et seq.) required the state to achieve a 10 percent or greater reduction by 2020 in the average fuel carbon intensity for transportation fuels in California regulated by CARB. CARB identified the Low Carbon Fuel Standard as a discrete early action item under AB 32. The 2020 target was achieved in 2016.

In 2018, CARB approved amendments to the Low Carbon Fuel Standard regulation (CARB 2018), which included strengthening and smoothing the carbon intensity benchmarks through 2030 in-line with California's 2030 GHG emission reduction target enacted through SB 32, adding new crediting opportunities to promote zero emission vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector.

Executive Order B-16-12

Executive Order B-16-12 orders State entities under the direction of the Governor including CARB, the Energy Commission, and the California Public Utilities Commission to support the rapid commercialization of zero emission vehicles (ZEVs). It directs these entities to achieve various benchmarks related to zero emission vehicles, including:

- Infrastructure to support up to one million zero emission vehicles by 2020,
- Widespread use of zero emission vehicles for public transportation and freight transport by 2020,
- Over 1.5 million zero emission vehicles on California roads by 2025,
- Annual displacement of at least 1.5 billion gallons of petroleum fuels by 2025, and
- A reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels by 2050.

Executive Order N-19-19

Executive Order N-19-19 was signed on September 20, 2019 and is intended to require the redoubling of the state's efforts to reduce GHG emissions and mitigate the impacts of climate change while building a sustainable, inclusive economy. The Executive Order includes four main directives which include investment, transportation, state buildings and operations, and zero emissions vehicles.

California Renewables Portfolio Standard Program

Senate Bill 1078 (Chapter 516, Statutes of 2002) established California's initial Renewables Portfolio Standard (RPS), requiring retail sellers of electricity—including investor-owned utilities and community choice aggregators—to procure 20 percent of their electricity from renewable sources

by 2017. The legislation also mandated annual increases in renewable procurement of at least one percent.

This goal was later accelerated by Senate Bill 107 (2006), which moved the 20 percent target forward to 2010. California successfully met this revised target and has continued to expand its RPS program through subsequent legislation. The RPS has since evolved to require 33 percent renewable electricity by 2020 (SB 2 [1X]), 50 percent by 2030 (SB 350 of 2015), and 60 percent by 2030 with a goal of 100 percent carbon-free electricity by 2045 (SB 100 of 2018).

The RPS program is jointly implemented by the CPUC and CEC and has been instrumental in driving the development of solar, wind, geothermal, and other renewable energy resources statewide.

Senate Bill 100

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard Program. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 50 percent by 2026, 60 percent by 2030, and 100 percent by 2045.

Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008 (SB 375), signed in August 2008, enhances the state's ability to achieve significant GHG reductions from changes to land use patterns and improved transportation networks. SB 375 directs CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. Metropolitan Planning Organizations are required to adopt a Sustainable Communities Strategy (SCS), which allocates land uses in the Metropolitan Planning Organization's Regional Transportation Plan (RTP). On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. TCAG's updated reduction target is 13 percent per capita GHG emissions reduction from 2005 levels by 2020, and 16 percent per capita GHG emissions reduction from 2005 levels by 2035.

TCAG's previous (2022) RTP/SCS reduced per capita GHG emissions to meet the target set by CARB of 13 percent reduction from 2005 levels by 2020, and 16 percent reduction from 2005 levels by 2035. These targets apply to the entire TCAG region for all on-road light duty trucks and passenger vehicles emissions, and not to individual cities or sub-regions. TCAG, through the proposed 2026 RTP/SCS, must continue to meet the 2035 target. SB 375 specifically states that nothing in the law changes local governments' local land use authorities.

The proposed 2026 RTP/SCS provides a regional policy foundation that local governments may build upon if they so choose. The proposed 2026 RTP/SCS includes and accommodates the growth projections for the region. SB 375 also requires that forecasted development patterns for the region be consistent with the eight-year regional housing needs as allocated to member jurisdictions through the Regional Housing Needs Allocation process under State housing law.

In addition, this EIR lays the groundwork for the streamlined environmental review of qualifying development projects. Qualifying projects that meet statutory criteria and are consistent with the proposed 2026 RTP/SCS are eligible for streamlined environmental review pursuant to CEQA under SB 375 and other laws.

Assembly Bill 197

AB 197 of 2016 (Chapter 250, Statutes of 2016) expands CARB membership to include two nonvoting members from the Legislature; creates a Joint Legislative Committee on Climate Change Policies to make recommendations to the Legislature concerning climate change policies; provides for annual reporting of GHG emissions from sectors covered by the AB 32 Scoping Plan as well as evaluations of regulatory requirements and other programs that may affect GHG emissions trends; and specifies that the adoption of GHG emissions reduction rules and regulations shall consider the social costs. In addition, Scoping Plan updates are required to identify the range of potential GHG emissions reductions and the cost-effectiveness for each emissions reduction measure, compliance mechanism and incentive.

Executive Order N-79-20

Executive Order N-79-20 established a Statewide goal that 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035 and a further goal of the State that 100 percent of medium- and heavy-duty vehicles in the State be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks.

Executive Order N-82-20

Executive Order N-82-20 established a goal of conserving at least 30 percent of California's lands and coastal waters by 2030 and directed state agencies to create a Natural and Working Lands Climate Smart Strategy to advance the State's carbon neutrality goal and builds climate resilience.

Senate Bill 1383

Adopted in September 2016, SB 1383 requires CARB to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants. The bill requires the California Department of Resources Recycling and Recovery (CalRecycle), in consultation with CARB, to adopt regulations that achieve:

- 50-percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020; and
- 75-percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2025.

The bill also mandates various state and local agencies develop further strategies to reduce emissions generated by specific industries such as agriculture. The stated goal is to achieve the following reduction targets by 2030:

- Methane – 40 percent below 2013 levels
- Hydrofluorocarbons – 40 percent below 2013 levels
- Anthropogenic black carbon – 50 percent below 2013 levels

California Building Energy Efficiency Standards

The California Code of Regulations Title 24 is referred to as the Building Energy Efficiency Standards or California Energy Code. This code, originally enacted in 1978, establishes energy efficiency standards for residential and non-residential buildings to reduce California's energy demand. New construction and major renovations must demonstrate their compliance with the current Energy

Code through submittal and approval of a Title 24 Compliance Report to the local building permit review authority and the CEC.

Future land use projects would be subject to the 2025 California Building Energy Efficiency Standards, codified in Title 24, Part 6 of the California Code of Regulations, which took effect on January 1, 2026. These standards are designed to reduce energy consumption in residential and non-residential buildings, support California's climate goals, and improve indoor environmental quality.

Key updates to the 2025 standards include expanded requirements for heat pump technologies, electric readiness for future electrification, enhanced ventilation and indoor air quality measures, and battery storage system readiness for homes with larger electrical service capacities. These measures are expected to reduce building energy demand, lower greenhouse gas emissions, and support integration of distributed energy resources.

AB 130 of 2025 imposes a moratorium on changes to California building codes affecting residential units, including both state and local amendments, through 2031, with limited exemptions. Essentially, AB 130 prohibits CEC or any other adopting agency from considering, approving, or adopting any proposed building standards affecting residential units, unless a certain condition is met, including that the CEC deems those changes necessary as emergency standards to protect health and safety. The 2025 Energy Code became effective on January 1, 2026, and the 2031 Energy Code cycle is anticipated to be unaffected.

California Green Building Standards Code

The 2026 California Green Building Standards Code (CALGreen), codified in Title 24, Part 11 of the California Code of Regulations, and effective in 2025, establishes mandatory minimum environmental performance standards for newly constructed residential and non-residential buildings statewide. These standards are enforced by local jurisdictions and address key sustainability areas including energy efficiency, water conservation, material resource efficiency, and indoor environmental quality.

CALGreen also includes voluntary tiers (Appendices A4 and A5) that provide enhanced environmental performance options. These voluntary measures are intended as model provisions for jurisdictions considering above-code ordinances (also known as "reach codes") or for builders seeking additional compliance flexibility under the California Energy Code.

California State Transportation Agency Climate Action Plan for Transportation Infrastructure

The Climate Action Plan for Transportation Infrastructure (CAPTI) was adopted in July 2021 (CalSTA 2025). CAPTI details how the state recommends investing billions of discretionary transportation dollars annually to aggressively combat and adapt to climate change while supporting public health, safety and equity. CAPTI builds on executive orders signed by Governor Gavin Newsom in 2019 and 2020 targeted at reducing GHG emissions in transportation, which account for more than 40 percent of all emissions, to reach the state's ambitious climate goals.

Throughout 2024, the California State Transportation Agency engaged with public stakeholders to develop new strategies which informed an updated CAPTI 2.0, adopted in January 2025 as an update to the original CAPTI (CalSTA 2025). CAPTI 2.0 builds on the original plan and introduces four new strategies, which include the following:

- S1. Transforming the Future of the State Highway System
- S2. Reducing GHG Impacts of Transportation Investments
- S3. Delivering Equitable Outcomes
- S4. Improving Transparency and Accountability

Each strategy includes specific actions, for a total of 14 new actions necessary for further implementation of the CAPTI framework to align transportation infrastructure investments with California's climate goals. Such changes would help advance a slate of projects that meet climate goals, ensure that these projects are prioritized for state funding, and promote project construction and operations that minimize emissions and impacts from climate change (CalSTA 2025).

c. Local Laws, Regulations, and Policies

Three of TCAG's member jurisdictions have climate action plans (CAPs) that set goals and targets for the reduction of GHG emissions and outline policies to help achieve those goals. The cities of Visalia and Tulare, as well as the County of Tulare have conducted baseline emissions inventories, which establish a reference point for GHG emissions reduction. The City of Visalia CAP (2013), City of Tulare CAP (2011), and County of Tulare CAP (2018) also establish GHG reduction targets and reduction measures to meet those targets. The City of Exeter's Net Zero 2030 Plan (2021) contains similar GHG reduction targets and measures but does not include an emissions inventory. To date, no other cities in the TCAG region have adopted CAPs. Baseline and projected 2030 business as usual GHG emissions from the respective CAPs and jurisdiction are shown in Table 4.8-1 below and include emissions produced by transportation, electricity and natural gas consumptions, water supply and conveyance, wastewater treatment, agriculture, and solid waste disposal.

Table 4.8-1 GHG Emissions Inventories for TCAG Member Jurisdictions

	Baseline		Projected Business-as-Usual	
Jurisdiction	Year	Emissions (MT of CO_2e/year)	Year	Emissions (MT of CO_2e/year)
Visalia	2005	906,337	2030	1,394,323
Tulare	2006	820,291	2030	1,835,455
Tulare County	2015	9,626,950	2030	11,411,087

Sources: City of Visalia 2013; City of Tulare 2011; County of Tulare 2018

The types and quantity of emissions produced in the TCAG region vary among jurisdictional boundaries. However, for most jurisdictions, transportation and energy consumption are responsible for the majority of GHG emissions. To address these emissions, policies included in local CAPs in the region establish a framework for improved circulation networks and energy conservation. Transportation policies aim to reduce vehicle miles traveled (VMT) by offering more opportunities for alternative transportation modes, such as bicycling and transit use. In addition, many of the CAPs include policies to promote transit-oriented development. To reduce emissions produced by energy usage, jurisdictions have established policies that will facilitate and encourage energy efficiency for both residential and commercial land uses along with programs to improve energy efficiencies in old and new buildings and decrease the use of fossil fuels by providing incentives for use of renewable energy.

In addition to CAPs, Tulare County and cities have included in their general plans policies for reducing overall energy consumption, improving energy efficiency, and promoting renewable energy. These are reviewed in Section 4.6, *Energy*.

4.8.3 Impact Analysis

a. Methodology and Significance Thresholds

Methodology

Mobile Source Emissions Modeling

GHG emissions from on-road mobile sources were calculated using the emission factors, fleet mix, and vehicle trip and population estimates from CARB's EMFAC2021 model and regional VMT from TCAG's Regional Travel Demand Model (as further described in Section 4.15, *Transportation*), shown in Table 4.8-2. EMFAC2021 reflects CARB's most current assumptions regarding vehicle regulations and fleet turnover. Following guidance from CARB, adjustments were made to emission factors to account for emissions impacts from recent federal actions affecting California motor vehicle standards— including Advanced Clean Cars II, Advanced Clean Trucks (ACT), Zero-Emission Airport Shuttle requirements, Heavy-Duty Vehicle and Engine Warranty and Maintenance Provisions (Warranty Phase 1), and the Heavy-Duty Omnibus regulation (EMFAC 2021 v. 1.0.2). Although these federal actions are subject to ongoing legal proceedings, use of the latest available CARB-released EMFAC model and associated adjustments are appropriate for CEQA analysis as it provides the a conservative impact analysis approach. Detailed methodologies and calculations are provided in Appendix F.

Table 4.8-2 Proposed 2026 RTP/SCS Total Daily VMT Data

Year	Daily Regional VMT
2005 Baseline (SB 375 Baseline)	10,153,707
2025 Baseline (existing conditions)	10,662,601
2030 with Proposed 2026 RTP/SCS	11,036,842
2035 with Proposed 2026 RTP/SCS	11,259,360
2045 with Proposed 2026 RTP/SCS	11,585,533
2049 No Project	12,458,425
2049 with Proposed 2026 RTP/SCS	11,566,124

[1] Regional VMT only includes vehicle miles traveled within the TCAG region.

VMT = vehicle miles traveled

Source: Appendix F

Projected emissions from all vehicle types on the TCAG transportation network for the year 2049 under proposed 2026 RTP/SCS conditions were compared with emissions estimated for baseline year 2025. The proposed 2026 RTP/SCS scenario was also compared with emissions estimated for 2049 without implementation of the proposed 2026 RTP/SCS for informational purposes.

Total transportation related GHG emissions were evaluated using daily regional VMT with emissions reported in terms of CO_2e, which captures vehicle miles traveled on trips that travel within the TCAG region. For the purposes of evaluating consistency with the SB 32 target, 2005 daily regional VMT

(which captures trips within the region only) was utilized. This is needed to back-calculate estimated 1990 emissions levels pursuant to CARB's guidance to assume 1990 emissions levels are roughly equivalent to a 15 percent reduction from baseline 2005 emissions levels (CARB 2008). In addition, for the SB 32 consistency analysis, emissions were calculated in terms of CO_2e, which represents a mass-based metric that aggregates all GHGs based on their global warming potential into a single comparable unit. Using CO_2e allows emissions of different gases (e.g., CO_2, methane, nitrous oxide) to be evaluated collectively in a manner consistent with state inventory and reduction targets. The estimated project-related CO_2e emissions were then compared to baseline statewide emissions levels (1990) and the SB 32 target year (2030) to evaluate consistency with California's legislatively mandated goal of reducing GHG emissions to 40 percent below 1990 levels by 2030. In this context, the CO_2e estimates serve as a proxy for assessing the Project's incremental contribution to statewide emissions and the associated percent change over time between the 1990 baseline and 2030 target scenario.

SB 375 Analysis

To determine whether the proposed 2026 RTP/SCS would allow TCAG to meet its SB 375 reduction targets, per capita CO_2e emissions were calculated by multiplying the emission factors by the VMT from passenger vehicles and dividing by the region's population. For the purposes of this analysis, the year 2005 is used as the baseline year per the requirements of SB 375.

TCAG calculated 2005 emissions using EMFAC2011. EMFAC2011 was used to calculate SB 375-based baseline conditions because it was CARB's latest approved model version at the time of SB 375 target development. Subsequent evaluations of the SB 375 targets require Metropolitan Planning Organizations to utilize the same model version (EMFAC2011) for consistency, or to create an adjustment factor for emissions in 2005 and future years estimated using a different model version. AMBAG calculated the 2035 per capita GHG emissions using EMFAC2014 and created an adjustment factor to account for the two versions of EMFAC used. TCAG elected to use EMFAC2014 to estimate future emissions as this model version incorporated several changes, new data, and new methodology for calculating motor vehicle emissions compared to EMFAC2011. While a newer EMFAC model was used than the one applied for 2005 emissions, the adjustment factor accounts for potential differences between EMFAC2011 and EMFAC2014 model results.

The EMFAC model generates an output of CO_2e emissions, which were used as the overall indicator of GHG emissions associated with passenger vehicles. The CO_2e emissions associated with vehicle starts are accounted for in the EMFAC model based on the distribution of vehicle starts by vehicle classification, vehicle technology class, and operating mode. EMFAC adds these vehicle starts to the running emissions to compute total on-road mobile source emissions.

Consistency with SB 32, the 2022 Scoping Plan, and AB 1279

Meeting the goals of SB 375 does not guarantee consistency with SB 32, AB 1279, and the 2022 Scoping Plan. As described above, SB 375 is only concerned with VMT from specific passenger vehicle categories. For an analysis regarding SB 32 and AB 1279, the full fleet needs to be accounted for because these policies pertain to all mobile emissions as well as land use emissions. To determine that a project would not conflict with the State's ability to achieve the SB 32 target or the AB 1279 target, the 2026 RTP/SCS would need to achieve substantial progress toward achieving the target reductions. Mobile source emissions were calculated to determine regionwide GHG emissions with implementation of the 2026 RTP/SCS. If implementation of the 2026 RTP/SCS would

achieve substantial progress toward the emissions reduction targets established by SB 32 and AB 1279, then impacts related to these policies would not be considered significant.

The State Legislature has codified targets of reducing emissions to 40 percent below 1990 emissions levels by 2030 (SB 32) and 85 percent below 1990 emissions levels by 2045 (AB 1279). The 2022 Scoping Plan Update was developed to demonstrate how the State will achieve the 2045 target and stay on track to meet the 2030 SB 32 target. The plan also identifies a path to achieve carbon neutrality by 2045.

While state and regional regulators of energy and transportation systems, along with the State's Cap-and-Trade program, are designed to be set at limits to achieve most of the reductions needed to attain the State's long-term targets, local governments can do their fair share toward meeting the State's targets by siting and approving projects that accommodate planned population growth and projects in ways that are GHG-efficient. The Association of Environmental Professionals (AEP) Climate Change Committee recommends that CEQA GHG analyses evaluate project emissions in light of the trajectory of state climate change legislation and assess their "substantial progress" toward achieving long-term reduction targets identified in available plans, legislation, or executive orders (AEP 2016).

Consistent with AEP Climate Change Committee recommendations, GHG impacts are analyzed using a threshold based on the State's 2030 and 2045 targets, which evaluates whether the project would impede "substantial progress" toward meeting the reduction goals identified in SB 32, and AB 1279. Because SB 32 is considered an interim target toward meeting the 2045 State goals, consistency with SB 32 is considered to be contributing substantial progress toward meeting the State's long-term 2045 goals.

Significance Thresholds

Appendix G of the CEQA Guidelines identifies the following two general criteria for determining whether a project's impacts would have a significant impact related to GHG emissions. Specific criteria under each general criterion have been developed for this EIR. The project would have a significant impact related to GHG emissions if it would:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. An increase that exceeds the following threshold would be considered a significant impact:
    a. A net increase in GHG emissions by 2049 compared to existing baseline conditions.
2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Any conflict with the following thresholds would be considered a significant impact:
    a. Conflict with regional SB 375 per capita passenger vehicle CO_2 emission reduction targets of 16 percent by 2035 from 2005 levels;
    b. Conflict with state's ability to achieve SB 32 GHG reduction target, which aims to reduce statewide emissions to 40 percent below 1990 levels by 2030;
    c. Conflict with state's ability to achieve AB 1279 net zero greenhouse gas emissions goal as soon as possible, but no later than 2045, and to achieve and maintain net negative greenhouse gas emissions thereafter, and to ensure that by 2045, statewide anthropogenic greenhouse gas emissions are reduced to at least 85 percent below the 1990 levels;
    d. Conflict with applicable local GHG emission reduction plans.

The San Joaquin Valley Air Pollution Control District has not adopted GHG significance thresholds that are applicable to evaluating the impacts of the proposed 2026 RTP/SCS in light of the State's post-2020 GHG emission reduction targets. In the absence of applicable District-adopted thresholds, this section uses the project-specific thresholds of significance listed above for each GHG impact criterion in Appendix G.

b. Project Impacts and Mitigation Measures

The following section discusses impacts and mitigation measures that may be associated with transportation projects and the land use scenario contained within the proposed 2026 RTP/SCS. Due to the programmatic nature of the proposed 2026 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 improvement projects and future projects under the land use scenario implementing the proposed 2026 RTP/SCS could result in the impacts as described in the following section.

Threshold 1:	Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment? An increase that exceeds the following threshold would be considered a significant impact: a. A net increase in GHG emissions by 2049 compared to existing baseline conditions (construction)

Impact GHG-1 CONSTRUCTION OF THE TRANSPORTATION IMPROVEMENTS AND LAND USE PROJECTS IMPLEMENTING THE PROPOSED 2026 RTP/SCS WOULD GENERATE A NET INCREASE IN GHG EMISSIONS BY 2049 COMPARED TO BASELINE 2025 CONDITIONS. IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Construction activities associated with transportation improvement projects and future land use projects implementing the proposed 2026 RTP/SCS would generate temporary short-term GHG emissions primarily due to the operation of construction equipment and truck trips. GHG emissions from construction can vary depending on the level of activity, the specific operations taking place, the equipment being operated and other factors. However, because such emissions are dependent on the characteristics of individual development projects, at the program-level of analysis, it is not feasible to quantify the amount of emissions expected from implementation of the proposed 2026 RTP/SCS. This is due to the variability in the extent of construction based on site conditions throughout the TCAG region and the lack of project details needed to conduct such an analysis. Therefore, this analysis includes a qualitative analysis of GHG emissions from construction activity associated with projected land use development and proposed transportation projects.

Construction activities generally result in annual GHG emissions that represent a small proportion of total annual GHG emissions. Nonetheless, construction activities would still result in GHG emissions exceeding the 2025 baseline and thus result in a significant impact. The following mitigation measures would reduce this impact.

Mitigation Measures

For all transportation projects under their jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures developed for the proposed 2026 RTP/SCS where applicable for transportation projects generating construction-related GHG emissions. Cities and the County can and should implement these measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project-

specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions. Implementation of Mitigation Measures AQ-2(b) and AQ-2(c) in Section 4.3, *Air Quality*, would also reduce construction GHG emissions from the proposed 2026 RTP/SCS.

GHG-1 Construction GHG Reduction Measures

The implementing agency shall incorporate the most recent GHG reduction measures and/or technologies for reducing GHG emissions measures for off-road construction vehicles during construction. The measures shall be noted on all construction plans and the project sponsor shall perform periodic site inspections. Current GHG-reducing measures include the following:

- Off road diesel construction equipment meeting the most stringent CARB emissions standards for off-road heavy-duty diesel engines must be used (e.g., as of 2026, this would be Tier 4 emission standards). Where the use of the most stringent CARB emissions standards for off-road heavy-duty diesel engines is not feasible, the next lower tier shall be used; where the use of the next lower tier is not feasible, the next lowest tier shall be used.
- Use of on-road heavy-duty trucks that meet CARB's most stringent or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation;
- All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the five-minute idling limit;
- Substitute gasoline-powered in place of diesel-powered equipment, where feasible;
- Use of alternatively fueled construction equipment, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel, in place of diesel-powered equipment for 15 percent of the fleet, to the extent electric powered equipment is not feasible;
- Use of materials sourced from local suppliers;
- Recycling of at least 75 percent of construction waste materials; and
- Implementing agencies shall incentivize construction workers to carpool, and/or use electric vehicles to commute to and from the project site.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during construction where appropriate.

Mitigation Measures AQ-2(b) *Diesel Equipment Emissions Standards* and AQ-2(c) *Electric Construction Equipment*.

See Impact AQ-2 for Mitigation Measures AQ-2(b) and 2(c).

Significance After Mitigation

Implementation of Mitigation Measure GHG-1 would reduce short-term construction emissions from individual projects and thus reduce the severity of impacts by requiring best practices for exhaust emissions via readily available, lower-emitting diesel equipment, and/or equipment powered by alternative cleaner fuels (e.g., propane) or electricity, as well as on-road trucks using particulate exhaust filters. However, these mitigation measures may not be effective for all projects.

Therefore, this impact would remain significant and unavoidable. No additional mitigation measures to reduce this impact to less than significant levels are feasible.

Threshold 1:	Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment? An increase that exceeds the following threshold would be considered a significant impact: a. A net increase in GHG emissions by 2049 compared to existing baseline conditions (operation)

Impact GHG-2 PROPOSED TRANSPORTATION IMPROVEMENTS WOULD RESULT IN A NET DECREASE IN GHG EMISSIONS AND LAND USE PROJECTS IMPLEMENTING THE 2026 RTP/SCS WOULD RESULT IN AN INCREASE IN GHG EMISSIONS BY 2049 COMPARED TO THE EXISTING BASELINE CONDITIONS. IMPACTS FROM TRANSPORTATION IMPROVEMENTS WOULD HAVE A LESS THAN SIGNIFICANT IMPACT AND IMPACTS FROM LAND USE PROJECTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Transportation-Related Emissions

Table 4.8-3 compares the total transportation-related emissions from all vehicle classes for existing (2025) conditions and with implementation of the proposed 2026 RTP/SCS. Emissions under the 2049 "No Project" scenario are included for informational purposes. As presented in Table 4.8-3, implementation of the proposed 2026 RTP/SCS would result in a net reduction in per capita emissions of 0.69 MT of CO_2e per person per year and a net reduction in total emissions of 179,245 MT of CO_2e per year by 2049, compared to existing (2025) conditions.

Table 4.8-3 Proposed 2026 RTP/SCS Net Change in Transportation-Related Emissions (2025-2049)

Scenario	Total Emissions (MT of CO_2e/year)	Per Capita Emissions (MT of CO_2e/person/year)[1]
Existing (2025)	1,783,542	3.66
2049 No Project	1,724,934	3.42
2049 with Proposed 2026 RTP/SCS	1,604,297	2.97
Net Change from Existing (2025)	**(179,245)**	**(0.69)**
Net Change from 2049 No Project	**(120,637)**	**(0.45)**
Threshold of Significance	> 0	> 0
Threshold Exceeded?	No	No

( ) denotes a negative number.

MT = metric tons; CO_2e = carbon dioxide equivalent

Source: Appendix F

The estimated reduction in total mobile source emissions is, in part, due to stricter fuel efficiency and vehicle emissions standards that will phase in over the planning period as reflected in EMFAC2021 emission factors.[1] In addition, the estimated reduction in per capita mobile source emissions is also the result of slower growth in VMT as compared to forecast population growth,

[1] Following guidance from CARB, adjustments were made to emission factors to account for emissions impacts from recent federal actions rescinding USEPA approval of California motor vehicle standards— including Advanced Clean Cars II, Advanced Clean Trucks (ACT), Zero-Emission Airport Shuttle requirements, Heavy-Duty Vehicle and Engine Warranty and Maintenance Provisions (Warranty Phase 1), and the Heavy-Duty Omnibus regulation.

due to the improved circulation networks and multimodal transportation initiatives outlined in the proposed 2026 RTP/SCS, which would reduce per capita VMT. The proposed 2026 RTP/SCS would also result in a slight net reduction in VMT and associated emissions as compared to the future "No Project" scenario due to implementation of strategies and proposed RTP/SCS projects. Because the proposed 2026 RTP/SCS would result in a net decrease in transportation-related emissions in the TCAG region by 2049 compared to existing baseline conditions, operational activities for transportation projects under the plan would not generate GHG emissions that may have a significant impact on the environment, and impacts would be less than significant.

Other Land Use Development Emissions

In addition to the transportation-related GHG emissions shown in Table 4.8-3, land use projects implementing the land use scenario in the proposed 2026 RTP/SCS would also result in GHG emissions due to sources such as electricity and natural gas consumption. Residential, commercial, agricultural, and other land uses would result in GHG emissions; however, data is not available to quantify impacts from such sources. For instance, agricultural machinery and processes have unique emission factors, and GHG emissions must be calculated using precise information regarding specific processes. Furthermore, emissions from land use projects cannot be feasibly quantified at this time because details about future land use projects and their timing are unknown. Therefore, because future land use projects would represent new sources of GHG emissions, it can be conservatively estimated that total GHG emissions from future land use projects under the land use scenario implementing the proposed 2026 RTP/SCS would increase over the planning period compared to baseline (2025) levels. Although per capita emissions associated with electricity and natural gas consumption, water and wastewater conveyance and treatment, and solid waste disposal are anticipated to decline, primarily as a result of increasingly stringent iterations of State building code standards (specifically, the California Energy Code and the California Green Building Standards Code), total emissions may increase due to population growth and future land use projects. As a result, impacts of land use projects implementing the proposed 2026 RTP/SCS on total GHG emissions would be significant.

Mitigation Measures

Cities and the County can and should implement the following mitigation measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions.

GHG-2 Land Use Project Energy Consumption and Water Use Reduction Measures

The cities and the County, when processing discretionary land use projects, shall implement the following measures as applicable and feasible to the project. The cities and the County may also incorporate these measures into their local planning regulations.

Measures to reduce GHG emissions for land use projects include, but are not limited to:

- Require new residential and commercial construction to install solar energy systems or be solar-ready
- Require new residential and commercial development to install low flow water fixtures

- Require new residential and commercial development to install water-efficient drought-tolerant landscaping, including the use of compost and mulch
- Require new development to exceed the applicable Title 24 energy-efficiency requirements
- Require new residential and commercial development to offer information on recycling, composting, and disposal of household hazardous waste and e-waste
- Require new development to implement circulation design elements in parking lots for non-residential uses to reduce vehicle queuing and improve the pedestrian environment

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for land use projects are cities and the County. This mitigation measure can and should be applied during project permitting and environmental review and implemented during project operation, as applicable.

Significance After Mitigation

If implementing agencies adopt and require the mitigation described above, impacts would be reduced because energy, water use, solid waste generation, and VMT related GHG emissions from land use projects would be reduced. However, implementation of project-level GHG-reducing measures cannot be guaranteed on a project-by-project basis. Therefore, this impact would remain significant and unavoidable. No additional feasible mitigation measures are available that would ensure no net increase in GHG emissions compared to existing baseline conditions.

Threshold 2:	Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? Any conflict with the following thresholds would be considered a significant impact: a. Conflict with regional SB 375 per capita passenger vehicle CO_2 emission reduction targets of 16 percent by 2035 from 2005 levels

Impact GHG-3 THE TRANSPORTATION IMPROVEMENTS AND LAND USE PROJECTS IMPLEMENTING THE PROPOSED 2026 RTP/SCS WOULD NOT CONFLICT WITH REGIONAL SB 375 PER CAPITA PASSENGER VEHICLE CO_2 EMISSION REDUCTION TARGETS OF 16 PERCENT BY 2035 FROM 2005 LEVELS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

One of the goals of SB 375 is to reach the per capita GHG emissions reduction targets for passenger vehicles set by CARB through an integrated land use, transportation, and housing plan. Achievement of this goal is an objective of the proposed 2026 RTP/SCS. The target from CARB, analyzed in this EIR, is identified as a 16 percent reduction in per capita passenger vehicle emissions from 2005 levels by 2035.[2] Table 4.8-4 presents per capita passenger vehicle emissions for 2035 as compared to the 2005 baseline. The per capita transportation-related emissions from passenger vehicles include off-model adjustments that represent a reasonable level effect[3] of the transportation programs included in the proposed 2026 RTP/SCS.

[2] The SB 375 target for 2020 is not utilized herein as a threshold of significance because the 2026 RTP/SCS would apply only to future transportation and land use planning from the year of adoption (anticipated to be 2026) forward. The 2020 statewide target was already achieved. Therefore, while TCAG has modeled GHG emissions for 2020 for illustrative purposes, no aspect of the proposed 2026 RTP/SCS can influence the achievement or lack of achievement of target year 2020 GHG emissions.

[3] In RTP/SCS GHG analysis, the travel demand model is the primary tool for estimating VMT and emissions. However, not all transportation strategies are fully captured by the model (e.g., pricing programs, TDM measures, behavioral shifts). To account for these,

Table 4.8-4 Per Capita Passenger Vehicle CO_2 Emissions Comparison

	Per Capita CO_2 Emissions (lbs/day)	
	2005 Baseline (per SB 375)	2035
Per Capita Passenger Vehicle Emissions	17	14.3
Percent Change from Per Capita GHG Emissions from 2005[2]		-16%
SB 375 Target[1]		-16%
SB 375 Target Met?		Yes

CO_2 = carbon dioxide; lbs = pounds; SB = Senate Bill

Source: Appendix F

[1]SB 375 targets have not been adopted for post-2035 years.

[2] The percent change from per capita GHG emissions from 2005 includes reductions from off-model adjustments and is consistent with CARB guidance for SB 375 Sustainable Communities Strategies. The combined modeled and off-model reduction is 15.7 percent. Consistent with CARB direction regarding target evaluation, percentages are rounded to the nearest whole percent; therefore, the reduction rounds to 16 percent.

As shown in Table 4.8-4, implementation of the proposed 2026 RTP/SCS in the year 2035 would result in a decrease of per capita passenger vehicle CO_2 emissions by 16 percent compared to 2005 levels. The proposed 2026 RTP/SCS is projected to achieve a 16 percent reduction in per-capita passenger vehicle greenhouse gas emissions. Consistent with guidance provided by CARB, reductions are evaluated on a rounded basis for purposes of determining consistency with the SB 375 target. When rounded to the nearest whole percent, the projected reduction is 16 percent. Therefore, the proposed 2026 RTP/SCS would achieve the SB 375 reduction target for TCAG.

The 2026 RTP/SCS incorporates a suite of strategies that are intended to support achievement of regional GHG reduction targets and related sustainability objectives. These strategies consist of transportation, operational, and behavioral measures that are not fully captured within the regional travel demand model but are reasonably expected to reduce VMT, improve mobility options, and enhance overall transportation system efficiency. As such, these strategies are considered in the assessment of the Plan's overall GHG emissions performance and its consistency with applicable reduction targets (CARB 2019).[4]

Because the emissions reduction benefits associated with these strategies—particularly those related to system efficiency, emerging technologies, and travel behavior—are not fully captured in the regional model, their contribution is evaluated using CARB-recommended methodologies, regional program data, and planning-level assumptions based on the best available information (CARB 2019). This approach provides a conservative and reasonable basis for considering their incremental contribution to regional GHG reductions.

Therefore, with implementation of the proposed 2026 RTP/SCS and additional strategies to reduce per capita vehicle emissions beyond those included in the model, the 2026 RTP/SCS would achieve the SB 375 GHG reduction target for TCAG of 16 percent by 2035, and the proposed 2026 RTP/SCS would therefore be consistent with SB 375. Impacts would be less than significant.

TCAG applied "off-model adjustments", which are essentially manual adjustments or factors applied to modeled results to reflect the expected influence of those strategies. The adjustments represent a plausible, evidence-based estimate—not an exact or fully modeled outcome—of how much the RTP/SCS transportation programs would reduce emissions or VMT.

[4] Use of off-model strategies is consistent with CARB guidance for the SB 375 SCS, which recognizes that certain strategies may not be fully represented in modeled outputs but may nevertheless contribute incrementally to regional emissions reductions. Accordingly, these strategies are considered supplemental to the modeled land use and transportation scenario and are not relied upon as the sole basis for demonstrating consistency with GHG reduction targets.

Mitigation Measures

No mitigation measures are required.

Threshold 2:	Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? Any conflict with the following thresholds would be considered a significant impact: b. Conflict with state's ability to achieve SB 32 GHG reduction target, which aims to reduce statewide emissions to 40 percent below 1990 levels by 2030 c. Conflict with state's ability to achieve AB 1279 net zero greenhouse gas emissions goal as soon as possible, but no later than 2045, and to achieve and maintain net negative greenhouse gas emissions thereafter, and to ensure that by 2045, statewide anthropogenic greenhouse gas emissions are reduced to at least 85 percent below the 1990 levels; d. Conflict with applicable local GHG reduction plans

Impact GHG-4 IMPLEMENTATION OF THE PROPOSED 2026 RTP/SCS WOULD CONFLICT WITH THE STATE'S ABILITY TO ACHIEVE SB 32 AND AB 1279, AND APPLICABLE LOCAL GHG REDUCTION PLAN TARGETS AND GOALS. IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

SB 32 and AB 1279

The SB 375 targets remain an important supporting component of CARB's 2017 Scoping Plan. However, the 2017 Scoping Plan has been superseded by the 2022 Scoping Plan, which establishes a framework for achieving the 2045 target codified by AB 1279. In addition, the 2017 Plan states, "Stronger SB 375 GHG reduction targets [adopted in 2018] will enable the State to make significant progress toward this goal, but alone will not provide all of the VMT growth reductions that will be needed. There is a gap between what SB 375 can provide and what is needed to meet the State's 2030 and 2050 goals" (CARB 2017). Therefore, consistency with the SB 375 target does not necessarily equate to consistency with SB 32 and the 2017 Scoping Plan. Accordingly, the SB 375 target does not equate to consistency with AB 1279 and the 2022 Scoping Plan.

This analysis conservatively assumes that to be consistent with State targets, the 2026 RTP/SCS would be required to achieve the same proportional GHG reductions as the State by the year 2045 (i.e., an 85 percent reduction in anthropogenic GHG emissions below 1990 levels), as well as achieving the interim 2030 target (i.e., a 40 percent reduction in GHG emissions below 1990 levels). As shown in Table 4.8-5 GHG emissions in 2030 would increase by 16 percent as compared to 1990 levels, which is not sufficient to achieve the 2030 target of a 40 percent reduction below 1990 levels. GHG emissions in 2045 would increase by 11 percent as compared to 1990 levels, which is not sufficient to achieve the 2045 target of an 85 percent reduction below 1990 levels.

It should be noted that the regional 2030 and 2045 GHG emissions shown in Table 4.8-5 do not account for the TDM, TSM, zero emission vehicles and EV charging infrastructure, nor the telecommuting strategies, which would reduce the on-road transportation GHG emissions further. However, implementation of these strategies would not be enough to achieve the SB 32 or AB 1279 reduction targets. Therefore, although the projects, policies, and land use patterns identified in the 2026 RTP/SCS are designed to align transportation and land use planning to reduce transportation related GHG emissions, the 2026 RTP/SCS would conflict with the State's ability to achieve the SB 32

and AB 1279 GHG emissions reduction goals. As a result, impacts related to conflicts with SB 32 and AB 1279 would be significant.

Table 4.8-5 2030 and 2045 GHG Emissions Compared to 1990 Levels

Scenario	CO_2e Emissions (MT/year)	% Difference in Emissions Compared to 1990 Baseline
1990 Baseline[1]	1,432,009	--
2030 with 2049 RTP/SCS	1,666,583	16%
2045 with 2049 RTP/SCS	1,589,387	11%

[1] 1990 Baseline from the 2022 RTP/SCS.

CO_2 = carbon dioxide; MT = metric ton

Source: Appendix F

2022 Scoping Plan

The proposed 2026 RTP/SCS would implement a suite of transportation improvement projects and facilitate a land use scenario that is consistent with the transportation and land use strategies of the 2022 Scoping Plan, which establishes a pathway to achieve carbon neutrality by 2045 through deep reductions in VMT, accelerated deployment of zero-emission technologies, and increased use of low-carbon mobility options. Consistent with the 2022 Scoping Plan, the land use scenario implementing the proposed 2026 RTP/SCS concentrates forecasted population and employment growth within already urbanized areas to support infill development, reduce automobile dependence, and limit growth in VMT. Active transportation projects would implement design policies that prioritize transit, biking, and walking throughout the TCAG region, including but not limited to the cities of Dinuba, Farmersville, Porterville, Visalia, and Woodlake. These projects would improve the safety, connectivity, and attractiveness of active transportation facilities through the addition of sidewalks, trails, bike lanes, crosswalks, intersection improvements, and signage. In addition, the proposed 2026 RTP/SCS includes transit projects designed to maintain, enhance, and expand public transit services provided by agencies in the TCAG region operating as the Tulare County Regional Transit Agency. Proposed projects include electric bus procurement, continuation of the Student Transit Pass Program, expansion of compressed natural gas fueling infrastructure, transit system technology improvements, and the addition of new transit routes. Collectively, these investments would expand access to low-carbon and zero-emission transportation options, reduce reliance on single-occupant vehicle travel, and support the 2022 Scoping Plan's strategies for transforming the transportation sector, including increased transit use, VMT reduction, and transition to zero-emission vehicles. Therefore, the 2026 RTP/SCS is consistent with the transportation strategies of the 2022 Scoping Plan.

As demonstrated in this analysis, the proposed plan would not reduce GHG emissions to achieve carbon neutrality or an 85 percent reduction in anthropogenic GHG emissions by 2045, or at a magnitude consistent with the SB 32 target and, therefore would not align with the emissions trajectory contemplated by the 2022 Scoping Plan for achieving the State's long-term statutory climate goals. Since the plan would not achieve an 85 percent reduction in GHG emissions from 1990 levels by 2045, the 2026 RTP/SCS would conflict with the State's ability to achieve the 2022 Scoping Plan's goals, resulting in a significant impact.

Local Climate Action Plans

Three of TCAG's member jurisdictions (Tulare County and the Cities of Visalia and Tulare) have adopted CAPs that set goals and targets for the reduction of GHG emissions, and outline policies to help achieve those goals (County of Tulare 2018; City of Visalia 2013; City of Tulare 2011).

The CAPs developed by the Cities of Visalia and Tulare had been adopted prior to enaction of SB 32, and thus present strategies intended to comply with the GHG emissions reduction goals recommended for local governments in the AB 32 Scoping Plan, which was aimed at reducing GHG emissions to 1990 levels by 2020 in accordance with AB 32. These CAPs are also intended to make progress toward the State's 2030 target of reducing GHG emissions by 40 percent below 1990 levels, as codified by SB 32 in 2017. In addition, the County of Tulare presents strategies explicitly addressing the GHG reduction goals set forth in SB 32. As discussed previously, the proposed 2026 RTP/SCS was determined to be inconsistent with the SB 32 target. Therefore, it would also conflict with the goals of local CAPs designed to make progress towards or meet the same State goals, and impacts would be significant.

Conclusion

The proposed 2026 RTP/SCS would facilitate infill and transit oriented land use development as well as transit and alternative transportation projects, which would improve the transportation network in the TCAG planning region and encourage the use of transportation modes other than passenger vehicles. Furthermore, by achieving its SB 375 target, the 2026 RTP/SCS contributes transportation-related GHG emission reductions towards meeting the State's GHG reduction target for 2030 under SB 32 and 2045 under AB 1279.

However, the expected GHG emissions in the TCAG region in 2045 would not be consistent with the State's SB 32 target of 40 percent below 1990 levels by 2030, or with the State's AB 1279 GHG carbon neutrality reduction target and 85 percent reduction in anthropogenic GHG emissions for 2045. Therefore, the 2026 RTP/SCS would conflict with the state's ability to achieve SB 32 and AB 1279 GHG reduction targets. As such, this impact is significant.

Mitigation Measures

For all transportation projects under their jurisdiction, implementing agencies shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures developed for the proposed 2026 RTP/SCS where applicable for transportation projects generating construction GHG emissions. The County of Tulare and cities in the TCAG region can and should implement these measures where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions.

Implementation of Mitigation Measure GHG-2 would also reduce GHG emission from land use projects. Implementation of Mitigation Measure AQ-3(b) in Section 4.3, *Air Quality*, and Mitigation Measures T-2(a) and T-2(b) in Section 4.15, *Transportation*, would further reduce GHG emissions from the proposed 2026 RTP/SCS.

GHG-4(a) Transportation-Related GHG Reduction Measures

The implementing agency shall incorporate the most recent GHG reduction measures and/or technologies for reducing VMT and associated transportation related GHG emissions. GHG-reducing mitigation measures include the following:

- Installation of electric vehicle charging stations beyond those required by State and local codes
- Utilization of electric vehicles and/or alternatively fueled vehicles in company fleet
- Provision of dedicated parking for carpools, vanpool, and clean air vehicles
- Provision of vanpool and/or shuttle service for employees
- Implementation of reduced parking minimum requirements
- Implementation of maximum parking limits
- Provision of bicycle parking facilities beyond those required by State and local codes
- Provision of a bicycle-share program
- Expansion of bicycle routes/lanes along the project site frontage
- Provision of new or improved transit amenities (e.g., covered turnouts, bicycle racks, covered benches, signage, lighting) if project site is located along an existing transit route
- Expansion of existing transit routes
- Provision of transit subsidies
- Expansion of sidewalk infrastructure along the project site frontage
- Provision of safe, pedestrian-friendly, and interconnected sidewalks and streetscapes
- Provision of employee lockers and showers
- Provision of on-site services that reduce the need for off-site travel (e.g., childcare facilities, automatic teller machines, postal machines, food services)
- Provision of alternative work schedule options, such as telework or reduced schedule (e.g., 9/80 or 10/40 schedules), for employees
- Implementation of transportation demand management programs to educate and incentivize residents and/or employees to use transit, smart commute, and alternative transportation options

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. This mitigation measure shall, or can and should, be applied during permitting and environmental review, and implemented during operation where appropriate.

GHG-4(b) Land Use Project Energy Consumption and Water Use Reduction Measures

For land use projects under their jurisdiction, the cities and counties in the TCAG region can and should implement measures to reduce energy consumption, water use, solid waste generation, and VMT, all of which contribute to GHG emissions. Project specific environmental documents may adjust these mitigation measures as necessary to respond to site specific conditions.

- Require new commercial construction to install solar energy systems or be solar-ready
- Require new residential and commercial development to install low flow water fixtures
- Require new residential and commercial development to install water-efficient drought-tolerant landscaping, including the use of compost and mulch
- Require new development to exceed the applicable Title 24 energy-efficiency requirements
- Encourage new development to be fully electric

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during project permitting and environmental review and implemented during project operation, as applicable.

Mitigation Measures GHG-2 *Land Use Project Energy Consumption and Water Use Reduction,* AQ-3(b) *Long-term Regional Operational Emissions,* T-2(a) *Land Use Project VMT Analysis and Reduction*, and T-2(b) *Transportation Project VMT Analysis and Reduction*

See GHG-02 for Mitigation Measure GHG-2, Impact AQ-3 for Mitigation Measure AQ-3(b) and Impact T-2 for Mitigation Measures T-2(a) and T-2(b).

Significance After Mitigation

If implementing agencies adopt and require the mitigation described above, impacts would be reduced because GHG emissions from transportation and land use projects would be reduced. However, implementation of project-level GHG-reducing measures cannot be guaranteed on a project-by-project basis. Additionally, it is speculative at this time to forecast whether project-level GHG emission reductions would be sufficient to achieve a region wide reduction in GHG emissions to achieve SB 32 and AB 1279 targets. Therefore, this impact would remain significant and unavoidable. No additional feasible mitigation measures are available that would reduce emissions to trajectories consistent with SB 32 and AB 1279 GHG reduction targets and goals.

4.8.4 Cumulative Impacts

IMPACT GHG-C-1 DEVELOPMENT IN THE CUMULATIVE IMPACTS ANALYSIS AREA, AS WELL AS PROJECTS IMPLEMENTING THE 2026 RTP/SCS, WOULD GENERATE TEMPORARY SHORT-TERM GHG EMISSIONS WHICH WOULD RESULT IN A SIGNIFICANT CUMULATIVE IMPACT, AND THE 2026 RTP/SCS CONTRIBUTION WOULD BE CUMULATIVELY CONSIDERABLE. CONSTRUCTION AND OPERATIONAL GHG EMISSIONS AS A RESULT OF IMPLEMENTATION OF THE 2026 RTP/SCS WOULD HAVE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO A SIGNIFICANT CUMULATIVE IMPACT RELATED TO EXCEEDING STATE GHG REDUCTION TARGETS.

The cumulative analysis presented below relies on a projections-based approach, using regional growth forecasts for the TCAG region and adjoining counties to evaluate cumulative conditions. Impacts of the 2026 RTP/SCS are added to the impacts of growth and development in the adjoining counties, and a determination is made as to whether cumulative impacts would be significant, and whether the 2026 RTP/SCS incremental contribution would be cumulatively considerable. Refer to Chapter 4, *Environmental Impact Analysis*, *Cumulative Impact Methodology*.

The impacts of GHG emissions are, by definition, cumulative impacts, as they add to the global accumulation of greenhouse gases in the atmosphere. The cumulative impact analysis area for GHG emissions consists of the TCAG region, adjoining counties, and the entire State of California. The entire state is included in the analysis area because GHG emissions from the TCAG region and adjoining counties would influence the ability for the State to achieve its GHG reduction targets.

As discussed under Impact GHG-1, construction activities associated with transportation improvement projects and future land use projects implementing the proposed 2026 RTP/SCS would generate temporary GHG emissions. The temporary construction GHG emissions would occur concurrently with ongoing GHG emissions in the cumulative impact analysis area, such as GHG emissions ongoing agricultural activities in surrounding Valley counties such as Fresno County, Kern County, and Kings County, resulting in a significant cumulative impact. As described under Impact

GHG-1, construction-related GHG emissions associated with buildout under the proposed 2026 RTP/SCS would be significant even after implementation of Mitigation Measures GHG-1, AQ-2(b) and AQ-2(c). Therefore, the contribution of the proposed 2026 RTP/SCS construction emissions to the cumulative impact of total GHG emissions would be cumulatively considerable, pre- and post-mitigation.

As discussed under Impacts GHG-2, the transportation projects and land use projects under the land use scenario implementing the proposed 2026 RTP/SCS would also generate operational GHG emissions. Overall, implementation of the proposed 2026 RTP/SCS would reduce total regionwide transportation-related emissions; however, land use emissions may increase compared to existing conditions and contribute to significant cumulative GHG impacts. Implementation of Mitigation Measure GHG-2 would reduce GHG emissions from land use projects; however, impacts would remain significant and unavoidable. Therefore, the contribution of land use project emissions to the cumulative impact of total GHG emissions would be cumulatively considerable, pre- and post-mitigation.

As discussed under Impact GHG-3, the proposed 2026 RTP/SCS would not conflict with SB 375 because per capita emissions reductions would exceed the regional target of a 16 percent reduction by 2035 compared to 2005 levels, and therefore would not contribute to a significant cumulative impact related to conflict with SB 375. However, as discussed under Impact GHG-4 reductions achieved by the proposed 2026 RTP/SCS would not be sufficient to achieve the 2030 target of a 40 percent reduction in overall emissions set forth by SB 32, and would also be inconsistent with AB 1279's carbon neutrality and 85 percent reduction in anthropogenic emissions 2045 targets. Other ongoing land uses and operation of future development in the cumulative impact analysis area would also generate GHG emissions likely exceeding SB 32 and AB 1279 targets, resulting in a significant cumulative impacts Implementation of Mitigation Measures AQ-3(b), GHG-2, GHG-4, T-2(a) and T-2(b) would reduce the proposed 2026 RTP/SCS impacts related to consistency with state GHG reduction targets; however, emissions would remain in exceedance of applicable significance thresholds. Therefore, the proposed 2026 RTP/SCS would have a cumulatively considerable contribution to the cumulative impact of inconsistency with state GHG reduction targets, both pre- and post- mitigation.

4.9 Hazards and Hazardous Materials

This section analyzes impacts related to hazardous materials and airport safety hazards in the TCAG region that would result from implementation of the proposed 2026 RTP/SCS. Impacts related to exposure to excessive aviation related noise are discussed in detail in Section 4.12, *Noise*, and impacts related to impairment or interference of emergency response or evacuation plans are discussed in Section 4.15, *Transportation*. Impacts related to wildfire hazards are discussed in Section 4.18, *Wildfire*.

4.9.1 Setting

a. Physical Setting

Hazardous Materials and Waste

The term "hazardous material" is defined in the State of California's Health and Safety Code (HSC), Chapter 6.95, Section 25501(o) as:

> Any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

Hazardous waste is hazardous material generated, intentionally or unintentionally, as a byproduct of some process or condition. Hazardous wastes are defined in California HSC Section 25141(b) as wastes that:

> …because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause, or significantly contribute to an increase in mortality or an increase in serious illness [or] pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

According to the U.S. Environmental Protection Agency (USEPA), waste may be considered hazardous if it is specifically listed as known hazardous waste or if it meets the one or more of the following characteristics of a hazardous waste:

- **Toxicity.** Poisonous, harmful when ingested or absorbed.
- **Acute Hazardous Waste.** Extremely dangerous even in small amounts; can cause death, serious illness, or incapacitation with short-term exposure.
- **Ignitability.** Capable of being ignited by open flame, liquids with flash points1 below 60 degrees Celsius.
- **Corrosivity.** Capable of corroding other materials, aqueous wastes with a pH of 2 or less or greater than or equal to 12.5.
- **Reactivity.** May be unstable under normal conditions, may react with water, may give off toxic gases or may be capable of detonation or explosion under normal conditions or when heated.

- **Toxicity Characteristic Waste.** Waste that leaches toxic chemicals above regulatory thresholds using the Toxicity Characteristic Leaching Procedure (TCLP).

Generation and Disposal of Hazardous Materials and Waste

Many chemicals used in household cleaning, construction, light and heavy industry, dry cleaning, film processing, landscaping and automotive maintenance and repair are considered to generate hazardous materials and waste. Additionally, in some cases, past industrial or commercial uses on a site may have resulted in spills or leaks of hazardous materials and petroleum that have caused contamination of the underlying soil and groundwater. Federal and State laws require that soils and groundwater having concentrations of contaminants that are higher than certain acceptable levels are handled and disposed as hazardous waste during excavation, transportation, and disposal. The California Code of Regulations (CCR), Title 22, Sections 66261.20-24 contains technical descriptions of characteristics that would cause a soil to be classified as a hazardous waste. Hazardous materials require special methods of disposal, storage and treatment, and the release of hazardous materials requires an immediate response to protect human health and safety and the environment. Improper disposal can harm the environment and people who work in the waste management industry.

Businesses that handle or generate hazardous materials within the TCAG region are monitored by the U.S. Environmental Protection Agency (USEPA); the Central Valley Regional Water Quality Control Board (RWQCB); Tulare County Environmental Health Department; Local Enforcement Agency programs; and the San Joaquin Valley Air Pollution Control District (SJVAPCD). Generators of hazardous waste fall into two categories: large-quantity generators (LQG) and small-quantity generators (SQG). An LQG is defined as a person or facility generating more than 2,200 pounds of hazardous waste per month. An SQG is defined as generating greater than 100 kilograms (kg) and less than 1,000 kg (2,200 pounds) of hazardous waste per month. LQGs include industrial and commercial facilities, such as manufacturing companies, petroleum refining facilities and other heavy industrial businesses.

LQGs must comply with federal and State requirements for managing hazardous waste. LQGs need an USEPA identification number that is used to monitor and track hazardous waste activities. SQGs include facilities such as service stations, automotive repair, dry cleaners, and medical offices. The regulatory requirements for SQGs are less stringent than the requirements for LQGs; however, SQGs must also obtain an USEPA identification number, which must be used for traceability on all hazardous waste documentation. Pursuant to federal law (40 CFR 262.41-43), all such generators must register with USEPA for record-keeping and reporting.

Transportation of Hazardous Materials and Waste

Hazardous materials, hazardous wastes, medical waste, and petroleum products are a subset of the goods routinely shipped along the transportation corridors in the TCAG region. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by the Department of Toxic Substances Control (DTSC). DTSC maintains a list of active registered hazardous waste transporters throughout California and the California Department of Public Health regulates the haulers of hazardous waste. There are three registered hazardous waste transporters in Tulare County (DTSC 2022a).

Transportation of hazardous materials and wastes in the TCAG region occurs through a variety of modes: truck, rail, and pipeline. Transportation of hazardous materials by truck is regulated by the DOT. The DOT, Federal Motor Carrier Safety Administration, identifies two State route sections in

the TCAG region as a Hazardous Materials Route in its National Hazardous Materials Route Registry (FMCSA 2025). These routes include:

- SR 245 from SR 201 [Elderwood] to SR 198 [Exeter].
- SR 198 from SR 65 [Visalia] to the Sequoia National Park.

According to U.S. DOT Pipeline and Hazardous Materials Safety Administration and Office of Hazardous Materials Safety, hazardous materials traffic in the U.S. now exceeds 800,000 shipments per day and results in more than 3.1 billion tons of hazardous materials annually (FHWA 2021). Considering the primary use of roads compared to rail and pipelines in the TCAG region, trucks are likely responsible for transporting most hazardous materials within the TCAG region. According to DOT (2026a), truck transport consistently accounts for the largest share of reportable incidents each year. For example, in 2020, truck transport accounted for approximately 1,986 reportable incidents in the State, while rail and air transport accounted for 50 and 115 incidents, respectively. While hazardous waste incidents account for a small percentage of overall highway incidents, the impact of these incidents can be more severe due to the nature of the material(s) involved.

The transport of hazardous materials by rail is also regulated by DOT. Freight railroads have employee safety training requirements and operating procedures that govern the handling and movement of hazardous goods, including crude oil. Federal regulations and self-imposed safety practices dictate train speeds, equipment and infrastructure inspections and procedures for how to handle and secure trains carrying hazardous materials. The freight rail industry provides instruction to local public safety officials at the Transportation Technology Center's Security and Emergency Response Training Center and individual railroads conduct additional local training for first responders (Security and Emergency Response Training Center 2025). Freight railroads also work with State emergency planning committees and local first responders to develop emergency response plans. In accordance with a February 2014 agreement between the DOT and Association of American Railroads, railroads have developed an inventory of emergency response resources and provided the DOT with information on the deployment of those resources. This information is available upon request to appropriate emergency responders (Association of American Railroads 2026). A discussion of the rail facilities in the TCAG region is provided in Section 4.12, *Noise*.

Pipelines, primarily underground, are used to transport a variety of potentially hazardous substances throughout the TCAG region. For example, Kinder Morgan maintains and operates a petroleum pipeline that is roughly parallel to State Route 99 (DOT 2026c). The American Petroleum Institute recommends setbacks of 50 feet from petroleum and hazardous liquids lines for new homes, businesses, and places of public assembly. It also recommends 25 feet for garden sheds, septic tanks, and water wells; and 10 feet for mailboxes and yard lights (Transportation Research Board 2004). The Transportation Research Board encourages the use of zoning regulations to minimize casualties in the event of a catastrophic pipeline rupture. Possible land use techniques include, for example, establishing setbacks; regulating or prohibiting certain types of structures and uses near transmission pipelines; and encouraging, through site and community planning, other types of activities and facilities, such as mini-storage businesses, linear parks and recreational paths, within or in the vicinity of pipeline rights-of-way.

There are no major shipping ports or marine oil terminals in the TCAG region. Transport by ship on the open sea or rivers is not a mode of hazardous materials or waste transport in the region. However, the TCAG region does contain lake marinas, boat storage facilities and other similar boat-based service businesses where petroleum products, paints, cleaning solvents and other substances used in the daily operation and maintenance of boats may be stored and handled.

Potential for Hazardous Materials and Hazardous Materials Sites

Many activities in the TCAG region involve the use of hazardous materials. The use of hazardous materials is commonplace in commercial, industrial, and manufacturing activities, and many businesses within the TCAG region are permitted to handle and transport hazardous materials. There are historic and existing land uses that have generated hazardous waste as part of daily business operations. LQGs and SQGs include such commercial uses as painters, dry cleaners and photographers, and industrial uses such as automotive service stations, sheet metal works, metal scrap yards, truck yards, cement and lime warehouses, coal yards, battery manufacture and Pacific Gas & Electric substations. In addition, older structures may contain building materials that are considered hazardous, such as asbestos and lead-based paint. In general, these historic and current uses and building materials are located throughout the TCAG region.

California Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to prepare an annual Hazardous Waste and Substances List, commonly referred to as the Cortese List. The addition or inclusion of a site on the Cortese List has bearing on the local permitting process and compliance with CEQA. For example, projects proposed at a site on the Cortese List are not eligible for categorical exemptions to CEQA per Section 15300.2(e) of the *CEQA Guidelines*. However, the Cortese List is not maintained as a centralized list, and a variety of governmental data sources identify sites where hazardous substances may have been released or may have created a hazardous condition on-site. These include:

- DTSC Active Transporter County Search Report (2026a);
- DTSC EnviroStor database (DTSC 2026b) (Cortese List) for tracking hazardous waste facilities and site with known contamination or sites where there may be reasons to investigate further;
- State Water Resources Control Board's (SWRCB) GeoTracker database (SWRCB 2026) of records for sites that require cleanup, such as leaking underground storage tank (UST) sites, Department of Defense sites, landfill sites and Cleanup Program sites;
- The DOT's Hazardous Materials Incident Report System database (DOT 2026a), which is maintained by the USEPA and contains data on hazardous material spill incidents;
- California Department of Resources Recycling and Recovery's (CalRecycle) Solid Waste Inventory System database (CalRecycle 2026) of active and closed solid waste sites;
- The USEPA Envirofacts database (USEPA 2026) of Resource Conservation and Recovery Act (RCRA) sites, as well as other hazardous sites, such as superfund and brownfield sites; and
- The USACE list of Formerly Used Defense Sites for California (USACE 2022).

All of the listed databases identify sites within the TCAG region. The DTSC Active Transporter County Search Report identifies three registered hazardous waste transporters in Tulare County: Tulare County Environmental Health, Valley Cleaning and Restoration Inc., and Robles Transport LLC. (DTSC 2026a). The USACE list of Formerly Used Defense Sites for California identifies two sites in the TCAG region. According to CalRecycle's Solid Waste Inventory System database, there are 37 active landfill sites in Tulare County and an additional 26 landfill sites that have been closed (CalRecycle 2026). For some databases, such as DTSC's EnviroStor database and USEPA's Envirofacts database, the list of identified sites is too exhaustive to provide in its entirety for purposes of this EIR because it is not necessary for programmatic impact analysis. For example, the EnviroStor identifies hundreds of sites in the TCAG region, including closed sites that have been fully remediated; sites where contamination is contained but land use restrictions are in place; and sites under evaluation, active remediation, and monitoring. Among these sites are superfund sites, state response hazardous

sites, contaminated soil sites, and school cleanup sites and leaking UST sites. The USEPA Envirofacts database also identifies hundreds of RCRA sites in the region, including some that are also listed in the EnviroStor database. Examples of some of the RCRA sites identified in the region include gas stations, dry cleaners, automotive repair shops, pharmacies, automobile dealerships, paint stores, trucking companies, agricultural operations, and heavy industrial sites (USEPA 2026). The SWRCB GeoTracker database also identifies many leaking UST sites, some of which have been remediated and cleaned, and some of which have yet to be cleaned. For purposes of this EIR, it is more important to note that many sites on the Cortese list exist throughout the TCAG region, typically within proximity to the transportation network and more densely populated areas in the region.

To address the potential for documented and undocumented hazards on a site, the American Society for Testing and Materials has developed widely accepted practice standards for the preliminary evaluation of site hazards (E-1527-21) (ASTM 2021). Phase I Environmental Site Assessments (ESAs) include an on-site visit to determine current conditions; an evaluation of possible risks posed by neighboring properties; interviews with persons knowledgeable about the site's history; an examination of local planning files to check prior land uses and permits granted; file searches with appropriate agencies having oversight authority relative to water quality and/or soil contamination; examination of historic aerial photography of the site and adjacent properties; a review of current topographic maps to determine drainage patterns; and an examination of chain of-title for environmental lines and/or activity and land use limitations. If a Phase I ESA indicates the presence, or potential presence of contamination, a site-specific Phase II ESA is generally conducted to test soil and/or groundwater. Based on the outcome of a Phase II ESA, remediation of contaminated sites under federal and State regulations may be required prior to development. Phase I ESAs can also be used to identify the potential for presence of hazardous building materials in situations where older structures intended for demolition could contain lead-based paint, asbestos containing materials, mercury, or polychlorinated biphenyls.

Naturally Occurring Asbestos

Asbestos is not a formal mineralogical term, but rather a commercial and industrial term historically applied to a group of silica-containing minerals that form long, very thin mineral fibers (termed amphiboles), which generally form in bundles, that were once widely used in commercial products. Naturally occurring asbestos includes minerals in their natural state, such as in bedrock or soils. Naturally occurring asbestos, which was identified as a toxic air contaminant by CARB in 1986, is of concern due to potential exposures to the tiny fibers that can become airborne if asbestos-bearing rocks are disturbed by natural erosion or human activities, such as road building, excavations, and other ground-disturbing activities. Once disturbed, microscopic fibers can become lodged in the lungs, which can potentially lead to serious health problems. Tulare County contains one former asbestos exploration prospect site and ultramafic rocks, such as serpentinite, which can contain asbestos fibers. Naturally occurring asbestos sites are most concentrated in the central/western area of the County (USGS 2011). In general, naturally occurring asbestos fibers do not pose a threat unless disturbed and introduced into the air as fugitive dust.

Schools

Children are particularly susceptible to long-term effects from emissions of hazardous materials. Therefore, locations where children spend extended periods of time, such as schools, are particularly sensitive to hazardous air emissions and accidental release associated with the handling

of extremely hazardous materials, substances, or wastes. There are over 102,000 students enrolled in 204 public schools county-wide in school districts (TCOE 2025).

Airports

Potential hazards in relationship to airport operations are generally regulated by the Federal Aviation Administration (FAA), with local planning and evaluation of proposed projects (in terms of a proposed project's compatibility in relationship to air and ground operations and the safety of the public) under the authority of the applicable airport land use commission (ALUC) through an airport land use compatibility plan (ALUCP). The ALUC with authority in the TCAG region is the Tulare County Airport Land Use Commission and the applicable ALUCP in the TCAG region is discussed in Section 4.9.2, *Regulatory Setting*, below.

Tulare County's airports primarily serve hobbyists, pilots who own aircraft, the agricultural industry, police, and medical services. The airports provide mobility options for the County's residents and businesses, which include seven public-use airports (Mefford Field, Sequoia, Porterville, Visalia Municipal, Eckert, Exeter/Thunderhawk, and Woodlake), and sixteen personal-use or special-use airports.

Both the Mefford Field and Visalia Municipal airports have commercial and general aviation activities. Because of the level of activity at these airports, noise generated at these airports is audible in the surrounding communities. Therefore, land uses in the surrounding areas have been planned to ensure that noise levels remain at acceptable levels for the various uses. The Porterville, Woodlake, and Sequoia Field Ynez airports are general aviation airports, with little commercial traffic and no jet operations. While these general aviation airports do not generate as much noise as Mefford Field or Visalia, flight operations have also had impacts on the nearby residential areas because of their location.

The Eckert Field and Thunderhawk Field airports are privately owned and managed facilities that support general aviation activities, primarily during daytime hours. Operations are limited and involve small, propeller-driven aircraft, with occasional use by higher-performance aircraft for specialized activities such as fire suppression and aerial application. These activities involve the storage, handling, and use of aviation fuel and other regulated materials, which represent the primary hazardous material considerations associated with airport operations. Aircraft noise generated by individual takeoffs, landings, and training patterns may result in intermittent short-term noise exposure in areas near flight paths. Additionally, some corporate jets may be expected to result in significant short term noise impacts for people located near the approach, departure or local training patterns of an airport (County of Tulare 2012). Aviation noise impacts are discussed in Section 4.12, *Noise*.

4.9.2 Regulatory Setting

a. Federal Laws, Regulations, and Policies

USEPA is the lead agency responsible for enforcing federal regulations that affect public health or the environment. The primary federal laws and regulations include the RCRA of 1976 and the Hazardous and Solid Waste Amendments enacted in 1984; the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA); and the Superfund Act and Reauthorization Act of 1986 (SARA). Federal statutes pertaining to hazardous materials and wastes are contained in the CFR Title 40 – Protection of the Environment.

Toxic Substances Control Act

The Toxic Substances Control Act of 1976 (15 U.S. Code Section 2601 et seq.) grants USEPA the authority to develop reporting, record-keeping, and testing requirements for, as well as restrictions on, the manufacture, use, and sale of chemical substances. Pursuant to Title II of the Toxic Substances Control Act, the USEPA adopted the Asbestos Model Accreditation Plan in 1994. The Model Accreditation Plan requires that all persons who inspect for asbestos-containing materials (ACM) or design or conduct response actions with respect to friable asbestos obtain accreditation by completing a prescribed training course and passing an exam. Section 403 of the Toxic Substances Act establishes standards for lead-based paint hazards in paint, dust, and soil.

Resource Conservation and Recovery Act

RCRA Subtitle C regulates the generation, transportation, treatment, storage and disposal of hazardous waste by LQGs (1,000 kilograms per month or more) through comprehensive life cycle or "cradle to grave" tracking requirements. The requirements include maintaining inspection logs of hazardous waste storage locations, records of quantities being generated and stored, and manifests of pick-ups and deliveries to licensed treatment/storage/disposal facilities. RCRA also identifies standards for treatment, storage, and disposal, which is codified in 40 CFR 260.

Comprehensive Environmental Response Compensation and Liability Act

Congress enacted CERCLA, setting up what has become known as the Superfund program, in 1980 to establish prohibitions and requirements concerning closed and abandoned hazardous waste sites; provide for liability of persons responsible for releases of hazardous waste at these sites; and establish a trust fund to provide for cleanup when no responsible party can be identified. Generally, CERCLA authorizes two kinds of response actions:

- Short-term removals, where actions may be taken to address releases or threatened releases requiring prompt response.
- Long-term remedial response actions that permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious, but not immediately life threatening.

Superfund Amendments and Reauthorization Act

SARA amended the CERCLA in 1986, emphasizing the importance of permanent remedies and innovative treatment technologies to clean up hazardous waste sites; requiring Superfund actions to consider the standards and requirements found in other State and federal environmental laws and regulations; providing new enforcement authorities and settlement tools; increasing involvement of the states in every phase of the Superfund program; increasing the focus on human health problems posed by hazardous waste sites; encouraging greater citizen participation in making decisions on how sites should be cleaned up; and increasing the size of the trust fund to $8.5 billion.

Hazardous Materials Transportation Act

The transportation of hazardous materials is regulated by the Hazardous Materials Transportation Act (49 U.S.C. Sections 5101–5128), which is administered by the Research and Special Programs Administration of U.S. DOT. The Hazardous Materials Transportation Act governs the safe transportation of hazardous materials by all modes. The DOT regulations that govern the transportation of hazardous materials are applicable to any person who transports, ships, causes to

be transported or shipped, or who is involved in any way with the manufacture or testing of hazardous materials packaging or containers. The DOT regulations govern every aspect of the movement, including packaging, handling, labeling, marking, placarding, operational standards, and highway routing.

Hazardous Materials Regulations

Pursuant to the Hazardous Materials Transportation Act (49 U.S.C. Sections 5101-5128), the U.S. DOT adopted the Hazardous Materials Regulations codified in 49 CFR Parts 171-180. The Hazardous Materials Regulations establish detailed requirements governing the classification, packaging, labeling, marking, placarding, handling, storage, transportation, and incident reporting for hazardous materials transported by all modes, including highway, rail, air, and vessel. 49 CFR 171-180 includes requirements for immediate notification and reporting of hazardous materials incidents involving releases, spills, or conditions that pose a risk to public health and safety or the environment.

Emergency Planning Community Right-to-Know Act

The Emergency Planning Community Right-to-Know Act, or the SARA Title III, was enacted in October 1986. SARA Title III requires any infrastructure at the State and local levels to plan for chemical emergencies, including identifying potential chemical threats. Reported information is then made publicly available so that interested parties may become informed about potentially dangerous chemicals in their community. Emergency Planning Community Right-to-Know Act Sections 301–312 are administered by USEPA's Office of Emergency Management. USEPA's Office of Information Analysis and Access implements the act's Section 313 program. In California, SARA Title III is implemented through the California Accidental Release Prevention Program (CalARP).

Federal Disaster Mitigation Act

The Disaster Mitigation Act of 2000 provided a new set of mitigation plan requirements that encourage State and local jurisdictions to coordinate disaster mitigation planning and implementation. States are encouraged to complete a "Standard" or an "Enhanced" Natural Mitigation Plan. "Enhanced" plans demonstrate increased coordination of mitigation activities at the State level and, if completed and approved, increase the amount of funding through the Hazard Mitigation Grant Program.

Code of Federal Regulations, Title 14, Part 77

The primary role of the Federal Aviation Administration (FAA) is to promote aviation safety and control the use of airspace. Public use airports that are subject to the FAA's grant assurances must comply with specific FAA design criteria, standards, and regulations. Land use safety compatibility guidance from the FAA is limited to the immediate vicinity of the runway, the runway protection zones at each end of the runway, and the protection of navigable airspace. 14 CFR 77, Safe Efficient Use and Preservation of the Navigable Airspace, establishes the federal review process for determining whether proposed development activities in the vicinity of an airport have the potential to result in a hazard to air navigation. 14 CFR Part 77 identifies standards for determining whether a proposed project would represent an obstruction "that may affect safe and efficient use of navigable airspace and the operation of planned or existing air navigation and communication facilities." Objects that are identified as obstructions based on these standards are presumed to be hazards until an aeronautical study conducted by the FAA determines otherwise

b. State Laws, Regulations, and Policies

California Asbestos Regulations

In 1990, CARB issued an Airborne Toxic Control Measure, which prohibited the use of serpentine aggregate for surfacing if the asbestos content was 5 percent or more. In July 2000, CARB adopted amendments to the existing Airborne Toxic Control Measure prohibiting the use or application of serpentine, serpentine-bearing materials, and asbestos-containing ultramafic rock for covering unpaved surfaces unless it has been tested using an approved asbestos bulk test method and determined to have an asbestos content that is less than 0.25 percent. In July 2001, CARB adopted a new Airborne Toxic Control Measure for construction, grading, quarrying, and surface mining operations in areas with serpentine or ultramafic rocks. These regulations are codified in Title 17, Section 93105 of the CCR. The regulations require preparation and implementation of an Asbestos Dust Mitigation Plan for construction or grading activities on sites greater than 1 acre in size with known NOA soils. The air districts enforce this regulation. In October 2000, the Governor's Office of Planning and Research issued a memorandum providing guidance to lead agencies in analyzing the impacts of NOA on the environment through the CEQA review process. In November 2000, the California Department of Real Estate added a section to subdivision forms that includes questions related to NOA on property proposed for development. In 2004, as part of its school-site review program, DTSC's School Property Evaluation and Cleanup Division released interim guidance on evaluating NOA at school sites. In addition, California Health and Safety Code Section 19827.5 prohibits issuance of demolition permits by local and State agencies without assessment of the potential for the structure to contain asbestos.

Title 8, California Code of Regulations

The California Division of Occupational Safety and Health Administration lead standard for construction activities is implemented under Title 8 of the CCR. The standard applies to any construction activity that may release lead dust or fumes, including, but not limited to, manual scraping, manual sanding, heat gun applications, power tool cleaning, rivet busting, abrasive blasting, welding, cutting, or torch burning of lead-based coatings. Unless otherwise determined by approved testing methods, all paints and other surface coatings are assumed to contain lead at prescribed concentrations, depending on the application date of the paint or coating.

California Accidental Release Prevention Program

The CalARP Program addresses facilities that contain specified hazardous materials, known as "regulated substances," that, if involved in an accidental release, could result in adverse off-site consequences. The CalARP Program defines regulated substances as chemicals that pose a threat to public health and safety or the environment because they are highly toxic, flammable, or explosive.

California Unified Program Administration

The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections and enforcement activities of six environmental and emergency response programs, as listed below:

- Hazardous Materials Release Response Plans and Inventories (Business Plans)
- CalARP Program
- Underground Storage Tank Program

- Aboveground Petroleum Storage Act Program
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs;
- California Uniform Fire Code: Hazardous Material Management Plans and Hazardous Material Inventory Statements

The State agency partners involved in the Unified Program have the responsibility of setting program element standards, working with CalEPA on ensuring program consistency and providing technical assistance to the Certified Unified Program Agencies. The following State agencies are involved with the Unified Program:

- CalEPA is directly responsible for coordinating the administration of the Unified Program. The Secretary of the CalEPA certifies Certified Unified Program Agencies
- DTSC provides technical assistance and evaluation for the hazardous waste generator program including onsite treatment (tiered permitting)
- OES is responsible for providing technical assistance and evaluation of the Hazardous Material Release Response Plan (Business Plan) Program and the CalARP Programs
- The Office of the State Fire Marshal is responsible for ensuring the implementation of the Hazardous Material Management Plans and the Hazardous Material Inventory Statement Programs. These programs tie in closely with the Business Plan Program
- SWRCB provides technical assistance and evaluation for the UST program in addition to handling the oversight and enforcement for the aboveground storage tank program

The Certified Unified Program Agency (CUPA) for the Tulare County is the Tulare County Environmental Health Department (EHD). The EHD is responsible for implementing the federal and State laws and regulations pertaining to the handling of hazardous wastes and hazardous materials.

California Land Environmental Restoration and Reuse Act

The California Land Environmental Restoration and Reuse Act of 2001 established California Human Health Screening Levels (CHHSLs) as a tool to assist in the evaluation of contaminated sites for potential adverse threats to human health. The CHHSLs were developed by the Office of Environmental Health Hazard Assessment, an agency under the umbrella of CalEPA. The thresholds of concern used to develop the CHHSLs are an excess lifetime cancer risk of one in 1 million and a hazard quotient of 1.0 for non-cancer health effects. The CHHSLs were developed using standard exposure assumptions and chemical toxicity values published by USEPA and CalEPA. The CHHSLs can be used to screen sites for potential human health concerns where releases of hazardous chemicals to soils have occurred. Under most circumstances, the presence of a chemical in soil, soil gas, or indoor air at concentrations below the corresponding CHHSLs can be assumed to not pose a significant health risk to people who may live (residential CHHSLs) or work (commercial/ industrial CHHSLs) at the site.

California Multi-Hazard Mitigation Plan

The State Hazard Mitigation Plan (SHMP) represents the State's primary hazard mitigation guidance document - providing an updated analysis of the State's historical and current hazards, hazard mitigation goals and objectives, and hazard mitigation strategies and actions. The plan represents the State's overall commitment to supporting a comprehensive mitigation strategy to reduce or

eliminate potential risks and impacts of disasters in order to promote faster recovery after disasters and, overall, a more resilient state. State Hazard Mitigation Plans are required to meet the Elements outlined in FEMA's State Mitigation Plan Review Guide.

OES is responsible for the development and maintenance of the State's plan for hazard mitigation. The State's multi-hazard mitigation plan was last approved by the Federal Emergency Management Agency (FEMA) as an Enhanced State Mitigation Plan in 2023 (CalOES 2023). The plan is designed to reduce the effects of disasters caused by natural, technological, accidental, and adversarial/human-caused hazards. The SHMP sets the mitigation priorities, strategies, and actions for the State. The plan also describes how risk assessment and mitigation strategy information is coordinated and linked from local mitigation plans into the SHMP and provides a resource for local planners of risk information that may affect their planning area. The State of California is required to review and revise its mitigation plan and resubmit for FEMA approval at least every five years to ensure continued funding eligibility for certain federal grant programs.

California Public Resources Code Section 21151.4

Pursuant to Public Resources Code Section 21151.4, projects that can be reasonably anticipated to produce hazardous air emissions or handle extremely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school must consult with the potentially affected school district and provide written notification not less than 30 days prior to the proposed certification or adoption of an environmental document. Where a school district proposes property acquisition or the construction of a school, the environmental document must address existing environmental hazards, and written findings must be prepared regarding existing pollutant sources.

California Education Code

Sections 17071.13, 17072.13, 17210, 17210.1, 17213.1-3 and 17268 of the California Education Code became effective January 1, 2000. Together, they establish requirements for assessments and approvals regarding toxic and hazardous materials that school districts must follow before receiving final site approval from the DOE and funds under the School Facilities Program. These requirements are consistent with those described above for certification or adoption of an environmental document under Public Resources Code Section 21151.4. California Education Code Section 17213(b) establishes requirements for assessments and approvals that address the potential for existing contamination on the site, and whether nearby land uses might reasonably be anticipated to emit hazardous air emissions or handle hazardous materials. Assessment of existing contamination is conducted in coordination with DTSC's School Property Evaluation and Cleanup Division, which is responsible for assessing, investigating, and cleaning up proposed school sites. This Division ensures that selected properties are free of contamination or, if the properties were previously contaminated, that they have been cleaned up to a level that protects the students and staff who will occupy a new school.

Carpenter-Presley-Tanner Hazardous Substances Account Act

The Carpenter-Presley-Tanner Hazardous Substance Account Act imposes liability for hazardous substances removal or remedial actions and requires the State Attorney General to recover from the liable person, as defined, certain costs incurred by DTSC or any of the State's nine RWCQBs, upon the request of DTSC or Regional Water Quality Control Board. The act authorizes, except as specified, a party found liable for any costs or expenditures recoverable under the act for those actions to establish, as specified, that only a portion of those costs or expenditures are attributable

to the party, and requires the party to pay only for that portion. If each party does not establish its liability, the act requires a court to apportion those costs or expenditures, as specified, among the defendants and the remaining portion of the judgment is required to be paid from the Toxic Substances Control Account. Existing law authorizes the money deposited in the Toxic Substances Control Account in the General Fund to be appropriated to DTSC for specified purposes, including the payment of the costs incurred by the State for those actions.

Lempert-Keene-Seastrand Oil Spill Prevention and Response Act

The Lempert-Keene-Seastrand Oil Spill Prevention and Response Act of 1990 granted the Office of Spill Prevention and Response the authority to direct prevention, removal, abatement, response, containment, and cleanup efforts regarding all aspects of any oil spill in marine waters of California. The Office of Spill Prevention and Response implements the California Oil Spill Contingency Plan, consistent with the National Contingency Plan, which pays special attention to marine oil spills and impacts to environmentally- and ecologically sensitive areas. In 2014, the Office of Spill Prevention and Response program was expanded to cover all statewide surface waters at risk of oil spills from any source, including pipelines and the increasing shipments of oil transported by railroads.

Local Community Rail Security Act

The Local Community Rail Security Act of 2006 (Public Utilities Code Sections 7665-7667) requires all rail operators to provide security risk assessments to California Public Utilities Commission, the Director of Homeland Security and the Catastrophic Event Memorandum Account that describe the following:

- Location and function of each rail facility;
- Types of cargo stored at or typically moved through the facility;
- Hazardous cargo stored at or moved through the facility;
- Frequency of hazardous movements or storage;
- Description of sabotage-terrorism countermeasures;
- Employee training programs;
- Emergency response procedures; and
- Emergency response communication protocols.

c. Local Laws, Regulations, and Policies

San Joaquin Valley Air Pollution Control District

SJVAPCD is the regional air quality regulatory agency responsible for controlling air pollution within the San Joaquin Valley Air Basin (SJVAB), which comprises the San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and western Kern County counties. SJVAPCD is responsible for air monitoring, permitting, enforcement, long-range air quality planning, regulatory development, education, and public information activities related to air pollution, as required by the Clean Air Act and California Clean Air Act. Projects in the SJVAB are subject to SJVAPCD's rules and regulations, including rules pertaining to asbestos and toxic air contaminants. SJVAPCD Rule 4002, National Emission Standards for Hazardous Air Pollutants, sets emissions standards for stationary source emissions, including asbestos emission from building demolition. In addition, SJVAPCD Rule 7050, Asbestos Emissions from Demolition and Renovation, regulates demolition, renovation, and

associated activities involving the potential to encounter ACM to minimize the release of and exposure to asbestos. Rule 7050 applies to demolition of any structure and to renovation activities that disturb regulated ACM. The rule requires project proponents to conduct asbestos surveys prior to demolition or renovation, provide advance notification to the SJVAPCD, implement asbestos abatement measures performed by certified personnel as necessary, and ensure proper handling and disposal of ACM at authorized facilities.

City and County General Plans

Local planning policies related to hazards and hazardous materials are established in each jurisdiction's general plan, generally in the Safety Element or equivalent chapter. Safety Elements are required to address geologic hazards, fire hazards, dam failure, evacuation routes, flooding, and emergency response among other issues. For emergency services, some of the relevant policies may include coordinating with other agencies that are responsible for planning medical facilities to meet the health care needs of residents in the region, retaining hospitals, evaluating medical facility proposals, providing emergency response services, and participating in mutual-aid agreements.

Tulare County General Plan

The Tulare County General Plan 2030 Update contains several policies related to hazardous material exposure, storage, and remediation (listed below), and goal HS-4 of the General Plan is to protect residents, visitors, and property from hazardous materials through their safe use, storage, transport, and disposal (County of Tulare 2012).

- **Policy HS-4.1: Hazardous Materials**. The County shall strive to ensure hazardous materials are used, stored, transported, and disposed of in a safe manner, in compliance with local, State, and Federal safety standards, including the Hazardous Waste Management Plan, Emergency Operations Plan, and Area Plan.
- **Policy HS-4.2: Establishment of Procedures to Transport Hazardous Wastes**. The County shall continue to cooperate with the California Highway Patrol (CHP) to establish procedures for the movement of hazardous wastes and explosives within the County.
- **Policy HS-4.3: Incompatible Land Uses.** The County shall prevent incompatible land uses near properties that produce or store hazardous waste.
- **Policy HS-4.4: Contamination Prevention**. The County shall review new development proposals to protect soils, air quality, surface water, and groundwater from hazardous materials contamination.
- **Policy HS-4.5: Increase Public Awareness.** The County shall work to educate the public about household hazardous waste and the proper method of disposal.
- **Policy HS-4.6: Pesticide Control.** The County shall monitor studies of pesticide use and the effects of pesticide on residents and wildlife and require mitigation of the effects wherever feasible and appropriate.
- **Policy HS-4.7: Coordination of Materials on Public Lands**. The County shall work jointly with State and Federal land managers to coordinate the handling and disposal of hazardous materials on public lands.
- **Policy HS-4.8: Hazardous Materials Studies.** The County shall ensure that the proponents of new development projects address hazardous materials concerns through the preparation of Phase I or Phase II hazardous materials studies for each identified site as part of the design

phase for each project. Recommendations required to satisfy federal or State cleanup standards outlined in the studies will be implemented as part of the construction phase for each project.

City of Porterville General Plan

The Porterville General Plan includes public health and safety goals and policies that aim to minimize risks from natural and human-caused hazards and to ensure adequate emergency services. The Public Health & Safety Element establishes goals to protect residents, property, and infrastructure from hazards such as earthquakes, flooding, wildfire, and hazardous materials through appropriate land use planning, infrastructure design, and coordination with emergency response agencies. Policies within this element address hazard area identification, hazard mitigation planning, safe handling and transportation of hazardous materials, and compliance with applicable local, State, and federal safety regulations.

City of Tulare General Plan

General Plan Goal SAF-1 from the City of Tulare General Plan is to regulate future development to ensure the protection of public health and safety from hazards and hazardous materials and the adequate provision of emergency services. Policies SAF-P5.1, SAF-P5.2, and SAF-P5.3 relate to designating hazardous material routes, requiring hazardous material studies during project design, and striving to ensure hazardous materials are used, stored, transported, and disposed of in a safe manner, in compliance with local, State, and federal safety standards. Goals and policies in other applicable City General Plans in the TCAG region are similar in nature in how they address hazardous materials within their jurisdiction.

City of Visalia General Plan

The City of Visalia's General Plan contains Objective S-O-3 which is to protect soils, surface water, and groundwater from contamination from hazardous materials. Through its General Plan, the City requires the project applicant to undertake remediation procedures prior to grading and development under the supervision of appropriate agencies, such as Tulare County Department of Environmental Heath, Department of Toxic Substances Control, or Regional Water Quality Control Board.

Other General Plans

Dinuba, Exeter, Farmersville, Lindsay, and Woodlake address public health and safety hazards through their Safety or Public Safety elements (or integrated policies within Land Use and Conservation elements) of their General Plans. These plans establish goals to protect residents and development from natural and human-caused hazards such as flooding, seismic and geologic conditions, hazardous materials, and emergency response constraints.

Local Hazard Mitigation Plans

Local jurisdictions develop, adopt, and update local hazard mitigation plans (LHMP) to establish guiding principles for reducing hazard risk, as well as specific mitigation actions to eliminate or reduce identified vulnerabilities. Tulare County, the Cities of Dinuba, Exeter, Farmersville, Lindsay, Porterville, Tulare, Visalia, and Woodlake; the Tule River Tribe; and Tulare County Office of Education staff have prepared a Multi-Jurisdictional LHMP for Tulare County (Tulare OES 2023) to reduce or eliminate long-term risk to people and property from natural hazards and their effects in the TCAG region. This includes unincorporated Tulare County and its departments and offices, cities,

special districts and Tribes located within Tulare County (Tulare OES 2023). The LHMP includes goals and policies to reduce fire severity and intensity in the region through wildfire prevention, fuels management, and coordination with local, State, and federal agencies. LHMPs are required to be updated every five years.

Emergency Operations Plans

Tulare County Emergency Operations Plan

The Tulare County Emergency Operations Plan implements the California Standardized Emergency Management System (SEMS) in order to provide guidance in the event that large-scale emergency or disaster response activities are needed. Within the SEMS, standardized procedures for field-level emergency response, multi/inter-agency coordination, mutual aid, and coordination of damage information and resource requests are provided to serve as a unified response system for the entirety of California's emergency management community, which includes Tulare County's Office of Emergency Services (Tulare County 2022).

City of Visalia Emergency Operations Plan

The City of Visalia has an Emergency Operations Plan in place to address the planned response to emergency situations within the City. The Emergency Operations Plan focuses on mitigation for flooding hazards, establishment of operational concepts and procedures associated with initial response and extended response operations, and the recovery process, among other topics (City of Visalia 2011).

Other Emergency Response and Evacuation Plans

In the TCAG region, some County and City emergency plans are not publicly distributed. However, each jurisdiction maintains local emergency response frameworks that establish procedures for emergency response and evacuation. The Cities of Porterville and Tulare, for example, do not have a publicly available emergency response or evacuation plans. However, the Cities maintain Emergency Operations Centers within their respective boundaries which establishes procedures for preparedness, response, evacuation, and recovery during emergency events. Although not publicly available, these local frameworks operate in coordination with the Tulare County EOP, as they fall within the jurisdiction of the Tulare County Operational Area.

Airport Land Use Compatibility Plan

The Tulare County Comprehensive Airport Land Use Plan addresses aviation related matters such as safety, noise, overflight, and height policies and safety zones (Tulare County Airport Land Use Commission 2012). The Countywide plan affects Visalia, Tulare, Exeter, Woodlake, Sequoia, Eckert, and Porterville Airports and their surrounding communities. The goals of the ALUCP is to protect residents from the negative environmental noise, safety and traffic impacts that can potentially be induced by airports.

4.9.3 Impact Analysis

a. Methodology and Significance Thresholds

The methodology used for the following evaluation is based on a review of documents and publicly available information about hazardous and potentially hazardous conditions in the TCAG region to

determine the potential for implementation of the proposed to result in an increased health or safety hazard to people or the environment. This includes city and county planning documents, and hazardous materials database information maintained by various State and federal agencies, such as DTSC and SWRCB. Due to the large area of the TCAG region and the programmatic nature of impact analyses, known sites of current or former contamination were not evaluated in detail, and physical surveys were not conducted. Rather, this program-level analysis is based on hazards typically associated with certain transportation projects and land use projects, and an overall understanding of the key safety concerns that could result from implementation of the proposed 2026 RTP/SCS.

The evaluation of hazards and hazardous materials impacts reasonably assumes that the construction and development under the proposed 2026 RTP/SCS would adhere to the latest federal, State, and local regulations, and conform to the latest industry standards and best management practices, established regulatory agencies and adopted codes, as appropriate for individual projects.

Appendix G of the *CEQA Guidelines* identifies the following criteria for determining whether a project's impacts would have a significant impact related to hazards and hazardous materials:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
2. 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;
3. Emit hazardous emissions or handles hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school;
4. Be located on a site which is included on a list of hazardous materials compiled by the Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
5. 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; or
6. Impair implementation or physically interfere with an adopted emergency response plan or emergency evacuation plan.
7. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

Impacts related to aviation safety hazards under Threshold 5 are addressed in this section, while impacts related to exposure to excessive aviation related noise are discussed in Section 4.12, *Noise*. Impacts related to impairment or interference of emergency response or evacuation plans (Threshold 6) are discussed in Section 4.15, *Transportation*. Impacts related to exposure to wildland fires (Threshold 7) are discussed Section 4.18, *Wildfire*.

b. Project Impacts and Mitigation Measures

The following section discusses hazardous material potential impacts and mitigation measures associated with transportation projects and the land use scenario implementing the proposed 2026 RTP/SCS. Due to the programmatic nature of the proposed 2026 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 improvement

projects and future projects under the land use scenario envisioned by the proposed 2026 RTP/SCS could result in the impacts as described in the following section.

Threshold 1:	Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
Threshold 2:	Would the project 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?

Impact HAZ-1 TRANSPORTATION IMPROVEMENT PROJECTS AND THE LAND USE SCENARIO ENVISIONED BY THE PROPOSED 2026 RTP/SCS WOULD FACILITATE THE ROUTINE TRANSPORT, USE, OR DISPOSAL OF HAZARDOUS MATERIAL, AND MAY RESULT IN REASONABLY FORESEEABLE UPSET AND ACCIDENT CONDITIONS INVOLVING THE RELEASE OF HAZARDOUS MATERIALS INTO THE ENVIRONMENT. THE 2026 RTP/SCS WOULD NOT CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR THE ENVIRONMENT THROUGH THE ROUTINE TRANSPORT, USE, OR DISPOSAL OF HAZARDOUS MATERIAL. THUS, THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Land use and transportation projects associated with implementation of the proposed 2026 RTP/SCS would temporarily increase the regional transport, use, storage and disposal of hazardous materials and petroleum products commonly used at construction sites, such as diesel fuel, lubricants, paints and solvents and asphalt and cement products containing strong basic or acidic chemicals. Hazardous waste generated during construction may consist of welding materials, fuel and lubricant containers, paint and solvent containers and discarded asphalt and cement products.

Construction of individual projects envisioned in the proposed 2026 RTP/SCS could result in impacts related to use of hazardous materials and disturbance of potentially hazardous materials, including asbestos. However, the most likely incidents involving construction-related hazardous materials are generally associated with minor spills or drips. Small fuel or oil spills are possible but would have a negligible impact on public health. All hazardous materials would be stored, handled, and disposed of according to the manufacturers' recommendations and spills would be cleaned up in accordance with applicable regulations, as described in Title 49 CFR 171–180 and the Hazardous Materials Transportation Act. Hazardous materials spills or releases, including petroleum products such as gasoline, diesel, and hydraulic fluid, regardless of quantity spilled, must be immediately reported if the spill has entered or threatens to enter a water of the State, including a stream, lake, wetland, or storm drain, or has caused injury to a person or threatens injury to public health. Immediate notification must be made to the local emergency response agency, or 911, and the OES Warning Center. For non-petroleum products, additional reporting may be required if the release exceeds federal reportable quantity thresholds over a release period of 24 hours as detailed in HSC Section 25359.4 and in 40 CFR 302.4.

DOT has identified two State route segments within Tulare County as hazardous material routes (DOT 2026b). Trucks transporting hazardous material would also have to use local collector and arterial streets to access individual project sites in the TCAG region. Transportation projects would also require the temporary storage and use of hazardous materials at locations along project roads. Trucks transporting hazardous material would also use many of the same freeways, arterials, and local streets as other traffic. This has the potential to increase the risk of accidents and associated release of hazardous materials for other drivers and for people along these routes, as well as truck drivers. Although the transportation of hazardous materials could result in accidental spills, leaks, toxic releases, fire, or explosion, the DOT prescribes strict regulations for the safe transportation of hazardous materials, as described in Title 49 of the CFR and the Hazardous Materials Transportation

Act. These standard accident and hazardous materials recovery training and procedures are enforced by the State and followed by private state-licensed, certified, and bonded transportation companies and contractors.

The construction of some land use and transportation projects included in the proposed 2026 RTP/SCS may result in demolition of existing structures, particularly older structures, which has the potential to expose workers and the public to asbestos containing materials or dust containing asbestos. Construction could also occur in areas of naturally occurring asbestos, which can expose construction workers to asbestos. HSC Section 19827.5 requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. Mandatory compliance with asbestos abatement and disposal regulations and requirements, including SJVAPCD Rule 7050, would minimize the risk of exposure to asbestos containing materials or dust containing asbestos.

Land use projects facilitated by the proposed 2026 RTP/SCS would increase population, jobs, and households and a variety of land uses including residential, commercial, and industrial. Specific uses such as dry cleaners, gas stations, and certain industrial uses would involve routine transport, use, and disposal of hazardous materials such as household hazardous wastes (e.g., paints, cleaning supplies, solvents, and petroleum products) and commercial and industrial hazardous waste. The operation of businesses facilitated by land use projects facilitated by the proposed 2026 RTP/SCS use, create, or dispose of hazardous materials would be regulated and monitored by federal, state, and local regulations that provide a high level of protection to the public and the environment from the hazardous materials manufactured within, transported to, and disposed within the TCAG region. Use of hazardous materials at these businesses would also require permits and monitoring to avoid hazardous waste release through the local CUPA. During operation, businesses that store hazardous materials could potentially experience accidents or upset conditions that result from their routine use. These businesses would be required to prepare spill prevention, containment and countermeasures plans (pursuant to 40 CFR 112) or, for smaller quantities, a spill prevention and response plan. These plans identify best management practices for spill and release prevention and provide procedures and responsibilities for rapidly, effectively, and safely cleaning up and disposing of any spills or releases. Oversight is provided by the local CUPA. Pursuant to the requirements and liabilities of applicable regulations, the routine use or accidental spill of hazardous materials at business and industrial uses facilitated by the land use projects included in the proposed 2026 RTP/SCS would not pose a substantial hazard to the public or the environment. Disposal of hazardous waste generated by these businesses would be subject to compliance with DTSC and CalEPA regulations.

Transportation projects included in the proposed 2026 RTP/SCS include transportation modifications such as roadway widenings, auxiliary lanes, and other maintenance and rehabilitation projects. The modifications have the potential to increase the capacity of roadways to transport hazardous materials. Roadway projects in the proposed 2026 RTP/SCS would also improve road safety, as well as pedestrian and bicycle safety, thereby reducing transportation-related hazardous materials risks because fewer accidents would occur on safer roads. Based on the requirements of Title 49 CFR 171–180, construction and operation of transportation projects would be required to provide for the safe transport and disposal of hazardous waste.

The proposed 2026 RTP/SCS land use scenario encourages infill development and increased population and employment density near public transit stops. There could also be increased urbanization along transportation corridors. Thus, the number of people potentially exposed to

hazardous conditions could increase as a result of land use projects facilitated by the proposed 2026 RTP/SCS. Although exposure to hazardous conditions could increase, the routine transport, use, and storage of potentially hazardous materials such as fuels, lubricants, solvents, and oils would be required to be conducted in accordance with all applicable State and federal laws, such as the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Setting, the DOT regulates the transport of hazardous materials by all modes, including rail and highway under the regulations of the Hazardous Materials Transportation Act. The Local Community Rail Security Act of 2006 requires all rail operators to provide security risk assessments to California Public Utilities Commission, which includes emergency response procedures and communication protocols. Mandatory implementation of additional federal, State and local requirements such as CalARP Program and the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act would minimize potential exposure to the public and the environment from accidental releases. Although population density would increase in proximity to major transportation corridors that are used to transport hazardous and flammable materials, mandatory compliance with applicable State, federal, and local laws and regulation would ensure the increased risk of hazard from routine transport or accidental upsets during transport would be minimal.

In conclusion, both planned land use projects and transportation projects associated with the 2026 proposed RTP/SCS could increase the routine transport, use, storage, and disposal of hazardous wastes in the TCAG region. These land use and transportation projects could also increase the potential for unintentional upset and accident conditions. Because of the existing federal, state, and local regulations and oversight in place that would effectively reduce the inherent hazard associated with routine transport, use, storage and disposal activities, and regulations that effectively reduce the potential for individual projects to create a hazard to the public or the environment through reasonably foreseeable upset and accident conditions, these impacts would be less than significant.

Mitigation Measures

Mitigation measures are not required because this impact would be less than significant, as jurisdictions are required to follow the laws and regulations as described above.

Threshold 3:	Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

Impact HAZ-2 TRANSPORTATION IMPROVEMENT PROJECTS AND LAND USE PROJECTS ENVISIONED IN THE PROPOSED 2026 RTP/SCS WOULD NOT EMIT HAZARDOUS EMISSIONS OR HANDLE HAZARDOUS OR ACUTELY HAZARDOUS MATERIALS, SUBSTANCES OR WASTE WITHIN ONE-QUARTER MILE OF AN EXISTING OR PROPOSED SCHOOL. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

As discussed in Impact HAZ-1, the land use projects included in the proposed 2026 RTP/SCS could include uses such as dry cleaners, gas stations, and certain industrial uses that would involve routine handling of hazardous materials and waste. Therefore, the proposed 2026 RTP/SCS would likely increase the amounts of hazardous materials handled within 0.25 mile of schools, depending on the specific location of land uses relative to schools in the region. As discussed in Section 4.14, *Public Services and Recreation*, there are over 102,000 students enrolled in 204 public schools county-wide in school districts. Certain industrial uses, such as chemical plants, may also generate hazardous emissions as byproducts, typically in the form of air emissions.

Any new commercial or industrial operations in proximity to existing schools would be required to comply with applicable State and federal regulations related to the routine use, storage, and transport of hazardous materials. Land uses that would generate emissions or involve the handling of extremely hazardous materials, substances, or waste within 0.25 mile of an existing school must notify the affected school district pursuant to Public Resources Code Section 21151.4. As discussed in Impact HAZ-1, compliance with existing State and federal regulations would reduce the exposure to potential hazards associated with these land uses.

For new schools that may be developed to address the population distribution changes resulting from the land use scenario included in the proposed 2026 RTP/SCS, the California Education Code, requirements discussed in Section 4.9.2, *Regulatory Setting*, would ensure that school sites would be free of contamination or cleaned up to a level that would protect students and staff that would occupy a new school site. Therefore, hazardous emissions and hazardous materials handling impacts on schools related to land use projects included in the proposed 2026 RTP/SCS would be less than significant.

The transportation projects included in the proposed 2026 RTP/SCS have the potential to increase the capacity to transport hazardous materials on roads within the TCAG region, including within 0.25 mile of schools. However, all materials are required to be used, stored, and disposed of in accordance with applicable federal, state, and local laws and regulations, which would effectively reduce the potential impacts associated with hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or potential future school. Therefore, the hazardous materials impacts related to existing and proposed schools from implementation of the transportation projects as well as land use projects implementing the proposed 2026 RTP/SCS would be less than significant.

Mitigation Measures

Mitigation measures are not required because this impact would be less than significant, as jurisdictions are required to follow laws and regulations described above.

Threshold 4:	Would the project be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Impact HAZ-3 THE PROPOSED 2026 RTP/SCS INCLUDES TRANSPORTATION IMPROVEMENT PROJECTS AND LAND USE SCENARIO PROJECTS THAT COULD BE LOCATED ON SITES ON THE LIST OF HAZARDOUS MATERIAL SITES COMPILED BY GOVERNMENT CODE SECTION 65962.5, WHICH HAS THE POTENTIAL TO CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR ENVIRONMENT. THIS IMPACT WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Throughout the TCAG region there are numerous sites where historical releases of hazardous materials or wastes have occurred; these are listed in environmental databases pursuant to Government Code Section 65962.5. As described In Section 4.9.1.a, there are hundreds of documented sites of contamination in some stage of DTSC or SWRCB oversight in the region. These sites range from small releases that have had localized effects on private property and have already been remediated to large scale releases from long-term historical industrial practices that have had wider ranging effects on groundwater.

Because the precise timing and location of future land use developments is unknown, an evaluation of the potential for specific sites of known contamination within the TCAG region to be affected by

land use projects included in the proposed 2026 RTP/SCS is beyond the scope of this programmatic level EIR. However, prior and current land uses can be used to generally characterize the potential for release of hazardous materials (i.e., hazardous materials releases are more likely to have occurred in areas that currently or historically supported industrial uses). In addition to land use development, transportation projects included in the proposed 2026 RTP/SCS may intersect sites listed pursuant to Government Code Section 65962.5. Transportation projects often occur within previously developed corridors where historical industrial, agricultural, fueling, maintenance, or disposal activities may have resulted in soil or groundwater contamination. Construction activities for both land use and transportation projects that disturb subsurface materials may encounter previously unidentified contamination from past practices or placement of undocumented fill or even unauthorized disposal of hazardous wastes. Encountering these hazardous materials creates the potential to expose workers, the public, or the environment to adverse effects depending on the volume, materials involved, and concentrations. Example transportation projects could include road widenings on SR 65, 99, and 190 where industrial development currently or historically has existed.

Development on identified hazard sites within the TCAG region would be preceded by project-level investigation, remediation, and cleanup under the supervision of the RWQCB, DTSC, or the applicable hazardous materials division (e.g., local oversight or Tulare County Environmental Health Department) before construction activities could begin. The agency responsible for oversight would determine the types of remediation and cleanup required. Remediation and cleanup may include excavation and off-haul of contaminated soils, installation of vapor barriers beneath habitable structures, continuous monitoring wells onsite with annual reporting requirements, or other mechanisms to ensure the site does not pose a health risk to workers or future occupants. In addition, in many instances implementing and/or permitting agencies would require preparation of a Phase I ESA prior to approval or implementation of a project. Phase I ESAs include review of government databases to determine whether a site has had prior underground tanks or other industrial uses that could result in hazardous materials on or below the ground surface. However, with the exceptions for streamlining projects in transit priority areas and siting public schools, there are no general regulatory requirements to conduct a Phase I ESA, or subsequent investigation of potential contamination. Therefore, because it cannot be assumed these practices would occur for every project with the potential to result in significant hazards to the public or environment, the impacts related to land use projects and transportation projects included in the proposed 2026 RTP/SCS are significant.

Development on sites listed in environmental databases pursuant to Government Code Section 65962.5 would be required to undertake remediation procedures prior to grading and development under the supervision of the applicable agency, depending upon the nature of any identified contamination. Nevertheless, the impacts of transportation or land use projects implementing the proposed 2026 RTP/SCS would be significant because there could be significant hazard to the public or the environment related to ground-disturbing activities associated with the development of projects located on sites listed pursuant to Government Code Section 65962.5. The following mitigation measure would reduce this impact.

Mitigation Measures

For transportation projects under TCAG's jurisdiction, TCAG shall implement, and other transportation project sponsor agencies can and should implement, the following mitigation measures where applicable for transportation projects that would result in impacts that would potentially be located in areas with existing contamination. The County and cities in the TCAG region

can and should implement these measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions.

HAZ-1 Site Remediation

If an individual project included in the proposed 2026 RTP/SCS is located on or near a hazardous materials and/or waste site compiled by Government Code Section 65962.5, the implementing agency shall prepare a Phase I ESA in accordance with the American Society for Testing and Materials' E-1527-05 standard. For work requiring any demolition or renovation, the Phase I ESA shall make recommendations for any hazardous building materials survey work that shall be done. All recommendations included in a Phase I ESA prepared for a site shall be implemented. If a Phase I ESA indicates the presence or likely presence of contamination, the implementing agency shall require a Phase II ESA, and recommendations of the Phase II ESA shall be fully implemented. Examples of typical recommendations provided in Phase I/II ESAs include removal of contaminated soil in accordance with a soil management plan approved by the local environmental health department; covering stockpiles of contaminated soil to prevent fugitive dust emissions; capturing groundwater encountered during construction in a holding tank for additional testing and characterization and disposal based on its characterization; and development of a health and safety plan for construction workers.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during construction, as applicable.

Significance After Mitigation

Implementation of Mitigation Measure HAZ-1 would reduce hazardous materials impacts to a less than significant level because project sites with hazardous material contamination on the list compiled by the Government Code Section 65962.5 would be identified prior to commencement of project construction. Additionally, prior to commencement of construction, measures to remediate contamination, such as containment and disposal of contaminated soil pursuant to federal and State regulations would be required. However, it cannot be guaranteed that all future project level impacts would be mitigated to a less than significant level. There are no additional feasible mitigation measures to reduce this impact to a less than significant level. Therefore, this impact would remain significant and unavoidable.

Threshold 5:	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, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Impact HAZ-4 TRANSPORTATION IMPROVEMENT PROJECTS AND THE LAND USE SCENARIO ENVISIONED IN THE PROPOSED 2026 RTP/SCS LOCATED WITHIN AN AIRPORT LAND USE PLAN OR WITHIN TWO MILES OF A PUBLIC OR PUBLIC USE AIRPORT WOULD NOT RESULT IN A SAFETY HAZARD FOR PEOPLE RESIDING OR WORKING IN THE PROJECT AREA. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Some land use projects and transportation projects in the proposed 2026 RTP/SCS may be located near public use airports or private airstrips. As discussed in Section 4.9.1, Setting, there are seven airports or airstrips in the TCAG region: Mefford Field, Sequoia, Porterville, Visalia Municipal, Eckert, Exeter/Thunderhawk, and Woodlake Airports. Potential safety hazard impacts associated with development near existing airports are largely dependent upon site and project specific information that is not currently available and would be provided as projects implementing the proposed 2026 RTP/SCS undergo project-level environmental review. However, any development and subsequent planning decisions in proximity to airports would be subject to mandatory review under the State Aeronautics Act provided under Public Utilities Code Section 21167 et seq. Specific projects that may affect navigable airspace are also subject to FAA review, as outlined under 14 CFR Parts 77.5, 77.7 and 77.9. In addition to this mandatory review, land use development projects would be subject to zoning regulations, including height restrictions. Mandatory compliance with federal, state, and local laws and regulations and oversight would effectively reduce the inherent safety hazards associated with development near airports to an acceptable and safe level. As a result, this impact would be less than significant.

Mitigation Measures

Mitigation measures are not required because this impact would be less than significant, as jurisdictions are required to follow the laws and regulations as described above.

4.9.4 Cumulative Impacts

IMPACT HAZ-C-1 DEVELOPMENT IN THE CUMULATIVE IMPACTS ANALYSIS AREA, AS WELL AS TRANSPORTATION PROJECTS IMPLEMENTING THE PROPOSED 2026 RTP/SCS, COULD RESULT IN HAZARDS AND EXPOSURE TO HAZARDOUS MATERIALS. THE PROPOSED 2026 RTP/SCS WOULD HAVE CUMULATIVELY CONSIDERABLE CONTRIBUTIONS TO SIGNIFICANT CUMULATIVE IMPACTS RELATED TO HAZARDS AND HAZARDOUS MATERIALS SITES.

The cumulative impact analysis area for the hazards and hazardous materials analysis consists of the TCAG region and adjoining counties. Information regarding these adjoining counties can be found in Chapter 4, *Environmental Impact Analysis, Cumulative Impact Methodology*. Future development in this region relative to exposure to hazards is considered in the analysis. This cumulative extent is used to evaluate potential impacts from the increase of hazards and hazardous materials within the context of regional development. This analysis is based on growth projections within the cumulative impact analysis area.

The potential impacts related to hazards and hazardous materials are generally related to site specific and project specific characteristics and conditions; however, hazardous sites or releases can occur across multiple adjoining properties or jurisdictions. Although the transport of hazardous

materials may occur on rail or on roadways, such as SR 99, that traverse both the TCAG region and adjacent counties, there are existing federal, state, and local regulations and oversight in place that would effectively reduce the inherent hazard associated with routine transport of such materials. Regulations and oversight, as outlined above in Section 4.9.2, *Regulatory Setting*, would also effectively reduce the potential for individual projects to create a hazard to the public or the environment through reasonably foreseeable upset and accident conditions, within the TCAG region as well as adjoining counties.

Land use development envisioned as part of the proposed 2026 RTP/SCS could result in the development of sites listed in environmental databases pursuant to Government Code Section 65962.5. Cumulative impacts related to hazards and hazardous materials would be significant due to existing and potential development on contaminated sites throughout the TCAG region. The proposed 2026 RTP/SCS would contribute to this significant cumulative impact by enabling future development and transportation projects; however, compliance with Mitigation Measure HAZ-1 would reduce the project's impact, but not to less-than-significant levels. Therefore, the project's contribution to cumulative hazards and hazardous materials impacts would remain cumulatively considerable with mitigation.

Impacts related to airport hazards are site-specific, depending on the characteristics and design of individual projects and their location relative to distance and location of nearby airports. Existing regulations place limitations on the types of development that can be permitted within various aircraft zones surrounding an airport, such as building height restrictions or prohibiting residential occupancy. Mandatory compliance with these regulations would prevent substantial hazards related to exposure to airport related safety hazards. Cumulative impacts related to airport hazards would be less than significant.

4.10 Hydrology and Water Quality

This section describes the environmental and regulatory setting as well as water quality, groundwater supply, drainage, runoff, flooding, and dam inundation impacts of development implementing the proposed 2026 RTP/SCS in the TCAG region.

4.10.1 Setting

Hydrological Setting

The TCAG region is located within the Tulare Lake Hydrologic Region at the south end of the San Joaquin Valley. Streams within the Tulare Lake Hydrologic Region primarily drain towards the Kern, Tulare, and Buena Vista Lakes. Prominent watersheds within the County include the Upper Kaweah, Upper Tule, Upper Kern, Upper Deer/Upper White, and South Fork Kern. In general, streams flow from sources in the Sierra Nevada Mountains in the eastern part of the region downwards to the western area within the southern San Joaquin Valley.

The western portion of the TCAG region overlies three major subbasins of the San Joaquin Valley Groundwater Basin (Department of Water Resources [DWR] Basin 5-022), including the Tule, Kaweah, and portions of the Kings subbasins. The Tule Subbasin lies entirely within Tulare County. The Kaweah Subbasin is primarily overlain by Tulare County but also extends into Kings County. The majority of the Kings Subbasin is overlain by Fresno County but portions extend into Kings County and northwest Tulare County. The basin boundaries within Tulare County are depicted in Figure 4.10-1, and the major regional watersheds within the County are depicted in Figure 4.10-2.

Precipitation rarely occurs during the summer months in the TCAG region; the regional climate averages 12.5 inches of rainfall per year, virtually all between October through April, with an average temperature of 62.4 °F (16.9 °C) (Weather Spark 2026).

Water Agencies and Management Regions

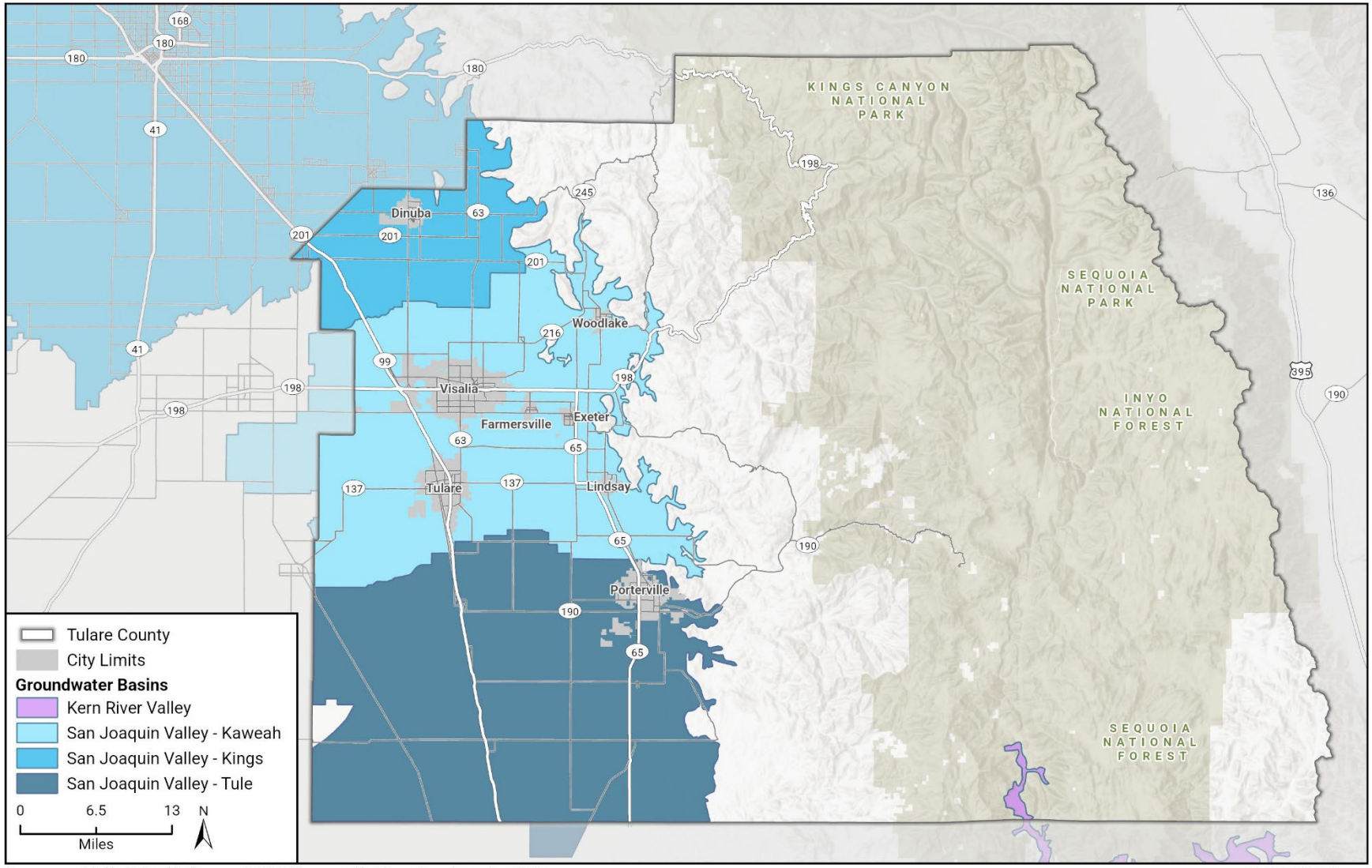
The TCAG region is within the jurisdiction of the Central Valley Regional Water Quality Control Boards (CVRWQCB). CVRWQCB is the largest in the State and includes all or part of every county surrounding Tulare (except for Inyo County to the east), including Kern, Fresno, and Kings. CVRWQCB is the primary agency responsible for overseeing water quality issues in the region.

There are a total of five Integrated Regional Water Management (IRWM) Regions[1] with service areas within Tulare County; none are contained entirely within County lines. These are the Kings Basin Water Authority, the Kaweah River Basin, the Tule River Basin Group, and the Poso Creek and Southern Sierra IRWMs.

The Tulare County Water Commission is an advisory body to the County Board of Supervisors on regional water issues.

[1] IRWM regions serve to coordinate regional water project funding applications and planning and serve as a primary source of budgetary planning for multi-jurisdictional water infrastructure projects.

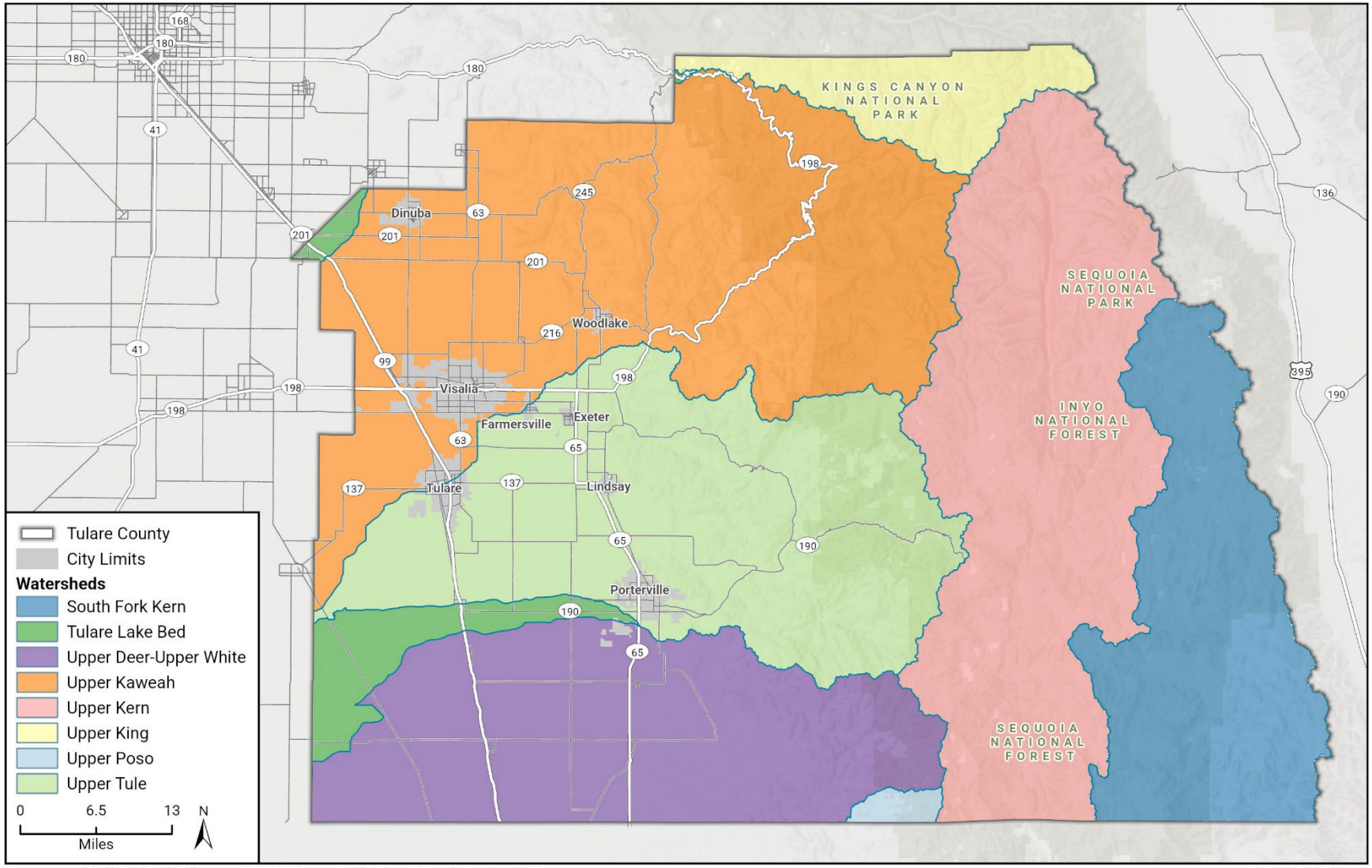
Figure 4.10-1 Groundwater Basins within the TCAG Region



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Additional data provided by CPAD, 2025; DWR 2024.

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Fig X Groundwater Basins

Figure 4.10-2 Major Regional Watersheds within the TCAG Region



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Additional data provided by CPAD, 2025; NHD, WBD HUC8, 2025.

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Fig X Watersheds

Water Supply

Water Sources and Hydrologic Conditions

Water within the TCAG region is supplied from multiple sources, including groundwater, imported surface water, recycled water, and the various watersheds within the County and greater Tulare Lake Hydrologic Region. Major water inputs include water from: 1) surface water that travels from the mountains as snowmelt or runoff, which then gets stored in various foothill reservoirs to be distributed via the watershed systems and a network of canals, 2) water imported from the wetter climates of northern California through the State Water Project (SWP) via the California Aqueduct and the Central Valley Project (CVP) via the Friant-Kern Canal, 3) groundwater that is pumped from underground reservoirs or aquifers, and 4) a combination of smaller sources like recycled and reused water within individual water districts or agency service areas. The amount of water from each of these sources varies depending upon the amount of precipitation the overall state receives in a particular year.

Groundwater Use, Overdraft, and Drought

Groundwater in the valley floor portions of the TCAG region occurs in an unconfined state within areas containing alluvial fans, and in a confined state beneath its western portion. Extensive alluvial fans associated with Kings, Kaweah, and Tule Rivers provide highly permeable areas in which groundwater in the unconfined aquifer system is readily replenished. Areas between the streams contain less permeable surface soils and subsurface deposits, impeding groundwater recharge and causing well yields to be relatively low (DWR 2025).

The quantity of surface water that enters the watersheds in the TCAG region in any year varies greatly because of California's irregular precipitation patterns. In years of minimal precipitation, when surface water flows are reduced, groundwater pumping makes up the difference to meet demand and achieve regional water balance. The Tulare Lake Subbasin Groundwater Sustainability Plan (GSP) estimated in 2022 an annual overdraft in the basin of approximately 73,760 acre-feet per year (AFY), based on regional hydrologic conditions from 1998-2010, excluding the state's most recent droughts (Tulare Lake Subbasin Groundwater Sustainability Agencies 2022). More recent analyses indicate larger long-term imbalances, including modeled annual groundwater storage losses of approximately 142,214 AFY in the upper aquifer and a nominal increase of 56.52 AFY in the lower aquifer between 1990 and 2016 (State Water Resources Control Board [SWRCB] 2024). This overdraft is due to many factors including reductions of surface supplies in recent years by SWP and CVP export restrictions, Endangered Species Act requirements, and other factors. The groundwater overdraft is most pronounced along the western and northwestern sides of the Valley, where declining groundwater levels have contributed to documented land subsidence of approximately six feet (SWRCB 2024).

Reporting from the DWR Bulletin 118 2025 Update indicates a substantial gap between surface water supplies and total water demand, resulting in the Tulare Lake Hydrologic Region being the most groundwater-dependent region in California. Between 2017 and 2021, groundwater use averaged approximately 5.17 million acre-feet (MAF) per year out of a total annual water demand of 10.72 MAF. Agricultural uses account for the majority of this demand, comprising approximately 92 percent (4.74 MAF) of total groundwater extraction (DWR 2025). The Tulare Lake Basin is currently classified as being under critical conditions of overdraft (DWR 2025). Updated information shows between 2004 and 2024, about 70 percent of monitoring wells in the region experienced a declining trend of groundwater levels, with nearly half showing declines greater than 2.5 feet per year, which

could equate to a cumulative drop of at least 50 feet in groundwater levels during that period. During that same period, 27 percent of monitoring wells displayed stable trends, while fewer than 2 percent of wells showed trends of increasing groundwater levels (DWR 2025).

The TCAG region experienced a record-setting drought along with the rest of California and continuously proclaimed a local drought emergency from 2014 until 2023. Between 2023 and 2025, conditions in the TCAG region ranged from Normal to Moderate Drought. According to the National Integrated Drought Information System, as of April 2026 the majority of Tulare County is experiencing Abnormally Dry conditions, indicating that the region is either going into or coming out of a drought (NIDIS 2026). Drought conditions in general reduce available water from all sources other than groundwater supplies, which are limited in terms of the annual amount of water that can be withdrawn without causing a long-term drop in water levels ("Safe Yield") and in the total storage of a basin that can be removed without substantial environmental effects ("Available Yield"). Such water source limitations make water conservation a necessity in the County. All three major groundwater subbasins within the County have been assigned 'High' overdraft priorities and are considered critically overdrafted under the Sustainable Groundwater Management Act (SGMA) (see Section 4.17.2*, Regulatory Setting*). There are several Groundwater Sustainability Agencies (GSAs) within the TCAG region and most have submitted independent GSPs as required under SGMA (see Section 4.17.2, *Regulatory Setting*).

Recycled Water and Future Supply Opportunities

In addition to groundwater supply, the City of Visalia operates the Water Conservation Plant, which provides a limited amount of recycled water to the Tulare Irrigation District for agricultural irrigation. The City of Tulare operates a water treatment plant which discharges treated effluent to ponds which is then available for recycled water projects. Recycled water has potential throughout the County as a source for agricultural irrigation if sufficient infrastructure can be developed.

Additional discussion of water supplies, groundwater, and hydrology in the TCAG region can be found in Section 4.17, *Utilities and Service Systems.*

There are multiple water agencies and utility districts located within the TCAG region, including wholesalers, municipalities, irrigation districts, privately-owned wells, and private extractors. Most public or privately-owned districts and purveyors lie completely within Tulare County borders, but a few in the northwestern areas extend into Fresno County. Tulare, Porterville, Dinuba, Exeter, and Lindsay are the primary municipalities that have adopted Urban Water Management Plans (UWMPs) within the County pursuant to the Urban Water Management Planning Act (Tulare 2021, Porterville 2022, Dinuba 2021, Exeter 2022, Lindsay 2023). The City of Visalia has a private water service agency (California Water Service Company-Visalia) which also has an adopted UWMP (California Water Service Company-Visalia, 2021). At the time of drafting the 2026 RTP/SCS Draft EIR, UWMPs for the 2020 cycle represent the most current adopted documentation, although UWMPs for the 2025 cycle are expected to be adopted and submitted to DWR by July 1, 2026.

Due to the disparate organizational and geographic nature of purveyors and agencies responsible for different areas within the TCAG region, lack of an overall water resource authority, and regional use of unmonitored private wells and small purveyors that are not required to produce water planning documents, it is difficult to obtain clear, consistent data on region-wide water use. Few studies have attempted to examine total regional water supply and usage.

The Kings River watershed was estimated in 2010 to supply sufficient flows for its average annual uses, the Kaweah Watershed had the highest local yield at an average of 430,000 AFY (T&Y 2010) and relied the least on imported and groundwater supply, and the Tule Watershed was most reliant on groundwater and imported water from the CVP (T&Y 2010). The City of Visalia is the major population center within the County and is entirely reliant on groundwater for its water supply (California Water Service Company-Visalia 2023). However, urban and domestic groundwater usage to support such population centers represents a minor portion of the region's overall groundwater usage, with urban and domestic groundwater use accounting for 0.38 MAF of the Tulare Lake Hydrologic Region's total average annual groundwater use of 5.17 MAF (DWR 2025).

Water Quality

Water quality has the potential to effect human health, organisms, and ecosystem conditions. Quality is determined by factors such as native hydrogeological condition of groundwater and surface water, and by the amount and sources of contamination (natural and human induced).

Surface Water

Pollutants in surface waters primarily originate from stormwater runoff and from urban and agricultural discharges. Urban runoff pollutants are generally collected by stormwater conveyance systems and often discharge from point sources such as outflow pipes into local water bodies and surface waters without any form of treatment. Agricultural runoff can percolate directly into groundwater over large areas as nonpoint discharge or be collected and conveyed into discharge infrastructure. Common pollutants impairing surface waters from agricultural or urban stormwater runoff can include pesticides, fertilizers, green waste, animal waste, human waste, petroleum hydrocarbons (gasoline, motor oil), trash, and other constituents.

Under Section 303(d) of the Clean Water Act, States are required to develop and update a list of all water bodies under their jurisdiction which fail to meet water quality standards even after point sources of pollution have utilized the minimum levels of pollution control (see Section 4.10.2, Regulatory Setting, below). These are referred to as '303(d) impaired' bodies. There are numerous 303(d) impaired water bodies within Tulare County, listed in Table 4.10-1 below.

Table 4.10-1 303(d) Impaired Waterbodies in Tulare County

Waterbody Name	Listed Pollutants	Pollutants With TMDLs
Kaweah River		
Kaweah Lake	Mercury	N/A
Kaweah River (Below Terminus Dam)	Toxicity, pH	N/A
Lower (incl St Johns River)	Toxicity	N/A
Northwest Tulare County		
Elbow Creek	Chlorpyrifos	N/A
Cross Creek	Toxicity	N/A
Mill Creek	Toxicity, Ammonia	N/A
Packwood Creek	Toxicity	N/A
Outside Creek	Toxicity	N/A
Tule River/ Deer Creek		
Success Lake	pH	N/A

Waterbody Name	Listed Pollutants	Pollutants With TMDLs
Bates Slough	Toxicity	N/A
Lower	Toxicity	N/A
Elk Bayou	Chlorpyrifos, Toxicity, pH, Dissolved Oxygen	N/A
Deer Creek (Tulare County)	Toxicity, pH (high), Chlorpyrifos	N/A

N/A: Not available
TMDL: Total Maximum Daily Load
Source: SWRCB Integrated Report 2026

In general, the water quality of the Kings, Kaweah, Tule, and Kern River watersheds is of excellent quality, and the quality of imported surface water is somewhat less (CVRWQCB 2018). Surface water quality is impaired from anthropogenic pollution primarily in the valley floor area of the western County and major point sources of contamination include municipal wastewater, oil field wastewater, winery discharges, and solid waste sites, while the primary non-point source of pollutants is agricultural runoff (CVRWQCB 2018).

Groundwater

Although generally of high quality, water quality in the groundwater basins underlying the TCAG region has degraded over the years due to continual use of the resource and contamination from surface infiltration of pollutants into the aquifer. A few areas within the County have groundwater that is naturally unusable or of marginal quality due to the presence of pollutants (CVRWQCB 2018). These pollutants include arsenic, uranium, radium 228, nitrates, and herbicides, pesticides, and fertilizers leaching into the aquifer. Underground water sources containing these pollutants are located on the eastern half of the TCAG region. The concentration of these pollutants is comparatively lower in the western half of the TCAG region. The Kings Subbasin tends to be highest in natural radiological contaminants near the mountains, but its consistent recharge tends to dilute the concentrations to the west. The Kaweah Subbasin is high in nitrates from natural and agricultural sources. The Tule Subbasin has the most significant water quality issues, including high levels of nitrates, chlorides, and dibromochloropropane. Some of the communities along State Route 99 have access to quality groundwater sources including deep confined and shallow unconfined sources, but groundwater quality in many other areas of the Subbasin is unacceptable due to concentrations of arsenic and other natural contaminants (DWR 2004, CVRWQCB 2018).

A primary water quality concern within the Tulare Lake Basin, including the Subbasins within the TCAG region, is salt accumulation. Imported surface waters from CVP and SWP have a higher salt content than natural waters, and as the Tulare Lake Basin is essentially a ‘closed’ basin with little subsurface outflow, introduced salts accumulate first within surface water supplies and then groundwater through percolation and applied recharge. The overdraft of groundwater serves to exacerbate the problem as deeper water is used and overall salt concentrations increase. Control of the increasing salt concentrations within the greater Tulare Lake Basin is a major component of the CVRWQCB’s Basin Plan (CVRWQCB 2018).

The TCAG region also contains a number of non-sewered populated areas that remain on septic tanks, which can be another source of water quality issues. Comprehensive action would be needed to provide for extensions of sewer systems to serve these areas or for other measures to address potential groundwater contamination from septic system outflow and leachate.

Flooding and Dam Inundation

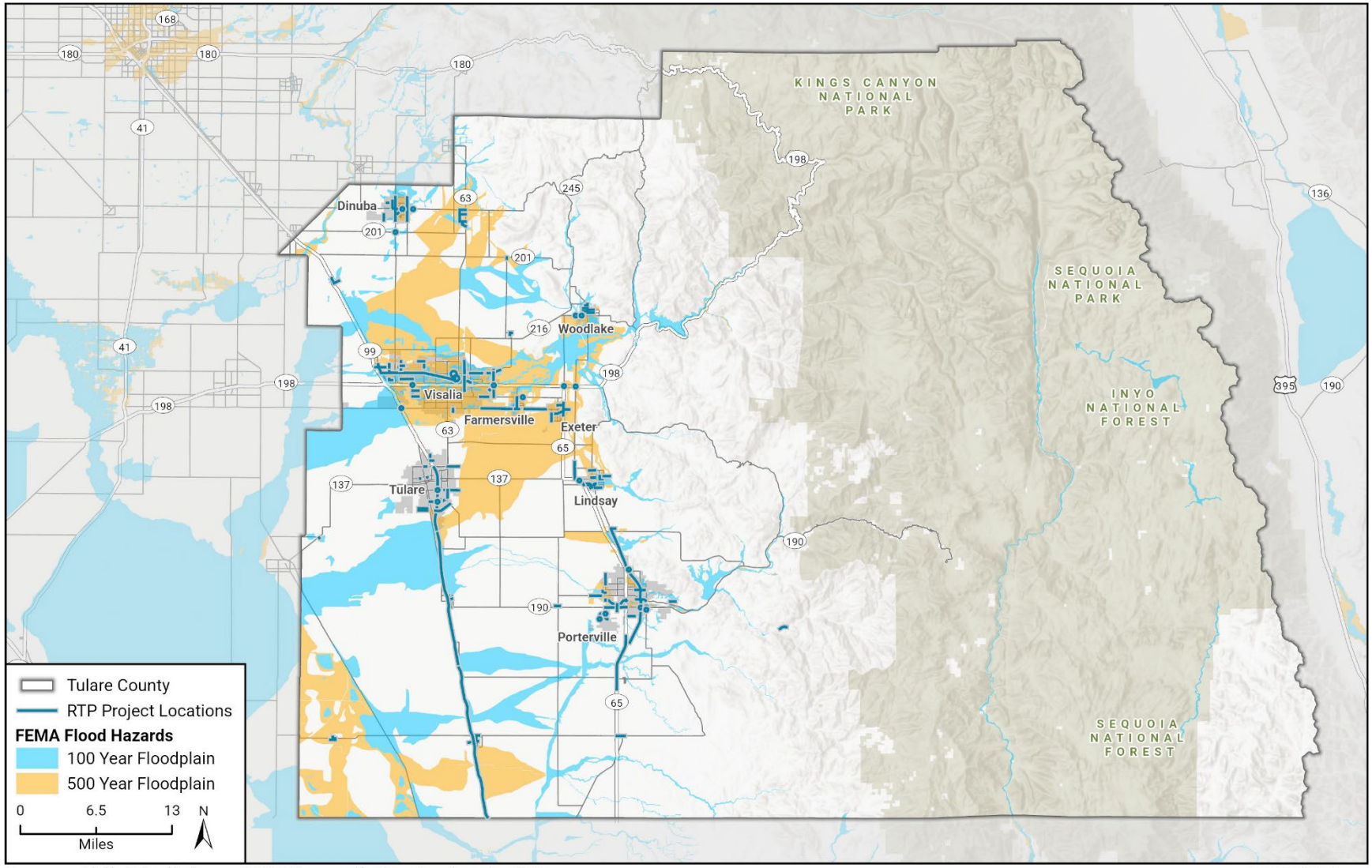
Streams and Floodplains

Flooding can occur in the TCAG region during periods of excessive rainfall or snowmelt. Flooding in steeper mountainous areas, such as the Sierra Nevada range, is usually confined to the stream channel and adjacent floodplain. Larger rivers typically have longer, more predictable flooding sequences and broad floodplains. Figure 4.10-3 illustrates floodplain hazards in the County.

The Tulare County Flood Control District is an independent Special District created by the Tulare County Flood District Act and is managed by the Tulare County Resource Management Agency (RMA). The District is responsible for flood control projects within the County, coordination with State and federal agencies, and administering the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program (NFIP, see Section 4.10.2, *Regulatory Setting*). In addition, the Tulare County Water Commission assists in floodplain management measures including flood area delineation and storm reports.

Historical floods have occurred along the Kings, Tule, and Kaweah Rivers, and much of the Hydrologic Region lies within the natural floodplain of the Kaweah and Tule Rivers. Many low-lying areas lie within the 100-year floodplain. The County and various property owners and agencies have installed levees, flood control reservoirs such as the Success Reservoir, and other flood prevention infrastructure.

Figure 4.10-3 Flood Hazards in the TCAG Region



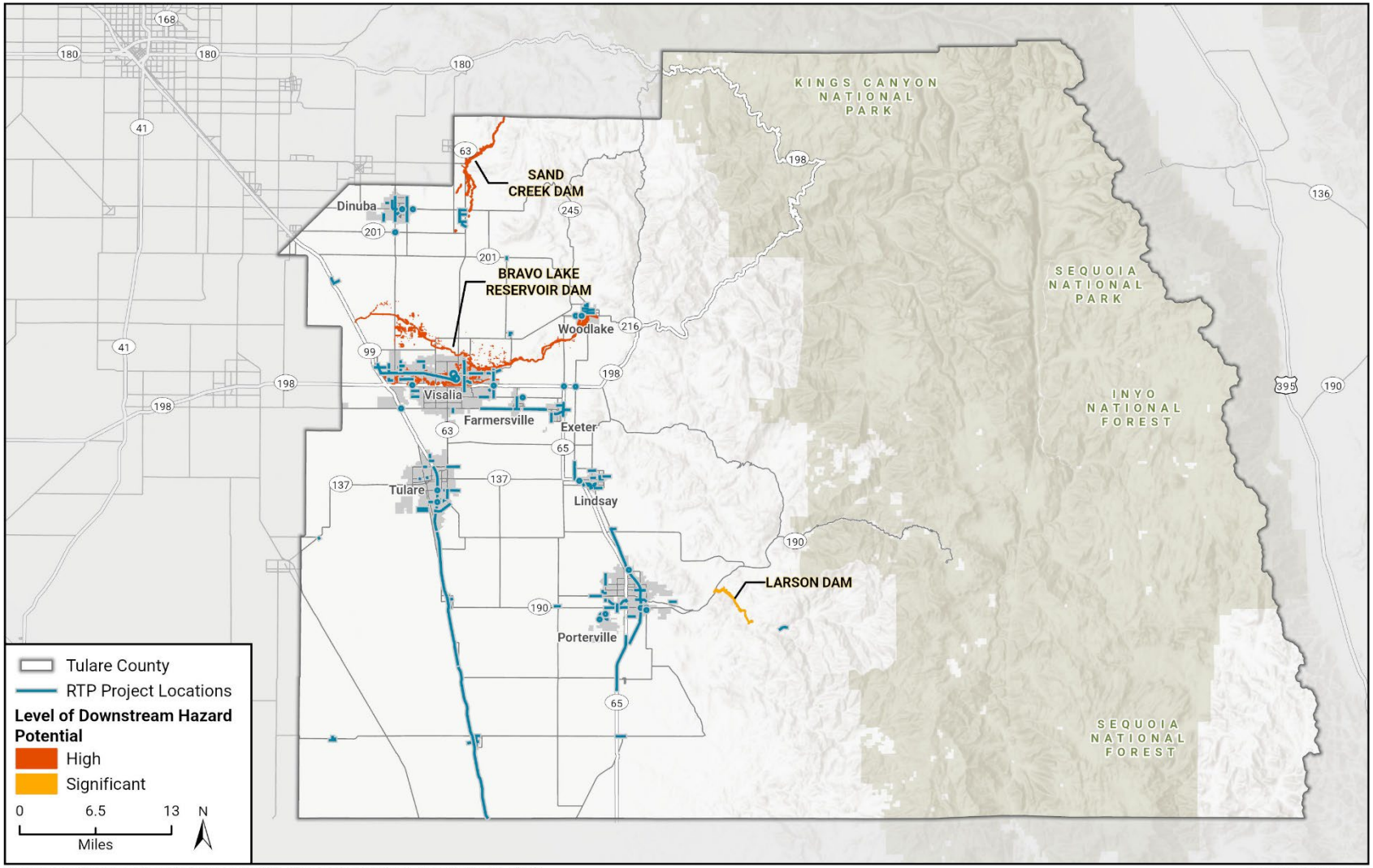
Basemap provided by Esri and its licensors © 2026. Map created by Rincon Consultants, Inc., 2026.
Additional data provided by CPAD, 2025; FEMA, 2025.

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Fig X FEMA Flood Hazards

Dam Inundation

Inundation may be caused by dam failure or overtopping resulting from heavy precipitation. Dams may also fail as a result of structural damage caused by seismic events, erosion, structural design flaws, rapidly rising floodwater or landslides flowing into a reservoir. Populated areas below dams may be exposed to flood hazards resulting from dam failure. Dam failure can also pose a risk to roads, highways, public facilities, agricultural crops, or other land uses within the inundation zone. DWR maintains Dam Inundation Maps which show levels of hazard presented by hypothetical dam failures. Dam inundation maps show 'High' downstream hazards from the Sand Creek and Bravo Lake Reservoir, and 'Significant' downstream hazards from the Larson Dam, as shown in Figure 10.3-4. Pursuant to the DWR Division of Safety of Dams' 2025 report on Dams Within Jurisdiction of the State of California, a classification of 'Significant' downstream hazards is associated with economic, environmental, and infrastructure damage but no threat to human life, whereas a classification of 'High' downstream hazards indicates a potential threat to human life (Division of Safety of Dams 2025). Several other dams within the County do not have inundation maps or have a low inundation hazard (DWR 2026). No proposed RTP/SCS projects are within the dam inundation areas identified.

Figure 10.3-4 Dam Inunudation Potential



Basemap provided by Esri and its licensors © 2026. Map created by Rincon Consultants, Inc., 2026.
Additional data provided by DWR, DSOD, 2025.

24-16880 EPS Hydro.aprx
Fig X Dam Inundation

Urban Stormwater

During heavy rains, flooding can also occur on streets and roads within urbanized areas when stormwaters cannot permeate into the soil due to impermeable surfaces such as asphalt pavement or building footprints. Flooding can also occur when stormwater drainage systems are overwhelmed due to unanticipated rain events, insufficient size or damage, and clogging from lack of maintenance. Flooding can also occur alongside or on major road systems such as highways due to similar issues of impermeable surfaces and/or insufficient drainage.

Tsunami/Seiche

The TCAG region is not subject to tsunami hazards due to its distance from the Pacific Ocean. A seiche is a similar occurrence as a tsunami, but is generated on the surface of a non-oceanic body of standing water such as a lake or reservoir. Seiches can affect bodies of water as small as swimming pools, but normally would be likely to cause major damage only to developed areas surrounding, or downstream from, large lakes. In addition to small waves initiated by ground shaking which might affect the local shoreline, larger waves can be generated by large landslides triggered by an earthquake. These waves can overtop a dam in a similar manner to dam inundation. There are several lakes in the County, including Lake Success and Lake Kaweah, which may present a threat from seiches, although there are no historical incidents of seiches occurring within the TCAG region.

4.10.2 Regulatory Setting

a. Federal Laws, Regulations, and Policies

Clean Water Act

Congress enacted the CWA, 33 U.S.C. Section 1251 et seq., formerly the Federal Water Pollution Control Act of 1972, with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and non-point source discharges to surface water. Point source discharges are regulated by the National Pollutant Elimination System (NPDES) permit process (CWA Section 402). NPDES permitting authority is administered by the SWRCB and nine Regional Water Quality Control Boards (RWQCBs). Section 401 of the CWA requires that any activity that would result in a discharge into waters of the U.S. be certified by the applicable RWQCB. This certification ensures that the proposed activity does not violate state water quality standards. Section 404 of the CWA authorizes the U.S. Army Corps of Engineers to regulate the discharge of dredged or fill material to the waters of the U.S. and adjacent wetlands. Discharges to waters of the U.S. must be avoided where possible, and minimized and mitigated where avoidance is not possible. Section 303(d) of the CWA requires states to establish total maximum daily load programs for streams, lakes, and coastal waters that do not meet certain water quality standards.

National Pollutant Discharge Elimination System Permits

The NPDES permit program was established under Section 402 of CWA to regulate point source discharges of pollutants to waters of the United States. The NPDES program applies to municipal and industrial wastewater discharges, as well as certain stormwater discharges associated with municipal separate storm sewer systems (MS4s), construction activities, and industrial facilities.

NPDES permits establish effluent limitations and receiving water-based standards, prohibit unauthorized discharges, and require implementation of measures such as pollution prevention, industrial pretreatment, monitoring, and reporting to reduce the potential for harmful pollutants found in stormwater runoff to enter water bodies or affect public health. In California, the NPDES program is administered by the SWRCB and the nine RWQCBs, which issue and enforce permits to ensure compliance with federal and state water quality standards. In metropolitan areas, agencies responsible for maintaining and upgrading drainage facilities to accommodate volume are local cities and the County. Within the TCAG region, NPDES permitting is administered by the CVRWQCB.

Section 10 of the Rivers and Harbors Act

Section 10 of the Rivers and Harbors Act, administered by the U.S. Army Corps of Engineers, requires permits for all structures (such as riprap) and activities (such as dredging) in navigable waters of the United States.

National Flood Insurance Act/Flood Disaster Protection Act

The National Flood Insurance Act of 1968 (42 U.S.C. Section 4001 et seq.) made national flood insurance available for the first time. The Flood Disaster Protection Act of 1973 (42 U.S.C. Section 4001 et seq.) made the purchase of flood insurance mandatory for the protection of property located in Special Flood Hazard Areas. These laws are relevant because they led to mapping of floodplains and to local management of floodplain areas according to guidelines that include prohibiting or restricting development in flood hazard zones.

Floodplain Management (Executive Order 11988)

Executive Order 11988, issued in coordination with the National Environmental Policy Act of 1969, the National Flood Insurance Act of 1968, and the Flood Disaster Protection Act of 1973, directs federal executive agencies to avoid, wherever practicable, the short- and long-term adverse impacts associated with the occupancy and modification of floodplains, and to prevent direct or indirect support of floodplain development. This applies to agencies involved in acquiring, managing, or disposing of federal lands and facilities; funding or undertaking construction projects; and conducting programs that affect land use, such as water resource planning, regulation, and licensing. Agencies must evaluate the potential effects of their actions in floodplains, ensure that planning and budgeting reflect flood hazard considerations, and implement procedures that align with floodplain management policies.

Federal Emergency Management Agency

FEMA administers the NFIP to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in floodplains. FEMA also issues Flood Insurance Rate Maps (FIRMs) that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones. FEMA's minimum level of flood protection for new development is the 100-year flood event.

FEMA has also developed requirements and procedures for evaluating earthen levee systems and mapping the areas affected by those systems. Levee systems are evaluated for their ability to provide protection from 100-year flood events and the results of this evaluation are documented in the FEMA Levee Inventory System (FLIS). Levee systems must meet minimum standards and must be maintained according to an officially adopted maintenance plan. Other FEMA levee system

evaluation criteria include structural design and interior drainage. There are multiple levee districts in Tulare County with levees monitored by FEMA.

Executive Order 11988

Executive Order (EO) 11988 Floodplain Management directs federal agencies to avoid short- and long-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development whenever there is a practicable alternative. Additionally, EO 11988 requires the prevention of uneconomic, hazardous, or incompatible use of floodplains; protection and preservation of the natural and beneficial floodplain values; and consistency with the standards and criteria of the National Flood Insurance Program.

b. State Laws, Regulations, and Policies

Porter Cologne Water Quality Control Act

The Porter Cologne Water Quality Control Act of 1967 Water Code Section 13000 et seq. requires the SWRCB and the nine RWQCBs to adopt water quality criteria to protect state waters. These criteria include the identification of beneficial uses, narrative and numerical water quality standards, and implementation procedures. The Water Quality Control Plan, or Basin Plan, protects designated beneficial uses of state waters through the issuance of Waste Discharge Requirements (WDRs) and through the development of TMDLs (CCRWQCB 2018). Anyone proposing to discharge waste that could affect the quality of the waters of the State must obtain a WDR authorization from the RWQCB or SWRCB as appropriate, in compliance with Porter-Cologne.

Sustainable Groundwater Management Act

In September 2014, the State passed legislation requiring that California's critical groundwater resources be sustainably managed by local agencies. SGMA gives local agencies the power to sustainably manage groundwater. It required DWR to establish priority levels for groundwater basins within the State based on their level of overdraft and required GSAs to develop GSPs for medium- and high-priority groundwater basins that would bring the basins into sustainability by 2040 or 2042. Basins determined to be in critical overdraft were required to develop GSPs first. All three DWR-delineated subbasins within Tulare County were deemed in critical overdraft (DWR 2022a) and there are dozens of individual GSAs with their own GSPs within the County. In 2024, SWRCB designated the Tule and Tulare Lake Subbasins as probationary and rescinded the probationary designation for the Kaweah subbasin and retuned the subbasin to DWR jurisdiction. However, GSPs in the TCAG region were submitted pursuant to the January 2020 deadline for critically overdrafted basins and have since been approved and are currently in their first five-year implementation cycle; as of 2026, the required five-year plan evaluations were due in 2025, with updates currently underway or recently completed. Some of the larger GSAs within the County (DWR 2022a, 2022b) (see Section 4.17, *Utilities and Service Systems*, for further information on these GSAs) include:

- Lower Tule River Irrigation District
- Eastern Tule Groundwater Sustainability Agency
- Greater Kaweah Groundwater Sustainability Agency
- Kings River East Groundwater Sustainability Agency
- East Kaweah Groundwater Sustainability Agency

- Mid Kaweah Groundwater Subbasin Joint Powers Authority
- Delano-Earlimart Irrigation District
- Tri-County Water Authority
- Pixley Irrigation District
- Alpaugh Groundwater Sustainability Agency
- Alpaugh Irrigation District

Along with mandating the formation of GSAs, SGMA provided the newly formed GSAs a set of tools to assist with groundwater management, including the ability to conduct investigations, levy fees, determine a basin's sustainable yield, and measure and limit groundwater extraction within their area. However, none of the GSPs approved to-date include actions beyond public outreach/education, conducting investigations, and levying fees; some propose voluntary extraction measurement programs and clearly envision mandatory measurement programs being implemented in regional and local codes, but none dictate groundwater limits. Such action would have to be preceded by the determination of a basin's sustainable yield through exercising GSA statutory investigative powers and would have to be implemented through the promulgation of regulations in a traditional legislative process. In general, adopted GSPs call for increased data-gathering, including through expanded use of voluntary metering of individual wells. Many local governments already require metering on new wells, and where this is the case, many GSAs are beginning to collect that information as part of their investigative power. SGMA requires GSAs to update their GSPs every five years once approved.

Antidegradation Policy

California's antidegradation policy, formally known as the Statement of Policy with Respect to Maintaining High Quality Waters in California, restricts degradation of surface and ground waters. It protects waters where existing water quality is higher than necessary for the protection of beneficial uses. Any actions with the potential to adversely affect water quality must be consistent with the maximum benefit to the people of the State; not unreasonably affect present and anticipated beneficial use of the water; and not result in water quality lower than prescribed in water quality plans and policies.

Cobey-Alquist Floodplain Management Act

The Cobey-Alquist Floodplain Management Act (Water Code Section 8400 et seq.) gives support to the National Flood Insurance Program by encouraging local governments to plan, adopt, and enforce land use regulations for floodplain management, to protect people and property from flooding hazards. The Act also identifies requirements that jurisdictions must meet to receive State financial assistance for flood control.

California Department of Transportation Stormwater Permit

The National Pollutant Discharge Elimination System Statewide Stormwater Permit And Waste Discharge Requirements For State of California Department of Transportation (Caltrans MS4 Permit), Order No. 2022-0033-DWQ, regulates stormwater and non-stormwater discharges from Caltrans properties and facilities associated with operation and maintenance of the state highway system. It contains four basic requirements:

- Caltrans must comply with the requirements of the Construction Stormwater General Permit;

- Caltrans must implement a year-round program in all parts of the state to effectively control stormwater and non-stormwater discharges;
- Caltrans stormwater discharges must meet water quality standards through implementation of construction and operational Best Management Practices (BMPs), and other measures deemed necessary by SWRCB and/or other agency having authority in reviewing the stormwater component of the project; and
- Caltrans must comply with the prohibition of discharge of trash to surface waters of the State or deposition of trash where it may be discharged into surface waters of the State through compliance with the requirements of Attachment E of the Caltrans Stormwater Permit, with a demonstration of full compliance by December 2, 2030.

The Caltrans MS4 Permit incorporates the requirements of SWRCB Resolution 2015-0019, which amended the Water Quality Control Plan for Ocean Waters of California and the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California to include trash-related requirements, referred to in the order as the "Trash Provisions." Implementation of the Trash Provisions includes the following:

- Caltrans must install, operate, and maintain any combination of full capture systems, other treatment controls, and/or institutional controls for all storm drains that capture runoff from Significant Trash Generating Areas (where trash accumulates in substantial amounts). Caltrans must develop and implement monitoring plans that demonstrate such combinations achieve full capture system equivalency.
- Caltrans must coordinate efforts with MS4 permittees subject to NPDES permits that implement the Trash Provisions to install, operate, and maintain full capture systems, other treatment controls, and/or institutional controls in Significant Trash Generating Areas and/or Priority Land Uses.

To comply with the permit, Caltrans developed the Statewide Stormwater Management Plan to address stormwater pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The Statewide Stormwater Management Plan assigns responsibilities within Caltrans for implementing stormwater management procedures and practices, as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The Statewide Stormwater Management Plan describes the Caltrans stormwater management program and the minimum procedures and practices Caltrans uses to reduce pollutants in stormwater and non-stormwater discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of BMPs. Projects on Caltrans facilities are required to follow the guidelines and procedures outlined in the latest Statewide Stormwater Management Plan and include BMPs in the project design to address stormwater runoff.

California Green Building Standards Code

The California Green Building Standards Code (CalGreen, Cal. Code Regs. Title 24, Part 11) includes mandatory measures for residential and nonresidential development. For example, Section 4.106.2 requires residential projects that disturb less than one acre and are not part of a larger common plan of development to manage stormwater drainage during construction through on-site retention basins, filtration systems, and/or compliance with a stormwater management ordinance. Section 5.106.1 requires newly constructed nonresidential projects and additions of less than one acre to

reduce the pollution of stormwater runoff because of construction through compliance with a local ordinance or implementing BMPs that address soil loss, and good housekeeping to manage equipment, materials, and wastes. Section 5.303 sets measures for indoor water use for non-residential development requiring metering devices to conserve water.

Phase II Municipal Stormwater Permit

The Municipal Stormwater Permitting Program regulates stormwater discharges from MS4s. The NPDES MS4 permits in California are issued in two phases by SWRCB and the RWQCBs. Phase I MS4 permits are issued by the RWQCBs to medium (i.e., serving between 100,000 and 250,000 people) and large (i.e., serving more than 250,000 people) municipalities. Most of these permits are issued to a group of co-permittees encompassing an entire metropolitan area. No Phase I MS4 permits apply within the TCAG region. The Phase II MS4 Permit is issued by the SWRCB and is applicable to smaller municipalities (i.e., populations of less than 100,000 people) and nontraditional small MS4s (e.g., military bases, public campuses, prison, and hospital complexes). The Phase II MS4 Permit (*WDRs for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems [MS4s] General Permit,* Order No. 2013-0001-DWQ, NPDES No. CAS000004, as amended by Order Nos. 2015-0133-EXEC, 2016-0069-EXEC, 2017-0031-DWQ, 2018-0001-EXEC, 2018-0007-EXEC, and ORDER WQ 2019-0009-EXEC) became effective on July 1, 2013, last amended February 8, 2019, and covers Phase II permittees statewide, including municipal jurisdictions within the TCAG region. Both Phase I and Phase II MS4 Permits require permittees to develop a stormwater management program and individual dischargers to develop and implement Stormwater Management Plans.

Construction Stormwater General Permit

The *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, Order No. 2022-0057-DWQ, NPDES No. CAS000002 (Construction Stormwater General Permit), adopted by SWRCB, regulates construction activities that include clearing, grading, and excavation resulting in soil disturbance of at least one acre of total land area. The Construction Stormwater General Permit authorizes the discharge of stormwater to surface waters from construction activities and requires all developers of land where construction activities will occur over more than one acre to do the following:

- Complete a Risk Assessment to determine pollution prevention requirements pursuant to the three risk levels established in the Construction Stormwater General Permit;
- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the United States;
- Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) that specifies construction BMPs that will reduce pollution in stormwater discharges to the Best Available Technology/Economically Achievable/Best Conventional Pollutant Control Technology standards;
- Perform inspections and maintenance of all BMPs; and
- Conduct stormwater sampling, if required based on risk level.

To obtain coverage under the Construction Stormwater General Permit, a project applicant must electronically file all permit registration documents with SWRCB prior to the start of construction. Permit registration documents must include a Notice of Intent, Risk Assessment, site map, SWPPP, annual fee, and signed certification statement. The SWPPP must contain a visual monitoring program; a chemical monitoring program for “non-visible” pollutants to be implemented if there is a

failure of BMPs; and a sediment monitoring plan if the site discharges directly to a waterbody listed on the 303(d) list for sediment.

Typical BMPs contained in SWPPPs are designed to minimize erosion during construction, stabilize construction areas, control sediment, control discharges from groundwater dewatering, and control pollutants from construction materials. The SWPPP must also include a discussion of the program to inspect and maintain all BMPs.

The Construction Stormwater General Permit also contains post-construction requirements for projects not covered under a Phase I or Phase II MS4 Permit. The Construction Stormwater General Permit requires implementation of operational BMPs and low impact development features to reduce runoff and pollutants in stormwater discharge.

The Construction Stormwater General Permit also includes groundwater dewatering requirements for projects not covered under a De Minimis or Low Threat Discharge Permit. The dewatering requirements mandate dischargers to implement BMPs to control the volume and velocity of dewatering discharges. The Construction Stormwater General Permit also requires testing and treatment, if necessary, of groundwater discharge to verify the discharge meets or exceeds the effluent limitations specified in the permit.

Industrial Stormwater Permit

The *General Permit for Stormwater Discharges Associated with Industrial Activities* (Industrial General Permit; Order No. 2015-0122-DWQ; NPDES No. CAS00001, as amended in 2015 and 2018) regulates operation of industrial facilities in California based on the Standard Industrial Classification Codes specified in the permit. These facilities include, but are not limited to, manufacturing plants, mining facilities, oil and gas facilities, hazardous waste facilities, landfills, wastewater treatment facilities, recycling facilities, and vehicle maintenance shops that have the potential to discharge stormwater runoff into water bodies. To comply with the Industrial General Permit, the operators of these regulated industrial facilities must implement an operational SWPPP that outlines the measures and stormwater BMPs the operator of an industrial facility must implement to reduce stormwater pollution. Operators of facilities regulated by the Industrial General Permit are also required to conduct stormwater monitoring of pollutants including, but not limited to, sediment, metals, oils, and total suspended solids. In addition, the Industrial General Permit requires industrial discharge to comply with TMDL implementation requirements for impaired water bodies. The SWRCB and RWQCBs implement and enforce the Industrial General Permit.

AB 1881

AB 1881, also known as the Water Conservation in Landscaping Act, was signed into law on September 29, 2006, and requires DWR to update the state's Model Water Efficient Landscape Ordinance (MWELO) by 2009, with subsequent updates. The law established a statewide framework to reduce outdoor water use by setting limits on landscape irrigation, requiring water efficient irrigation systems, and providing a selection of drought-resilient plants. Local jurisdictions are required to adopt and enforce the MWELO or their own local equivalent to ensure that new and landscaping incorporates water-efficient design and maintenance practices to reduce demand on potable water supplies.

c. Local Laws, Regulations, and Policies

Tulare County General Plan and Regulations

The 2030 Tulare County General Plan includes goals and policies related to protecting the County's water supply and securing future supplies in Chapter 11, Water Resources, and flood and storm management in the Health and Safety Chapter (Tulare County 2012). Major goals include HS-5, minimizing effects of flooding and storms, and WR-1 and -2, protection of surface and groundwater resources. These overarching goals are implemented by a variety of policies and work plans such as HS-5.4 (flood control measures and stormwater retention), HS-5.10 (flood control and hydromodification design), WR-1.1 (groundwater withdrawal management), WR-1.8 (basin management participation), WR-2.1 (protection of water quality), WR-2.4 (erosion and sediment control), and WR-2.8 (point source pollution control).

The Tulare County Code contains stormwater and water quality regulations in Part IV, Chapter 27, and has numerous other ordinances related to water quality including agricultural runoff regulations in Part IV, Chapter 25 and watercourse modification in Part IV, Chapter 15. The Tulare County Flood Control Master Plan has been in effect since 1973 and continues to be incorporated into each General Plan update. The Tulare County General Plan and County Code would apply to projects in the TCAG Region located within unincorporated areas.

City General Plans

City of Porterville

The City of Porterville 2030 General Plan Open Space and Conservation Element includes several goals and policies related to protection of the Tule River, which flows through the planning area and to groundwater recharge to the Tule Subbasin (City of Porterville 2008). The Guiding Policy is OSC-G-8, ensuring adequate water quality and supply for the entire community, and Implementation Policies include OSC-I-37 (watershed protection standards), OSC-I-39 (minimizing erosion and runoff), OSC-I-40 through 45 (pollution management), and OSC-I-53 through 56 (recharge and infiltration protection). The Porterville City Code has numerous regulations and ordinances related to water quality and conservation, including Chapter 7.IV on green building codes, and Chapter 19A which contains the Storm Drainage Systems regulations.

City of Tulare

The City of Tulare 2035 General Plan includes goals and policies related to protection of surface water, groundwater quality, and groundwater recharge within the Tulare Lake Basin. The Open Space and Conservation Element emphasizes watershed protection, stormwater management, and infiltration to protect the Kaweah groundwater subbasin and the City's groundwater supplies (City of Tulare 2014). The Tulare Municipal Code includes regulations supporting these policies, including Title 10 provisions addressing stormwater management, rainwater retention, and irrigation efficiency, as well as implementation of a Surface Water Management Program that captures and treats runoff to improve water quality and support groundwater recharge in compliance with NPDES Phase II MS4 requirements.

City of Visalia

The City of Visalia has numerous goals and policies related to water quality and hydrology in the General Plan, especially in the Water Resources section of the Open Space and Conservation

Element, which covers water quality, and in the Parks, Schools, Community Facilities, and Utilities Element, which deals with stormwater goals (City of Visalia 2014a). The City also has a detailed Stormwater Management Plan adopted in 2005 (City of Visalia 2014b). Goals include OSC-O-6 (Protect water resources and quality), OSC-O-7 (preservation of waterways as habitat, groundwater recharge, and flood control), and PSCU-O-14 (management practices for groundwater recharge and stormwater management) which are implemented by Policies such as OSC-P-8 (waterway protection), OSC-P-10 (waterway setbacks), PSCU-P-60 (incorporation of stormwater detention basins) and PSCU-P-61 (control of stormwater runoff and pollutants). The Visalia Municipal Code contains stormwater, flood management, and conservation regulations in Titles 13, 15, and 16.

Other City General Plans

Other cities in the TCAG region, such as Exeter, Dinuba, Farmerville, Lindsay, and Woodlake, have similar provisions, goals, policies, and regulations in their General Plans and municipal ordinances.

Urban Water Management Plans

City of Dinuba

The City of Dinuba's UWMP services an approximately 6.5 square mile area in the City of Dinuba and was created based off of policies in long-term planning documents such as General Plans and Specific Plans. The City of Dinuba's UWMP includes a Water Shortage Contingency Plan which lists procedures to be carried out in the event of shortage. These include, expanding public information, limiting landscape irrigation, prohibiting vehicle washing, and offering water use surveys (City of Dinuba 2020).

City of Exeter

The City of Exeter's UWMP services the incorporated area for the City of Exeter with a primary focus on groundwater, as groundwater is the sole source of municipal water supply. The UWMP does not include discussions on conjunctive use, groundwater recharge, saline water intrusion barriers, agricultural, wetlands or wildlife habitat because they are not applicable to the City of Exeter. The UWMP's Water Shortage Contingency Plan includes policies such as limiting landscape irrigation hours, restricting washing vehicles, and requiring commercial nurseries to only use drip irrigation systems (City of Exeter 2022).

City of Lindsey

The City of Lindsay's UWMP was prepared to promote efficient use of urban water supplies, support conservation, ensure reliable water availability for future use, and provide a framework for responding to drought conditions. The UWMP serves a population of approximately 13,901 within the City and surrounding unincorporated areas, including Page-Moore Tract, Sierra Shadows Mobile Home Park, El Rancho, and areas west of the City. The City relies primarily on groundwater, supplemented by Central Valley Project surface water when available. The UWMP includes conservation measures and a Water Shortage Contingency Plan outlining actions such as water use reductions during drought conditions, and identifies the need for additional groundwater wells and infrastructure improvements to meet future demand.

City of Porterville

The City of Porterville's UWMP services the City of Porterville as well as some areas outside of the City of Porterville that are within the Planning Areas as defined in the Porterville 2030 General Plan update. Agricultural land use covers 58 percent of the total planning area the UWMP services. The City of Porterville has an existing Water Conservation Plan which outlines policies and procedures to help reduce water demands during drought. These policies include implementing public information programs, enforcing watering schedules, and, if necessary, placing restrictions on water use (City of Porterville 2022).

City of Tulare

The City of Tulare's UWMP was created to maintain efficient use of urban water supplies, continue to promote conservation, ensure sufficient water supplies are available for future beneficial use, and provide a mechanism for response during drought. The UWMP services a population of approximately 67,834. The service area includes the City of Tulare itself, the community of Matheny Tract and Soults Mutual Water Company. The UWMP's Water Shortage Contingency Plan includes measures which prohibit operating irrigation system during certain hours, prohibit washing automobiles, among other restrictions (City of Tulare 2021).

City of Visalia

The California Water Service provides service to the City of Visalia and thus their UWMP is enforced within the City of Visalia. The UWMP services a population of approximately 147,032. The Water Shortage Contingency Plan include policies such as prohibiting watering within 48 hours of measurable rainfall, expanding public information, limiting landscaping days, and prohibiting use of potable water for construction and dust control (California Water Service 2021).

4.10.3 Impact Analysis

a. Methodology and Significance Thresholds

Impacts to hydrology and water quality are evaluated based on adherence to local, state, and federal standards; the nature of potential soil disturbance, construction activities, and groundwater dewatering during construction; potential change in land use and operational activities; potential changes in pre- and post-project impervious surface areas and stormwater flows; and compliance with NPDES requirements, including construction and operational BMPs for control of surface runoff and reduction of pollutants in stormwater runoff. For this programmatic analysis, proposed projects are geospatially compared to existing floodplains in the region to determine whether project implementation could pose an environmental risk related to flooding, inundation, or related downstream pollution impacts.

Appendix G of the *CEQA Guidelines* identifies the following criteria for determining whether a project's impacts would have a significant impact related to hydrology and water quality:

1. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;
2. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;

3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
   i. Result in substantial erosion or siltation on- or off-site;
   ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
   iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
   iv. Impede or redirect flood flows;
4. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or
5. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

b. Project Impacts and Mitigation Measures

The following section discusses hydrology and water quality impacts and mitigation measures associated with transportation projects and the land use scenario implementing the proposed 2026 RTP/SCS. Due to the programmatic nature of the proposed 2026 RTP/SCS, a precise, project-level analysis of the specific impacts associated with individual transportation and land use projects is not possible. In general, however, implementation of transportation and land use projects envisioned by proposed 2026 RTP/SCS could result in the impacts as described in the following section.

Threshold 1:	Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Impact HYD-1 IMPLEMENTATION OF PROPOSED TRANSPORTATION PROJECTS AND FUTURE PROJECTS INCLUDED IN THE LAND USE SCENARIO ENVISIONED IN THE PROPOSED 2026 RTP/SCS WOULD NOT VIOLATE WATER QUALITY STANDARDS OR WASTE DISCHARGE REQUIREMENTS, OR OTHERWISE SUBSTANTIALLY DEGRADE SURFACE OR GROUND WATER QUALITY. THESE IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Implementation of proposed transportation and land use projects envisioned in the proposed 2026 RTP/SCS have the potential to result in both short-term and long-term impacts to surface and groundwater water quality. For program-level analyses, water-related impacts are often similar among individual projects within project classes (e.g., constructing new roadways, widening existing roadways, etc.). For example, when a new roadway is constructed, it will tend to have a greater impact than the widening of an existing roadway as it would generate runoff and contamination issues where there previously were none, as well as tend to create a larger amount of new impermeable surfaces than a widening project would. Similarly, improvements within built-up urban areas are less likely to generate water pollution than improvements outside the urban landscape, as urban areas frequently have better stormwater drainage (and potential treatment) than countryside roadways, where stormwater capture may consist of a ditch or swale along the road.

Ground Water Quality

Ground water quality can be impaired in a variety of ways, including through drawdown of shallow, nutrient-polluted agricultural runoff near over-pumped wells; overall untreated runoff from agricultural and animal operations that percolates directly into shallow aquifers; percolation of waste from septic systems; and percolation into the water table from polluted surface water where

such interchange occurs. The proposed 2026 RTP/SCS does not feature alterations to the region's agricultural land uses, and the land use scenario concentrates population growth in urban areas which would not be likely to rely on septic systems. Therefore, the primary potential impact to regional ground water quality would be associated with impacts to surface water quality in areas where surface water is directly connected to underlying ground water supplies. Potential impacts associated with increased overdraft of ground water are discussed in Impact HYD-2.

Surface Water Quality

Certain transportation improvements would increase overall impervious surface area throughout the TCAG region. For example, transportation projects such as road widening , construction of new or expanded highway segments, interchanges, or roundabouts would introduce additional pavement in areas that are currently undeveloped, with corresponding increases in runoff. Such projects would include the roundabouts in the City of Porterville and widening of SR 99, SR 65 and SR 190. Construction activities for transportation projects facilitated by the proposed 2026 RTP/SCS may include soil disturbance, excavation, grading, and similar activities with a high potential to generate sediment and other pollutants. Sediment especially would not require stormwater to transport it into the environment; a high wind would be sufficient. Such projects would also encourage increased use of the improved transportation network and facilitate the planned growth of the County population, leading to an increase in operational contamination from transportation use.

Development projects envisioned under the land use scenario would introduce impervious surfaces, including infill projects, if the infill site is currently unpaved. However, most infill sites are already developed, minimizing the increase in impervious surfaces. Projects that would increase impervious surfaces would have adverse impacts on surface water quality. Pollutants and chemicals associated with urban activities would run off new roadway surfaces or other new impervious surfaces flowing into nearby bodies of water during storm events. These pollutants would include, but are not limited to, heavy metals from auto emissions, oil, grease, debris, and air pollution residues. Such contaminated urban runoff may result in the incremental long-term degradation of water quality.

Short-term adverse impacts to surface water quality may also occur during the construction periods of individual transportation improvement projects because areas of disturbed soils would be highly susceptible to water erosion and downstream sedimentation. This impact is of particular concern where projects are located on previously contaminated sites. Without effective erosion and stormwater control, contaminated soils exposed during construction activities may result in surface water contamination. In addition, grading and vegetation removal in proximity to creeks for construction, widening, and bridge repair could increase erosion and sedimentation of creek banks. This could affect both water quality and the stability of slopes along the creeks.

Most transportation improvement projects would enhance and upgrade existing and outdated stormwater infrastructure, improving runoff quality: such benefits may be outweighed by the increases in current levels of pollutants caused by increase of traffic flows encouraged by better transportation systems. Similarly, any proposed 2026 RTP/SCS projects with landscaping may require fertilizer/pesticide application, which could enter nearby bodies of water and cause adverse effects to water quality.

As discussed under Section 4.10.2, *Regulatory Setting*, the federal CWA requires that coverage under an NPDES permit be obtained for construction projects that would disturb greater than one acre, or that are part of a larger plan of development that itself covers more than one acre. Acquisition of coverage under the Construction General Permit is dependent on the preparation of a

SWPPP that contains project specific BMPs to control the discharge of pollutants, including sediment, into the local surface water drainages as well as post-construction measures to ensure continued permit compliance. In addition, all transportation projects for which Caltrans is the sponsor agency would be required to comply with the Caltrans Statewide NPDES permit that regulates all stormwater discharges from Caltrans owned conveyances, maintained facilities and construction activities. Most proposed 2026 RTP/SCS transportation projects, such as state highway widenings and interchange construction, would disturb more than one acre and therefore would be subject to these regulations.

Coverage under the Region 5 Region-Wide MS4 Permit would be required for all projects and land uses during their operation that discharged to an MS4 system, including compliance with the general Findings and the Program Elements Part F (Planning and Land Development/Post Construction Storm Water Management Program) of Attachment J, such as all requirements for post-construction BMPs, Low Impact Development (LID) features, and implementation or compliance with Stormwater Management Plans.

In addition, planning and approval of the various future projects envisioned by the proposed 2026 RTP/SCS would require the lead agencies and project sponsors to ensure compliance with existing local jurisdiction requirements, including applicable municipal code sections such as the City of Visalia's Stormwater Management Plan and the stormwater and water quality regulations of Part IV of the County Code.

In addition, the land use scenario included in the proposed 2026 RTP/SCS would generate new sources of wastewater, which would also be conveyed to wastewater treatment facilities in the region. Discharges of treated wastewater, also called effluent, from the treatment plants are regulated as point sources by the RWQCB and must meet water quality effluent limitations established in the NPDES permit issued by the RWQCB for the treatment plant. Thus, although implementation of the proposed 2026 RTP/SCS would increase the volume of point-source wastewater discharges in the TCAG region, required compliance and monitoring of effluent prior to discharge from treatment facilities would ensure impacts would be less than significant.

Compliance with mandatory regulations and restrictions of the multiple types of permits individual projects may fall under, as well as conformity with applicable County or municipal General Plan policies, would reduce potential impacts from project construction and operational lifespan by requiring measures to prevent runoff and pollutants from leaving a project site, and ensuring all non-point and point source discharges to surface waters meet standards of the applicable NPDES Permits and Water Quality Control Plans such as the Basin Plan. These measures and permit requirements may not eliminate impacts to water quality for certain individual projects; however, permit coverage would ensure that the transportation and land use projects implementing the proposed 2026 RTP/SCS would not violate water quality standards or waste discharge requirements. Therefore, impacts from violation of water quality standards or waste discharge requirements, or other impairment of water quality, would be less than significant.

Mitigation Measures

Mitigation measures are not required because this impact would be less than significant, as jurisdictions are required to follow the laws and regulations described above.

Threshold 2:	Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Impact HYD-2 TRANSPORTATION AND LAND USE PROJECTS IMPLEMENTING THE PROPOSED 2026 RTP/SCS WOULD SUBSTANTIALLY DECREASE GROUNDWATER SUPPLIES AND INTERFERE WITH GROUNDWATER RECHARGE SUCH THAT IT MAY IMPEDE SUSTAINABLE GROUNDWATER MANAGEMENT OF THE BASIN. IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

In undeveloped conditions, natural vegetation can intercept and retain precipitation and limit surface runoff. Runoff that occurs over large areas is often unconcentrated and able to percolate down into the ground and replenish groundwater supplies naturally. When natural areas, including bare dirt, are covered over by impermeable surfaces such as pavement, this natural infiltration is obstructed. Runoff from such areas is concentrated and may increase volumes and flow rate greater than the natural infiltration rate of the surrounding soil, leading to saturated ground which cannot accept any more water. This would ultimately impair natural recharge due to loss of otherwise rechargeable rainwater to evaporation or discharge to streams that flow to areas unable to assist recharge.

Major proposed 2026 RTP/SCS transportation projects and the land use scenario envisioned by proposed 2026 RTP/SCS could affect groundwater supplies by incrementally reducing groundwater recharge potential in the TCAG region. This reduction in groundwater recharge would occur because the impermeable surfaces associated with the proposed improvements would increase surface water runoff at the expense of natural infiltration. The proposed 2026 RTP/SCS encourages infill development within urbanized areas of the TCAG region, and this growth scenario could interfere with groundwater recharge by increasing the extent of impervious surfaces already present in this area. Urbanized areas are typically characterized by extensive impervious surfaces such as buildings and paved roads; as such, infill development would have minimal potential to further alter the rates and patterns of groundwater recharge to the overall basin. However, infill as well as any outlying development on currently unpaved sites would result in a net increase of impervious surfaces in the area and would have associated impacts on site specific runoff and infiltration patterns.

Land Use Projects

As discussed, the proposed 2026 RTP/SCS growth scenario concentrates growth in already-urbanized areas, suggesting most land use development would not occur on undeveloped, permeable surfaces. Development on such surfaces would incorporate design features in order to retain, capture, and convey increased runoff in accordance with the city or County design standards and State requirements, such as the Program Elements Part F post-construction site control features and hydromodification requirements of the Region-Wide MS4 Permit discussed under Section 4.10.2, *Regulatory Setting,* and Impact HYD-1, above. Compliance with these standards and regulations typically includes the use of LID features which, as described above, are designed to simulate natural processes of runoff and infiltration to minimize or avoid potential adverse effects associated with new development. Therefore, impacts to groundwater recharge from land use projects implementing the proposed 2026 RTP/SCS would be less than significant.

Transportation Projects

Transportation projects implementing the proposed 2026 RTP/SCS would increase impervious surfaces in the TCAG region. Many planned and programmed transportation projects identified in

Table 2-2 in Chapter 2, *Project Description*, such as the widening of SR 99, SR 65, and SR 190 and roundabouts in Porterville, would add paved surface area. However, because these projects would generally occur within existing transportation corridors that are already characterized by paved surfaces, they would have a negligible effect on the overall extent of impervious surfaces in the region.

In addition, transportation improvements often replace outdated or nonexistent runoff infrastructure with modern drainage and LID features that can improve infiltration and recharge. Like the infill development discussed above, transportation projects would also be implemented with project-specific drainage plans designed to retain, capture, and convey runoff in accordance with applicable city or County design standards and federal and State requirements. Because many projects would improve local drainage and recharge conditions, and others would be required to incorporate design features that minimize impacts to groundwater recharge, impacts to groundwater recharge from transportation projects implementing the proposed 2026 RTP/SCS would be less than significant.

Groundwater Supply Management

Implementation of transportation and land use projects envisioned in the proposed 2026 RTP/SCS would result in both short-term and long-term impacts to groundwater management throughout the TCAG region.

Activities would be implemented under California regulations governing use of groundwater, including SGMA, as well as groundwater provisions of applicable local general plans. Taken as a whole, these regulations and plans are intended to reduce groundwater use and subsequent overdraft of groundwater basins.

Regional municipal UWMPs provide strategies for reducing water usage and increasing available supply, such as investing in reclaimed water infrastructure and increasing user education and awareness of conservation practices. UWMPs cannot impose any mandatory regulations or limits on water use, and any improvements in future proposals are currently speculative.

As described above, the medium- and high-priority basins in the TCAG region are being managed by GSAs, each of which is responsible for developing a GSP for its respective basin(s) or having submitted an existing management plan that meets all the requirements of a GSP, for DWR's consideration to approve as an Alternative GSP for compliance with SGMA. The GSPs are required to provide mechanisms that allow the sustainable use of groundwater, with growth projections considered.

During grading and general construction activities, groundwater and/or surface water supplies would be needed to suppress fugitive dust generated by construction equipment, for the mixing of concrete or other materials, for cleaning, and for a variety of other uses. Agricultural uses dominate the region's groundwater extraction and account for 4.74 MAF of the region's average annual use of 5.17 MAF, which far exceeds the groundwater usage of 0.38 MAF attributed to urban and domestic groundwater uses, which could include proposed 2026 RTP/SCS projects (DWR 2025). Although proposed 2026 RTP/SCS projects would account for a small portion of the region's total groundwater usage, the Tulare Lake Hydrologic Region relies upon groundwater at a rate nearly equal to its reliance on other water sources, with groundwater usage accounting for 5.17 MAF per year and other water usage accounting for 5.55 MAF per year (DWR 2025). It is therefore reasonable to assume that some development facilitated by the proposed 2026 RTP/SCS would rely on groundwater supplies for dust suppression during construction. Given the current state of

overdraft of many groundwater basins in the study area, and the likelihood that more than one project would be constructed simultaneously in areas with over-drafted basins, the short-term groundwater supply impact of projects implementing the proposed 2026 RTP/SCS could be significant.

Over the long term, the water use of the proposed transportation projects would primarily include irrigation uses for project landscaping components, with some increased water usage from upgraded transportation facilities with landscaping. Operational water use for individual projects would be negligible. Most transportation improvements modify existing facilities and do not substantially expand irrigated landscaping, and many projects would not increase long-term water use. However, projects that do include landscaping, such as vegetation for slope stabilization, noise barriers, and stormwater management, would incrementally increase demand, which could become regionally significant by 2049. Although there is existing use of reclaimed water for transportation facility landscaping, this is not common countywide. In more remote areas, reclaimed water sources are not located within a reasonable distance of landscaping needs. As such, it may not be economically feasible to convey reclaimed water to outlying areas.

For land use projects implementing the proposed 2026 RTP/SCS, including municipal and industrial projects, measures contained within the region-wide MS4 Permit or General Plans would reduce water use impacts. The Region-wide MS4 NPDES Permit would require many projects to incorporate LID strategies such as stormwater reuse and onsite infiltration under the general Findings and the Program Elements Part F (Planning and Land Development/Post Construction Storm Water Management Program) of Attachment J. Onsite infiltration reduces water use impacts by allowing stormwater to percolate into the groundwater table and recharge local groundwater supplies, thereby offsetting the need for imported or local groundwater supplies. Stormwater reuse captures runoff for beneficial uses, which may reduce reliance on local water supply sources. General Plan policies and ordinances at the local and regional level, such as the California Green Building Code, would encourage or require consideration of reclaimed water and drought-resistant landscaping, and AB 1881 would apply to most landscaped areas over 2,500 sf. These and similar measures may not apply to every land use project implementing the proposed 2026 RTP/SCS, and it increased demand on ground water supplies from additional land use projects is likely.

Summary

Existing regulatory requirements at the local, State, and federal levels include measures to minimize any increases in off-site stormwater runoff by encouraging on-site infiltration, which would reduce the potential reduction in groundwater recharge from projects implementing the proposed 2026 RTP/SCS . Onsite infiltration reduces water use impacts by allowing for the percolation of stormwater runoff into the groundwater table, which allows for the recharge of local groundwater supplies and reduced reliance on imported water and groundwater.

Conformity with applicable GSPs and SGMA requirements is discussed under Impact HYD-5. As discussed in Section 4.10.2, *Regulatory Setting*, and further under Impact HYD-5, GSPs in the TCAG region do not contain regulatory groundwater extraction limits; most require investigations, and some impose fees though local propositions and ordinances, while some are under SWRCB probation. Further, the large number of GSAs, each covering small areas within the TCAG region, will make coordination difficult. The existing GSPs espouse a variety of goals, options, and plans, but at present there are no proposals to form larger, unified GSA structures within the region have currently been put forward for public consideration or proposed to DWR.

Due to the current over-drafted state of the basins, the magnitude of change from the current conditions caused by any additional overdraft of groundwater supply would be significant. Therefore, short- and long-term water uses associated with the proposed 2026 RTP/SCS would substantially decrease groundwater supplies and thereby impede sustainable groundwater management. The below mitigation measures would reduce this impact as they are not included in most LID or conservation regulatory schemes that apply within the region.

Mitigation Measures

TCAG shall, and transportation project sponsor agencies can and should implement the following mitigation measures for applicable transportation projects. The County and cities in the TCAG region can and should implement these measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions.

HYD-2(a) Construction Dust Suppression Water Supply

Where feasible, implementing agencies shall use reclaimed and/or recycled water for dust suppression during construction activities. This includes use of such reclaimed water in water trucks utilized for project construction occurring outside developed areas and away from water infrastructure which would otherwise provide such reclaimed water. This measure shall be noted on construction plans and shall be spot checked by the local jurisdiction.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during construction, as applicable.

HYD-2(b) Landscape Watering

Implementing agencies shall design proposed 2026 RTP/SCS projects that include landscaping shall be designed with drought tolerant plants and drip irrigation. When feasible, native plant species shall be used. In addition, landscaping associated with proposed improvements shall be maintained using reclaimed water when feasible. If reclaimed water could feasibly be utilized for project landscape watering due to proximity of reclaimed water sources but is unavailable due to lack of connecting infrastructure, implementing agencies shall conduct an analysis of the upgrades needed to provide such infrastructure, which will include the potential for new connections to existing reclaimed water systems to provide reclaimed water to other nearby sources besides the proposed project in the analysis, and shall perform such steps as necessary to utilize available reclaimed water if feasible.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during construction, as applicable.

Mitigation Measure UTIL-2, General Conservation Measures

See Impact UTIL-2 in Section 4.17, *Utilities and Service Systems*.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities, the County, and utility agencies. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during construction, as applicable.

Significance After Mitigation

Implementation of the above measures would reduce proposed Project impacts on water supply and groundwater overdraft in the TCAG region. However, due to the programmatic nature of this proposed 2026 RTP/SCS EIR, a precise, project-level analysis of specific water demand and supply impacts associated with individual transportation and land use projects is not possible. The land use scenario envisioned by the proposed 2026 RTP/SCS along with transportation projects would result in the need for additional water supply, even with the implementation of mitigation measures listed above. Given the severe overdraft conditions of area groundwater basins, impacts would remain significant and unavoidable. No additional feasible mitigation measures to reduce this impact to a less than significant levels are available.

Threshold 3: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. result in a substantial erosion or siltation on- or off-site;

ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

iv. impede or redirect flood flows?

Impact HYD-3 THE 2026 RTP/SCS WOULD NOT SUBSTANTIALLY ALTER THE EXISTING DRAINAGE PATTERN OF A SITE OR AREA THROUGH ALTERATION OF THE COURSE OF A STREAM OR RIVER OR THROUGH THE ADDITION OF IMPERVIOUS SURFACES IN A MANNER WHERE DRAINAGE CHANGES WOULD RESULT IN FLOODING ON- OR OFF-SITE, REDIRECT OR IMPEDE FLOOD FLOWS, EXCEED THE CAPACITY OF STORMWATER SYSTEMS, OR PROVIDE ADDITIONAL POLLUTED RUNOFF. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Construction of transportation and land use projects under the proposed 2026 RTP/SCS could change existing drainage patterns on individual project sites or within a project area. Grading and construction of impervious surfaces for transportation and land use projects would change existing drainage patterns by altering slopes and reducing infiltration. While improvements on or near bridges may result in fill material being placed within stream channels, thereby altering the streambed, no such transportation projects are proposed. Additionally, many projects would increase sediment loading and erosion, particularly during construction grading, excavation, and vegetation removal. These activities may expose soils to wind and water erosion, resulting in the

transport of sediment into nearby drainage systems and waterways, which can alter local drainage patterns and affect water quality in the immediate area. Implementation of transportation and land use projects implementing the proposed 2026 RTP/SCS may increase stormwater flows, resulting in increased volume and/or velocity of stormwater runoff. Potential increases in stormwater volume and/or velocity could result in on- or off-site flooding.

Planned transportation and land use projects would be designed to comply with existing State and local jurisdiction hydromodification requirements, including applicable County and municipal code sections related to stormwater runoff and drainages, such as curb and gutter design, and drainage infrastructure necessary to control and accommodate any increase in stormwater flows. Runoff from drainage changes could increase polluted runoff, as discussed under Impact HYD-1. As described above, although no transportation projects requiring the placement of fill material within streambeds are proposed, any streambed filling that should arise due to improvements near bridges would be required to comply with the terms of any applicable USACE 404 or RWQCB permit which would include an analysis of any impacts from flooding or drainage alteration; in addition, County General Plan Policy WR 1.10 would apply to any projects in the unincorporated County involving stream filling or construction near streams. Oversight of projects within flood areas or affecting flood control infrastructure would be provided by the Tulare County Flood Control District and would reduce potential impacts related to alteration of future flood flows.

Land use projects implementing the proposed 2026 RTP/SCS would require drainage control and hydromodification measures either under an individual MS4 NPDES Permit or under the Region-Wide MS4 Permit, and would include mandatory adherence to the Region-Wide MS4 Permit's hydromodification requirements and implementation of LID drainage control features, if required under Program Requirement Part F. These measures typically include incorporation of permeable paving, vegetated swales, infiltration retention basins, or other features that minimize stormwater runoff and volume, and are selected from sets of feasible options based on project-specific site or engineering characteristics. Similar sets of requirements may further be imposed by local regulatory programs as discussed under 4.10.2, *Regulatory Setting,* above.

Compliance with the existing suite of applicable policies and regulations minimize impacts related to on- or off-site flooding, stormwater drainage capacity, polluted runoff, and redirection or impedance of flood. As a result, these impacts would be less than significant.

Mitigation Measures

Mitigation measures are not required because this impact would be less than significant, as jurisdictions are required to follow the laws and regulations described above.

Threshold 4:	In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

Impact HYD-4 TRANSPORTATION AND LAND USE PROJECTS IMPLEMENTING THE PROPOSED 2026 RTP/SCS WOULD NOT RISK RELEASE OF POLLUTANTS DUE TO PROJECT INUNDATION IN FLOOD HAZARD, TSUNAMI, OR SEICHE ZONES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Flooding/Dam Failure

Transportation and land use projects implementing the proposed 2026 RTP/SCS in low-lying areas, 100-year and 500-year flood plains, and in proximity to waterways and/or dam inundation zones may be subject to flood hazard. In general, throughout the TCAG region, the dam inundation areas

are located within natural floodplains; therefore, this analysis considers the effects of flooding and dam failure to be generally similar.

According to DWR, there are three dams in the TCAG region with a potential for dam inundation as shown in Figure 10.3-4. The Sand Creek Dam and Bravo Lake Reservoir have a high downstream hazard risk and are located approximately 11 miles northeast of Visalia. Larson Dam has a significant downstream hazard risk and is located approximately nine miles east of Porterville (DWR 2026).

The effects of flooding could include temporary inundation of a facility that impedes its use or causes long-term damage to the facility. Flooding may also cause immediate damage to roadways, bikeways, and bridges, particularly during high-velocity flood events that wash away or erode facilities, typically occurring adjacent to rising rivers or streams, or if located in a dam inundation area. Unpaved roads are particularly vulnerable, although any facility within the flood zone of a stream would be subject to impacts. Erosion caused by flooding can damage paved facilities, and bridge supports can be undermined or washed away.

There are several federal, State, and local programs to reduce flooding and control the flow of floodwaters, as well as to encourage proper flood planning within the region as discussed in the Regulatory Setting. The National Flood Insurance Act makes the purchase of flood insurance mandatory for properties in Special Flood Hazard Areas to prevent the loss of property from flooding. The Cobey-Alquist Floodplain Management Act encourages local governments to plan, adopt and enforce land use regulations for floodplain management to protect people and property from flood hazards. The California Division of Dam Safety inspects dams across the State, including in the TCAG region, on a yearly schedule to ensure that they are performing and being maintained in a safe manner. The Tulare County Flood Control District inspects and provides normal operation of most basins, channels, and other flood protection facilities and the routine and emergency maintenance and repair of these facilities in the County as well as providing oversight of construction and development within the floodplains. The Flood Control District also provides assistance to the Flood Control or Public Works Departments of municipalities within the TCAG region, including to the City of Visalia's Flood Control office and the City of Tulare Surface Water Management Division. Virtually all public levees and floodplain infrastructure are maintained by the Flood Control District except for municipal stormwater infrastructure.

Land use development implementing the SCS would mostly occur within developed areas or on the edges of such areas. The impacts of urban development increase the risk of flood inundation and the release of pollutants due to such inundation due to the increase in impermeable surfaces. However, urban development would be connected to existing or planned stormwater and flood control infrastructure and be required to conform with applicable regulations regarding runoff control and pollution control, including the mitigation measures proposed in this EIR. Such development would not substantially interfere with existing flood infrastructure without separate project-specific analysis of such impacts.

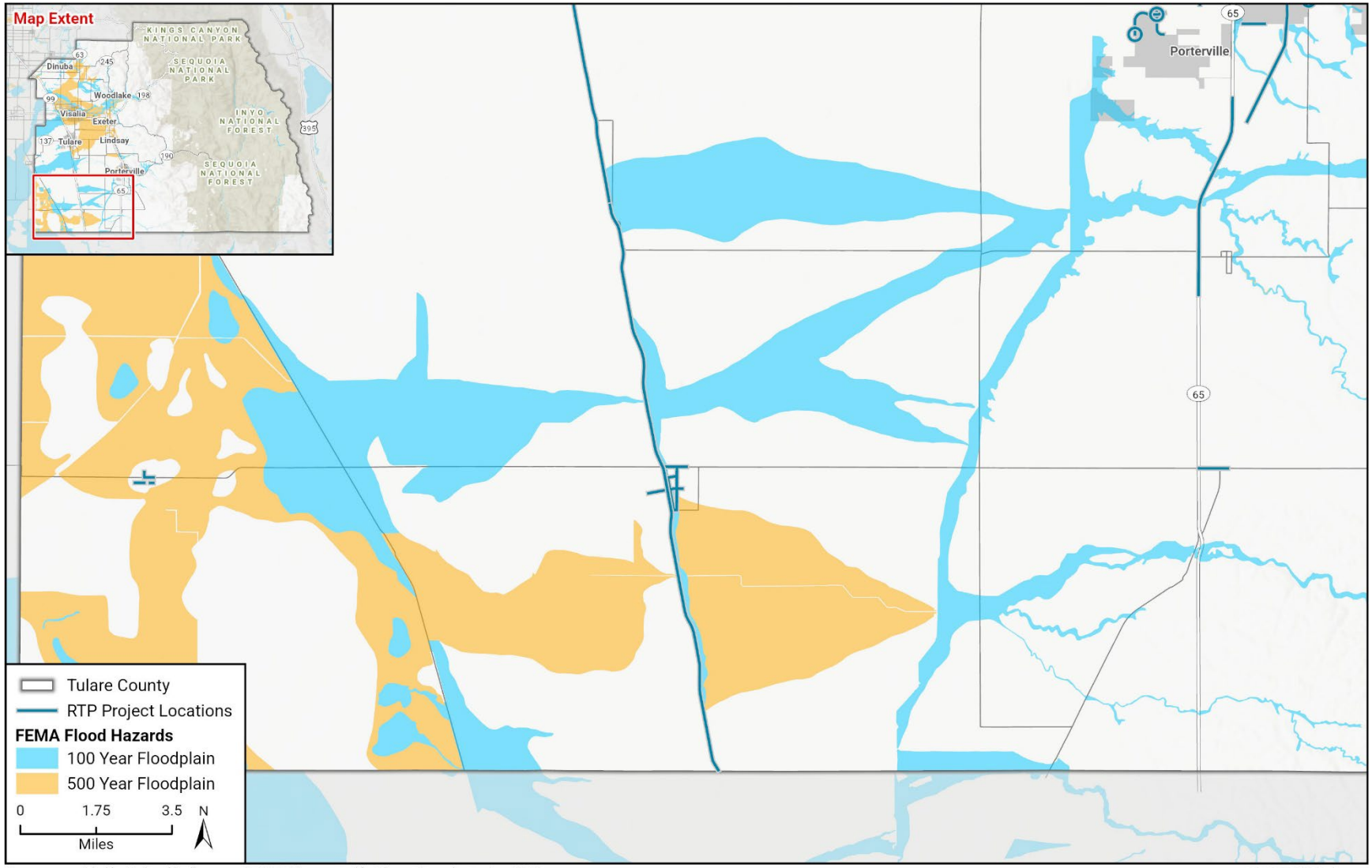
Transportation projects in less developed areas with less extensive flood protection or capability to deal with potential polluted runoff from roadways during a flood event would be subject to a greater risk of impact. Additionally, transportation projects have been historically sited in floodplains due to their flat topography and alignment with river corridors (Caltrans 2015). Locations of transportation improvements envisioned in the proposed 2026 RTP/SCS within floodplain areas of the County are depicted in Figure 4.10-5 through Figure 4.10-7.

All projects within floodplains or dam inundation areas would be required to adhere to development restrictions or regulations enforced by the Tulare County Flood Control District, and projects within municipal areas such as the City of Tulare that are outside the floodplain areas would be required to comply with hydromodification regulations of the municipal Flood Control or Public Works Department for drainage and stormwater flooding. The mandatory implementation of SWPPPs and BMPs imposed through these or other regulatory plans, as well as the requirements to improve local stormwater flow capacity if needed, would minimize the risks of flooding to these projects. While floodwaters could rise high enough to overcome drainage ditches, bioswales and similar pollution-capturing systems alongside roadways and bridges, such situations would reasonably be anticipated to distribute relatively few pollutants (those immediately extant on the road stretch being flooded) over a large area and would have a lesser impact than the long-term impacts of constant runoff from the roadways that is already reduced by runoff control devices.

Although individual projects implementing the proposed 2026 RTP/SCS have the potential to adversely affect water quality at a project-specific level due to floodwater inundation, projects would be required to adhere to regulations regarding risks from water quality pollutants and flood surges. As a result, the risks from polluted runoff during flood events would be similar to those of rain events on countryside roadways, and in developed areas would typically be more regulated and surrounded by infrastructure intended to deal with such flows.

The types of development that would be most likely to result in release of pollutants during inundation include uses such as wastewater treatment plants, chemical manufacturing plants, or hazardous materials landfills. Generally, the proposed 2026 RTP/SCS envisions land development in already urbanized areas where wastewater treatment plants, landfills, and chemical manufacturing plants already exist to serve existing development. Accordingly, the land use projects envisioned in the proposed 2026 RTP/SCS would not substantially increase the risk of release of pollutants into the environment as a result of inundation. Based on the above analysis, water quality impacts of the proposed 2026 RTP/SCS due to flooding or dam failure would be less than significant.

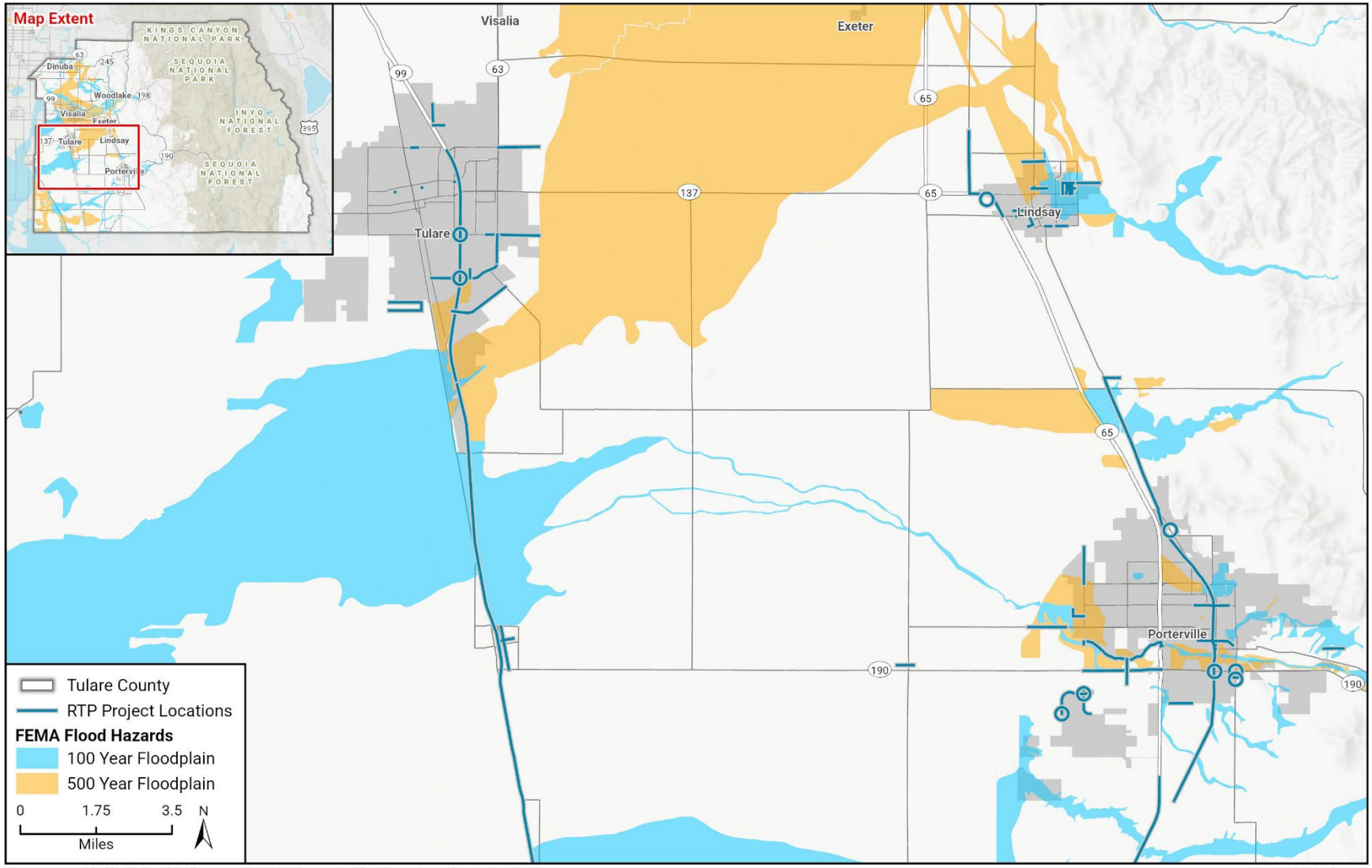
Figure 4.10-5 Projects With Potential Flood Hazards: South TCAG Region



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Additional data provided by CPAD, 2025; FEMA, 2025.

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Fig X FEMA Flood Hazards Map Series

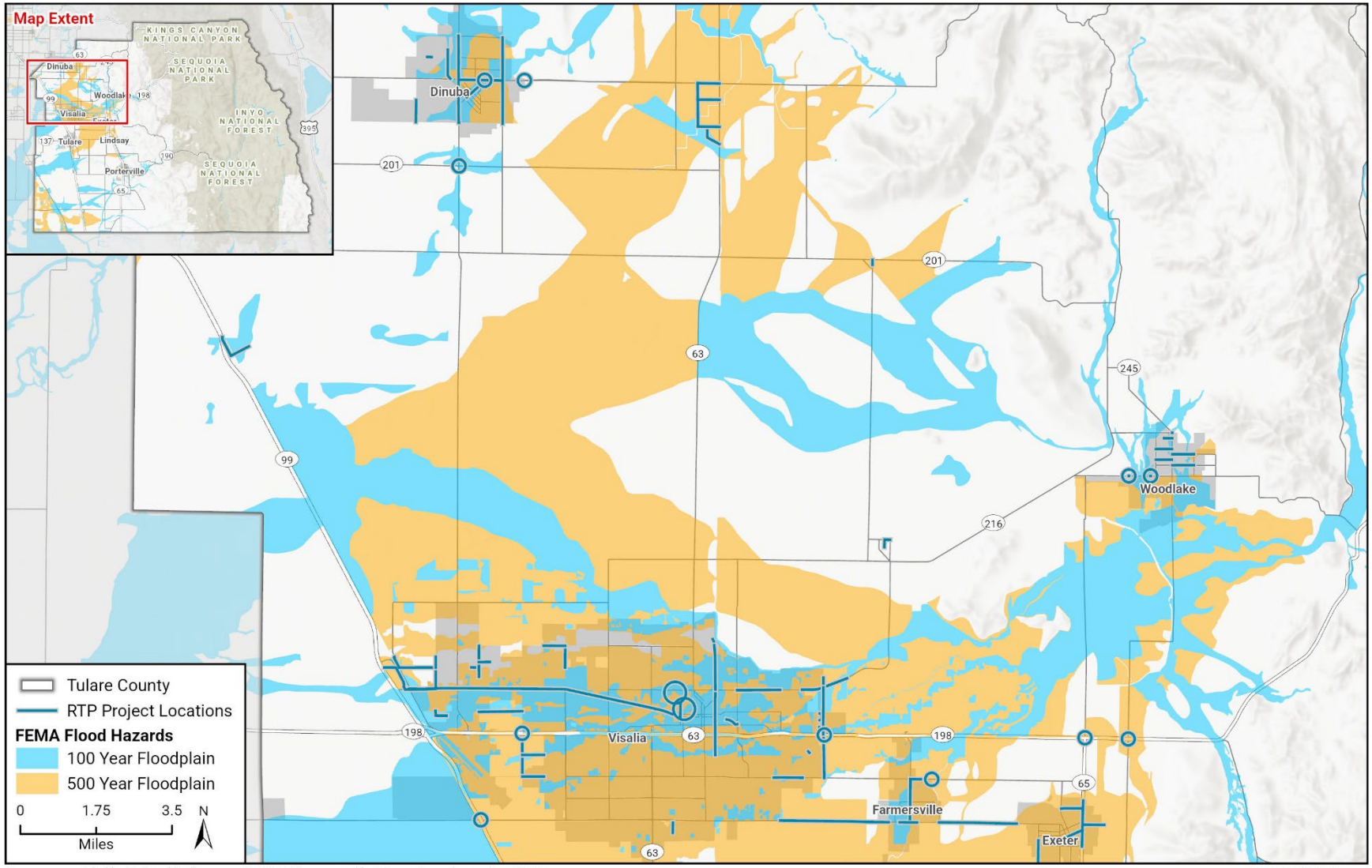
Figure 4.10-6 Projects With Potential Flood Hazards: Mid TCAG Region



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Additional data provided by CPAD, 2025; FEMA, 2025.

24-16880 EPS Hydro.aprx
Fig X FEMA Flood Hazards Map Series

Figure 4.10-7 Projects With Potential Flood Hazards: North TCAG Region



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Additional data provided by CPAD, 2025; FEMA, 2025.

24-16880 EPS Hydro.aprx
Fig X FEMA Flood Hazards Map Series

Tsunami and Seiche

The TCAG region is not subject to tsunami hazards due to its distance from the Pacific Ocean. Seiches could be possible in the larger lakes and reservoirs after a major earthquake or similar event that causes large-scale disturbance to the waters. Due to the size of the lakes and reservoirs within the TCAG region, seiche waves topping a dam and flowing downstream from a lake would be expected to be roughly the same size as the flood from dam failure (discussed above). The regulations and structures already in place to control development on floodplains and within dam inundation areas which serve to reduce impacts on floodplains would apply equally to reduce seiche impacts within the TCAG region as they would apply in the same locations. Therefore, impacts from tsunami or seiche behavior would be similar to impacts from other types of flooding and would be less than significant.

Mitigation Measures

Mitigation measures are not required because this impact would be less than significant, as jurisdictions are required to follow the protection policies and ordinances as described above.

Threshold 5:	Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Impact HYD-5 TRANSPORTATION AND LAND USE PROJECTS IMPLEMENTING THE PROPOSED 2026 RTP/SCS WOULD NOT CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF A WATER QUALITY CONTROL PLAN, BUT COULD CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF SUSTAINABLE GROUNDWATER MANAGEMENT PLAN. IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Transportation and land use projects implementing the proposed 2026 RTP/SCS have the potential to affect water quality as discussed in Impact HYD-1, but the proposed 2026 RTP/SCS would not prevent the CVRWQCB or any applicable local agency from carrying out the Basin Plan. The transportation projects included in the proposed 2026 RTP/SCS would not conflict with the beneficial uses for water identified in the Basin Plan. For example, transportation projects would not interfere with the beneficial use of water for municipal and domestic supplies, agricultural supply, or wildlife habitat supply. Likewise, the land use scenario envisioned in the proposed 2026 RTP/SCS would not obstruct or conflict with beneficial uses of water in the water quality control plan. The land use scenario in the proposed 2026 RTP/SCS focuses on infill development and locating people and employment near transit. The infill characteristics of the land use scenario would generally be consistent with the past use of water in these areas, and supportive of the beneficial uses identified in the water quality control plan, such as municipal and domestic supplies. But this increase in development would result in an increase in demand for groundwater and decrease groundwater supplies, as discussed in Impact HYD-2.

The stated primary goals of the Basin Plan include management of the 303(d) listed bodies, maintenance of water throughout the County for designated beneficial uses, and management of salt concentrations within the groundwater subbasins (CVRWQCB 2018). Implementation of the 2026 RTP/SCS would not obstruct the attainment of these main goals, and new development and improvements facilitated by the project would be required to maintain adherence with changes in the Basin Plan as they are planned in the future. Transportation or land use projects with a potential for affecting 303(d) impaired water bodies are strictly regulated and unlikely to produce the kinds of pollutants for which the bodies in the TCAG region are mostly impaired. Those pollutants tend to be

the result of agricultural, not transportation or urban, pollution. Impacts to beneficial uses of 303(d) impaired bodies would be expected to be less than significant, similar to potential impacts to listed pollutant levels. Finally, the salt concentrations in the greater Tulare Lake Basin in general are a result of the imported water supply system. The Basin Plan establishes requirements for monitoring salt concentrations through specific conductivity measurements and sets maximum conductivity levels for the Kings, Kaweah, Tule, and Kern Rivers at various checkpoints. Similarly, to constituents of concern in the 303(d) bodies, various salts and constituents increasing ionic content and specific conductivity in receiving waters are more commonly associated with agriculture than with transportation (in areas that do not regularly freeze and require heavy applications of road salts). For individual projects with the potential to cause substantial impacts to the salinity of receiving waters, the CVRWQCB has authority to mandate limitations or monitoring of discharges for salinity under the SWPPP required by the General Permit (or imposed by CVRWQCB for smaller projects deemed a threat for salinity).

The proposed 2026 RTP/SCS land use pattern would generate new sources of wastewater, which would also be conveyed to wastewater treatment facilities in the region for secondary or tertiary treatment. Discharges of treated wastewater, also called effluent, from the treatment plants are regulated by the CVRWQCB and must meet water quality effluent limitations established in the applicable NPDES/WDR permits for point source discharges, as also discussed under Impact HYD-1. Therefore, although implementation of the proposed 2026 RTP/SCS would increase the volume of point-source wastewater discharges in the TCAG region, required compliance and monitoring of effluent prior to discharge from treatment facilities would ensure Basin Plan compliance and impacts would be less than significant.

Implementation of the proposed 2026 RTP/SCS would not obstruct or hinder CVRWQCB or municipal agencies from fulfilling their regulatory duties and would be required to comply with all statues, codes, and regulations that applied. Further, the land use projects envisioned in the proposed 2026 RTP/SCS would not conflict with the stated goals of the Basin Plan. Therefore, impacts of the proposed project to implementation of any water quality control plan would be less than significant.

Regarding impacts on sustainable groundwater management plans, as discussed under Impact HYD-2, implementation of the proposed 2026 RTP/SCS would likely have an impact on groundwater levels and supply. As detailed under Section 4.10.2, *Regulatory Setting*, groundwater management within California in general falls under SGMA, and multiple GSAs and GSPs exist within Tulare County.

As discussed under Section 4.10.2, *Regulatory Setting*, the primary regulatory tool provided to GSAs under SGMA is the ability to set and enforce area-specific mandatory groundwater pumping limitations through regular updates to GSPs for medium- and high-priority groundwater basins. DWR-approved GSPs are required to provide mechanisms that allow the sustainable use of groundwater, with growth projections considered, and the first set of adopted and DWR-approved GSPs are focused on measuring extractions to obtain the necessary data to determine sustainable yields, although some GSAs within the TCAG region have begun exploring public input on the idea of pumping caps, and many have begun imposing fees for their information gathering plans. The GSAs prepare GSPs to provide mechanisms to ensure the sustainable use of groundwater, with growth projections considered.

As DWR-approved GSPs determine sustainable yields through their current cycles and begin to incorporate pumping limitations or other groundwater sustainability policies based on their determined sustainable yields, projects being implemented under the proposed 2026 RTP/SCS

would be required to conform with any new applicable regulations supporting groundwater use and sustainable groundwater management. However, water use facilitated by the proposed 2026 RTP/SCS could obstruct a current GSP in the TCAG region, as an increase in water demand could result from projects implementing the proposed 2026 RTP/SCS land use scenario (refer to Impact HYD-2). Although those projects would be subject to monitoring requirements as set forth in the applicable GSPs, including the addition of new monitoring devices as needed on existing or new wells utilized by any projects, overdraft of groundwater could still occur in conflict with adopted GSPs. Therefore, this impact would be significant. The following mitigation measures would reduce this impact.

Mitigation Measures

For transportation projects under their jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement Mitigation Measures HYD-2(a) and HYD-2(b) above, in addition to Mitigation Measure UTIL-2, General Conservation Measures, in Section 4.17, *Utilities and Service Systems*. These specific mitigation measures were developed for the proposed 2026 RTP/SCS program where applicable for transportation and land use projects with the potential to impact, conflict with, or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Significance After Mitigation

Implementation of the above measures would reduce conflict with or obstruction with implementation of sustainable groundwater management plan in the TCAG region. However, due to the programmatic nature of this proposed 2026 RTP/SCS EIR, a precise, project-level analysis of specific water demand and supply impacts associated with individual transportation and land use projects is not possible. The land use scenario envisioned by the proposed 2026 RTP/SCS along with transportation projects would result in the need for additional water supply, even with the implementation of mitigation measures listed above that could lead to a conflict or obstruction of a sustainable groundwater management plan. Given the severe overdraft conditions of area groundwater basins, impacts would remain significant and unavoidable. No additional feasible mitigation measures to reduce this impact to a less than significant levels are available.

4.10.4 Cumulative Impacts

The cumulative impact analysis area for hydrology and water quality encompasses the watersheds and groundwater basins affected by the transportation projects and land use pattern envisioned in the proposed 2026 RTP/SCS, including creeks and drainages, floodplains, and aquifers. Therefore, the cumulative impact assessment area consists of the TCAG region and the adjoining counties, and the watersheds and basins therein. Although there is some surface water connectivity between the TCAG region and Inyo County through Sierra Nevada watersheds, neither area is hydrologically connected.

IMPACT HYD-C-1 CUMULATIVE DEVELOPMENT WOULD INCREASE IMPERVIOUS SURFACES AND WOULD HAVE THE POTENTIAL TO INCREASE EROSION POTENTIAL, ALTER DRAINAGE PATTERNS, INCREASE RUNOFF VOLUMES AND VELOCITY, AND RISK RELEASE OF POLLUTANTS DUE TO INUNDATION. COMPLIANCE WITH EXISTING REGULATIONS, SUCH AS NPDES AND LOCAL STORMWATER MANAGEMENT REQUIREMENTS, WOULD ENSURE THAT CUMULATIVE WATER QUALITY AND FLOOD IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The cumulative impact analysis area for hydrology and water quality encompasses the watersheds and groundwater basins affected by the transportation projects and land use pattern envisioned in the proposed 2026 RTP/SCS, including creeks and drainages, floodplains, and aquifers. Therefore, the cumulative impact assessment area consists of the TCAG region and the adjoining counties, which encompasses the applicable watersheds and basins. Although there is some surface water connectivity between the TCAG region and Inyo County through Sierra Nevada watersheds, neither area is hydrologically connected.

Cumulative development would increase erosion and sedimentation resulting from grading and construction, as well as changes in drainage patterns which could degrade surface and ground water quality. In addition, new development would increase the generation of urban pollutants that may adversely affect water quality in the long term. As with the proposed 2026 RTP/SCS, individual construction projects within the cumulative impact area would be required to comply with applicable water quality regulations. Compliance with these existing requirements would reduce project level impacts throughout the cumulative impact area; as such, cumulative impacts related to water quality would be less than significant.

IMPACT HYD-C-2 CUMULATIVE IMPACTS RELATED TO GROUNDWATER SUPPLIES, RECHARGE, AND SUSTAINABLE GROUNDWATER MANAGEMENT PLAN CONFLICTS WOULD BE SIGNIFICANT, AND THE 2026 RTP/SCS CONTRIBUTION WOULD BE CUMULATIVELY CONSIDERABLE.

The cumulative impact area lies within the CVRWQCB and falls under the Basin Plan. All development within the Basin Plan area must comply with the goals, beneficial uses, and 303(d) limitations outlined in the Plan, as well as any orders issued by CVRWQCB. Therefore, the cumulative impact to obstruction of the Basin Plan would be less than significant.

There are dozens of individual GSAs within the cumulative impact area. Each development project within the cumulative area would only fall under management actions required by the GSA's GSP approved within its individual area. Although each GSP is local, some of the groundwater basins within the cumulative impact area are hydrologically connected. Each individual basin has multiple GSPs covering different portions of the basin which could create significant cumulative impacts related to a conflict with adopted GSPs, specifically through groundwater overdraft as identified in Impact HYD-2 and Impact HYD-5. As stated therein, water use facilitated by the proposed 2026 RTP/SCS could obstruct a current GSP in the TCAG region, as an increase in water demand could result from projects implementing the proposed 2026 SCS land use scenario. Although those projects would be subject to monitoring requirements as set forth in the applicable GSPs, including the addition of new monitoring devices as needed on existing or new wells utilized by any projects, overdraft of groundwater could still occur in conflict with adopted GSPs. Although projects implementing the 2026 RTP/SCS would only conflict with GSPs in their respective basins, the cumulative impact would be significant across the entire basin because there is no mechanism to prevent or correct overdraft. Since the basins are hydrologically connected, overdraft in one GSP can contribute to overdraft in others. Cumulative impacts related to overdraft and conflicts with GSPs would therefore be significant.

The proposed 2026 RTP/SCS contribution to this impact would be cumulatively considerable pre-mitigation because projects would increase impervious surfaces, thereby reducing groundwater recharge. In addition, land use projects would increase groundwater use in conflict with GSPs to manage the resource. Development within the cumulative impact area would substantially decrease groundwater supplies by increasing the amount of overdraft throughout critically over-drafted basins and increasing impervious surfaces reducing recharge, thereby impeding sustainable groundwater management. Therefore, cumulative impacts related to groundwater supply would be significant. The proposed 2026 RTP/SCS contribution to cumulative impacts on groundwater supplies, groundwater recharge, and conflicts with GSPs would be cumulatively considerable pre-mitigation. Mitigation Measures HYD-2(a) and HYD 2(b), as well as Mitigation Measure UTIL-2 in Section 4.17, *Utilities and Service Systems*, would reduce this impact, but it would remain cumulatively considerable after mitigation.

4.11 Land Use and Planning

This section evaluates impacts of the proposed 2026 RTP/SCS associated with physically dividing an established community and causing a significant environmental impact due to a conflict with a land use plan, policy, or regulation (including, but not limited to general plans and zoning ordinances) and result in a physical change to the environment not already addressed in the other resource chapters of this EIR.

4.11.1 Setting

a. Land Use Patterns

The TCAG region encompasses the entirety of Tulare County, including eight incorporated cities, 13 unincorporated communities, and the Tule River Indian Reservation (Figure 4.11-1). The City of Visalia is the most urbanized area in the County followed by Tulare and Porterville. Other cities within the County are generally smaller. Agriculture is the driving force of the economy. In 2025, the population of Tulare County was approximately 487,209 based on the most comprehensive and up-to-date regional forecasts and projections available. Visalia, Tulare, and Porterville comprised more than half of the population with other Tulare County residents living in the smaller incorporated cities and unincorporated communities and lands.
Throughout the County, outside of the larger cities, agricultural uses are the most prominent land use on the valley floor. Geographically, the region is characterized by agricultural soils, foothills, and mountainous regions.

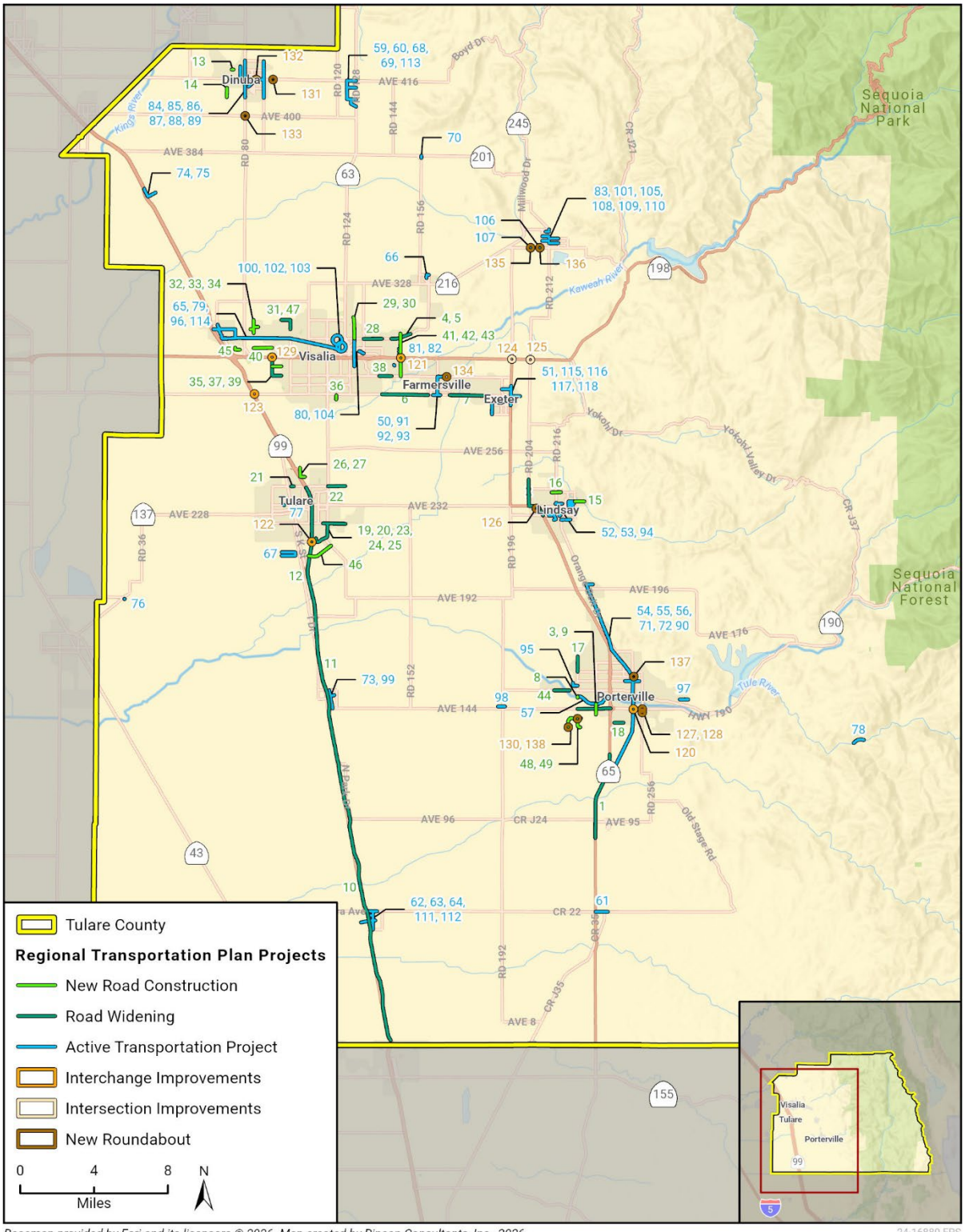
Tulare County is home to eight incorporated cities (Dinuba, Farmersville, Porterville, Visalia, Exeter, Lindsay, Tulare, and Woodlake). As required by law, each city and the County has a general plan containing at minimum seven statutorily required elements, among them a land use element and housing element that designate appropriate land uses throughout the jurisdiction, accommodate each jurisdiction's share of the regional housing needs, and define specific goals, policies, and objectives that the local jurisdiction has determined to be important.

A city or county may also provide for land use planning by developing community or specific plans for smaller, more specific areas within its jurisdiction. These more localized plans provide for focused guidance for developing a specific area, with development standards tailored to the area, as well as systematic implementation of the general plan. There are a total of 23 individual community plans within Tulare County. These areas include Alpaugh, Cutler Orosi, Ducor, Earlimart, East Orosi, Goshen, Ivanhoe, Kingsburg, Lemon Cove, London, Pixley, Plainview, the Poplar Cotton Center, Porterville Area, Richgrove, Springville, Strathmore, Sultana, Terra Bella, Three Rivers, Tipton, Traver, and Woodville.

4.11.2 Regulatory Setting

Numerous federal, State, and local laws, regulations, policies, programs, plans, codes, and ordinances regulate land use in the TCAG region. Local land use issues are regulated by the general plans, specific plans, and zoning ordinances adopted by the County and the various incorporated cities within the County. The County itself is landlocked, surrounded by Fresno County to the north, Kern County to the south, Kings County to the west, and Inyo County to the east. Thus, it is not within the immediate proximity of any local, state, or national coastal zones.

Figure 4.11-1 TCAG Planning Area



Basemap provided by Esri and its licensors © 2026. Map created by Rincon Consultants, Inc., 2026.

24-16880 EPS
Fig 2-X Transportation Improvement Projects

a. Federal Law, Regulations, and Policies

Code of Federal Regulations Title 25

Federally recognized Native American tribes are considered domestic dependent nations with tribal sovereignty. "Tribal sovereignty" refers to tribes' right to govern themselves, define their own membership, manage tribal property, and regulate tribal business and domestic relations; it further recognizes the existence of a government-to-government relationship between such tribes and the federal government. In general, state, and local governments do not have "civil regulatory" jurisdiction (i.e., land use) on Indian Land, which is land held by the federal government in trust or restricted status for a tribe.

b. State Laws, Regulations, and Policies

Sustainable Communities Strategy and Climate Protection Act

Senate Bill (SB) 375, the Sustainable Communities Strategy and Climate Protection Act, is a California law passed in 2008 that requires each Metropolitan Planning Organization (MPO) to demonstrate, through the development of a Sustainable Communities Strategy (SCS), how its region will integrate transportation, housing, and land use planning to meet the greenhouse gas (GHG) reduction targets set by the State.

In addition to creating requirements for MPOs, it also created requirements for the California Transportation Commission and California Air Resources Board (CARB). Some of the requirements include the following:

- The California Transportation Commission must maintain guidelines for the travel demand models that MPOs develop for use in the preparation of their RTPs or Metropolitan Transportation Plan (MTPs).
- CARB must develop regional GHG emission reduction targets for automobiles and light duty trucks for 2020 and 2035 by September 30, 2010. These targets were approved on September 23, 2010. CARB is tasked to update the regional targets every eight years, with the option of revising them every four years. The latest targets were approved on March 18, 2018 and went into effect October 1, 2018.
- Each MPO must prepare an SCS as part of its RTP or MTP to demonstrate how it will meet the regional GHG targets.
- Each MPO must adopt a public participation plan for development of the SCS that includes informational meetings, workshops, public hearings, consultation, and other outreach efforts.
- If an SCS cannot achieve the regional GHG target, the MPO must prepare an Alternative Planning Strategy showing how it would achieve the targets with alternative development patterns, infrastructure, or transportation measures and policies.
- Each MPO must prepare and circulate a draft SCS at least 55 days before it adopts a final RTP or MTP.
- After adoption, each MPO must submit its SCS to CARB for review.
- CARB must review each SCS to determine whether, if implemented, it would meet the GHG targets. CARB must complete its review within 60 days.

TCAG's previous (2022) RTP/SCS reduced per capita GHG emissions to meet the target set by CARB of 16 percent reduction from 2005 levels by 2035. This targets applies to the entire TCAG region for all on-road light duty trucks and passenger vehicles emissions, and not to individual cities or sub-regions. TCAG, through the proposed 2026 RTP/SCS, must continue to meet the 2035 target. SB 375 specifically states that nothing in the law changes local governments local land use authorities.

The proposed 2026 RTP/SCS provides a regional policy foundation that local governments may build upon if they so choose. The proposed 2026 RTP/SCS includes and accommodates the growth projections for the region. SB 375 also requires that forecasted development patterns for the region be consistent with the eight-year regional housing needs as allocated to member jurisdictions through the Regional Housing Needs Allocation (RHNA) process under State housing law.

In addition, this EIR lays the groundwork for the streamlined review of qualifying development projects. Qualifying projects that meet statutory criteria and are consistent with the proposed 2026 RTP/SCS are eligible for streamlined environmental review pursuant to CEQA under SB 375 and other laws.

Office of Land Use and Climate Innovation Research 2023 General Plan Guidelines

The 2017 General Plan Guidelines (Governor's Office of Land Use and Climate Innovation 2017) were the first comprehensive update to the General Plan Guidelines since 2003 and addressed numerous new laws, requirements, resources, and research that affect long-range planning in California. They were updated and reissued in 2023 and that update includes links to external documents and additional resources. This includes guidance for implementing the following legislation: Environmental Justice (SB 1000), Climate Change (SB 379), Sustainable Communities Strategies (SB 375), Flood Management (SB 5), Vehicle Miles Traveled (SB 743), Island or Fringe Communities (SB 244), Tribal Consultation (Assembly Bill [AB] 52) and Local Hazard Mitigation Plans (AB 2140). Beyond State law requirements, the 2017 General Plan Guidelines also provide direction on topics including healthy communities, equitable and resilient communities, economic development, climate change, and renewable energy. The 2023 General Plan Guidelines are currently being updated, a process anticipated for March 2027 completion.

Smart Mobility 2010 Framework

The Smart Mobility Framework, formally known as Smart Mobility 2010: A Call to Action for the New Decade, was prepared by Caltrans in partnership with the U.S. EPA, the Office of Land Use and Climate Innovation, and the California Department of Housing and Community Development to address both long-range challenges and short-term programmatic actions to implement multi-modal and sustainable transportation strategies in California. The Smart Mobility Framework helps guide and assess how well various levels of plans, programs, and projects (e.g., RTPs, General Plans, specific development proposals, etc.) meet a definition of "smart mobility". The Smart Mobility Framework is intended to move people and freight while enhancing California's economic, environmental and human resources by emphasizing:

- Convenient and safe multimodal travel
- Speed suitability
- Accessibility
- Management of the circulation network
- Efficient use of land

Planning and Zoning Law

Government Code Section 65000, et seq., regulates the substantive and topical requirements of general plans. State law requires each city and county to adopt a general plan "for the physical development of the county or city, and any land outside its boundaries which bears relation to its planning." The California Supreme Court has called the general plan the "constitution for future development." The general plan expresses the community's development goals and embodies public policy relative to the distribution of future land uses, both public and private. Zoning authority originates from city and county police power and from the Planning and Zoning Law, which sets minimum requirements for local zoning ordinances. Zoning ordinances must be consistent with the general plan and specific plans. The consistency requirement does not apply to charter cities other than Los Angeles unless the charter city adopts a consistency rule.

Cortese Knox Hertzberg Local Government Reorganization Act

The Cortese Knox Hertzberg Local Government Reorganization Act is the most substantial reform to local government reorganization law since the 1963 statute that created a Local Agency Formation Commission in each county. The law established procedures for local government changes of organization, including city incorporation, annexation to a city or special district, and consolidation of cities or special districts (Government Code Section 56000, et seq.). Local Agency Formation Commissions have numerous powers under the Act, but those of prime concern are the power to act on local agency boundary changes and to adopt spheres of influence for local agencies. The law also states that to update a sphere of influence, commissions are required to first conduct a review of the municipal services provided in the TCAG region.

Senate Bill 743

SB 743 changed the way that public agencies evaluate the transportation impacts of projects under CEQA, recognizing that roadway congestion, while an inconvenience to drivers, is not itself an environmental impact (see Pub. Resource Code, Section 21099, subd. (b)(2)). SB 743 provides opportunities to streamline CEQA for qualifying urban infill development near major transit stops in metropolitan regions statewide. A transit-oriented infill project can be exempt from CEQA if consistent with a specific plan for which an EIR was prepared, and consistent with the use, intensity, and policies of an SCS or Alternative Planning Strategy that is certified by the CARB as meeting its greenhouse gas reduction targets. A city or county may designate an "infill opportunity zone" by resolution if it is consistent with the general plan and any applicable specific plan and is a transit priority area within the adopted SCS or Alternative Planning Strategy. This infill opportunity zone is then exempt from level of service standards in the congestion management plan. Furthermore, SB 743 specifies that parking impacts are not considered significant impacts on the environment under CEQA.

Senate Bill 330

SB 330, the Housing Crisis Act of 2019, was enacted to accelerate housing production in high-need areas by limiting local actions that reduce housing capacity. It prohibits downzoning, housing moratoria, and new development standards that constrain housing. The law streamlines approvals by capping public hearings at five and requiring timely decisions on housing projects. It also locks in zoning and development standards at the time a preliminary application is submitted, providing greater certainty for developers. These provisions aim to reduce delays and regulatory barriers for housing, especially in jurisdictions with severe housing shortages.

Assembly Bill 130

Effective June 30, 2025, AB 130 introduced substantial reforms to streamline housing development under CEQA. The bill establishes a statutory CEQA exemption for qualifying infill housing projects located in urban areas up to 20 acres, provided they meet specific criteria such as adjacency to urban uses and avoidance of historic or environmentally sensitive sites. This exemption is designed to reduce environmental review burdens for projects that align with local zoning and planning standards. AB 130 also makes permanent several provisions of the Permit Streamlining Act, including timelines for application completeness and project approval, and limits the number of public hearings for qualifying housing projects. Additionally, the bill codifies elements of the Housing Accountability Act and SB 330, including protections for vested rights and restrictions on growth control measures. A notable provision is the statewide freeze on residential building code updates from October 1, 2025, through June 1, 2031, which aims to reduce regulatory uncertainty and development costs. AB 130 also enhances the role of the California Department of Housing and Community Development in overseeing Regional Housing Needs Allocation methodologies, further aligning local planning efforts with state housing goals.

Senate Bill 131

SB 131, effective June 30, 2025, complements AB 130 by focusing on CEQA streamlining for infrastructure and public-serving projects. It introduces a new review pathway for "near miss" projects—those that narrowly fail to qualify for a CEQA exemption due to a single disqualifying condition. Under this provision, CEQA review is limited to the environmental effects of that specific condition, and such projects are exempt from analyzing alternatives or growth-inducing impacts. SB 131 also creates or expands CEQA exemptions for a range of project types, including advanced manufacturing facilities on industrial-zoned land, broadband infrastructure in public rights-of-way, updates to climate adaptation plans, High-Speed Rail maintenance facilities, and local rezoning actions that implement Housing Element commitments. Additionally, the bill mandates biennial updates to *CEQA Guidelines* to improve clarity and address ambiguities. These changes reflect a broader policy shift toward facilitating development while maintaining targeted environmental protections, and they are expected to significantly impact the planning and approval processes for both housing and infrastructure projects across California.

Senate Bill 79

SB 79, enacted in 2025, establishes a statewide framework to expand residential development capacity near major public transit services by requiring local governments to allow increased housing density and height within designated transit-oriented areas. The law mandates minimum residential zoning standards within one-half mile of rail transit stations and one-quarter mile of high-quality bus corridors, overriding local zoning regulations that would otherwise limit multifamily housing in these areas. SB 79 permits residential densities and building heights sufficient to support mid-rise and high-rise housing, subject to objective design standards and exceptions for environmentally sensitive sites, high fire hazard severity zones, and historic resources.

Quimby Act

The 1975 Quimby Act (Government Code Section 66477) authorized cities and counties to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. The act states that the dedication requirement of parkland can be a minimum of 3 acres per thousand residents or more, and up to 5 acres per thousand residents if the existing

ratio is greater than the minimum standard. Revenues generated through in-lieu fees collected under the Quimby Act cannot be used for the operation and maintenance of park facilities. In 1982, the act was substantially amended. The amendments further defined acceptable uses of and restrictions on the use of Quimby Act funds, provided acreage/population standards and formulas for determining the exaction, and indicated that the exactions must be closely tied to a project's impacts as identified through studies required by CEQA.

State Open Space Standards

State planning law (Government Code Section 65560) provides a structure for the preservation of open space by requiring every city and county in the State to prepare, adopt, and submit to the Secretary of the Resources Agency a "local open-space plan for the comprehensive and long-range preservation and conservation of open-space land within its jurisdiction." The following open space categories are identified for preservation:

- **Open space for public health and safety**, including, but not limited to, areas that require special management or regulation because of hazardous or special conditions;
- **Open space for the preservation of natural resources**, including, but not limited to, natural vegetation, fish and wildlife, and water resources;
- **Open space for resource management and production**, including, but not limited to, agricultural and mineral resources, forests, rangeland, and areas required for the recharge of groundwater basins;
- **Open space for outdoor recreation**, including, but not limited to, parks and recreational facilities, areas that serve as links between major recreation and open space reservations (such as trails, easements, and scenic roadways), and areas of outstanding scenic and cultural value; and
- **Open space for the protection of Native American sites**, including, but not limited to, places, features, and objects of historical, cultural, or sacred significance, such as Native American sanctified cemeteries, places of worship, religious or ceremonial sites, or sacred shrines located on public property (further defined in PRC Sections 5097.9 and 5097.993).

Senate Bill 1425 Open Space Element Update

AB 1425, passed in September 2022, states that by January 1, 2026, every city and county shall review and update its local open space plan to address the following components:

- Access to open space for all residents in a manner that considers social, economic, and racial equity, correlated with the environmental justice element or environmental justice policies in the general plan, as applicable.
- Climate resilience and other co-benefits of open space, correlated with the safety element.
- Rewilding opportunities, correlated with the land use element.

c. Local Laws, Regulations, and Policies

The following section focuses on the key plans that regulate land use in the TCAG region, which are the county and city general plans and community plans. This section outlines the status of those plans.

Tulare County General Plan

The Tulare County General Plan 2030 update is the County's guiding document outlining physical development in the County (County of Tulare 2012). The County General Plan is broken down into the following elements: Land Use and Urban Boundaries, Scenic Landscapes, Circulation, Public Facilities and Services, Safety, Environmental Resource Management, Noise, Area Plans. It also includes a Housing Element, Community Plans, and associated zoning code (Tulare County, 2012). In summary, the General Plan seeks to maintain the agricultural nature of the County, while recognizing that diversification of the economy is necessary to maintain an economically viable County (County of Tulare 2012).

City of Dinuba General Plan

Many of the goals and objectives in the City of Dinuba General Plan were formulated with the goal to preserve and enhance Dinuba's unique character and achieve an optimal balance of residential, commercial, industrial, public, and open space land uses. Land uses in the vicinity of Gateways should be of high-quality design which reflects favorably on the image of the community (City of Dinuba 2023).

City of Exeter General Plan

The City of Exeter General Plan consists of seven elements: land use, circulation, open space, conservation, noise, safety, and housing. Each element typically contains a profile of existing conditions in the community, and then a series of goals, policies, and action plans to achieve the City's objectives during the life of the General Plan. Some of the elements contain maps that designate future land uses and circulation features (City of Exeter 2020).

City of Farmersville General Plan

The City of Farmersville General Plan consists of six elements: land use, circulation, open space, conservation, housing, noise, and safety. Specifically, the land use element of Farmersville's General Plan contains seven sections: existing land use patterns and population trends, population and land use projections, land use designations and population densities, planning issues and land use goals, implementation measures, land use designations, and a land use map (City of Farmersville 2002).

City of Lindsay General Plan

The City of Lindsay General Plan is the City's third version of the General Plan with the stated goal of bringing together the mandatory elements of a General Plan as prescribed by State Law. It consolidates existing policies that have been adopted by reference pertaining to housing, conservation, open space, seismic safety, and noise, as developed by Tulare County (City of Lindsay 1989).

City of Porterville General Plan

Much of the existing land use pattern found in the Planning Area can be traced back to Porterville's evolution as a valley agriculture center. Downtown Porterville has a mixture of retail, public facilities, and older residential neighborhoods. Larger commercial, agriculture, and newer residential neighborhoods are located further out from the city center. Some industrial land is located adjacent to State Route 190 and Union Pacific Railroad. Parks and schools are distributed throughout residential neighborhoods within the city. In addition to balancing the anticipated growth geographically, the General Plan directs residential expansion in the new growth areas into a

network of approximately seventeen neighborhoods. Policies in the General Plan strive to promote the integration of new neighborhoods with existing urban development, and to preserve and enhance neighborhood connectivity with a continuous street network (City of Porterville 2008).

City of Tulare General Plan

The purpose of the City of Tulare General Plan is to adjust the City's current course to accommodate an urbanizing City with an expanding population in what was once a solely rural area. Furthermore, the Plan seeks to create a plan to create a pace of population growth that is both safe and offers a high quality of life for its residents, while taking resource conservation and the financial health of the city into consideration (City of Tulare 2014).

City of Visalia General Plan

Key elements of the City of Visalia General Plan include strengthening of existing activity centers and commercial corridors in the city, as well as expansion of the city's industrial capacity, retail base, and new residential neighborhoods. Specific concepts include establishing new, inclusive neighborhoods, each with an activity node, community facilities, and a range of housing types; expanding industrial lands north of Riggin Avenue and south of the Airport (City of Visalia 2014).

City of Woodlake General Plan

The City of Woodlake's first general plan was prepared in 1978 and established growth lines around the city and delineated policies pertaining to the annexation of lands into the City (City of Woodlake 2014).

Tulare County Community Plans

Tulare County has developed a series of community plans for unincorporated communities throughout the County. These plans function as area-specific refinements to the Tulare County General Plan, establishing policies related to land use, circulation, infrastructure, public services, and community character tailored to the needs and conditions of individual communities. Collectively, the plans guide growth and development while maintaining consistency with local priorities and conditions. Community plans have been prepared for the following areas: Alpaugh; Cutler-Orosi; Ducor; Earlimart; East Orosi; Goshen; Ivanhoe; Kingsburg Area; Lemon Cove; London; Pixley; Plainview; Poplar; Porterville Area; Richgrove; Strathmore; Sultana; Terra Bella; Three Rivers; Tipton; Traver; and Woodville.

4.11.3 Impact Analysis

a. Methodology and Significance Thresholds

The proposed 2026 RTP/SCS was assessed to determine whether the 2026 RTP/SCS transportation projects and SCS land use pattern and strategies could physically divide an established community or conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. This review focused on the process used by TCAG to develop regional growth projections, the transportation network and programs, housing needs estimates, and the SCS land use strategies. This evaluation of land use assumes that construction and development under the proposed 2026 RTP/SCS would adhere to applicable federal, State, and local regulations, as relevant for individual projects.

Appendix G of the *CEQA Guidelines* identifies the following criteria for determining whether a project's impacts would have a significant impact on land use:

1. Physically divide an established community; and/or
2. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation (including, but not limited to, the General Plan or Zoning Ordinance) and result in a physical change to the environment not already addressed in the other resource chapters of this EIR.

Impacts related to conflicts with habitat conservation plans or natural community conservation plans are discussed in Section 4.4, *Biological Resources*. Impacts related to population and housing are discussed in Section 4.13, *Population and Housing*.

b. Project Impacts and Mitigation Measures

The following section discusses land use impacts and mitigation measures associated with transportation projects and the land use scenario implementing the proposed 2026 RTP/SCS. Due to the programmatic nature of the proposed 2026 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 improvement projects and future projects under the land use scenario envisioned by the proposed 2026 RTP/SCS could result in the impacts as described in the following section.

Threshold 1:	Would the project physically divide an established community?

Impact LU-1 IMPLEMENTATION OF PROPOSED TRANSPORTATION IMPROVEMENTS AND THE LAND USE SCENARIO ENVISIONED BY THE PROPOSED 2026 RTP/SCS WOULD NOT PHYSICALLY DIVIDE AN ESTABLISHED COMMUNITY. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

In general, the proposed 2026 RTP/SCS implements roadway projects and transportation improvements that will decrease traffic congestion, increase mobility, and improve alternative transportation infrastructure. Construction of additions to existing facilities and new facilities routinely involve temporary disruptions within established communities such as lane or road closures along roads and highways and service delays or detours for bus routes. Local jurisdictions routinely require traffic control plans and related measures to ensure that construction activities accommodate vehicular and pedestrian access, such as designating alternate routes or scheduling disruptive activities late at night or on weekends. With these controls, construction activities would not result in the physical division of established communities.

The proposed 2026 RTP/SCS is intended to enhance the transportation system for all modes, allowing motorized and non-motorized users to operate safely within the same roadway network. Consistent with this multimodal approach, relatively few roadway expansion or widening projects are anticipated. However, the plan does include select improvements, such as segments of State Routes 65, 99, and 190, as well as other planned transportation projects. These improvements would incorporate enhancements to bicycle and pedestrian facilities.

Because any roadway improvements would occur along existing transportation corridors that are already integrated into surrounding communities, they would not introduce new physical barriers or substantially alter connectivity. Accordingly, these projects would not have the potential to divide established communities. In addition, the projects are intended to achieve the goals of the proposed

2026 RTP/SCS to increase mobility and decrease VMT; therefore, the projects should result in improving community interconnectivity rather than dividing them. New roadway, roadway rehabilitation projects, bridge repairs, bicycle lanes and ADA accessibility projects included in the proposed 2026 RTP/SCS are long-planned projects that are typically included in local circulation elements. As such, they have been anticipated and accommodated in local land use planning and would be integrated into the community infrastructure. These projects are expected to increase community connectivity and mobility and decrease congestion and GHG emissions.

The existing and new road projects contained in the proposed 2026 RTP/SCS originate from either local circulation plans or state projects supported by cities and counties. The projects have therefore been coordinated with and integrated into local plans that support and connect communities consistent with state planning law.

The land use scenario envisioned by the proposed 2026 RTP/SCS would encourage infill, mixed use, and transit-oriented development within existing urbanized areas along transportation corridors, although development would still occur in more suburban and rural areas. The land use scenario follows adopted city plans, taking into consideration recent updates and buildout scenarios, following existing regulations to promote infill development in existing communities along with planned growth in other areas. In general, this infill type of development would not divide a community; rather it would promote the development of existing vacant or underutilized properties. Other types of development would be consistent with local planning as well. Infill development would locate people closer to existing employment, goods, and services within established communities. Buildout of the SCS land use scenario would result in more compact development in those established communities.

Implementation of the 2026 RTP/SCS land use strategies would integrate future development into existing communities along the existing transportation network and would therefore not physically divide established communities. Many proposed transportation projects, such as expansion of transit services or the building of active transportation infrastructure, are intended to improve mobility and accessibility and would, as a result, improve community connectivity. Based on the above analysis, the transportation and land use projects implementing the proposed 2026 RTP/SCS would not divide established communities. Therefore, impacts related to dividing an established community would be less than significant.

Mitigation Measures

Mitigation measures are not required because this impact would be less than significant.

Threshold 2:	Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation (including, but not limited to, the General Plan or Zoning Ordinance) and result in a physical change to the environment not already addressed in the other resource chapters of this EIR?

Impact LU-2 THE 2026 RTP/SCS WOULD NOT CAUSE A SIGNIFICANT ENVIRONMENTAL IMPACT DUE TO A CONFLICT WITH ANY LAND USE PLAN, POLICY, OR REGULATION AND RESULT IN A PHYSICAL CHANGE TO THE ENVIRONMENT NOT ALREADY ADDRESSED IN THE OTHER RESOURCE CHAPTERS OF THIS EIR. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT AFTER IMPLEMENTATION OF MITIGATION DISCUSSED THROUGHOUT THIS EIR.

In planning for projected growth in the region, the proposed 2026 RTP/SCS represents a voluntary growth strategy that retains local government land use autonomy. Neither SB 375 nor any other law requires local member agency general plans or land use regulation to implement the land use

policies in the proposed 2026 RTP/SCS. Thus, implementation is dependent on local government policy decisions and voluntary action. The land use scenario envisioned in the proposed 2026 RTP/SCS was developed in close coordination with TCAG member agency planning staff and builds on local general plans and general plan updates currently in process or completed.

The proposed 2026 RTP/SCS includes a list of planned and programmed transportation projects including local and regional capital improvements that have been anticipated or accounted for in local general plans and specific plans. These plans are summarized above in Section 4.11.2, *Regulatory Setting*.

In addition, the proposed 2026 RTP/SCS would help the region reach its GHG emission reduction targets established by CARB, a 16 percent reduction of GHG emissions compared to 2005 levels, under SB 375, as discussed in Section 4.8, *Greenhouse Gas Emissions and Climate Change*. At the local level, the proposed 2026 RTP/SCS builds on and incorporates regional and local planning efforts of its member agencies, including local general plans.

Meetings with local agency staff, as discussed above, resulted in consensus among the local agencies on a land use pattern and transportation network for the TCAG region. While this consensus suggests that the proposed 2026 RTP/SCS would not conflict with key policies or regulations adopted to avoid or mitigate environmental impacts, as presented throughout this EIR, the proposed 2026 RTP/SCS would result in significant and unavoidable impacts in several environmental issue areas, including: aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, geology soils, greenhouse gas emissions and climate change, hazards and hazardous materials, hydrology, noise, public services and recreation, transportation, tribal cultural resources, utilities, and wildfire. The proposed 2026 RTP/SCS would result in significant and unavoidable impacts to these environmental issue areas as disclosed in the respective EIR sections. The envisioned land use scenario would not result in additional impacts beyond the findings of significant and unavoidable impacts as already analyzed in respective environmental issue area sections of this EIR.

The proposed 2026 RTP/SCS was assessed to determine whether the SCS land use pattern and strategies could conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. This review focused on the process used by TCAG to develop regional growth projections, the transportation network and programs, housing needs estimates, and the SCS land use strategies. The SCS land use and transportation projects envisioned within the proposed 2026 RTP/SCS may result in conflicts with land use plans, policies, or regulations. However, the these proposed 2026 RTP/SCS conflicts would not result in a physical change to the environment that has not already been addressed in the other resource chapters of this EIR, and mitigated when feasible. The impacts of any such conflicts are described throughout those sections of the EIR.

Mitigation Measures

Mitigation measures are provided for applicable resources throughout their respective environmental issue area sections of the EIR to reduce impacts. No additional mitigation is required for this impact.

Significance After Mitigation

This impact would be less than significant after implementation of the mitigation measures identified in Chapter 4 of this EIR.

4.11.4 Cumulative Impacts

IMPACT LU-C-1 DEVELOPMENT IN THE CUMULATIVE IMPACTS ANALYSIS AREA WOULD NOT PHYSICALLY DIVIDE AN ESTABLISHED COMMUNITY. CUMULATIVE IMPACTS RELATED TO CONFLICTS WITH LOCAL LAND USE PLANS AND LOCAL PLANS, POLICIES, AND REGULATIONS ADOPTED FOR THE PURPOSE OF AVOIDING OR MITIGATING ENVIRONMENTAL EFFECTS WOULD BE LESS THAN SIGNIFICANT. CUMULATIVE IMPACTS RELATED TO LAND USE AND PLANNING WOULD THEREFORE BE LESS THAN SIGNIFICANT, AND THE 2026 RTP/SCS CONTRIBUTION TO CUMULATIVE IMPACTS WOULD NOT BE CUMULATIVELY CONSIDERABLE.

The cumulative analysis presented below relies on a projections-based approach, using regional growth forecasts for the TCAG region and adjoining counties to evaluate cumulative conditions. Impacts of the 2026 RTP/SCS are added to the impacts of growth and development in the adjoining counties, and a determination is made as to whether cumulative impacts would be significant, and whether the 2026 RTP/SCS incremental contribution would be cumulatively considerable. Refer to Chapter 4, *Environmental Impact Analysis, Cumulative Impact Methodology*.

Intensified development of cities in the TCAG region could influence land uses in adjoining counties. Accordingly, the cumulative impact analysis area for land use and planning consists of the TCAG region and adjoining counties, as further described in Chapter 4, *Environmental Impact Analysis, Cumulative Impact Methodology*. Future development in this region that could divide an established community or conflict with any major land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect is considered in the analysis. This cumulative extent is used to evaluate potential impact from the combined growth in this region.

The TCAG region is adjacent to four counties: Fresno, Kings, Kern, and Inyo. The land between each of these counties and the TCAG region is largely undeveloped agricultural land or open space; however, the City of Reedley in Fresno County is in close proximity to the City of Dinuba in Tulare County. Land use patterns within the TCAG region are defined by adopted local general plans and community plans, as well as growth patterns assumed for the proposed 2026 RTP/SCS. Implementation of these plans and projections would result in expansion of urban areas into undeveloped land, as discussed in Section 4.2, *Agriculture and Forestry Resources*. However, because few developed communities or urban growth areas are at or near the four county boundaries adjacent to the TCAG region, and because development within nearby communities (e.g., Reedley) would be concentrated within already developed areas, cumulative impacts would be less than significant. Implementation of the proposed 2026 RTP/SCS would concentrate development in infill areas and as such, would not result in the division of established communities. Therefore, cumulative impacts related to physically dividing an established community would be less than significant. Each of four adjacent counties has adopted general plans that direct new growth to existing developed areas, strongly support agricultural land preservation, and are part of other regional RTP/SCSs. These general plans include goals, policies and programs adopted for the purpose of avoiding or mitigating environmental effects. Development under the existing plans would be required to comply with all existing goals, policies, and programs within existing plans. Cumulative impacts would therefore be less than significant.

Although the 2026 RTP/SCS would result in significant and unavoidable impacts in certain environmental issue areas, these impacts would occur within a broader regional planning framework that includes mitigation measures, infill development strategies, and resource conservation policies. The adjacent counties' general plans and regional RTP/SCSs similarly emphasize sustainable growth and environmental protection. Furthermore, the physical separation between urban growth areas across county boundaries limits the potential for overlapping or

compounded impacts. Therefore, the combined cumulative impact of regional development, including the 2026 RTP/SCS and adjacent county plans, on conflicts with plans, policies, and regulations adopted to reduce environmental effects would be less than significant.

Overall, the cumulative impact related to land use and planning would be less than significant. The contribution of the proposed 2026 RTP/SCS to this impact would not be cumulatively considerable.

4.12 Noise

This section evaluates potential noise and vibration impacts from development facilitated by the proposed 2026 RTP/SCS.

4.12.1 Setting

a. Overview of Noise and Vibration

The following discussion describes the characteristics of noise and vibration. These characteristics are used to assess potential impacts at sensitive land uses. Noise- and vibration-sensitive land uses include locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, senior facilities, schools, hospitals, guest lodging, libraries and some passive recreation areas are examples of typical noise- and vibration-sensitive land uses.

Noise

Sound is a vibratory disturbance created by a moving or vibrating source, which is capable of being detected by the hearing organs. Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and, in the extreme, hearing impairment (California Department of Transportation [Caltrans] 2013a).

Noise levels are commonly measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels so that they are consistent with the human hearing response, which is most sensitive to frequencies around 4,000 Hertz and less sensitive to frequencies around and below 100 Hertz (Kinsler, et. al. 1999). Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used to measure earthquake magnitudes. A doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dBA; reducing the energy in half would result in a 3 dBA decrease (Crocker 2007).

Human perception of noise has no simple correlation with sound energy: the perception of sound is not linear in terms of dBA or in terms of sound energy. Two sources do not “sound twice as loud” as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increase or decrease (i.e., twice the sound energy); that a change of 5 dBA is readily perceptible (8 times the sound energy); and that an increase (or decrease) of 10 dBA sounds twice (half) as loud ([10.5x the sound energy] Crocker 2007).

Sound changes in both level and frequency spectrum as it travels from the source to the receiver. The most obvious change is the decrease in level as the distance from the source increases. The manner in which noise reduces with distance depends on factors such as the type of sources (e.g., point or line, the path the sound will travel, site conditions, and obstructions). Noise levels from a point source typically attenuate, or drop off, at a rate of 6 dBA per doubling of distance (e.g., construction, industrial machinery, ventilation units). Noise from a line source (e.g., roadway, pipeline, railroad) typically attenuates at about 3 dBA per doubling of distance (Caltrans 2013a). The propagation of noise is also affected by the intervening ground, known as ground absorption. A hard site, such as a parking lot or smooth body of water, receives no additional ground attenuation and the changes in noise levels with distance (drop-off rate) result from simply the geometric spreading

of the source. An additional ground attenuation value of 1.5 dBA per doubling of distance applies to a soft site (e.g., soft dirt, grass, or scattered bushes and trees) (Caltrans 2013a). Noise levels may also be reduced by intervening structures; the amount of attenuation provided by this "shielding" depends on the size of the object and the frequencies of the noise levels. Natural terrain features such as hills and dense woods, and man-made features such as buildings and walls, can significantly alter noise levels. Generally, any large structure blocking line of sight will provide at least a 5-dBA reduction in source noise levels at the receiver (Federal Highway Administration [FHWA] 2011). Structures can substantially reduce exposure to noise as well. The FHWA's guidelines indicate that modern building construction generally provides an exterior-to-interior noise level reduction of 20 to 35 dBA with closed windows.

The impact of noise is not a function of loudness alone. The time of day at which noise occurs and the duration of the noise are also important factors when considering potential noise impacts. Most noise that lasts for more than a few seconds is variable in its amplitude (i.e., the noise level continuously fluctuates over time). Consequently, a variety of noise descriptors have been developed. One of the most frequently used noise metrics is the equivalent continuous sound level (L_{eq}), which considers both duration and the sound power level of the source. The L_{eq} is defined as the single steady A-weighted level equivalent to the same amount of energy as that contained in the actual fluctuating levels over time. The extent of sound level fluctuations over a period of time is characterized by the minimum (L_{min}) and maximum (L_{max}) sound pressure levels, which represent the lowest and highest sound pressure levels measured during a given period, respectively.

The sound level that is exceeded "n" percent of time during a given sample period in the percentile noise level is represented as L_n. For example, the L_{50} level is the statistical indicator of the time-varying noise signal that is exceeded 50 percent of the time (during each sampling period); that is, half of the sampling time, the changing noise levels are above this value and half of the time they are below it. This is called the "median sound level." The L_{10} level, likewise, is the value that is exceeded 10 percent of the time (i.e., near the maximum), and this is often known as the "intrusive sound level." The L_{90} is the sound level exceeded 90 percent of the time and is often considered the "effective background level" or "residual noise level."

Noise that occurs at night tends to be more disturbing than that occurring during the day. Community noise is usually measured using Day-Night Average Level (L_{dn}), which is the 24-hour average noise level with a +10 dBA penalty for noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours; it is also measured using Community Noise Equivalent Level (CNEL), which is the 24-hour average noise level with a +5 dBA penalty for noise occurring from 7:00 p.m. to 10:00 p.m. and a +10 dBA penalty for noise occurring from 10:00 p.m. to 7:00 a.m. (Caltrans 2013a). Noise levels described by L_{dn} and CNEL usually differ by about 1 dBA. The relationship between the peak-hour L_{eq} value and the L_{dn}/CNEL depends on the distribution of traffic during the day, evening, and night. Quiet suburban areas typically have CNEL noise levels in the range of 40 to 50 dBA, while areas near arterial streets are in the 50 to 60-plus CNEL range. Normal conversational levels are in the 60 to 65-dBA L_{eq} range; ambient noise levels greater than 65 dBA L_{eq} can interrupt conversations (Federal Transit Administration [FTA] 2018).

Vibration

Groundborne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent structures. The number of cycles per second of oscillation makes up the vibration frequency, described in terms of Hz. The frequency of a vibrating object describes how rapidly it oscillates. Vibration energy spreads out as it travels through the

ground, causing the vibration level to diminish with distance away from the source. High-frequency vibrations diminish much more rapidly than low frequencies, so low frequencies tend to dominate the spectrum at large distances from the source. Discontinuities in the soil strata can also cause diffractions or channeling effects that affect the propagation of vibration over long distances (Caltrans 2020a). When a building is impacted by vibration, a ground-to-foundation coupling loss will usually reduce the overall vibration level. However, under rare circumstances, the ground-to-foundation coupling may actually amplify the vibration level due to structural resonances of the floors and walls.

Vibration amplitudes are usually expressed in inches per second (in/sec) peak particle velocity (PPV). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is often used in monitoring of blasting vibration and other construction activity because it is related to the stresses that are experienced by buildings (Caltrans 2020a).

b. Noise and Vibration Sources

The principal noise generators in the TCAG region are associated with transportation (i.e., major roads, airports, and rail lines). Local collector streets are not typically significant noise sources as traffic volume and speeds are generally much lower than for freeways and arterial roadways.

Similar to the environmental setting for noise, the vibration environment is typically dominated by traffic from nearby roadways and activity on construction sites. Heavy trucks typically operate on major streets and can generate groundborne vibration that varies depending on vehicle type, weight, and pavement conditions. Nonetheless, vibration due to roadway traffic is typically not perceptible. The major noise and vibration sources in the region are described below.

Motor Vehicle Traffic

Motor vehicles, including cars/light trucks, buses, and various types of trucks, are the most substantial source of noise in most of the TCAG region. This can be attributed to the extensive network of major, primary, and secondary arterials located throughout the region, as well as the large number of vehicle trips that occur each day.

The primary roadway corridor noise source in the TCAG region is State Route (SR) 99 due to the high traffic volumes and the high traffic speed of the roadway. In 2023, daily traffic on SR 99 averaged approximately 61,807 vehicles per day through the TCAG region, ranging from a low of 49,000 vehicles near Avenue 96 and Park Drive to a high of 73,000 vehicles at Dodge Avenue (Caltrans 2023). As a result, noise levels along the entire SR 99 corridor in the region exceed 65 dBA CNEL. The 65 dBA CNEL contour has been estimated to extend approximately 600 feet from SR 99 in portions of the region, based on prior county analyses (Tulare County 2010).

Traffic on other major transportation corridors in the TCAG region, such as SR 43, 63, 65, 137, 190, 201, 216, and 245, also generates noise in excess of 65 dBA CNEL within certain distances from the centerline of the freeway/roadway. In addition, traffic on several roads in the region, including Avenue 280, Riggin Avenue, Nebraska Avenue, Kamm Avenue, Westwood Street, Newcomb Street, and Piano Street generates noise in excess of normally acceptable standards for noise-sensitive uses within certain distances of the roads.

Aircraft Operation

Both the Mefford Field and Visalia Municipal airports have commercial and general aviation activities. Because of the level of activity at these airports, noise generated at these airports is

audible in the surrounding communities. Therefore, land uses in the surrounding areas have been planned to ensure that noise levels remain at acceptable levels for the various uses.

The Woodlake and Sequoia Field airports are general aviation airports, with little commercial traffic and no jet operations. While these general aviation airports do not generate as much noise as Mefford Field or Visalia, flight operations have had impacts on the nearby residential areas because of their location.

Eckert Field airport is a privately owned facility. General aviation aircraft operations occur during daytime hours. The 60 dB CNEL contour for annual average operations at most regional airports is located relatively close to the runway due to relatively low numbers of operations and an aircraft fleet consisting primarily of smaller propeller aircraft. However, it should be noted that maximum noise levels from individual operations by high performance single and twin engine aircraft, aerial application aircraft, fire suppression aircraft, and some corporate jets may result in short term noise impacts for persons located near the approach, departure, or local training patterns of an airport, based on prior county analyses (County of Tulare 2010).

In addition to airplanes, helicopter flights occur throughout the TCAG region. These flights typically follow major and primary arterials with the exception of police patrol activities. Other flight-related activities include tourist sightseeing, Tulare County Sheriff's Department for search and rescue operations, and Southern California Edison for power infrastructure work. Kaweah Delta in Tulare is verified as a Level III Trauma Center and provides helicopter emergency medical services. Helicopters traveling to Kaweah Delta come from Fresno to Bakersfield. Although single-event noise exposure resulting from helicopter operations may be considered a nuisance, the relatively low frequency and short duration of these operations do not significantly affect average daily noise levels anywhere in the region.

Railroad Operations

Train operations on the Union Pacific Railroad, BNSF Railway, and San Joaquin Valley Railroad generate noise within proximity to their railroad lines, including the Cross Valley Rail Corridor. The Union Pacific Railroad right-of-way traverses the TCAG region adjacent to SR 99. The BNSF Railway rail line travels through the southwest corner of the region. The San Joaquin Valley Railroad travels between Fresno and Bakersfield, California. The closest Amtrak stations are in the Cities of Hanford and Corcoran in Kings County, outside the TCAG region.

Railroad operations generate high, relatively brief, and intermittent noise events. These noise events are an environmental concern for sensitive uses located along rail lines and near sidings and switching yards. According to the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment guidance document (2018), vehicle propulsion rail units generate the following noises: (1) whine from electric control systems and traction motors that propel rapid transit cars; (2) diesel-engine exhaust noise from locomotives; (3) air-turbulence noise generated by cooling fans; and (4) gear noise. Additional noise of motion is generated by the interaction of steel wheels with the rail running surfaces. The interaction of steel wheels and rails generates three types of noise: (1) rolling noise due to continuous rolling contact; (2) impact noise when a wheel encounters a discontinuity in the running surface, such as a rail joint, turnout or crossover; and (3) squeal generated by friction on tight curves.

When comparing electric- and diesel-powered trains, speed dependence is strong for electric-powered transit trains because wheel-rail noise dominates, and noise from this source increases with increasing speed. On the other hand, speed dependence is less for diesel-powered commuter

rail trains, particularly at low speeds where the locomotive exhaust noise dominates. As speed increases, wheel-rail noise becomes the dominant noise source and diesel- and electric-powered trains will generate similar noise levels. For transit vehicles in motion, close-by sound levels also depend upon other parameters, such as vehicle acceleration and vehicle length, plus the type/condition of the running surfaces. For very high-speed rail vehicles, air turbulence can also be a significant source of noise. In addition, the guideway structure can also radiate noise as it vibrates in response to the dynamic loading of the moving vehicle.

Rail operations generate varying noise levels depending on the type of rail activity. Heavier commuter or freight trains, which are primarily diesel-powered, generate more noise than electrically-powered light-rail vehicles. According to FTA, six commuter train pass-bys per hour traveling at 50 miles per hour with a horn blowing generate a noise level of 81 dBA $L_{eq(1\text{-}hour)}$ at 50 feet. This same activity without a horn generates a noise level of 68 dBA $L_{eq(1\text{-}hour)}$ at 50 feet. In comparison, 12 light rail transit train pass-bys per hour traveling 40 miles per hour generate a noise level of 65 dBA $L_{eq(1\text{-}hour)}$ at 50 feet. These same light rail transit trains generate a noise level of 57 dBA $L_{eq(1\text{-}hour)}$ at 20 miles per hour at 50 feet (FTA 2018).

Noise-sensitive land uses within approximately 800 feet of the tracks could be exposed to noise levels above 65 dBA, based on prior county analyses (Tulare County 2012). In the northern part of the TCAG region, much of the rail corridor is located in open areas. In the southern part of the region, train tracks are generally located closer to residences.

Industrial and Manufacturing

Noise from industrial complexes and manufacturing plants are characterized as stationary or point sources even though they may include mobile sources like heavy equipment. Local governments typically regulate noise from industrial, manufacturing and construction equipment and activities through enforcement of noise ordinance standards, implementation of general plan policies and imposition of conditions of approval for building or grading permits.

In the TCAG region and throughout California, industrial complexes and manufacturing plants are generally located away from sensitive land uses and, as such, noise generated from these sources has less of an effect on surrounding properties.

Construction Noise and Vibration

Noise and vibration from construction sites are characterized as stationary or point sources even though heavy construction equipment is often mobile. Construction activities typically generate high, intermittent noise and vibration on and adjacent to construction sites and related noise and vibration impacts are short-term, occurring primarily on weekdays and during daylight hours. The dominant source of noise from most construction equipment is their diesel engine. During pile driving or pavement breaking events, impact noise is the dominant source and equipment produces the highest vibration levels. Construction equipment operates in two modes, stationary and mobile. Stationary equipment operates in one location for one or more days at a time and can generate a constant noise level (e.g., pumps, generators, and air compressors) or variable noise levels (e.g., pile drivers and pavement breakers). Mobile equipment moves around the construction site (e.g., dozers and tractors). Noise levels vary depending on the power cycle being used. Mobile equipment such as hauling trucks move to and from the site using adjacent streets/roads.

4.12.2 Regulatory Setting

a. Federal Laws, Regulations, and Policies

Federal Highway Administration

Title 23, Part 772 of the Code of Federal Regulations - Traffic Noise

The FHWA regulations for noise abatement must be considered for federal or federally-funded projects involving the construction of a new highway or significant modification of an existing highway when the project would result in a substantial noise increase or when the predicted noise levels approach or exceed the Noise Abatement Criteria (NAC). Traffic noise impacts, as defined in 23 CFR Section 772.5, occur when the predicted noise levels in the design year approach or exceed the NAC specified in 23 CFR Section 772, or a predicted noise level substantially exceeds the existing noise level (a “substantial” noise increase). A "substantial increase” is defined as an increase of 12 dB L_{eq} during the peak hour of traffic. For sensitive uses, such as residences, schools, churches, parks and playgrounds, the NAC for interior and exterior spaces is L_{eq} 57 and 66 dB, respectively, during the peak hour of traffic noise. Table 4.12-1 summarizes NAC corresponding to various land use activity categories. Activity categories and related traffic noise impacts are determined based on the actual land use in a given area.

Table 4.12-1 Noise Abatement Criteria

Activity Category	Hourly L_{eq}	Hourly L_{10}[1]	Analysis Location	Description of Activity Category
A	57	60	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose
B	67	70	Exterior	Residential
C	67	70	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails and trail crossings
D	52	55	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools and television studios
E	72	75	Exterior	Hotels, motels, offices, restaurants/bars and other developed lands, properties or activities not included in A-D or F
F	–	–	–	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical) and warehousing
G	–	–	–	Undeveloped lands that are not permitted

[1] L_{10} is the level of noise exceeded for 10% of the time.

Source: FHWA 2011

Title 40, Part 205, Subpart B of the Code of Federal Regulations – Medium and Heavy Trucks

Federal regulations establish noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under 40 CFR Part 205, Subpart B. The federal truck pass-by noise standard is 80 dBA at 15 meters from the vehicle pathway centerline. These controls are implemented through regulatory controls on truck manufacturers. The FHWA regulations for noise abatement apply to federal or federally funded projects involving the construction of a new highway or significant modification of an existing freeway when the project would result in a substantial noise increase or when the predicted noise levels approach or exceed the NAC.

Title 40, Part 201 and Title 49, Part 210 of the Code of Federal Regulations - Railroad Noise

Federal regulations for railroad noise are contained in 40 CFR Part 201 and 49 CFR Part 210. The regulations set noise limits for locomotives and are implemented through regulatory controls on locomotive manufacturers.

Title 23, Part 772 of the Code of Federal Regulations – Federal and Federal-Aid Highway Projects

Title 23 of the Code of Federal Regulations (23 CFR Section 772) provides procedures for preparing operational and construction noise studies and evaluating noise abatement for federal and federal-aid highway projects. Under 23 CFR Section 772.7, projects are categorized as Type I or Type II projects. FHWA defines a Type I project as a proposed federal or federal-aid highway project for the construction of a highway on a new location or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment, or increases the number of through-traffic lanes. A Type II project is a noise barrier retrofit project that involves no changes to highway capacity or alignment.

Type I projects include those that create a completely new noise source, increase the volume or speed of traffic, or move the traffic closer to a receiver. Type I projects include the addition of an interchange, ramp, auxiliary lane, or truck-climbing lane to an existing highway, or the widening an existing ramp by a full lane width for its entire length. Projects unrelated to increased noise levels, such as striping, lighting, signing and landscaping projects, are not considered Type I projects.

Under 23 CFR Section 772.11, noise abatement must be considered for Type I projects if the project is predicted to result in a traffic noise impact. In such cases, 23 CFR Section 772 requires that the project sponsor "consider" noise abatement before adoption of the environmental document. This process involves identification of noise abatement measures that are reasonable, feasible and likely to be incorporated into the project as well as noise impacts for which no apparent solution is available.

Federal Aviation Administration

Title 14, Part 36 of the Code of Federal Regulations - Aircraft Noise

Aircraft operated in the U.S. are subject to federal requirements regarding noise emissions levels. These requirements are set forth in Title 14 CFR, Part 36. Part 36 establishes maximum acceptable noise levels for specific aircraft types, taking into account the model year, aircraft weight and number of engines.

Federal Transit Administration

FTA has developed guidance to evaluate noise impacts from operation of surface transportation modes (i.e., passenger cars, trucks, buses, and rail) in the 2018 FTA *Transit Noise Impact and Vibration Assessment* (FTA 2018). All mass transit projects receiving federal funding must use these guidelines to predict and assess potential noise and vibration impacts. As ambient levels increase, smaller increments of change are allowed to minimize community annoyance related to transit operations.

Groundborne vibration levels produced during construction activities could induce potential architectural damage to buildings as identified by FTA are included in Table 4.12-2. Based on FTA recommendations, limiting vibration levels to below 0.2 in/sec PPV at non-engineered timber and masonry buildings (which would apply to a typical residential structure) would prevent excessive vibration levels that cause architectural damage.

Table 4.12-2 FTA Groundborne Vibration Architectural Damage Criteria - Construction

Building Category	PPV (in/sec)
I. Reinforced concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Nonengineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

in/sec = inches per second; PPV = peak particle velocity

Source: FTA 2018

For groundborne vibration created during operation of a roadway or railway, FTA provides the vibration criteria contained in Table 4.12-3 “for a detailed analysis”

Table 4.12-3 FTA Groundborne Vibration Criteria - Operation

Land Use	Max VdB	Description of Use
Workshop	90	Vibration that is distinctly felt. Appropriate for workshops and similar areas not as sensitive to vibration.
Office	84	Vibration that can be felt. Appropriate for offices and similar areas not as sensitive to vibration
Residential, Day	78	Vibration that is barely felt. Adequate for computer equipment and low-power optical microscopes (up to 20X).
Residential, Night Operating Rooms	72	Vibration is not felt, but ground-borne noise may be audible inside quiet rooms. Suitable for medium-power optical microscopes (100X) and other equipment of low sensitivity.

VdB = vibration decibels

Source: FTA 2018

FTA also provides reasonable criteria for assessing construction noise impacts based on the potential for adverse community reaction in their *Transit and Noise Vibration Impact Assessment Manual* (FTA 2018). For residential uses, the daytime noise threshold is 80 dBA L_{eq} for an 8-hour period.

FTA has developed a screening procedure to identify locations where a rail project may cause a noise impact. The screening distances for requiring noise assessments for various types of projects are presented in Table 4.12-4.

Table 4.12-4 Screening Distances for Noise Assessments – Rail Transit Projects (in feet)

Type of Project		Unobstructed	Intervening Buildings
Commuter Rail Mainline		750	375
Commuter Rail Station	With Horn Blowing	1,600	1,200
Commuter Rail Station	Without Horn Blowing	250	200
Commuter Rail -Highway Crossing with Horns and Bells		1,600	1,200
Railroad Transit		700	350
Railroad Transit Station		200	100
Light Rail Transit		350	175
Streetcar		200	100
Access Roads to Stations		100	50
Low and Intermediate Capacity Transit	Steel Wheel	125	50
Low and Intermediate Capacity Transit	Rubber Tire	90	40
Low and Intermediate Capacity Transit	Monorail	175	70
Yards and Shops		1,000	650
Parking Facilities		125	75
Access Roads to Parking		100	50
Ventilation Shafts		200	100
Power Substations		250	125

Source: FTA 2018

FTA has developed a screening procedure to identify locations where a bus project may cause a noise impact. The screening distances for requiring noise assessments for various types of projects is presented in Table 4.12-5.

Table 4.12-5 Screening Distances for Noise Assessments – Bus Transit Projects (in feet)

Type of Project		Unobstructed	Intervening Buildings
Busway		500	250
BRT on Exclusive Roadway		200	100
Bus Facilities	Access Roads	100	50
Bus Facilities	Transit Mall	225	150
Bus Facilities	Transit Center	225	150
Bus Facilities	Storage and Maintenance	350	225
Bus Facilities	Park and Ride Lots with Buses	225	150

Source: FTA 2018

Department of Housing and Urban Development

Title 24, Part 51, Subpart B of the Code of Federal Regulations – Noise Abatement and Control

The mission of HUD includes fostering "a decent, safe and sanitary home and suitable living environment for every American." Accounting for acoustics is intrinsic to this mission as safety and comfort can be compromised by excessive noise. To facilitate the creation of suitable living environments, HUD has developed a standard for noise criteria. The basic foundation of the HUD noise program is set out in the noise regulation 24 CFR Part 51 Subpart B, Noise Abatement and Control.

HUD's noise policy clearly requires that noise attenuation measures be provided when proposed projects are to be located in high noise areas. Within the HUD Noise Assessment Guidelines (HUD 2009), potential noise sources are examined for projects located within 15 miles of a military or civilian airport, 1,000 feet from a road or 3,000 feet from a railroad.

HUD exterior noise regulations state that 65 dBA L_{dn} noise levels or less are acceptable for residential land uses and noise levels exceeding 75 dBA L_{dn} are unacceptable. A goal of 45 dB is set by HUD for interior noise forth and the attenuation requirements are focused on achieving that goal. It is assumed that with standard construction methods and materials, any building will provide sufficient attenuation so that if the exterior level is 65 dBA L_{dn} or less, the interior level will be 45 dBA L_{dn} or less.

b. State Laws, Regulations, and Policies

Land Use Compatibility Guidelines

The Governor's Office of Land Use and Climate Innovation (formerly the Office of Planning and Research) is required to adopt and periodically revise guidelines for the preparation and content of local general plans. The 2017 General Plan Guidelines (Governor's Office of Land Use and Climate Innovation 2017) establish land use compatibility guidelines. Where a noise level range is denoted as "normally acceptable" for the given land use, the highest noise level in that range should be considered the maximum desirable for conventional construction that does not incorporate any special acoustic treatment. The acceptability of noise environments classified as "conditionally acceptable" or "normally unacceptable" will also depend on the anticipated amount of time that will normally be spent outside the structure and the acoustic treatment to be incorporated in structural design.

Regarding noise-sensitive residential uses, the recommended exterior noise limits are 60 dBA CNEL for single-family residences and 65 dBA CNEL for multi-family residences. The recommended maximum interior noise level is 45 dBA CNEL, which could normally be achieved using standard construction techniques if exterior noise levels are within the levels described above.

California Department of Transportation

Caltrans establishes noise limits for vehicles licensed to operate on public roads (Caltrans 2013a). For heavy trucks, the State pass-by standard is consistent with the federal limit of 80 dBA. The State pass-by standard for light trucks and passenger cars (less than 4.5 tons gross vehicle rating) is also 80 dBA at 15 meters from the centerline. For new roadway projects, Caltrans uses the NAC

discussed above in connection with FHWA. In addition, Caltrans has published the Traffic Noise Analysis Protocol for assessing noise levels associated with roadway projects (Caltrans 2020a).

Caltrans has a *Transportation and Construction Induced Vibration Manual* that provides general guidance on vibration issues associated with construction and operation of projects in relation to human perception and structural damage (Caltrans 2020b).

California Streets and Highways Code, Section 216

Section 216 of the California Streets and Highways Code relates to the noise effects of a proposed freeway project on public and private elementary and secondary schools. Under this code, a noise impact occurs if, as a result of a proposed freeway project, noise levels exceed 52 dBA L_{eq} in the interior of public or private elementary or secondary classrooms, libraries, multipurpose rooms, or spaces. If a project results in a noise impact under this code, noise abatement must be provided to reduce classroom noise to a level that is at or below 52 dBA L_{eq}. If the noise levels generated from roadway sources exceed 52 dBA L_{eq} prior to the construction of the proposed freeway project, then noise abatement must be provided to reduce the noise to the level that existed prior to construction of the project.

California's Airport Noise Standards and Compatibility Planning

The State of California has the authority to establish regulations requiring airports to address aircraft noise impacts near airports. The State of California's Airport Noise Standards, found in Title 21 of the California Code of Regulations, identify a noise exposure level of 65 dBA CNEL as the noise impact boundary around airports. Within the noise impact boundary, airport proprietors are required to ensure that all land uses are compatible with the aircraft noise environment, or the airport proprietor must secure a variance from Caltrans.

California Noise Insulation Standards

The California Noise Insulation Standards found in Title 24 of the California Code of Regulations set requirements for new multi-family residential units, hotels, and motels that may be subject to relatively high levels of transportation-related noise. For interior noise, the noise insulation standard is 45 dBA L_{dn} in any habitable room and requires an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to noise levels greater than 60 dBA L_{dn}.

California Aeronautics Act

The State Aeronautics Act (Public Utilities Code, Section 21670 et seq.) requires the establishment of Airport Land Use Commissions (ALUCs), which are responsible for developing airport land use compatibility plans (ALUCPs) for noise-compatible land uses in the immediate proximity of a commercial or public airport (Section 21675). ALUCs have two major roles: preparation and adoption of airport land use compatibility plans, which address policies for both noise and safety and review of certain local government land use actions and airport plans for consistency with the land use compatibility plan.

The ALUCP is the major tool for ALUC land use regulation. The intent of the ALUCP is to encourage compatibility between airports and the various land uses that surround them. ALUCPs typically include the development of noise contours to identify excessive airport-related noise levels and measures to reduce noise levels.

Airport Noise Standards and Compatibility Planning

The State of California has the authority to establish regulations requiring airports to address aircraft noise impacts near airports. The State of California's Airport Noise Standards, found in Title 21 of the California Code of Regulations, identify a noise exposure level of 65 dB CNEL as the noise impact boundary around airports. Within the noise impact boundary, airport proprietors are required to ensure that all land uses are compatible with the aircraft noise environment, or the airport proprietor must secure a variance from the California Department of Transportation.

The Aeronautics Division of Caltrans has published the *California Airport Land Use Planning Handbook* (Caltrans 2011). The purpose of the *California Airport Land Use Planning Handbook* is to provide guidance for conducting airport land use compatibility planning. This handbook includes a section related to noise and states, "The basic strategy for achieving noise compatibility in the vicinity of an airport is to prevent or limit development of land uses that are particularly sensitive to noise. Common land use strategies are ones that either involve few people (especially people engaged in noise-sensitive activities) or generate significant noise levels themselves (such as other transportation facilities or some industrial uses)."

c. Local Laws, Regulations, and Policies

To identify, appraise and remedy noise and vibration problems in local communities, Tulare County and incorporated cities in the TCAG region are each required to adopt a noise element as part of their General Plan. Local governments use the Governor's Office of Land Use and Climate Innovation's (formerly the Office of Planning and Research) General Plan Guidelines (last comprehensively updated in 2017), including land use compatibility guidelines, to prepare General Plan noise elements.

Each noise element is required to analyze and quantify current and projected noise levels associated with local noise sources, including, but not limited to: highways and freeways, primary arterials and major local streets, rail operations, air traffic associated with the airports; local industrial plants; and other ground stationary sources that contribute to the community noise environment. Beyond statutory requirements, local jurisdictions are free to adopt their own goals and policies in their noise elements, although most jurisdictions have chosen to adopt noise/land use compatibility guidelines that are similar to those recommended by the State. Land use compatibility considers both existing noise levels in a community, as well as community attitudes toward dominant noise sources.

In addition to regulating noise through noise element policies, local jurisdictions regulate noise through enforcement of local ordinance standards. These standards generally relate to noisy activities (e.g., use of loudspeakers and construction) and stationary noise sources and facilities (e.g., air conditioning units and industrial activities). The TCAG region has eight incorporated cities, each of which has its own adopted noise standards. Noise standards for the County and incorporated cities in the region typically apply land-use compatibility criteria of 60-65 dBA L_{dn} as being the normally acceptable range for new residential developments, and interior noise criteria of 45 dBA L_{dn}, consistent with the overall State recommendations.

As discussed above, the State Aeronautics Act (Public Utilities Code, Section 21670 et seq.) requires the preparation of an ALUCP for nearly all public-use airports in the State (Section 21675). An ALUC is responsible for preparing the ALUCPs and ensuring compatible land uses in the vicinity of airports within their jurisdiction (Section 21676). Within the TCAG region, TCAG serves as the ALUC and is responsible for protecting public health, safety and welfare by ensuring that vacant lands in the

vicinity of airports are planned and zoned for uses compatible with airport operations. The Tulare County Airport Land Use Plan was adopted in 2012 (TCAG 2012).

Tulare County General Plan

The 2030 Update Tulare County General Plan Noise Element contains policies that are intended to minimize exposure of residents and sensitive land uses to excessive noise levels. The Noise Element emphasizes the importance of land use compatibility where residential uses, schools, hospitals, and parks may be affected by noise generated from transportation corridors, industrial uses, agricultural operations, or other stationary and mobile sources. The County requires evaluation of potential noise impacts from new development and infrastructure projects and incorporates mitigation measures where necessary to reduce noise exposure to acceptable levels. The Plan also addresses temporary construction-related noise through regulation of hours of operation and implementation of best available noise-control practices, and it considers transportation noise as part of roadway planning and project review processes (County of Tulare 2012).

City of Porterville

The City of Porterville Noise Element is designed to protect public health and quality of life by minimizing excessive noise exposure. The Noise Element focuses on identifying existing and projected noise sources, such as major roadways, rail lines, and industrial activities, and ensuring that new development is compatible with the surrounding noise environment. The City requires noise analysis for projects that may generate or be affected by substantial noise levels and implements mitigation measures, where appropriate, to reduce impacts on nearby sensitive receptors (Porterville 2016).

City of Tulare

The City of Tulare establishes the protection of the community from excessive noise as a public health and safety objective. The General Plan requires that noise impacts be considered during the planning and design of new development projects and transportation facilities. Where development is proposed near major noise sources, the City requires the incorporation of noise attenuation measures such as setbacks, building design features, or sound barriers (Tulare 2014).

City of Visalia

The City of Visalia Noise Element seeks to minimize noise-related impacts associated with urban development and transportation systems. The City establishes acceptable noise standards for various land use categories and requires project applicants to evaluate noise impacts where warranted. The City integrates noise considerations into transportation planning to reduce long-term noise exposure from roadway and infrastructure improvements (Visalia 2014).

Other City General Plans

The cities of Dinuba, Exeter, Farmersville, Lindsay, and Woodlake also address noise impacts through their respective General Plans, either within standalone Noise Elements or through integrated policies in Safety or Land Use elements. These General Plans generally include policies that promote compatibility between land uses and noise-generating sources, establish community noise standards, and require evaluation and mitigation of noise impacts for new development. Construction-related noise and long-term operational noise are commonly regulated to protect sensitive receptors and maintain community quality of life throughout the Tulare County region.

4.12.3 Impact Analysis

a. Methodology and Significance Thresholds

The analysis of noise impacts considers the effects of both temporary construction-related noise and long-term noise associated with proposed transportation system improvements. Temporary construction noise was estimated based upon levels presented in the FTA Transit Noise and Vibration Impact Assessment.

Tulare County and the eight incorporated cities within the TCAG region each have their own noise standards. These local noise standards typically apply land-use compatibility criteria of 60-65 dBA CNEL as the normally acceptable range for residential developments, and interior noise criteria of 45 dBA CNEL, consistent with the overall State recommendations and the recommendations of HUD for residential uses. For the purposes of this analysis, noise impacts would be considered significant if a project would result in noise levels that exceed applicable local standards or conflict with established land use compatibility guidelines.

The analysis of potential impacts includes an assessment of all applicable standards, including those established by local jurisdictions, counties, the State of California, and federal agencies, where appropriate.

Appendix G of the *CEQA Guidelines* includes criteria 1, 3, and 4 below for determining whether a project's impacts would have a significant impact related to noise; TCAG has also added criterion 2 for a threshold related to absolute noise increases:

1. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
2. Generate a substantial absolute increase in ambient noise;
3. Generate excessive groundborne vibration or groundborne noise levels; or
4. For a project located within the vicinity of a private airstrip or 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, would the project expose people residing or working in the project area to excessive noise levels.

b. Project Impacts and Mitigation Measures

The following section discusses potential impacts and mitigation measures that may be associated with projects implementing the proposed 2026 RTP/SCS. Due to the programmatic nature of the proposed 2026 RTP/SCS, a precise, project-level analysis of the specific impacts associated with individual transportation and land use projects would be speculative. In general, however, implementation of proposed transportation projects and future projects under the land use scenario envisioned by the proposed 2026 RTP/SCS could result in the impacts as described in the following section.

Threshold 1:	Would the project result in a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
Threshold 2:	Would the project result in a substantial absolute increase in ambient noise?

Impact N-1 CONSTRUCTION ACTIVITY ASSOCIATED WITH PROPOSED TRANSPORTATION IMPROVEMENTS AND LAND USE PROJECTS IMPLEMENTING THE PROPOSED 2026 RTP/SCS WOULD GENERATE A SUBSTANTIAL TEMPORARY INCREASE IN AMBIENT NOISE LEVELS IN EXCESS OF STANDARDS ESTABLISHED IN LOCAL GENERAL PLANS OR NOISE ORDINANCES AND WOULD GENERATE A SUBSTANTIAL ABSOLUTE NOISE INCREASE OVER EXISTING NOISE LEVELS. THIS IMPACT WOULD BE SIGNIFICANT AND UNAVOIDABLE.

The operation of equipment during the construction of roadway infrastructure, as well as land-use development envisioned in the proposed 2026 RTP/SCS would result in temporary increases in noise in the immediate vicinity of individual construction sites. As shown in Table 4.12-6, average noise levels associated with the use of heavy equipment at construction sites typically range from 76 to 88 dBA at 50 feet from the source, depending upon the types of equipment in operation at any given time and the phase of construction. For projects that require pile driving, construction noise levels may reach 101 dBA at 50 feet from the source. For projects that do not require pile driving, the highest noise levels typically occur during excavation and foundation development, which involves the use of such equipment as backhoes, bulldozers, pile drivers, and front-end loaders.

Table 4.12-6 Typical Noise Levels for Construction Equipment (dBA)

Equipment	Typical Level 25 feet from the Source	Typical Level 50 feet from the Source	Typical Level 100 feet from the Source
Air Compressor	86	80	74
Backhoe	86	80	74
Concrete Mixer	91	85	79
Dozer	91	85	79
Grader	91	85	79
Jack Hammer	94	88	82
Loader	86	80	74
Paver	91	85	79
Pile-drive (Impact)	107	101	95
Pile-driver (Sonic)	101	95	89
Roller	91	85	79
Saw	82	76	70
Scarified	89	83	77
Scraper	91	85	79
Truck	90	84	78

Source: FTA 2018

Noise generated by construction projects would vary depending on the project and intensity of equipment use. Roadway widening projects and new roadway projects would likely require the operation of multiple pieces of heavy-duty equipment that generate high noise levels. Alternatively, repainting/restriping projects typically require minimal use of heavy equipment. This conservative analysis assesses construction noise based on the operation of heavy-duty equipment. Noise levels from point sources such as individual construction sites typically attenuate at a rate of 6 dBA per doubling of distance. Therefore, areas within 800 feet of a construction site with heavy-duty equipment may be exposed to noise levels exceeding 65 dBA. Areas within 3,200 feet of impact pile drivers may be exposed to noise levels exceeding 65 dBA.

Some local agencies in the TCAG region include specific regulations in their municipal code to reduce construction noise impacts. In most cases, these regulations restrict construction activities to specific times and days. Such local policies serve to reduce the impacts of noise on surrounding communities by prohibiting construction during the night when people are engaged in noise-sensitive activities like sleeping. Nevertheless, this impact is significant because applicable noise standards would be exceeded and because a substantial temporary increase in ambient noise levels in the project vicinity would occur.

Mitigation Measure

For transportation projects under their jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measure developed for the proposed 2026 RTP/SCS program where applicable for transportation projects that would result in noise impacts, and where feasible and necessary based on project and site-specific considerations. Tulare County and incorporated cities in the County can and should implement this measure where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project-specific environmental documents may adjust this measure as necessary to respond to site-specific conditions.

N-1 Construction Noise Reduction

To reduce construction noise levels to achieve applicable standards and prevent a substantial increase in ambient noise levels, implementing agencies for transportation and land use projects shall implement the measures identified below where feasible and necessary.

- **Compliance with Local Construction Noise Regulations.** Implementing agencies shall ensure that, where residences or other noise sensitive uses are located within 800 feet of construction sites without pile driving, appropriate measures shall be implemented to ensure consistency with local noise ordinance requirements related to construction noise. Specific techniques may include, but are not limited to, restrictions on construction timing, use of sound blankets on construction equipment, and the use of temporary walls and noise barriers to block and deflect noise.
- **Noise Complaint and Enforcement Manager.** Designate an on-site construction complaint and enforcement manager for projects within 800 feet of sensitive receivers. Implementing agencies shall post phone numbers for the on-site enforcement manager at construction sites along with complaint procedures and who to notify in the event of a problem.
- **Pile Driving**. For any project within 3,200 feet of sensitive receptors that requires pilings, the implementing agency shall require caisson drilling or sonic pile driving as opposed to pile driving, where feasible. This shall be accomplished through the placement of conditions on the project during its individual environmental review.

- **Construction Equipment Noise Control**. Implementing agencies shall ensure that equipment and trucks used for project construction utilize the best available noise control techniques including mufflers, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds.
- **Impact Equipment Noise Control.** Implementing agencies shall ensure that impact equipment (e.g., jack hammers, pavement breakers, and rock drills) used for project construction be hydraulically or electrically powered wherever feasible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatically powered tools is unavoidable, use of an exhaust muffler on the compressed air exhaust can lower noise levels from the exhaust by up to about 10 dBA. When feasible, external jackets on the impact equipment can achieve a reduction of 5 dBA. Whenever feasible, use quieter procedures, such as drilling rather than impact equipment operation.
- **Construction Activity Timing Restrictions.** The following timing restrictions shall apply to 2026 RTP/SCS activates creating noise levels at or above 65 dBA at a nearby dwelling unit, except where timing restrictions are already established in local codes or policies. Construction activities shall be limited to:
  - Monday through Friday: 7 a.m. to 6 p.m.
  - Saturday: 9 a.m. to 5 p.m.
- **Placement of Stationary Noise Sources.** Locate stationary construction noise sources, e.g., generators, as far from noise-sensitive receptors as possible. Stationary construction noise sources that must be located near existing receptors will be equipped with the best available mufflers.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are Tulare County and cities within the County. This mitigation measure shall, or can and should, be applied during project permitting and environmental review and implemented during construction, as applicable.

Significance After Mitigation

Implementation of Mitigation Measure N-1 would reduce construction noise impacts. However, even with implementation of Mitigation Measure N-1, construction noise from all proposed 2026 RTP/SCS projects may not be reduced below applicable thresholds, and no additional mitigation measures to reduce this impact to less than significant levels are feasible. Therefore, impacts would remain significant and unavoidable.

Threshold 1:	Would the project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
Threshold 2:	Would the project generate a substantial absolute increase in ambient noise?

Impact N-2 PROPOSED TRANSPORTATION IMPROVEMENTS ENVISIONED BY THE PROPOSED 2026 RTP/SCS WOULD GENERATE A SUBSTANTIAL PERMANENT INCREASE IN AMBIENT NOISE LEVELS IN EXCESS OF STANDARDS OR OVER EXISTING NOISE LEVELS AND GENERATE A SUBSTANTIAL ABSOLUTE NOISE INCREASE OVER EXISTING NOISE LEVELS. THIS IMPACT WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Traffic

Overall traffic levels on highways and roadways in the TCAG region are projected to increase as a result of regional growth through the year 2049 with or without implementation of the proposed 2026 RTP/SCS (refer to Section 4.15, *Transportation*). While traffic may increase in certain locations, the expected number of reduced vehicle miles traveled (VMT) per weekday in 2049 would be 11,566,124 VMT in the RTP/SCS preferred scenario. In general, as the VMT decreases, noise associated with VMT would also decrease.

The proposed 2026 RTP/SCS includes several projects that would increase traffic noise by increasing traffic levels along and in the vicinity of affected facilities. Such projects include intersection improvements, widening existing roadways, widening ramps and bridge structures, constructing new interchanges, and road improvements that would allow increased traffic volumes. These projects would not introduce new traffic but rather are intended to relieve current or projected future traffic congestion or safety conditions. However, in some cases, projects that expand roadway capacity would accommodate additional traffic volumes and/or relocate noise sources closer to sensitive receptors. thereby causing applicable noise standards to be exceeded, or a substantial permanent increase in ambient noise levels in the project vicinity. Therefore, traffic noise impacts would be significant.

Airports

The proposed 2026 RTP/SCS does not include airport improvement projects or programs that would directly or indirectly increase aircraft operations at operating airports in the TCAG region. Therefore, the proposed 2026 RTP/SCS would not increase ambient noise levels associated with airports. No impacts due to aircraft operations would occur.

Rail Operations

The proposed 2026 RTP/SCS does not include rail improvement projects or programs that would directly or indirectly increase rail operations on the Union Pacific Railroad, San Joaquin Valley Railroad, and the BNSF Railway railroad in the TCAG region. Therefore, the proposed 2026 RTP/SCS would not increase ambient noise levels associated with rail operations. No impacts due to rail operations would occur.

Bus Operations

The proposed 2026 RTP/SCS includes the support of public transportation. In Tulare County, buses are the primary mode of public transportation. Fixed-route, Dial-A-Ride, and emerging microtransit

services are provided by Visalia Transit, Porterville Transit, and the Tulare County Regional Transit Agency. Amtrak coordinates with Visalia Transit to provide a feeder bus linking Visalia from the city's transit center with the Hanford Station in Kings County. Greyhound and Orange Belt Stages also operate in Tulare County. In 2016, Visalia Transit began the V-LINE bus service between Visalia (from the transit center and Visalia Municipal Airport) to various locations in Fresno County (Fresno Yosemite International Airport, California State University, Fresno, and Courthouse Park). Intercounty connections are also provided by the Tulare County Regional Transit Agency between Dinuba and Reedley and to Delano and Kingsburg. Additional regional and intercity connectivity would be enhanced by the high-frequency Cross Valley Express (CVX) service, anticipated to begin in 2028, which will provide east-west connections across Tulare County, as well as a planned Bus Rapid Transit (BRT) system along the Mooney Boulevard (SR 63) corridor. These services are expected to serve as key local connectors to the Kings/Tulare regional high-speed train (HST) station. Bus improvement projects or programs, including CVX and BRT could directly or indirectly increase bus operations in the TCAG region but would not increase service beyond existing routes or generate identifiable noise levels beyond current conditions. Therefore, the proposed 2026 RTP/SCS would not increase ambient noise levels associated with bus operations. No impacts due to bus operations would occur.

Mitigation Measures

For transportation projects under their jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measure developed for the proposed 2026 RTP/SCS program where applicable for transportation projects that would result in traffic noise impacts, and where feasible and necessary based on project and site-specific considerations. Project-specific environmental documents may adjust this measure as necessary to respond to site-specific conditions.

N-2 Noise Assessment and Control for Transportation Noise Sources

Implementing agencies for transportation projects shall complete detailed noise assessments using applicable guidelines (e.g., Caltrans Traffic Noise Analysis Protocol) for roadway projects that may impact noise sensitive receptors. The implementing agency shall ensure that a noise survey is conducted that at minimum:

- Determines existing and projected noise levels
- Determines the amount of attenuation needed to reduce potential noise impacts to applicable State and local standards
- Identifies potential alternate alignments that allow greater distance from, or greater buffering of, noise-sensitive areas
- If warranted, recommends methods for mitigating noise impacts, including:
  - Appropriate setbacks
  - Sound attenuating building design, including retrofit of existing structures with sound attenuating building materials
  - Use of sound barriers (earthen berms, sound walls, or some combination of the two)

Where new or expanded roadway projects are found to expose receptors to noise exceeding normally acceptable levels, the individual project lead agency shall implement techniques as recommended in the project-specific noise assessments. The preferred methods for mitigating noise

impacts will be the use of appropriate setbacks and sound attenuating building design, including retrofit of existing structures with sound attenuating building materials where feasible. In instances where use of these techniques is not feasible, the use of sound barriers (earthen berms, sound walls, or some combination of the two) will be considered. Other techniques such as rubberized asphalt or "quiet pavement" can be used where feasible to reduce road noise for new roadway segments or modifications requiring repaving. The effectiveness of noise reduction measures shall be monitored by taking noise measurements and designing and implementing adaptive mitigation measures to achieve applicable standards.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. This mitigation measure shall, or can and should, be applied during project permitting and environmental review and implemented during construction, as applicable.

Significance After Mitigation

Implementation of Mitigation Measure N-2 would reduce noise from mobile sources. However, even with implementation of Mitigation Measure N-2, mobile source noise from buildout of the proposed 2026 RTP/SCS may continue to impact nearby noise sensitive receivers and exceed acceptable standards. Impacts would remain significant and unavoidable. No additional mitigation measures to reduce this impact to less than significant levels are feasible.

Threshold 3:	Would the project generate excessive groundborne vibration or groundborne noise levels; or ground-borne noise levels during construction?

Impact N-3 CONSTRUCTION ACTIVITIES ASSOCIATED WITH TRANSPORTATION PROJECTS AND LAND USE PROJECTS IMPLEMENTING THE PROPOSED 2026 RTP/SCS WOULD GENERATE EXCESSIVE GROUNDBORNE VIBRATION LEVELS. NEW TRUCK, BUS, AND TRAIN TRAFFIC RESULTING FROM THE PROPOSED 2026 RTP/SCS WOULD GENERATE EXCESSIVE OPERATIONAL VIBRATION LEVELS. THESE IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Construction

Construction-related vibration has the potential to damage structures, cause cosmetic damage (e.g., crack plaster), or disrupt the operation of vibration-sensitive equipment. Vibration can also be a source of annoyance to individuals who live or work close to vibration-generating activities. Heavy construction operations can cause substantial vibration near the source. Table 4.12-7 shows vibration levels associated with typical construction equipment. Similar to construction noise, vibration levels would be variable depending on the type of construction project and related equipment use.

Table 4.12-7 Vibration Source Levels for Construction Equipment

Equipment		Approximate Vibration Level (VdB)			
		25 feet from Source	50 feet from Source	100 feet from Source	200 feet from Source
Caisson Drilling		87	78	69	60
Jackhammer		79	70	61	52
Large Bulldozer		87	78	69	60
Loaded Truck		86	77	68	58
Pile Driver (impact)	Upper range	112	103	94	84
	Typical	104	95	86	77
Pile Driver (sonic)	Upper range	105	96	87	78
	Typical	93	84	75	65
Small Bulldozer		58	48	39	30
Vibratory Roller		94	85	76	67

Source: FTA 2018

Typical project construction activities, such as the use of jackhammers, other high-power or vibratory tools, compactors, and tracked equipment, may generate substantial vibration (i.e., greater than 0.2 inches per second PPV) in the immediate vicinity, typically within 15 feet of the equipment. Through the use of scheduling controls, typical construction activities would be restricted to hours with least potential to affect nearby properties. Thus, perceptible vibration can usually be kept to a minimum and not result in human annoyance or structural damage.

Some specific construction activities result in higher levels of vibration. Pile driving has the potential to generate the highest vibration levels and is the primary concern for structural damage to nearby structures, especially when near fragile and/or historic structures. Vibration levels generated by pile driving activities would vary depending on project conditions, such as soil conditions, construction methods and equipment used. Depending on the proximity of existing structures to each construction site, the structural soundness of the affected buildings and construction methods, vibration caused by pile driving or other foundation work with a substantial impact component such as blasting, rock or caisson drilling, and site excavation or compaction may be high enough to be perceptible outside the construction area and potentially damage existing structures.

Tulare County and some of the cities in the TCAG region include regulations in their municipal code that reduce construction vibration impacts. In most cases, these regulations restrict vibration-generating construction activities to specific times and days. Such local policies reduce the impacts of vibration on surrounding communities by prohibiting construction during the night when people are engaged in vibration-sensitive activities like sleeping. Nevertheless, as proposed 2026 RTP/SCS projects may exceed the FTA's vibration thresholds, such as 0.2 inches per second PPV for nonengineered timber and masonry building (i.e., a typical residential building) damage, construction vibration levels are significant because transportation or land use project construction would cause excessive groundborne vibration or groundborne noise levels.

Operation

The primary vibration sources associated with transportation system operations include heavy truck and bus traffic along roadways and train traffic along rail lines. However, vehicle traffic, including heavy trucks traveling on a highway, rarely generate vibration amplitudes high enough to cause

structural or cosmetic damage, except in rare cases (e.g., where heavy truck and bus traffic passes near fragile older buildings). Heavy trucks and buses traveling over potholes or other pavement irregularities can cause vibration high enough to result in complaints from nearby residents. These conditions are commonly addressed by smoothing the roadway surface. Based on vibration measurements throughout California by Caltrans, worst-case traffic vibrations were shown to drop below the threshold of perception at distances of 150 feet or greater (Caltrans 2013b). Given that sensitive receptors are located within 150 feet of transportation facilities within the TCAG region, and that proposed 2026 RTP/SCS transportation projects include roadway expansion and construction of high occupancy vehicle lanes on SR 99, SR 198, or other highways, the increased frequency of heavy truck and bus pass-bys could result in perceptible vibration levels at nearby receptors, potentially resulting in significant vibration-related impacts.

Rail activity is also a source of vibration. Caltrans conducted measurements of vibration levels associated with train activity throughout the State and found a peak vibration level of 0.36 inches per second PPV at ten feet from the track (Caltrans 2004; Caltrans 2013b). Based on this reference vibration level, vibrations from train activity drop below the threshold of perception at distances greater than 250 feet. The proposed 2026 RTP/SCS does not include any rail improvement projects or programs that would directly or indirectly increase rail operations on the Union Pacific Railroad, San Joaquin Valley Railroad, and the Burlington Northern-Santa Fe Railroad in the TCAG region. Therefore, the proposed 2026 RTP/SCS would not increase vibration levels associated with rail operations.

Mitigation Measures

For transportation projects under their jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures developed for the proposed 2026 RTP/SCS program where applicable for transportation projects that would result in significant vibration impacts, and where feasible and necessary based on project and site-specific considerations. Tulare County and incorporated cities within the County can and should implement these measures where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project-specific environmental documents may adjust these measures as necessary to respond to site-specific conditions.

N-3(a) Vibration Mitigation for Construction of Transportation and Land Use Projects

If construction equipment would generate vibration levels exceeding acceptable levels as established by FTA (as shown in Table 4.12-2 and Table 4.12-3), implementing agencies for transportation and land use projects shall, or can and should, complete the following tasks:

- Prior to construction, survey the project site for vulnerable buildings, and complete geotechnical testing (preconstruction assessment of the existing subsurface conditions and structural integrity), for any older or historic buildings within 50 feet of pile driving. The testing shall be completed by a qualified geotechnical engineer and qualified historic preservation professional and/or structural engineer.
- Prepare and submit a report to the lead agency that contains the results of the geological testing. If recommended by the preconstruction report, implementing agencies shall require ground vibration monitoring of nearby historic structures. Methods and technologies shall be based on the specific conditions at the construction site. The preconstruction assessment shall include a monitoring program to detect ground settlement or lateral movement of structures in the vicinity of pile-driving activities and identify corrective measures to be taken should

monitored vibration levels indicate the potential for building damage. In the event of unacceptable ground movement with the potential to cause structural damage, all impact work shall cease, and corrective measures shall be implemented to minimize the risk to the subject, or adjacent, historic structure.

- To minimize disturbance withing 550 feet of pile-driving activities, implement "quiet" pile-driving technology, such as predrilling of piles and the use of more than one pile driver to shorten the duration of pile driving), where feasible, in consideration of geotechnical and structural requirements and conditions as defined as part of the geotechnical testing, if testing was feasible.
- Use cushion blocks to dampen noise from pile driving.
- Phase operations of construction equipment to avoid simultaneous vibration sources

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are Tulare County and cities within the County. This mitigation measure shall, or can and should, be applied during project permitting and environmental review and implemented during construction, as applicable.

N-3(b) Vibration Mitigation for Operation of Transportation Projects

Implementing agencies for transportation projects shall comply with all applicable local vibration and groundborne noise standards, or in the absence of such local standards, comply with guidance provided by the FTA in *Transit Noise and Vibration Impact Assessment* (FTA 2018) to assess impacts to buildings and sensitive receptors and reduce vibration and groundborne noise. FTA recommended thresholds shall be used except in areas where local standards for groundborne noise and vibration have been established. Methods that can be implemented to reduce vibration and groundborne noise impacts include, but are not limited to:

- Construct noise barriers
- Use noise reducing tires and wheel construction on bus wheels
- Use vehicle skirts (i.e., a partial enclosure around each wheel with absorptive treatment) on freight vehicle wheels

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. This mitigation measure shall, or can and should, be applied during project permitting and environmental review and implemented during construction, as applicable.

Significance After Mitigation

Implementation of Mitigation Measure N-3(a) would reduce potential construction vibration impacts. However, even with implementation of Mitigation Measure N-3(a), construction vibration from all proposed 2026 RTP/SCS projects may not be reduced below applicable thresholds and impacts would remain significant and unavoidable. No additional mitigation measures to reduce this impact to less than significant levels are feasible. Implementation of Mitigation Measure N-3(b) would reduce transportation project operational vibration impacts. However, even with implementation of Mitigation Measure N-3(b), vibration from the proposed 2026 RTP/SCS transportation projects may continue to be excessive. Impacts would remain significant and

unavoidable. No additional mitigation measures to reduce this impact to less than significant levels are feasible.

Threshold 1:	Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
Threshold 2:	Generate a substantial absolute increase in ambient noise;

Impact N-4 LAND USE PROJECTS ENVISIONED BY THE PROPOSED 2026 RTP/SCS WOULD ENCOURAGE INFILL DEVELOPMENT NEAR TRANSIT AND OTHER TRANSPORTATION FACILITIES, WHICH MAY PLACE SENSITIVE RECEPTORS IN AREAS WITH NOISE LEVELS IN EXCESS OF STANDARDS ESTABLISHED IN THE LOCAL GENERAL PLAN OR NOISE ORDINANCE, OR EXPOSE THEM TO A SUBSTANTIAL INCREASE IN AMBIENT NOISE LEVELS. THIS IMPACT WOULD BE SIGNIFICANT AND UNAVOIDABLE.

The proposed 2026 RTP/SCS is based on a land use and transportation scenario which defines a pattern of future growth and transportation system investment for the region emphasizing TOD and infill development near transit and other transportation facilities. Population and job growth is allocated principally within existing urban areas near public transit and existing transit corridors. New noise-sensitive development in infill areas could be exposed to noise levels exceeding County or city noise standards for residential land uses, with a lesser potential in more suburban and rural areas. Potential sources of noise exposure include traffic, rail and/or bus operations, commercial activity, and industrial activity. New development in infill areas near transit may also expose existing noise-sensitive uses to noise levels exceeding local noise thresholds. Impacts would be significant because applicable noise standards could be exceeded, or because infill project residents could be exposed to a substantial increase in ambient noise levels.

Mitigation Measure

Tulare County and cities within the County can and should implement the following mitigation measure where relevant to land use projects implementing the proposed 2026 RTP/SCS, and where feasible and necessary based on project and site specific considerations. Project-specific environmental documents may adjust this measure as necessary to respond to site-specific conditions.

N-4 Noise Mitigation for Land Uses

If a land use project is located in an area with exterior ambient noise levels that may exceed local noise standards, the implementing agency shall ensure that a noise study is conducted to determine the existing and projected exterior noise levels in the vicinity of the project. If the project residents would be exposed to ambient noise levels exceeding local standards or to a substantial increase in ambient noise levels, feasible attenuation measures shall be used to reduce ambient noise to meet acceptable standards. In addition, noise insulation techniques shall be utilized to reduce indoor noise levels to thresholds set in applicable State and/or local standards. Such measures may include but are not limited to: dual-paned windows, solid core exterior doors with perimeter weather stripping, air conditioning system so that windows and doors may remain closed, and situating exterior doors away from roads. The noise study and determination of appropriate mitigation measures shall be completed during the project's environmental review.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for land use projects are Tulare County and incorporated cities within the County. This mitigation measure can and should, be applied during project permitting and environmental review and implemented during construction, as applicable.

Significance After Mitigation

Implementation of Mitigation Measure N-4 would reduce noise for sensitive land uses in areas that exceed noise standards. However, even with implementation of Mitigation Measure N-4, noise from buildout of the proposed 2026 RTP/SCS land use scenario may continue to impact nearby noise sensitive receptors and exceed acceptable standards. This impact would remain significant and unavoidable. No additional mitigation measures to reduce this impact to less than significant levels are feasible.

Threshold 4:	For a project located within the vicinity of a private airstrip or 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, expose people residing or working in the project area to excessive noise levels.

Impact N-5 PROPOSED TRANSPORTATION IMPROVEMENTS AND LAND USE PROJECTS ENVISIONED BY THE PROPOSED 2026 RTP/SCS WOULD BE LOCATED IN CLOSE PROXIMITY TO EXISTING AIRPORTS SUCH THAT APPLICABLE EXTERIOR AND INTERIOR NOISE THRESHOLDS WOULD BE EXCEEDED. IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

The proposed 2026 RTP/SCS emphasizes infill development near transit and other transportation facilities. Public airports typically service entire regions, whereas smaller private airports or airstrips tend to serve local users. However, like other noise sources, noise from airports and aircraft flight events have the greatest effect on nearby land uses. As shown in Table 4.12-8, there are four public use and one private use airports in the TCAG region that serve commercial and general aviation users.

Table 4.12-8 Public and Private Airports within the TCAG Region

Airport	Public/Private Use	Airport Land Use Compatibility Plan (YES/NO)
Visalia Municipal Airport	Public	Yes
Mefford Field Airport	Public	Yes
Woodlake Airport	Public	No
Sequoia Field Airport	Public	No
Eckert Field Airpark	Private	No

Visalia Municipal Airport and Mefford Field Airport have an active ALUCP (or the equivalent) to discourage incompatible land uses within the vicinity of the airport. However, even with ALUCPs the potential still exists for forecasted development consistent with the proposed 2026 RTP/SCS to occur in areas of 70 dBA CNEL, exceeding recommended airport noise thresholds of 65 dBA CNEL for residential land uses (FAA 14 CFR Part 150; Caltrans Division of Aeronautics) and the project-specific land use compatibility thresholds of 70 dBA CNEL.

In addition to consideration of exterior CNEL noise levels, increases in interior noise levels near airports have the potential to result in sleep disturbance at nearby sensitive land uses. In accordance with the Federal Interagency Committee on Noise (FICON) guidance, aircraft-generated interior single-event noise levels of 65 dBA could result in a 5 percent or less chance of awakening someone (FICON 2020). Local land use compatibility standards contained in city and county general plans would typically dictate whether specific site review was required for construction of sensitive land uses in areas potentially affected by aircraft noise. However, given the regional scale of the proposed 2026 RTP/SCS, it is possible that the plan's forecasted land use development pattern could result in exposure to exterior and interior noise levels from existing airports or airstrips that exceed applicable thresholds. Implementation of the proposed 2026 RTP/SCS land use development pattern could result in land use development being located in close proximity to existing airports such that applicable exterior and interior noise thresholds would be exceeded, thereby exposing people residing or working in the area to excessive noise levels. Therefore, this would be a significant impact.

Some transportation projects in the proposed 2026 RTP/SCS would be within the vicinity of a private airstrip or an airport land use plan. Individuals would not be exposed to airport-related noise during operation of these projects, as they would not entail habitable structures or other facilities in which people would work or visit. However, during construction of these projects, construction personnel would be exposed to excessive noise levels. Such exposure would be temporary, and therefore considered less than significant.

Mitigation Measures

Tulare County and incorporated cities within the County can and should implement the following mitigation measure where relevant to land use projects implementing the proposed 2026 RTP/SCS near existing public or public use airports, and where feasible and necessary based on project and site-specific considerations. Project-specific environmental documents may adjust this measure as necessary to respond to site-specific conditions.

N-5 Noise Mitigation Near Airports

Local lead agencies for all new development proposed to be located within an existing airport influence zone, as defined by the locally adopted airport land use compatibility plan or local general plan shall require a site-specific noise compatibility study. The study shall consider and evaluate existing aircraft noise, based on specific aircraft activity data for the airport in question, and shall include recommendations for site design and building construction. Such measures may include but are not limited to: dual-paned windows, solid core exterior doors with perimeter weather stripping, air conditioning system so that windows and doors may remain closed, and situating exterior doors away from roads. The noise study and determination of appropriate mitigation measures shall be completed during the project's individual environmental review.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for land use projects are Tulare County and cities within the County. This mitigation measure shall, or can and should, be applied during project permitting and environmental review and implemented during construction, as applicable.

Significance After Mitigation

To the extent that a local agency requires an individual project to implement Mitigation Measure N-5, the appropriate design and building construction would ensure compliance with relevant plans or codes, and this impacts would be reduced to a less than significant level. However, even with implementation of Mitigation Measure N-5, noise from buildout of the proposed 2026 RTP/SCS land use scenario may continue to impact nearby noise sensitive receptors and exceed acceptable standards. This impact would remain significant and unavoidable. No additional mitigation measures to reduce this impact to less than significant levels are feasible.

4.12.4 Cumulative Impacts

IMPACT N-C-1 DEVELOPMENT IN THE CUMULATIVE IMPACT ANALYSIS AREA WOULD RESULT IN SIGNIFICANT CUMULATIVE IMPACTS RELATED TO CONSTRUCTION AND OPERATIONAL NOISE AND VIBRATION, AND EXCESSIVE NOISE IN PROXIMITY TO AIRPORTS. THE 2026 RTP/SCS CONTRIBUTION TO CUMULATIVE IMPACTS WOULD BE CUMULATIVELY CONSIDERABLE.

Noise resulting from roadway improvement projects envisioned in the proposed 2026 RTP/SCS could influence ambient noise levels in adjoining counties, if and where the projects are located in proximity to adjoining counties. Therefore, and because of the growth projected in adjoining counties, the cumulative impact analysis area for noise consists of the TCAG region and the adjoining counties. Information regarding these adjoining counties can be found in Chapter 4, *Environmental Impact Analysis, Cumulative Impact Methodology*. Future development in this region that would result in cumulatively significant noise impacts is considered in the analysis. A projections approach is used for the cumulative impact analysis.

Construction activities occurring throughout the TCAG region, including public infrastructure projects and private development, contribute to ongoing localized construction noise conditions that can temporarily exceed local noise standards. When multiple construction activities overlap, construction noise levels may increase beyond what would occur from any single activity. Construction associated with implementation of the proposed 2026 RTP/SCS transportation projects and the land use scenario it supports would add to these conditions. Individual transportation p and development projects are generally located far enough away from adjoining counties that construction noise would generally not combine with ambient noise levels in these areas. However, construction noise resulting from either the transportation projects or the land use scenario could combine with other ongoing noise or additional construction noise within the TCAG region, resulting in localized construction noise levels exceeding local standards. Cumulative impacts of construction noise would be significant. Given the number, geographic distribution, and extended implementation timeframe of transportation improvements and development envisioned under the 2026 RTP/SCS, construction noise associated with the plan would incrementally contribute to significant cumulative noise impacts within the region. Implementation of Mitigation Measure N-1 would reduce some project-level construction noise impacts; however, the proposed 2026 RTP/SCS contribution to the cumulative impact would be cumulatively considerable.

Traffic noise from roadways is generated predominantly from vehicles, such as the noise of engines or the noise generated from the friction between tires and the roadway surface. Generally, these noises affect ambient noise levels near the roadways. Across a broader geographic area, cumulative traffic activity on regional and inter-regional facilities can result in excessive noise conditions that exceed applicable thresholds. Implementation of the proposed 2026 RTP/SCS would increase traffic volumes on certain regional and inter-regional roadways, including facilities such as SR 99, in

response to projected growth and planned transportation improvements. As a result, the proposed 2026 RTP/SCS would contribute to traffic noise exceeding thresholds outside the region. The cumulative operational noise impact would therefore be significant, and despite implementation of Mitigation Measures N-2, the contribution of the proposed 2026 RTP/SCS to cumulative traffic noise impacts would be cumulatively considerable.

Construction associated with implementation of the proposed 2026 RTP/SCS transportation projects and the land use scenario it supports could result in significant construction related vibration impacts. Construction vibration from these activities could combine with vibration generated by other ongoing or reasonably foreseeable construction within the TCAG region, resulting in localized construction vibration levels exceeding applicable standards. Therefore, cumulative construction vibration impacts would be significant. The proposed RTP/SCS would contribute to these impacts, and this contribution would be cumulatively considerable, even after implementation of Mitigation Measure N-3(a).

Traffic growth associated with the implementation of the proposed 2026 RTP/SCS could result in increased roadway activity that could contribute to higher vibration levels on roadway segments throughout the cumulative impact analysis area. In combination with existing development , these increases could exceed applicable vibration thresholds in certain communities outside of the region. Even with implementation of Mitigation Measures N-3(b) the proposed 2026 RTP/SCS could contribute to a cumulative operational vibration impact that would be cumulatively considerable. Therefore, operational vibration impacts (Impact N-4) would be significant. The proposed 2026 RTP/SCS would incrementally contribute to these cumulative vibration conditions, and this contribution would be cumulatively considerable. Implementation of Mitigation Measure N-4 would reduce vibration levels by requiring site-specific analysis and feasible vibration-reducing measures; however, because traffic volumes and roadway conditions are typically outside the control of individual projects, and mitigation may not completely reduce vibration levels below applicable thresholds, impacts would remain significant. Accordingly, the proposed 2026 RTP/SCS's contribution to cumulative operational vibration impacts would remain cumulatively considerable both before and after implementation of Mitigation Measure N-4.

At a regional scale, the land use patterns supported by the proposed 2026 RTP/SCS, could result in residential or employment uses being located near existing airports or airstrips, where noise levels may exceed applicable thresholds. People residing or working in close proximity to existing airports could be exposed to excessive noise levels from aircraft. Therefore, the proposed 2026 RTP/SCS would contribute to the exposure of people residing or working in the area to excessive noise levels. The cumulative impact would be significant, and the overall contribution of the proposed 2026 RTP/SCS to exposure of people residing or working in the area to excessive noise levels, despite implementation of Mitigation Measure N-5. Impacts would be cumulatively considerable.

4.13 Population and Housing

This section analyzes the impacts of the proposed 2026 RTP/SCS associated with directly or indirectly inducing substantial unplanned population growth in an area or displacing substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. In addition, this section includes a discussion of employment, as it pertains to population and housing factors in the region.

4.13.1 Setting

a. Existing Population, Housing, and Employment

Existing population, housing units and employment for unincorporated Tulare County and the eight cities in the TCAG region are shown in Table 4.13-1. As of 2025, the region contained 487,209 residents, 158,315 housing units, 196,590 jobs, and 3.24 persons per household (TCAG 2025). From 2020 to 2024, the number of housing units in the TCAG region increased by approximately 1.65 percent. The median home price in the region is approximately $356,157 (Zillow 2026).

Table 4.13-1 2025 Population, Housing and Employment for the TCAG Region

Jurisdiction	Population	Housing Units	Jobs
Dinuba	26,025	7,422	8,001
Exeter	10,233	3,699	4,713
Farmersville	10,392	2,843	1,805
Lindsay	12,725	3,649	3,648
Porterville	63,622	19,492	22,025
Tulare	73,002	23,125	19,515
Visalia	146,978	51,461	84,105
Woodlake	8,005	2,456	1,749
Unincorporated County	134,401	44,168	51,029
TCAG Region Total	**487,209**	**158,315**	**196,590**

Source: TCAG 2025

b. Growth Forecasting

TCAG developed a new forecast for the proposed 2026 RTP/SCS based on the most comprehensive and up-to-date regional forecasts and projections available. The growth forecast for the proposed 2026 RTP/SCS incorporates substantial data available from projections published by the California Department of Finance, Demographic Research Office (DOF) in 2025. The growth forecast, based on TCAG projections, are much lower than in previous RTPs.

TCAG's proposed new growth forecast is summarized in Table 4.13-2 in Section 4.13.3, *Impact Analysis*. The growth forecast is used to support regional planning efforts such as the regional travel demand model and the proposed 2026 RTP/SCS, as well as local planning such as the development of general plans and project review.

4.13.2 Regulatory Setting

a. Federal Laws, Regulations, and Policies

Federal Uniform Relocation and Real Property Acquisition Policies Act

Federal Uniform Relocation and Real Property Acquisition Policies Act of 1970 The Federal Uniform Relocation and Real Property Acquisition Policies Act (Uniform Act), 42 U.S.C. Section 4601 et seq., passed by Congress in 1970, is a federal law that establishes minimum standards for federally funded programs and projects that require the acquisition of real property (real estate) or displace persons from their homes, businesses, or farms. The Uniform Act's protections and assistance apply to the acquisition, rehabilitation, or demolition of real property for federal or federally funded projects.

Title 23 CFR 450.322(f)

The Code of Federal Regulations, 40 CFR Section 93.110, requires that the Metropolitan Planning Organization update the regional transportation plan using the latest available estimates and planning assumptions for population, land use, travel, employment, congestion, and economic activity.

b. State Laws, Regulations, and Policies

California Relocation Assistance Act

The California Relocation Assistance Act of 1971 (Government Code Section 7260 et seq.) is similar to the Uniform Relocation Assistance Act of 1970. However, it applies to State and local programs and projects that receive State funding, regardless of whether they receive federal funding. The Act requires notification, counseling, social services, and financial assistance for persons displaced by transportation and land redevelopment projects. These procedural protections and benefits apply when the project causing the displacement has received State funding during any phase of the program or project, even if it did not receive federal funding.

Homeowners and Private Property Protection Act

Proposition 99, the Homeowners and Private Property Protection Act, was approved by voters in 2008. Proposition 99 amended the State Constitution and prohibits local agencies from using eminent domain to acquire owner-occupied residences and transferring them to private entities.

California Government Code, Section 65583

California Government Code Section 65583 specifies the State Housing Element requirements. The Housing Element is one of the State-mandated elements of the General Plan and is updated every eight years. The State Department of Housing and Community Development (HCD) is responsible for reviewing Housing Elements to ensure compliance with State law.

Regional Housing Needs Allocation

California Government Code Sections 65583(a)(1) and 65584 require that each Council of Government (COG) consult with HCD who determine each region’s existing and projected housing need through preparation of a Regional Housing Needs Determination (RHND). The COG is then

responsible for allocating a share of the regional housing need to each city and county based on a COG-approved methodology. The Regional Housing Needs Allocation (RHNA) Plan documents the preparation of the RHNA methodology and each jurisdiction's housing allocation. The existing and future need for housing is determined primarily by the forecasted growth in households in a community, based on historical growth patterns, job creation, household formation rates, and other factors to estimate how many households will be added to each community over the projection period. The housing need for new households is then adjusted to account for an ideal level of vacancy needed to promote housing choice, maintain price competition, and encourage acceptable levels of housing upkeep and repair. The RHND also accounts for units expected to be lost because of demolition, natural disaster, or conversion to non-housing uses. The sum of these factors—household growth, vacancy need, overcrowding, cost burden, and replacement need—form the "determination" assigned to each region. Finally, RHNA considers how each jurisdiction might grow in ways that will decrease the concentration of low-income households in certain communities. The need for new housing is distributed among income groups so that each community moves closer to the regional average income distribution. TCAG prepares the RHNA Plan for Tulare County.

Housing Element Law

California's Housing Element Law (Government Code Sections 65580–65589.8), enacted in 1969, requires local governments to adequately plan to meet the housing needs of all economic segments of their communities. It mandates adoption of land use plans and regulatory systems that provide feasible opportunities for housing development without undue constraints. HCD plays a central role in reviewing local housing elements for compliance and issuing written findings. The law was strengthened in 2007 by SB 2, which requires jurisdictions to identify sites for emergency shelters and limits local discretion to deny emergency, transitional, and supportive housing developments.

Since then, multiple reforms have further enhanced housing element law and related regulations. Notably, SB 7 (2025) expanded participation requirements to include households with special housing needs (e.g., elderly, disabled, and farmworkers) and required HCD to review and report on allocation methodologies in shorter time frames. Several 2024-2025 laws, including AB 1886, clarify and expand provisions of the Housing Accountability Act and the "Builder's Remedy," closing loopholes local governments used to resist housing approvals and clarifying the conditions under which housing elements are "substantially compliant" with state law.

Additional recent legislation has also introduced new penalties for jurisdictions that persistently violate housing element law and increased enforcement authority for HCD. These reforms facilitate more transparent public participation, require governmental constraint disclosures during housing element updates (as under AB 610, 2025), and continue to support CEQA streamlining for housing projects. Laws like SB 450 (2024) and SB 9 amendments further increase housing production feasibility by limiting local restrictions on subdivision and duplex developments.

Together, these ongoing legislative updates reinforce California's commitment to accelerating housing production, improving compliance with state housing goals, expanding protections for affordable housing developers, and ensuring that local plans comprehensively address a broad spectrum of housing needs.

Senate Bill 375

Senate Bill 375 (SB 375) (Chapter 728, Statutes of 2008) focuses on aligning transportation, housing, and other land uses to achieve regional greenhouse gas (GHG) emission reduction targets established under the California Global Warming Solutions Act. SB 375 requires California

metropolitan planning organizations to develop a SCS as part of the RTP. Among other things, the SCS must:

- Identify the general location of land uses, residential densities, and building intensities within the region;
- Identify areas within the region sufficient to house all the population of the region;
- Identify areas within the region sufficient to house an 8-year projection of the regional housing need;
- Identify a transportation network to service the regional transportation needs;
- Gather and consider the best practically available scientific information regarding resources areas and farmland in the region; and
- Consider the State housing goals; set forth a forecasted development pattern for the region; and allow the RTP to comply with the federal Clean Air Act of 1970 (42 U.S. Code Section 7401 et seq.).

SB 375 now synchronizes the schedules of the RHNA and RTP processes. The RHNA, which is adopted concurrently with the RTP every eight years, must also allocate housing units within the region consistent with the development pattern included in the SCS.

Existing law requires local governments to adopt a housing element as part of their general plan. Unlike the rest of the general plan, where updates sometimes occur at intervals of 20 years or longer, under previous law the housing element was required to be updated as frequently as needed and no less than every five years. Under SB 375, this period has been lengthened to eight years and timed so that the housing element period begins no less than 18 months after adoption of the RTP to encourage closer coordination between the housing and transportation planning completed by local governments and metropolitan planning organizations. SB 375 also changed the implementation schedule required in each housing element. Previous law required the housing element to contain a program that set forth a five-year schedule to implement the goals and objectives of the housing element. SB 375 instead requires this schedule of actions to occur during the eight-year housing element planning period and requires that each action have a timetable for implementation.

Senate Bill 330

The Housing Crisis Act of 2019 (SB 330) seeks to speed up housing production in the next half decade by eliminating some of the most common entitlement impediments to the creation of new housing, including delays in the local permitting process, and cities enacting new requirements after a housing development application is complete and undergoing local review—both of which can exacerbate the cost and uncertainty that sponsors of housing projects face. In addition to speeding up the timeline to obtain building permits, the bill prohibits local governments from reducing the number of homes that can be built through down-planning or down-zoning, or the introduction of new discretionary design guidelines.

Assembly Bill 130

Effective June 30, 2025, AB 130 introduces substantial reforms to streamline housing development under CEQA. The bill establishes a statutory CEQA exemption for qualifying infill housing projects located in urban areas up to 20 acres, provided they meet specific criteria such as adjacency to urban uses and avoidance of historic or environmentally sensitive sites. This exemption is designed

to reduce environmental review burdens for projects that align with local zoning and planning standards. AB 130 also makes permanent several provisions of the Permit Streamlining Act, including timelines for application completeness and project approval, and limits the number of public hearings for qualifying housing projects. In addition, the bill codifies elements of the Housing Accountability Act and SB 330, including protections for vested rights and restrictions on growth control measures. A notable provision is the statewide freeze on residential building code updates from October 1, 2025, through June 1, 2031, which aims to reduce regulatory uncertainty and development costs. AB 130 also enhances the role of the California Department of Housing and Community Development in overseeing RHNA methodologies, further aligning local planning efforts with state housing goals.

Senate Bill 131

SB 131, effective June 30, 2025, complements AB 130 by focusing on CEQA streamlining for infrastructure and public-serving projects. It introduces a new review pathway for "near miss" projects—those that narrowly fail to qualify for a CEQA exemption due to a single disqualifying condition. Under this provision, CEQA review is limited to the environmental effects of that specific condition, and such projects are exempt from analyzing alternatives or growth-inducing impacts. SB 131 also creates or expands CEQA exemptions for a range of project types, including advanced manufacturing facilities on industrial-zoned land, broadband infrastructure in public rights-of-way (ROW), updates to climate adaptation plans, High-Speed Rail maintenance facilities, and local rezoning actions that implement Housing Element commitments. In addition, the bill mandates biennial updates to *CEQA Guidelines* to ensure regulations are current, mitigate litigation, and streamline housing and infrastructure development. These changes reflect a broader policy shift toward facilitating development while maintaining targeted environmental protections, and they are expected to significantly impact the planning and approval processes for both housing and infrastructure projects across California.

California Government Code Section 7261(a)

Section 7261(a) of the California Government Code requires that programs or projects undertaken by a public entity must be planned in a manner that (1) recognizes, at an early stage in the planning of the programs or projects and before the commencement of any actions which will cause displacements, the problems associated with the displacement of individuals, families, businesses, and farm operations, and (2) provides for the resolution of these problems in order to minimize adverse impacts on displaced persons, and to expedite program or project advancement and completion. The displacing agency must ensure the relocation assistance advisory services are made available to all persons displaced by the public entity. If the agency determines that any person occupying property immediately adjacent to the property where the displacing activity occurs is caused substantial economic injury as a result of the displacement, the agency may also make the advisory services available to that person.

c. Local Laws, Regulations, and Policies

The TCAG Regional Housing Needs Plan establishes the methodology used to distribute the housing need among jurisdictions, consistent with State housing policy objectives such as promoting infill development, improving the jobs–housing balance, expanding access to opportunity, and affirmatively furthering fair housing. Based on this, TCAG assigned each jurisdiction a specific RHNA allocation for the 2023–2031 housing cycle. Local jurisdictions must demonstrate in their Housing

Elements how they will accommodate their assigned RHNA through adequate zoning, site inventories, and housing programs. The Tulare County Regional Housing Element supports implementation of the RHNA by providing regional data, analysis, and coordinated strategies to help jurisdictions plan for and facilitate housing development consistent with their allocations (Tulare County 2025).

San Joaquin Valley Regional Blueprint

TCAG is an active participant in the development of the San Joaquin Valley Regional Blueprint, which developed a cohesive regional framework that defines and offers alternative solutions to growth related issues for the Valley. The process was overseen by the San Joaquin Valley Regional Policy Council, while each county—including Tulare County under TCAG's leadership prepared its own countywide blueprint that was incorporated into the Valleywide framework. The process involves the integration of transportation, housing, land use, economic development, and the environment to produce a preferred growth scenario to the year 2050. This represents Tulare County's local vision and goals as a participant in the San Joaquin Valley Regional Blueprint process aimed at guiding planning for the cities and County in the TCAG region; these are recommendations, not required policies (San Joaquin Valley Regional Policy Council 2010). Goals and objectives contained in the Tulare County Regional Blueprint include the following (2026 RTP/SCS Appendix 1-I):

- **Housing Vision**: A variety of housing options available to all income, age, and cultural groups.
- **Goal:** Provide a variety of affordable and quality housing choices throughout the region for people of all income levels and abilities.
- **Objectives:**
  - Promulgate and promote adoption of community design guidelines that will ensure strong neighborhoods, increase efficiency by promoting green building practices, integrate housing with jobs and schools, improve mobility and health by promoting walking and biking, improve air quality by reducing the trip generation, and increase infrastructure cost-effectiveness through efficient land use.
  - Increase the overall average density of new development. Ensure safe and healthy communities that provide a variety of housing types with increased opportunities for homeownership.
  - Provide incentives for local jurisdictions to meet their housing needs.
  - Provide an adequate supply of housing for our region's workforce and adequate sites to accommodate business expansion and retention to minimize interregional and long-distance commuting.
  - Conserve and rehabilitate the existing housing stock, while minimizing the displacement of lower income and minority residents as redevelopment and revitalization occurs.

Local General Plans and Housing Elements

General plans can be described as a city or county's "blueprint" for future development. They represent the community's view of its future; a constitution made up of the goals and policies upon which the planning commission and the city council and/or board of supervisors will base their land use decisions. To illustrate its importance, all subdivisions, public works projects, and zoning decisions (except in charter cities) must be consistent with the general plan. State law requires that each city and each county adopt a general plan containing the following seven components or "elements": land use, circulation, housing, conservation, open-space, noise, and safety (California

Code sections 65300 et seq.), plus air quality for San Joaquin Valley cities and counties and environmental justice if there exists at least one "disadvantaged community" per SB 1000. At the same time, each jurisdiction is free to adopt a wide variety of additional elements covering subjects of particular interest to that jurisdiction such as recreation, urban design, or public facilities.

Pursuant to SB 375, Housing Elements are required to be updated every eight years. Within the TCAG region, Tulare County and the incorporated cities within each contain a periodically updated housing element. Each city emphasizes an array of affordable housing units that allow every resident of the County to attain a safe and sanitary living environment. Though each city differs regarding specific land use strategies to attain these goals, the lack of affordable housing is a common theme throughout the County; a plan to address this issue is a common theme throughout the region and addressed in the County's and incorporated cities' housing element updates.

Tulare County Regional Housing Element

The 6th Cycle County Regional Housing Element is a comprehensive assessment of current and future housing needs for all segments of the County's population living in unincorporated areas, as well as a program for meeting those needs. The Tulare County Regional Housing Element serves as a policy guide to address current housing issues, as well as the comprehensive housing needs of the unincorporated areas of Tulare County during the 2023 to 2031 planning period and beyond. The provision of decent, safe, sanitary and affordable housing for current and future residents of the unincorporated areas of Tulare County is the primary focus of the Housing Element. Additionally, the Housing Element places special emphasis on certain segments of the population, such as the elderly, the disabled, single-parent households, teenage parents, large families, farmworkers, overcrowded households, residents of group quarters, ethnic or racial minorities, veterans, and the homeless; as these groups may have more difficulty in finding decent and affordable housing due to their special needs and the challenges presented by living in disadvantaged communities for many of those residents (Tulare County 2025).

City of Dinuba Housing Element

The City of Dinuba's 6th Cycle Housing Element (2023–2031) outlines a comprehensive strategy to accommodate projected housing needs across all income levels, consistent with its RHNA allocation. The Housing Element includes site inventory analyses, zoning and development programs, and policies to remove constraints to housing production, while supporting affordability, a range of housing opportunities, and compliance with fair housing requirements (City of Dinuba 2025).

City of Exeter Housing Element

The City of Exeter's 6th Cycle Housing Element (2023–2031) outlines a comprehensive strategy to accommodate projected housing needs across all income levels, consistent with its RHNA allocation. The Housing Element includes site inventory analyses, zoning and development programs, and policies to reduce constraints to housing production, while promoting affordability, a diversity of housing types, and compliance with fair housing requirements (City of Exeter 2024).

City of Farmerville Housing Element

The City of Farmersville's 6th Cycle Housing Element (2023–2031) outlines a comprehensive strategy to accommodate projected housing needs across all income levels, consistent with its RHNA allocation. The Housing Element includes site inventory analyses, zoning and development programs, and policies to reduce constraints to housing production, while promoting affordability, a

range of housing opportunities, and compliance with fair housing requirements (City of Farmersville 2025).

City of Lindsay Housing Element

The City of Lindsay's Housing Element outlines a comprehensive strategy to address housing needs across all income levels, consistent with its RHNA. The Housing Element includes a detailed assessment of housing needs, evaluation of constraints to housing development, and an inventory of adequate sites to accommodate future growth. It establishes goals, policies, and programs focused on facilitating housing development, promoting affordability, improving existing housing conditions, and addressing the needs of special populations, while ensuring compliance with State Housing Element Law (City of Lindsay 2019).

City of Porterville Housing Element

The City of Porterville's 6th Cycle Housing Element (2023–2031) outlines a comprehensive strategy to plan for housing demand across all income categories, consistent with its RHNA allocation. The Housing Element includes site inventory analyses, zoning and development programs, and actions to reduce constraints to housing production, while promoting affordability, housing choice, and fair housing (City of Porterville 2024).

City of Tulare Housing Element

As part of the City of Tulare General Plan, the City of Tulare's 6th Cycle Housing Element (2023–2031) establishes policies and programs to facilitate the development, improvement, and preservation of housing for all income levels, consistent with State Housing Element Law. The Housing Element identifies adequate sites to accommodate the City's RHNA and includes measures to address governmental and non-governmental housing constraints, promote fair housing, and support special-needs populations (City of Tulare 2025).

City of Visalia Housing Element

The City of Visalia's 6th Cycle Housing Element (2023–2031) establishes policies and implementation programs to accommodate its assigned RHNA and to promote the development of housing for very-low, low-, moderate-, and above-moderate-income households. The Housing Element identifies adequate and appropriately zoned sites, addresses housing constraints, and includes programs promoting infill development, affordability, and fair housing (City of Visalia 2024).

City of Woodlake Housing Element

The City of Woodlake's 6th Cycle Housing Element (2023–2031) outlines a comprehensive strategy to accommodate projected housing needs across all income levels, consistent with its RHNA allocation. The Housing Element includes site inventory analyses, zoning and development programs, and policies to reduce constraints to housing production, while promoting affordability, a range of housing opportunities, and compliance with fair housing requirements (City of Woodlake 2024).

4.13.3 Impact Analysis

a. Methodology and Significance Thresholds

The methodology for determining the significance of population and housing impacts compares the existing conditions to projected future horizon year 2049 conditions, as required in CEQA Section 15126.2(a). The 2026 RTP/SCS includes transportation projects and a land use growth pattern that would influence population, housing, and employment growth. The analysis herein analyzes the potential impacts of transportation projects and the land use pattern proposed in the 2026 RTP/SCS.

Appendix G of the *CEQA Guidelines* identifies the following criteria for determining whether a project's impacts would have a significant impact to population and housing:

1. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or
2. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

b. Project Impacts and Mitigation Measures

The following section discusses potential impacts and mitigation measures that may be associated with transportation projects and the land use scenario contained within the proposed 2026 RTP/SCS. Due to the programmatic nature of the proposed 2026 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 improvement projects and future projects under the land use scenario envisioned by the proposed 2026 RTP/SCS could result in the impacts as described in the following section.

Threshold 1:	Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Impact POP-1 TRANSPORTATION AND LAND USE PROJECTS IMPLEMENTING THE PROPOSED 2026 RTP/SCS WOULD NOT INDUCE SUBSTANTIAL UNPLANNED POPULATION GROWTH, EITHER DIRECTLY OR INDIRECTLY. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

From 2025 to 2049, the region's total population is forecasted to increase from 487,209 residents to 540,925 total residents, a projected increase of 53,716 residents. Table 4.13-2 shows the forecasted population growth for the region as a whole between 2025 and the 2026 RTP/SCS buildout year of 2049.

Table 4.13-2 Forecasted Population, Housing and Employment TCAG Region

Year	Population	Housing Units	Jobs
2025	487,209	158,315	196,590
2030	505,089	170,876	207,910
2035	521,065	182,656	213,250
2040	532,471	192,620	218,090
2045	538,978	200,168	222,200
2049	540,925	204,737	225,030

Source: Draft 2026 RTP/SCS. Chapter C, Table SCS

The general distribution of land uses in the SCS used to develop the forecast is based on the existing, adopted general plans of Tulare County and the eight cities. The principles of the proposed SCS guided the allocation of future development sufficient to accommodate the forecasted growth in population, households, and employment through 2049. The theme of the SCS is that moderately higher density, applied thoughtfully as an element of urban design and development, would improve regional jobs-housing fit. This, in turn, would leverage the ability of local agencies to implement projects that achieve better air quality and improved mobility options. This type of planned growth would minimize unplanned population growth by providing sufficient land throughout the TCAG region to accommodate the anticipated growth through 2049, reducing pressure to develop in non-urban lands not currently planned for urban development.

The proposed 2026 RTP/SCS would accommodate planned population growth directly through the development of the SCS land use scenario and indirectly as a result of the transportation projects included in the proposed 2026 RTP/SCS. Between 2025 and 2049, the TCAG region would grow by 53,716 people, 46,422 housing units, and 28,440 jobs. The land use scenario envisioned by the proposed 2026 RTP/SCS would encourage infill, mixed-use, and transit oriented development within existing urbanized areas and along transit routes. This type of development would promote the use of existing vacant or underutilized properties and would locate people closer to existing employment, goods, and services within established communities. In addition, investments in alternative modes of transportation and an emphasis on infill and transit oriented development would result in land use developments with higher densities, mixed-use land uses and an emphasis on transit use, bike and walk over single occupancy vehicle use, while investments in capacity increasing roadway improvements may indirectly lead to land use developments that have been historically typical for suburban development with lower densities.

Government Code Section 65080(b)(2)(B)(ii) requires that an RTP/SCS must identify areas within the region sufficient to house all the population of the region, including all economic segments of the population, over the course of the planning period of the regional transportation plan. In compliance with the requirements, the proposed 2026 RTP/SCS includes strategies to accommodate new housing units through 2049. The SCS identifies areas within the region sufficient to house projected population, based on local planning to accommodate anticipated growth through 2049, and consistent with the adopted housing elements of the County and cities. The housing strategies would continue the TCAG region's commitment to growth in infill areas but are also intended to protect current residents from displacement, preserve existing affordable housing, and produce new housing to secure long-term affordability for lower income populations. The proposed SCS has enough housing capacity to accommodate the current RHNA allocations for the current

cycle (6th Cycle) through 2031, and local governments are responsible for accommodating their 6th Cycle RHNA allocations in their housing element updates.

Implementation of the proposed 2026 RTP/SCS land use development pattern would in some cases encourage greater density/intensity of growth than included in current adopted local general plans. This is because the 2026 RTP/SCS is designed to meet long-term sustainability and climate goals, such as reducing greenhouse gas emissions, by promoting compact, transit oriented development, which may exceed the density/intensity levels currently permitted by local jurisdictions. The 2026 RTP/SCS would not change local land use policies; individual jurisdictions retain land use authority. As such, implementation of the 2026 RTP/SCS would require the local jurisdiction to consider and resolve those differences through appropriate amendments to local planning documents, including Housing Element updates, and appropriate environmental review, thus avoiding impacts related to unplanned growth at the local level.

The 2026 RTP/SCS would accommodate forecasted growth through implementation of the envisioned 2026 RTP/SCS land use strategies which intensify density in developed areas and reduce unplanned growth.

Transportation projects included in the 2026 RTP/SCS would not induce population growth as these projects would be growth accommodating and are generally intended to improve existing transportation networks. The transportation projects included in the proposed 2026 RTP/SCS are projected to reduce vehicle miles traveled (VMT) per capita slightly compared to 2025 baseline conditions; however, total regional VMT would increase, and the reduction in VMT per capita would not meet the 15 percent below baseline significance threshold; see Section 4.15, *Transportation,* for additional information. By improving community connectivity, expanded transit fleets would support more compact, sustainable, and efficient development without inducing the type of population growth that would require development of more land for urban purposes.

The land use and transportation projects in the 2026 RTP/SCS would therefore not result in substantial unplanned population growth. Impacts from implementation of the proposed 2026 RTP/SCS would be less than significant.

Mitigation Measures

Mitigation measures are not required because this impact would be less than significant.

Threshold 2:	Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Impact POP-2 TRANSPORTATION AND LAND USE PROJECTS IMPLEMENTING THE PROPOSED 2026 RTP/SCS WOULD TEMPORARILY DISPLACE EXISTING HOUSING AND PEOPLE BUT WOULD NOT NECESSITATE THE CONSTRUCTION OF REPLACEMENT HOUSING ELSEWHERE. IMPACTS WOULD BE LESS THAN SIGNIFICANT

Land use development implementing the proposed 2026 RTP/SCS would likely displace some existing housing and people, primarily low and medium density single family, or multi-family dwelling units, as existing housing units are demolished to make way for new development. However, new residential development would generally occur at higher densities, frequently as part of mixed-use development. During construction of individual projects, residents may be temporarily displaced. However, vacancies within the existing housing stock would absorb displacement of residents.

Transportation project under the proposed 2026 RTP/SCS would also not result in any significant housing displacement impacts. Existing laws and regulations require assistance in relocating impacted households for federally funded transportation projects. As described in Section 4.12.2, *Regulatory Setting,* the Federal Uniform Relocation and Real Property Acquisition Policies Act requires public agencies to provide relocation assistance when an action by the agency displaces residences, and California Government Code Section 7261(a) requires displacement advisory services. Thus, impacts from short-term displacement would be reduced through both existing regulation and vacancies within the existing housing stock.

In the long run, the proposed 2026 RTP/SCS would result in a net increase in housing units. Between 2025 and 2049, the projected increase in housing capacity in the region would be 46,422 units, or an increase of 29 percent. The proposed 2026 RTP/SCS would result in a net increase in housing units, but would displace existing housing or people temporarily, as some residential structures are demolished to make way for new development. However, displacement would not be substantial and would be minimized through existing housing programs within the TCAG region. Displacement would not necessitate the construction of substantial replacement housing. In effect, the proposed 2026 RTP/SCS includes the replacement housing that would be necessitated by individual projects.

Some transportation network improvements, such as road widening or extension projects, would require acquisition of right-of-way in areas with high density housing or business along transportation corridors and may displace residential or commercial units. Specific projects would be required to undergo separate project specific environmental review under CEQA. The corresponding project specific environmental documentation would identify potentially significant impacts with regard to displacement of private property, if any, and provide the appropriate mitigation measures. Impacts from transportation improvements would implement relocation assistance in accordance with the Federal Uniform Relocation and Real Property Acquisition Policies Act of 1970. In addition, as noted above, the proposed 2026 RTP/SCS would result in a net increase of 46,422 housing units in the region. Therefore, in effect, the proposed 2026 RTP/SCS includes any replacement housing that would be necessitated by individual projects.

As a result, impacts of the proposed 2026 RTP/SCS related to housing and population displacement would be less than significant because construction of new replacement elsewhere would not be required.

Mitigation Measures

Mitigation measures are not required because this impact would be less than significant.

4.13.4 Cumulative Impacts

IMPACT POP-C-1 POPULATION GROWTH IN THE CUMULATIVE IMPACTS ANALYSIS AREA IS GENERALLY PLANNED, AND CUMULATIVE IMPACTS TO UNPLANNED GROWTH WOULD BE LESS THAN SIGNIFICANT. DEVELOPMENT IN THE CUMULATIVE IMPACT ANALYSIS AREA WOULD RESULT IN THE TEMPORARY OR PERMANENT DISPLACEMENT OF HOUSING, BUT DISPLACEMENT WOULD BE LOCALIZED AND WOULD NOT RESULT IN DISPLACEMENT AT THE REGIONAL SCALE. CUMULATIVE POPULATION AND HOUSING DISPLACEMENT IMPACTS WOULD BE LESS THAN SIGNIFICANT. CUMULATIVE POPULATION AND HOUSING IMPACTS WOULD BE LESS THAN SIGNIFICANT, AND THE 2026 RTP/SCS CONTRIBUTION TO CUMULATIVE IMPACTS WOULD NOT BE CUMULATIVELY CONSIDERABLE.

The cumulative impact analysis area for population and housing consists of the TCAG region and adjoining counties. Information regarding these adjoining counties can be found at the beginning of Chapter 4, *Environmental Impact Analysis*. Using the projection approach, this cumulative extent is used to evaluate potential unplanned population growth or displacement of housing, within the context of region. This is an acceptable extent for the cumulative impacts analysis area because the 2026 RTP/SCS would not influence population and housing trends in more distant counties in northern and southern California since housing forecasts, targets, and planned development as highlighted in the 2026 RTP/SCS and adjoining counties' RTP/SCSs are based on regional needs and region-specific growth forecasts. A determination is made as to whether cumulative impacts would be significant, and whether the 2026 RTP/SCS incremental contribution would be cumulatively considerable. Refer to Chapter 4, *Environmental Impact Analysis, Cumulative Impact Methodology.*

Development in the cumulative impacts analysis area would result in population and housing growth, as detailed in Chapter 4, *Environmental Impact Analysis, Cumulative Impact Methodology*. Generally, the population growth in the cumulative impacts analysis area is planned for in general plans developed and adopted by counties and cities in the area. The general plans and zoning ordinances of counties and cities also designate areas for housing development to accommodate planned population growth. While some development may require the demolition of existing housing, each county and city in the cumulative impacts assessment area must continue to demonstrate it can meet housing requirements established through the RHNA program.

Additional population, housing, and employment, as forecasted, would occur in the TCAG region with or without implementation of the proposed 2026 RTP/SCS. The proposed 2026 RTP/SCS provides a strategy to accommodate growth in such a way as to achieve a more balanced jobs/housing ratio and to optimize transportation projects that support those land uses. The land use scenario assumes a number of residential units adequate to meet the forecasted demand, taking into account localized displacement of some households within the region. Therefore, implementation of the proposed 2026 RTP/SCS would not result in displacement at the regional scale, and localized displacement would not be expected to increase development in areas surrounding the TCAG region.

Therefore, cumulative induced growth impacts, and population and housing displacement impacts, would be less than significant, and the 2026 RTP/SCS's contribution to the cumulative impacts related to population and housing would not be cumulatively considerable.

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4.14 Public Services and Recreation

This section analyzes the impacts of the proposed 2026 RTP/SCS on public services and recreational facilities.

4.14.1 Setting

a. Fire Protection Services

Tulare County is served by a variety of fire protection services, which include federal, state, county, and local fire protection services. Table 4.14-1 lists fire service providers and stations in the TCAG Region.

On the local level, the County's three largest cities (Visalia, Tulare, and Porterville) all have their own fire departments which serve within their own area of responsibilities. Unincorporated portions of Tulare County are generally served by the Tulare County Fire Department; however, mutual aid agreements with the County's Fire Department and other fire protection services can be called upon for fire support. Generally, fire departments take proactive and preventative measures to provide fire suppression and emergency response services for all private, institutional, and public facilities within their area of responsibility.

Bureau of Land Management

The Bureau of Land Management (BLM) is a federal agency which manages the nation's subsurface mineral resources under the U.S. Department of the Interior. The land and minerals under BLM authority include, but are not limited to, forests, mountains, and rangelands. BLM operates the Fire and Aviation program which works with state and field offices to provide a fire and aviation management program. BLM's fire and aviation program has three organizational levels: (1) the national office which provides leadership and oversight, and develops policy, procedures and budgets for the fire and aviation program; (2) state offices which are responsible for coordinating policies and interagency activities within their state; and (3) field offices which are responsible for on-the-ground fire management and aviation activities, often partnering with other agencies to maximize rapid initial attack.

BLM plays a primary role in the nation's wildland fire management efforts and undertakes a broad range of activities to protect the public, natural landscape, wildlife habitat, and recreational areas. BLM trains firefighters in fire suppression, preparedness, predictive services, vegetative fuels management, prescribed fire, community assistance and protection, and education.

U.S. Forest Service

The U.S. Forest Service (USFS) is a federal agency under the U.S. Department of Agriculture and works with other agencies to manage wildland fires that threaten lives, homes, communities, and natural and cultural resources (USFS 2021). USFS provides assistance with fire protective services, especially within the Sequoia National Forest.

Division of Forestry and Wildland Fire Management

The U.S. Department of the Interior's Indian Affairs oversees Tribal forestry and fire protection services through two coordinated programs: the Division of Forestry and the Division of Wildland

Fire Management. The Division of Forestry administers the National Indian Forestry Program in cooperation with Tribal governments, and the Division of Wildland Fire Management provides wildland fire protection, preparedness, and ecosystem management on federal trust lands for federally recognized Tribes, in collaboration with Tribal, federal, state, county, and local agencies (U.S. Department of Indian Affairs 2026a, U.S. Department of Indian Affairs 2026b). The Tule River Tribe and Reservation is a federally recognized tribe of Native Americans located on the eastern side of Tulare County and the Tule River Fire Department supports fire protection services within the Reservation (Tule River Indian Tribe of California 2024).

California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (CAL FIRE) provides fire protection services to California's privately-owned wildlands and works in collaboration with counties and local governments to provide emergency services. CAL FIRE maintains eight fire stations throughout Tulare County as listed in Table 4.14-1 (CAL FIRE 2025). CAL FIRE responds to medical aids; hazardous material spills; swift water rescues; search and rescue missions; civil disturbances; train wrecks; floods; earthquakes and more (CAL FIRE 2026).

Table 4.14-1 Fire Service Providers and Stations in the TCAG Region

Name	Location
CAL FIRE Tulare Unit	
Visalia Station	1968 S Lovers Ln. Visalia, CA 93292
Badger Station	50601 Highway 245, Miramonte, CA 93641
Woodlake Station	35802 Olivera Dr., Woodlake, CA 93286
Visalia Station (Tulare Unit Headquarters)	1968 South Lovers Ln. Visalia, CA 93292
Three Rivers Station	40900 Sierra Dr., Three Rivers, CA 93271
Porterville Station	26488 Ave 140, Porterville, CA 93257
Bear Creek Station	39582 Balch Park Rd., Springville, CA 93265
Fountain Springs Station	5560 Old Stage Road, Porterville, CA 93257
Tulare County Fire Department	
Tulare County Fire Station #1	25456 Road 140, Visalia, CA 93292
Kings River Fire Station # 2	3811 Avenue 400, Kingsburg CA 93631
Dinuba Fire Station #3	40404 Road 80, Dinuba, CA 93618
Cutler-Orosi Fire Station #4	40779 Road 128, Cutler, CA 93615
Cal Hot Springs Station #6	45122 Manter Meadow Drive, Cal Hot Springs 93207
Goshen Fire Station #7	30901 Road 67, Goshen, CA 93291
Ivanhoe Fire Station #8	32868 Hawthorne Road, Ivanhoe, CA 93235
Alpaugh Fire Station #9	3939 Avenue 54, Alpaugh, CA 93201
Richgrove Fire Station #10	20890 Grove Drive, Richgrove, CA 93261
Exeter Fire Station #11	137 North "F" Street, Exeter, CA 93291
Lemon Cove Fire Station #13	32490 Highway 198, Lemon Cove, CA 93244
Three Rivers Fire Station #14	41412 South Fork Drive, Three Rivers, CA 93271
Lindsay Fire Station #15	19603 Avenue 228, Lindsay, CA 93247

Name	Location
Strathmore Fire Station #16	22908 Avenue 196, Strathmore, CA 93267
Badger Fire Station #17	51345 Eshom Valley Drive, Badger, CA 93603
West Olive Fire Station #19	22315 Avenue 152 Porterville, CA 93257
Doyle Colony Fire Station #20	551 East Success Drive, Porterville, CA 93257
Terra Bella Fire Station #21	23658 Avenue 95, Terra Bella, CA 93270
Springville Fire Station #22	35659 Highway 190, Springville, CA 93265
Camp Nelson Fire Station #23	1500 Nelson Drive, Camp Nelson, CA 93208
Tulare Fire Station #25	2082 Foster Drive, Tulare, CA 93274
Tipton Fire Station #26	241 South Graham Road, Tipton, CA 93272
Pixley Fire Station #27	200 North Park Drive, Pixley, CA 93256
Earlimart Fire Station	808 East Washington, Earlimart, CA 93219
Posey Fire Station #5	45656 Old Stage Road, Posey, CA 93260
Kennedy Meadow Fire Station #18	99075 Goman Road, Inyo-Kern, CA 93527
Visalia Fire Department	
Fire Station #51	309 South Johnson Street, Visalia, CA 93291
Fire Station #52	2224 West Monte Vista, Visalia, CA 93277
Fire Station #53	5025 West Walnut Avenue, Visalia, CA 93277
Fire Station #54	440 West Ferguson Street, Visalia, CA 93291
Fire Station #55	6921 West Ferguson Avenue, Visalia, CA 93291
Fire Station #56	1968 South Lovers Lane, Visalia, CA 93292
Porterville Fire Department	
Fire Station #71	40 West Cleveland Avenue, Porterville, CA 93257
Fire Station #72	500 North Newcomb Street, Porterville, CA 93257
Fire Station #73	980 South Jaye Street, Porterville, CA
Tulare Fire Department	
Fire Station #61	800 South Blackstone Street, Tulare, CA 93274
Fire Station #62	138 North E Street, Tulare, CA 93274
Fire Station #63	2900 North M Street, Tulare, CA 93274

Sources:
CAL FIRE 2025
Tulare County Fire Department 2026
City of Visalia 2026
City of Porterville 2026a
City of Tulare 2026a

County and City Fire Departments

The Tulare County Fire Department responds to regional based needs across the County and provides services such as, but not limited to, responding to fires, medical emergencies, motor vehicle collisions, technical rescues, and other life threatening or dangerous conditions. The Tulare County Fire Department maintains goals consistent with National Fire Protection Association (NFPA) Standards, which are shown in Table 4.14-2, with service providers and facility locations identified in Table 4.14-1.

Table 4.14-2 Tulare County Fire Department Response Time Goals – NFPA Standards

Demand Zone	Demographics (persons/mile)	Staffing/Response Time (FF/min.)[1]	Percent of Calls (%)
Urban	Greater than 1000	15 FF/9 min.	90
Suburban	500-1000	10 FF/10 min.	80
Rural	Less than 500	6 FF/14 min.	80
Remote[2]	Travel distance less than 8 mi.	4 FF	90

Source: Tulare Fire Department. 2021

Notes:

[1] FF/min. = Firefighter per minute

[2] Upon assembling the necessary resources at the emergency scene, the fire department should have the capability to safely commence an initial attack within two minutes 90% of the time.

b. Police Protection Services

Primary law enforcement is at the community level, with city police and County Sheriff's departments providing this service. Additionally, there are more specialized law enforcement agencies that assist in law enforcement at the community or resource level. These specialized agencies include, but are not limited to the California Highway Patrol, School Police, Airport Police, Park Rangers (federal, State, County, and city), and a wide variety of federal agencies (e.g., FBI, ATF). Each agency has its own responsibilities, some of which may overlap with other law enforcement agencies. State Park Rangers may call upon Sheriff's Deputies for assistance.

California Highway Patrol

The California Highway Patrol (CHP) enforces state and local regulations along interstate and state highways. While monitoring the roadways the CHP provides traffic regulation enforcement, accident management, and assistance to stopped motorists. The CHP maintains two offices in Tulare County, located at 861 West Morton Avenue in Porterville and 5025 West Noble Avenue in Visalia. When necessary, the CHP coordinates with both the Tulare County's Sheriff Department and the six local police departments (Dinuba, Exeter, Farmersville, Lindsay, Porterville, Tulare, Visalia, and Woodlake Police Departments).

Tulare County Sheriff's Department

The Tulare County Sheriff's Department provides police services to unincorporated portions of the County. The County Sheriff's headquarters is located at 833 S. Akers Street in Visalia. The County's Sheriff's substations (Cutler-Orosi Substation, Pixley Substation, and Porterville Substation) are located throughout the County to provide further localized support and safety to the surrounding communities. As of 2026, the Sheriff's department employed approximately 586 sworn and 271 civilian employees (Tulare County Sheriff's Department 2026). Within those employed by the Sheriff's department, staff members are deployed at substations, at court services, and with detention operations. The Sheriff is an elected position; all other positions are County employees.

The Sheriff's administrative services include personnel and training; court services; and patrol services. The court services' main responsibilities are to ensure the safety of judges, attorneys, witnesses, defendants, jurors, and the general public at Tulare County Superior Court locations. The Civil unit serves a variety of court documents and processes through the collection of fees for the general public. The Personnel and Training unit is tasked with hiring, training, promoting, and equipment of Sheriff staff members. This unit also includes Internal Affairs for allegations of

misconduct by Sheriff's deputies and civilian staff. The Patrol Services unit provides the Sheriff's office with a variety of services to assist in investigations, cooperation with other law enforcement agencies, administrative tasks, and public relations.

City Police Departments

Each of the cities operate their own police department with specific rules and regulations which residents and visitors must abide by when in the local jurisdictions. A majority of the Tulare County Sheriff's substations are located in or adjacent to the eight incorporated cities. The Tulare County Sherriff's Department remains the primary law enforcement agency for unincorporated areas and coordinates with city police departments as needed. Although each of the incorporated cities (Dinuba, Exeter, Farmersville, Lindsay, Portersville, Tulare, Visalia, and Woodlake) operates its own police department, Sherriff's patrol facilities also provide localized services and support.

c. Schools

Several institutions within Tulare County provide public education facilities and services to residents including elementary schools, middle schools, secondary schools, and community colleges, as well as special and adult education.

Tulare County's Office of Education

The Tulare County Superintendent of Schools, Tulare County's Office of Education, oversees, governs, and supports all of the Tulare County kindergarten through 12th grade (K–12) school districts. During the 2024-2025 school year, the Office of Education oversaw 33 elementary school districts, nine unified districts, and one high school district (Education Data Partnership 2026). Charter schools and private schools are also located throughout the County. For the 2024-2025 school year, there were over 100,000 students enrolled in 193 public schools[1] (including charter schools) across the county's school districts, which range from small to large (Education Data Partnership 2026). Hot Springs School District has 10 students and 2 teachers, whereas Visalia Unified has over 28,000 students and 1,309 teachers (California Department of Education 2026). Despite the range in size, most of the districts within the county are considered small with fewer than 2,500 students, and more than half of the districts serve fewer than 1,000 students each (California Department of Education 2026).

Tulare County Superintendent of Schools leads the Office of Education through staff development and trainings, new curriculum and instructional procedures, as well as library and media technology services. The County is third in the State with the most districts served behind Kern and Los Angeles counties. The services vary and are geographically dispersed throughout rural and urban areas.

Facility planning for public schools is generally based on student generation rates. The student generation rates are compared against current capacity of individual school facilities that would be affected by the growth. Historical data and future plans for an area are used to project the number of students that will eventually be a part of the community. Student generation rates vary by jurisdiction and type of development.

[1] This data includes schools of the following types: Alternative, County Community, Junior High, Middle, Community Day, Elementary, Juvenile Court, High School, K-12, and Special Education Schools.

Community Colleges

There are two community colleges in Tulare County. The College of the Sequoias is part of the California Community College system. College of the Sequoias is a two-year California community college offering educational and enrichment programs for the residents of its district in Tulare and Kings counties. The college was established in 1926 and moved to its current 62-acre main campus in Visalia in 1940. The second campus in the TCAG region is located in the City of Tulare. The Sequoias District opened The Tulare College Center in January 2013. It is a full-service college center and the home of the College of the Sequoias agriculture programs (College of Sequoias 2022).

Porterville College, established in 1927, is located in southeastern Tulare County and has been part of Kern Community College District since 1967. It is also a two-year California Community College located on approximately 85 acres. It offers educational programs for business, liberal arts, science, sports, and features a horticulture complex (Porterville College 2022).

d. Libraries

Tulare County operates 17 libraries throughout the TCAG region. Libraries are located in Alpaugh, Dinuba, Earlimart, Exeter, Farmersville, Ivanhoe, Lindsay, London, Orosi, Pixley, Springville, Strathmore, Terra Bella, Three Rivers, Tipton, Visalia, and Woodlake. In addition, Tulare County Library operates an Administration facility and Literary Center in Visalia (Tulare County Library 2026).

e. Recreational Facilities

The diverse recreational resources located in Tulare County provide a wide range of recreational opportunities for residents and tourists alike. Within the County there are approximately 5,701 acres of forests, parks, trails, and wildlife areas providing multiple opportunities for recreation (Tulare County 2010). The eastern half of the County is comprised primarily of public lands within Sequoia National Park; Inyo, Sierra, and Sequoia National Forests; and Mineral King, Golden Trout, and Domelands Wilderness areas. Recreational lands in the County are governed by a variety of agencies, including municipal park departments, independent park districts, counties, cities, community service districts, and federal and state agencies. Each City maintains parks of different types to benefit their residents. Given that the Giant Sequoia National Forest, Sequoia National Monument, Inyo National Forest, Sierra National Forest and Sequoia and Kings Canyon National Parks span several counties, the exact acreage of these lands within Tulare County is not readily available information.

Federal Parks and Recreation

There are seven parks and recreation areas under federal jurisdiction within Tulare County, as listed in Table 4.14-3. Tulare County contains substantial portions of federal public lands, largely Sequoia National Forest and Sequoia National Park, which are maintained by USFS and the National Park Service, respectively. Sequoia National Forest lies in the southeastern corner of Tulare County and Kings Canyon/Sequoia National Parks are in the northeastern portion of the County. Both national forests and parks provide camping facilities, hiking, and an extensive range of other outdoor recreation opportunities.

Table 4.14-3 National Parks and Recreation Areas in Tulare County

Name	Location	Acres
Lake Kaweah	25 miles east of Visalia on Highway 198	2,558
Lake Success	10 miles southeast of Porterville on Highway 198	2,450
Sequoia National Forest	Southeastern portion of Tulare County	682,000[1]
Giant Sequoia National Monument	Covers areas north and south of Sequoia and Kings Canyon National Parks	328,315
Kings Canyon and Sequoia National Parks	Northeastern portion of Tulare County	865,952
Inyo National Forest	Northeastern Tulare County	2,000,000
Sierra National Forest	Northeastern Tulare County	1,300,000

Note: Giant Sequoia National Forest, Sequoia National Monument, Inyo National Forest, Sierra National Forest and Sequoia and Kings Canyon National Parks span several counties. The parks extend across county boundaries so exact number of acres in Tulare County is not readily available.

Source: Tulare County 2010, U.S. Forest Service 2023, U.S. Forest Service 2026a, 2026b, National Forest Foundation 2026b

[2] The U.S. Forest Service reports that Sequoia National Forest spans 1.1 million acres, 62 percent of which is contained within Tulare County. 1,100,000 total acres x 0.62 percent in Tulare County = 682,000 acres in Tulare County.

Lake Kaweah and Lake Success are two federally maintained recreational areas. Lake Kaweah was built and is maintained by the U.S. Army Corps of Engineers and features recreational activities like biking, boating, and hiking. Lake Success was also built and is maintained by the U.S. Army Corps of Engineers, primarily for flood control of the Tule River, however the lake features activities such as boating and camping.

State Parks and Forests

There is one state park and one state forest in Tulare County. Colonel Allensworth State Historic Park is managed by the California Department of Parks and Recreation and preserved for its significance to the history and culture of one of the first African American settlements in Tulare County. Today, the park, located outside of Earlimart, features a museum and variety of buildings that are restored to show the original lifestyle of the community. In addition, the state park provides nearby camping facilities as well as outdoor recreational activities such as biking. Tulare County also contains the Mountain Home State Forest which provides opportunities for forestry education, research, and recreation, and consists of 4,807 acres of parkland outside of the City of Porterville (County of Tulare 2010).

Tulare County Parks

Tulare County Parks maintains over 640 acres of parks and open space at 13 sites, as listed in Table 4.14-4. The County's facilities include fishing lakes, veterans and senior community and recreation buildings, group and individual campgrounds, boating, and museums.

Table 4.14-4 Tulare County Parks and Recreation Facilities

Name	Location	Acres
Alpaugh Park	Road 38 and Park Avenue, Alpaugh, California	3.0
Balch Park Campgrounds	48200 Bear Creek Drive, Springville, California	160.0
Bartlett Park	28801 Worth Drive, Porterville, California	127.5
Community Park of Goshen	6800 Avenue 310, Visalia, California	10.9
Cutler Park	15520 Ivanhoe Drive, Visalia, California	50.0

Name	Location	Acres
Kings River Park	2 miles east of Highway 99 on Road 28, near Traver	85.0
Ledbetter Park	45779 Road 128, Orosi, California	11.0
Mooney Grove Park	27000 South Mooney Boulevard, Visalia, California	155.0
Pixley Park	850 North Park Drive, Pixley, California	22.0
West Main Street Park	Mill Creek Drive and West Main Street, near the County Civic Center, Visalia, California	5.0
Woodville Park	16482 Avene 168, Woodville, California	10.0
Tulare County Museum	In Mooney Grove Park, South Visalia (27000 South Mooney Boulevard, Visalia, California)	8.5
Total		**647.9**

Source: Tulare County Parks 2026

City Parks

All eight incorporated cities in Tulare County operate parks and recreation departments, which maintain parks, recreation facilities, and open space in their respective jurisdictions. The cities of Tulare and Visalia have the most parks in the County, 18 and 43 respectively, while smaller cities such as Lindsay and Woodlake, have as few as three to four parks. City parks in the four largest jurisdictions in Tulare County are listed in Table 4.14-5.

Table 4.14-5 City Parks in the TCAG Region

Name	Location	Acres (if provided)
Dinuba		
Alice Park	500 Alice Avenue	0.7
Centennial Park	1591 W. Sierra Way	8.0
Felix Delgado Park	1350 Greene Avenue	6.0
Gregory Park	1133 College Avenue	0.8
KC Vista Park	1851 E. Kamm Avenue	18.2
Nebraska Park	1000 Nebraska Avenue	9.0
Pamela Park/Basin	1106 W. Pamela Lane	0.5
Roosevelt Park/Dinuba Community Center	1390 E. Elizabeth Way	4.2
Rose Ann Vuich Park	855 E. El Monte Way	8.0
Rotary Park	Saginaw & Lincoln	0.3
Peachwood Basin	Alice Avenue and Lillie Avenue	4.0
Entertainment Plaza	289 S. L Street	2.0
Exeter		
Dobson Field	East Rocky Hill Drive	17.0
City Park	Chestnut & D Street	2.5
Brickhouse Park	Palm & Filbert	1.0
Joyner Park	Pine & C Street	0.5
Water Tower Park	Pine & B Street	0.3
Rose Garden Park	Palm & A Street	0.2

Name	Location	Acres (if provided)
Schelling Park	Pine & Filbert	0
Planter Park	Maple & B Street	0
Scroth Park	Vine & Belmont	5.0
Unger Park	Belmont & Glaze	4.7
Porterville		
Burton Park	2701 W. Scranton Avenue	5.3
Centennial Park	296 N. Main Street	0.4
Fallen Heroes Park	356 E. Chase Avenue	2.3
Hayes Field	945 W. Mulberry Avenue	7.5
Lime Street Park	Lime Street and Brightwood Court	0.5
Lions Mini Park	191 W. Orange Avenue	0.3
Murray Park	500 E. Putnam Avenue	36.1
North Park	756 N. Main Street	0.2
Portersville Sports Complex	2701 W. Scranton Avenue	72.7
Veterans Park	1501 W. Henderson Avenue	26.0
Zalud Park	700 N. El Granito Street	15.0
Tulare		
Bender Park	600 N. Milner Street	10.0
Blain Park	2300 N. M Street	7.6
Centennial Park	900 N. H Street	12.0
Cesar E. Chavez	900 E. Bardsley Avenue	10.0
Cypress Park	1610 Cypress Avenue	13.0
Del Lago Community Park	1700 N. Laspina Street	29.0
Elk Bayou Regional Park	19701 Hosfield Drive	54.0
Elk Bayou Soccer Complex	5700 S. Laspina	22.0
Live Oak Park	600 N. Laspina Street	15.0
Mulcahy Park	1100 W. Sonora Ave.	10.0
Parkwood Meadows Park	1200 S. E Street	4.5
Prosperity Sports Park	846 W. Prosperity Avenue	22.0
Rotary Skate Plaza at Topham Park	85 W. Tulare Avenue	1.9
Santa Fe Trail	390 N. M Street	45.0
Sayre Park	493 Descanso Bay Court	2.0
Sunrise Park	2915 Sunrise Street	6.2
Tyler Park	140 N. E Street	0.8
Zumwalt Park	400 E. Tulare Avenue	3.80
Visalia		
Alejandro R. Ruiz Sr. Park	639 E Buena Vista Avenue	–
Blain Park	3101 S. Court Street	7.0
Burke Park	S. Burke Street	–
Cherry Meadow Park	2242 S Pinkham Street	–

Name	Location	Acres (if provided)
John Combs Park	S. Parkwood Street	–
Constitution Park	1139 S. Crenshaw Street	–
Crestwood Park	W. Whittendale Avenue	–
Fairview Village Park	2695 North Conyer Street	–
Garden Street Plaza	300 E. Main Street	–
Houk Park	2640 Royal Oaks Drive	–
Kiwanis Park	1301 S. McAuliff	–
Jefferson Park	701 S. Watson Street	–
Lincoln Oval Park	N. Court St & NW 2nd Ave	–
Lions Park	6500 W Ferguson Avenue	–
Mayor's Park	W. Main Street	–
Memorial Park	N. Hall Street	–
Mill Creek Garden Park	N. Lovers Lane & Mill Creek Parkway	–
Modoc Ditch Trail	S. Akers Street	–
Packwood Creek Trail	W. Packwood Drive	–
Perry Family Park	4013 S. County Center Drive	–
Plaza Park	Plaza Drive	–
Pinkham Park	S. Pinkham Street	–
Provident Skate Park	1035 W Murray Avenue	.6
Recreation Park	345 N. Jacob Street	–
Riverbend Park	2430 N. Court Street	–
Riverway Sports Park	3611 N. Dinuba Boulevard	80.0
Rotary Park	1200 S. Divisadero Street	–
Santa Fe Trail	N. Santa Fe Street	–
Seven Oaks Park	942 S. Edison Street	–
Soroptimist Park	W. Buena Vista Avenue	–
St. John's River Trail	E. St. Johns Parkway	–
Stonebrook Park	1200 W. Hemlock Avenue	–
Summers Park	Ferguson Street	3.7
Sunset Park	5743 W. Lisendra Drive	–
West Main Park	2825 W. Main Street	–
Whitendale Park	W. Beech Avenue	–
Willow Glen Park	W. Hurley Avenue	–
Wittman Village Park	315 Pearl Street	–
Woodland Park	1701 N. Woodland	–

Source: City of Dinuba 2026; City of Exeter 2026; City of Porterville 2024; City of Porterville 2026b; City of Tulare 2023; City of Tulare 2026b; City of Visalia 2022

Private Recreational Resources

Private recreational resources within the County provide for various facilities and programs to the community. Providers include organizations such as the Boys & Girls Club and the YMCA, along with various sports leagues, clubs, and other organizations.

4.14.2 Regulatory Setting

a. Federal Laws, Regulations, and Policies

Federal Fire Prevention and Control Act

The National Fire Incident Reporting System is a system established by the National Fire Data Center of the United States Fire Administration to carry out the intentions of the Federal Fire Prevention and Control Act of 1974. The Act authorizes the United States Fire Administration to gather and analyze information on the magnitude of the Nation's fire problem, as well as its detailed characteristics and trends. The Act further authorizes the United States Fire Administration to develop uniform data reporting methods, and to encourage and assist State agencies in developing and reporting data.

National Fire Protection Association, Standard 901

The National Fire Protection Association Standard 901 provides the latest guidelines to help fire departments and other fire protection organizations effectively share data with other agencies. This standard provides common language and definitions that define and describe elements and classifications used by many fire departments in the United States and other countries to describe fire damage potential and experience during incidents.

Department of Transportation Act Section 4f

Passed in 1966, the Department of Transportation Act includes Section 4(f), which states that the Federal Highway Administration and other United States Department of Transportation agencies cannot approve the use of land from public state parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites unless certain conditions apply. These exceptions are as follows: If there is no feasible and prudent avoidance alternative to the use of land, and if the action includes all possible planning to minimize harm to the property resulting from such use; or if the Administration determines that the use of the property will have a de minimis impact (49 USC Section 303).

b. State Laws, Regulations, and Polices

California Building Standards Code (Title 24, CCR)

Title 24 applies to all buildings throughout the State of California, and includes requirements for structural, mechanical, electrical, and plumbing systems, and requires measures for energy conservation, green design, construction and maintenance, fire and life safety and accessibility. Cities and counties are required by state law to enforce Title 24. More restrictive ordinances can also be adopted by cities and counties due to specific geographical conditions. Included among the twelve parts of Title 24 are Part 9, which includes the California Fire Code, and is based on the

International Fire Code, and Part 11, which includes the California Green Building Standards Code that includes measures for incorporating energy efficiency into buildings.

Quimby Act

As a condition of approval of a final tract or parcel map, the California Quimby Act allows a city or town to require dedication of land, the payment of in-lieu fees, or a combination of both to be used for the provision of parks and recreational services. Under the act, cities and towns can require land or in-lieu fees for a minimum of three acres per 1,000 residents, with the possibility of increasing the requirement to a maximum of five acres per 1,000 residents if the city or town already provides more than three acres per 1,000 residents.

Senate Bill 50

Senate Bill (SB) 50, or the Leroy F. Greene School Facilities Act of 1998, restricts the ability of local agencies to deny project approvals on the basis that public school facilities (classrooms, auditoriums, etc.) are inadequate. School impact fees are collected at the time when building permits are issued. Payment of school fees are also collected at the time when building permits are issued. Payment of school fees is required by SB 50 for all new residential development projects and is considered "full and complete mitigation" of any school impacts. School impact fees are payments to offset capital cost impacts associated with new developments, which result primarily from costs of additional facilities, related furnishings and equipment, and projected capital maintenance requirements. As such, agencies cannot require additional mitigation for any school impacts (Chapter 407, Statutes of 1998).

c. Local Laws, Regulations, and Policies

County and City General Plans and Safety Elements

Local planning policies related to public services and recreation are established in each jurisdiction's general plan. In general, jurisdictions have policies in place that indicate that public services must be provided as the need for those services arises. In addition to these general policies, jurisdictions may have more specific policies tailored to performance objectives. Policies and strategies for fire protection services generally include language pertaining to maintaining specific response times and adding facilities as needed to maintain those response times and proper staffing for new facilities. Policies for the development of law enforcement programs are to reduce and control crime, the planning of future law enforcement facilities concurrently with growth, and the prevention of crime through education and maintaining proper staffing. Many jurisdictions do this through specific goals, such as maintaining a certain ratio of sworn officers to citizens, reducing response times, or reducing the overall number of crimes in the community.

Specifically, Tulare County's General Plan Public Facilities and Services Goal PFS-1 intends to establish and maintain acceptable levels of service, minimize costs, and provide criteria for determining the location, capacity, and timing of existing and future public facilities and services (Tulare County 2012). Policy PFS-1.2 intends to ensure that new growth and developments do not create significant adverse impacts on existing County-owned and operated facilities and Policy PFS-1.3 states that the County shall review development proposals for their impacts on infrastructure and that new development shall be required to pay its proportionate share of the costs of infrastructure improvements required. Specific goals and policies relate to fire and police protection, including Policy PFS-7.6, which states that the County shall strive to provide sheriff and

fire station facilities, equipment (engines and other apparatus), and staffing necessary to maintain the County's service goals. The County shall continue to cooperate with mutual aid providers to provide coverage throughout the County.

Furthermore, City and County general plans also include policies to maintain specific ratios of park acreage per 1,000 in population for the jurisdiction along with policies for the location, type, and size of parks. Tulare County General Plan (Tulare County 2012) policy ERM-5.6 identifies the types of parks to be provided in the County. Visalia General Plan (City of Visalia 2014) section 5.1 identifies specific park classifications, Figure 5-1 identifies location of the parks and recreation facilities, with the General Plan providing for a park ratio of 5.0 acres per 1,000 residents. The Porterville General Plan (City of Porterville 2008) also identifies types of parks, their typical size, and anticipated service area for each type of park. Policy PSCF-I-3 identifies a target of five acres of neighborhood and community parks per 1,000 residents. This is a sample of recreation and park policies; other cities have similar goals and policies as just described.

Tulare County and City Codes (Fire)

In addition to following the rules and regulations of the California Penal Code, Tulare County maintains the Tulare County Code which explains the existing laws and regulations throughout the County. Ordinances 2907, 3124 and 3227 all govern the Uniform Fire Code within the County. The California Fire Code is under Part VII Chapter 15 Article 3 relating to building regulations and land use development. City fire codes are also required to conform to the California Fire Code. City of Visalia has adopted the 2016 California Fire Code along with the supporting technical codes and Porterville has adopted the 2019 version.

School Districts

Although the California public school system is under the policy direction of the Legislature, the California Department of Education relies on local control for the management of school districts. In allocating resources among the schools of the district, school district governing boards and district administrators must follow State law but also set the educational priorities for their schools.

4.14.3 Impact Analysis

a. Methodology and Significance Thresholds

This analysis includes a program-level, qualitative assessment of impacts related to public services and recreation. Impacts related to these resource areas are more localized in nature, and therefore the analysis is qualitative and focuses on the existing regulations, standards, and policy measures to address these localized impacts. This evaluation of public facilities and services impacts assumes that construction and development under the proposed 2026 RTP/SCS would adhere to applicable federal, state, and local regulations and would conform to the latest adopted codes, industry standards, and best management practices established by regulatory agencies , as relevant for individual projects. Where existing regulatory requirements or permitting requirements exist that are law and binding on responsible agencies and project sponsors, it is reasonable to assume that they would be implemented, thereby reducing impacts.

Appendix G of the *CEQA Guidelines* identifies the following criteria for determining whether a project's impacts would have a significant impact on public services and recreation:

1. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
   a. Fire protection;
   b. Police protection;
   c. Schools;
   d. Parks; or
   e. Other public facilities.

2 Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or

3 Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

b. Project Impacts and Mitigation Measures

The following section discusses public services and recreational impacts and mitigation measures associated with transportation projects and the land use scenario implementing the proposed 2026 RTP/SCS. Due to the programmatic nature of the proposed 2026 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 improvement projects and future projects under the land use scenario envisioned by the proposed 2026 RTP/SCS could result in the impacts as described in the following section.

Threshold 1:	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services: a. Fire protection, b. Police protection, d. Parks, or e. Other public facilities?

Impact PS-1 LAND USE PROJECTS IMPLEMENTING THE PROPOSED 2026 RTP/SCS WOULD RESULT IN NEW OR EXPANDED GOVERNMENTAL FACILITIES, THE IMPLEMENTATION OF WHICH WOULD RESULT IN SUBSTANTIAL PHYSICAL IMPACTS. THIS IMPACT WOULD BE SIGNIFICANT AND UNAVOIDABLE.

As described in Section 4.13, *Population and Housing*, between 2025 and 2049, the TCAG region is forecasted to grow by 53,716 people; 46,422 housing units; and 28,440 jobs. The proposed 2026 RTP/SCS designates growth locations and identifies a set of land use strategies to accommodate the projected growth that results in focused housing and job growth concentrated primarily in or adjacent to already developed areas and along existing transit corridors. The proposed 2026 RTP/SCS was designed to accommodate the people, households, and jobs identified in the regional

growth forecast. The overall growth would result in increased demand for services. As the number of households grows, demand for fire protection and police services, parks, and other general government services and facilities (e.g., libraries) would increase.

The proposed 2026 RTP/SCS includes land use strategies that would allow for denser or more compact development in designated growth geographies. Implementation of the SCS would result in more dense and intense development than existing conditions, largely as infill development. Therefore, service areas for existing service providers may not substantially expand. This type of growth pattern would allow jurisdictions to leverage existing facilities and absorb some of the increased demand more efficiently than if new development were more dispersed.

Overall, with implementation of the proposed 2026 RTP/SCS, the higher density and intensity of new growth in the TCAG region, particularly in developed areas, would limit the need to expand service boundaries for law enforcement and fire protection. As a function of distance, these services may not need to expand. However, as function of response time, implementation of the proposed 2026 RTP/SCS could result in the need to construct new or expanded facilities, as well to accommodate new equipment needed to accommodate taller buildings. In order to maintain adequate response times, existing emergency service providers may need to expand their facilities if additional population growth results in substantial increases in the volume of requests for services or a decrease in response times. In cases where future demand and types of demand exceeds current capacity, new facilities may be required. In addition, the demand on fire departments, particularly those serving more rural areas, would increase as the frequency or intensity of wildfires also increase. As described in Section 4.18, *Wildfire*, implementation of the proposed 2026 RTP/SCS would exacerbate the risk of wildfire.

The County and city general plans include goals, policies, and programs intended to ensure protection and supply of services that meet local demand. For example, Tulare County's General Plan Public Facilities and Services chapter contains several policies to maintain service levels of public facilities and minimize the costs associated with population growth within the TCAG region. With the SCS focusing development in urban centers, the increased development in cities would trigger the need for additional police and fire protection to stay consistent with city general plan policies regarding response times and proper coverage. This could include building new or expanded stations or other facilities.

However, at the regional scale, the estimated additional population would place increased demand on existing resources to the extent that the construction of new or expanded facilities would be required, the construction of which would cause significant environmental impacts. Impacts to fire protection, police services, parks, and other public service facilities resulting from land use development envisioned in the proposed 2026 RTP/SCS would be significant.

Transportation projects included in the proposed 2026 RTP/SCS would not generate substantial demand for public services, such a fire protection, police, parks, or other public facilities requiring new or expanded facilities. The proposed 2026 RTP/SCS does not include major transportation projects that would generate demand outside of the TCAG region, such as widening roadways to national parks or other public uses outside of the TCAG region. Transportation projects would not generate substantial demand for these services because the identified transportation projects in the RTP would not increase the population of the TCAG region, either directly or indirectly. Transportation projects would also not require the removal and replacement of existing public services, such as police stations or fire departments. Therefore, transportation projects included in the proposed 2026 RTP/SCS would result in less than significant impacts to fire protection, police services, parks, and other public service facilities.

Mitigation Measures

Tulare County and incorporated cities within the County can and should implement the following mitigation measure where relevant to land use projects implementing the proposed 2026 RTP/SCS, and where feasible and necessary based on project and site-specific considerations. Project specific environmental documents may adjust this measure as necessary to respond to site specific conditions.

PS-1 Increased Public Service Demand

During the CEQA review process for individual public services facilities, the implementing agency with responsibility for construction of new public service facilities or the expansion of existing facilities, including those of fire and police services, parks, and other public facilities, can and should apply necessary mitigation measures to avoid or reduce significant environmental impacts associated with the construction or expansion of such facilities. Cities and the County can and should recognize the need for these measures in CEQA reviews of land use projects. The environmental impacts associated with such construction or expansion of public services facilities should be avoided or reduced through the imposition of conditions required to be followed by those directly involved in the construction or expansion activities. Such conditions should include those necessary to avoid or reduce significant impacts associated with air quality, noise, transportation, biological resources, cultural resources, greenhouse gas emissions, hydrology and water quality, and others that apply to specific construction or expansion of new public or expanded public service facilities.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies are cities, Tulare County, and other public service providers. This mitigation measure can and should be applied during project permitting and environmental review.

Significance After Mitigation

Mitigation Measure PS-1 would reduce impacts related to the provision of new or physically altered governmental facilities because it would require implementing agencies to apply necessary mitigation measures to avoid or reduce significant environmental impacts associated with the construction or expansion of such facilities. However, these mitigation measures may not be feasible or effective for every project. Therefore, this impact would be significant and unavoidable. No additional mitigation measures to reduce this impact to less than significant levels are feasible.

Threshold 1:	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services: c. Schools?

Impact PS-2 LAND USE PROJECTS IMPLEMENTING THE PROPOSED 2026 RTP/SCS WOULD REQUIRE THE PROVISION OF NEW SCHOOLS, THE CONSTRUCTION OF WHICH COULD RESULT IN SUBSTANTIAL PHYSICAL IMPACTS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Impacts of transportation projects included in the 2026 RTP/SCS would be less than significant because transportation projects would not increase school enrollments.

Regarding land use projects implementing the proposed 2026 RTP/SCS, as discussed above, the proposed 2026 RTP/SCS would accommodate the people, households, and jobs identified in the regional growth forecast. The overall growth would result in increased demand for services, including school services. The proposed composition of residential land uses would vary as future development occurs and the total number of households would increase. Alongside this, the projected population growth in the region would result in more school-age children brought into school districts within each county. The generation of additional primary and secondary school-age children and the ability of individual schools to accommodate them is dependent on the type of housing, demographics, and the available capacity of the elementary, middle, and high schools that would accommodate them. This is a dynamic condition that changes over time as population characteristics and other variables change. In the cases where increased growth exceeds the capacity of schools, implementation of the proposed 2026 RTP/SCS would require additional or modified facilities to ensure acceptable levels of service.

Future project sponsors would be required by law to pay development impact fees at the time building permits are issued. These fees are used by the applicable school district to mitigate impacts associated with long-term operation and maintenance of school facilities. The fees would be determined at the time of the building permit issuance and would reflect the most current fee amount requested by the school district. Pursuant to Section 65996(3)(h) of the California Government Code (SB 50), payment of these fees "is deemed to be full and complete mitigation of impacts of any legislative or adjudicative act, or both, involving but not limited to, the planning, use, or development of real property, or any change in government organization or reorganization." Impacts of land use projects implementing the proposed 2026 RTP/SCS on schools would therefore be less than significant.

Mitigation Measures

Mitigation measures are not required because this impact would be less than significant, as jurisdictions are required to follow the laws and regulations described above.

Threshold 2:	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
Threshold 3:	Would the project include recreational facilities or require construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Impact PS-3 THE PROPOSED 2026 RTP/SCS WOULD INCREASE THE USE OF EXISTING PARKS AND RECREATIONAL FACILITIES, RESULTING IN PHYSICAL DETERIORATION, AND WOULD REQUIRE NEW OR EXPANDED RECREATIONAL FACILITIES THAT WOULD HAVE AN ADVERSE PHYSICAL EFFECT ON THE ENVIRONMENT. THIS IMPACT WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Implementation of the proposed 2026 RTP/SCS would increase demand on existing public parks and other recreational facilities in the region and could cause accelerated physical deterioration of parks and recreational facilities as a result.

The proposed 2026 RTP/SCS would accommodate the people, households, and jobs identified in the regional growth forecast. The overall growth would result in increased demand for services, including recreational facilities. Implementation of the proposed 2026 RTP/SCS would result in an increased use of existing recreational facilities, and the need for new recreational facilities associated with increases in regional growth. Transportation projects would improve access to recreational facilities, which would result in additional use. Combined, the land use growth and transportation projects included in the proposed 2026 RTP/SCS would likely increase use of existing facilities, which would result in a substantial physical deterioration of the facilities or require expanded or new recreational facilities.

Development of the individual land use projects in the proposed 2026 RTP/SCS would be required on a project-by-project basis to pay development fees to the applicable jurisdiction. Since the passage of the 1975 Quimby Act (Government Code Section 66477 *et seq*.), cities and counties have been authorized to adopt ordinances requiring that developers set aside land, donate conservation easements, or pay fees that can be used to acquire parkland to maintain identified parkland acreages per 1,000 in population. In accordance with this regulation, each City in the TCAG region, in addition to Tulare County, requires that new residential development provide parkland and/or pay in lieu fees for the provision of parkland in their general plans and/or Code of Ordinances. All future development included in the proposed 2026 RTP/SCS would be required to comply with these regulations. The payment of these fees or provision of parkland would go toward maintaining parks or providing new park space, which would also reduce the use of existing recreational facilities. Reduced use of existing facilities would result in a corresponding decrease in deterioration of existing facilities.

Payment and utilization of Quimby Act fees would not entirely prevent or remediate deterioration of parks and recreational facilities. While land use development would increase demand on recreational services, existing State requirements regarding development of a complete general plan, including Open Space and Conservation Elements, require local jurisdictions to address impacts on recreational facilities. Compliance with State requirements, which would result in long-range planning for recreation facilities, would benefit existing facilities by helping to ensure e they are properly maintained despite regional growth. However, these regulations may not fully reduce potential impacts. As such, substantial physical deterioration of existing facilities and/or accelerated

deterioration would not occur. Thus, the proposed 2026 RTP/SCS would not have a significant impact on deterioration of recreational resources.

Although impacts related to substantial physical deterioration would be less than significant, the construction of new or expanded recreational facilities itself would result in significant environmental impacts. Therefore, this impact is significant.

Mitigation Measures

The County, cities, and recreation agencies can and should implement the following measures where relevant to land use projects implementing the proposed 2026 RTP/SCS, and where feasible and necessary based on project and site-specific considerations. Project specific environmental documents may adjust these mitigation measures as necessary to respond to site specific conditions.

PS-3 Impact Reduction from New Recreational Facilities

During project specific design and CEQA review, the County and cities, and other agencies with responsibility for the construction of new or expanded recreation facilities, can and should apply necessary mitigation measures to avoid or reduce significant environmental impacts associated with the construction of such facilities. The environmental impacts associated with such construction should be avoided or reduced through the imposition of conditions required to be followed by those directly involved in the construction or expansion activities. Such conditions should include those necessary to avoid or reduce significant impacts associated with air quality, noise, transportation, biological resources, cultural resources, greenhouse gas emissions, hydrology and water quality, and others that apply to specific construction of new or expanded recreation facilities, including recreational trails.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are cities, Tulare County, and recreation agencies. This mitigation measure can and should be applied during project permitting and environmental review.

Significance After Mitigation

Implementation of Mitigation Measure PS-3 would reduce impacts associated with the construction of additional parks and recreation facilities because it would require implementing agencies to apply necessary mitigation measures to avoid or reduce significant environmental impacts associated with the construction or expansion of such facilities. However, these mitigation measures may not be feasible or effective for every project. Therefore, this impact would be significant and unavoidable. No additional mitigation measures to reduce this impact to less than significant levels are feasible.

4.14.4 Cumulative Impacts

IMPACT PSR-C-1 DEVELOPMENT IN THE CUMULATIVE IMPACT ANALYSIS AREA WOULD RESULT IN SUBSTANTIAL ADVERSE PHYSICAL IMPACTS ASSOCIATED WITH THE PROVISION OF NEW OR PHYSICALLY ALTERED GOVERNMENTAL FACILITIES AND RECREATIONAL FACILITIES, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS. CUMULATIVE IMPACTS WOULD BE SIGNIFICANT. THE 2026 RTP/SCS CONTRIBUTION TO CUMULATIVE IMPACTS WOULD BE CUMULATIVELY CONSIDERABLE.

The cumulative impact analysis area for public services and recreation consists of the TCAG region and adjoining counties. Information regarding these adjoining counties can be found in Chapter 4, *Environmental Impact Analysis, Cumulative Impact Methodology*. Future development in this region that could impact public services and recreation is considered in the analysis. This cumulative extent is used to evaluate impacts from the expansion of public services and recreation facilities within the context of regional development. This analysis is based on growth projections within the cumulative impact analysis area.

Growth in the TCAG region and adjoining counties would generate demand for fire protection, police services, parks and recreational facilities, and other public facilities to the extent that the construction of new or expanded facilities would be required, the construction of which would cause significant environmental impacts. The 2026 RTP/SCS would also increase demand for services and facilities to the extent that new or expanded facilities would be required, the construction of which would result in significant effects. These impacts would be significant and unavoidable, even with implementation of Mitigation Measures PS-1 and PS-3. Thus, cumulative impacts related to public services and recreation would be significant, and the 2026 RTP/SCS' contribution to the cumulative public services and recreation impacts would be cumulatively considerable after mitigation.

4.15 Transportation

This section examines the impacts of the proposed 2026 RTP/SCS on transportation conditions.

4.15.1 Setting

The environmental setting is a description of existing conditions relevant to transportation within the TCAG region, including eight incorporated cities (Dinuba, Exeter, Farmersville, Lindsay, Porterville, Tulare, Visalia, and Woodlake) as well as the unincorporated communities in Tulare County. The existing transportation system in the TCAG region consists of a complex network of State highways, County-maintained roads, and local streets; transit services; a series of bicycle paths and pedestrian walkways; railroad lines; and a number of aviation facilities.

Roadway Network

The regional roadway network in the TCAG region consists of over 4,000 miles of maintained roadways within Tulare County, including State highways, County-maintained roads, and local city streets. There are no Interstates or U.S. Highways within Tulare County. However, there are ten State Routes (SRs) within the region, including two major regional highways, SR 99 and SR 198. Highway traffic in Tulare County is primarily related to the movement of goods, farm-to-market, commuter, business, and recreational trips. Other major State Routes within Tulare County include SRs 43, 63, 65, 137, 190, 201, 216, and 245. Figure 4.15-1 identifies the major roadways within the TCAG region, while Table 4.15-1 provides a description of each.

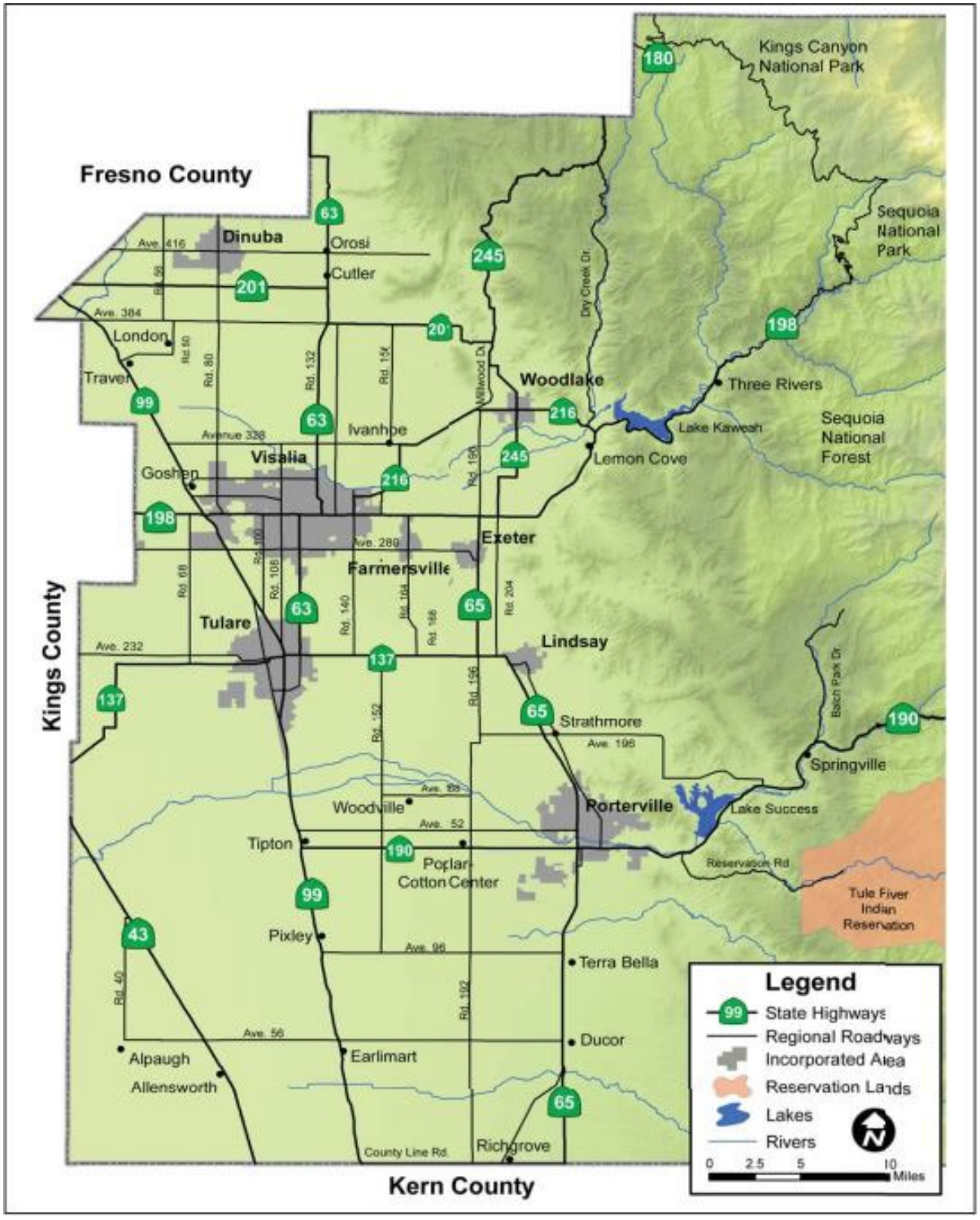
The functional classification system of roadways within the TCAG region is generally based upon the Federal Highways Administration (FHWA) Functional Classifications System of Streets and Highways, which includes a variety of existing arterial and collector streets in addition to the State Routes identified above. The local classifications used by each of the eight major incorporated cities in the TCAG region also generally follow the FHWA functional classification system, with each city maintaining a variety of arterials, collectors, and local streets along with some alleyways. The design standards, geometrics, and the overall specific design criteria for each street classification varies slightly between each jurisdiction.

Operations

A variety of performance measures are used to assess transportation systems. Depending on the type of performance evaluation required, performance measures may be very specific and focus on intersections or roadway segments, or performance measures may be aggregated to evaluate the overall operation of a regional transportation system. A regional travel model typically only contains information on the number of lanes, posted speed and link capacity on roadway segments and lacks information detailed enough to calculate accurate intersection information.

- Because of the programmatic nature of the proposed 2026 RTP/SCS, the performance measures discussed herein are aggregated as a region to evaluate the overall performance of the transportation system. The 2026 RTP laid out specific strategies, policies, and actions to maintain, operate, and enhance an integrated, multi-modal transportation system that facilitates the efficient movement of people and goods while adapting to emerging transportation trends and technologies. Roadway transportation performance measures that address performance goals include Total vehicle miles traveled (VMT); and VMT per capita.

Figure 4.15-1 TCAG Region Roadway Network



Source: TCAG 2022

Table 4.15-1 TCAG Region State Highway Descriptions

Highway	Approximate Length within TCAG Region	Description
SR 43	22 miles	Runs along the southwest edge of the County and connects Bakersfield to Selma; connects to SR 137; intersected by SR 198 west of Tulare County (in Kings County).
SR 63	33 miles	Also known as Mooney Boulevard and North Dinuba Boulevard; connects the urbanized areas of Visalia and Tulare; portions contain 4-6 lanes, high volume, and high frequency transit in Visalia; intersected by SR 137, SR 201 and SR 198. SR 137 stretches from SR 137 in the City of Tulare to the Fresno County line located near American Avenue (Avenue 480).
SR 65	40 miles	Connects the eastern cities of Porterville, Lindsay, and Exeter; includes portions of freeway in Porterville; intersected by SR 190 and SR 198, connects to SR 137.
SR 99	54 miles	Also known as the Golden State Highway; connects Tulare County to Fresno and Sacramento to the north and Bakersfield to the south; provides access to most major Central Valley cities from the Grapevine to Sacramento; intersected by SR 137 and SR 198, connects to SR 190.
SR 137	30 miles	Runs east to west and connects the cities of Tulare and Lindsay; intersected by SR 99, connects to SR 65 and SR 43.
SR 190	51 miles	Runs east to west through Porterville into the Sequoia National Forest; includes portions of freeway; currently contains a single roundabout and has multiple planned roundabouts; intersected by SR 65, connects to SR 99.
SR 198	28 miles	Runs east to west and connects the California Central Coast to the Central Valley; outside of Tulare County, SR 198 intersects with Interstate 5 and U.S. Highway 101 and continues eastward through Tulare County, passing through the City of Visalia into Sequoia National Park; includes portions of expressway and freeway; intersected by SR 99, connects to SR 216, SR 65, SR 63, and SR 245.
SR 201	27 miles	Runs east to west, north of Visalia; intersected by SR 63, connects to SR 245 and SR 99.
SR 216	18 miles	Runs east to west and connects Visalia to Woodlake; intersected by SR 245 and connects to SR 198.
SR 245	31 miles	Runs north to south through Woodlake; intersected by SR 216 and connects to SR 198.

Source: TCAG 2022; Google Earth Pro 2026

The basic measure of the amount of roadway transportation generated is VMT. One vehicle traveling one mile constitutes one vehicle mile traveled, regardless of the size of the vehicle or the number of passengers in the vehicle. Increases in VMT are associated with regional growth that would occur with or without implementation of the proposed 2026 RTP/SCS. Thus, VMT data may not reflect deficient traffic operations,[1] although VMT has a strong correlation with congestion.

Baseline VMT data for the TCAG region is shown in Table 4.15-2. The 2025 Base Year is used as the baseline for analysis within this EIR. Regional VMT data accounts for all vehicle types and all travel within the region, including trips that originate and/or end outside of the TCAG region (pass-through trips). SB 375 data only includes automobile, light truck, and motorcycle vehicle types, and only accounts for trips that both originate and end within the TCAG region.

[1] Traffic operational measures such as roadway congestion and delay are not considered CEQA impacts.

An area's per capita (or per person) VMT, as applied in this EIR, is the total VMT divided by the population of that area and is a measure of the average vehicle miles each person travels on a typical weekday. Per capita VMT tends to increase as a result of greater overall economic activity in the region, higher levels of per-household automobile ownership, and/or a jobs-housing imbalance that contributes to longer average commute distances.

Table 4.15-2 Baseline VMT for TCAG Region

Base Year	Regional VMT	VMT per Capita
2025 (2026 RTP/SCS Base Year)	10,662,601	21.89

Source: TCAG Model, Appendix D[1] Total VMT per capita is based on a population size of 487,209 persons (see Section 4.13, *Population and Housing*)

Comprehensive documentation of the modeling methodology, assumptions, calibration, and inputs used for the TCAG Model is provided in Appendix D of this EIR.

Movement of Goods

Tulare County is located at the core of California's agricultural industry and contains many of the State's key corridors for the movement of goods. Tulare County, and much of the Central Valley region, serve as the primary trade corridor for Los Angeles and San Francisco, California's two largest metropolitan areas. The movement of goods through the TCAG region is dominated by truck transfer. Tulare County has identified specific Farm to Market routes in order to prioritize the rehabilitation needs of over 40 routes to bring them into a good state of repair. Overall, the TCAG Farm to Market Routes are a network of roads that see at least 300 trucks per day and make up the backbone of goods movement through Tulare County (TCAG 2022b). Many of the incorporated cities of Tulare County maintain roadway systems with designated truck routes that allow truck traffic to pass through urban areas (City of Porterville 2007; City of Visalia 2014).

Many of the agricultural and manufacturing products from the TCAG region also utilize the Port of Oakland, the Ports of LA/Long Beach, and the Port of Stockton for access to national and international markets. Products from the TCAG region are also shipped to Canada and other export facilities throughout the United States by Union Pacific rail and the BNSF rail lines (TCAG 2022b).

Public Transportation

Tulare County Regional Transit Agency (TCRTA) provides intercity fixed route commuter services connecting the cities of Dinuba, Porterville, Tulare, Visalia, and Woodlake to unincorporated rural communities and to each other, as well as local intracity transit service in the cities of Dinuba and Tulare. Their fiscal year 2024 ridership was 677,529 passenger trips (Transit.dot.gov 2024) Beginning in 2026, all TCRTA services operate under the 'RIDE Tulare County' name. The latest routes are shown on the RIDE Tulare County website (TCRTA 2026). Local fixed route transit services in the cities of Porterville and Visalia are provided by Porterville Transit and Visalia Transit, respectively. and Cities with public transit centers within the TCAG region include Dinuba, Farmersville, Porterville, Tulare, and Woodlake. The Farmersville Transit Center was completed in 2026, but has not started providing service at the time of this EIR.

RIDE Tulare County operates the following intercity commuter and express routes (TCRTA 2026):

- **Route 10** serves North County, including the communities of Visalia, Seville, Cutler, East Orosi, Orosi, Sultana, and Dinuba. This route runs weekdays from 6:15 a.m. to 7:05 p.m. and weekends from 10:25 a.m. to 5:47 p.m. and provides connections to the Visalia Transit Center, Route 30, and Route 50.
- **Route 11X** is an express commuter service between the City of Tulare and Visalia; operated jointly with Visalia Transit
- **Route 20** serves South County, including the communities of Tulare, Tipton, Pixley, Teviston, Earlimart, Richgrove, and Delano. This route runs weekdays from 5:45 a.m. to 8:14 p.m. and weekends from 8:40 a.m. to 6:42 p.m and provides connections to the Delano Transit Center and the Tulare Transit Station.
- **Route 30** serves Northeast County, including the communities of Three Rivers, Lemon Cove, Woodlake, Ivanhoe, and Visalia. This route runs weekdays from 5:15 a.m. to 8:15 p.m. and weekends from 8:50 a.m. to 6:00 p.m and provides connections to the Visalia Transit Center and Route 10.
- **Route 40** serves Southeast County, including the communities of Porterville, Strathmore, Lindsay, Tulare, and Visalia. This route runs weekdays from 5:25 a.m. to 7:53 p.m. and weekends from 9:45 a.m. to 6:40 p.m and provides connections to the Porterville Transit Center, Route 60, Route 90, Route 70, and Route 30.
- **Route 70** serves the communities of Porterville and Springville and can be accessed by a Park and Ride facility at the intersection of SR 190 and Road 284. This route runs weekdays only from 8:45 a.m. to 4:00 p.m. and provides connections to the Porterville Transit Center, Route 40, Route 60, Route 90, and Route 80.
- **Route 80** serves the communities of Porterville and Terra Bella. This route runs weekdays only from 9:55 a.m. to 4:45 p.m. and provides connections to the Porterville Transit Center, Route 40, Route 60, Route 90, and Route 70.
- **Route 90** serves the communities of Lindsay, Strathmore, Plainview, Woodville, Poplar, and Porterville. This route runs weekdays only from 6:20 a.m. to 6:30 p.m. and provides connections to the Porterville Transit Center, Route 40, Route 70, and Route 80.
- **Route TR** connects the Tule River Reservation with the City of Porterville. The route runs from 7:00am to 5:00pm, on weekdays only.
- **Dinuba Connection** connects Dinuba to the City of Reedley and Reedley College. The Dinuba Connection runs from 7:00am to 7:30pm on weekdays during the school year, and from 7:00am to 4:15pm in the off season.

TCRTA also operates six (6) local routes within the City of Tulare and four (4) local routes in the City of Dinuba. In addition to fixed route services, TCRTA also provides curb-to-curb and door-to-door Dial-A-Ride services to accommodate Americans with Disabilities Act (ADA)-eligible riders within 0.75-mile of all routes. Zone based on-demand microtransit was launched across much of the county in Summer 2024. Free transportation is also provided to at-risk youth to participate in youth programs throughout the county through The Loop Bus program.

Visalia Transit operates 13 bus routes that serve Exeter, Farmersville, Goshen, Tulare, and Visalia. Visalia Transit offers connections with RIDE Tulare County and Greyhound. The fixed route service provides convenient transportation to local schools including Divisadero Middle School, Valley Oak Middle School, Green Acres Middle School, La Joya Middle School, Golden West High School, Mt.

Whitney High School, Redwood High School, Sequoia High School, El Diamante High School, College of the Sequoias, San Joaquin Valley College, Fresno Pacific, Visalia Adult School, and Brandman University (City of Visalia 2026). Visalia Transit also launched on-demand microtransit in June 2025, branded as 'Visalia Connect'.

Porterville Transit operates four (4) fixed routes in and near the City of Porterville and provides both complementary dial-a-ride paratransit as well as on demand microtransit throughout its service area. The City of Porterville also offers subsidies of up to $400 per vanpool to residents participating in vanpools offered through a partnership with Commute with Enterprise.

Other public transportation carriers operating within the TCAG region include Greyhound FlixBus and Kings Area Rural Transit (KART). Amtrak is California's only operational interregional passenger rail service and does not directly serve Tulare County with a rail line. However, Kings County Area Transit offers a fixed-route service from Visalia to the Hanford station. Amtrak's Gold Runner route passes through the Hanford Station in Kings County seven (7) times a day, providing a connection for Tulare and Kings County residents to the San Francisco Bay Area and Sacramento to the north, and Bakersfield to the south. Amtrak provides additional bus services and partners with third party buses to provide connections to other major cities throughout California (Amtrak 2026).

Active Transportation

Active transportation refers to modes of travel that rely on human power, primarily walking and bicycling. In planning and infrastructure development, active transportation focuses on creating safe, accessible, and efficient networks for pedestrians and cyclists.

Bikeways are facilities that provide primarily for, and promote, bicycle travel. The five types of bikeways identified by the California Department of Transportation (Caltrans) in the Highway Design Manual are identified below (Caltrans 2025).

- **Shared Roadway (No Bikeway Designation).** A majority of bicycle travel throughout California occurs on streets and highways without specific bikeway designations.
- **Class I Bikeway (Multi-Use/Bike Path).** A Class I bikeway is a multi-use facility that provides travel on a paved right-of-way completely separated from a street or highway. Cross flow by motor vehicles is minimized to avoid conflict with bicycles and pedestrians.
- **Class II Bikeway (Bike Lane).** A Class II bikeway provides a striped and stenciled lane for one-way travel on a street or highway and is intended to delineate the right of way, creating more predictable movements from both bicyclists and motorists. These bike lanes are usually established along streets in corridors where there is significant bicycle demand in order to improve conditions for bicyclists.
- **Class III Bikeway (Bike Route).** A Class III bikeway is a shared use facility (normally with motor vehicles) which serve to either provide continuity to other bicycle facilities or designate preferred routes through high demand corridors.
- **Class IV Bikeway (Cycle Tracks or Separated Bikeway).** A Class IV bikeway is intended for the exclusive use by bicycles and features a separation between the bikeway and the through vehicular traffic.

In addition to bicycling, walking is another active transportation option in the TCAG region. Both bicycling and walking within the TCAG region are attractive transportation alternatives due to the relatively flat topography and temperate climate during much of the year. Common pedestrian facilities include sidewalks, crosswalks, trails, bus shelters for transit usage, trees for shade, and ADA

access ramps. The TCAG Board adopted the 2025 Regional Active Transportation Plan in February 2026 (TCAG 2026). The 2025 Regional Active Transportation Plan is an update to the 2016 Regional Active Transportation Plan, known as "Walk 'n Bike Tulare County." The 2025 Regional Active Transportation Plan "identifies key local and regional projects, supports competitive funding applications, and lays the groundwork for integrating active transportation within broader transportation and land use planning efforts" (TCAG 2026).

The City of Dinuba has developed a city-wide bicycle and pedestrian path system, and actively promotes bicycle safety education programs in elementary schools through the police and recreation departments. Pedestrian facilities in the City of Dinuba include sidewalks, paths, crosswalks, street lighting, and pedestrian signals at traffic intersections (City of Dinuba 2008). The City of Dinuba is currently constructing a mix of pedestrian and bicycle infrastructure using competitive grant-awarded funds from the Cycle 6 2023 Active Transportation Program. New infrastructure that is being constructed includes Class II and IV bike lanes, high-visibility crosswalks, pedestrian signal heads, sidewalks, accessible curb ramps, lighting and other features aimed to enhance safety and encourage more walking, biking and rolling. The City of Dinuba is also implementing a series of bike rodeos in each of the schools as a part of the Cycle 6 2023 funding.

Pedestrian facilities in the City of Exeter include sidewalks, medians, roundabouts, bulbouts, entryways, and crosswalks. The City of Exeter also maintains the Locust-Grove Trail, which allows residents to walk or ride a bike from one end of the Southwest Exeter Specific Plan planning area to the other with minimal interference from motorized vehicles (City of Exeter 2005). The City is applying for grant funding to resolve challenging crossing points near State Highway 65. Their proposal includes Class I and Class IV bikeways, enhanced crossings, traffic calming, lighting and other features to promote safe pedestrian and bicycle travel between important destinations.

At the time of its General Plan adoption in 2008, the City of Porterville had recently completed eight miles of bikeway segments, added eleven bicycle parking facilities, and was developing a Class 1 bicycle and pedestrian path along with a rail-to-trail bicycle and pedestrian path. Since then, the City of Porterville has made progress on their rail-to-trail bicycle and pedestrian path known as the Butterfield Stage Corridor. Competitive funding was awarded from the Cycle 5 . Construction of 3.9 miles of previous railways is almost complete by Summer 2026. The new pathway includes amenities such as benches, lighting and trees making it feel very inviting and accessible to all walks of life. The complete trail extends to Strathmore an incorporated community. Funding for that project is a long-term goal.

In addition to the improvements made by the City, the TCAG Bicycle Transportation Plan, now the Walk 'n Bike Tulare County Regional Active Transportation Plan identified 110.5 miles of existing and proposed bikeways in the Porterville area. As part of the proposed street standards within the Porterville 2030 General Plan, up to 75 miles of new Class II and Class III bikeways were anticipated to be added to the bikeway network as new arterial and collector streets were built. However, the pedestrian system in Porterville is limited to sidewalks (City of Porterville 2007).

Currently, the City of Porterville is completing a 2026 Active Transportation Plan that identifies its overall bikeway network with existing and proposed facilities.

The City of Visalia adopted its first Active Transportation Plan in 2017 which incorporated elements of the 2010 Waterways to Trails Master Plan. Currently they are updating their Active Transportation Plan to keep up with the latest bicycle and pedestrian design guidance and comprehensively plan for an integrated, safe and comfortable active transportation network (Visalia 2017). With the Active Transportation Program the City of Visalia was recently awarded a number of

active transportation projects for approximately $51 million to complete the Santa Fe Class IV Bike Route, Goshen Class I Trail, and Highland Elementary Safe Routes to School connectivity.

In addition to the bicycle infrastructure, Visalia offers bicycle racks on buses for most of the Visalia Transit fleet, which extend the bicycles ranges and offer connections to other cities in the TCAG region (City of Visalia 2014). Similar to the City of Porterville, the pedestrian system in Visalia is mainly comprised of sidewalks. In addition to standard sidewalks that have been developed in residential and non-residential areas, several multi-use trails can be used throughout the City. As part of the grant funding the City of Visalia will be partnering with community organizations and agencies such as The Visalia Unified School District to promote educational and encouragement campaigns, bike rodeos and other programs aimed at making it easier and more comfortable for people to walk and bike. The City of Visalia is also committed to complying with ADA standards with new development and are working to bring non-standard ADA bicycle and pedestrian facilities into ADA compliance (City of Visalia 2014).

The City of Woodlake maintains a Class I bike path that was established in the abandoned Visalia Electric Railroad right-of-way. Additionally, the City maintains a Class I bike path on top of the bank surrounding Bravo Lake. The two bike paths are linked at the Bravo Lake Botanical Garden, near SR 216. These bike paths also serve as a pedestrian pathway (City of Woodlake 2007).The City is currently pursuing Active Transportation Program funding to develop a plan to help guide a cohesive and well-maintained network of trails, bike paths and pedestrian facilities.

At the time of its General Plan adoption in 2002, the City of Farmersville did not have established bike lane or pedestrian facilities. As to date, the City of Farmersville has an ADA Compliance and Active Transportation Safety Plan 2019. However, Farmersville was actively participating in the preparation of a TCAG region bike plan that would designate bicycle routes on multiple roadways within the City's jurisdiction (Collins and Schoettler 2002). The City of Farmersville adopted the Tulare County Regional Bicycle Transportation Plan for use in 2010. The adopted plan proposed a variety of Class I Bike Paths along the Tulare Irrigation District Main Intake Canal, Extension Ditch, Blain Ditch, Deep Creek, the railroad frontage, and Walnut Avenue between Farmersville Boulevard and Extension Ditch as well as Class II Bike Lanes along Farmersville Boulevard, Visalia Road, Walnut Avenue, Oakland Street west of Farmersville Boulevard and a portion of Ventura Avenue south of Visalia Road. Class III Bicycle Routes were also proposed along local roadways to provide continuity between bikeway facilities and to connect neighborhoods to retail, schools and parks (City of Farmersville 2012). The City of Farmersville 2012 Comprehensive Infrastructure Master Plan also identified a Waterway Trails Master Plan, adopted in 2010, that established a network of multi-purpose trails and open space corridors along numerous waterways within the City (City of Farmersville 2012). A new specific plan study is being pursued by the City of Farmersville to study their downtown plan in the context of a pedestrian-oriented zone.

The City of Lindsay adopted its General Plan Circulation Element in 1989. At the time of its adoption, the City did not have established bike lanes. Instead, the General Plan suggests that the relatively compact character of the community would allow bicyclists to use collector and local streets as the principal routes for bicycle transportation due to their sufficient continuity that would allow for safe bicycle travel (Lindsay City Council 1989).Since then the City has made progress in reviving their parks such as Olive Bowl Park to encourage more outdoor activity. The City has also pursued a Caltrans study in 2023 known as the West Hermosa Street Corridor and Neighborhood Enhancement Plan. Funding is being sought out for bike lanes, sidewalks and safe pedestrian crossings.

Finally, the City of Tulare does not describe the existing bicycle and pedestrian network in its General Plan. However, the Tulare General Plan Transportation and Circulation Element does define bikeways similar to the Caltrans definitions and includes a variety of goals and policies related to maintaining an efficient and safe non-vehicular circulation system throughout the City (City of Tulare 2014).

The City is near completion of its Active Transportation Plan identifying key corridors that need safety improvements and provide accessibility to important destinations. Seventeen bicycle and 38 pedestrian projects are recommended in this plan. Some of the identified projects are in the process of being submitted in a competitive round of Active Transportation Program funding. Those projects include critical pedestrian safety improvements and bikeways along SR 137.

Air Transportation

The TCAG region has seven publicly owned general aviation airports, which include the following:

- Exeter Airport
- Porterville Municipal Airport
- Eckert Field Airport
- Mefford Field Airport
- Sequoia Field Airport
- Visalia Municipal Airport
- Woodlake Airport

None of the airports listed above provides scheduled air carrier service. The nearest airport providing scheduled air carrier service is Fresno-Yosemite International Airport in Fresno. There are several private airports in the region that are used primarily for agricultural or business purposes. Overall, Tulare County's airports primarily serve hobbyists, pilots who own aircraft, the agricultural industry, police, and medical services.

In addition to general aviation airports, several private heliports are maintained for helicopter use in the TCAG region. These heliports include San Joaquin Helicopters Heliport and San Joaquin Sprayers Inc. Heliport in Delano, Ash Mountain Heliport in Three Rivers, SCE San Joaquin Heliport and two Tulare Motor Sports Heliports in Tulare, and Gilbert Aviation Heliport in Visalia.

Emerging Travel and Mobility Options and Technology

New transportation technologies can have an important influence on regional and national transportation systems, and some have already started to change longstanding transportation behaviors. Transportation innovations include the following: on-demand ridesharing; connected and autonomous vehicles; mobility aggregation applications that provide users with one source for mobility services (e.g., Moovel, CityMapper); transportation network companies (i.e., Lyft, Uber); coordinated and adaptive traffic signals; active traffic management, which provides the ability to dynamically manage traffic through use of strategies such as adaptive ramp metering and adaptive traffic signal control; and unmanned aircraft systems. These and other emerging technologies have the potential to transform mobility choices and alter the transportation landscape The effect these technologies will have on the transportation system is uncertain and will be shaped by regulations and policies surrounding their use.

Transportation Demand Management/Transportation System Management

Transportation Demand Management (TDM) refers to all programs and strategies that are intended to reduce the number of vehicle trips required over the transportation network or shift the distribution of trips between time periods across the network (FHWA 2025). Transportation System Management (TSM) represents a variety of management techniques designed to improve the efficiency and effectiveness of the transportation system. These techniques improve operations and/or services of existing and future transportation networks (FHWA 2024).

The RTP/SCS incorporates a comprehensive program of Transportation Demand Management (TDM) and Transportation System Management (TSM) strategies designed to improve mobility, reduce vehicle miles traveled, and enhance the efficiency of the existing transportation network. TCAG will support implementation of these strategies through the programming and funding of transit service improvements, vanpool and rideshare programs, bicycle and pedestrian infrastructure, car-sharing opportunities, and other multimodal transportation investments that provide residents with viable alternatives to single-occupant vehicle travel.

In addition, TCAG will implement TSM strategies that optimize the performance of the existing transportation system through Intelligent Transportation Systems (ITS), traffic signal coordination and interconnection projects, and operational improvements such as roundabouts. These projects improve traffic flow, reduce delay and congestion, enhance travel time reliability, and increase transportation system safety while maximizing the effectiveness of existing infrastructure. Together, these TDM and TSM measures support the RTP/SCS goals of improving regional mobility, reducing greenhouse gas emissions, and promoting a more sustainable and efficient transportation network throughout the TCAG region. A comprehensive description of these strategies is provided in the Action Element and projects lists provided in the Action Element and Appendices (TCAG RTP\SCS 2026).

Vehicle Flow Management

The U.S. Department of Energy's Fuel Efficient Traffic Signal Management Program has assisted in increasing the number of synchronized traffic signals within the region to promote free flowing vehicle transportation conditions, less use of vehicle fuel, and decreased pollution due to less vehicle miles traveled. In the past, some jurisdictions have implemented minor design improvements to the existing transportation infrastructure in lieu of costly capital construction or reconstruction. In the future, signalization, channelization, and the construction of acceleration and deceleration lanes with ramp metering at key interchanges are expected to achieve roadway vehicle flow improvements.

Intermodal Transportation

Transportation engineers and planners in the TCAG region have employed one or more of the following methods of enhancing intermodality to increase the use of the existing transportation capacity more efficiently:

- Coordinate transit routes and schedules with those of inter-city rail and bus service;
- Provide amenities and facilities for bicycle and pedestrian access to transit stops;
- Facilitate and encourage access to the regional air carrier airport by paratransit, transit, taxi, transportation network companies and bicycle; and
- Provide park and ride facilities with bicycle, pedestrian and transit access amenities.

Ridesharing

Rideshare programs help reduce congestion and improve traffic flow. Rideshare and carpool programs in the TCAG region are limited to Valleyrides, a cooperative effort between Fresno Council of Governments, Tulare County Association of Governments, and California State University Fresno to serve residents commuting to Fresno and Tulare Counties. Valleyrides acts as a ridematching database to assist in forming or finding a carpool, vanpool or bikepool. Valleyrides provides contact information on air, rail, bus, taxi, and other transportation services as well as downloadable maps of nearby bicycling and walking trails (Fresno Council of Governments 2026).

Tulare County has already begun implementation of regional car sharing services through participation in the Mio car Community Mobility Organization (CMO) program. Initial electric vehicle car sharing locations were launched in partnership with local agencies and community organizations, including Self-Help Enterprises, with sites established in Visalia, Orosi, and Dinuba.

As of 2026, the Tulare/Kern Miocar program includes a growing fleet of shared electric vehicles with planned future expansion throughout the region. Future expansion of car share services within Tulare County may include additional deployments at:

- Affordable housing developments;
- Transit centers and park-and-ride facilities;
- Downtown activity centers;
- Educational campuses;
- Disadvantaged communities;
- Mobility hubs and first-mile/last-mile transit connection points.

Preferential Transit/Carpool Treatment

Methods employed by local jurisdictions to encourage people to reduce their use of single-occupant vehicles include preferential parking for carpools and vanpools; subsidized transit passes; use of agency vans for vanpooling; and provision of an on-site transportation coordinator. Regional transit agencies strive to ensure that major developments within their service areas are transit accessible and that transit stops are located to promote transit use.

Shared Parking Facilities

Parking management refers to programs that result in more efficient use of parking resources and can either provide an incentive or disincentive to single occupant vehicle use. Parking facilities that are shared between multiple users and destinations are found within the region. Park and ride lots are a form of off-site shared parking facilities and facilitate ridesharing. Park and ride lots within the region have been placed in locations where people can easily meet and form carpool trips, such as the park and ride facility associated with TCRTA's Route 70 that serves the communities of Porterville and Springville. Parking garages are also associated with shared parking in the TCAG region and are often located near destinations attracting a large number of visitors. Parking regulations which control when and how long vehicles may park and the cost of the parking in a location are another form of parking management.

4.15.2 Regulatory Setting

a. Federal Laws, Regulations, and Policies

U.S. Department of Transportation Metropolitan Transportation Plan Requirements

Pursuant to Title 23 of the Code of Federal Regulations (CFR), Section 450.324 and Title 49 U.S. Code Section 5303, every Metropolitan Planning Organization (MPO) is required to prepare an RTP. The RTP serves as a long-range planning document that outlines strategies and investments to develop and maintain multimodal transportation system over a minimum 20-year horizon, while remaining fiscally constrained. The plan must be updated every five years in attainment areas and every four years in nonattainment or maintenance areas for air quality. The RTP must address current and projected transportation demand, identify existing and proposed transportation infrastructure, and report on progress toward meeting performance targets (U.S. Department of Transportation Federal Transit Administration 2022).

Infrastructure Investment and Jobs Act/Bipartisan Infrastructure Law

The Infrastructure Investment and Jobs Act (IIJA), also known as the Bipartisan Infrastructure Law (Public Law 117-58), was signed into law on November 15, 2021. The IIJA reauthorizes surface transportation programs through fiscal year 2026 and builds upon the policy framework and performance-based planning provisions established under Moving Ahead for Progress in the 21st Century Act and the Fixing America's Surface Transportation Act. The IIJA maintains the core metropolitan and statewide transportation planning requirements under 23 U.S. Code § 134 and § 135, while expanding the scope of planning to further address climate change, equity, resiliency, and infrastructure modernization. In the development of the MTP and RTPs, the IIJA continues to require MPOs and RTPAs to:

- Coordinate with officials responsible for other types of planning activities affected by transportation, such as land use, housing, economic development, environmental protection, freight, and emergency management.
- Engage traditionally underserved and disadvantaged communities to ensure equitable access to transportation planning and project benefits.
- Incorporate consideration of climate change, environmental justice, and resilience, particularly regarding the impact of extreme weather and natural disasters on transportation infrastructure.
- Improve infrastructure condition, safety, and system efficiency, while supporting economic vitality, freight mobility, and multimodal connectivity.

The IIJA adds emphasis on:

- Reducing greenhouse gas emissions through transportation planning and investments.
- Increasing resilience to natural hazards and climate-related events.
- Investing in complete streets, bicycle/pedestrian infrastructure, and multimodal transportation.
- Strengthening public involvement and interagency coordination, including with housing and health agencies.
- Supporting equitable access to transportation options for disadvantaged communities.

The 2026 RTP/SCS prepared by TCAG has been developed to comply with the planning requirements of the IIJA and its associated regulations under 23 CFR Part 450.

b. State Laws, Regulations, and Policies

California Transportation Plan

The California Transportation Plan is prepared by the California State Transportation Agency every five years to provide a long-range policy framework to meet the State's future mobility needs and reduce greenhouse gas emissions to goals set by the California Global Warming Solutions Act of 2006 (AB 32, discussed in Section 4.8, *Greenhouse Gas Emissions/Climate Change*) and implementing legislation SB 375 (discussed below). The most recent California Transportation Plan was adopted in 2021 (Caltrans 2021). The California Transportation Plan defines goals, performance-based policies, and strategies to achieve the State's collective vision for California's future statewide, integrated, multimodal transportation system by envisioning a sustainable system that improves mobility and enhances quality of life. The California Transportation Plan is developed in collaboration with transportation stakeholders such as TCAG. Through ongoing engagement, the California Transportation Plan is intended to provide goals and visions to support a fully integrated, multimodal, sustainable transportation system that supports the quality of life, prosperous economy, human and environmental health, and social equity.

Climate Action Plan for Transportation Infrastructure

The Climate Action Plan for Transportation Infrastructure (CAPTI) was adopted in July 2021. CAPTI details how the state recommends investing billions of discretionary transportation dollars annually to aggressively combat and adapt to climate change while supporting public health, safety and equity. CAPTI builds on executive orders signed by Governor Gavin Newsom in 2019 and 2020 targeted at reducing greenhouse gas (GHG) emissions in transportation, which account for more than 40 percent of all emissions, to reach the state's ambitious climate goals. Throughout 2024, the California State Transportation Agency (CalSTA) engaged with public stakeholders to develop new strategies which informed an updated CAPTI 2.0 adopted in January 2025 (CalSTA 2025).

CAPTI 2.0 builds on the original plan and introduces four new strategies, which include the following:

- S1. Transforming the Future of the State Highway System
- S2. Reducing GHG Impacts of Transportation Investments
- S3. Delivering Equitable Outcomes
- S4. Improving Transparency and Accountability

Each strategy includes specific actions, for a total of 14 new actions necessary for further implementation of the CAPTI framework to align transportation infrastructure investments with California's climate goals and support the Caltrans Transit Policy, which prioritizes transit movement on the state highway system and reaffirms California's commitment to achieving VMT neutrality (CalSTA 2025).

Assembly Bill 130

AB 130 was signed into law on June 30, 2025. The legislation introduces a new fee-based option for mitigating VMT impacts under CEQA. AB 130 establishes the Transit-Oriented Development

Implementation Fund, administered by the California Department of Housing and Community Development. Starting July 1, 2026, lead agencies may mitigate significant VMT impacts to less than significant by funding or facilitating VMT-reducing projects or through contributions to the Transit-Oriented Development Implementation Fund. The bill adds Section 21080.44 to the Public Resources Code, authorizing lead agencies to mitigate significant transportation impacts by facilitating or funding VMT-reducing projects, including through contributions to the Transit-Oriented Development Implementation Fund. However, lead agencies retain discretion to require additional mitigation measures if necessary. The Governor's Office of Land Use and Climate Innovation issued draft guidelines for implementing the AB 130 VMT Mitigation Program in April 2026 (LCI 2026).

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State Regional Transportation Plan Requirements

Government Code Sections 65080 et seq. state that MPOs must prepare and adopt a long-range transportation plan, such as an RTP directed at achieving a coordinated and balanced regional transportation system, including, but not limited to, mass transportation, highway, railroad, maritime, bicycle, pedestrian, goods movement and aviation facilities and services. The plan must be action-oriented and pragmatic, considering both the short-term and long-term planning, and shall present clear, concise policy guidance to local and state officials. The transportation plan must consider factors specified in the IIJA metropolitan transportation planning rules (23 CFR Part 450 and 49 CFR Part 613), and each transportation planning agency must consider and incorporate, as appropriate, the transportation plans of cities, counties, districts, private organizations and state and federal agencies.

Pursuant to Government Code Section 65080(d), transportation planning agencies, such as TCAG, that are in nonattainment and monitoring areas must update their long-range transportation plans at least every four years.

The California Transportation Commission has developed RTP guidelines to assist MPOs with developing their RTPs so that they are consistent with federal and state transportation planning requirements. The guidelines are updated and adopted periodically, as needed. For the first time, two separate guidelines were adopted in January 2024 to guide RTP development in MPOs and RTPAs. Both documents incorporate new legislation and the associated goals, particularly related to reducing GHG emissions and improving air quality. The 2024 RTP Guidelines for RTPAs (California Transportation Commission, 2024b) specify that the requirements outlined in the documents apply to all RTP updates begun following adoption. Since the 2026 RTP was started after the January 2024 adoption date of the 2024 RTP Guidelines, TCAG, as the transportation planning agency for Tulare County, has used the 2024 RTP Guidelines for the 2026 RTP.

Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008 (Chapter 728, Statues of 2008) (SB 375) diversified the areas of study from past RTPs to include land use impacts and climate change issues. Specifically, SB 375 requires MPOs to prepare an SCS that demonstrates how the region will meet its GHG reduction targets through integrated land use, housing, and transportation planning. The SCS must identify a transportation network that, when integrated with the forecasted development pattern for the region, will reduce GHG emissions from automobiles and light trucks in accordance with targets set by the California Air Resources Board (CARB). See Section 4.8, *Greenhouse Gas Emissions/Climate Change*, for a more in-depth discussion of SB 375 and its implications for the proposed 2026 RTP/SCS.

Under SB 375, some development and transportation projects assumed as a part of the proposed 2026 RTP/SCS may be eligible to use a streamlined version of the environmental review process. Among other criteria, these projects must be consistent with the land use designation, density, intensity, and policies of the proposed 2026 RTP/SCS, and fall within the identified criteria for development and transportation projects. Streamlining under SB 375 is described in more detail in Section 1.4.1, *Streamlining Under SB 375*.

Senate Bill 743

SB 743 (2013) changed the way that public agencies evaluate the transportation impacts of projects under CEQA, recognizing that roadway congestion, while an inconvenience to drivers, is not itself an environmental impact. (See PRC Section 21099(b)(2) [“automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to [CEQA]”].)

Under SB 743, the Governor’s Land Use and Climate Innovation (LCI; formerly known as the Office of Planning and Research) established VMT as the preferred metric for measuring transportation impacts of most projects in place of vehicle level of service or related measures of congestion as the primary metric. The use of VMT for determining significance of transportation impacts has become commonplace since the certification of this provision and the release of LCI’s Technical Advisory on Evaluating Transportation Impacts in CEQA in December 2018 (LCI 2018) and, beginning July 1, 2020, is the required metric statewide.

For land use projects, SB 743 provides opportunities to streamline transportation analysis under CEQA for qualifying urban infill development near major transit stops in metropolitan regions statewide, as described in more detail in Section 1.4.3, *Streamlining Under SB 743*. Additionally, the legislation establishes that aesthetic and parking impacts of these projects are not considered significant impacts on the environment.

SB 743 can also substantially affect the review of transportation projects under CEQA. Some projects, such as expanding facilities for bicycle, pedestrian, or transit only use, will not result in adverse transportation impacts because they are assumed not to substantially increase automobile trips. However, for roadway capacity projects, the *CEQA Guidelines* (Section 15064.3) give lead agencies some discretion over what metric is used to evaluate transportation impacts, as some roadway expansion projects can induce vehicle travel. If using a metric besides VMT, however, the change in vehicle travel should still be reported. A program-level assessment of roadway projects in a regional plan may also be used to streamline project level analysis (LCI 2018).

Caltrans has provided two guidance documents to address VMT impacts on the state highway system consistent with the requirements of SB 743 and the LCI Technical Advisory:

- The Transportation Analysis under CEQA (TAC) provides information to support CEQA practitioners in making CEQA significance determinations for transportation impacts of projects on the state highway system. These could include land use projects or transportation projects (Caltrans 2020a).
- The Transportation Analysis Framework (TAF) guides the preferred approach for analyzing the VMT attributable to proposed projects (induced travel) in various project settings, with particular focus on the analysis of induced travel associated with transportation projects which would add road capacity to the transportation system (Caltrans 2020b).

CEQA Guidelines Section 15064.3 and LCI Technical Advisory

CEQA Guidelines Section 15064.3 implements SB 743 and establishes VMT as the most appropriate measure of transportation impacts. The primary components of Section 15064.3 include:

- Identifies VMT as the most appropriate measure of transportation impacts;
- Declares that a project's effect on automobile delay shall not constitute a significant environmental impact (except for projects increasing roadway capacity);
- Creates a rebuttable presumption of no significant transportation impacts for (a) land use projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor, (b) land use projects that reduce VMT below existing conditions, and (c) transportation projects that reduce or have no impact on VMT;
- Allows a lead agency to qualitatively evaluate VMT if existing models are not available; and
- Gives lead agencies discretion to select a methodology to evaluate a project's VMT but requires lead agencies to document that methodology in the environmental document prepared for the project.

CEQA lead agencies were required to comply with the State Guideline Section 15064.3 no later than July 1, 2020. Tulare County adopted specific thresholds for the purposes of evaluating VMT impacts of projects within its jurisdiction in 2020 as an Amendment to the Transportation & Circulation Element of the County's General Plan (). Other municipalities and agencies in the TCAG region have not formally adopted thresholds for evaluating VMT impacts, but instead generally use a threshold of 15 percent less VMT per capita than existing average VMT for the area. The 15 percent below

existing VMT threshold for land use projects is based on guidance provided by the LCI in its *Technical Advisory on Evaluating Transportation Impacts in CEQA* (LCI 2018).

2022 Scoping Plan

The California Air Resources Board (CARB) 2022 Scoping Plan for Achieving Carbon Neutrality (CARB 2022) concludes that California cannot meet its GHG reduction targets through vehicle electrification alone and identifies a reduction in per capita VMT of approximately 25 percent below 2019 levels by 2030 and 30 percent below 2019 levels by 2045 as necessary benchmarks to support achievement of the State's climate goals.

Assembly Bill 1358

AB 1358, also known as the Complete Streets Act of 2008, amended the California Government Code Section 65302 to require that any substantive revisions to a city or county's Circulation Element include provisions for accommodations of all roadway users, including bicyclists and pedestrians.

California Bicycle Transportation Act

The California Bicycle Transportation Act of 1994 requires all cities and counties to have an adopted bicycle master plan to apply for Bicycle Transportation Account funding source. As of 2013, the Bicycle Transportation Account, along with older programs such as the Transportation Alternatives Program, and Safe Routes to School, have been consolidated into the Active Transportation Program, which is now the primary source of funding for infrastructure and non-infrastructure projects and planning to promote walking and biking in California. The Program is administered by Caltrans and the Division of Local Assistance, Office of State Programs, and supports a wide range of projects that facilitate active modes of transportation. Jurisdictions are encouraged to develop and maintain comprehensive Active Transportation Plans to maintain eligibility for Active Transportation Program funding.

California Manual on Uniform Traffic Control Devices

Pursuant to California Vehicle Code Section 21400 and the recommendations of the California Traffic Control Devices Committee, Caltrans has revised the 2023 California Manual on Uniform Traffic Control Devices (Revision 9) to establish uniform standards for all official traffic control devices in the State of California. Revisions (referred to as CA MUTCD 2026) went into effect on January 1, 2026 (Caltrans 2026).

Active Transportation Program

Pursuant to SB 99 (Chapter 359, Statutes of 2013) and AB 101 (Chapter 354, Statutes of 2013), the Active Transportation Program (ATP) was created to encourage increased use of active modes of transportation, such as biking and walking. The ATP consolidates various federal and state transportation programs, including the Transportation Alternatives Program, Bicycle Transportation Account, and State Safe Routes to School, into a single program with a focus to make California a national leader in active transportation (Caltrans 2025x). The ATP is administered jointly by the California Transportation Commission (CTC) and Caltrans and combines many federal and state funding streams previously used for bicycle, pedestrian, safety, and other related purposes into one funding stream.

Assembly Bill 1358 — California Complete Streets Act

AB 1358, the Complete Streets Act (Government Code Sections 65040.2 and 65302), was signed into law in September 2008. As of January 1, 2011, the law required cities and counties, when updating the part of a local general plan that addresses roadways and traffic flows, to ensure that those plans account for the needs of all roadway users. Specifically, the legislation requires cities and counties to ensure that local roads and streets adequately accommodate the needs of bicyclists, pedestrians, and transit riders, as well as motorists.

Strategic Highway Safety Plan

The California Strategic Highway Safety Plan (SHSP) is a comprehensive, statewide transportation safety plan which provides a collaborative framework for reducing fatalities and serious injuries across all travel modes and on all public roads. The SHSP utilizes a data-driven process to identify key safety needs and guides resource and investment decisions that provide the greatest potential to achieve the plan's goal of zero traffic fatalities and serious injuries on all of California's public roadways. It is a statewide-coordinated safety plan that provides a comprehensive framework for reducing highway fatalities and serious injuries on all public roads. (Caltrans 2020x).

California Transportation Commission Regional Transportation Plan Guidelines

The California Transportation Commission (CTC) publishes and periodically updates guidelines for the development of long-range transportation plans, such as TCAG's proposed 2026 RTP/SCS. Pursuant to Government Code Section 65080(d), each regional transportation planning agency (RTPA) is required to adopt and submit an updated RTP to CTC and Caltrans every four years. TCAG is the designated RTPA for Tulare County.

c. Regional Laws, Regulations, and Policies

Regional Transportation Planning Agency Transportation Plans

As described in Section 1.2, *Project Background*, TCAG functions as both the federally-designated MPO and the State-designated regional transportation planning agency (RTPA) for Tulare County. Under federal regulations (23 CFR 450.322(c)) and State law (Government Code 65080(d)), TCAG is required to prepare a long-range (at least 20-year) transportation planning document, known as the RTP. The RTP must be updated every four years and must be consistent with the California Transportation Plan. The RTP is generally an action-oriented document used to achieve a coordinated and balanced regional transportation system.

Complete Streets

TCAG adopted a Complete Streets document in 2017 that is intended to reduce traffic congestion, improve air quality, and increase the quality of life of residents by providing safe, convenient, and comfortable routes for walking, bicycling, and public transportation within the TCAG region. The County's major goals, as outlined in the Complete Streets document, are as follows (TCAG 2017):

- Tulare County's transportation network will be supported through a variety of feasible transportation choices, which allows for sustainable growth.
- The livability of neighborhoods and commercial centers located along the County's transportation corridors will be enhanced by a safe and inviting pedestrian environment.

- The design of multimodal roadway facilities will not compromise the needs of larger vehicles such as transit vehicles, fire trucks and freight delivery trucks.
- Inclusion of Complete Streets design elements will allow for design flexibility on different street functions and neighborhood contexts.
- Inclusion of Complete Streets design elements will improve the integration of land use and transportation, while encouraging economic revitalization through infrastructure improvements.

The County's major objectives, as outlined in the Complete Streets document, are as follows (TCAG 2017):

- To create an integrated and connected transportation network that supports transportation choices and sustainable growth.
- To ensure that all transportation modes are accommodated to the extent possible in all public roadway facilities in the County.
- To develop and use the latest design standards and guidelines in the design of Complete Streets.
- To provide flexibility in the implementation of this policy so that streets chosen for implementation of Complete Streets elements can be developed to fit within the context of their principal purpose and surroundings without compromising the safety of users and needs of larger vehicles.

Tulare County Active Transportation Plan

The Tulare County Active Transportation Plan, adopted by TCAG in 2026, focuses on ensuring that the facilities planned within all eight local jurisdictions are integrated and compatible, as well as providing "stand-alone" bicycle and active transportation plans for each jurisdiction which are independent and can be used by each agency to secure funding and implement individual bicycle plans (TCAG 2026).

Tulare County Emergency Operations Plan

The EOP is the County's primary framework for managing emergencies and disasters. It establishes how the County will respond to, manage, and recover from emergencies, provides organizational structure and coordination procedures for all responding agencies It applies to the entire operational area, which includes Tulare County, the eight cities, and special districts and tribes. [tularecounty.ca.gov]

d. Local Laws, Regulations, and Policies

General Plans

State law requires cities and counties to adopt general plans, which must incorporate a circulation element, also often called a transportation element. A general plan's transportation or circulation element is an infrastructure plan and policy document used to determine the needed expansion or modification of the transportation network (including services) to accommodate planned population and employment growth. The elements generally address expectations for transportation network operations and safety based on goals and policies of the city or county. The elements also often address goods movement, public transit, bicycle facilities and pedestrian facilities.

Transportation provisions in applicable county and city general plans for the TCAG region are discussed below.

Tulare County

The Tulare County General Plan's Transportation and Circulation Chapter includes goals that focus on promoting an efficient roadway and highway system for the movement of people and goods, which enhances the physical, economic, and social environment while being safe, environmentally friendly, and cost-effective; improving and enhancing current rail services that stimulate economic growth and meet the needs of freight and human transportation; enhancing airports in the County to meet the County's changing needs and demands while minimizing adverse airport related environmental impacts and safety hazards; supporting the development of a public transportation system that provides an alternative to the private automobile and meets the needs of those considered "transit dependent;" encouraging the development of safe, continuous, and easily accessible bicycle and trail systems that facilitate the use of viable transportation alternatives in a safe and financially feasible manner; and, addressing the transportation system from a multimodal perspective and identify how to provide for routine accommodation of all roadway users, including motorists, pedestrians, bicyclists, people with disabilities, seniors, and users of public transportation in a manner suitable to the rural, suburban, or urban context of the general plan (Tulare County 2012).

City of Porterville

The Porterville General Plan Circulation Element includes goals, objectives, and policies promote safe and efficient vehicular circulation, provide a wide variety of transportation alternatives and modes to service all residents and businesses to enhance the quality of life, make efficient use of existing transportation facilities to reduce total VMT per household, promote the use of public transit for daily trips to schools and work and for other purposes, promote the use of bicycles to alleviate vehicle traffic and improve public health, promote pedestrian activity, and improve commercial goods movement (City of Porterville 2007).

City of Tulare

The City of Tulare General Plan Transportation Element focuses on developing an integrated transportation system that provides for the safe and efficient movement of people and goods. This goal is achieved by maintaining an efficient, affordable, and safe roadway system throughout Tulare in a way that is economically sustainable. The City strives to maintain and develop an adequate transit system that provides for the local and regional transit needs of Tulare residents, maintain an efficient and safe non-vehicular circulation system through Tulare, improve the City's transportation system through the use of TSM and TDM strategies, provide an efficient system for goods movement that adequately serves the industrial and commercial areas of Tulare, and maintains adequate general aviation air service to business, recreation, and agricultural enterprises in Tulare (City of Tulare 2014).

Visalia General Plan

The Visalia General Plan Circulation Element includes goals and objectives related to transportation, traffic, and emergency access. The Circulation Element objectives focus on developing and maintaining a road system that is convenient, safe, efficient, and cost effective; maximizing the use and efficiency of the existing transportation system through application of TSM strategies;

promoting ways to reduce the number of peak hour trips and vehicle-miles traveled; and, ensuring that new development pays its fair share of the costs of new and improved transportation facilities. The Circulation Element also provides a variety of policies related to system planning, level of service standards, engineering and safety standards, right of way acquisition and construction, traffic studies and mitigation measures, and coordination with the College of the Sequoias (City of Visalia 2014).

Other City General Plans

The cities of Dinuba, Exeter, Farmersville, Lindsay, and Woodlake address transportation and circulation in their respective General Plans (City of Dinuba 2008; City of Exeter 2012; Collins and Schoettler 2002; Lindsay City Council 1989; City of Woodlake 2007). Across these cities, transportation and circulation planning focuses on maintaining safe and efficient movement of people and goods, enhancing multimodal connectivity, support projected growth, and minimize conflicts between land uses.

Bicycle Master Plans and Other Modal Plans

City- and county bicycle and pedestrian master plans, active transportation plans and other mode-specific plans serve as policy documents to guide the development and maintenance of the transportation network, support facilities and non-infrastructure programs. These plans describe the acceptable operating service standards, facility classifications, opportunity sites, and mode-specific goals and policies of a given city or county. Numerous existing bicycle and other modal plans have been adopted for the TCAG region. An example of an applicable plan in the TCAG region is the City of Visalia Active Transportation Plan that aims to provide the means to support active transportation, specifically bicycling and walking, as an alternative mode of transportation for work, daily activities, and recreational trips (City of Visalia 2017).

4.15.3 Impact Analysis

a. Methodology and Significance Thresholds

VMT was estimated with the TCAG Activity-Based Model (Appendix D) using an RTP baseline year of 2025 and an RTP horizon year of 2049. The model uses land use, socioeconomic, and road network data, auto operation costs, and other inputs to estimate travel patterns, roadway traffic volumes and performance measures.

The VMT analysis consists of two parts: evaluating the change in total VMT and evaluating the change in VMT per capita. The change in total VMT (region-wide) was evaluated for the proposed 2026 RTP/SCS against both the existing conditions baseline and, for information purposes, future no project scenario. This methodology is consistent with the LCI Technical Advisory on Evaluating Transportation Impacts in CEQA and the CEQA Guidelines (LCI 2018).

TCAG estimated induced vehicle miles traveled using a hybrid method that combines its activity-based model with the National Center for Sustainable Transportation tool. The activity-based model captures short-term effects of added road capacity, including route changes, mode shifts, time-of-day changes, destination changes, and new trips. To estimate longer-term increases in travel tied to land use changes, TCAG applied the National Center for Sustainable Transportation tool to interstates, freeways and expressways, and principal arterials. TCAG then used model sensitivity testing to separate the short-term response from the total increase estimated by the National

Center for Sustainable Transportation. Finally, TCAG calculated long-term induced VMT based on added lane miles, roadway type, and the resulting long-term response factors.

The criteria for determining whether the RTP/SCS would have significant environmental impacts related to transportation were based in part on the environmental checklist in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) and on performance measures established by TCAG. Significant impacts to transportation would occur if the plan would:

1. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;
2. Conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b), specifically
    a. An overall increase in total regional VMT above baseline (2025) conditions;
    b. A change in VMT per capita in the region that fails to reach 15 percent below baseline (2025) VMT per capita conditions; or
    c. A substantial increase in induced travel due to roadway capacity expansions;
3. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
4. Result in inadequate emergency access.
5. Impair implementation or physically interfere with an adopted emergency response plan or emergency evacuation plan.

b. Project Impacts and Mitigation Measures

The following section describes transportation impacts associated with the transportation projects and land use scenario included in the proposed 2026 RTP/SCS. Due to the programmatic nature of the proposed 2026 RTP/SCS, a precise, project-level analysis of the specific impacts associated with each individual transportation and land use project is not possible. In general, however, implementation of proposed transportation projects and future projects under the land use scenario implementing the proposed 2026 RTP/SCS could result in the transportation impacts as described in the following sections.

Threshold 1:	Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Impact T-1 TRANSPORTATION PROJECTS AND LAND USE PROJECTS IMPLEMENTING THE PROPOSED 2026 RTP/SCS WOULD NOT CONFLICT WITH ANY PROGRAM, PLAN, ORDINANCE OR POLICY ADDRESSING THE CIRCULATION SYSTEM, INCLUDING TRANSIT, ROADWAY, BICYCLE AND PEDESTRIAN FACILITIES. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

The proposed TCAG 2026 RTP/SCS is intended to improve the circulation system for all modes of transportation so that motor vehicles and non-motorized vehicles can use the streets simultaneously and safely. The proposed 2026 RTP/SCS includes goals and objectives that aim to: serve regional goals, objectives, policies, and plans; respond to community and regional transportation needs; promote energy efficient, environmentally sound modes of travel, facilities, and services; provide an efficient, integrated, multi-modal transportation system for the movement of people and goods that enhances the physical, economic, and social environment in the TCAG region; provide a safe, secure, coordinated, and efficient public transit system that can reasonably

meet the needs of residents; support the development of a regional system of airports that meets the air commerce and general aviation needs of the county; promote safe, economical, and convenient rail systems and schedules that meet the needs of passenger and freight services in the region; and, improve, enhance, and expand the region's bicycle and pedestrian systems and connectivity to those systems, while keeping them safe and convenient. Overall, the goals and objectives included in the proposed 2026 RTP/SCS are intended to ensure that future transportation projects would not conflict with a State or local program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

Transportation projects included under the proposed 2026 RTP/SCS consist of widening and improving existing roadways, on/off ramps, and bridge structures; constructing interchanges, roundabouts, a railroad crossing, collectors, and a new arterial; and improving turn lanes, intersections, and on/off ramps. As described in Table 2-2 of Chapter 2, *Project Description*, these proposed 2026 RTP/SCS projects include, but are not limited to: SR 99 - 25.2/30.6 Tulare - Avenue 200 to Prosperity Avenue; State Route 198 at Road 148; State Route 201 - State Route 201 (Avenue 400) at Road 80 (Alta); Sierra View Street - Foothill Avenue to Strathmore Avenue; Road 168 at Walnut; Westwood Street - South of Orange Avenue to south of Tule River; Westwood Street Bridge at Porter Slough; Akers Street – Corvina Avenue to Cartmill Avenue; Santa Fe Street – Riggin to Shannon Parkway; and Avenue 280 - Lovers Lane (Visalia) to Virginia (Farmersville). Such projects would result in congestion relief, safety improvements, and overall circulation improvements. Therefore, the proposed 2026 RTP/SCS would be consistent with the California Transportation Plan and individual jurisdiction General Plans, as well as the goals and objectives outlined within the proposed 2026 RTP/SCS, which are described above.

Active transportation projects included under the proposed 2026 RTP/SCS would add new pedestrian and bicycle facilities, including sidewalks, on-street bikeways, off-street trails and paths, street crossing improvements, and safe routes to school. Bicycle and pedestrian improvement projects identified in the proposed 2026 RTP/SCS include, but are not limited to, the Dinuba Citywide Bikeway Network, Farmersville Citywide Bikeway network, Lindsay Citywide Bikeway Network, City of Lindsay Pedestrian Connection Projects, Tule River Parkway Multi-Use Trail Phase IV, Porterville Citywide Bikeway network, and the Earlimart Multi-Modal and Safety Enhancement Project. These projects are aimed primarily at improving bicycle and pedestrian safety and expanding facilities such as bike lanes. Pedestrian and bicycle facilities would be designed and constructed in compliance with applicable safety regulations, such as the California Manual of Uniform Traffic Control Devices (Caltrans 2025b).

Transit projects are included in the proposed 2026 RTP/SCS with 22 percent of RTP funding ($1.993B) going to transit specific projects. Key transit projects include the Cross Valley Corridor Express Bus Service. Vanpool funding, future transit connecting to the State's High Speed Rail, and intelligent transportation systems including signal prioritization for transit.

The proposed 2026 RTP/SCS goals, objectives, and projects would be consistent with the bicycle and pedestrian mode encouragement, provision, convenience, and safety goals included in the County and City general plans that are discussed in Section 4.15.2, *Regulatory Setting*, above.

Since the proposed 2026 RTP/SCS would result in additional and improved facilities to accommodate pedestrian, bicycle, and transit travel modes, there would not be substantial disruption of bicycle, pedestrian, and transit facilities. In addition, the proposed 2026 RTP/SCS would result in congestion relief, safety improvements, and overall circulation improvements. Therefore, the proposed 2026 RTP/SCS would not conflict with a program, plan, ordinance, or policy

addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. This impact would be less than significant.

Mitigation Measures

No mitigation measures are required.

Threshold 2: Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

a. An overall increase in total regional VMT above baseline (2025) conditions would be considered a significant impact;

b. A change in VMT per capita in the region that fails to reach 15 percent below baseline (2025) VMT per capita conditions would be considered a significant impact; or

Impact T-2 THE PROPOSED 2026 RTP/SCS WOULD RESULT IN AN OVERALL INCREASE IN REGIONAL VMT ABOVE BASELINE (2025) CONDITIONS, BUT WOULD RESULT IN A SMALL DECREASE IN VMT PER CAPITA BELOW BASELINE (2025) CONDITIONS. REGIONAL VMT AND VMT PER CAPITA IMPACTS FROM IMPLEMENTATION OF THE PROPOSED 2026 RTP/SCS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Table 4.15-3 below compares the daily VMT and VMT per capita for baseline conditions in 2025 and for 2049 conditions with implementation of the proposed TCAG 2026 RTP/SCS on all roadways for the TCAG region as a whole. The daily VMT and VMT per capita for 2049 without implementation of the proposed 2026 RTP/SCS are also provided in Table 4.15-3 for informational and comparative purposes.

Overall Increase in Regional VMT

The TCAG Model used to estimate VMT includes an operational analysis of the regional transportation system under the conditions shown in Table 4.15-3. As described in Section 14.15.1, *Setting*, regional VMT data accounts for all vehicle types and all travel within the region, including trips that originate and/or end outside of the TCAG region (pass-through trips), while an area's VMT per capita is the total VMT divided by the population of that area and is a measure of the average vehicle miles each person travels on a typical weekday.

Table 4.15-3 VMT Results Summary

Scenario	Regional VMT	VMT per Capita[1]
Baseline Conditions (2025)	10,662,601	21.89
2049 Conditions with proposed 2026 RTP/SCS	11,566,124	21.38
2049 Conditions without proposed 2026 RTP/SCS	12,458,425	23.03

[1] VMT per capita is derived by dividing total regional VMT by the 2025 population size of 487,209 persons or the 2049 population size of 540,925.

Source: TCAG Model, Appendix D

As shown in Table 4.15-3, the proposed 2026 RTP/SCS is projected to increase the total regional VMT above 2025 baseline conditions. As the table shows, total regional VMT would increase by 903,523 miles with implementation of the proposed 2026 RTP/SCS, which would be an approximately 8.5 percent increase from the baseline 2025 conditions. Therefore, this impact would be significant.

For informational purposes, Table 4.15-3 shows that total regional VMT would increase by 1,795,824 miles without implementation of the proposed 2026 RTP/SCS, which would be an approximately 17 percent increase from the baseline 2025 conditions. This demonstrates that population growth in the TCAG region would increase daily VMT, regardless of implementation of the proposed 2026 RTP/SCS, and that VMT in 2049 with the proposed 2026 RTP/SCS would be lower than without the proposed 2026 RTP/SCS. Nevertheless, because total regional VMT would increase above baseline (2025) conditions, the impact is considered significant.

Per Capita Vehicle Miles Traveled

Table 4.15-3 shows that daily VMT per capita would decrease from 21.89 to 21.38 by 2049 with implementation of the proposed 2026 RTP/SCS, a decrease of approximately 2.3 percent. As such, the proposed 2026 RTP/SCS would fail to reach 15 percent below baseline (2025) VMT per capita conditions in 2049. Therefore, this impact would be significant.

For informational purposes, Table 4.15-3 shows without implementation of the proposed 2026 RTP/SCS, daily VMT per capita would increase from 21.89to 23.03 miles by 2049. This would be an increase of approximately 6 percent. As such, VMT per capita in 2049 with the proposed 2026 RTP/SCS would be lower than without the proposed 2026 RTP/SCS. Nevertheless, because VMT per capita would fail to reach 15 percent below baseline (2025) conditions, the impact is considered significant.

The following mitigation measures would reduce VMT impacts.

Mitigation Measures

For transportation projects under their jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures developed for the proposed 2026 RTP/SCS where applicable for transportation projects. For land use projects under their jurisdiction, the County and incorporated cities in the TCAG region can and should implement the following mitigation measures. Project specific environmental documents may adjust these mitigation measures as necessary to respond to site specific conditions.

T-2(a) Land Use Project VMT Analysis and Reduction

Regionally, implementing agencies shall require implementation of VMT reduction strategies through TDM programs, impact fee programs, mitigation banks or exchange programs, in-lieu fee programs, and other land use project conditions that reduce VMT. Programs shall be designed to reduce VMT from existing land uses, where feasible, and from new discretionary residential or employment land use projects. The design of programs and project specific mitigation shall focus on VMT reduction strategies that increase travel choices and improve the comfort and convenience of sharing rides in private vehicles, using public transit, biking, or walking.

At a project level, implementing agencies shall evaluate VMT as part of project specific CEQA review and discretionary approval decisions for land use projects. Where project level significant impacts are identified, implementing agencies shall identify and implement measures that reduce VMT. Examples may include but are not limited to:

- Provide car-sharing, vanpool, bike sharing, and ride-sharing programs
- Implement or provide access to commute reduction programs
- Encourage telecommute programs

- Purchase AB 130 VMT mitigation credits
- Incorporate affordable housing into the project
- Increase density, infill, and transit oriented development
- Increase mixed uses within the project area
- Incorporate improved pedestrian connections within the project/neighborhood
- Incentivize development in low VMT communities
- Incentivize housing near commercial and offices
- Increase access to goods and services, such as groceries, schools, and daycare
- Orient the project toward transit, bicycle, and pedestrian facilities
- Implement complete streets
- Provide traffic calming
- Provide bicycle parking
- Reduce parking requirements
- Separate out parking costs from building costs
- Provide parking cash-out programs

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. This mitigation measure shall, or can and should, be applied during project permitting and environmental review and implemented during project operation, as applicable.

T-2(b) Transportation Project VMT Analysis and Reduction

Implementing agencies shall evaluate transportation projects that involve increasing roadway capacity for their potential to increase VMT. Where project-level increases are found to be significant, implementing agencies shall, or can and should, identify and implement measures that reduce VMT. Examples of measures that reduce VMT include:

- Tolling new lanes to encourage carpools and fund transit improvements
- Converting existing general purpose lanes to high occupancy vehicle lanes
- VMT banks
- Implementing or funding offsite travel demand management
- Providing a bus rapid transit system
- Implement bus on shoulder operations during peak congestion periods
- Improving pedestrian or bicycle networks, or transit service
- Providing transit passes
- Incorporating neighborhood electric vehicle network

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. This mitigation measure shall, or can and should, be applied during project permitting and environmental review and implemented during project operation, as applicable.

Significance After Mitigation

If implementing agencies adopt and require the mitigation measures outlined above, impacts would be reduced because less VMT would be added to the TCAG region. However, regional VMT-reduction programs, such as VMT banks, may not be feasible as there are currently no procedures or policies in place to establish such programs (other than the AB 130 VMT program). Also ,the implementation of project-level VMT-reducing measures, such as mixed uses and transit oriented development for land use projects, and new tolling lanes or converting existing general purpose lanes for transportation projects, and cannot be guaranteed on a project-by-project basis for projects for which TCAG is not the lead agency. . Therefore, this impact would remain significant and unavoidable. No additional mitigation measures to reduce this impact to less than significant levels are feasible.

Threshold 2:	Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? c. A substantial increase in induced travel due to roadway capacity expansions would be considered a significant impact.

Impact T-3 THE PROPOSED 2026 RTP/SCS WOULD NOT RESULT IN A SUBSTANTIAL INCREASE IN INDUCED TRAVEL DEMAND DUE TO ROADWAY CAPACITY EXPANSIONS. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Some of the proposed 2026 RTP/SCS projects include expanding the capacity of State highways in the region. These include adding additional travel lanes to SR 99 at multiple locations, adding additional travel lanes to SR 65 near Lindsay and Porterville, and adding additional travel lanes to SR 190 near Porterville. Other proposed 2026 RTP/SCS projects include expanding the capacity of county and locally maintained roads in Visalia, Farmersville, and Exeter.

Numerous studies and research suggest that an expansion of highway capacity may induce travel (LCI 2018). According to LCI, the initial reduction in traffic congestion and travel times from increased capacity is attractive to travelers, resulting in more trips on the facility and increasing the total VMT. These types of projects may result in the following trip-making changes, which have implications for total VMT (LCI 2018):

- **Longer Trips.** The ability to travel a long distance in a shorter time increases the attractiveness of destinations that are further away, increasing trip length and VMT.
- **Changes in Mode Choice.** When transportation investments are devoted to reducing automobile travel time, travelers tend to shift toward automobile use from other modes, which increases VMT.
- **Route Changes.** Faster travel times on a route attract more drivers to that route from other routes, which can increase or decrease VMT depending on whether it shortens or lengthens trips.
- **Newly Generated Trips.** Increasing travel speeds can induce additional trips, which increases VMT. For example, an individual who previously telecommuted or purchased goods on the internet might choose to accomplish those ends via automobile trips as a result of increased speeds.
- **Land Use Changes.** Faster travel times along a corridor lead to land development further along that corridor; that development generates and attracts longer trips, which increases VMT. Over several years, this component of induced VMT can be substantial, e.g., approximately half of the total effect on VMT.

Regarding land use changes, the proposed 2026 RTP/SCS coordinates land use and transportation projects through the 2049 horizon year. The SCS identifies a land use strategy that supports the objectives of SB 375 to achieve, among other things: increased roadway optimization, increased modes of travel other than single occupancy automobiles, increased access to jobs and amenities, minimized increases in VMT and reduced GHG emissions. Among the strategies to meet these goals is a mix of land uses balanced to minimize VMT and maximize the ability for residents and visitors of the region to conduct everyday activities without the need to travel by car.

TCAG uses a hybrid approach to estimate the induced VMT caused by the increased capacities on the transportation system. Similar to other travel demand models, the TCAG's activity-based travel model can capture the short-term induced demand from capacity-increasing projects in the 2026 RTP/SCS. Such short-term latent demand includes mode switching, route changing, time of day switching, destination change, and new trips. In order to address longer term induced travel demand generated from land use changes due to added capacity on the transportation system, TCAG uses the National Center for Sustainable Transportation (NCST) tool to estimate the long-term induced VMT. The elasticities from the NCST include both short-term and long-term induced demand.

TCAG conducted base year model sensitivity analyses, in which general purpose lanes were reduced and increased to respective roadway sections (Appendix D). The resulted elasticities are used as short-term induced demand response from the activity-based travel model. The NCST calculator is applied to facilities with FHWA functional classifications of 1, 2, or 3. The classifications correspond to Interstate highways (Class 1), other freeways and expressways (Class 2), and other principal arterials (Class 3).

Long-term induced demand calculation involves tallying capacity-increasing projects by lane miles increased, by year, and by road categories. The long-term induced VMT elasticity is calculated by deducting short-term elasticity from the travel model from the reported NCST elasticity. Subsequently, the long-term induced VMT is calculated by multiplying the increased lane miles by facility types by the respective long-term (only) elasticities(Appendix D).

The 2026 RTP/SCS has a limited number of capacity increasing projects to minimize overall induced demand from capacity increasing projects. In addition, the 2026 RTP/SCS encourages transit use and concentrates development in urban areas to reduce development of land uses in more rural or undeveloped areas that would attract additional trips thereby increasing or inducing demand on existing and expanded roadways. The combination of limited capacity-increasing projects, encouraging transit use, and concentrating development in urban areas results in limiting overall induced demand. This impact is therefore less than significant.

Mitigation Measures

No mitigation measures are required.

Threshold 3:	Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?

Impact T-4 PROPOSED TRANSPORTATION AND LAND USE PROJECTS IMPLEMENTING THE PROPOSED 2026 RTP/SCS WOULD NOT SUBSTANTIALLY INCREASE HAZARDS DUE TO GEOMETRIC DESIGN FEATURES OR INCOMPATIBLE USES. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Transportation Design Features

The regional growth pattern of the proposed 2026 RTP/SCS does not define design-level features of roadways. While the proposed 2026 RTP/SCS expands development and increases density in growth geographies, this growth would not impact geometric design features or roadway uses in a consistent way, as those design standards and uses are established and enforced at the local jurisdictional level. Specific transportation projects identified in the proposed 2026 RTP/SCS include widening of existing roadways and construction of interchanges and roundabouts, as well as turn lane, intersection, and ramp improvements, all of which would result in improved circulation and safety. This would include road widenings on SR 65, SR 99, and SR190, and roundabouts in Porterville. Future transportation projects would also be subject to design guidelines established by the State or the local jurisdiction with authority over the project, including curve radii on curving road segments, maximum road grade/slope, and minimum separating distance between intersections and driveways.

Construction activities from implementation of the proposed 2026 RTP/SCS would be short term, intermittent, and geographically dispersed. At the regional level, these disruptions would be localized, and impacts would be limited and would not represent a significant impact to the operations of the regional transportation system. At the local level, construction activities could increase travel on local roads and result in detours or increased congestion in certain locations. The actual construction details of land use development projects and proposed transportation projects are not known, because the projects are in the early stages of planning. Construction impacts would be evaluated at the project level as more information about the timing, design, scope, and construction program are available. Generally, construction activities for land use development and transportation projects would be required to be conducted in accordance with, and subject to review by, all applicable State and/or local jurisdictions with authority over the project; thus, ensuring projects would be designed to minimize the potential for hazardous conditions and to ensure safe travel by all modes.

Future transportation projects would be required to conform to the design standards of the public agency responsible for implementation, including safety standards. For projects planned within the unincorporated communities of Tulare County, Tulare County's Complete Streets policies and programs, discussed under Section 4.15.2, *Regulatory Setting*, above, would also support reducing hazards on roadways and preventing incompatible uses by designing roads for all trip purposes, including for more vulnerable users such as cyclists and pedestrians. As such, the proposed 2026 RTP/SCS would not negatively impact the design of transportation facilities by increasing hazards. Rather, investments would incentivize design improvements to make roadways safer. Therefore, the proposed 2026 RTP/SCS would not substantially increase hazards due to geometric design features or incompatible land uses, and the impact would be less than significant.

Incompatible Uses

The proposed TCAG 2026 RTP/SCS would not adversely impact the compatible use of transportation facilities. Rather, investments would incentivize design improvements to make roadways safer. The SCS does not introduce new agricultural uses or other similar uses that would result in increased incompatible vehicle uses on roadways in the region, such as slow-moving farm equipment. In addition, specific transportation projects under the proposed 2026 RTP/SCS would be subject to and follow the allowable uses established by the State or the local jurisdiction with authority over the project. Therefore, the proposed 2026 RTP/SCS would not substantially increase hazards due to incompatible uses would be less than significant.

Mitigation Measures

No mitigation measures are required.

Threshold 4:	Would the project result in inadequate emergency access?
Threshold 5:	Would the project impair implementation or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Impact T-5 PROPOSED TRANSPORTATION AND LAND USE PROJECTS IMPLEMENTING THE PROPOSED 2026 RTP/SCS WOULD NOT RESULT IN INADEQUATE EMERGENCY VEHICLE ACCESS OR INTERFERE WITH AN ADOPTED EMERGENCY RESPONSE PLAN OR EMERGENCY EVACUATION PLAN. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Transportation infrastructure plays a key role in providing access to destinations during emergencies. These systems must be able to accommodate emergency response vehicles, personnel, and equipment. According to the Tulare County Office of Emergency Services (OES), response to large-scale emergencies or disasters within the TCAG region are guided by the Tulare County Emergency Operations Plan, which was adopted by the Tulare County Board of Supervisors and implements the California Standardized Emergency Management Systems (OES 2026). In the event of such an emergency or disaster, the TCAG region's roads and other transportation networks can determine the success or failure of the region during the emergency and in recovery. The proposed 2026 RTP/SCS would not implement specific design features or specifications for new project-level development or other transportation facilities. However, the planned and programmed projects identified in the proposed 2026 RTP/SCS would entail upgrades and improvements to existing transportation infrastructure, resulting in increased roadway capacity, congestion relief, circulation improvements, and overall roadway safety improvements. As such, implementation of the proposed 2026 RTP/SCS would improve performance of the transportation system in the TCAG region, which would improve emergency response and facilitate more effective emergency evacuation. Therefore, the proposed 2026 RTP/SCS would not interfere with an adopted emergency response plan or emergency evacuation plan.

The design details of land use development projects and proposed transportation projects are not known, because the projects are in the early stages of planning. However, both Caltrans and local jurisdictions have design standards for new and existing development and roadways to ensure adequate passage of emergency vehicles. Standards include specifications related to clear width, effective turning radius and turnouts, curve radii on curving road segments, maximum road grade/slope, and minimum separating distance between intersections and driveways. Transportation projects would be subject to review with regard to emergency vehicle requirements

by State and/or local jurisdictions with authority over the project as well as responsible emergency service agencies, thus ensuring projects would be designed to meet all applicable emergency design standards.

Construction activities could temporarily impair emergency access points used for emergency vehicle access. However, standard procedures for development of a construction management plan would address these conditions and would require provision of alternative emergency vehicle access points. Specifically, in accordance with Caltrans permitting requirements, a traffic control plan would be required that adheres to the standards set forth in the California Manual of Uniform Traffic Control Devices (Caltrans 2025b). In addition, while implementation of proposed 2026 RTP/SCS's land use scenario and transportation projects could temporarily impede emergency access at project locations during construction periods, construction projects would conform to State, regional, and local regulations requiring maintenance of emergency access during construction.

Based on the above analysis, the impacts of the proposed 2026 RTP/SCS on emergency vehicle access and on interference with an adopted emergency response plan or emergency evacuation plan would be less than significant.

Mitigation Measures

No mitigation measures are required.

4.15.4 Cumulative Impacts

The cumulative impact analysis area for transportation consists of the TCAG region and adjoining counties. The cumulative analysis presented below relies on a projections-based approach, using regional growth forecasts for the TCAG region and adjoining counties to evaluate cumulative impacts. Impacts of the 2026 RTP/SCS are added to the impacts of growth and development in the adjoining counties, and a determination is made as to whether cumulative impacts would be significant, and whether the 2026 RTP/SCS incremental contribution would be cumulatively considerable. Refer to Chapter 4, *Environmental Impact Analysis*, *Cumulative Impact Methodology*. However, in the cumulative impact analysis, please note that there is no direct transportation route between Tulare County to Inyo County as there is no direct passage through the Sierra Nevada Mountains between the two counties.

Impact T-C-1 CUMULATIVE DEVELOPMENT COULD CONFLICT WITH PROGRAMS, PLANS, ORDINANCES, OR POLICIES ADDRESSING THE CIRCULATION SYSTEM. COMPLIANCE WITH FEDERAL, STATE, REGIONAL, AND LOCAL LAWS, REGULATIONS, AND POLICIES WOULD ENSURE THAT CUMULATIVE TRANSPORTATION IMPACTS WOULD BE LESS THAN SIGNIFICANT, AND THE 2026 RTP/SCS CONTRIBUTION WOULD NOT BE CUMULATIVELY CONSIDERABLE.

The federal, State, regional, and local laws, regulations, and policies outlined in Section 4.15.2, *Regulatory Setting,* apply to surrounding counties in the same manner as they apply to projects within the TCAG region, thereby avoiding potential for cumulative conflict between the transportation planning for the TCAG region and the surrounding counties. Therefore, the cumulative impacts resulting from the implementation of the proposed 2026 RTP/SCS and development in the cumulative impact analysis area related to conflict with programs, plans, ordinances, or policies addressing the circulation system would be less than significant.

Impact T-C-2 CUMULATIVE IMPACTS RELATED TO VMT WOULD BE SIGNIFICANT AND THE 2026 RTP/SCS CONTRIBUTION WOULD BE CUMULATIVELY CONSIDERABLE.

Development in the cumulative impact analysis area would result in a significant and unavoidable increase in regional VMT as well as daily VMT per capita from baseline (2025) conditions, partially due to commuters travelling to and from employment in the adjoining counties. One example is the City of Fresno that attracts workers from the surrounding counties choosing to live in more rural and affordable regions in the Valley. Likewise, people residing outside of but close to the TCAG region may commute into the TCAG region for outdoor recreation. For example, Sequoia National Forest and Sequoia National Park are very popular recreational weekend destinations for residents throughout California and beyond. These trips contribute to VMT in the cumulative impact analysis area.

As shown in Table 4.15-3, the proposed 2026 RTP/SCS would increase daily VMT by 903,523 miles compared to the baseline 2025 conditions, which would be an approximately 8.5 percent increase over baseline conditions. While the majority of the VMT would be expected to remain within the TCAG region, some portion of the VMT would inevitably extend to areas within adjoining counties, such as Kern County, Kings County, and Fresno County. The most reasonable assumption is that VMT to adjoining counties would be concentrated along the most heavily traveled roadways in the counties with the highest relative employment, such as SR 99 and SR 65 into Kern County, SR 43 and SR 198 into Kings County, and SR 99 into Fresno County. The increased VMT in adjoining areas would be in addition to the VMT generated from the increased population growth of these counties into the future. Per capita VMT in the cumulative impact area would be unlikely to reach 25 percent below 2019 VMT per capita conditions by 2030 or 30 percent below by 2045 conditions due to increased VMT in the region. The implementation of project-level VMT-reducing measures in Mitigation Measures T-2(a) and T-2(b), such as mixed uses and TOD, cannot be guaranteed on a project-by-project basis. Regional VMT reduction programs, such as VMT banks, would not be feasible for the TCAG region as there are no procedures or policies in place to establish such programs (other than the AB 130 VMT program), and it is speculative to say such mitigation could reduce impacts to less than significant. Thus, cumulative impacts on VMT would be significant, the proposed 2026 RTP/SCS contribution to cumulative VMT impacts would be cumulatively considerable, and this contribution would remain cumulatively considerable post-mitigation.

Impact T-C-3 CUMULATIVE DEVELOPMENT COULD INCREASE TRANSPORTATION HAZARDS OR CAUSE EMERGENCY ACCESS IMPACTS. COMPLIANCE WITH FEDERAL, STATE, REGIONAL, AND LOCAL REGULATIONS GOVERNING TRANSPORTATION HAZARDS AND EMERGENCY ACCESS WOULD ENSURE THAT CUMULATIVE IMPACTS WOULD BE LESS THAN SIGNIFICANT, AND THE 2026 RTP/SCS CONTRIBUTION WOULD NOT BE CUMULATIVELY CONSIDERABLE.

Some types of transportation impacts are related to site- and project-specific characteristics and conditions and would not be significantly affected by other development outside of the TCAG region. As discussed in Impacts T-3 and T-4, there are existing federal, State, regional, and local regulations that govern transportation hazards and emergency access associated with development and infrastructure projects across the cumulative impact analysis area. Regulations and oversight, as outlined in the impact analysis above, would effectively reduce the potential for individual projects to create a transportation hazards or emergency access impact within the TCAG region and surrounding counties. Thus, cumulative impacts related to the transportation hazards and emergency access would be less than significant.

4.16 Tribal Cultural Resources

This section evaluates effects on tribal cultural resources in the TCAG region that would result from implementation of the proposed 2026 RTP/SCS.

4.16.1 Setting

a. Ethnographic Context

The TCAG region is a large and geographically diverse region; the western half of the county lies within the San Joaquin Valley and the eastern half covers the foothills and mountain peaks of the southern Sierra Nevada range. Tulare County was inhabited by several aboriginal California Native American groups including the Southern Valley Yokuts, Foothill Yokuts, Tübatulabal, Monache, and the Owens Valley Paiute[1]. Of the main groups inhabiting the TCAG region, the Southern Valley Yokuts occupied the largest territory.

Yokut (Southern Valley and Foothill)

The project area is partially located in the San Joaquin Valley, an area historically occupied by the Penutian-speaking Yokuts (Kroeber 1925, Wallace 1978, Latta 1999). Three geographical divisions of the Yokuts are the Northern Valley, Southern Valley, and Foothill Yokuts. The distinction between the three groups is primarily based on language dialect (Mithun 2001).

The Yokuts established large permanent village settlements, or closely associated smaller settlements, such as the Tulamniu village. Residential structures were most often of two types: single-family dwellings and larger communal residences that housed ten families or more. Villages frequently included mat-covered granaries and a sweathouse (Mithun 2001; Sutton et al. 2016).

The basic economic unit among the Yokuts was the nuclear family. The nuclear family was linked to totemic lineages based on patrilineal descent. Totem symbols were passed from father to offspring. Families that shared the same totem formed an exogamous lineage. Totems were associated with one of two moieties. This moiety division played a role during ceremonies and other social events (Wallace 1978).

Yokuts were split into self-governing local groups that included several villages. Each group had a chief who directed ceremonies, mediated disputes, handled punishment of those doing wrong, hosted visitors, and provided aid to the impoverished. In certain cases, settlements had two chiefs, one for each moiety. Other political positions included the chief's messenger and the spokesman (Wallace 1978).

Shamans were an important part of Yokut village life. A Yokut Shaman gained power through a dream or vision. If, after this vision, the man accepted the role as shaman, he would pray, fast, and acquire talismans to aid him in his future work. Shamans had the ability to heal the sick and served a primary role in religious life (Wallace 1978).

Yokuts subsistence strategy was based on a mixed economy focused on fishing, collecting, and hunting small game. Fishermen employed tule rafts and caught fish with nets, spears, basket traps, and bow and arrow. They often gathered mussels and hunted turtles in lakes, rivers, and streams.

[1] The territory of the Western Shoshone overlaps just slightly on the southeastern edge of the county on the crest of the Sierra Nevada; because that overlapping area is so minimal, the Western Shoshone will not be discussed in further detail here.

Wild seeds and roots contributed a large portion to the Yokuts diet. Tule roots were gathered, dried, and pounded into a flour which was prepared as a mush. Tule seeds and grass and flowering herb seeds were prepared in the same way. Leaves and stems of certain plants, such as clover and fiddle-neck, were also collected. Acorns, a staple of many California Native Americans, were not readily available in the ethnographic territory of the Yokuts. Some Yokuts tribes traded for acorns with neighboring groups, such as the Salinan and Chumash to the west, the Foothill Yokuts to the east, and the Kawaiisu and Kitanemuk to the southeast (Kroeber 1925). Waterfowl was frequently hunted with snares, nets, and bow and arrow. Land mammals and birds contributed a smaller part of the Yokuts diet. Small game was occasionally taken in snares or traps or shot with bows and arrows (Wallace 1978; Sutton et al. 2016).

Yokuts technology depended primarily on tule. Stems of the plant served as the raw material for baskets, cradles, boats, housing, and many other items. Manos and metate were used to process food and animal hides (Sutton et al. 2016). Tools such as knives, projectile points, and scraping tools were made from imported lithic materials because stone was not readily available in the Central Valley. Some tools, such as bead drills, could be made from local obsidian (Sutton et al. 2016). Marine shells secured through trade with coastal groups were used as shell money and personal adornment items, such as Olivella beads (Sutton et al. 2016; Wallace 1978).

Tübatulabal

The Tübatulabal inhabited the southern Sierra Nevada foothill region near the drainage area of the Kern and South Fork Kern rivers (Voegelin 1938). The area is mostly mountainous, interspersed with small lakes and meadows. The Tübatulabal were organized into three politically discrete bands, including the Palagewan, Pahkanapïl, and Bankalachi, with each band having a high degree of internal unity and their own chief (Smith 1978). Though the three groups primarily lived apart, they banded together for war, and visits and intermarriages between them were common.

Each band comprised a number of itinerant family groups who moved around seasonally most of the year, only settling down in semipermanent “hamlets” situated lower down in the foothills and in the Kern River Valley during the winter (Voegelin 1938; Smith 1978). These hamlets would be composed of around two to six households and each household consisted of a single biological bilateral family, often with one or two other relatives (Voegelin 1938; Smith 1978). Structure types varied by season and activity. In the winter, one family would be housed in a circular, closed, brush and mud shelter with a domed roof. Most hamlets also had a sweathouse, large oval structures made of oak branches, which were usually located near a natural pool or stream. In the summer months, temporary unwalled brush shade shelters, supported by vertical and horizontal beams, were utilized (Smith 1978).

Shamans were an important part of Tübatulabal life. Both men and women could be shamans, though males had both curative and witching power whereas women only had witching power (Voegelin 1938; Smith 1978). Shamans were born with their abilities and were assisted by supernatural guardian helpers. All misfortune and deaths (except those associated with war) were blamed on witchcraft and shamans with witching powers were feared. Curing shamans had the ability to heal and diagnose illness and held a high status among their people, their prestige growing according to the number of cures successfully performed. However, the consistent failure to heal would often lead to accusations of witchcraft (Smith 1978).

Subsistence was based on a mixed economy focused on gathering, fishing, and hunting (Voegelin 1938; Smith 1978). Plant food resources were more diverse and abundant than in many other parts of California; staple crops included acorns and piñon nuts. Acorns were harvested from the ground,

sun-dried, then stored in elevated granaries. Piñon nuts were knocked from the trees, gathered, and placed on brush fires to open the shells. Once the nuts were removed from the shells, they were sun-dried and stored in in circular, stone-lined pits. A variety of other wild foods, such as small seeds, roots, bulbs, berries, and tubers, were also gathered using seed beaters, digging sticks, and catch baskets. Fish were second only to acorns and piñon in economic importance (Voegelin 1938; Smith 1978) and most fishing was done individually, except in July when communal fishing was more common. Large game was hunted using a sinew-backed bow and a variety of techniques. Smaller game was not actively hunted, with the exception of rabbits, and was instead caught using traps, snares, or spring-loaded nets. Rabbits, however, were hunted communally (Smith 1978).

Tübatulabal material culture included coiled and twined baskets of split willow, tree yucca roots, and deer grass. Basket traps and saddles (after horses were introduced in the area) were woven from tule. Pottery, made by hand of local red clay, was also common. Pots were sun-dried and fired in an open fire until they turned a grayish black color (Voegelin 1938; Smith 1978). Other types of technology utilized by the Tübatulabal include bow and arrow (sinew-backed and self-back bows, war arrows, and hunting arrows) nets, traps, snares, and various stone tools (projectile points, hafted and unhafted knives, and scrapers) and bone tools (such as awls). Barrel cactus spines were used for sewing and basketmaking. Digging sticks were used for gathering and both wooden and stone mortars and pestles were used for the pounding and grinding of seeds and other foods (Voegelin 1938; Smith 1978).

Monache

The Monache, often referred to as the Western Mono, occupied the western slope of the Sierra Nevada and comprised at least six different tribal groups, including the Northfork Mono, Wobonuch, Entimbich, Michalay, Wakasachi, and Patwisha (Spier 1978). The Monache shared a distinct language in the Western Branch of the Numic family, similar to the Eastern Mono and Owens Valley Paiute.

Settlements were generally small and did not follow an organized pattern, varying among the different tribal groups (Spier 1978). The Monache typically utilized three different types of dwelling structures, including a conical house with the floor excavated to at least one foot in depth, an oval house at ground level with a ridge pole supported by forked posts, and a conical bark covered house with a center post. Other common structure types included the semi-subterranean, earth-covered sweathouse, the bedrock mortar shade, and acorn granaries (Gifford 1932; Spier 1978).

Exogamous, patrilineal lineages were the major kinship units for the Monache, with chiefs leading each larger settlement. The exception to this was the Northfork Mono, who operated within a moiety system (Gifford 1932; Spier 1978). Membership within the Northfork Mono moiety system was determined patrilineally, each division having a chief who inherited the position. The role of the moiety chief was largely ceremonial. The moieties had a rivalrous and reciprocal relationship which played a role during ceremonies and other social events (Gifford 1932; Spier 1978).

Shamans were an important part of Monache life, and their primary role was curing illness; however, they were frequently looked upon with suspicion, especially when deaths occurred (Spier 1978). The Monache believed in the supernatural powers of totemic and tutelary spirits, and particular spirits were associated with a lineage or moiety (Gayton 1948; Spier 1978).

The Monache subsistence strategy was based on a mixed economy of hunting, fishing, and the gathering of plant foods (Spier 1978). Deer were a primary staple, along with acorns and piñon. Piñon nuts were relished and were obtained during expeditions to the Eastern Sierra, often by

trading acorns to the Eastern Mono (Gifford 1932). Bears were also hunted from time to time and smaller game, such as ground squirrels and rabbits, were smoked from their holes and trapped. Fishermen used poison, harpoons, and weirs to catch fish during seasonal runs and some groups occasionally collected freshwater mussels. Manzanita berries, yucca roots, wild seeds, grubs, and insects also contributed to the Monache diet (Spier 1978).

Tools such as knives, projectile points, and scrapers were most commonly made from obsidian, which was imported (often as tool blanks) from the Eastern Mono (Spier 1978). Self-bows of California laurel and sinew-backed bows of juniper along with four different arrow types were utilized. Monache basketry was similar to those of the Foothill Yokuts and included twined cooking and burden baskets, baby cradles, seed beaters, sieves, winnowers, and coiled cooking, storage and washing baskets (Gifford 1932; Spier 1978). Pottery was made using a coiling technique (Spier 1978).

Owens Valley Paiute

The Owens Valley Paiute primarily inhabited the narrow Owens River Valley that parallels the eastern side of the Sierra Nevada on the western edge of the Great Basin, though their territory also extended into the Sierra Nevada mountains in the area known today as the Inyo National Forest and Kings Canyon National Park. The Owens Valley is unique to other Great Basin environments; though it experiences little rainfall, there are abundant snow-fed streams that flow down from the Sierra, including the Owens River which in precontact times averaged 50 ft. in width, and the valley once had extensive marshes and grass lands. Additionally, the White and Inyo mountain ranges in the eastern portion of Owens Valley Paiute territory have an abundance of junipers, piñons, and other pines (Liljeblad and Fowler 1986).

Though the Owens Valley Paiute moved around seasonally, they were able to return to semi-permanent settlements in the valley that they intermittently occupied throughout the year due to the uniquely favorable ecological conditions of their territory (Liljeblad and Fowler 1986). The basic economic unit among the Owens Valley Paiute was the nuclear family. Each hamlet, referred to as villages by Steward (1933), was composed of a handful of nuclear family units that were typically dominated by one “kindred” (Liljeblad and Fowler 1986). The size and population of the semi-permanent villages varied, and the distribution of settlements generally corresponded to the proximity to rivers and streams. Clusters of hamlets, or villages, formed a district (Steward 1933; Liljeblad and Fowler 1986). Throughout most of the year each family or cluster of related families operated independently and autonomously. However, when groups returned to their dwellings in the semi-permanent villages during the spring for the meadow irrigation and again the fall for social and ceremonial activities, the increase in population related to coming together necessitated organized leadership of a headman for each district. The role of the headman, which was an inherited position, was limited to directing irrigation, organizing communal hunts, conducting festivals and ceremonies, and approving or vetoing the killing of a shaman accused of witchcraft (Steward 1933; Liljeblad and Fowler 1986).

Shamanism among the Owens Valley Paiute consisted primarily of doctoring; however, unlike elsewhere in the Great Basin, shamans held a more influential role in public affairs. Shamanistic power was individual, was typically obtained through dreams, and could be practiced by both men and women (Liljeblad and Fowler 1986).

Subsistence was based on a mixed economy focused on gathering, hunting, and fishing. Piñon nuts were the most important staple and were harvested mainly in the Inyo and White mountains (Steward 1933). A good crop would last throughout the winter and into the summer. When the

piñon crop was good, large groups would winter in piñon territory. Acorns were also heavily relied on and even preferred. Acorns were typically imported since oaks were not as common in the eastern part of the Sierra Nevada. Also important was Indian ricegrass, especially in the years when the piñon crop failed, and wild rye. A variety of other wild foods such as small seeds, roots, bulbs, berries, and tubers also contributed to the Owens Valley Paiute diet. At the time of European contact, the Owens Valley Paiute were using irrigation to increase the yield of wild seed plots (Steward 1933), particularly nutgrass. Though fishing occurred in the Owens River and various other Sierra Nevada streams, it was not an important part of the tribal economy (Liljeblad and Fowler 1986). Hunting occurred in all seasons and could be done on an individual basis or communally. Large game such as deer, mountain sheep, and antelope were favored. Small game was occasionally taken in snares or traps or shot with bows and arrows, though rabbits were generally obtained during large, communal rabbit drives (Steward 1933; Liljeblad and Fowler 1986).

According to Steward (1933), several structure types were utilized by the Owens Valley Paiute. A "mountain house" was used above the timberline during fall and winter after the piñon harvest and was constructed using two upright posts set about 15 ft. apart which supported a long ridgepole. Side beams were then set all the way around, sloping to the ground, and conifer boughs covered the roof. Women would sleep in one and men in the other. Another type of dwelling consisted of a "winter valley house" which was used down in the valley during winters if there was a poor piñon crop. This was a cone-shaped semi subterranean structure, built around a 2 ft. deep pit, with a smoke hole in the center and mats of tule overlapping around the outside. There was also a "cook house" which was also cone-shaped, but it was not semi-subterranean, and it was covered with grasses. The fourth type of dwelling was the "summer house" which was a dome shaped structure with a sunshade built from willow, branches, and grass woven together. Finally, there was the sweathouse, a large, circular semi-subterranean structure with a smoke hole in the center and covered on the outside with layers of grass (Steward 1933; Liljeblad and Fowler 1986).

Owens Valley Paiute material culture tradition reflects its Great Basin roots (Liljeblad and Fowler 1986). Large game was hunted using the sinew-backed bow, cane or willow arrow shafts, and obsidian pointed arrows. Obsidian drills and knives (hafted and unhafted) were common. Basketry was coiled or twined and included conical carrying baskets, necked small-mouthed water containers, seed beaters, winnowing trays, and finely coiled treasure baskets. Coiled pottery of all shapes and utility was locally manufactured, made of a red clay then sun-dried and fired in an open fire. The resulting pottery could range in color from a mottled gray or muted red to a brownish gray or black color; it is now known as Owens Valley Brownware (Liljeblad and Fowler 1986). Other important items were the fire smoldering in cigar shaped slow matches and the fire drill (Steward 1933; Liljeblad and Fowler 1986).

b. Tribal Cultural Resources

Tribal cultural resources that could be present within the TCAG region include but are not limited to Native American burial sites, village or occupation sites, traditional resource gathering locations and natural landforms such as mountain peaks, ridge tops, or rivers. Such resources are present throughout the TCAG region, including known and documented sites as well as undocumented sites that will be identified through cultural resources survey or ground disturbance.

Tribal cultural resources are likely to be encountered near areas of prior Native American occupation and activity, which includes areas both within and outside of areas of current development. Surficial archaeological deposits that are tribal cultural resources are more likely to be heavily disturbed within urban areas and more intact in rural settings; however, this does not

preclude the presence of buried archaeological resources that may be significant in urban settings. For example, a tribal cultural resource that has been listed as a California Historical Landmark, First Tule River Indian Reservation (No. 388), is located in Porterville.

4.16.2 Regulatory Setting

a. Federal Laws, Regulations, and Policies

The Department of Transportation Act

Passed in 1966, the Department of Transportation Act (49 United States Code 303, formerly 49 United States Code 1651(b)(2) and 49 United States Code 1653(f) includes Section 4(f), which states that the Federal Highway Administration and other U.S. Department of Transportation agencies cannot approve the use of land from public and private historical sites unless certain conditions apply. These conditions are the following: If there is no feasible and prudent avoidance alternative to the use of land, and if the action includes all possible planning to minimize harm to the property resulting from such use; or if the Federal Highway Administration determines the use of the property will have a de minimis impact.

Archaeological Resources Protection Act

This statute was enacted to protect archaeological resources and sites that are on public lands and tribal lands, and to foster increased cooperation and exchange of information between government representatives, the professional archaeological community, and private individuals. Section 4 of the statute and Sections 16.5-16.12 of the ARPA describe the requirements that must be met before federal authorities can issue a permit to excavate or remove any archaeological resource on federal or tribal lands. The curation requirements of artifacts, other materials excavated or removed, and the records related to the artifacts and materials are described in Section 5 of the ARPA. This section also authorizes the Secretary of the Interior to issue regulations describing in more detail the requirements regarding these collections.

American Indian Religious Freedom Act

The American Indian Religious Freedom Act of 1978 (42 U.S. Code Section 1996) pledges to protect and preserve the traditional religious rights of American Indians, Aleuts, Eskimos, and Native Hawaiians. It establishes a national policy that traditional Native American practices and beliefs, sites (and right of access to those sites), and the use of sacred objects shall be protected and preserved. If a place of religious importance to American Indians could be affected by a federal undertaking, the Act promotes consultation with Indian religious practitioners, which could be coordinated with Section 106 consultation. Amendments to Section 106 of the National Historic Preservation Act in 1992 strengthened the interface between the American Indian Religious Freedom Act and the National Historic Preservation Act by clarifying the following: (1) properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization could be determined to be eligible for inclusion in the NRHP; and (2) in carrying out its responsibilities under Section 106, a federal agency shall consult with any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to properties described under (1).

Native American Graves Protection and Repatriation Act

The intent of the Native American Graves Protection and Repatriation Act of 1990 (25 U.S. Code Section 3001) is to identify Native American affiliation or lineal descent and ensure the rightful disposition, or repatriation, of Native American human remains, funerary objects, sacred objects, and items of cultural patrimony that are in federal possession or control. The regulations implementing the requirements of Native American Graves Protection and Repatriation Act relating to the inadvertent discovery of human remains and objects of cultural patrimony of Native American origin on federal or tribal lands are described in 43 CFR Section 10.4.

b. State Laws, Regulations, and Policies

Assembly Bill 52

California Assembly Bill (AB) 52 of 2014 expanded CEQA by defining a new resource category, "tribal cultural resources." AB 52 establishes that "A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (PRC Section 21084.2). It further requires that the lead agency avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3). PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as:

1. Sites, features, places, cultural landscapes, sacred places and objects with cultural value to a California Native American tribe" and meets either of the following criteria: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)
2. A cultural resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified. AB 52 requires that lead agencies "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the formal consultation process include those that have requested notice of projects proposed within the jurisdiction of the lead agency. Pursuant to PRC Sections 21080.3.1, 21080.3.2, and 21082.3, lead agencies undertaking CEQA review must, upon written request of a California Native American tribe, begin consultation before the release of an EIR, negative declaration, or mitigated negative declaration. PRC Section 21080.3.2 states:

> Within 14 days of determining that a project application is complete, or to undertake a project, the lead agency must provide formal notification, in writing, to the tribes that have requested notification of proposed projects in the lead agency's jurisdiction. If it wishes to engage in consultation on the project, the tribe must respond to the lead agency within 30 days of receipt of the formal notification. The lead agency must begin the consultation process with the tribes that have requested consultation within 30 days of receiving the request for consultation. Consultation concludes when either: 1) the parties agree to measures to mitigate or avoid a

significant effect, if a significant effect exists, on a tribal cultural resource, or 2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.

If the lead agency determines that a project may cause a substantial adverse change to a tribal cultural resource, and measures are not otherwise identified in the consultation process, provisions under PRC Section 21084.3 (b) describe mitigation measures that may avoid or minimize the significant adverse impacts. Examples include:

(1) Avoiding and preserving the resources in place, including, but not limited to, planning and constructing to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria

(2) Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

(A) protecting the cultural character and integrity of the resource

(B) protecting the traditional use of the resource

(C) protecting the confidentiality of the resource

(3) Establishing permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places

(4) Protecting the resource

c. Local Laws, Regulations, and Policies

Tulare County General Plan

Chapter 8, Environmental Resources Management, of the Tulare County General Plan includes several policies related to cultural resources. These include, but are not limited to:

- **ERM-6.1 Evaluation of Cultural and Archaeological Resources**. The County shall participate in and support efforts to identify its significant cultural and archaeological resources using appropriate State and Federal standards.
- **ERM-6.2 Protection of Resources with Potential State or Federal Designations**. The County shall protect cultural and archaeological sites with demonstrated potential for placement on the National Register of Historic Places and/or inclusion in the California State Office of Historic Preservation's California Points of Interest and California Inventory of Historic Resources. Such sites may be of Statewide or local significance and have anthropological, cultural, military, political, architectural, economic, scientific, religious, or other values as determined by a qualified archaeological professional.
- **ERM-6.3 Alteration of Sites with Identified Cultural Resources**. When planning any development or alteration of a site with identified cultural or archaeological resources, consideration should be given to ways of protecting the resources. Development can be permitted in these areas only after a site-specific investigation has been conducted pursuant to CEQA to define the extent and value of resource, and mitigation measures proposed for any impacts the development may have on the resource.
- **ERM-6.4 Mitigation**. If preservation of cultural resources is not feasible, every effort shall be made to mitigate impacts, including relocation of structures, adaptive reuse, preservation of facades, and thorough documentation and archival of records.

- **ERM-6.8 Solicit Input from Local Native Americans**. The County shall continue to solicit input from the local Native American communities in cases where development may result in disturbance to sites containing evidence of Native American activity and/or to sites of cultural importance.

City of Porterville

The City of Porterville General Plan identifies the need to preserve open space for the protection of Native American sites. It has a policy to develop an agreement with Native American representatives for consultation in the cases where new development may result in disturbance to Native American sites and another policy requiring new development to analyze and avoid any potential impacts to archaeological, paleontological, and historic resources.

City of Tulare

The City of Tulare General Plan has a guiding principle to protect significant cultural and archaeological resources to ensure the preservation and maintenance of Tulare's heritage. The Land Use Element has a policy to encourage cultural and historic heritage and have development planned to ensure its compatibility with existing historic structures. Their Conservation and Open Space Element has policies to support efforts to protect and/or recover archaeological resources, evaluate and protect historic resources, and coordination with descendants of the deceased Native Americans if such remains are found.

City of Visalia

The City of Visalia General Plan's Open Space Element identifies the need to preserve open space for the protection of Native American sites including places, features and objects of historic, cultural, or sacred significance to Native Americans.

Other City General Plans

The other cities within the TCAG region have similar policies and objectives for the preservation and protection of historic, archaeological, and Native American resources in their open space, conservation, land use, or other elements.

4.16.3 Impact Analysis

a. Methodology and Significance Thresholds

In accordance with the requirements of AB 52, TCAG has conducted AB 52 consultation as the lead agency for implementation of the proposed 2026 RTP/SCS. This consultation included written communication with nine letters sent to seven Native American tribes and organizations who had previously requested to be notified of TCAG projects, and to which formal notice inviting consultation on the proposed RTP/SCS was sent on May 7, 2025. These were: Kern Valley Indian Community, Kitanemuk & Yowlumne Tejon Indians, Table Mountain Rancheria, Traditional Choinumni Tribe, Tubatulabals of Kern Valley, Tule River Indian Tribe, and the Wuksache Indian Tribe/Eshom Valley Band. Two responses were received as of the date of this EIR, each stating the project is outside their historical land base and did not request formal consultation. These responses were from David Alvarez, Tribal Chairman of the Traditional Choinumni Tribe and Robert Pennell, Cultural Resources Director for Table Mountain Rancheria.

TCAG has met its obligations under AB 52 and considers tribal consultation to be concluded. The consultation did not result in identification of any tribal cultural resources. Appendix G Tribal Coordination includes letters sent to the tribes as required by AB 52. None of the tribes identified potential tribal cultural resources.

Appendix G of the *CEQA Guidelines* identifies the following criteria for determining whether a project's impacts would have a significant impact to tribal cultural resources:

1. Would the project 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:
    a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
    b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

b. Project Impacts and Mitigation Measures

The following section discusses tribal cultural impacts and mitigation measures associated with transportation projects and the land use scenario implementing the proposed 2026 RTP/SCS. Due to the programmatic nature of the proposed 2026 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 proposed 2026 RTP/SCS could result in the impacts as described in the following section.

Threshold 1:	Would the project 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: a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Impact TCR-1 TRANSPORTATION PROJECTS AND THE LAND USE SCENARIO ENVISIONED IN THE PROPOSED 2026 RTP/SCS WOULD CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF A TRIBAL CULTURAL RESOURCE. THIS IMPACT WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Tribal cultural resources that could be present within the TCAG region include but are not limited to Native American burial sites, village or occupation sites, traditional resource gathering locations and natural landforms such as mountain peaks, ridge tops, or rivers. Such resources are present throughout the TCAG region, including known and documented sites as well as undocumented sites.

As stated above, AB 52 consultation did not result in identification of any tribal cultural resources. Two of the seven tribes notified responded but did not identify any tribal cultural resources. However, the aboriginal California Native American groups including the Southern Valley Yokuts, Foothill Yokuts, Tübatulabal, Monache, and the Owens Valley Paiute that occupied the TCAG region may have burial sites, village or occupation sites, traditional resource gathering locations, and natural landforms of importance to these local tribes that could exist in the TCAG region. Unknown tribal cultural resources could also be encountered during construction of transportation or land use projects implementing the 2026 RTP/SCS. Example transportation projects impacting tribal cultural resources could include road widenings on SR 65, 99, and 190 and those near water features such as the Westwood Avenue Bridge project in Porterville. Therefore, tribal cultural resources could be encountered during implementation of the transportation and land use projects implementing the proposed 2026 RTP/SCS.

Effects on tribal cultural resources are highly dependent on the individual project site conditions and the characteristics of a project. Impacts to tribal cultural resources may include damage or destruction of the resources. Adherence to the requirements of AB 52 encourages tribal consultation with local Native American tribes. CEQA requires the identification of project-specific substantial adverse effects on tribal cultural resources and appropriate project-specific mitigation measures. If the lead agencies determine that a specific transportation or land use project could cause a substantial adverse change in the significance of a tribal cultural resource, project-specific mitigation cannot be guaranteed for every project, and the impact would be significant.

Mitigation Measures

For transportation projects under their jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, Mitigation Measure TCR-1 below and

Mitigation Measure CUL-2(a) and CUL-2(b) where applicable for transportation projects that result in impacts to tribal cultural resources, and where feasible and necessary based on project- and site-specific considerations. Cities in the TCAG region and the County can and should implement these measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project specific environmental documents may adjust these mitigation measures as necessary to respond to site specific conditions.

TCR-1 Tribal Cultural Resources Impact Minimization

Implementing agencies shall, or can and should, comply with AB 52, which may require formal tribal consultation. If the implementing agency determines that a project may cause a substantial adverse change to a tribal cultural resource, they shall implement mitigation measures identified in the consultation process required under PRC Section 21080.3.2, or shall implement the following measures where feasible to avoid or minimize the project-specific significant adverse impacts:

- Avoidance and preservation of the resources in place, including, but not limited to: designing and building the project to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space to incorporate the resources with culturally appropriate protection and management criteria.
- Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
  - Protecting the cultural character and integrity of the resource
  - Protecting the traditional use of the resource
  - Protecting the confidentiality of the resource
  - Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places
- Native American monitoring by the appropriate tribe during soil disturbance for all projects in areas identified as sensitive for potential tribal cultural resources and/or in the vicinity (within 100 feet) of known tribal cultural resources.

If potential tribal cultural resources are encountered during ground-disturbing activities; work in the immediate area must halt and the appropriate tribal representative(s), the implementing agency, and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) shall be contacted immediately to evaluate the find and determine the proper course of action.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during construction where appropriate.

Significance After Mitigation

Mitigation Measures CUL-2(a) and CUL-2(b) would minimize impacts to archaeological resources, which may also constitute tribal cultural resources, through preconstruction surveys and measures to address unanticipated discoveries. Mitigation Measure TCR-1 would require implementation of

mitigation identified through tribal consultation or other feasible mitigation to avoid or reduce impacts to identified tribal cultural resources. These measures would protect the resource's character, traditional use, and confidentiality. With such protection, implementation of these measures would reduce impacts to tribal cultural resources. However, it cannot be guaranteed that all future project-level impacts can be mitigated and as such, impacts would be significant and unavoidable.

4.16.4 Cumulative Impacts

Impact TCR-C-1 IMPLEMENTATION OF THE PROPOSED TRANSPORTATION IMPROVEMENTS AND THE LAND USE SCENARIO ENVISIONED UNDER THE 2026 RTP/SCS WOULD CAUSE SUBSTANTIAL ADVERSE CHANGES IN THE SIGNIFICANCE OF TRIBAL CULTURAL RESOURCES. CUMULATIVE IMPACTS WOULD BE SIGNIFICANT, AND THE 2026 RTP/SCS CONTRIBUTION WOULD BE CUMULATIVELY CONSIDERABLE.

The cumulative impact analysis area for tribal cultural resources consists of the TCAG region and the adjoining counties, Fresno, Kings, Kern, and Inyo. Information regarding these adjoining counties can be found in Chapter 4, *Environmental Impact Analysis, Cumulative Impact Methodology*. Cumulative impacts were analyzed based on growth projections within the cumulative study area. Tribal cultural resources are regionally specific and determined by the local tribes. However, development in the cumulative impact analysis area would increasingly extend into previously undeveloped areas near or bordering the TCAG region that could have an impact on tribal cultural resource in the TCAG region by impacting the serenity of the tribal site or views from the resource, or projects in the TCAG region having a similar impact to tribal cultural resources in any of the adjacent counties. The TCAG region would continue to develop under the SCS and could result in expansion of urban areas into undeveloped land and that development could encourage development in adjoining counties that has the potential to impact tribal cultural resources. Tribal cultural resources are often associated with areas near water, such as rivers, because Native American Tribes congregated near water such as the Kings River that travels through Fresno, Tulare, and Kings counties. The increase in growth in previously undisturbed areas would contribute to regional impacts on tribal cultural resources.

Development in the TCAG area would increase under the proposed 2026 RTP/SCS by growth. The increase in development, as well as proposed 2026 RTP/SCS transportation projects, in previously undisturbed areas would contribute to regional impacts on tribal cultural resources. If there may be tribal cultural resources at a project site, tribal consultation in accordance with AB 52 would help ensure protection of tribal cultural resources. However, tribal ancestral territories often cross the boundaries of multiple jurisdictions within and outside of the TCAG region, and there could be several impacts to tribal cultural resources that together would result in a significant cumulative impact. Thus, the cumulative tribal cultural resources impact would be significant.

Mitigation Measures TCR-1, CUL-2(a), and CUL-2(b) would reduce impacts associated with proposed 2026 RTP/SCS projects through impact minimization for tribal cultural resources. However, it cannot be guaranteed that all future project level impacts can be mitigated to a less than significant level. Therefore, the proposed 2026 RTP/SCS contribution to the cumulative tribal cultural resources impact would remain cumulatively considerable despite implementation of Mitigation Measures TCR-1, CUL-2(a), and CUL-2(b).

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4.17 Utilities and Service Systems

This section evaluates impacts to utilities and service systems of the proposed 2026 RTP/SCS associated with the construction or relocation of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities. It also evaluates other impacts related to wastewater treatment, solid waste, and water supply services.

4.17.1 Setting

a. Water Supply

Water within the TCAG region is supplied from multiple sources, including groundwater, imported surface water, recycled water, and the various watersheds within the County and greater Tulare Lake Hydrologic Region. Major water inputs include water from: 1) surface water that travels from the mountains as snowmelt or runoff, which then gets stored in various foothill reservoirs to be distributed via the watershed systems and a network of canals, 2) water imported from the wetter climates of northern California through the State Water Project (SWP) via the California Aqueduct and the Central Valley Project (CVP) via the Friant-Kern Canal, 3) groundwater that is pumped from underground reservoirs or aquifers, and 4) a combination of smaller sources like recycled and reused water within individual water districts or agency service areas. The amount of water from each of these sources varies depending upon the amount of precipitation the overall state receives in a particular year.

Groundwater Use, Overdraft, and Drought

Groundwater in the valley floor portions of the TCAG region occurs in an unconfined state within areas containing alluvial fans, and in a confined state beneath its western portion. Extensive alluvial fans associated with Kings, Kaweah, and Tule Rivers provide highly permeable areas in which groundwater in the unconfined aquifer system is readily replenished. Areas between the streams contain less permeable surface soils and subsurface deposits, impeding groundwater recharge and causing well yields to be relatively low (Department of Water Resources [DWR] 2025).

The quantity of surface water that enters the watersheds in the TCAG region in any year varies greatly because of California's irregular precipitation patterns. In years of minimal precipitation, when surface water flows are reduced, groundwater pumping makes up the difference to meet demand and achieve regional water balance. The Tulare Lake Subbasin Groundwater Sustainability Plan (GSP) estimated in 2022 an annual overdraft in the basin of approximately 73,760 acre-feet per year (AFY), based on regional hydrologic conditions from 1998-2010, excluding the state's most recent droughts (Tulare Lake Subbasin Groundwater Sustainability Agencies 2022). More recent analyses indicate larger long-term imbalances, including modeled annual groundwater storage losses of approximately 142,214 AFY in the upper aquifer and a nominal increase of 56.52 AFY in the lower aquifer between 1990 and 2016 (State Water Resources Control Board [SWRCB] 2024). This overdraft is due to many factors including reductions of surface supplies in recent years by SWP and CVP export restrictions, Endangered Species Act requirements, and other factors. The groundwater overdraft is most pronounced along the western and northwestern sides of the Valley, where declining groundwater levels have contributed to documented land subsidence of approximately six feet (SWRCB 2024).

Reporting from DWR Bulletin 118 2025 Update indicates a substantial gap between surface water supplies and total water demand, resulting in the Tulare Lake Hydrologic Region being the most groundwater-dependent region in California. Between 2017 and 2021, groundwater use averaged approximately 5.17 million acre-feet (maf) per year out of a total annual water demand of 10.72 maf. Agricultural uses account for the majority of this demand, comprising approximately 92 percent (4.74 maf) of total groundwater extraction (DWR 2025). The Tulare Lake Basin is currently classified as being under critical conditions of overdraft (DWR 2025). Updated information shows between 2004 and 2024, about 70 percent of monitoring wells in the region experienced a declining trend of groundwater levels, with nearly half showing declines greater than 2.5 feet per year, which could equate to a cumulative drop of at least 50 feet in groundwater levels during that period. During that same period, 27 percent of monitoring wells displayed stable trends, while fewer than 2 percent of wells showed trends of increasing groundwater levels (DWR 2025).

The TCAG region experienced a record-setting drought along with the rest of California and continuously proclaimed a local drought emergency from 2014 until 2023. Between 2023 and 2025, conditions in the TCAG region ranged from Normal to Moderate Drought. According to the National Integrated Drought Information System (NIDIS), as of April 2026 the majority of Tulare County is experiencing Abnormally Dry conditions, indicating that the region is either going into or coming out of a drought (NIDIS 2026). Drought conditions in general reduce available water from all sources other than groundwater supplies, which are limited in terms of the annual amount of water that can be withdrawn without causing a long-term drop in water levels ("Safe Yield") and in the total storage of a basin that can be removed without substantial environmental effects ("Available Yield"). Such water source limitations make water conservation a necessity in the county. All three major groundwater subbasins within the County have been assigned 'High' overdraft priorities and are considered critically overdrafted under the Sustainable Groundwater Management Act (SGMA) (see Section 4.17.2*, Regulatory Setting*). There are several Groundwater Sustainability Agencies (GSAs) within the TCAG region and most have submitted independent GSPs as required under SGMA (see Section 4.17.2, *Regulatory Setting*).

Recycled Water and Future Supply Opportunities

In addition to groundwater supply, the City of Visalia operates the Water Conservation Plant, which provides a limited amount of recycled water to the Tulare Irrigation District for agricultural irrigation. The City of Tulare operates a water treatment plant which discharges treated effluent to ponds which is then available for recycled water projects. Recycled water has potential throughout the County as a source for agricultural irrigation if sufficient infrastructure can be developed.

Further discussion of water supplies, groundwater, and hydrology in the TCAG region can be found in Section 4.10, *Hydrology and Water Quality*.

There are multiple water agencies and utility districts located within the TCAG region, including wholesalers, municipalities, irrigation districts, privately-owned wells, and private extractors. Most public or privately-owned districts and purveyors lie completely within Tulare County borders, but a few in the northwestern areas extend into Fresno County. Tulare, Porterville, and Dinuba are the primary municipalities that have adopted Urban Water Management Plans (UWMPs) within the County pursuant to the Urban Water Management Planning Act (Dinuba 2021, Porterville 2022, Tulare 2021). The City of Visalia has a private water service agency (California Water Service Company-Visalia) which also has an adopted UWMP (California Water Service Company-Visalia, 2021). At the time of drafting the 2026 RTP/SCS Draft EIR, UWMPs for the 2020 cycle represent the

most current adopted documentation, although UWMPs for the 2025 cycle are expected to be adopted and submitted to the DWR by July 1, 2026.

Due to the disparate organizational and geographic nature of purveyors and agencies responsible for different areas within the TCAG region, lack of an overall water resource authority, and regional use of unmonitored private wells and small purveyors that are not required to produce water planning documents, it is difficult to obtain clear, consistent data on region-wide water use. Few studies have attempted to examine total regional water supply and usage.

The Kings River watershed was estimated in 2010 to supply sufficient flows for its average annual uses, the Kaweah Watershed had the highest local yield at an average of 430,000 AFY (T&Y 2010) and relied the least on imported and groundwater supply, and the Tule Watershed was most reliant on groundwater and imported water from the CVP (T&Y 2010). The City of Visalia is the major population center within the County and is entirely reliant on groundwater for its water supply (California Water Service Company-Visalia 2023). However, urban and domestic groundwater usage to support such population centers represents a minor portion of the region's overall groundwater usage, with urban and domestic groundwater use accounting for 0.38 maf of the Tulare Lake Hydrologic Region's total average annual groundwater use of 5.17 maf (DWR 2025).

b. Wastewater

County Service Providers

Wastewater is generated by residential, commercial, and industrial sources throughout the TCAG region. Treatment of wastewater provides protection for human health and receiving water bodies, preservation of the health of aquatic and riparian species, and improved supply reliability through the removal of harmful pollutants from discharges. Wastewater-related services and facilities are provided primarily by local agencies within unincorporated Tulare County, with small treatment plants scattered throughout the County. Wastewater service providers in unincorporated Tulare County are shown in **Table 4.17-1**.

Table 4.17-1 Wastewater Flows and Capacity of Facilities in Unincorporated Tulare County

Service Provider	Current Average Daily Flow (MGD)	Permitted Capacity
Cutler PUD	0.420	1,256 ESDs
Earlimart PUD	0.800	0.800 MGD
East Orosi CSD	0.053	0.060 MGD
Goshen CSD	0.315	0.500 MGD
Ivanhoe PUD	0.360	0.560 MGD
Lemon Cove SD	0.012	0.020 MGD
London CSD	0.200	0.300 MGD
Orosi PUD	0.770	2,612 ESDs
Pixley PUD	0.298	0.290 MGD
Poplar CSD	0.220	0.310 MGD
Richgrove CSD	0.250	0.220 MGD
Springville PUD	0.056	0.060 MGD
Strathmore PUD	0.150	0.400 MGD

Service Provider	Current Average Daily Flow (MGD)	Permitted Capacity
Sultana CSD	0.064	N/A
Terra Bella SMD	0.280	0.300 MGD
Tipton CSD	0.190	0.400 MGD
Woodville PUD	0.120	0.330 MGD
CSA #1 – Delft Colony	0.048	0.057 MGD
CSA #1 – El Rancho	0.012	N/A
CSA #1 – Seville	0.048	0.050 MGD
CSA #1 – Tonyville	0.032	N/A
CSA #1 – Tooleville	0.024	0.035 MGD
CSA #1 – Traver	0.067	0.089 MGD
CSA #2 – Wells Tract	0.030	N/A
CSA #1 – Yettem	0.030	N/A

Notes: ESD = Equivalent Single-Family Dwelling, CSA = County Service Area, CSD = County Sanitation District, JPWA = Joint Powers Wastewater Authority, PUD = Public Utility District, SMD = Sewer Maintenance District.
MGD = Million Gallons per Day

N/A = information not available

Source: Tulare County 2010

City of Visalia Wastewater Treatment Plant

The Visalia Wastewater Treatment Plant has an overall capacity of 22 million gallons per day (MGD) with a permitted capacity originally of 20 MGD (Visalia 2010) with permitted capacity upgraded in 2017 to 22 MGD (Visalia 2026). The renovation occurred from 2014 to 2017 to increase capacity and modernize infrastructure. The facility includes a method to capture methane gas that is then used to power a generator, saving the City money on electrical costs. In addition, more than 2.5 miles of underground pipe were laid so that the treated water from the plant is delivered to the Valley Oaks Golf Course and Plaza park for irrigation, thereby saving City water.

City of Tulare Wastewater Treatment Plant

The Tulare Wastewater Treatment Plant provides wastewater treatment for the Tulare area and is operated by the Tulare Wastewater Treatment Plant Division. It consists of both a domestic plant and an industrial plant. The domestic plant has a capacity of 6 million gallons per day (MGD), while the industrial plant has a capacity of 12 MGD. Currently these two plants treat 4.15 MGD and 7.5 MGD respectively (Tulare 2021). The plant also has 320 acres of storage ponds, 2,200 acres of farmland for beneficial reuse of treated wastewater, and renewable energy generation including an anaerobic bulk volume fermenter, fuel cells, and solar photovoltaic panels.

City of Dinuba Wastewater Reclamation Facility

The City of Dinuba's Wastewater Reclamation Facility is designed with a capacity of approximately 3.14 MGD and is permitted for a monthly dry weather discharge flow of 3 MGD. Treated effluent from the plant is pumped into a series of on-site disposable ponds covering approximately 158 acres. Additionally, treated effluent is also pumped to 30 acres devoted to entirely to agriculture. Since 1995, the facility has undergone multiple improvements, including rehabilitation of treatment ponds, upgrades to headworks and influent pumping systems, and construction of improved sludge

handling and dewatering facilities (City of Dinuba 2006; Central Valley Regional Water Quality Control Board 2023).

City of Porterville Wastewater Treatment Plant

The City of Porterville Wastewater Treatment Facility is designed to treat 8 MGD of wastewater. The facility sends disinfected effluent through a 4.5-mile pipeline to land southwest of Porterville. It is applied to city-owned farmland as irrigation for agricultural activities. Biosolids are used as a soil amendment on city-owned farmland. The total reclamation area where effluent and biosolids are applied encompasses approximately 946 acres (City of Porterville 2022).

City of Exeter Wastewater Treatment Plant

The City of Exeter's Wastewater Treatment Plant receives and treats 800,000 gallons of sewage per day from residential, commercial, and industrial waste (City of Exeter 2026). Treated water is used for local agricultural irrigation. The City of Exeter also has a Sewer System Management Plan which provides specifics on operation and maintenance, design and performance, as well as emergency response plans (City of Exeter 2009).

City of Farmersville Wastewater Treatment Facility

The City of Farmersville's wastewater treatment plant consists of headworks, three aerated ponds, and ten percolation or evaporation ponds. Upon completion of renovations in 2021, the facility's design treatment and disposal capacity has been expanded from 1.125 MGD to 1.4 MGD, and on average treats daily effluent flows ranging from 0.55 MGD to 0.93 MGD (CVRWQCB 2022) In addition to its recent expansion, the City maintains plans to increase capacity to 2.4 MGD under a future phase of construction (City of Farmersville Planning Commission 2020).

City of Lindsay Wastewater Treatment Facility

The City of Lindsay's Wastewater Treatment Facility is rated a Class III facility as it is a 2.5 MGD activated sludge facility (Lindsay 2026). There is an emergency storage pond located at the facility's site. The emergency pond has a storage capacity of approximately three million gallons. In case of an electrical power outage or failure of the headworks screw pumps, wastewater will back up into the influent pipeline until it reaches the manhole adjacent to the emergency bypass pond, from which the sewage will discharge into the emergency storage pond. Once power is restored, the sewage will flow back into the sewer and to the headworks.

City of Woodlake Wastewater Treatment Facility

The City of Woodlake's Wastewater Treatment Facility serves the community of Woodlake and is operated by the City's Public Works Department. The facility consists of oxidation ditches, anoxic basins, percolation ponds, and an emergency pond, among other design features. The City of Woodlake's WWTF capacity was increased from 0.9 MGD to 1.8 MGD as part of the Woodlake Wastewater Treatment Facility Expansion Project in 2009, and as of 2020 has a design flow of 1.38 MGD (Woodlake 2009, SWRCB 2020)

c. Stormwater

Flooding occurs occasionally on streets and roads in urbanized areas where stormwaters are diverted into manmade or artificial drainage systems. In urbanized areas, where substantial surface

areas are covered with impervious surfaces, stormwater is not able to permeate and percolate into the soil and must be diverted into a storm drainage system. In some areas, these drainage systems are occasionally overloaded with stormwater drainage, or the drains become clogged with leaves and other debris, thereby impeding stormwater drainage onto transportation facilities. The ability of the storm drainage system to accommodate water flows is also largely based on ground permeability and infrastructure capacity.

The National Pollutant Discharge Elimination System (NPDES) permitting program provides implementation measures for reducing potentially harmful pollutants found in stormwater runoff from entering water bodies or affecting public health. In metropolitan areas, agencies responsible for maintaining and upgrading drainage facilities to accommodate volume are local cities and the County. The County of Tulare owns storm drainage systems known as Municipal Separate Storm Sewer Systems (MS4s) which collect stormwater runoff. Stormwater systems and facilities are necessary to drain water and prevent flooding in urban areas, for controlling erosion, and for protecting water quality. Further discussion of stormwater drainage facilities and hydrology in the TCAG region can be found in Section 4.10, *Hydrology and Water Quality*.

d. Electric Power

The Southern California Edison Company (SCE) provides electric service to most of Tulare County. SCE obtains its electricity from natural gas, fossil fuels, nuclear power, hydroelectric power, and eligible renewable resources. The northern and southeastern corners of the TCAG region are served by the Pacific Gas & Electric Company. This includes electricity to Dinuba and other unincorporated communities and areas in the northern portion of Tulare County. Further discussion of electric power in the TCAG region can be found in Section 4.6, *Energy*.

e. Natural Gas

In the TCAG region, most of the County is serviced by SCE, which provides natural gas in and between the cities throughout the region. Pacific Gas & Electric Company supplies Dinuba and other unincorporated communities in the northern area of Tulare County. Natural gas supplies are derived from underground sources and brought to the surface at gas wells. Once extracted, gas is purified and the odorant that allows gas leaks to be detected is added to the normally odorless gas. Natural gas suppliers then send the gas into transmission pipelines, which are usually buried underground. Compressors propel the gas through the pipeline system, which delivers it to homes and businesses. In 2024, Tulare County consumed 156.4 million therms of natural gas (CEC 2026).

Further discussion of natural gas use in the TCAG region can be found in Section 4.6, *Energy*.

f. Telecommunications

Telecommunications are mainly a privately owned enterprise and are offered by a variety of companies with different service capacities across the TCAG region. The number of providers offering the service, the type of service available, and the transmission speed of the service all affect the quality of telecommunications. This approach differs from that of most other utilities, which are generally publicly owned or offered by limited or individual service providers in each area.

Many telecommunications providers offer phone, internet, and/or television service in Tulare County. Telecommunications providers will usually complete infrastructure and other service improvements for an area as the need arises to meet customer demand. Additionally, some areas in the TCAG region do not have access to cellular or broadband services, typically in rural areas or

locations where topographical features or distances make providing infrastructure for these services to those locations difficult.

g. Solid Waste

Most residents in the TCAG region have curbside trash collection. Local waste haulers are contracted, under a franchise system, to provide this service to residents living within the incorporated cities. Unincorporated communities negotiate their own hauling contracts to provide trash collection, whereas collection service is provided in remote areas of the County through bin sites and transfer stations.

Per the most recent data regarding solid waste generation available for incorporated cities in Tulare County, in 2024 Dinuba produced 20,043 tons, Exeter produced 6,761 tons, Farmersville produced 6,012 tons, Lindsay produced 9,503 tons, Porterville produced 47,108 tons, Tulare produced 65,562 tons, Visalia produced 148,977 tons, and Woodlake produced 5,284 tons. The unincorporated areas of Tulare County produced 205,552 tons in 2024. In 2024, the TCAG region produced a total of 514,801 tons of solid waste, an increase of 21,072 tons compared to the 493,729 tons of solid waste generated in 2021 (CalRecycle 2026a). Compared to the state's total waste of 39,826,603 tons, the County was responsible for approximately 1.3 percent of the state's total solid waste tonnage (CalRecycle 2026a).

As discussed in the following sections, Tulare County Solid Waste Management Department operates two landfills and six transfer stations. Each site allows for different types of waste disposal depending on its location. In addition, each disposal site maintains various waste disposal fees for residential and commercial refuse.

Landfills

The County landfills have capacity to accept a combined maximum of approximately 1,123,470 tons of waste per year[1], which is equivalent to about 5 pounds per person per day or approximately one ton per county resident per year (CalRecycle 2026b, 2026c). The County currently operates two landfills: the Visalia Disposal Site, a Class III municipal solid waste landfill, within the western portion of the City limits of Visalia; and the Woodville Disposal Site, a Class III landfill southwest of Porterville (CalRecycle 2026b, 2026c).

However, each incorporated city individually contracts with different waste haulers, and thus some solid waste produced in Tulare County is diverted to landfills in neighboring counties. Per the latest data available, solid waste is also diverted to the American Avenue Landfill in Fresno County, the McKittrick Waste Treatment Site in Kern County, the Avenal Landfill and Kettleman Hills Landfill in Kings County, the Fairmead Landfill in Madera County, the Antelope Valley Public Landfill and Azusa Landfill in Los Angeles County, and the Simi Valley Landfill in Ventura County. Among these facilities, the Kettleman Hills Facility in Kings County is a Class I landfill that accepts hazardous waste (DTSC 2026). The unincorporated areas of Tulare County also utilize landfills outside of the County, the majority of which are located in Kern County (CalRecycle 2026d). In total, 344,846 tons of solid waste were accepted at the Visalia Landfill, 179,303 tons of solid waste were accepted at the Woodville Disposal Site, 54,101 tons of solid waste were accepted at the Teapot Dome Disposal Site, which ceased operations in 2025 (CalRecycle 2026e).

[1] 1,123,470 tons per year = (1,078 maximum tons per day at the Teapot Dome Disposal Site x 365 days per year) + (2,000 maximum tons per day at the Visalia Disposal Site x 365 days per year)

Current permits for County landfills are summarized in Table 4.17-2. Solid waste landfill destinations are listed in Table 4.17-3.

Table 4.17-2 Active Solid Waste Landfills in the TCAG Region

Name	Projected Closure Date	Max Daily Disposal (tons)	Max Capacity (cubic yards)	Remaining Capacity (cubic yards)
Visalia Landfill	1/1/2045	2,000	18,630,666	11,717,479
Woodville Disposal Site	1/1/2043	1,078	13,120,200	7,093,145

Source: CalRecycle 2026b; 2026c

Table 4.17-3 2024 Solid Waste Landfill Destinations Within the TCAG Region

City	Visalia Landfill (tons/year)	Woodville Disposal Site (tons/year)	Other Landfill/Disposal Sites (tons/year)
Dinuba	19,095	2	946
Exeter	377	6,761	333
Farmersville	961	4,963	88
Lindsay	262	9,162	79
Porterville	11,527	80	29,501
Tulare	2,387	50,093	11,081
Tulare-Unincorporated[1]	--	--	205,552
Visalia[1]	--	--	148,975
Woodlake	4,822	391	611

[1] No data was provided for the Visalia Landfill or Woodville Disposal Site.

Source: CalRecycle, 2026d

Transfer Stations

There are six county operated transfer stations, which accept waste of various types including general refuse and wood and green waste depending on size with flat and volume rates applying. These facilities collect material that is then transferred to be recycled or sent to the nearest landfill site. While not all-inclusive as a landfill, transfer stations provide a broad collection opportunity for local residents (Tulare County 2021). Table 4.17-4 provides information on active transfer stations in the County.

Table 4.17-4 Active Transfer Stations in the TCAG Region

Transfer Station	Max Permitted Metric Tons	Permitted Capacity (tons/day)
Badger	10 tons/day	15
Balance Rock	52 cubic yards/day	n/a
Camp Nelson	13 tons/day	15
Kennedy Meadows	60 cubic yards/day	n/a
Pine Flat	10 tons/day	15
Springville	12 tons/day	100

Source: Tulare County 2022

Waste Diversion and Recycling

The California Integrated Waste Management Act of 1989 (Chapter 1095, Statutes of 1989) requires every city and county, as part of the Countywide Integrated Waste management plan, to prepare a Source Reduction and Recycling Element that identifies how each jurisdiction would meet the mandatory state waste diversion goals of 50 percent of all solid waste through source reduction, recycling, and composting activities. CalRecycle produces a yearly Diversion/Disposal Progress Report for each county and the applicable jurisdictions. As of 2024, the jurisdictions of Dinuba, Exeter, Farmersville, Lindsay, Porterville, Tulare, Tulare-Unincorporated, Visalia, and Woodlake had submitted their annual reports and are awaiting approval (CalRecycle 2024).

4.17.2 Regulatory Setting

a. Federal Laws, Regulations, and Policies

California Building Standards Code (California Code of Regulations Title 24)

Title 24 applies to all buildings throughout the State of California, and includes requirements for structural, mechanical, electrical, and plumbing systems, and requires measures for energy conservation, green design, construction and maintenance, fire and life safety and accessibility. Cities and counties are required by state law to enforce Title 24. More restrictive ordinances can also be adopted by cities and counties due to specific geographical conditions. Included among the twelve parts of Title 24 are Part 9, which includes the California Fire Code, and is based on the International Fire Code, and Part 11, which includes the California Green Building Standards Code that includes measures for incorporating energy efficiency into buildings.

Safe Drinking Water Act

The Federal Safe Drinking Water Act (SDWA), 42 U.S.C. Section 300f et seq., establishes standards for contaminants in drinking water supplies. Contaminants regulated by the SDWA include metals, nitrates, asbestos, total dissolved solids, and microbes.

Clean Water Act

Congress enacted the CWA, 33 U.S.C. Section 1251 et seq., formerly the Federal Water Pollution Control Act of 1972, with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and non-point source discharges to surface water. Point source discharges are regulated by the NPDES permit process (CWA Section 402). Section 401 of the CWA requires that any activity that would result in a discharge into waters of the U.S. be certified by the applicable RWQCB. This certification ensures that the proposed activity does not violate state water quality standards. Section 404 of the CWA authorizes the U.S. Army Corps of Engineers to regulate the discharge of dredged or fill material to the waters of the U.S. and adjacent wetlands. Discharges to waters of the U.S. must be avoided where possible, and minimized and mitigated where avoidance is not possible. Section 303(d) of the CWA requires states to establish total maximum daily load programs for streams, lakes, and coastal waters that do not meet certain water quality standards.

National Pollutant Discharge Elimination System Permits

The NPDES permit program was established under Section 402 of the CWA to regulate point source discharges of pollutants to waters of the United States. The NPDES program applies to municipal and industrial wastewater discharges, as well as certain stormwater discharges associated with municipal separate storm sewer systems (MS4s), construction activities, and industrial facilities. NPDES permits establish effluent limitations and receiving water-based standards, prohibit unauthorized discharges, and require implementation of measures such as pollution prevention, industrial pretreatment, monitoring, and reporting to reduce the potential for harmful pollutants found in stormwater runoff to enter water bodies or affect public health. In California, the NPDES program is administered by the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs), which issue and enforce permits to ensure compliance with federal and state water quality standards. . In metropolitan areas, agencies responsible for maintaining and upgrading drainage facilities to accommodate volume are local cities and the County. Within the TCAG region, NPDES permitting is administered by the Central Valley Regional Water Quality Control Board.

Resource Recovery and Conservation Act

Subtitle D of the Resource Recovery and Conservation Act (RCRA), 42 U.S.C. Section 6901 et seq., focuses on state and local governments as the primary planning, regulating, and implementing entities for the management of nonhazardous solid waste, such as household garbage and nonhazardous industrial solid waste. To promote the use of safer units for solid waste disposal, Subtitle D provides regulations for the generation; transportation; and treatment, storage, or disposal of hazardous wastes. The United States Environmental Protection Agency developed federal criteria for the proper design and operation of municipal solid waste landfills and other solid waste disposal facilities. The United States Environmental Protection Agency approved the State of California's program on October 7, 1993.

Title 40 of the Code of Federal Regulations, Part 258 (RCRA, Subtitle D) contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the Federal landfill criteria. The federal regulations address the location, operation, design, groundwater monitoring, and closure of landfills.

b. State Laws, Regulations, and Policies

Sustainable Groundwater Management Act

In September 2014, the State passed SGMA, which requires that California’s groundwater resources be sustainably managed by local agencies. SGMA authorized the formation of GSAs and required the development of GSPs for medium- and high-priority groundwater basins, with the goal of achieving sustainable groundwater conditions by 2040 or 2042. Basins identified as critically overdrafted were required to prepare and submit GSPs on an accelerated timeline.

All three DWR-delineated subbasins within Tulare County have been identified as critically overdrafted, and numerous GSAs have been formed throughout the County to prepare and implement GSPs. However, GSPs in the TCAG region were submitted pursuant to the 2020 deadline for critically overdrafted basins and have since been approved and are currently in their first five-year implementation cycle; as of 2026, the required five-year plan evaluations were due in 2025, with updates currently underway or recently completed. SGMA provides GSAs with various

management authorities, including the ability to conduct investigations, collect data, levy fees, and regulate groundwater extraction.

Current GSPs in the region generally emphasize data collection, monitoring, and public outreach, including expanded use of groundwater metering and evaluation of basin conditions. While GSAs have the statutory authority to limit groundwater extraction, most adopted GSPs do not yet impose mandatory pumping limits and instead focus on establishing the technical and regulatory framework needed to determine sustainable yield and implement future management actions.

Additional discussion of groundwater supplies, ongoing SGMA implementation, and its implications for water availability is provided in Section 4.10, *Hydrology and Water Quality*.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1969 (California Water Code Section 13000 et seq.) establishes the State's comprehensive program for protecting water quality and regulating discharges to surface water and groundwater. Under the Act, SWRCB develops statewide policies and oversees implementation, while the nine RWQCBs are responsible for adopting Basin Plans, identifying beneficial uses, setting water quality objectives, and implementing regulatory programs within their regions. The Act provides authority for regulating both wastewater and stormwater discharges, including issuance of Waste Discharge Requirements (WDRs) and NPDES permits for municipal, industrial, and construction activities, as well as development of total maximum daily loads. Anyone proposing to discharge waste that could affect waters of the State must obtain appropriate WDR or NPDES authorization from the RWQCB or SWRCB, as applicable, in compliance with Porter-Cologne.

California Building Standards Code (Title 24, CCR)

Title 24 applies to all buildings throughout the State of California, and includes requirements for structural, mechanical, electrical, and plumbing systems, and requires measures for energy conservation, green design, construction and maintenance, fire and life safety and accessibility. Cities and counties are required by state law to enforce Title 24. More restrictive ordinances can also be adopted by cities and counties due to specific geographical conditions. Included among the twelve parts of Title 24 are Part 9, which includes the California Fire Code, and is based on the International Fire Code, and Part 11, which includes the California Green Building Standards Code that includes measures for incorporating energy efficiency into buildings.

Safe Drinking Water Act

California enacted its own Safe Drinking Water Act, Health and Safety Code Section 116270 et seq) in 1976. The California Department of Public Health (formerly the California Department of Health Services) has been granted primary enforcement responsibility for the SDWA. Title 22 of the California Administrative Code establishes California Department of Public Health authority and stipulates drinking water quality and monitoring standards. These standards are equal to or more stringent than the federal standards.

California Water Code, Title 22

The California Water Code requires the California Department of Public Health to establish water reclamation criteria. In 1975, the former California Department of Health Services prepared Title 22 to fulfill this requirement. Title 22 regulates production and use of reclaimed water in California by

establishing three categories of reclaimed water: primary effluent, which typically includes grit removal and initial sedimentation or settling tanks; adequately disinfected, oxidized effluent (secondary effluent) which typically involves aeration and additional settling basins; and adequately disinfected, oxidized, coagulated, clarified, filtered effluent (tertiary effluent) which typically involves filtration and chlorination. In addition to defining reclaimed water uses, Title 22 defines requirements for sampling and analysis of effluent and requires specific design requirements for facilities.

Water Supply Planning

SB 610 (Chapter 643, Statutes of 2001) and SB 221 (Chapter 642, Statutes of 2001) amended state law to improve the link between information on water supply availability and certain land use decisions made by cities and counties. The intent of SB 610 is to ensure that sufficient water supplies are available for growing communities. SB 610 requires local public water providers with more than 3,000 service connections to prepare a Water Supply Assessment (WSA) for any project that is subject to CEQA and meets specified minimum size criteria.

The WSA must document sources of water supply, quantify water demands, and compare future water supply and demand to show that sufficient water will be available to serve the project. Water supply must be assessed for normal, single dry, and multiple dry water years during a 20-year forecast. If supplies are found to be insufficient to serve the project, the WSA must include plans for acquiring sufficient supplies.

SB 221 (Chapter 642, Statutes of 2001) applies to subdivisions of more than 500 dwelling units. Like SB 610, it is intended to ensure an adequate water supply for new development. SB 221 requires that approval of a tentative map include a requirement that a sufficient water supply is available.

Urban Water Management Planning Act

In 1983, the California Legislature enacted the Urban Water Management Planning Act (Water Code, Section 10610 et seq.), which requires urban water suppliers to develop water management plans to actively pursue the efficient use of available supplies. Every five years, water suppliers are required to develop UWMPs to identify short-term and long-term water demand management measures to meet growing water demands.

State Water Conservation Requirements

Executive Order B-37-16 established a new water use efficiency framework for California. The order bolstered the state's drought resilience and preparedness by establishing longer-term water conservation measures that include permanent monthly water use reporting, new urban water use targets, reducing system leaks and eliminating clearly wasteful practices, strengthening urban drought contingency plans, and improving agricultural water management and drought plans. Executive Order B-40-17 subsequently built upon this framework by directing state agencies to take additional actions to improve water conservation, drought planning, and long-term water supply reliability, including continued development of water use efficiency standards, improved data collection and reporting, and enhanced coordination among state and local agencies. Based on monthly water use reporting, most urban water suppliers reported sufficient supplies to meet demand in three additional dry years and are not subject to state conservation mandates.

Water Efficiency Legislation

Legislation passed in 2018 (AB 1668 and SB 606) directed the State Water Board to adopt long-term standards for the efficient use of water by June 30, 2022. In alignment with the legislative directives of AB 1668 and SB 606, the SWRCB adopted a comprehensive regulation in 2024 to advance California's long-term water use efficiency. Effective January 1, 2025, the regulation establishes urban water use objectives tailored to local conditions, incorporating standards for indoor residential use, outdoor irrigation, commercial and institutional landscapes, and water loss reduction. Specifically, the indoor residential water use standard will be reduced to 47 gallons per capita per day by 2025, while outdoor irrigation standards are based on climate-adjusted landscape area calculations (SWRCB 2025). Suppliers must also meet performance measures for commercial, industrial, and institutional irrigation with dedicated meters and comply with water loss targets derived from validated audits. These measures promote sustainable water management by requiring suppliers to assess irrigable areas, reduce leaks, and report performance metrics. The framework supports California's resilience to drought by encouraging conservation, improving data transparency, and enabling flexible compliance pathways, including variances for unique local conditions and incentives for potable reuse.

California Department of Resources Recycling and Recovery

CalRecycle (formerly the California Integrated Waste Management Board) oversees, manages, and monitors waste generated in California. It provides limited grants and loans to help California cities, counties, businesses, and organizations meet the State waste reduction, reuse, and recycling goals. It also provides funds to clean up solid waste disposal sites and co-disposal sites, including facilities that accept hazardous waste substances and non-hazardous waste. CalRecycle develops, manages, and enforces waste disposal and recycling regulations, including AB 939 and SB 1016, both of which are described below.

Assembly Bill 939

AB 939 of 1989 requires cities and counties to prepare integrated waste management plans and to divert 50 percent of solid waste from landfills beginning in calendar year 2000 and each year thereafter. AB 939 also requires cities and counties to prepare Source Reduction and Recycling Elements as part of the integrated waste management plans. These elements are designed to develop recycling services to achieve diversion goals, stimulate local recycling in manufacturing and stimulate the purchase of recycled products.

Assembly Bill 341

AB 341 of 2011 is California's Mandatory Recycling Law for commercial businesses, multifamily complexes, and public entities. AB 341 went into effect on July 1, 2012, and requires all businesses that generate four or more cubic yards of garbage per week and multifamily dwellings with five or more units to recycle. AB 341 also sets a statewide goal of 75 percent waste diversion.

Assembly Bill 1826

AB 1826 of 2014 is California's Mandatory Organics Recycling Law for commercial businesses and multifamily complexes. AB 1826 requires businesses to recycle organic waste on and after April 1, 2016. By January 1, 2016, local jurisdictions were required to implement an organic waste recycling program that diverts organic waste generated by businesses and multifamily residential dwellings

consisting of five or more units. AB 1826 phases the mandatory recycling of commercial organic waste over time based on volume of waste generated by businesses. In April 2016, businesses generating over eight cubic yards of organic waste per week are required to arrange for organic waste recycling services; in January 2017, businesses generating over four cubic yards of organic waste per week were required to do the same. Additionally, jurisdictions are required to submit annual reports. In 2020, CalRecycle conducted a formal review of AB 1826 progress and determined that statewide organic waste disposal had not been reduced by 50 percent of 2014 levels. Accordingly, the agency expanded the regulatory threshold to include businesses generating two cubic yards or more of commercial solid waste per week, extended the AB 1826 rural exemption until December 31, 2026, and revoked the ability of jurisdictions to grant AB 1826 exemptions for businesses generating less than one cubic yard of organic waste per week (CalRecycle 2026a).

Senate Bill 1383

In September 2016, the Governor signed into law SB 1383 which establishes methane emissions reduction targets in a statewide effort to reduce emissions of short-lived climate pollutants in various sectors of California's economy. SB 1383 establishes targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025, as well as a 20 percent reduction of previously landfilled food, which equates to a target reduction of approximately 231,000 tons of food. The bill builds upon California's leading commitments to reduce greenhouse gas emissions and air pollution statewide. Despite SB 1383's initial target date of 2020, the law did not go into effect until 2022, and its regulations therefore were not fully enforced until two years after its 2020 reduction goal (CalRecycle 2026b). Given this delay, California's SB 1383 organic waste reduction targets have not been fully met. However, the state began making progress prior to SB 1383's 2022 implementation, with two million tons of organic waste reduced per year between 2018 and 2021 (CalRecycle 2026b). Since the full implementation of SB 1383 in 2022, the state has achieved notable success in food recovery and expanded residential organic waste collection. As of the most recent available reporting, the majority of California jurisdictions report having residential organics collection services, including 97 percent of jurisdictions with requirements and 28 percent of jurisdictions exempt from SB 1383 by way of rural or low population waivers (CalReycle 2026b). Additionally, 100 percent of communities in California have expanded programs to send fresh, unsold food to Californians in need, resulting in the recovery of 231,766 tons of unsold food in 2024, which exceeds the SB 1383 mandate for food recovery by 2025 (CalRecycle 2026b).

For the 2025 calendar year, each jurisdiction is required to report items relevant to SB 1383 on or before August 1, 2026. Accordingly, data on the state's progress toward the 2025 target is not yet publicly available (CalReycle 2026c). However, past reporting indicates that some goals such as those related to food recovery have been achieved, while the broader 75 percent reduction target may be more challenging due to implementation challenges (Little Hoover Commission 2023).

Senate Bill 1016

SB 1016 of 2008 requires that the 50 percent solid waste diversion requirement established by AB 939 be expressed in pounds per person per day. SB 1016 changed the CalRecycle review process for each municipality's integrated waste management plan. After an initial determination of diversion requirements in 2006 and establishing diversion rates for subsequent calendar years, the Board reviews a jurisdiction's diversion rate compliance in accordance with a specified schedule. Beginning

January 1, 2018, the Board was required to review a jurisdiction's source reduction and recycling element and hazardous waste element once every two years.

c. Local Laws, Regulations, and Policies

Planning for water management, wastewater and stormwater management, and solid waste disposal is conducted by local agencies to support their long-term resource planning and ensure adequate service to meet existing and future demands. In addition to federal and state regulations governing these planning efforts, cities, counties, and water districts may provide regulatory advisement on water resources, water treatment, and solid waste disposal. Many jurisdictions incorporate goals and policies relating to these topic areas in their municipal codes, general plans, development standards, or other regulations (e.g., utility master plans, solid waste management plans).

Urban Water Management Plans

The primary municipalities within the TCAG region that have adopted UWMPs pursuant to the Urban Water Management Planning Act are the cities of Dinuba, Exeter, Lindsay, Porterville, and Tulare. The City of Visalia has a private water service agency (California Water Service Company) which also has an adopted a 2020 UWMP.

City of Dinuba Urban Water Management Plan

The City of Dinuba's UWMP services an approximately 6.5 square mile area in the City of Dinuba and was created based off of policies in long-term planning documents such as General Plans and Specific Plans. The City of Dinuba's UWMP includes a Water Shortage Contingency Plan which lists procedures to be carried out in the event of shortage. These include, expanding public information, limiting landscape irrigation, prohibiting vehicle washing, and offering water use surveys (City of Dinuba 2020).

City of Exeter Urban Water Management Plan

The City of Exeter's UWMP services the incorporated area for the City of Exeter with a primary focus on groundwater, as groundwater is the sole source of municipal water supply. The UWMP does not include discussions on conjunctive use, groundwater recharge, saline water intrusion barriers, agricultural, wetlands or wildlife habitat because they are not applicable to the City of Exeter. The UWMP's Water Shortage Contingency Plan includes policies such as limiting landscape irrigation hours, restricting washing vehicles, and requiring commercial nurseries to only use drip irrigation systems (City of Exeter 2022).

City of Lindsey Urban Water Management Plan

The City of Lindsay's UWMP was prepared to promote efficient use of urban water supplies, support conservation, ensure reliable water availability for future use, and provide a framework for responding to drought conditions. The UWMP serves a population of approximately 13,901 within the City and surrounding unincorporated areas, including Page-Moore Tract, Sierra Shadows Mobile Home Park, El Rancho, and areas west of the City. The City relies primarily on groundwater, supplemented by Central Valley Project surface water when available. The UWMP includes conservation measures and a Water Shortage Contingency Plan outlining actions such as water use reductions during drought conditions, and identifies the need for additional groundwater wells and infrastructure improvements to meet future demand.

City of Porterville Urban Water Management Plan

The City of Porterville's UWMP services the City of Porterville as well as some areas outside of the City of Porterville that are within the Planning Areas as defined in the Porterville 2030 General Plan update. Agricultural land use covers 58 percent of the total planning area the UWMP services. The City of Porterville has an existing Water Conservation Plan which outlines policies and procedures to help reduce water demands during drought. These policies include implementing public information programs, enforcing watering schedules, and, if necessary, placing restrictions on water use (City of Porterville 2022).

City of Tulare Urban Water Management Plan

The City of Tulare's UWMP was created to maintain efficient use of urban water supplies, continue to promote conservation, ensure sufficient water supplies are available for future beneficial use, and provide a mechanism for response during drought. The UWMP services a population of approximately 67,834. The service area includes the City of Tulare itself, the community of Matheny Tract and Soults Mutual Water Company. The UWMP's Water Shortage Contingency Plan includes measures which prohibit operating irrigation system during certain hours, prohibit washing automobiles, among other restrictions (City of Tulare 2021).

City of Visalia

The California Water Service provides service to the City of Visalia and thus their UWMP is enforced within the City of Visalia. The UWMP services a population of approximately 147,032. The Water Shortage Contingency Plan include policies such as prohibiting watering within 48 hours of measurable rainfall, expanding public information, limiting landscaping days, and prohibiting use of potable water for construction and dust control (California Water Service 2021).

City and County General Plans

State law requires every city and county to adopt a general plan that expresses the community's development goals and embodies public policy relative to the distribution of future land uses, both public and private (LCI 2017). Included in the general plan are potential hazards, policies, and mitigation measures related to utilities and related service systems. The elements contained in the general plan are intended to promote the highest quality of life in each jurisdiction.

Tulare County

The 2030 Tulare County General Plan includes goals and policies related to protecting the County's water supply and securing future supplies in Chapter 11, Water Resources, and flood and storm management in the Health and Safety Chapter. Major goals include WR-1 and -2, protection of surface and groundwater resources. These overarching goals are implemented by a wide variety of policies and work plans such as HS-5.4 (flood control measures and stormwater retention), WR-1.1 (groundwater withdrawal management), WR-1.8 (basin management participation), and WR-2.1 (protection of water quality).

City of Visalia

The City of Visalia has numerous goals and policies related to water quality and hydrology in the General Plan, especially in the Water Resources section of the Open Space and Conservation Element, which covers water quality. Goals include OSC-O-6 (Protect water resources and quality),

OSC-O-7 (preservation of waterways as habitat, groundwater recharge, and flood control), and PSCU-O-14 (management practices for groundwater recharge and stormwater management) which are implemented by Policies such as OSC-P-8 (waterway protection), OSC-P-10 (waterway setbacks), PSCU-P-60 (incorporation of stormwater detention basins) and PSCU-P-61 (control of stormwater runoff and pollutants). The Visalia Municipal Code contains stormwater, flood management, and conservation regulations in Titles 13, 15, and 16.

City of Porterville

The City of Porterville 2030 General Plan Open Space and Conservation Element includes several goals and policies related to protection of the Tule River, which flows through the planning area and to groundwater recharge to the Tule Subbasin (City of Porterville 2007). The Guiding Policy is OSC-G-8, ensuring adequate water quality and supply for the entire community, and Implementation Policies include OSC-I-37 (watershed protection standards), OSC-I-39 (minimizing erosion and runoff), OSC-I-40 through 45 (pollution management), and OSC-I-53 through 56 (recharge and infiltration protection). The Porterville City Code has numerous regulations and ordinances related to water quality and conservation, including Chapter 7.IV on green building codes, and Chapter 19A which contains the Storm Drainage Systems regulations.

Other City General Plans

Other cities in the TCAG region, such as Tulare and Exeter, have similar provisions, goals, policies, and regulations in their General Plans and municipal ordinances.

Groundwater Sustainability Agencies

All three major groundwater subbasins within the TCAG region have been assigned 'High' overdraft priorities and are considered critically overdrafted under the (SGMA, see *Regulatory Setting* above). There are several GSAs within the TCAG region, and most have submitted independent GSPs as required under SGMA. Some of the larger GSAs within the region include:

Lower Tule River Irrigation District

Lower Tule River Irrigation District is one of the largest irrigation districts in California; it covers over 104,000 acres and contains approximately 150 miles of rivers and canals. Supplied by the Tule River, Friant-Kern Canal, and Cross Valley canal, the District serves Deer Creek, Tule River Authority, Poplar Ditch Company, Pioneer Water Company and other large dairy industries within the District's boundaries (Lower Tule Irrigation District/Pixley Irrigation District 2022).

Eastern Tule Groundwater Sustainability Agency

Eastern Tule Groundwater Sustainability Agency is a local agency that was formed as a requirement of the State of California SGMA. The Eastern Tule GSA implements the requirements of SGMA. The Eastern Tule GSA, which includes the Greater Porterville Area, encompasses approximately 161,000 acres. ETGSA is located within the Tule Subbasin. SGMA applies to all parcels and persons located within the subbasin (Eastern Tule GSA 2018).

Greater Kaweah Groundwater Sustainability Agency

The Greater Kaweah Groundwater Sustainability Agency oversees groundwater management in the Kaweah Subbasin. The Greater Kaweah GSA's jurisdictional area extends 343 square miles, approximately half of the area within the Kaweah Subbasin. The Cities of Exeter, Farmersville, and

Woodlake, and a portion of the City of Hanford are located within the Greater Kaweah GSA (Greater Kaweah GSA 2020).

Kings River East Groundwater Sustainability Agency

The Kings River East Groundwater Sustainability Agency is one of seven groundwater sustainability agencies within the Kings Subbasin and covers 191,300 acres of the Kings Subbasin. Kings River EGSA serves the Cities of Reedley, Orange Cove, and Dinuba, and several community services districts and irrigation districts. These entities are subject to management under the Kings River EGSA Groundwater Sustainability Plan (Kings River EGSA 2019).

East Kaweah Groundwater Sustainability Agency

The East Kaweah Groundwater Sustainability Agency oversees groundwater management in the eastern portion of the Kaweah subbasin. Water is primarily supplied by the Kaweah River as a primary source of recharge to the area. The East Kaweah GSA serves Tulare County, the City of Lindsay, communities of Strathmore, Tooleville, Tonyville, and Plainview, as well as various irrigation districts (East Kaweah GSA 2020).

Mid Kaweah Groundwater Subbasin Joint Powers Authority

In 2015, the City of Visalia, City of Tulare, and Tulare Irrigation District entered into a Joint Powers Authority Agreement to form the Mid Kaweah Groundwater Subbasin Joint Powers Authority (MKGSJPA). This agreement allowed members of the MKGSJPA to manage groundwater within their jurisdictional boundaries and qualify to serve as the Mid-Kaweah Groundwater Sustainability Agency . Together, the jurisdictional area is approximately 163 square miles. The entities in the MKGSJPA are all subject to the GSP created by the GSA (Mid-Kaweah Groundwater Sustainability Agency 2019).

Delano-Earlimart Irrigation District

The Delano-Earlimart Irrigation District includes a service area of approximately 56,500 acres in southern Tulare County and northern Kern County along the eastside of San Joaquin Valley. Over 90 percent of the jurisdiction is comprised permanent cropland. Along with the Richgrove Community Service District and Earlimart Public Utility District, the Delano-Earlimart Irrigation District has formed the Delano-Earlimart Irrigation District Groundwater Sustainability Agency which manages groundwater within southern Tulare County and a small northeast portion of Kern County (Delano-Earlimart Irrigation District 2026).

Tri-County Water Authority

The Tri-County Water Authority has jurisdiction over lands in both the Tule and Tulare Lake Subbasins. The area is primarily irrigated and dryland agriculture, with two rural communities, Allensworth State Park and 'West of Earlimart', as well as farmsteads scattered throughout the area. The Tri-County Water Authority collaborates with the Tule Subbasin Technical Advisory Committee to manage groundwater in the Tule Subbasin (Tri-County Water Authority 2019).

Pixley Irrigation District

The Pixley Irrigation District serves landowners and large dairy industries within the District's boundaries, which cover approximately 69,500 acres and 67 miles of canals and rivers. Water supply

for the District is drawn from 31,200 acre-feet from the Cross Valley Canal (Lower Tule Irrigation District/Pixley Irrigation District 2022).

Alpaugh Irrigation District

The Alpaugh Irrigation District is the Groundwater Sustainability Agency for portions of the eastern Tule Subbasin. It manages groundwater in the community of Alpaugh and serves as part of the Tule Subbasin Technical Advisory Committee (Tule Subbasin Groundwater Sustainability Agencies 2022).

4.17.3 Impact Analysis

a. Methodology and Significance Thresholds

Refer to Section 4.10, *Hydrology and Water Quality*, for a discussion of the potential for the 2026 RTP/SCS to substantially decrease groundwater supplies or interfere substantially with groundwater recharge, or to conflict with or obstruct implementation of a sustainable groundwater management plan.

This analysis includes a program-level, qualitative assessment of impacts related to utilities and service system. Impacts related to these resource areas are localized in nature, and therefore the analysis is qualitative and focuses on the existing regulations, standards, and policy measures to address these localized impacts. This evaluation of public utilities/facilities impacts assumes that construction and development under the proposed 2026 RTP/SCS would adhere to applicable federal, State, and local regulations and would conform to appropriate standards in the industry, as relevant for individual projects. Where existing regulatory requirements or permitting requirements exist that are law and binding on responsible agencies and project sponsors, it is reasonable to assume that they would be implemented, thereby reducing impacts.

Appendix G of the *CEQA Guidelines* identifies the following criteria for determining whether a project's impacts would have a significant impact to utilities:

1. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects;
2. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
3. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals;
4. Not comply with federal, state and local management and reduction statutes and regulations related to solid waste; or
5. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

b. Project Impacts and Mitigation Measures

The following section discusses utilities, and service system impacts and mitigation measures associated with transportation projects and the land use scenario implementing the proposed 2026 RTP/SCS. Due to the programmatic nature of the proposed 2026 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 proposed 2026 RTP/SCS could result in the impacts as described in the following section.

Threshold 1:	Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?
Threshold 3:	Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Impact UTIL-1 PROPOSED TRANSPORTATION PROJECTS AND FUTURE LAND SCENARIO OF THE PROPOSED 2026 RTP/SCS WOULD REQUIRE OR RESULT IN THE RELOCATION OR CONSTRUCTION OF NEW OR EXPANDED WATER, WASTEWATER TREATMENT, OR STORMWATER DRAINAGE, ELECTRIC POWER, NATURAL GAS OR TELECOMMUNICATIONS FACILITIES, THE CONSTRUCTION OF WHICH WOULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS. THIS IMPACT WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Water

Envisioned land use development under the proposed 2026 RTP/SCS would result in a need for new or expanded water treatment facilities to accommodate demand in specific areas that exceeds the capacity at existing facilities. Transportation projects would not lead to the construction of projects that include habitable residences or commercial buildings. However, transportation projects implemented under the proposed 2026 RTP/SCS would introduce additional water demands to the TCAG region involving modification of existing facilities but would not result in a substantial increase in landscaped areas that require irrigation.

As described below in Impact UTIL-4, water supply could still be insufficient for meeting this increased demand. The use of advanced treatment technology, reclaimed water distribution, or groundwater recharge may need to be expanded to increase water supplies.

Depending on the exact timing and location of future development through implementation of the RTP/SCS, it may become necessary to construct new water facilities or expand existing facilities to maintain adequate water supply. The construction of new or expanded water facilities could result in significant environmental impacts, depending on their location, design, and the environmental resources present where the facilities are located.

Wastewater

Envisioned land use development under the proposed 2026 RTP/SCS would result in a need for new or expanded wastewater treatment facilities to accommodate demand in specific areas that exceeds the capacity at existing facilities. As discussed in 4.13, *Population and Housing*, between 2025 and 2049, the TCAG region is forecasted to grow by 53,716 people, which would increase demand for wastewater treatment. In some instances, wastewater treatment capacity may need to be expanded along with the use of advanced treatment technology, reclaimed water distribution, or groundwater recharge to increase water supplies.

Proposed land use projects implementing the proposed 2026 RTP/SCS would require construction or expansion of wastewater treatment facilities and may result in the determination by a wastewater

treatment provider that there is inadequate capacity to serve future demand. Depending on the exact timing and location of future development, it may become necessary to construct new wastewater treatment facilities or expand existing facilities to maintain adequate wastewater treatment capacity. The construction of new or expanded wastewater treatment facilities could result in significant environmental impacts, depending on their location, design, and the environmental resources present where the facilities are located.

Stormwater

The proposed 2026 RTP/SCS would result in an increase of approximately 46,422 housing units through the horizon year. Development of the remaining acres outside of existing urban areas could be composed of a variety of land uses and impervious surfaces (e.g., paved areas, building rooftops, parking lots) that would result in incremental increases in the volume and rate of stormwater runoff, and possibly require the expansion or construction of new stormwater drainage facilities. Urban infill can also increase impervious surfaces by converting permeable vacant or underused parcels into land with more paving or structures, although some redevelopment can reduce the amount of impervious surface by converting pavement or buildings into permeable paving or landscape. Redevelopment can also increase the amount and rate of runoff by discharging greater amounts of water on a site than before development, typically because of increased landscape irrigation. Infrastructure upgrades would be required to accommodate the stormwater and water quality treatment needs of individual development.

As described in Section 4.10, *Hydrology and Water Quality*, the CWA NPDES MS4 Phase I and Phase II requirements compel agencies and developments to implement stormwater management plans, which in turn require the implementation of source and treatment control measures. NPDES MS4 permittees are also required to develop and enforce ordinances and regulations to reduce the discharge of sediments and other pollutants in runoff and must verify compliance. New development that would i disturb one or more acre of land, or less than one acre but part of a larger plan of development, such as the proposed 2026 RTP/SCS, would be required to comply with applicable NPDES permits issued by the SWRCB and CVRWQCB, including MS4 permits and the Statewide Construction General Permit (Order WQ 2022-0057-DWQ), which require implementation of post-construction stormwater management measures and BMPs. These requirements generally include incorporation of low impact development strategies such as stormwater reuse, onsite infiltration, evapotranspiration, and controls to minimize increases in runoff from new impervious surfaces. Some typical BMPs to meet regulatory standards for project operation include erosion control and revegetation programs, low impact development, alternative discharge options and integrated pest management techniques in landscaped areas. During operations and maintenance of envisioned projects, operational BMPs would result in compliance with applicable stormwater runoff discharge permits.

The infill nature of the proposed 2026 RTP/SCS development pattern, combined with compliance with existing stormwater regulations that mitigate runoff flows, would result in less than significant impacts on the stormwater capacity of existing systems because much of the growth would occur on already impervious land built to lower standards and the slight increase of urbanized land would have to comply with current standards. However, development outside of urbanized areas would likely require the construction of new stormwater drainage systems that may create significant environmental impacts.

Likewise, some transportation projects would also increase impervious surface area compared to existing conditions, such as transportation projects that involve adding new or additional travel

lanes to paved roads. Depending on the location and design specific to transportation projects included in the proposed 2026 RTP/SCS, stormwater runoff may be captured in existing storm drain systems and conveyed to local or regional wastewater treatment facilities. Additionally, roadways, such as state highways, are often adjacent to pervious surfaces, such as gravel shoulders, agricultural fields, or other unpaved surfaces. Runoff from the roadway surface is able to flow overland into these pervious areas and infiltrate the ground, reducing impacts to the local stormwater system. For other transportation projects, additional drainage infrastructure that results in additional ground disturbance and may create significant environmental impacts would be required.

Energy and Telecommunication Infrastructure

Additionally, while implementation of the proposed 2026 RTP/SCS transportation projects would not result in the demand for new energy and telecommunication infrastructure, implementation of the proposed 2026 RTP/SCS land use development pattern could result in an increased demand. As noted in Section 4.13, *Population and Housing*, transportation projects within the proposed 2026 RTP/SCS are generally intended to improve existing transportation networks and improve safety, thus not inducing increased land development that could lead to additional demand for energy and telecommunication infrastructure. Concerning land use, the specific nature of the infrastructure is difficult to predict because both the energy and telecommunication fields are evolving rapidly with new technologies. As communities continue to implement strategies to electrify their communities and transition to a less carbon intensive electric system, upgrades to existing distribution systems would be expected. Where existing electric, natural gas, and telecommunications infrastructure cannot accommodate demand generated from increased land development and densities associated with implementation of the proposed 2026 RTP/SCS, and where the capacity of existing infrastructure is exceeded, new or expanded infrastructure that may create adverse environmental effects, including electric power, natural gas, and telecommunications may be required.

Summary

Overall, implementation of the proposed 2026 RTP/SCS may require new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities or the relocation of existing facilities. The construction or relocation of these facilities may have significant environmental impacts related to construction and to conversion of undeveloped land. Therefore, these impacts would be significant. The following mitigation measures would reduce this impact.

Mitigation Measures

For transportation projects under their jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures where applicable for transportation projects implementing the proposed 2026 RTP/SCS that would result in impacts to wastewater and other utility facilities. Cities and the County can and should implement these measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project specific environmental documents may adjust these mitigation measures as necessary to respond to site specific conditions.

UTIL-1(a) Water and Wastewater Facilities

During the CEQA review process for individual facilities, implementing agencies shall, or can and should, apply necessary mitigation measures to reduce significant environmental impacts associated with the construction or expansion of such facilities. The environmental impacts associated with such construction or expansion shall be avoided or reduced through the imposition of conditions required to be followed by those directly involved in the construction or expansion activities. Such conditions shall include those necessary to avoid or reduce impacts associated with air quality, noise, traffic, biological resources, cultural resources, greenhouse gas emissions, hydrology and water quality and others that apply to specific construction or expansion of water or wastewater treatment and collection facilities projects.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies are cities, Tulare County, and utility agencies for land use projects. This mitigation measure shall, or can and should, be applied during project permitting and environmental review.

UTIL-1(b) Stormwater Facilities

During the CEQA review process for individual facilities, implementing agencies, and special districts with responsibility for the construction of new stormwater drainage facilities or the expansion of existing facilities to adequately meet projected capacity needs shall, or can and should, apply necessary mitigation measures to avoid or reduce significant environmental impacts associated with the construction or expansion of such facilities. The environmental impacts associated with such construction or expansion shall be avoided or reduced through the imposition of conditions required to be followed by those directly involved in the construction or expansion activities. Such conditions shall include those necessary to avoid or reduce impacts associated with air quality, noise, traffic, biological resources, cultural resources, greenhouse gas emissions, hydrology and water quality, and others that apply to specific construction or expansion of stormwater drainage facilities projects.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies are cities, Tulare County, and utility agencies for land use projects. This mitigation measure shall, or can and should, be applied during project permitting and environmental review.

UTIL-1(c) Stormwater Control Methods

During the CEQA review process for individual projects, implementing agencies shall, or can and should, ensure stormwater control, retention, and infiltration features, such as detention basins, bioswales, vegetated median strips, and permeable paving, early into the design process to ensure such features are analyzed during environmental review. These agencies shall, Implement mitigation measures identified for such features on a project specific basis, where feasible and necessary based on project and site specific considerations.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies are cities, Tulare County, and utility agencies for land use projects. This mitigation measure shall, or can and should, be applied during project permitting and environmental review.

UTIL-1(d) Electric Power, Natural Gas, or Telecommunications Facilities

During the CEQA review process, implementing agencies, and TCAG region energy and telecommunications providers and other agencies with responsibility for the construction or approval of new electric power, natural gas, or telecommunications facilities or the expansion of existing facilities to adequately meet projected capacity needs, can and should apply necessary mitigation measures to avoid or reduce significant environmental impacts associated with the construction or expansion of such facilities. The environmental impacts associated with such construction or expansion shall be avoided or reduced through the imposition of conditions required to be followed by those directly involved in the construction or expansion activities. Such conditions shall include those necessary to avoid or reduce impacts associated with air quality, noise, traffic, biological resources, cultural resources, greenhouse gas emissions, hydrology and water quality, and others that apply to specific construction or expansion of natural gas and electric facilities projects.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies are cities, Tulare County, and utility agencies for land use projects. This mitigation measure can and should be applied during project permitting and environmental review.

Significance After Mitigation

Implementation of Mitigation Measure UTIL-1(a) through UTIL-1(d) would reduce impacts associated with the construction of additional water and wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities because it would require implementing agencies to apply necessary mitigation measures to avoid or reduce significant environmental impacts associated with the construction or expansion of such facilities. However, these mitigation measures may not be feasible or effective for every project. Therefore, this impact would be significant and unavoidable. No additional mitigation measures to reduce this impact to less than significant levels are feasible.

Threshold 2:	Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Impact UTIL-2 IMPLEMENTATION OF THE TRANSPORTATION PROJECTS AND FUTURE LAND USE SCENARIO IN THE PROPOSED 2026 RTP/SCS WOULD INCREASE WATER DEMAND IN THE TCAG REGION, RESULTING IN INSUFFICIENT WATER SUPPLIES AVAILABLE TO SERVE THE PROJECT AND REASONABLY FORESEEABLE FUTURE DEVELOPMENT DURING NORMAL, DRY, AND MULTIPLE DRY YEARS, IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Water within the County is supplied from multiple sources, including groundwater, imported surface water, recycled water, and the various watersheds within the County and greater Tulare Lake hydrologic region. Projects implemented under the proposed 2026 RTP/SCS would introduce

additional water demands to the TCAG region. Most transportation projects involve modification of existing facilities and would not result in a substantial increase in landscaped areas that require irrigation, but new and extended roadways could include landscaping such as tree and shrub plantings. Major proposed 2026 RTP/SCS projects, particularly new and extended roadways, could affect groundwater supplies by incrementally reducing groundwater recharge potential. Increased impermeable surfaces associated with proposed projects could negatively impact natural infiltration within existing rights-of-way, however, there would be no effect on groundwater recharge if potential sites are already paved. Also, during grading and general construction activities for projects under the proposed 2026 RTP/SCS, water supply would be needed to provide fugitive dust management. As discussed in Section 4.10, *Hydrology and Water Quality*, given the current state of groundwater overdraft of many groundwater basins in the study area, and the likelihood that more than one project would be constructed simultaneously in areas with overdrafted basins, the short-term water supply impact during construction of proposed 2022 RTP/SCS transportation projects would be significant.

It is likely that many projects involving landscaping and infill development near transit would be located in urban areas served by overdrafted groundwater basins. Development associated with the land use scenario envisioned in the proposed 2026 RTP/SCS may also impact water supplies requiring additional water for mixed use development and infill, as well as outlying, development. Future development envisioned under the land use scenario would increase the demand on the region's water supply. Further, increased demand on water supply driven by the increase in population coupled with increasingly common drought conditions would result in insufficient supply. As described in Section 4.13, *Population and Housing*, between 2025 and 2049, the TCAG region is forecasted to grow by 53,716 people; 46,422 housing units; and 28,440 jobs. Given existing reliance on and over-drafting of groundwater and anticipated periodic droughts, there could be insufficient water without new or expanded supply. Therefore, the water supply impact from land use projects would be significant.

As discussed in Section 4.17.2, *Regulatory Setting*, UWMPs for the TCAG area estimate and pursue the efficient use of available water supplies identifying short-term and long-term water demand management measures. UWMPs are generally updated every five years to account for water demand resulting from the growth envisioned in general plan updates and updated population growth forecasts. Therefore, the current UWMPs applicable to the TCAG region generally account for the land development envisioned in the proposed 2026 RTP/SCS because it is largely consistent with applicable general plans. In addition, SB 610/221 amended State law to improve the link between information on water supply availability and certain land use decisions made by cities and counties. Further, GSPs prepared under SGMA would be implemented to protect groundwater in the TCAG area. These regulatory and planning programs encourage planning for anticipated water usage and thus conservation in the TCAG area and would include consideration for the water demand associated with the proposed 2026 RTP/SCS.

The forecasted TCAG population growth, land use and transportation projects, although implemented in compliance with existing regulations, would generate considerable water demand. Groundwater subbasins are already being overdrawn to support the existing population and California entered a new drought in 2020 to 2023 after a sustaining a five-year drought from 2012 to 2016. As of April 2026, the TCAG region is in an abnormally dry condition (NIDIS 2026). In addition, although existing groundwater plans and regulations would reduce groundwater impacts, some jurisdictions may not have local groundwater regulations, or the regulations may not apply to all projects. Therefore, the region may have insufficient water supplies available to serve RTP/SCS

demands and reasonably foreseeable future development during normal, dry, and multiple dry years, and this impact would be significant. The following mitigation measure would reduce this impact.

Mitigation Measures

For transportation projects under their jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures where applicable for transportation projects implementing the proposed 2026 RTP/SCS that would result in impacts to water supply. Cities, utility agencies, and the County can and should implement these measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project specific environmental documents may adjust these mitigation measures as necessary to respond to site specific conditions.

UTIL-2 General Conservation Measures

During the CEQA review process for individual projects, implementing agencies shall, or can and should, implement water conservation measures to reduce water demand. They shall, or can and should, coordinate with relevant water services to ensure demand can be accommodated and identify a water consumption budget. Water conservation measures that reduce demand for potable water, such as reducing water use for landscape irrigation for transportation projects or use of water-conserving fixtures in envisioned land use projects, shall be employed. Reclaimed water shall be used when possible. Specific conservation measures that shall be implemented may include, but would not be limited to:

- Limiting planting to native and non-native plants appropriate for the project's microclimate so no water beyond natural rainfall is required for healthy plant survival after the plant establishment period
- Limiting supplemental water provided by irrigation to non-potable, unless not practicable
- Submitting written documentation of water availability prior to issuance of grading permits

Mitigation Measures HYD-2(a), Construction Dust Suppression Water Supply and HYD-2(b), Landscape Watering

See Impact HYD-2 in Section 4.10, *Hydrology and Water Quality*

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities, utility agencies, and the County. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during construction, as applicable.

Significance After Mitigation

Implementation of measures UTIL-2 above, in addition to HYD-2(a) and HYD-2(b) in Section 4.10, *Hydrology and Water Quality,* would reduce impacts from project water use and impacts to groundwater recharge in the TCAG region. However, due to the programmatic nature of proposed 2026 RTP/SCS a precise, project-level analysis of specific water demand and supply impacts associated with individual transportation and land use projects is not possible. The land use scenario envisioned by proposed 2026 RTP/SCS along with transportation projects are water intensive and

may result in the need for additional water supply, even with the implementation of mitigation measures listed above. Given the overdraft conditions of area groundwater basins and other regional water supply concerns, impacts would remain significant and unavoidable. No additional feasible mitigation measures to reduce this impact to less than significant levels are available.

Threshold 4:	Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Impact UTIL-3 TRANSPORTATION PROJECTS AND LAND USE PROJECTS IMPLEMENTING THE PROPOSED 2026 RTP/SCS WOULD GENERATE SOLID WASTE IN EXCESS OF THE CAPACITY OF LOCAL INFRASTRUCTURE OR OTHERWISE IMPAIR THE ATTAINMENT OF SOLID WASTE REDUCTION GOALS. THIS IMPACT WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Construction activities would generate solid waste that would need to be disposed at local landfills, and individual contributions on a project-by-project basis would be analyzed under planning review prior to project implementation. Impacts associated with transportation infrastructure projects would be temporary and reduced by compliance with the California Green Building Code and SB 1016, which require that construction operations recycle a minimum of 50 percent of waste generated. Similarly, land use development projects would also be required to comply with a 50 percent diversion rate, as required by California's Integrated Waste Management Act of 1989 ([AB 939) and a future 75 percent diversion pursuant to AB 341. Compliance with these requirements would ensure that solid waste generated from land use development would be minimized to the extent practical, and that diversion rates would increase into the future, as development included in the proposed 2026 RTP/SCS is built out.

For the non-diverted waste generated by projects included in the proposed 2026 RTP/SCS, solid waste would require disposal in area landfills. As shown, there are two active landfills and six active transfer stations in the TCAG region. As described in Section 4.13, *Population and Housing*, between 2025 and 2049, the TCAG region is forecasted to grow by 53,716 people; 46,422 housing units; and 28,440 jobs. This increase in population would result in increased generation of solid waste and would potentially exceed local landfill capacity. Given that the Visalia Landfill and Woodville Disposal Site are both estimated to close in prior to the project's horizon of 2049 (closures estimated in 2045 and 2043, respectively), solid waste could be generated in excess of local landfill capacity.

Land use development projects undertaken with implementation of the proposed 2026 RTP/SCS would be required to comply with federal, State, and local statues and regulations related to solid waste, including County and city General Plans. Local jurisdictions also have goals and policies for recycling and diversion of solid waste to ensure compliance such as AB 939 which requires that all California counties provide at least 15 years of ongoing landfill capacity.

While there are regulations in place intended to reduce solid waste generation, implementation of the proposed 2026 RTP/SCS would result in land use development that would not occur evenly around the region. Areas with the most growth would generate waste that could exceed the current permitted capacity at local landfills. Implementation of the proposed 2026 RTP/SCS land use development pattern and transportation projects would reduce the capacity of existing landfills, leading to earlier closure dates than currently anticipated and a need for increased landfill capacity. This would exceed the capacity of local infostructure and impair attainment of solid waste goals.

Therefore, this impact would be significant. The following mitigation measure would reduce this impact.

Mitigation Measures

For transportation projects under their jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures where applicable for transportation projects implementing the proposed 2026 RTP/SCS that would result in impacts to solid waste generation. Cities and the County can and should implement these measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project specific environmental documents may adjust these mitigation measures as necessary to respond to site specific conditions.

UTIL-3 Solid Waste Generation and Disposal

During the CEQA review process for individual facilities, implementing agencies shall, or can and should, implement the following measures where feasible:

- Provide an easily accessible area that is dedicated to the collection and storage of non-hazardous recycling materials.
- Maintain or reuse existing building structures and materials during building renovations and redevelopment.
- Use salvaged, refurbished, or reused materials to help divert such items from landfills.
- Divert construction waste from landfills, where feasible, through means such as:
  - Submitting and implementing a construction waste management plan that identifies materials to be diverted from disposal at a landfill;
  - Establishing diversion targets, possibly with different targets for different types and scales of development;
  - Helping project sponsors and implementing agencies share information on available materials with one another, to aid in the transfer and use of salvaged materials.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies are cities, Tulare County, and utility agencies for land use projects. This mitigation measure shall, or can and should, be applied during project permitting and environmental review.

Significance After Mitigation

Implementation of Mitigation Measure UTIL-3 would reduce impacts associated with solid waste generation because it would require that land use and transportation projects apply landfill diversion strategies including reusing building materials, maintaining structures where applicable, and developing construction waste management plans. However, these mitigation measures may not be feasible or effective for every project. Therefore, this impact would remain significant and unavoidable.

Threshold 5:	Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Impact UTIL-4 TRANSPORTATION PROJECTS AND THE FUTURE LAND USE SCENARIO OF THE PROPOSED 2026 RTP/SCS WOULD BE REQUIRED TO COMPLY WITH ALL RELEVANT STATUES AND REGULATIONS RELATED TO SOLID WASTE. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

As discussed under Impact UTIL-3, transportation projects and land use development projects implementing the proposed 2026 RTP/SCS would be required to comply with the California Green Building Code and SB 1016, which require that construction operations recycle a minimum of 50 percent of waste generated. Similarly, land use projects would also be required to comply with federal, State, and local statues and regulations related to solid waste, including a 50 percent diversion rate pursuant to AB 939 and a future 75 percent diversion pursuant to AB 341, as well as local jurisdiction goals and policies for recycling and diversion of solid waste. Transportation and land use projects implementing the proposed 2026 RTP/SCS would be required to comply with other applicable sold waste laws and regulations described in the Section 4.17.2, *Regulatory Setting*. Therefore, projects implementing the proposed 2026 RTP/SCS would comply with relevant federal, state, and local statutes and regulations related to solid waste, and this impact would be less than significant.

Mitigation Measures

Mitigation measures are not required because this impact would be less than significant, as jurisdictions are required to follow the laws and regulations as described above.

4.17.4 Cumulative Impacts

Impact UTIL-C-1 DEVELOPMENT IN THE CUMULATIVE IMPACT ANALYSIS AREA WOULD RESULT IN SUBSTANTIAL ADVERSE PHYSICAL IMPACTS ASSOCIATED WITH THE PROVISION OF NEW OR PHYSICALLY ALTERED UTILITY INFRASTRUCTURE, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS, AND AVAILABLE WATER SUPPLIES WOULD BE INSUFFICIENT TO SERVE REASONABLY FORESEEABLE FUTURE DEVELOPMENT. CUMULATIVE IMPACTS WOULD BE SIGNIFICANT. THE 2026 RTP/SCS CONTRIBUTION TO CUMULATIVE IMPACTS WOULD BE CUMULATIVELY CONSIDERABLE.

The cumulative analysis presented below relies on a projections-based approach, using regional growth forecasts for the TCAG region and adjoining counties to evaluate cumulative conditions. Impacts of the 2026 RTP/SCS are added to the impacts of growth and development in the adjoining counties, and a determination is made as to whether cumulative impacts would be significant, and whether the 2026 RTP/SCS incremental contribution would be cumulatively considerable. Refer to Chapter 4, *Environmental Impact Analysis, Cumulative Impact Methodology*.

As shown in Table 4-1 in Chapter 4, *Environmental Impact Analysis, Cumulative Impact Methodology,* the population for adjoining counties (Fresno, Inyo, Kern, and Kings) is projected to increase from approximately 2.1 million people in 2025 to approximately 2.2 million people by 2049. This level of growth would require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction of which would cause significant environmental effects. This development may also generate solid waste in excess of the capacity of local infrastructure and increase water demand in such that water supplies may be insufficient to serve

envisioned development. When added to the impacts of the proposed 2026 RTP/SCS, cumulative impacts to utilities would therefore be significant.

As described above, implementation of the proposed 2026 RTP/SCS may require new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities or the relocation of existing facilities, the construction of which would result in significant effects. Implementation of the proposed 2026 RTP/SCS may also generate solid waste in excess of the capacity of local infrastructure and increase water demand in such that water supplies may be insufficient to serve envisioned development. The proposed 2026 RTP/SCS contribution to cumulative utilities impacts would be cumulatively considerable. Although mitigation measures described in this section would reduce impacts associated with proposed 2026 RTP/SCS projects, it cannot be fully guaranteed that all future project level impacts would be mitigated to a less than significant level. Therefore, the proposed 2026 RTP/SCS would remain cumulatively considerable after mitigation.

4.18 Wildfire

This section evaluates impacts on wildfire from implementation of the proposed 2026 RTP/SCS.

4.18.1 Setting

In California, responsibility for wildfire prevention and suppression is shared by federal, State, and local agencies. Federal agencies are responsible for federal lands in Federal Responsibility Areas. California has determined that some non-federal lands in unincorporated areas with watershed value are of statewide interest and have classified those lands as State Responsibility Areas (SRA), which are managed by the California Department of Forestry and Fire Protection (CAL FIRE). All incorporated areas and other unincorporated lands are classified as Local Responsibility Areas (LRA).

a. Wildfire Behavior and Controlling Factors

Human influence on wildfire includes direct influences, such as the ignition and suppression of fires, and indirect influence through climate change, the alteration of native vegetation, fire suppression, and development patterns. Human-induced wildfire ignitions can change fire regime characteristics in two ways: (1) changing the distribution and density of ignitions and (2) changing the seasonality of burning activity. Human-induced ignition sources include escapes from debris and brush-clearing fires, electrical equipment malfunctions, campfires, smoking, fire play (e.g., fireworks), vehicles, and arson. Consequently, areas near human development more frequently experience fires than very remote or urban areas.

Once a fire is started, the spread and behavior of a fire become a function of fuel characteristics, terrain, and weather conditions. People have intervened deliberately and dramatically in the natural fire regime through fire suppression and, more recently, actions that affect fuel connectivity. Historically, fire suppression was used to prevent and limit wildfires. Over time, this land management practice (combined with forest regrowth after extensive logging in the late 19th century) has led to a buildup of forest fuels and an increase in the occurrence and threat of large, severe fires. Contemporary fire management practices include fuel management activities that are intended to reduce the intensity and severity of wildfires. Reducing fuels through mechanical treatments and prescribed fire have been found to be effective at reducing fire frequency, fire severity, and annual area burned when applied at the landscape scale over an extended period.

Wildfire activity is closely related to temperature and drought conditions, and in recent decades, increasing drought frequency and warming temperatures have resulted in increased fire activity and the largest, most destructive, and deadliest wildfires in California history. Climate change will continue to produce conditions that facilitate a longer fire season, which, when coupled with human-caused changes in the seasonality of ignition sources, will produce more, longer, and bigger fires during more times of the year. According to California's Fourth Climate Change Assessment, Statewide Summary Report (LCI 2018), if greenhouse gas emissions continue to rise, the frequency of extreme wildfires burning over 25,000 acres could increase by 50 percent by 2100, and the average area burned Statewide could increase by 77 percent by the end of the century.

b. California Wildfire Hazards

While all of California is subject to some degree of wildfire hazard, there are specific features that make certain areas more hazardous. CAL FIRE is required by law to map areas of significant fire hazards based on fuels, terrain, weather and other relevant factors to map Fire Hazard Severity

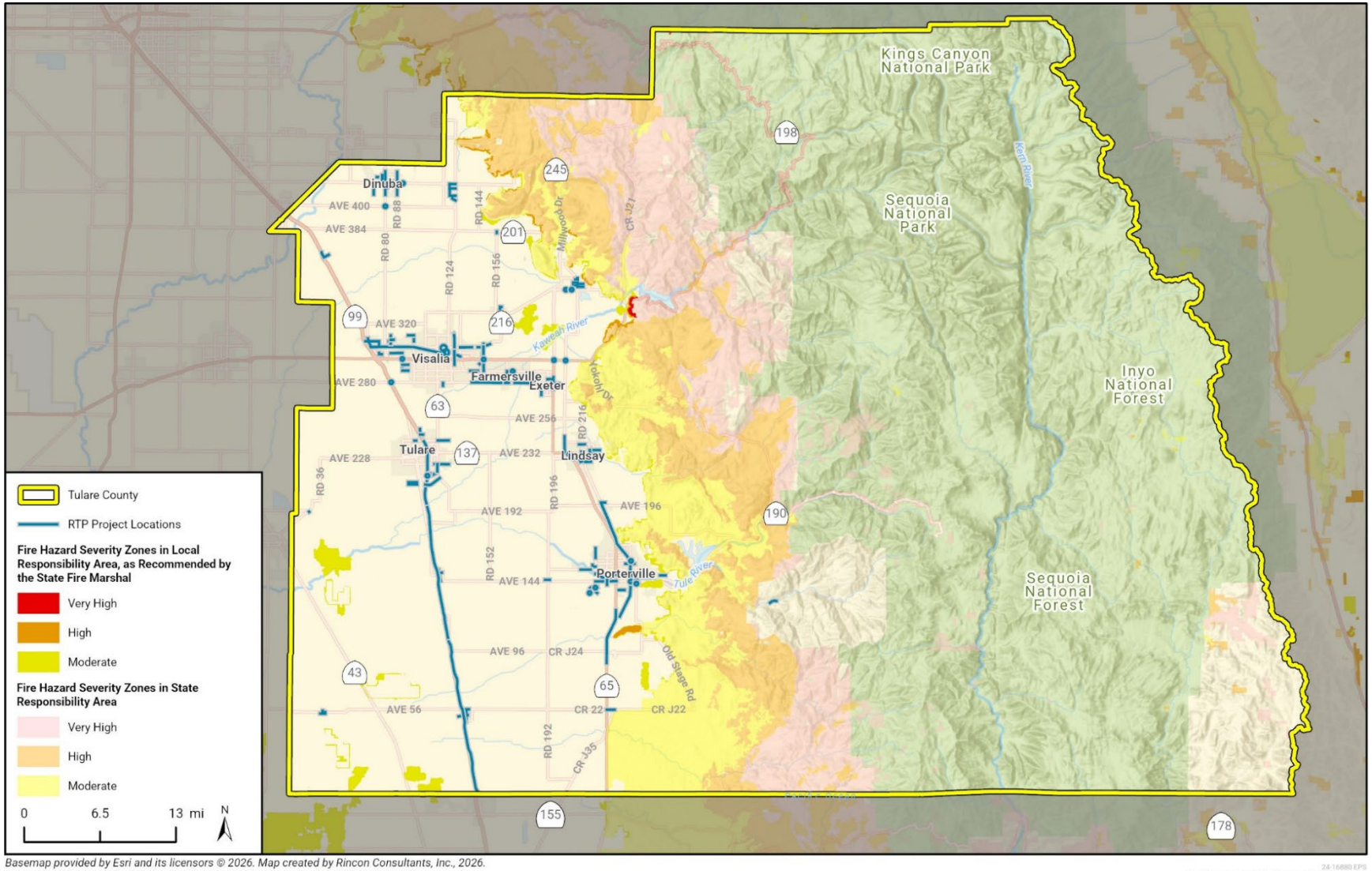
Zones (FHSZ) (Public Resources Code [PRC] 4201-4204 and California Government Code 51175-89). Factors that increase an area's susceptibility to fire hazards include slope, vegetation type and condition and atmospheric conditions. CAL FIRE has identified two types of wildfire risk areas: 1) Wildland Areas That May Contain Substantial Forest Fire Risks and Hazards and 2) Fire Hazard Severity Zones, which are classified as moderate, high, or very high. Each risk area carries with it code requirements to reduce the potential risk of wildfires. Under state regulations, areas within very high fire hazard risk zones must comply with specific building and vegetation management requirements intended to reduce property damage and loss of life within these areas. Figure 4.18-1 displays the FHSZs in the TCAG region.

Development that has spread into less densely populated, often hilly areas has increased the number of people living in heavily vegetated regions that are prone to wildfire. The area where wildlands meet urban development is referred to as the wildland-urban interface (WUI) and is subject to urban wildfire. In recent years some of the deadliest and most extensive fires in the history of the state have ignited in the WUI and spread to suburban and even urban areas (CAL FIRE 2021a). In August 2024, the Coffee Pot Fire broke out in Tulare County. It burned 14,104 acres and was the 14th largest fire in the state in 2024 (CAL FIRE 2026a). Additionally, in 2024, the SQF Lightening Complex ignited and affected both Kern and Tulare Counties, burning over 33,00 acres between them (CAL FIRE 2026b).

These fires are examples of what can result from a fire in the WUI.

Throughout the TCAG region, there is a full range of conditions and fire hazards as indicated in the applicable FHSZ Maps for the region. SRAs define an area where the State has financial responsibility for wildland fire protection and prevention. LRAs consist of incorporated cities, urban regions, agriculture lands, and portions of the desert where the local government is responsible for wildfire protection (CAL FIRE 2022a). According to the Tulare County Fire Hazard Severity Zones in SRA (CAL FIRE 2025), there are Moderate, High, and Very High FHSZs within SRAs along the eastern edge of the county. Additionally, there are small areas within LRAs designated as Moderate and High FHSZs within the TCAG region as shown in Figure 4.18-1.

Figure 4.18-1 Fire Hazard Severity Zone Map in the TCAG Region



Basemap provided by Esri and its licensors © 2026. Map created by Rincon Consultants, Inc., 2026.
Fire Hazard data provided by the CA Department of Forestry and Fire Protection 2026.

24-16880 EPS
Fig 4.17-1 Fire Hazard Severity Zones in the TCAG Region

4.18.2 Regulatory Setting

a. Federal Laws, Regulations, and Policies

International Fire Code

The International Fire Code (IFC), created by the International Code Council, is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The IFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The IFC and the International Building Code use a hazard classification system to determine what protective measures are required for fire and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, the IFC employs a permit system based on hazard classification. The IFC is updated every three years and is the basis for the California Fire Code (CFC) (also updated triennially). Local jurisdictions, including TCAG region cities, then adopt the CFC, in some cases with local amendments.

Federal Disaster Mitigation Act

The Disaster Mitigation Act of 2000 provided a new set of mitigation plan requirements that encourage state and local jurisdictions to coordinate disaster mitigation planning and implementation. States are encouraged to complete a "Standard" or an "Enhanced" Natural Mitigation Plan. "Enhanced" plans demonstrate increased coordination of mitigation activities at the state level and, if completed and approved, increase the amount of funding through the Hazard Mitigation Grant Program. The State of California Multi-Hazard Mitigation Plan (SHMP) complies with this act.

National Fire Plan

The U.S. Department of the Interior's National Fire Plan is intended to ensure an appropriate federal response to severe wildland fires, reduce fire impacts on rural communities, and ensure sufficient firefighting capacity in the future. The Rural Fire Assistance program is funded to enhance the fire protection capabilities of rural fire districts and safe and effective fire suppression in the wildland/urban interface. The program promotes close coordination among local, state, tribal, and federal firefighting resources by conducting training, equipment purchase, and prevention activities on a cost-shared basis.

b. State Laws, Regulations, and Policies

2024 Strategic Plan for California

The 2024 Strategic Plan prepared by CAL FIRE and the California Natural Resources Agency lays out central goals for reducing and preventing the impacts of fire in the State. The goals are meant to establish, through local, State, federal, and private partnerships, a natural environment that is more resilient and human-made assets that are more resistant to the occurrence and effects of wildland fire (CAL FIRE 2024).

In addition to the 2024 Strategic Plan for California, individual CAL FIRE units develop fire plans, which are major strategic documents that establish a set of tools for each CAL FIRE unit for its local

area. Updated annually, unit fire plans identify wildfire protection areas, initial attack success, assets and infrastructure at risk, pre-fire management strategies, and accountability within their unit's geographical boundaries. The unit fire plan identifies strategic areas for pre-fire planning and fuel treatment as defined by the people who live and work locally. The plans include contributions from local collaborators and stakeholders and are aligned with other plans for the area.

California Building Code

The California Building Code (CBC) has been codified in the California Code of Regulations as Title 24, Part 2. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. The 2025 CBC went into effect January 2026. The purpose of the CBC is to establish minimum standards to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, and general stability by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all building and structures within its jurisdiction. In addition, the CBC contains necessary California amendments, which are based on reference standards obtained from various technical committees and organizations, such as the American Society of Civil Engineers (ASCE), the American Institute of Steel Construction, and the American Concrete Institute. ASCE Minimum Design Standard 7-05 (ASCE 7-05) provides requirements for general structural design and includes means for determining earthquake loads, as well as other loads (e.g., flood, snow, wind), for inclusion into building codes. The provisions of the CBC apply to the construction, alteration, movement, replacement, and demolition of every building or structure, or any appurtenances connected or attached to such buildings or structures throughout California. Specifically, Chapter 7A of the California Building Code (California Code of Regulations, Title 24, Part 2) includes specific requirements related to exterior wildfire exposure. These requirements establish minimum standards to protect buildings located in FHSZs within SRAs and WUI Fire Areas. This code includes provisions for ignition-resistant construction standards for new buildings.

California Fire Code

The 2025 CFC (California Code of Regulations, Title 24, Part 9) establishes the minimum requirements consistent with nationally recognized good practices to safeguard the public health, safety, and general welfare for the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises, and to provide safety and assistance to firefighters and emergency responders during emergency operations. The provisions of this code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of buildings or structures or any appurtenances connected or attached to such building structures throughout California.

Wildland-Urban Interface Code

On September 20, 2007, the Building Standards Commission approved the Office of the State Fire Marshal emergency regulations amending the California Code of Regulations, Title 24, Part 2, known as the CBC. These codes, included in Part 7 of the CBC which was updated in 2025, include provisions for ignition-resistant construction standards in the WUI.

California Emergency Services Act

The California Emergency Services Act of 2008 merged the duties, powers, purposes, and responsibilities of the California Governor's Office of Emergency Services (Cal OES) and the

Governor's Office of Homeland Security into a new cabinet-level agency, the California Emergency Management Agency (Cal EMA). In 2013, the Governor merged the California Emergency Management Agency with the Office of Public Safety Communications and renamed the organization Cal OES. CAL OES is responsible for overseeing and coordinating emergency preparedness, response, recovery, and homeland security activities within the California. Section 8687.7 of the California Disaster Assistance Act required the development of a Standard Emergency Management System (SEMS) program, for managing multiagency and multijurisdictional responses to emergencies in California. The Cal OES Emergency Management Systems Unit is a multi-agency group charged with methodical review, evaluation, and approval of needed improvements to SEMS. State agencies are required to use SEMS and local government entities must use SEMS in order to be eligible for any reimbursement of response-related costs under the State's disaster assistance programs.

Cal OES serves as the lead State agency for emergency management and coordinates the State response to major emergencies in support of local government. SEMS provides the mechanism by which local governments request assistance from Cal OES, and Cal OES maintains oversight of the State's mutual aid system.

State of California Emergency Plan

The Cal OES Emergency Plan outlines a state-level strategy to support local government efforts during a large-scale emergency. In accordance with the California Emergency Services Act, the State Emergency Plan describes methods for carrying out emergency operations, mutual aid processes, emergency services of governmental agencies, resource mobilization, emergency public information, and continuity of government (Cal OES 2023a).

California Multi-Hazard Mitigation Plan

Cal OES prepares the SHMP, which identifies hazard risks and includes a vulnerability analysis and a hazard mitigation strategy (Cal OES 2023b). The SHMP is required under the Disaster Mitigation Act of 2000 for the State to receive federal funding. The Disaster Mitigation Act of 2000 requires a State mitigation plan as a condition of disaster assistance.

The SHMP represents the state's primary hazard mitigation guidance document - providing an updated analysis of the state's historical and current hazards, hazard mitigation goals and objectives, and hazard mitigation strategies and actions. The plan represents the state's overall commitment to supporting a comprehensive mitigation strategy to reduce or eliminate potential risks and impacts of disasters in order to promote faster recovery after disasters and, overall, a more resilient state. State Hazard Mitigation Plans are required to meet the Elements outlined in the Federal Emergency Management Agency (FEMA) State Mitigation Plan Review Guide (FEMA 2025).

Cal OES is responsible for the development and maintenance of the State's plan for hazard mitigation. The SHMP was last approved by FEMA as an Enhanced State Mitigation Plan in 2023. The plan is designed to reduce the effects of disasters caused by natural, technological, accidental, and adversarial/human-caused hazards. The SHMP sets the mitigation priorities, strategies, and actions for the state. The plan also describes how risk assessment and mitigation strategy information is coordinated and linked from local mitigation plans into the SHMP, and provides a resource for local planners of risk information that may affect their planning area. The State of California is required to review and revise its mitigation plan and resubmit for FEMA approval at least every five years to ensure continued funding eligibility for certain federal grant programs.

Senate Bill 1241

Senate Bill 1241 (Chapter 311, Statutes of 2012) requires cities and counties to address fire risk in SRAs and Very High FHSZs in the safety element of their general plans. It also requires cities and counties to make certain findings regarding available fire protection and suppression services before approving a tentative subdivision map or parcel map.

Assembly Bill 3074

AB 3074 of 2020 amends California's defensible space requirements under PRC Section 4291 to enhance wildfire mitigation in SRAs and Very High FHSZ within LRAs. The bill introduces a "Zone 0" ember-resistant zone, requiring the removal of flammable vegetation and materials within five feet of structures to reduce wildfire ignition risks. The California Board of Forestry and Fire Protection is responsible for implementing these regulations, which apply to new construction and, upon regulatory adoption, to existing structures.

SRA Fire Safe Regulations

The SRA Fire Safe Regulations, California Code of Regulations Title 14, Division 1.5, Section 1270 et seq. establish CAL FIRE's basic wildland fire protection standards for new development and is applicable in all SRAs in California—areas in which CAL FIRE is responsible for wildfire protection.

Executive Order N-05-19

On January 9, 2019, Governor Gavin Newsom issued Executive Order N-05-19 to address wildfire in California. Executive Order N-05-19 directs CAL FIRE, in consultation with other state agencies and departments, to recommend immediate, medium-term, and long-term actions to help prevent destructive wildfires. In response, CAL FIRE created the Community Wildfire Prevention and Mitigation Report, which contains recommendations to reduce damage from wildfires across the state. Specifically, they focus on reducing wildfire fuel (such as vegetation clearing), long-term community protection (creating defensible space in communities), wildfire prevention, and forest health (CAL FIRE 2021b).

c. Local Laws, Regulations, and Policies

Local planning policies related to wildfire hazards are established in each jurisdiction's general plan, generally in the Safety Element or equivalent chapter. For emergency services, some of the relevant policies include coordinating with other agencies responsible for planning medical facilities to meet the health care needs of residents in the region, retaining hospitals, evaluating medical facility proposals, providing emergency response services, and participating in mutual-aid agreements. Example county General Plan goals and policies are provided below.

Tulare County General Plan

Among other topics, the Tulare County General Plan Health and Safety Element seeks to minimize the exposure of County residents, visitors, and public and private property to the effects of urban and wildfire areas. These include policies that address emergency services consultation and coordination (HS-6.3, HS-6.14, HS-6.15), ensure safe development (HS-6.1, HS-6.2, HS-6.4, HS-6.5), and address general fire safety (Tulare County 2012).

City General Plans

City of Porterville General Plan

The City of Porterville General Plan Section 7, Public Health and Safety, determines the City of Porterville is not considered a fire-prone city, and structural fires pose a greater risk than wildland fires. However, the City of Porterville has policies in place which strengthen emergency response (PHS-I-13), establish building standards (PHS-I-14, PHS-I-16), and promote public awareness (PHS-I-15) (City of Porterville 2008).

City of Tulare General Plan

The City of Tulare General Plan 2055 Safety Element contains policies to protect people and property from fire risk. These include policies for development (SAF-P6.1, SAF-P6.2, SAF-P6.3, SAF-P6.4), public education (SAF-P6.10) and disaster preparedness (SAF-P6.5, SAF-P6.8, SAF-P6.9) (City of Tulare 2012).

City of Visalia General Plan

The City of Visalia General Plan Section 8, Safety and Noise, contains policies which primarily focus on mitigating structural fires, rather than wildland fires. However, some policies do address wildland fires and emphasize community response (S-P-21) and water supply (S-P-29) (City of Visalia 2014).

Other City General Plans

The City of Woodlake General Plan includes a goal to establish a cooperative working relationship between the Woodlake Fire Department and the Tulare County Fire Department (TCFD). The City of Woodlake also promotes policies which ensure adequate water supply and the establishment of a fire prevention program (City of Woodlake 2008). Other smaller cities in the TCAG region have similar policies regarding cooperation with TCFD and other agencies in preventing, managing and fighting wildfires.

Emergency Operations Plans

Tulare County Emergency Operations Plan

The Tulare County Emergency Operations Plan implements the California Standardized Emergency Management System (SEMS) in order to provide guidance in the event that large-scale emergency or disaster response activities are needed. Within the SEMS, standardized procedures for field-level emergency response, multi/inter-agency coordination, mutual aid, and coordination of damage information and resource requests are provided to serve as a unified response system for the entirety of California's emergency management community, which includes Tulare County's Office of Emergency Services (Tulare County 2022).

City of Visalia Emergency Operations Plan

The City of Visalia has an Emergency Operations Plan in place to address the planned response to emergency situations within the City. The Emergency Operations Plan focuses on mitigation for flooding hazards, establishment of operational concepts and procedures associated with initial response and extended response operations, and the recovery process, among other topics (City of Visalia 2011).

Other Emergency Response and Evacuation Plans

In the TCAG region, some County and City emergency plans are not publicly distributed. However, each jurisdiction maintains local emergency response frameworks that establish procedures for emergency response and evacuation. The Cities of Porterville and Tulare, for example, do not have a publicly available emergency response or evacuation plans. However, the Cities maintain Emergency Operations Centers within their respective boundaries which establishes procedures for preparedness, response, evacuation, and recovery during emergency events. Although not publicly available, these local frameworks operate in coordination with the Tulare County EOP, as they fall within the jurisdiction of the Tulare County Operational Area.

Local Hazard Mitigation Plans

Local jurisdictions develop, adopt, and update local hazard mitigation plans (LHMP) to establish guiding principles for reducing hazard risk, as well as specific mitigation actions to eliminate or reduce identified vulnerabilities. Tulare County, the Cities of Dinuba, Exeter, Farmersville, Lindsay, Porterville, Tulare, Visalia, and Woodlake; the Tule River Tribe; and Tulare County Office of Education staff have prepared a Multi-Jurisdictional LHMP for Tulare County (Tulare OES 2023) to reduce or eliminate long-term risk to people and property from natural hazards and their effects in the TCAG region. This includes unincorporated Tulare County and its departments and offices, cities, special districts and Tribes located within Tulare County (Tulare OES 2023). The LHMP includes goals and policies to reduce fire severity and intensity in the region through wildfire prevention, fuels management, and coordination with local, State, and federal agencies. LHMPs are required to be updated every five years.

4.18.3 Impact Analysis

a. Methodology and Significance Thresholds

The methodology used for the following evaluation is based on a review of documents and publicly available information about wildfire conditions in the TCAG region to determine the potential for implementation of projects in the proposed 2026 RTP/SCS to result in increased wildfire risks. This includes city and county planning documents. This program-level analysis is based on an overall understanding of the key fire safety concerns that could result from implementation of the proposed 2026 RTP/SCS. The evaluation of wildfire impacts reasonably assumes that the construction and development under the proposed 2026 RTP/SCS would adhere to the latest federal, state and local regulations, and conform to the latest required standards in the industry, as appropriate for individual projects.

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

1. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires; and
2. If located in or near state responsibility areas or lands classified as Very High FHSZ, would the project:
    a. Substantially impair an adopted emergency response plan or emergency evacuation plan;
    b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;

c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; and/or

d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

Potential impacts associated with the proposed circulation and emergency access routes for the 2026 RTP/SCS are discussed in Section 4.15, *Transportation*, under Impact T-4.

b. Project Impacts and Mitigation Measures

The following section discusses wildfire impacts and mitigation measures associated with transportation projects and the land use scenario implementing the proposed 2026 RTP/SCS. Due to the programmatic nature of the proposed 2026 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 proposed 2026 RTP/SCS could result in the impacts as described in the following section.

Threshold 1:	Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?
Threshold 2:	Would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?
Threshold 3:	Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?
Threshold 4:	Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?
Threshold 5:	Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Impact W-1 PROPOSED TRANSPORTATION IMPROVEMENTS AND LAND USE PROJECTS ENVISIONED BY THE PROPOSED 2026 RTP/SCS WOULD BE LOCATED IN OR NEAR AN SRA OR VERY HIGH FHSZ, AND EXPOSURE OF PEOPLE OR STRUCTURES TO A SIGNIFICANT RISKS OF LOSS, INJURY, OR DEATH FROM WILDFIRES OR DOWNSTREAM FLOODING OR LANDSLIDES WOULD OCCUR, OR REQUIRE INSTALLATION AND MAINTENANCE OF INFRASTRUCTURE THAT MAY EXACERBATE FIRE RISKS OR IMPACTS TO THE ENVIRONMENT. IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Wildland Fire

As shown in Figure 4.18-1 and discussed in Section 4.18.1, Setting, CAL FIRE has mapped the eastern edges of the TCAG region as having areas of Moderate, High, and Very High fire hazards within an SRA. There are also small areas within the region designated as Moderate and High FHSZs within LRAs. The land use scenario envisioned by the proposed 2026 RTP/SCS concentrates the forecasted population and employment growth in urban areas and corridors of the County, such as

incorporated cities, unincorporated towns, and major roadways, where the risk of wildfire is lower than in more rural, forested, or mountainous areas where fuels are abundant and emergency response access is restricted.

No proposed 2026 RTP transportation projects are within an SRA or very high FHSZ; however, as shown in Figure 4.18-1,there are proposed projects that are near these areas. Proposed 2026 RTP transportation projects, including roadway improvements, transportation demand management, and transit improvements, would not involve developing residential uses that would include occupants. While some transportation projects may include office or maintenance structures, occupation would be temporary and would not be situated in very high FHSZs or SRAs. Land uses envisioned in the proposed 2026 RTP/SCS occur in urbanized areas, mainly in LRAs of incorporated cities and along SR-99. Transportation projects associated with the proposed 2026 RTP would improve mobility in the TCAG region and therefore could facilitate an expedited evacuation or escape during a wildfire. However, urban and outlying areas within the WUI are still at risk from wildfire.

Land use development envisioned in the proposed 2026 RTP/SCS that would be located within or less than two miles[1] from an SRA would cause significant wildfire impacts because existing codes and regulations cannot fully prevent wildfires from damaging structures or causing injury or death. These projects would increase the exposure of transportation infrastructure to risk of loss or damage from wildfire. Additionally, fire related impacts may extend far beyond the fire footprint through damage to homes, infrastructure, and ecosystems, and diminished air and water quality. People residing in residential development could be exposed to smoke and air pollution from wildfires regardless of their location within urbanized areas or the WUI. Thus, impacts associated with slope, prevailing winds, and other factors that would exacerbate wildfire risks and thereby expose occupants to pollutant concentrations from a wildfire or uncontrolled spread of a wildfire would be significant.

Requirements to adhere to the local hazard mitigation plan, as well as the local general plan policies and programs aimed at reducing the risk of wildfires through land use compatibility, training, sustainable development, brush management, public outreach, and service standards for fire departments would reduce the risk of wildfire for these projects. Additionally, CBC regulations have been prepared and adopted for the purpose of establishing minimum wildfire protection standards in conjunction with building, construction, and development in a SRA. Title 14 sets forth the minimum development standards for emergency access, including fuel modification, setback, signage, and water supply, which are intended to result in development that avoids or minimizes the hazards associated with development, including potential road closures which could impede emergency response and evacuation.

Although there are limited instances where the proposed land use pattern and planned transportation investments of the proposed 2026 RTP/SCS may result in growth in or near wildfire prone areas, substantial wildfire-related effects could still occur. Global climate change will pose an increasing threat to wildland areas and nearby urban environments. The proposed 2026 RTP/SCS plans for the construction and maintenance of associated infrastructure and forecasts land development within and near SRAs. Due to the unpredictable nature of wildfires in California, projects in the proposed 2026 RTP/SCS could exacerbate wildfire risk both in exposure to wildfires and in the aftermath conditions as a result of runoff, post-fire slope instability, or drainage changes as a result of wildfires denuding a slope. Even with implementation of required policies and

[1] For the purpose of this analysis, two miles is considered “near” an SRA or very high FHSZ.

measures, it is not possible to prevent the proposed 2026 RTP/SCS projects from exposing people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. Therefore, wildfire impacts would be significant.

Construction and Fire Risk

There are proposed 2026 RTP/SCS transportation projects that are adjacent to SRAs. However, even though there are no transportation projects located within an SRA, construction activities for transportation and land use projects, and support infrastructure within the proposed 2026 RTP/SCS involving the use of vehicles and heavy machinery could result in the ignition of a wildfire. During construction, heavy equipment and passenger vehicles driving on vegetated areas prior to clearing and grading could increase the risk of fire. Heated mufflers, explosives used during site preparation or line spicing, and improper disposal of cigarettes could potentially ignite surrounding vegetation. The use of heavy equipment, such as bulldozers and graders, has the potential to accidentally ignite a fire from sparks created when equipment blades strike rocks or metal objects. If noticed by the equipment operator or other project specific personnel, small ignitions can easily be suppressed by the construction equipment and/or on-site fire watch personnel. A fire could also be started by project personnel improperly disposing of burning cigarettes in areas covered with wildland vegetation and within 50 feet of combustible material storage.

Moreover, if the introduction of invasive, non-native plants is not controlled during construction, a project site could progressively become dominated by non-native plants which tend to increase the frequency and severity of wildfires. Based on recent scientific evidence, it is likely that anthropogenic climate change will continue to chronically enhance the potential for western U.S. forest fire activity when fuels are not limiting. As discussed further in Section 4.8, *Greenhouse Gas Emissions and Climate Change*, increasingly difficult drought conditions and extreme weather events will continue to raise wildfire risk within the TCAG region.

New construction would be subject to the latest California Fire Code, which contains safety measures to minimize the threat from wildfires. Title 14 of the California Code of Regulations sets forth the minimum development standards for emergency access, fuel modification, setback, signage, and water supply, which help prevent loss of structures or life by reducing wildfire hazards. The codes and regulations would reduce the risk of loss, injury, or death from wildfire for new development envisioned by the proposed 2026 RTP/SCS, but not entirely. Therefore, impacts involving the installation or maintenance of associated infrastructure that may exacerbate fire risk would be significant.

Exacerbated Fire Risks

Slope failure and landslides can be exacerbated in regions in the aftermath of a wildfire. Hillsides can become denuded of vegetation and become unstable, increasing the potential for landslide risks and associated hazards downslope from such landslides. Potential impacts related to slope stability and landslides are discussed in Section 4.7, *Geology and Soils*. As discussed therein, the potential for substantial landslides was found to be low for the general locations of the transportation and land use projects implementing the proposed 2026 RTP/SCS. Projects implementing the 2026 RTP/SCS are within the valley region of Tulare County, which is characterized primarily by flat topography. In addition, projects implementing the 2026 RTP/SCS would be required to conform to Chapter 70 of the Uniform Building Code 1973 edition and a qualified engineering geologist would be retained to review reports and implement Chapter 70 measures, as stated in Policy 3.M.5 of the Tulare County General Plan. Additionally, all proposed 2026 RTP/SCS projects would have to abide by Article 7: *Excavation and Grading* within the Tulare County Code. However, the potential for slope failure and

landslides can be exacerbated in this region in the aftermath of a wildfire, even with adherence to the above sited regulations. Thus, impacts exposing people or structures to significant risks, including landslides, as a result of post-fire slope instability would be significant.

This same issue applies to runoff and flooding potential after a wildfire with denuded and unstable hillsides. Potential impacts related to flooding, runoff, and drainage are discussed in Section 4.9, *Hydrology and Water Quality*. Projects would be required to comply with existing design guidelines and local requirements for post-development peak stormwater flows and Best Management Practices to avoid and/or minimize flooding impacts and impacts to on-site and off-site drainage. However, even with adherence to these regulations, people or structures may still be exposed to downslope or downstream flooding or landslides as a result of runoff due to post-fire slope instability, and impacts would be significant.

The following mitigation measure would reduce the significant wildfire impacts discussed above.

Mitigation Measures

For transportation projects under its jurisdiction, TCAG shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures where applicable for transportation projects implementing the proposed 2026 RTP/SCS that would result in impacts to significant risks of loss, injury, or death from wildfires. Cities and the County can and should implement these measures, where relevant to land use projects implementing the proposed 2026 RTP/SCS. Project specific environmental documents may adjust these mitigation measures as necessary to respond to site specific conditions.

W-1 Wildfire Risk Reduction

If an individual transportation or land use project included in the proposed 2026 RTP/SCS is within or less than two miles from a High or Very High FHSZ in the SRA as established by California Public Resources Code (PRC) Sections 4201 through 4204, or a High or Very High FHSZ in the LRA designated pursuant to California Government Code, Sections 51175 through 51189, the implementing agency shall require appropriate mitigation to reduce the risk. Examples of mitigation to reduce risk of loss, injury or death from wildlife include, but are not limited to:

- Require the use of fire-resistant vegetation native to Tulare County and/or the local microclimate of the project site and discourage the use of fire-prone species, especially nonnative, invasive species.
- Enforce defensible space regulations compliant with PRC Section 4291 or stricter as designated by the local governing body to keep overgrown and unmanaged vegetation, accumulations of trash and other flammable material away from structures.
- Provide public education about wildfire risk, fire prevention measures, and safety procedures and practices to allow for safe evacuation and/or options to shelter-in-place during a wildfire emergency.
- Require adherence to the local hazard mitigation plan, as well as the local general plan policies and programs aimed at reducing the risk of wildfires through land use compatibility, training, sustainable development, brush management, public outreach, and service standards for fire departments.
- Ensure sufficient emergency water supply and operations for wildland fire suppression.
- Encourage the development of landscaping maintenance schedules to include removal/ treatment of annual invasive species which may contribute to increased fuel loading.

- Require a fire safety plan be submitted to and approved by the local fire protection agency. The fire safety plan shall include all of the fire safety features incorporated into the project and the schedule for implementation of the features. The local fire protection agency may require changes to the plan or may reject the plan if it does not adequately address fire hazards associated with the project as a whole or the individual phase of the project.
- Prohibit certain project construction activities with potential to ignite wildfires during red-flag warnings issued by the National Weather Service for the project site location. Example activities that shall be prohibited during red-flag warnings include welding and grinding outside of enclosed buildings.
- Require fire extinguishers to be onsite during construction of projects. Fire extinguishers shall be maintained to function according to manufacturer specifications. Construction personnel shall receive training on the proper methods of using a fire extinguisher.
- Prohibit smoking and open fires at individual transportation or land use project sites implementing the proposed 2026 RTP/SCS during construction and operations. Provide the lead agency with a copy of the notification to all contractors regarding prohibited smoking.
- Encourage the use of external sprinklers for new development mapped within Very High FHSZs.
- Complete corridor-specific evaluations and implement traffic management measures, including coordination with local emergency response agencies.
- Incorporate post-fire debris-flow, erosion, or landslide risk assessments during the design phase for hillside facilities or projects located in areas subject to post-fire geologic hazards.

IMPLEMENTING AGENCIES AND TIMING

Implementing agencies for transportation projects are TCAG and transportation project sponsor agencies. Implementing agencies for land use projects are cities and the County. This mitigation measure shall, or can and should, be applied during permitting and environmental review and implemented during construction where appropriate.

Significance After Mitigation

With implementation of mitigation measure WF-1, the risk of loss of structures and transportation infrastructure and the risk of injury or death due to wildfires would be reduced. These measures would make structures and transportation infrastructure more fire resistant and less vulnerable to loss in the event of a wildfire. These measures would also reduce the potential for construction of proposed 2026 RTP/SCS projects to inadvertently ignite a wildfire.

However, it is not feasible to prevent a significant risk of wildfires or fully protect people and structures from the risks of wildfires in all cases. Therefore, this impact would remain significant and unavoidable. No additional mitigation measures to reduce this impact to less than significant levels are feasible.

4.18.4 Cumulative Impacts

Impact W-C-1 DEVELOPMENT IN THE CUMULATIVE IMPACT ANALYSIS AREA COULD BE LOCATED IN OR NEAR A STATE RESPONSIBILITY AREA OR A VERY HIGH FIRE HAZARD SEVERITY ZONE. AS SIGNIFICANT RISK OF LOSS, INJURY, OR DEATH COULD OCCUR AS A RESULT OF, EXPOSING PROJECT OCCUPANTS TO WILDFIRE, EXACERBATING FIRE RISK, OR EXPOSING PROJECT OCCUPANTS TO WILDFIRE-RELATED RISKS, CUMULATIVE IMPACTS RELATED TO WILDFIRE WOULD BE SIGNIFICANT. THE 2026 RTP/SCS CONTRIBUTION TO THIS IMPACT WOULD BE CUMULATIVELY CONSIDERABLE.

A wildfire ignited in the TCAG region could spread into adjoining counties. Likewise, wildfires ignited in counties adjoining the TCAG region could spread into the TCAG region. Therefore, the cumulative impact analysis area for wildfire consists of the TCAG region and the adjoining counties. Information regarding these adjoining counties can be found in Chapter 4, *Environmental Impact Analysis, Cumulative Impact Methodology*. This analysis is based on growth projections within the cumulative impact analysis area.

The proposed 2026 RTP/SCS is not expected to substantially increase wildfires, but the potential of wildfires to occur always exists within the TCAG region. Transportation and land use projects under the proposed 2026 RTP/SCS could place people and structures within or less than two miles from an SRA or very high FHSZ. Construction and operation of projects would risk exacerbating these existing fire hazards by creating additional potential sources of fire ignition.

During construction and operation of the proposed 2026 RTP/SCS transportation projects, if more than one of these projects were to simultaneously result in a wildland fire ignition during construction, they could combine and increase the severity of wildland fires beyond existing conditions. The combination of these projects being constructed concurrently could substantially increase the frequency of fire in the area above natural conditions, and add to wildfire risk in adjoining counties.

The land use scenario envisioned in the proposed 2026 RTP/SCS would result in some projects located within proximity to an SRA or very high FHSZ, causing significant wildfire impacts, as existing codes and regulations cannot fully prevent wildfires from being generated and damaging structures or populations. These projects would increase the potential to ignite fires and therefore risk exacerbating the potential for loss or damage from wildfire. This added risk could start wildfires that could spread outside the TCAG region impacting adjacent counties and communities.

As a result, the proposed 2026 RTP/SCS would contribute to significant cumulative wildfire impacts, and the proposed 2026 RTP/SCS contribution would be cumulatively considerable.

Mitigation Measure WF-1, described earlier in this section, would reduce the proposed 2026 RTP/SCS contribution to this cumulative impact. However, the overall cumulative increase in fire frequency would continue to be substantial, and impacts related to the impairment of emergency response and evacuation plans, exposure of project occupants to wildfire, increased wildfire risk, or exposure of project occupants to wildfire-related risk would remain significant and unavoidable. Therefore, the proposed 2026 RTP/SCS's contribution would be cumulatively considerable after mitigation.

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5 Other CEQA Required Discussions

This section discusses growth-inducing impacts, irreversible effects, and significant and unavoidable impacts that would be caused from implementation of the proposed 2026 RTP/SCS.

5.1 Growth Inducement

Section 15126.2(e) of the *CEQA Guidelines* requires a discussion of a proposed project's potential to induce growth. Specifically, an EIR must discuss the ways in which the project could foster economic or population growth. Included in this category are projects that would remove obstacles to population growth. In addition, the EIR must discuss how the project may encourage and/or facilitate other activities that could significantly affect the environment. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

5.1.1 Employment, Household, and Population Growth

According to the TCAG 2026 Regional Growth Forecast, population in the TCAG region is projected to grow by 11 percent, from approximately 487,209 residents in 2025 to 540,925 total residents in 2049. Between 2025 and 2049, the TCAG region would grow by 53,716 people; 46,422 housing units; and 28,440 jobs. As discussed in Section 4.13, *Population and Housing*, the transportation and land use projects implementing the proposed 2026 RTP/SCS are designed and intended to accommodate projected growth to 2049. The projects under the proposed 2026 RTP/SCS would be phased to respond to growth as it occurs under adopted local general plans. As a result, the proposed 2026 RTP/SCS would not directly induce growth beyond that projected by 2046 and anticipated in local general plans; rather, it is intended to accommodate growth in a way that will help meet objectives described in Chapter D, *Sustainable Community Strategy*, of the proposed 2026 RTP/SCS.

Employment, population, and household growth would occur within the TCAG region regardless of whether the proposed 2026 RTP/SCS is implemented. However, the land use scenario envisioned by the proposed 2026 RTP/SCS would emphasize infill and transit-oriented development within existing urbanized areas, thereby redistributing anticipated growth patterns rather than inducing substantial new growth. Development would generally occur on vacant or underutilized properties within existing jurisdictions and would focus growth within established urban cores instead of expanding development on the urban periphery or into rural and semi-rural areas. This approach envisions a more compact and connected region characterized by vibrant, walkable neighborhoods, mixed-use development, complete streets, and expanded transit and active transportation networks designed to reduce automobile dependency. Housing would be directed to maximize supply within transit priority areas, supporting sustainable mobility and accommodating forecasted growth without resulting in substantial growth-inducing population impacts. Accordingly, direct growth-inducing impacts related to employment, population, and household growth would be less than significant.

Implementation of the proposed 2026 RTP/SCS would create short-term economic growth in the region via construction-related job opportunities. Implementation of the proposed 2026 RTP/SCS would also generate additional employment opportunities for roadway, vehicle, and landscape maintenance and transportation facility clean-up. The employment increase may subsequently increase the demand for support services and utilities, which could generate secondary employment

opportunities. This additional economic growth would likely raise the existing revenue base within the region. Although such growth may incrementally increase economic activity in the County, significant physical effects are not likely to result from economic growth generated by the proposed 2026 RTP/SCS.

Furthermore, while development envisioned as part of the proposed 2026 RTP/SCS could result in additional commerce, industry, recreation, public services, and infrastructure throughout the region, this economic activity would be consistent with the regional growth forecast and local general plans. Forecasted growth would be accommodated under the proposed 2026 RTP/SCS; therefore, the Plan would not be growth inducing, but rather it reflects the regulatory mandates to house the forecasted population and be based on the latest planning assumptions.

The proposed 2026 RTP/SCS was developed to integrate forecasted population increases, employment opportunities, and housing needs within the TCAG area. Therefore, the proposed 2026 RTP/SCS is designed to accommodate forecasted growth; it is not designed, nor is it anticipated, to induce population growth beyond the levels forecasted.

5.1.2 Removal of Obstacles to Growth

The majority of the transportation improvement projects included in the proposed 2026 RTP/SCS are in existing urbanized areas and transit corridors in the cities of Tulare, Porterville, Visalia, Dinuba, and Lindsay; however, a few projects are also located in rural or semi-rural areas. Such transportation improvements can remove an obstacle to growth by either creating additional traffic capacity (in the case of a roadway widening) or providing new or easily facilitated access to undeveloped areas (in the case of a road extension). New infrastructure may also serve to accelerate or shift planned growth, to or encourage and intensify unplanned growth. These transportation network improvements would remove obstacles to growth in a few rural or semi-rural areas of the region, which would support additional housing, population and economic growth, and in that limited sense could therefore be considered growth inducing.

The proposed 2026 RTP/SCS transportation improvements are designed to fully support infill development along existing transit corridors as outlined in Chapter D, *Sustainable Community Strategy*, of the 2026 RTP/SCS and fully support the complementary transportation needs of the growing population. The SCS is designed to accommodate growth by encouraging infill and transit-oriented development. The proposed 2026 RTP/SCS transportation improvement projects are intended and designed to support the land use scenario envisioned in the SCS. Therefore, the proposed 2026 RTP/SCS transportation improvement projects are consistent with projected and planned growth. Further, all proposed 2026 RTP/SCS transportation improvement projects are anticipated by the general plans of the applicable local jurisdictions, as all improvements have been coordinated with the applicable local jurisdiction.

5.2 Irreversible Effects

Section 15126.2(d) of the CEQA Guidelines requires a discussion of significant irreversible environmental changes that could result from implementation of a proposed project. These may include current or future uses of nonrenewable resources and secondary or growth-inducing impacts that commit future generations to similar uses. CEQA requires that irretrievable commitments of resources be evaluated to ensure that such current consumption is justified.

Many of the adverse impacts that could occur from implementation of the proposed 2026 RTP/SCS are short-term in nature resulting primarily from construction of the proposed transportation projects, urban infill, and transit-oriented development projects. Typical construction-related impacts can affect the following resource topics: noise, air quality, aesthetics, and construction-related erosion and associated water quality impacts. In addition, though such materials would not be used in a wasteful manner, all construction activity would involve the use of non-renewable energy sources, potable water and building materials (see Section 4.6, *Energy*). The use of these resources during construction would increase demand and impact supplies across the TCAG region.

Long-term irreversible environmental impacts are associated with increased asphalt or concrete paving and related direct and cumulative impacts to geology/soils, biological and cultural resources (historic resources); transportation; and hydrology/water quality, as discussed in their respective sections of this EIR. In addition, the proposed 2026 RTP/SCS would result in an overall increase in the urbanized character of the region. This would increase demand for potable water, electricity, and other resources in urban areas. The supply versus demand for these resources is evaluated by service/utility providers; thus, impacts would be determined during project specific review and as part of the overall planning process addressing regional growth.

Mitigation measures have been recommended to minimize these impacts. However, in certain instances, as discussed in Section 5.3 below, impacts could remain significant with implementation of mitigation measures. Irreversible effects associated with land use and transportation projects in the proposed 2026 RTP/SCS would include those listed below. The following issues are addressed in environmental resource sections of Chapter 4, as noted:

- Conversion of agricultural lands, habitat areas, or other undeveloped lands into developed land or transportation uses (see Section 4.2, *Agricultural and Forestry Resources,* and Section 4.4, *Biological Resources*)
- Consumption of significant amounts of nonrenewable energy for construction and operation of new development, infrastructure, or transportation improvements (see Section 4.6, *Energy,* and Section 4.8, *Greenhouse Gas Emissions and Climate Change*)
- Use of building materials, fossil fuels, and other resources for construction and operation of new development or transportation projects (see Section 4.8, *Greenhouse Gas Emissions and Climate Change*)
- GHG emissions that contribute to global climate change (see Section 4.8, *Greenhouse Gas Emissions and Climate Change*).

5.3 List of Significant and Unavoidable Impacts

As discussed in Sections 4.1 through 4.18 of the EIR, implementation of proposed 2026 RTP/SCS would result in the following significant and unavoidable impacts.

- Impact AES-1: adverse effect on a scenic vista, scenic resources within a state scenic highway
- Impact AES-2: degradation of existing visual character (non-urbanized areas)
- Impact AES-3: generation of new sources of light and glare
- Impact AES-C-1: Aesthetics: adverse effect on a scenic vista, scenic resources within a state scenic highway, visual character, and light/glare

- Impact AG-1: conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use, and/or conflict with existing zoning for agriculture or a Williamson Act contract
- Impact AG-C-1: Agricultural Resources: conversion of and/or conflict with existing zoning for agricultural resources or a Williamson Act contract
- Impact AQ-2: cumulatively considerable net increase in criteria pollutants (construction)
- Impact AQ-3: cumulatively considerable net increase in criteria pollutants (operation)
- Impact AQ-4: expose sensitive receptors to substantial particulate matter pollutant concentrations
- Impact AQ-5: expose sensitive receptors to substantial TAC concentrations
- Impact AQ-C-1: – Air Quality: expose sensitive receptors to diesel particulates and toxic air contaminants
- Impact BIO-1: impacts on candidate, sensitive, or special-status species
- Impact BIO-2: impacts on sensitive habitats, natural communities, and wetlands
- Impact BIO-3: interference with wildlife movement
- Impact BIO-C-1: Biological Resources: sensitive species, habitats, natural communities, wildlife movement
- Impact CUL-1: disturbance of known or unknown historical resources
- Impact CUL-2: disturbance of known and unknown archeological resources
- Impact-CUL-C-1: Cultural Resources: historical and archaeological resources
- Impact GEO-5: disturbance of known and unknown paleontological resources
- Impact GEO-C-2: Geology and Soils: paleontological resources
- Impact GHG-1: net increase in GHG emissions by 2049 compared to existing baseline conditions (construction)
- Impact GHG-2: net increase in GHG emissions by 2049 compared to existing baseline conditions (operation)
- Impact GHG-4: conflict with the State's ability to achieve SB 32 and AB 1279
- Impact GHG-C-1: Greenhouse Gas Emissions: construction related GHG emissions and conflict with applicable plans/policies)
- Impact HAZ-3: sites on the list of hazardous material sites compiled by Government Code Section 65962.5
- Impact HAZ-C-1: Hazards and Hazardous Materials: exposure to hazardous materials
- Impact HYD-2: decrease groundwater supplies and interfere with groundwater recharge
- Impact HYD-5: obstruct implementation of sustainable groundwater management plan
- Impact HYD-C-2: Hydrology and Water Quality: groundwater
- Impact N-1: substantial temporary or permanent increase in ambient noise levels (construction related sources)
- Impact N-2: substantial permanent increase in ambient noise levels (traffic related sources)
- Impact N-3: excessive groundborne vibration (construction and operation)
- Impact N-4: placement of sensitive receptors in areas with unacceptable noise levels
- Impact N-5: exposure to excessive aviation related noise

- Impact N-C-1: Noise: contribution to temporary and permanent noise and vibration levels; exposure to excessive construction and operational noise and vibration
- Impact PSR-1: adverse physical impacts from new or expanded facilities (fire, police, and parks)
- Impact PSR-3: increased use of existing parks and recreational facilities, resulting in substantial physical deterioration, and inclusion of recreational facilities that would have an adverse physical effect on the environment
- Impact PSR-C-1: Public Services and Recreation: adverse physical impacts from new or expanded facilities (fire, police, and parks)
- Impact T-2: increase in regional VMT and small decrease in VMT per capita
- Impact T-C-2: Increase in VMT
- Impact TCR-1: substantial adverse change in the significance of a tribal cultural resource
- Impact TCR-C-1: Tribal Cultural Resources: adverse change in the significance of a tribal cultural resources
- Impact UTIL-1: relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities
- Impact UTIL-2: increased water demand resulting in insufficient water
- Impact UTIL-3: supplies generation of solid waste in excess of the capacity of local infrastructure
- Impact UTIL-C-1: Utilities and Service Systems: relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities; water supplies; solid waste generation
- Impact W-1: expose people or structures, either directly or indirectly, to wildfire risk and exacerbating the potential for loss or damage from wildfires
- Impact W-C-1: Wildfire (direct and indirect exposure to wildfire hazards)

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6 Alternatives

As required by Section 15126.6(d) of the CEQA Guidelines, this EIR examines a reasonable range of alternatives to the proposed 2026 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS). Section 15126.6 of the CEQA Guidelines requires that an EIR "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."

In addition, the CEQA Guidelines state the following:

- An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives that are infeasible. The range of potential alternatives to the proposed 2026 RTP/SCS shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. The EIR should briefly discuss the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are (i) failure to meet most of the basic project objectives, (ii), infeasibility, or (iii) inability to avoid significant environmental impacts. (CEQA Guidelines Section 15126.6(a)(c).)
- "Feasible" means 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 proposed 2026 RTP/SCS is intended to comply with applicable regulatory requirements, including California Transportation Commission Guidelines and Senate Bill (SB) 375, including SB 375's regional greenhouse gas (GHG) reduction targets. TCAG's general objectives for the proposed 2026 RTP/SCS are to ensure that the transportation system planned for the TCAG region accomplishes the following:

- Serves regional goals, objectives, policies and plans.
- Responds to community and regional transportation needs.
- Promotes energy efficient, environmentally sound modes of travel, facilities and services.
- Promotes equity and efficiency in the distribution of transportation projects and services

More specific goals and objectives of the proposed 2026 RTP/SCS are listed in Chapter 2, *Project Description*.

The analysis of alternatives focuses on the various land use and transportation scenarios that incorporate different assumptions regarding the combinations of future land uses and transportation system improvements. The proposed 2026 RTP/SCS is specifically intended for the TCAG region; therefore, an alternative location for the proposed 2026 RTP/SCS as a whole is not possible. However, within the TCAG region, the proposed 2026 RTP/SCS considered different patterns of land use and different transportation investments to accommodate forecasted future growth and regional housing needs.

During the development of the proposed 2026 RTP/SCS, TCAG developed and evaluated scenarios that included various land use assumptions and transportation system improvements and investments to see how each scenario could achieve the GHG targets established by the California Air Resources Board for the TCAG region as well as other performance measures. Extensive outreach with partner agencies, local jurisdictions, key stakeholders, and the public was ongoing throughout the proposed.

6.1 Alternatives Development and Screening Process

The alternative land use and transportation scenarios modeled and analyzed by TCAG are described in Chapter C, *Sustainable Communities Strategy*, of the 2026 RTP/SCS; the preferred scenario (Cross Valley Corridor, or proposed 2026 RTP/SCS) is described in detail within a separate section of the SCS as well as Chapter 2 of this EIR. The alternatives described below are based on the Concentrated Growth and Enhanced Transit scenarios developed during the SCS development process, adjusted as appropriate to develop alternatives that reduce project impacts identified as significant and unavoidable to a lesser impact level.

This alternatives analysis herein includes the following:

- **Alternative 1: No Project Alternative**. The No Project Alternative represents a future condition in the horizon year 2049 in which no new transportation improvements are implemented beyond those already under construction or funded in 2026. The land use pattern under this alternative reflects a continuation of existing development trends and historical growth patterns throughout the county, without the introduction of new policies or strategies to modify the distribution of growth.
- **Alternative 2: Concentrated Growth Alternative.** The Concentrated Growth Alternative assumes a land use pattern that directs a substantial share of future growth into the county's three largest cities: Tulare, Porterville and Visalia. Specifically, approximately 85 percent of new population and employment growth would be concentrated within these urban areas, resulting in higher development intensities and a more compact urban form relative to existing trends. The transportation network under this alternative includes all the transportation projects identified for the proposed 2026 RTP/SCS.
- **Alternative 3: Enhanced Transit Alternative.** The Enhanced Transit Alternative assumes a land use pattern similar to the proposed 2026 RTP/SCS, without substantial shifts in the distribution of development across the county. However, this alternative includes significant enhancements to the transit system intended to improve service quality and accessibility. Specifically, fixed-route bus service frequencies would be doubled, and fare costs would be reduced to zero, resulting in a fare-free transit system. This alternative includes all the transportation projects identified for the proposed 2026 RTP/SCS.
- **Alternative 4: Concentrated Growth and Enhanced Transit Alternative.** The Concentrated Growth and Enhanced Transit Alternative combines the land use strategy of the Concentrated Growth Alternative with the transit service enhancements of the Enhanced Transit Alternative. Under this alternative, approximately 85 percent of new growth would be directed to the county's three largest cities (Tulare, Porterville, and Visalia) resulting in a more compact and urbanized development pattern. Concurrently, the transit system would be enhanced by doubling fixed-route service frequencies and eliminating fare costs, creating a fare-free system. This alternative includes all the transportation projects identified for the proposed 2026 RTP/SCS.

Each alternative is analyzed below in Sections 6.3, 6.4, 6.5, and 6.6to determine whether environmental impacts would be similar to, less than, or greater than those of the preferred scenario in the proposed 2026 RTP/SCS. As required by CEQA, this section in Section 6.7 also includes a discussion of the "environmentally superior alternative" among those studied.

6.2 Alternatives Considered but Rejected

The CEQA Guidelines state that an EIR should identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination (CEQA Guidelines Section 15126.2(c)). Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are (i) failure to meet most of the basic project objectives, (ii), infeasibility, or (iii) inability to avoid significant environmental impacts (CEQA Guidelines Section 15126.6(c)). In addition, an EIR need not examine every permutation of the alternatives as long as a reasonable range of alternatives is examined. (See *Saltonstall v. City of Sacramento* (2015) 234 Cal. App. 4th 549, 577.) Also, although an EIR must discuss alternatives to a project in its entirety, it need not necessarily discuss alternatives to each particular component of a project. (See *California Oak Foundation v. Regents of University of California* (2010) 188 Cal. App. 4th 227, 276–277.)

For this EIR, there were two alternatives that were considered by TCAG and rejected as infeasible. These alternatives and reasons for elimination are described below.

6.2.1 Trend Alternative

This alternative would reflect the SCS Trend Scenario. The alternative would be similar the No Project Alternative, except that it would include transportation investments from the project list for the 2026 RTP/SCS. This alternative can also be considered a "status quo" strategy and provides a baseline compared to the proposed 2026 RTP/SCS as it projects into the future the current land use pattern and in the TCAG region.

This alternative was eliminated from further consideration because of its continuation of existing, dispersed land use patterns consistent with what was observed in 2014 and continuing those trends. Because this alternative does not include the 2026 SCS land use framework, it would not effectively meet project objectives to serve regional goals, respond to regional transportation needs, promote efficient travel and equitable outcomes, or support infill development and an improved jobs–housing balance. As a result, it would not achieve a more efficient and sustainable development pattern to the same extent as the proposed 2026 RTP/SCS.

Instead, it would allow future growth in rural and outlying areas, reinforcing low-density, automobile-oriented development and contributing to continued urban expansion. This alternative would be expected to induce more vehicle travel and would result in higher VMT compared to the proposed 2026 RTP/SCS. Residents would likely travel longer distances and remain more dependent on single-occupancy vehicle trips, even with the inclusion of transportation system improvements.

In contrast, the proposed 2026 RTP/SCS incorporates strategies intended to reduce travel demand and support more efficient land use patterns. Because this alternative would not meet project objectives related to VMT reduction, GHG emissions, and sustainable growth, it was rejected from further consideration.

6.2.2 Innovative Technology Alternative

The Innovative Technology Alternative would assume a future development pattern that incorporates emerging transportation technologies and a transition toward cleaner energy systems. Under this scenario,mobility would be increasingly served by microtransit services, shared shuttles, electric vehicles, and autonomous vehicle technologies, which together are intended to improve system efficiency and expand travel options. The land use pattern would emphasize housing affordability, with policies and development strategies aimed at
increasing the supply of accessible and cost-effective housing throughout the county. While this alternative would introduce substantial technological advancements in the transportation system, it would generally maintain a dispersed pattern of land use development, relying on innovation and vehicle electrification rather than major shifts in land use to achieve mobility and environmental goals. The transportation network would therefore be characterized by flexible, on-demand services and advancements in vehicle technology that enhance convenience and system performance.

Despite this alternative's emphasis on advanced transportation technologies and cleaner vehicle fleets, it would likely result in higher VMT compared to the proposed 2026 RTP/SCS. The continued emphasis on dispersed development patterns and the convenience of on-demand and autonomous travel could encourage longer and more frequent vehicle trips, even if those trips are made in low- or zero-emission vehicles. As a result, this alternative would not sufficiently reduce travel demand or support more compact, transit-supportive land use patterns. In contrast, the proposed 2026 RTP/SCS integrates land use and transportation strategies intended to shorten trip lengths and reduce reliance on vehicle travel overall. Because the Innovative Technology Alternative would not meet project objectives related to VMT reduction and sustainable growth through investment in transit and active transportation and not focus growth in existing urban areas, it was rejected from further consideration.

6.3 Alternative 1: No Project Alternative

6.3.1 Description

The No Project Alternative represents a future condition in the horizon year 2049 in which no new transportation improvements are implemented beyond those already under construction or funded. The land use pattern under this alternative reflects a continuation of existing development trends and historical growth patterns throughout the TCAG region, without the introduction of new policies or strategies to modify the distribution of growth. Population and employment increases are assumed to occur in a manner consistent with past trends, maintaining the existing balance between incorporated cities, unincorporated communities, and rural areas. This alternative serves as a "no-build" scenario against which the potential effects of the proposed 2026 RTP/SCS and other alternatives can be compared.

6.3.2 Impact Analysis

a. Aesthetics

Implementation of this alternative would result in fewer visual impacts resulting from transportation projects, as compared to the proposed 2026 RTP/SCS, because many of the proposed interchange improvements, auxiliary and transition lanes, new roadways and overcrossings, and road extensions would not be constructed. Nevertheless, several transportation projects would still be constructed under this alternative with the potential to impact scenic vistas on designated scenic highways, along with the gradual transformation toward a more urban/suburban character would occur in many parts of the TCAG region. In fact, because this alternative would continue current sub-regional growth trends rather than emphasizing an infill approach to land use and housing, more development would occur outside of existing urban areas, which may result in greater impacts to scenic resources in the less developed portions of the TCAG region. Thus, impacts related to visual character would be significant and unavoidable for this alternative, as they would be with the proposed 2026 RTP/SCS. The overall level of impact resulting from combined transportation improvement and land use projects would be similar when compared to the proposed 2026 RTP/SCS with impacts to scenic resources, views, and glare having different by similar level of impact to scenic resources, light and glare, and would remain significant and unavoidable.

b. Agriculture and Forestry Resources

This alternative would result in fewer transportation projects being constructed, including roadway widening and other projects that could directly convert agricultural land to non-agricultural use. However, because this alternative would continue current sub-regional growth trends rather than emphasizing an infill approach to land use and housing, more development would be expected to occur outside of existing urbanized areas, including within areas currently used for agricultural production. Given the extent of Important Farmland in the TCAG region, impacts related to converting Important Farmland to non-agricultural use, conflicts between urban and agricultural land uses, and conflicts with existing agricultural zoning and/or Williamson Act contracts would be greater under this alternative than for the proposed 2026 RTP/SCS.

Forestland in the TCAG region is located primarily in the eastern half of the County. Under the No Project Alternative, similar to the proposed 2026 RTP/SCS, County and city polices would continue to focus development in areas that do not include forest land or timberland, as defined by statutes. However, under the No Project Alternative, land use strategies contained within the proposed 2026 RTP/SCS, which encourage growth in developed areas rather than a more dispersed land use pattern, would not be applied, thereby potentially resulting in increased potential for conversion of forest land, timberland, or Timberland Production zones. Therefore, forestry resource impacts would be greater under this alternative, but still less than significant.

The overall impact to agriculture and forestry resources resulting from the No Project Alternative would be greater than under the proposed 2026 RTP/SCS, and agricultural land impacts would remain significant and unavoidable.

c. Air Quality

Implementation of this alternative would reduce short-term air quality impacts from construction activity, as fewer transportation projects would be implemented and therefore less construction activity would occur. However, because regional VMT would increase under this alternative,

operational ROG, NO_x, PM_{10}, and particulate matter emissions would be slightly increased compared to the proposed 2026 RTP/SCS, as shown in Table 6-1 (see Modeling Methodology in Appendix H to the proposed 2026 RTP/SCS).

Table 6-1 Regional Emissions Analysis of the No Project Alternative

Alternative	Regional VMT	ROG Emissions (tons/day)	NO_X Emissions (tons/day)	PM_{10} Emissions (tons/day)[1]
No Project	12,458,425	1.04	3.12	0.4
2026 RTP/SCS	11,566,124	0.94	2.21	0.34

VMT = vehicle miles traveled; ROG = reactive organic gases; NOx = nitrous oxide; PM_{10} = particulate matter with a diameter of 10 microns or less; CO = carbon monoxide; SOx = sulfur oxide

PM_{10} includes tire wear and brake wear emissions.

Source: on-road motor vehicle emissions were calculated by TCAG using EMFAC. Refer to 2026 RTP/SCS Chapter C and Appendix H for complete methodology.

The higher emissions would be due to higher VMT expected under this alternative than under the proposed 2026 RTP/SCS (12.4 million compared to 11.5 million VMT per day). The SCS is intended to increase residential and commercial land use capacity within existing transit corridors which would shift a greater share of future growth to these corridors, ultimately increasing density and improving circulation and multimodal connections. If this alternative were selected,improvements in the transportation infrastructure and infill development projects anticipated under the proposed 2026 RTP/SCS would not occur. Higher VMT as a result of fewer transportation projects under this alternative would result in higher ROG, NO_x, and particulate matter emissions.

In terms of regional operational emissions and air plan consistency, this alternative would result in higher emissions of criteria pollutants and in more dispersed, vehicle-dependent development compared to the proposed 2026 RTP/SCS. As a result, this alternative would be less consistent with applicable regional and state air quality plans, which rely on integrated land use and transportation strategies to reduce emissions and achieve attainment goals.
Impacts related to localized particulate matter exposure would also be greater under this alternative. Although development patterns under this alternative would be more dispersed, the overall increase in travel distances and roadway use would contribute to higher particulate matter emissions across the region. This would increase the potential for localized exposure, particularly near higher-volume roadway corridors, compared to the proposed 2026 RTP/SCS, which would reduce VMT and associated emissions through more efficient land use and transportation integration.

Because this alternative does not include SCS land use policies that promote compact, higher-density infill development near transit corridors and major roadways, fewer residential and other sensitive land uses would be located in proximity to major toxic air contaminant (TAC) sources. The more dispersed land use pattern would generally result in greater separation distances between emission sources and receptors, thereby reducing the potential for concentrated TAC exposure compared to the proposed 2026 RTP/SCS. However, despite this relative reduction, impacts related to exposure of sensitive receptors to substantial pollutant concentrations would remain significant and unavoidable due to the continued presence of mobile and stationary sources throughout the region.

Overall air quality impacts would increase under this alternative when compared to the proposed 2026 RTP/SCS because VMT would be higher under this alternative, as shown in Table 6-1. Under this alternative, TACs would be reduced due to reduced compact development near transit and transportation facilities. However, long term operational impacts related to exposure of sensitive receptors to substantial hazardous air pollutant concentrations would remain significant and unavoidable, as they would be for the proposed 2026 RTP/SCS.

d. Biological Resources

Implementation of this alternative may result in fewer impacts to biological resources resulting from transportation improvement projects, as fewer roadway extensions, widening projects, bridge repairs, and creek crossings would occur under this alternative. However, because this alternative would continue current sub-regional growth trends rather than emphasizing an infill approach to land use and housing, more development would be expected to occur outside of existing urbanized areas, including in areas providing habitat for special status plant and animal species. Overall impacts to special status plants, animals, wetlands and/or riparian habitat and wildlife movement outside developed urban areas would therefore be greater than under the proposed 2026 RTP/SCS. Impacts would remain significant and unavoidable, as they would be for the proposed 2026 RTP/SCS.

e. Cultural Resources

As described in Section 4.5, *Cultural Resources,* some of the proposed 2026 RTP/SCS projects may be located in proximity to historical resources or include repair or replacement of potentially historical structures (e.g., bridges). Because fewer transportation projects would be developed under the No Project Alternative, these impacts would be reduced. In addition, because less infill development would occur under this alternative, fewer impacts involving redevelopment or demolition of existing structures resulting from land use development would occur. Impacts to historic resources would therefore be reduced when compared to the proposed 2026 RTP/SCS. However, project specific impacts would still be significant as specific project details are not known at this time, so would be similar as they are for the proposed 2026 RTP/SCS.

Implementation of this alternative would involve less ground disturbance associated with transportation improvements than would occur under the proposed 2026 RTP/SCS. However, because more land use development could occur outside of existing urbanized areas, more ground disturbance would be expected to occur in previously undeveloped areas. As such, the potential for uncovering known or unknown archaeological resources would increase under this alternative for new development but decrease for transportation projects. The overall level of impact resulting from combined transportation improvement and land use projects would be reduced, but impacts to historic and archaeological resources would remain significant and unavoidable, as they are for the proposed 2026 RTP/SCS.

f. Energy

Because this alternative would result in less construction of transportation infrastructure, energy use associated with construction activities would be reduced when compared to the proposed 2026 RTP/SCS. However, this alternative would not include many of the capital improvements envisioned under the proposed 2026 RTP/SCS that would improve transportation efficiency and reduce regional energy demand, such as active transportation projects. Energy use will increase over time as the result of regional socioeconomic (population and employment) growth, regardless of

implementation of the proposed 2026 RTP/SCS. The No Project Alternative would result in similar total and per capita energy use as compared to the proposed 2026 RTP/SCS. As discussed in Section 4.6, *Energy,* the proposed 2026 RTP/SCS would not result in inefficient, unnecessary, or wasteful direct or indirect consumption of energy, and would be consistent with applicable energy conservation policies. Because the No Project Alternative would be similar in both total and per capita energy use, impacts would be similar when compared to the proposed 2026 RTP/SCS or slightly higher due to a less efficient transportation system and impacts related to inefficient, unnecessary, or wasteful direct or indirect energy consumption would be slightly greater but still less than significant, as they are for the proposed 2026 RTP/SCS.

g. Geology, Soils, and Mineral Resources

Impacts of this alternative related to erosion and loss of topsoil would be less than significant with compliance with existing regulations, similar to the proposed 2026 RTP/SCS. Because this alternative does not include as many new interchanges, roads and fixed facilities, there would be less exposure of new structures to hazardous geologic conditions, including liquefaction, expansive soils, landslides, ground-shaking, and flooding. Conversely, if inadequate structures are not replaced, the potential for these existing structures and people using these structures to be harmed by geologic hazards could be greater than under the proposed 2026 RTP/SCS than under the No Project Alternative. Implementation of this alternative would involve less ground disturbance associated with transportation improvements than would occur under the proposed 2026 RTP/SCS. However, because more land use development could occur outside of existing urbanized areas due to growth continuing under the existing land use pattern, more development would be expected to occur in previously undeveloped areas. While development under the No Project Alternative would also be required to comply with the California Building Code and requirements set forth by the Alquist Priolo Zone Act, the No Project Alternative would result in a greater area of land being converted from undeveloped to developed uses that could be located in areas with greater susceptibility to seismic related risks. Impacts related to susceptibility to seismic related risks would increase, but still be considered less than significant, as it is under the proposed 2026 RTP/SCS.

Impacts to paleontological resources would be greater under this alternative compared to the proposed 2026 RTP/SCS, as mitigation for paleontological resources would be implemented under the proposed 2026 RTP/SCS but not for the No Projects so ground disturbing activities could result in significant and unavoidable impacts, greater to the proposed 2026 RTP/SCS. Projects located within mineral resource zones would be required to comply with the California Surface Mining and Reclamation Act, as would all projects under the proposed 2026 RTP/SCS, and as such impacts would remain less than significant, as under the proposed 2026 RTP/SCS.

h. Greenhouse Gas Emissions and Climate Change

The No Project Alternative would result in fewer impacts associated with GHG emissions during construction activities as fewer transportation infrastructure projects would be constructed compared to the proposed 2026 RTP/SCS. However, operation of the No Project Alternative would result in conflicts with applicable GHG reduction plans, policies, and regulations, a significant and unavoidable impact. Construction and operation of the No Project Alternative would result in significant and unavoidable impacts due to an increase in GHG emissions. The No Project Alternative would not include the promotion of sustainable modes of travel, clean vehicle technologies and traffic operational improvements within the TCAG region that would help reduce GHG emissions

levels from mobile sources. Overall, the per capita GHG emissions under the No Project Alternative would be higher than GHG emissions with the proposed 2026 RTP/SCS, as shown in Table 6-2.

Table 6-2 No Project Per Capita Passenger Vehicle CO2 Emissions Comparison in 2049

Alternative	Per Capita GHG Emissions (lbs/day)
No Project Alternative	16.1
Proposed 2026 RTP/SCS	14.9
Difference	**1.2**

MT = metric tons; CO2 = carbon dioxide; CO2e = carbon dioxide equivalent
Source: Total GHG emissions were calculated by TCAG. Refer to 2026 RTP/SCS Chapter C and Appendix H for complete methodology.

The overall impact of this alternative would be greater than what would occur under the proposed 2026 RTP/SCS and would remain significant and unavoidable.

i. Hazards and Hazardous Materials

This alternative would result in fewer transportation infrastructure projects being constructed, thereby reducing hazardous material use, storage, and transportation resulting from construction of those projects. However, the volume of hazardous materials being transported to support land use development in the region would remain the same, as land use development would continue to occur under this alternative. Because future development under the No Project Alternative would be subject to applicable hazardous materials regulations and programs, impacts relating to routine transport, use, or disposal of hazardous materials; risk of upset and accident conditions; emissions within one-quarter mile of a school; and airport hazards would be less than significant, similar to the proposed 2026 RTP/SCS. Similar to the proposed 2026 RTP/SCS, transportation improvement projects and land use projects could be located on sites on the list of hazardous material sites compiled by Government Code Section 65962.5, a significant and unavoidable impact. Overall hazards and hazardous materials impacts would be similar under this alternative as under the proposed 2026 RTP/SCS.

j. Hydrology and Water Quality

This alternative would result in fewer transportation infrastructure projects being constructed. Therefore, this alternative would reduce water quality impacts resulting from construction-related erosion and sedimentation and would generate less water demand for dust suppression activities for transportation projects. These impacts would remain less than significant pursuant to compliance with existing regulations, as they are for the proposed 2026 RTP/SCS.

Because this alternative would continue current sub-regional growth trends rather than emphasizing an infill approach to land use and housing, more development would be expected to occur outside of existing urbanized areas. As such, impervious surfaces would be expected to increase under this alternative. Because projects would be located in less developed areas, runoff would include fewer urban pollutants such as heavy metals from auto emissions, oil and grease than projects under the proposed 2026 RTP/SCS. However, because more development would occur in and therefore be adjacent to agricultural areas, runoff from those adjacent agricultural areas would contain more fertilizers and pesticides. While projects under this alternative may require more grading and vegetation removal, including in proximity to creeks, less urban development may result in less disturbance of soils on previously contaminated sites. As such, water quality in creeks

may be more impacted, but water quality within urban areas may be less impacted. Because of these tradeoffs, the No Project Alternative would result in impacts to water quality that are overall comparable to the proposed 2026 RTP/SCS with some impacts greater while other impacts would be less; water quality impacts would remain less than significant, pursuant to compliance with existing regulations, as they are for the proposed 2026 RTP/SCS.

Regarding groundwater recharge, the No Project Alternative would include fewer new lane miles, which could result in more permeable surface area available compared to the proposed 2026 RTP/SCS. Therefore, impacts to groundwater recharge related to land use and transportation projects would be less than significant, similar to the proposed 2026 RTP/SCS. However, due to the current over-drafted state of groundwater basins in the TCAG region, additional overdraft of groundwater supply would be significant, similar to the proposed 2026 RTP/SCS due to the current overdrafted condition.

k. Land Use and Planning

As with the proposed 2026 RTP/SCS, this alternative would not be anticipated to divide an established community. As noted in Section 4.11, *Land Use and Planning,* the proposed 2026 RTP/SCS includes a list of planned and programmed projects including local and regional capital improvements that have been anticipated or accounted for in local general plans and regional, statewide, and federal transportation improvement programs. As with the proposed 2026 RTP/SCS, this alternative would not physically divide an established community, and impacts would be less than significant.

The No Project Alternative would not provide capital improvements anticipated within applicable general plans and transportation improvement programs, nor would it guide development to explicitly meet social, economic, and environmental goals and policies of the region as anticipated under the proposed 2026 RTP/SCS. Due to the more dispersed land use pattern, the amount of undeveloped land impacted would be greater under this alternative. Although the No Project Alternative would continue existing land use patterns and trends, it would increase the severity of several environmental impacts, as discussed herein. As such, it could result in conflicts with land use plans, policies and regulations adopted for the purpose of avoiding or mitigating environmental effects such as air quality, GHG reduction, and VMT reduction. Because environmental effects would generally increase under this alternative, the overall impacts on land use would be greater under this alternative when compared to the proposed 2026 RTP/SCS but would remain less than significant.

l. Noise

From a programmatic perspective, fewer transportation infrastructure projects would result in less construction activity under the No Project Alternative. This would reduce temporary noise impacts throughout the TCAG region. In addition, because the number of infill or compact development projects would be less under the No Project Alternative, construction-related noise impacts on adjacent sensitive receptors would also decrease. However, construction noise would still occur, and impacts would continue to be significant, as they are for the proposed 2026 RTP/SCS.

Although the number of transportation projects would be reduced compared to the proposed 2026 RTP/SCS, increased traffic volumes resulting from regional growth would continue to occur. Whether noise impacts would be greater or less than those anticipated under the proposed 2026 RTP/SCS remains dependent on-site specific considerations that cannot currently be known. Regionally, the difference in VMT between the No Project Alternative and the proposed 2026

RTP/SCS is not enough to noticeably change overall noise levels in the region. Mobile source noise levels resulting from traffic would therefore be similar under the No Project Alternative when compared to the proposed 2026 RTP/SCS and would remain significant and unavoidable.

Construction vibration of transportation projects or land use projects under the No Project Alternative could result in excessive groundborne vibration. Some cities and counties in the TCAG region include specific regulations in their municipal code to reduce construction vibration impacts. Impacts would be greater than under the 2026 RTP/SCS and would remain significant and unavoidable. Overall, noise-related impacts across the region would be similar to the proposed 2026 RTP/SCS and would continue to be significant and unavoidable.

Population and Housing

The No Project Alternative would result in the same population increase in the region by 2049 as the proposed 2026 RTP/SCS. As such, this alternative would not result in substantial unplanned population growth. Impacts would be similar to the proposed 2026 RTP/SCS and would remain less than significant. Because fewer transportation projects would be implemented and land uses would be less dense (thus resulting in less demolition and redevelopment of existing housing), less displacement of existing people and housing would occur under this alternative compared to the proposed 2026 RTP/SCS. This impact would be less than significant. Overall population and housing impacts would be less than the proposed 2026 RTP/SCS.

n. Public Services and Recreation

Implementation of this alternative would result in the same population increase in the region by 2049 as the proposed 2026 RTP/SCS. As such, expected demand on public services, recreation, and utilities and service systems would be similar to the proposed 2026 RTP/SCS and may require new or expanded facilities. Overall, impacts related to public services and recreation would be similar as under the proposed 2026 RTP/SCS and would remain significant and unavoidable.

o. Transportation

This alternative would not include many of the transportation projects envisioned under the proposed 2026 RTP/SCS, including new highway and intersection projects, new bikeway and pedestrian projects (active transportation), and new transportation demand management projects. Many of these projects are intended to reduce VMT.

Because these VMT-reducing projects would not be implemented under this alternative, VMT in the TCAG region would increase under the No Project Alternative. As shown in Table 4.15-3 in Section 4.15, *Transportation*, in 2049, daily VMT would be 11,566,124 with implementation of the proposed 2026 RTP/SCS, compared to 12,458,423 under the No Project Alternative – an increase of 892,301 VMT. Under the No Project Alternative, there would be a seven percent increase in daily VMT in 2049 compared to conditions under the proposed 2026 RTP/SCS.

Under the No Project Alternative, projects to increase transit capacity on congested facilities and transit frequency would not be implemented. As a result, transit ridership would decrease under the No Project Alternative. Without these types of projects, operation of public transit may be unreliable or fail to meet the frequency and performance standards established by transit providers in the TCAG region. Thus, compared to the proposed 2026 RTP/SCS, the No Project Alternative would have a greater adverse impact on transit service in the TCAG region, and impacts related to conflicts with transportation plans and policies would be significant.

Overall, the No Project Alternative would result in increased daily VMT, a significant and unavoidable impact, and increased adverse impacts to transit service as projects to increase capacity on congested facilities and bus lines would not be implemented. Thus, overall, impacts to transportation would be greater under the No Project Alternative.

p. Tribal Cultural Resources

Implementation of this alternative would involve less ground disturbance associated with transportation improvements than would occur under the proposed 2026 RTP/SCS. However, because more land use development could occur outside of existing urbanized areas, more ground disturbance would be expected to occur in previously undeveloped or open space areas. As such, the potential to disturb tribal cultural resources, including ancestral remains and sacred sites, would increase under this alternative. Future projects would be required to comply with AB 52, which may require formal tribal consultation. Compliance with this requirement would reduce impacts to the extent feasible; however, impacts would remain significant and unavoidable. However, because of the increased potential to disturb tribal cultural resources from development outside of urbanized areas the overall impact of the No Project Alternative would be greater than under the proposed 2026 RTP/SCS, and would be significant and unavoidable.

q. Utilities and Service Systems

Implementation of this alternative would result in the same population increase in the region by 2049 as the proposed 2026 RTP/SCS. As such, expected demand on utilities and service systems would be similar to the proposed 2026 RTP/SCS and may require new or expanded facilities. Overall, impacts related to the environmental effects of new or increased utilities and service systems would be similar as under the proposed 2026 RTP/SCS and would remain significant and unavoidable.

Increases to water demand are primarily associated with increased population levels. The No Project Alternative would result in the same population increase in 2049 as the proposed 2026 RTP/SCS. However, this alternative would result in less compact land use development, which would result in a less efficient water supply system (e.g., greater areas of irrigated landscaping). As such, future water demand associated with this alternative would be greater than water demand for the proposed 2026 RTP/SCS. This impact, which is significant and unavoidable for the proposed 2026 RTP/SCS, would be greater under the No Project Alternative and would remain significant and unavoidable. In addition, similar to the proposed 2026 RTP/SCS, development under this alternative would generate solid waste in excess of the capacity of local infrastructure and could otherwise impair the attainment of solid waste reduction goals. This impact would also be significant and unavoidable.

r. Wildfire

The No Project Alternative would allow more housing near wildlands, due the less compact growth pattern, and would increase the vulnerability of people and structures to wildland fire. Under the No Project Alternative, land use development could occur outside of existing urbanized areas and extend into more wildland areas. Wildfire impacts, which are significant and unavoidable for the proposed 2026 RTP/SCS, would be greater under the No Project Alternative and would remain significant and unavoidable.

6.4 Alternative 2: Concentrated Growth Alternative

6.4.1 Description

The Concentrated Growth Alternative assumes a land use pattern that directs a substantial share of future growth into the county's three largest cities: Tulare, Porterville, and Visalia. Specifically, approximately 85 percent of new population and employment growth would be concentrated within these urban areas, resulting in higher development intensities and a more compact urban form relative to existing trends and the proposed 2026 RTP/SCS. This alternative is intended to support more efficient land use patterns, reduce outward expansion, and enhance proximity between housing, employment, and services. The transportation network under this alternative includes all the transportation projects identified for the proposed 2026 RTP/SCS. Overall, this alternative reflects a strategic shift toward infill development and urban concentration while maintaining the full suite of planned transportation investments.

6.4.2 Impact Analysis

a. Aesthetics

The Concentrated Growth Alternative assumes a land use pattern that directs most future growth into Tulare, Porterville and Visalia, resulting in higher development intensities and a more compact urban form compared to the proposed 2026 RTP/SCS. Because this alternative concentrates approximately 85 percent of new population and employment growth within existing urban areas and includes the same transportation projects as the 2026 RTP/SCS, this alternative would result in similar types of transportation-related visual changes as the proposed 2026 RTP/SCS, including the introduction of new or expanded roadway facilities and associated infrastructure.

By emphasizing infill development and reducing outward expansion into rural and undeveloped areas, the Concentrated Growth Alternative would reduce the extent to which new development introduces contrasting visual elements into natural landscapes, agricultural lands, and open space areas relative to the proposed 2026 RTP/SCS. As a result, this alternative would have a reduced potential to affect scenic vistas, rural visual character, and eligible State Scenic Highways compared to the proposed 2026 RTP/SCS. The more compact development pattern would limit the geographic spread of visual disturbances, concentrating aesthetic changes within areas that are already urbanized or visually modified.

At the same time, the increased intensity of development within existing cities would result in more pronounced urban visual changes, including higher building densities, reduced open space within urban areas, and increased nighttime lighting. While these effects would be largely contained within established urban environments, they could incrementally alter the visual character of those areas compared to the proposed 2026 RTP/SCS, particularly in locations experiencing substantial infill or redevelopment.

Overall, the Concentrated Growth Alternative would result in reduced aesthetics impacts related to the conversion of open space and the expansion of the urban footprint when compared to the proposed 2026 RTP/SCS, while still introducing localized increases in visual intensity within urban centers. Impacts to aesthetics under this alternative would be reduced compared to the 2026 RTP/SCS but would remain significant and unavoidable, even with implementation of Mitigation Measures AES-1(a), AES-1(b), AES-2, AES-3(a), and AES-3(b).

b. Agriculture and Forestry Resources

The Concentrated Growth Alternative assumes a land use pattern that directs most future growth into Tulare, Porterville, and Visalia, resulting in a more compact urban form compared to the proposed 2026 RTP/SCS. By concentrating approximately 85 percent of new population and employment growth within existing urban areas, this alternative would reduce the extent of development occurring on undeveloped and agricultural lands at the urban edge relative to the proposed 2026 RTP/SCS.

By emphasizing infill development and limiting outward expansion, the Concentrated Growth Alternative would result in the conversion of fewer acres of Important Farmland compared to the proposed 2026 RTP/SCS. As a result, impacts related to the conversion of farmland to non-agricultural use, as well as conflicts between urban and agricultural land uses and existing agricultural zoning or Williamson Act contracts, would be reduced relative to the proposed 2026 RTP/SCS. However, some conversion of agricultural lands would still occur to accommodate growth and transportation improvements, and impacts to agricultural resources would remain significant and unavoidable. This alternative includes the same transportation projects as the 2026 RTP/SCS, which would continue to have the potential to affect agricultural lands through right-of-way acquisition and changes in access. However, because the overall development pattern is more compact, indirect and cumulative effects on agricultural operations, such as fragmentation and edge effects, would be less pronounced than under the proposed 2026 RTP/SCS.

The Concentrated Growth Alternative would similarly reduce the potential for conversion of forest land, timberland, or Timberland Production Zone lands compared to the proposed 2026 RTP/SCS by limiting the geographic extent of development. While the same transportation improvements could still result in localized impacts, the reduced outward growth pattern would reduce the area of forest lands converted to non-forest use. Overall, impacts to agricultural and forestry resources under the Concentrated Growth Alternative would be reduced compared to the proposed 2026 RTP/SCS but would remain significant and unavoidable.

c. Air Quality

Implementation of the Concentrated Growth Alternative would result in generally the same short-term air quality impacts from construction activity as the proposed 2026 RTP/SCS, as this alternative would include the same transportation projects. However, because most development would be concentrated in existing urban areas under this alternative, operational ROG, NO_x, and particulate matter emissions would be slightly higher compared to the proposed 2026 RTP/SCS as shown in Table 6-3 (see also Modeling Methodology in Appendix H).

Table 6-3 Regional Emissions Analysis of the Concentrated Growth Alternative

Alternative	Regional VMT	ROG Emissions (tons/day)	NO_X Emissions (tons/day)	PM_{10} Emissions (tons/day)[1]
Concentrated Growth Alternative	11,496,713	0.93	2.20	0.35
2026 RTP/SCS	11,566,124	0.94	2.21	0.34

VMT = vehicle miles traveled; ROG = reactive organic gases; NOx = nitrous oxide; PM_{10} = particulate matter with a diameter of 10 microns or less; CO = carbon monoxide; SOx = sulfur oxide

PM_{10} includes tire wear and brake wear emissions.

Source: on-road motor vehicle emissions were calculated by TCAG using EMFAC. Refer to 2026 RTP/SCS Chapter C and Appendix H for complete methodology.

This alternative would have slightly lower VMT under this alternative (11.4 million compared to 11.5 million VMT per day). By concentrating 85 percent of new population and employment growth within existing urban areas and implementing the same transportation projects as the proposed 2026 RTP/SCS, this alternative would facilitate more efficient travel patterns, including shorter trip lengths and increased opportunities for alternative modes of transportation. As a result, VMT would be reduced relative to the proposed 2026 RTP/SCS, but would not lower emissions of criteria pollutants, including ROG, NOx, and particulate matter.

By focusing development in established communities and along transit corridors, this alternative would support shorter trip lengths and increased use of alternative transportation modes. These changes would reduce overall VMT compared to the proposed 2026 RTP/SCS and improve the efficiency of the transportation system. As a result, in terms of regional operational emissions and air plan consistency, this alternative would perform similarly to or slightly better than the proposed 2026 RTP/SCS, as reduced VMT and more efficient travel patterns would support attainment of regional and state air quality goals.

Impacts related to localized particulate matter exposure would be generally similar to or slightly reduced compared to the proposed 2026 RTP/SCS. Although emissions of PM_{10} would remain comparable, the reduction in VMT and associated vehicle activity would limit regional increases in particulate matter emissions. At the same time, the concentration of development in existing urbanized areas could result in localized areas of higher activity; however, overall exposure potential would not substantially exceed that associated with the proposed 2026 RTP/SCS and could be modestly reduced due to shorter travel distances and reduced regional emissions.

Because this alternative would promote compact, infill-focused development in proximity to transit corridors and major transportation facilities, a greater proportion of new residential and other sensitive land uses would be located near sources of TACs, such as high-volume roadways and transit infrastructure. As a result, localized exposure of sensitive receptors to TACs could be incrementally greater in certain urban areas compared to the proposed 2026 RTP/SCS, particularly where infill development occurs adjacent to heavily traveled corridors. While this pattern would improve regional emissions, it would increase the potential for concentrated TAC exposure at the project level.

Overall, air quality impacts under the Concentrated Growth Alternative would be reduced compared to the proposed 2026 RTP/SCS due to lower VMT and associated emissions. However, despite these reductions, long-term operational impacts related to regional emissions and potential localized exposure of sensitive receptors to TACs would remain significant and unavoidable.

d. Biological Resources

The Concentrated Growth Alternative would involve the same transportation projects as the proposed 2026 RTP/SCS, and would result in similar impacts associated with construction and operation of transportation improvements. However, this alternative would facilitate a more concentrated land use pattern by focusing 85 percent of new population and employment growth in already developed areas in Tulare, Porterville, and Visalia. Accordingly, this alternative would reduce the extent of land use development occurring on previously undisturbed land relative to the proposed 2026 RTP/SCS. As a result, the total acreage of disturbed land would be reduced, and development would occur over a smaller geographic area.

Because of this more compact development pattern, the Concentrated Growth Alternative would result in reduced habitat impacts compared to the proposed 2026 RTP/SCS, including reduced

impacts to special status species habitat, riparian habitat, federally protected wetlands, migratory wildlife corridors, and native wildlife nursery sites. While the same transportation projects included in the 2026 RTP/SCS would continue to result in some disturbance to biological resources, the overall reduction in dispersed growth would limit the extent of habitat fragmentation and degradation.

Therefore, biological resource impacts under the Concentrated Growth Alternative would be reduced compared to the proposed 2026 RTP/SCS. However, because some disturbance to sensitive habitats and species would still occur from both transportation projects and urban development, impacts would remain significant and unavoidable.

e. Cultural Resources

As described in Section 4.5, *Cultural Resources,* some of the proposed 2026 RTP/SCS transportation projects may be located in proximity to historical resources or could involve the repair or replacement of potentially historic structures (e.g., bridges). Because the Concentrated Growth Alternative directs a greater share of growth into existing urban areas through infill development, it would increase the potential for redevelopment or demolition of existing structures compared to the proposed 2026 RTP/SCS. As a result, impacts to historical resources associated with land use development could be incrementally greater under this alternative, particularly in areas with older building stock or known historic districts. However, project-specific impacts would remain similar in nature to the proposed 2026 RTP/SCS as the same transportation projects would be built with more construction near potentially historic buildings, and therefore could still be significant.

Implementation of this alternative would involve a similar level of ground disturbance associated with transportation improvements, as it includes the same transportation projects as the proposed 2026 RTP/SCS. However, because land use development would be more concentrated within already developed areas, ground disturbance in previously undeveloped areas would be reduced. As such, the potential for uncovering previously unknown archaeological resources in undisturbed areas would be less compared to the proposed 2026 RTP/SCS, although redevelopment activities could still encounter subsurface resources in urbanized settings.

Overall, the Concentrated Growth Alternative would result in a shift in the type and location of cultural resource impacts, with potentially greater impacts to historical resources from redevelopment and reduced impacts related to disturbance of previously undisturbed archaeological resources. The overall level of impact would be similar to the proposed 2026 RTP/SCS, with some historic impacts greater and some archaeological impacts less with growth concentrated in urban areas. Impacts to cultural resources would remain significant and unavoidable.

f. Energy

The Concentrated Growth Alternative would accommodate the same increase in total population, households, and jobs as the proposed 2026 RTP/SCS. However, total energy consumption under this alternative would be lower due to policies and land use strategies that focus growth within existing urban areas and promote a more compact development pattern. By concentrating approximately 85 percent of new population and employment growth in Tulare, Porterville, and Visalia, this alternative would reduce the need for expansion of energy infrastructure and improve overall energy efficiency.

Under the Concentrated Growth Alternative, households would generally consume less energy on a per capita basis compared to the proposed 2026 RTP/SCS, as compact infill and mixed-use developments are typically more energy efficient than lower-density, dispersed development patterns. Reduced travel distances and increased use of alternative transportation modes would also decrease transportation-related energy consumption. As a result, this alternative would reduce the demand for new or expanded electricity and natural gas facilities compared to the proposed 2026 RTP/SCS.

The more compact land use pattern would also limit the geographic extent of infrastructure required to serve new development, further reducing indirect energy consumption associated with construction, operation, and maintenance of energy systems. Therefore, impacts related to energy consumption and the need for new or expanded energy facilities would be reduced under the Concentrated Growth Alternative compared to the proposed 2026 RTP/SCS.

Overall, impacts related to inefficient, unnecessary, or wasteful direct or indirect energy consumption under the Concentrated Growth Alternative would be reduced compared to the proposed 2026 RTP/SCS, but would remain less than significant, as they would for the proposed 2026 RTP/SCS.

g. Geology, Soils, and Mineral Resources

Impacts of the Concentrated Growth Alternative related to erosion and loss of topsoil would be less than significant pursuant to compliance with existing regulations, similar to the proposed 2026 RTP/SCS. Because this alternative includes the same transportation projects as the proposed 2026 RTP/SCS, there would be a similar level of exposure of new transportation infrastructure to hazardous geologic conditions, including liquefaction, expansive soils, landslides, ground-shaking, and flooding. However, by concentrating growth within existing urban areas, this alternative would reduce the extent to which new development occurs in previously undeveloped areas that may be more susceptible to geologic hazards.

Implementation of this alternative would involve a similar level of ground disturbance associated with transportation projects as the proposed 2026 RTP/SCS. However, because land use development would be more compact and focused within already developed areas, less development would occur in undisturbed locations with potentially higher geologic risk. While all development would be required to comply with the California Building Code and the Alquist-Priolo Earthquake Fault Zoning Act, the reduced geographic extent of growth would lessen the likelihood of locating new development in areas with greater susceptibility to seismic and geologic hazards. Overall, impacts related to seismic and geologic hazards would be reduced compared to the proposed 2026 RTP/SCS, and would be less than significant.

Impacts to paleontological resources would also be reduced under this alternative compared to the proposed 2026 RTP/SCS, as less ground disturbance would occur in previously undisturbed areas that may contain sensitive resources. However, because transportation improvements and some new development would still involve ground-disturbing activities, impacts to paleontological resources could still occur and would remain significant and unavoidable, similar to the proposed 2026 RTP/SCS. Projects located within mineral resource zones would be required to comply with the California Surface Mining and Reclamation Act, as under the proposed 2026 RTP/SCS, and as such, impacts to mineral resources would remain less than significant.

h. Greenhouse Gas Emissions and Climate Change

The Concentrated Growth Alternative would accommodate the same increase in population, households, and employment as the proposed 2026 RTP/SCS and would include the same transportation projects. As a result, construction-related GHG emissions would be similar in type to those of the proposed 2026 RTP/SCS. However, because this alternative emphasizes infill development within existing urban areas, the overall extent of land disturbance associated with dispersed greenfield development would be reduced, which could incrementally reduce construction-related emissions compared to the proposed 2026 RTP/SCS.

Operation of the Concentrated Growth Alternative would result in fewer GHG emissions compared to the proposed 2026 RTP/SCS due to its more compact land use pattern. By concentrating 85 percent of future growth in Tulare, Porterville, and Visalia, this alternative would reduce VMT, support more efficient travel patterns, and increase the feasibility of alternative modes of transportation. In addition, the more efficient urban form would facilitate implementation of sustainable strategies, including improved transit access and reduced trip lengths, which would contribute to lower mobile-source GHG emissions. Overall, the GHG emissions under the Concentrated Growth Alternative would be incrementally reduced compared to GHG emissions under the proposed 2026 RTP/SCS, as shown in Table 6-4.

Table 6-4 Concentrated Growth Per Capita Passenger Vehicle CO2 Emissions Comparison in 2049

Alternative	Per Capita GHG Emissions (lbs/day)
Concentrated Growth Alternative	14.8
Proposed 2026 RTP/SCS	14.9
Difference	**0.01**

MT = metric tons; CO_2 = carbon dioxide; CO_2e = carbon dioxide equivalent

[1] Refer to Section 4.8, *Greenhouse Gas Emissions and Climate Change*

Source: Total GHG emissions were calculated by TCAG. Refer to 2026 RTP/SCS Chapter C and Appendix H for complete methodology.

The Concentrated Growth Alternative would be more consistent with applicable GHG reduction plans, policies, and regulations compared to the proposed 2026 RTP/SCS, as it would further support regional and State goals to reduce emissions through compact development and transportation efficiency. Overall, GHG emissions under this alternative would be lower than those associated with the proposed 2026 RTP/SCS.

Despite these reductions, construction and operation of the Concentrated Growth Alternative would still result in GHG emissions by 2049 compared to the existing baseline conditions that contribute to global climate change. Therefore, impacts related to GHG emissions would be reduced compared to the proposed 2026 RTP/SCS but would remain significant and unavoidable.

i. Hazards and Hazardous Materials

The Concentrated Growth Alternative would include the same transportation projects as the proposed 2026 RTP/SCS, resulting in a similar level of hazardous material use, storage, and transport associated with construction activities. However, because this alternative emphasizes infill development within existing urban areas, the extent of new development occurring on previously undeveloped land would be reduced. As a result, the need for transporting hazardous materials

over longer distances to support dispersed development patterns would also be reduced relative to the proposed 2026 RTP/SCS.

The volume of hazardous materials used to support overall regional growth would remain generally similar, as this alternative accommodates the same increase in population, households, and employment as the proposed 2026 RTP/SCS. However, by concentrating development within established urban areas, this alternative would reduce the geographic spread of hazardous materials handling and associated risks. Because future development would remain subject to applicable federal, State, and local hazardous materials regulations and programs, impacts related to routine transport, use, and disposal of hazardous materials; risk of upset and accidental release; emissions within one-quarter mile of a school; and airport-related hazards would be less than significant, similar to the proposed 2026 RTP/SCS.

Similar to the proposed 2026 RTP/SCS, transportation improvement and land use projects under the Concentrated Growth Alternative could occur on sites included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Implementation Mitigation Measure HAZ-1 would reduce risks; however, impacts related to development on or near listed hazardous materials sites would remain significant and unavoidable, as they would under the proposed 2026 RTP/SCS.

Overall, hazards and hazardous materials impacts under the Concentrated Growth Alternative would be similar to, or slightly reduced compared to, the proposed 2026 RTP/SCS due to the more compact development pattern, but impacts would remain significant and unavoidable.

j. Hydrology and Water Quality

The Concentrated Growth Alternative would result in a more compact land use pattern compared to the proposed 2026 RTP/SCS, thereby reducing the overall extent of impervious surface expansion into undeveloped and rural areas. By concentrating 85 percent of new population and employment growth within existing urban areas, this alternative would reduce the amount of previously undisturbed land converted to urban uses. As a result, impacts to water quality associated with runoff from new development would be reduced relative to the proposed 2026 RTP/SCS and remain less than significant.

Because this alternative includes the same transportation projects as the proposed 2026 RTP/SCS, impacts related to roadway runoff and associated pollutants would be similar. However, the more compact development pattern would limit the spatial distribution of these impacts, reducing the extent of disturbance to natural drainage patterns and surface water bodies compared to the proposed 2026 RTP/SCS. Infill development would also facilitate more efficient stormwater management in already urbanized areas where infrastructure is in place or planned.

The Concentrated Growth Alternative would reduce the likelihood of placing new development in flood-prone areas relative to the proposed 2026 RTP/SCS, as less outward expansion into undeveloped lands would occur. Flooding impacts would remain site-specific; however, the reduced development of vacant land would lessen the potential for exposure to flood hazards. The more compact development pattern would preserve larger contiguous areas of open space and pervious surfaces outside of urban areas, providing greater opportunities for groundwater recharge compared to the proposed 2026 RTP/SCS. While localized increases in impervious surfaces would occur within urban areas, the overall regional effect would be a reduced impact on groundwater recharge.

Overall, hydrology and water quality impacts under the Concentrated Growth Alternative would be reduced compared to the proposed 2026 RTP/SCS due to decreased development of previously undeveloped land and a more efficient land use pattern. However, impacts would remain significant and unavoidable.

k. Land Use and Planning

Similar to the proposed 2026 RTP/SCS, this alternative includes the same transportation projects that have been planned and programmed through local general plans and regional, State, and federal transportation improvement programs, and would continue to support the movement of people and goods throughout the region. Further, this alternative would facilitate development primarily within existing urban areas and would be consistent with established land use patterns in Tulare, Porterville, and Visalia. As with the proposed 2026 RTP/SCS, the Concentrated Growth Alternative would not be anticipated to divide an established community, and impacts would be less than significant.

The Concentrated Growth Alternative would place a greater emphasis on compact development and infill strategies compared to the proposed 2026 RTP/SCS, thereby directing a larger share of growth into existing communities. This approach would reduce the amount of undeveloped land impacted and limit outward expansion at the urban fringe. As a result, this alternative would be more consistent with regional goals related to efficient land use, reduced sprawl, and protection of natural and agricultural resources. Because this alternative would reduce the severity of several environmental impacts associated with dispersed growth patterns, such as impacts to agricultural lands, biological resources, and hydrology, it would also reduce the potential for conflicts with land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating environmental effects. Development would remain generally consistent with applicable plans and policies, and the more focused growth pattern would support better alignment with regional sustainability objectives. Overall, land use impacts under the Concentrated Growth Alternative would be reduced compared to the proposed 2026 RTP/SCS and would remain less than significant.

l. Noise

From a programmatic perspective, the Concentrated Growth Alternative would include the same transportation infrastructure projects as the proposed 2026 RTP/SCS, resulting in a similar level of construction activity and associated temporary noise impacts across the region. However, because this alternative emphasizes infill development within existing urban areas, construction-related noise would be more concentrated in developed areas where ambient noise levels are already elevated. As a result, while the overall extent of construction noise exposure regionwide would be similar, there could be an incremental increase in construction noise effects on nearby sensitive receptors in urban areas. Construction noise would continue to occur and impacts would remain significant, as they would under the proposed 2026 RTP/SCS.

Although the transportation network would be the same as the proposed 2026 RTP/SCS, the more compact land use pattern would result in reduced VMT and shorter trip lengths. While these reductions could incrementally decrease mobile source noise at a regional scale, increased density and concentrated activity within urban areas could result in localized increases in traffic noise along certain corridors. Whether operational noise impacts would be greater or less than those anticipated under the proposed 2026 RTP/SCS would depend on site-specific conditions. Overall, regional traffic noise levels would be similar and would remain significant and unavoidable.

Construction vibration from transportation and land use projects under the Concentrated Growth Alternative could result in excessive groundborne vibration in areas undergoing redevelopment. Because more development would occur within established urban areas, there may be increased potential for vibration-related impacts to adjacent structures and sensitive receptors. While local regulations would continue to reduce these effects, impacts related to construction vibration would remain significant and unavoidable, similar to the proposed 2026 RTP/SCS.

Overall, noise-related impacts under the Concentrated Growth Alternative would be similar to the proposed 2026 RTP/SCS, with some localized increases in urban areas due to concentrated development and would continue to be significant and unavoidable.

m. Population and Housing

The Concentrated Growth Alternative would accommodate the same population, household, and employment growth as the proposed 2026 RTP/SCS. As such, this alternative would not result in substantial unplanned population growth. Impacts would be similar to the proposed 2026 RTP/SCS and would remain less than significant. However, this alternative emphasizes a more compact land use pattern, directing 85 percent of new growth into existing urban areas in Tulare, Porterville, and Visalia. As a result, higher-density residential development and increased infill and redevelopment activity would occur compared to the proposed 2026 RTP/SCS. This pattern could result in an increased potential for displacement of existing housing and residents in areas targeted for redevelopment. While such effects would vary depending on site-specific conditions, the potential for displacement of existing people and housing could be incrementally greater under this alternative.

At the same time, the Concentrated Growth Alternative would support more efficient use of existing infrastructure and promote a wider range of housing types, including higher-density and potentially more affordable units. This could improve overall housing availability and accessibility within urban areas compared to the proposed 2026 RTP/SCS. Overall, population and housing impacts under the Concentrated Growth Alternative would be similar to the proposed 2026 RTP/SCS, with some impacts reduced (e.g., efficient land use and housing supply) and some potentially increased (e.g., localized displacement). Impacts would remain less than significant.

n. Public Services and Recreation

Implementation of the Concentrated Growth Alternative would result in the same population increase in the region by 2049 as the proposed 2026 RTP/SCS. As such, overall demand for public services, including fire protection, police services, schools, and libraries, as well as parks and recreational facilities would be similar in total to the proposed 2026 RTP/SCS. However, because this alternative concentrates 85 percent of new growth within existing urban areas, demand for public services and recreational facilities would be more focused within Tulare, Porterville, and Visalia. This could increase pressure on existing facilities in these urban areas and may require expansion or intensification of services and amenities to accommodate higher population densities. At the same time, the more compact development pattern could allow for more efficient provision of public services and improved access to parks and recreational facilities compared to the proposed 2026 RTP/SCS. Overall, while the geographic distribution of demand would differ, the total demand for public services and recreation would be similar to the proposed 2026 RTP/SCS. Impacts would remain significant and unavoidable.

o. Transportation

The Concentrated Growth Alternative would include the same transportation projects as the proposed 2026 RTP/SCS, including highway, transit, and active transportation improvements. However, this alternative assumes a more compact land use pattern that concentrates 85 percent of future growth within Tulare, Porterville, and Visalia, which would support more efficient travel behavior and reduce overall VMT.

Because this alternative emphasizes infill development and improved proximity between housing, employment, and services, total VMT in the TCAG region would be lower under the Concentrated Growth Alternative compared to the proposed 2026 RTP/SCS. In 2049, daily VMT would be 11,566,124 under the proposed 2026 RTP/SCS, compared to 11,496,713 under the Concentrated Growth Alternative, representing a modest reduction of 69,411 VMT (Appendix H). This reduction in VMT would reflect shorter trip lengths and increased use of alternative modes of transportation.

Because the transportation network remains consistent with the proposed 2026 RTP/SCS, planned improvements to transit capacity, service frequency, and active transportation infrastructure would still be implemented. However, the more compact development pattern would further support transit ridership and active transportation usage by increasing the number of residents and jobs located near transit corridors and multimodal facilities. As a result, transit ridership under the Concentrated Growth Alternative would be incrementally higher than under the proposed 2026 RTP/SCS. This increase would improve system efficiency and better support transit performance goals in the TCAG region.

Overall, the Concentrated Growth Alternative would result in reduced daily VMT and improved support for transit and active transportation compared to the proposed 2026 RTP/SCS. While transportation impacts related to VMT would be reduced under this alternative, they would remain significant and unavoidable. Conversely, impacts related to transit service and multimodal accessibility would be improved relative to the proposed 2026 RTP/SCS.

p. Tribal Cultural Resources

Implementation of the Concentrated Growth Alternative would include the same transportation projects as the proposed 2026 RTP/SCS, resulting in a similar level of ground disturbance associated with transportation improvements. However, because this alternative emphasizes infill development and concentrates 85 percent of future growth within existing urban areas, less land use development would occur in previously undisturbed areas. As a result, the potential to disturb tribal cultural resources, including ancestral remains, sacred sites, and other culturally significant features located in undeveloped areas, would be reduced compared to the proposed 2026 RTP/SCS. Ground disturbance associated with redevelopment in already urbanized areas could still encounter tribal cultural resources; however, these areas are generally more disturbed and may have a lower likelihood of containing significant resources relative to undeveloped lands.

Future projects implemented under this alternative would be required to comply with AB 52 and other applicable regulations requiring consultation with California Native American tribes. Compliance with these requirements would reduce impacts to the extent feasible; however, the potential for disturbance of tribal cultural resources would remain. Overall, impacts to tribal cultural resources under the Concentrated Growth Alternative would be reduced compared to the proposed 2026 RTP/SCS due to the more compact development pattern and reduced disturbance of previously undeveloped land. However, impacts would remain significant and unavoidable.

q. Utilities and Service Systems

Implementation of the Concentrated Growth Alternative would result in the same population increase in the region by 2049 as the proposed 2026 RTP/SCS. As such, overall demand on utilities and service systems, including water supply, wastewater treatment, stormwater infrastructure, solid waste, and energy systems, would be similar in total to the proposed 2026 RTP/SCS and may require new or expanded facilities. However, because this alternative concentrates 85 percent of growth within existing urban areas in Tulare, Porterville, and Visalia, utilities and service demands would be more geographically focused. This pattern would allow for more efficient use of existing infrastructure and could reduce the need to extend utilities into previously undeveloped areas. As a result, the overall footprint and environmental impacts associated with new or expanded utility infrastructure would be reduced compared to the proposed 2026 RTP/SCS.

Increases in water demand are primarily associated with population growth. While the Concentrated Growth Alternative would result in the same population increase as the proposed 2026 RTP/SCS, the more compact and higher-density development pattern would generally be more water-efficient. Reduced outdoor irrigation associated with smaller lot sizes and more urban development would lower per capita water demand compared to the proposed 2026 RTP/SCS. Similarly, this alternative would result in the reduced need to expand wastewater and solid waste infrastructure systems due to the clustered development pattern.

Overall, environmental impacts associated with utilities and service systems under the Concentrated Growth Alternative would be reduced compared to the proposed 2026 RTP/SCS due to improved efficiency and reduced infrastructure expansion. However, because additional capacity and infrastructure improvements would still be required to accommodate regional growth, impacts would remain significant and unavoidable.

r. Wildfire

The Concentrated Growth Alternative would direct a substantial share of new housing and development into existing urban areas in Tulare, Porterville, and Visalia, resulting in a more compact land use pattern compared to the proposed 2026 RTP/SCS. By concentrating 85 percent of growth within these urban areas, this alternative would reduce the extent to which new development encroaches into wildland and wildland-urban interface areas. As a result, the potential exposure of people and structures to wildland fire hazards would be reduced compared to the proposed 2026 RTP/SCS. Limiting outward expansion into undeveloped and fire-prone areas would decrease the likelihood of placing new development in high fire hazard severity zones and would reduce the need for extended emergency access and evacuation routes in these areas.

However, wildfire risk would not be eliminated under this alternative, as some development could still occur near the urban fringe and transportation projects would still traverse areas subject to wildfire hazards. Additionally, increased population within urban areas could incrementally increase evacuation demand during wildfire events. Overall, wildfire impacts under the Concentrated Growth Alternative would be reduced compared to the proposed 2026 RTP/SCS due to the more compact development pattern and reduced expansion into wildland areas. Therefore, impacts would remain significant and unavoidable.

6.5 Alternative 3: Enhanced Transit Alternative

6.5.1 Description

The Enhanced Transit Alternative assumes a land use pattern similar to the proposed 2026 RTP/SCS and includes the same transportation projects, while incorporating substantial improvements to transit service. While enhanced transit operations may introduce minor additional improvements (e.g., new or expanded transit stops and facilities), these would generally be small in scale and would not substantially increase the overall potential for disturbance. The Enhanced Transit Alternative would not include substantial shifts in the distribution of development across the County included in Alternative 2. However, this alternative includes significant enhancements to the transit system intended to improve service quality and accessibility. Specifically, fixed-route bus service frequencies would be doubled, and fare costs would be reduced to zero, resulting in a fare-free transit system. These improvements are designed to increase transit ridership, expand mobility options, and reduce reliance on single-occupancy vehicles. In addition to these operational changes, the alternative includes all transportation improvements identified for the proposed 2026 RTP/SCS. This alternative represents a future in which existing land use patterns are supported by a more robust and accessible transit network.

6.5.2 Impact Analysis

a. Aesthetics

The Enhanced Transit Alternative assumes a land use pattern similar to the proposed 2026 RTP/SCS and includes the same transportation projects, but incorporates substantial enhancements to transit service, including increased service frequency and a fare-free system. Because this alternative maintains the same overall land use distribution and transportation network, it would result in similar types and extent of transportation-related visual changes as the proposed 2026 RTP/SCS, including the introduction of new or expanded roadway facilities and associated infrastructure.

Since this alternative does not include substantial changes to the spatial distribution of development or the extent of growth, the amount of land converted from natural, rural, and open space uses would be similar to the proposed 2026 RTP/SCS. As a result, the potential to introduce contrasting visual elements into scenic landscapes, agricultural areas, and open space would be comparable to the proposed 2026 RTP/SCS. Impacts to scenic vistas, rural visual character, and eligible State Scenic Highways would therefore be similar.

While the Enhanced Transit Alternative does not substantially alter urban form, the increased emphasis on transit use could result in incremental visual changes associated with transit improvements, such as additional transit stops, shelters, or related infrastructure. However, these features are typically small-scale and would not substantially alter the visual character of the region compared to the proposed 2026 RTP/SCS.

Because land use patterns would remain largely unchanged, nighttime lighting impacts would also be similar to the proposed 2026 RTP/SCS, with lighting increases occurring in tandem with development in both urban and outlying areas. Overall, aesthetics impacts under the Enhanced Transit Alternative would be similar to those under the proposed 2026 RTP/SCS and would remain significant and unavoidable, even with implementation of Mitigation Measures AES-1(a), AES-1(b), AES-2, AES-3(a), and AES-3(b).

b. Agriculture and Forestry Resources

The Enhanced Transit Alternative assumes a land use pattern similar to the proposed 2026 RTP/SCS, without substantial changes in the distribution or intensity of development across the county. As such, the amount of farmland converted to non-agricultural use under this alternative would be similar to the proposed 2026 RTP/SCS. Because this alternative does not substantially alter growth patterns or reduce the extent of outward expansion into agricultural areas, impacts related to the conversion of Important Farmland, conflicts between urban and agricultural land uses, and inconsistencies with agricultural zoning and Williamson Act contracts would remain comparable to the proposed 2026 RTP/SCS and significant and unavoidable.

While this alternative includes enhancements to transit service, these changes are operational in nature and do not substantially affect land use patterns or development footprint. Therefore, they would not materially reduce the extent of farmland conversion or fragmentation compared to the proposed 2026 RTP/SCS. Agricultural land conversion to non-agricultural uses and associated conflicts would remain similar in magnitude and distribution.

Similarly, because the Enhanced Transit Alternative maintains the same overall development pattern and includes the same transportation projects as the proposed 2026 RTP/SCS, the potential for conversion of forest land, timberland, or Timberland Production Zone lands would remain similar. Forestry resource impacts would not be substantially altered under this alternative. State and federal laws and locally adopted plans and policies would continue to provide protections for agricultural and forestry resources. However, because overall development of previously undeveloped land would be similar to the proposed 2026 RTP/SCS, impacts under the Enhanced Transit Alternative would also be similar and would remain significant and unavoidable.

c. Air Quality

The Enhanced Transit Alternative assumes a land use pattern similar to the proposed 2026 RTP/SCS but includes substantial improvements to transit service, including increased service frequency and a fare-free system. Because this alternative maintains the same general distribution of growth and includes the same transportation projects, overall emissions from construction activities would be similar to those of the proposed 2026 RTP/SCS.

Operation of the Enhanced Transit Alternative would result in lower emissions compared to the proposed 2026 RTP/SCS due to increased transit ridership and reduced reliance on single-occupancy vehicles. By doubling fixed-route bus frequencies and eliminating fares, this alternative would encourage a greater shift to transit, thereby reducing VMT. As a result, emissions of criteria pollutants, including ROG, NO_x, and particulate matter emissions would be slightly reduced compared to the proposed 2026 RTP/SCS, as shown in Table 6-5.

Table 6-5 Regional Emissions Analysis for the Enhanced Transit Alternative

Alternative	Regional VMT	ROG Emissions (tons/day)	NO_X Emissions (tons/day)	PM_{10} Emissions (tons/day)[1]
Enhanced Transit	11,558,404	0.93	2.21	0.34
2026 RTP/SCS	11,566,124	0.94	2.21	0.34

VMT = vehicle miles traveled; ROG = reactive organic gases; NOx = nitrous oxide; PM_{10} = particulate matter with a diameter of 10 microns or less; CO = carbon monoxide; SOx = sulfur oxide

PM_{10} includes tire wear and brake wear emissions.

Source: on-road motor vehicle emissions were calculated by TCAG using EMFAC. Refer to 2026 RTP/SCS Chapter C and Appendix H for complete methodology.

This alternative would encourage greater transit ridership and reduce reliance on single-occupancy vehicle travel, resulting in modest reductions in VMT. Because this alternative maintains a land use pattern similar to the proposed 2026 RTP/SCS, it would continue to support compact development and multimodal connectivity. As a result, in terms of regional operational emissions and air plan consistency, this alternative would perform similarly to or slightly better than the proposed 2026 RTP/SCS, as reduced VMT and increased transit use would support regional and state air quality goals.

Impacts related to localized particulate matter exposure would be similar to or slightly reduced compared to the proposed 2026 RTP/SCS. The modest reduction in VMT would reduce overall vehicle activity and associated PM emissions, including exhaust and non-exhaust sources such as tire and brake wear. However, because the land use pattern and overall distribution of development would remain largely unchanged, localized PM exposure patterns would be similar to those associated with the proposed 2026 RTP/SCS, with only minor reductions due to decreased vehicle travel.

Future land use development under this alternative would be similar in pattern and intensity to the proposed 2026 RTP/SCS, meaning that a comparable number of sensitive receptors would be located near major roadways and transit facilities. The reduction in vehicle traffic associated with increased transit use could reduce overall TAC emissions from mobile sources. However, increased transit frequency and ridership could incrementally increase localized TAC emissions near transit corridors and stops. Overall, exposure of sensitive receptors to TACs would remain similar to the proposed 2026 RTP/SCS, but no substantial change in overall exposure patterns.

Overall, air quality impacts under the Enhanced Transit Alternative would be reduced compared to the proposed 2026 RTP/SCS due to lower VMT and associated emissions. However, despite these improvements, long-term operational impacts related to regional emissions and localized exposure of sensitive receptors to TACs would remain significant and unavoidable.

d. Biological Resources

The Enhanced Transit Alternative assumes a land use pattern similar to the proposed 2026 RTP/SCS and includes the same transportation projects, while incorporating substantial improvements to transit service. Because this alternative does not substantially alter the overall distribution or footprint of development, the extent of ground disturbance associated with land use development would be similar to the proposed 2026 RTP/SCS. As a result, the total acreage of previously undisturbed land affected by excavation, grading, and construction activities would be comparable to the proposed 2026 RTP/SCS. This would result in a similar extent of habitat impacts, including potential impacts to special status species habitat, riparian habitat, federally protected wetlands, migratory wildlife corridors, and native wildlife nursery sites. The inclusion of the same transportation projects would also result in similar types and locations of direct impacts to biological resources.

While the Enhanced Transit Alternative would reduce VMT and associated emissions, these operational benefits would not substantially reduce physical impacts to biological resources, as the overall land use pattern and development footprint would remain largely unchanged. Therefore, habitat fragmentation, degradation, and loss would occur at a similar scale as under the proposed 2026 RTP/SCS. Overall, biological resource impacts under the Enhanced Transit Alternative would be similar to the proposed 2026 RTP/SCS and would remain significant and unavoidable.

e. Cultural Resources

The Enhanced Transit Alternative assumes a land use pattern similar to the proposed 2026 RTP/SCS and includes the same transportation projects, while incorporating substantial improvements to transit service. As described in Section 4.5, *Cultural Resources*, some transportation projects under the proposed 2026 RTP/SCS may be located in proximity to historical resources or involve the repair or replacement of potentially historic structures. Because this alternative does not substantially change the overall development pattern or intensity, impacts related to historical resources would be similar to those identified for the proposed 2026 RTP/SCS. Redevelopment and infill activities would occur at a similar scale, resulting in a comparable potential for demolition, alteration, or disturbance of historic structures.

Implementation of the Enhanced Transit Alternative would involve a similar level of ground disturbance associated with both transportation improvements and land use development as the proposed 2026 RTP/SCS. Because development would occur in both urbanized and previously undeveloped areas at similar levels, the potential for uncovering known or unknown archaeological resources would also be comparable. While transit system enhancements may introduce some minor additional improvements (e.g., stops or facilities), these would generally be small in scale and would not substantially change the extent of ground disturbance. The overall level of impact resulting from combined transportation improvement and land use projects would be similar to the proposed 2026 RTP/SCS impacts to historic and archaeological resources would remain significant and unavoidable. Energy

The Enhanced Transit Alternative assumes a land use pattern similar to the proposed 2026 RTP/SCS but includes substantial enhancements to transit service, including increased frequency and a fare-free system. Because this alternative maintains the same general distribution and intensity of development, overall building energy demand associated with population, households, and employment growth would be similar to the proposed 2026 RTP/SCS. However, the Enhanced Transit Alternative would reduce transportation-related energy consumption compared to the proposed 2026 RTP/SCS by encouraging greater transit use and reducing reliance on single-occupancy vehicles. By doubling fixed-route bus service frequencies and eliminating fares, this alternative would reduce VMT, resulting in decreased fuel consumption. These operational changes would contribute to improved overall energy efficiency in the transportation sector relative to the proposed 2026 RTP/SCS.

While transit operations would increase under this alternative, including more frequent service and associated energy use, the overall effect would still be a net reduction in regional energy consumption due to the shift away from private vehicle use. Additionally, because land use patterns remain largely unchanged, the need for new or expanded electricity and natural gas infrastructure to serve development would be similar to the proposed 2026 RTP/SCS. Overall, energy impacts under the Enhanced Transit Alternative would be reduced compared to the proposed 2026 RTP/SCS due to decreased transportation energy demand. However, impacts related to inefficient, unnecessary, or wasteful direct or indirect energy consumption would remain less than significant, as they would for the proposed 2026 RTP/SCS.

f. Geology, Soils, and Mineral Resources

As discussed in Section 4.7, *Geology and Soils Resources and Mineral Resources*, the transportation projects and land use development envisioned under the proposed 2026 RTP/SCS would not be expected to directly or indirectly cause substantial adverse effects related to rupture of a known

earthquake fault, strong seismic ground shaking, seismic-related ground failure (including liquefaction), or landslides. Compliance with the CBC and preparation of site-specific geotechnical investigations would ensure impacts remain less than significant. The Enhanced Transit Alternative includes the same transportation projects and a similar land use pattern as the proposed 2026 RTP/SCS; therefore, impacts related to geologic hazards would be similar and remain less than significant.

Because this alternative does not substantially alter the location or extent of development, ground disturbance associated with both transportation and land use projects would occur at a similar scale as under the proposed 2026 RTP/SCS. As such, exposure to geologic hazards and the potential for placing development in areas with seismic or soil-related risks would be comparable. All projects would be required to comply with applicable regulations, including the Alquist-Priolo Earthquake Fault Zoning Act, which would further reduce risk.

Impacts to paleontological resources would also be similar under the Enhanced Transit Alternative compared to the proposed 2026 RTP/SCS, as the extent and location of ground-disturbing activities would not substantially change. As with the proposed 2026 RTP/SCS, excavation and grading could result in the disturbance of unknown paleontological resources, and impacts would remain significant and unavoidable. Projects located within mineral resource zones would be required to comply with the California Surface Mining and Reclamation Act, as under the proposed 2026 RTP/SCS, and as such, impacts to mineral resources would remain less than significant.

g. Greenhouse Gas Emissions and Climate Change

The Enhanced Transit Alternative assumes a land use pattern similar to the proposed 2026 RTP/SCS but includes substantial improvements to transit service, including increased service frequency and a fare-free system. Because this alternative includes the same transportation projects, construction-related GHG emissions would be similar in type and scale to those associated with the proposed 2026 RTP/SCS.

Operation of the Enhanced Transit Alternative would result in lower GHG emissions compared to the proposed 2026 RTP/SCS due to increased transit ridership and reduced reliance on single-occupancy vehicles. By doubling fixed-route bus service frequencies and eliminating fares, this alternative would reduce VMT and improve overall transportation efficiency. As a result, total and per capita GHG emissions would be the same under this alternative compared to the proposed 2026 RTP/SCS, as shown in Table 6-6.

Table 6-6 Enhanced Transit Per Capita Passenger Vehicle CO2 Emissions Comparison in 2049

Alternative	Per Capita GHG Emissions (lbs/day)
Enhanced Transit	14.9
Proposed 2026 RTP/SCS	14.9
Difference	**0.0**

MT = metric tons; CO_2 = carbon dioxide; CO_2e = carbon dioxide equivalent

[1] Refer to Section 4.8, *Greenhouse Gas Emissions/Climate Change*

Source: Total GHG emissions were calculated by TCAG. Refer to 2026 RTP/SCS Chapter C and Appendix H for complete methodology.

The Enhanced Transit Alternative would better support applicable GHG reduction plans, policies, and regulations by encouraging mode shift and reducing emissions from mobile sources. However, despite these reductions, construction and operation of the Enhanced Transit Alternative would still generate GHG emissions that contribute to global climate change. Overall, GHG emissions under the Enhanced Transit Alternative would be the same compared to the proposed 2026 RTP/SCS. However, impacts related to GHG emissions would remain significant and unavoidable, as they would for the proposed 2026 RTP/SCS.

h. Hazards and Hazardous Materials

The Enhanced Transit Alternative would include the same transportation projects as the proposed 2026 RTP/SCS, resulting in a similar level of hazardous material use, storage, and transport associated with construction activities. Because land use patterns under this alternative would remain largely unchanged, the overall demand for hazardous materials to support development would also be similar to the proposed 2026 RTP/SCS. However, the increased use of transit and reduced reliance on single-occupancy vehicles could incrementally reduce the frequency of hazardous materials transport associated with fuel distribution and vehicle maintenance activities. These reductions would be minor and would not substantially change the overall level of hazardous materials use in the region.

Because future development under the Enhanced Transit Alternative would continue to be subject to applicable federal, State, and local regulations governing hazardous materials, impacts related to routine transport, use, and disposal of hazardous materials; risk of upset and accidental release; emissions within one-quarter mile of a school; and airport-related hazards would be less than significant, similar to the proposed 2026 RTP/SCS. Similar to the proposed 2026 RTP/SCS, transportation improvement and land use projects under this alternative could occur on sites included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Compliance with applicable regulations and implementation of Mitigation Measure HAZ-1 would reduce risks; however, impacts related to development on or near listed hazardous materials sites would remain significant and unavoidable, as they would under the proposed 2026 RTP/SCS. Overall, hazards and hazardous materials impacts under the Enhanced Transit Alternative would be similar to those of the proposed 2026 RTP/SCS and would remain significant and unavoidable.

i. Hydrology and Water Quality

The Enhanced Transit Alternative assumes a land use pattern similar to the proposed 2026 RTP/SCS and includes the same transportation projects, while incorporating substantial improvements to transit service. Because this alternative does not substantially change the distribution or intensity of development, the extent of impervious surface expansion into undeveloped areas would be similar to the proposed 2026 RTP/SCS. As a result, impacts to water quality associated with urban runoff would also be comparable. Since this alternative includes the same transportation projects, impacts related to roadway runoff, drainage alterations, and pollutant loading would be similar to those of the proposed 2026 RTP/SCS. Although increased transit use could incrementally reduce vehicle-related pollutants deposited on roadways as a result of reduced VMT, these reductions would not substantially change the overall water quality impacts.

The Enhanced Transit Alternative would result in a similar likelihood of development occurring in flood-prone areas as the proposed 2026 RTP/SCS, given the comparable land use pattern. Flooding impacts would remain site-specific and dependent on project-level design and compliance with applicable regulations. Similarly, because the overall development footprint would remain largely

unchanged, impacts related to alteration of drainage patterns and exposure to flood hazards would be comparable. The Enhanced Transit Alternative would result in a similar balance of impervious and pervious surfaces as the proposed 2026 RTP/SCS. While reduced VMT may incrementally benefit water quality, it would not substantially increase opportunities for groundwater recharge. As such, impacts to groundwater recharge would be similar to the proposed 2026 RTP/SCS.

Overall, hydrology and water quality impacts under the Enhanced Transit Alternative would be similar to those under the proposed 2026 RTP/SCS and would remain significant and unavoidable.

j. Land Use and Planning

The Enhanced Transit Alternative assumes a land use pattern similar to the proposed 2026 RTP/SCS and includes the same transportation projects, while incorporating substantial enhancements to transit service. As with the proposed 2026 RTP/SCS, this alternative would not be anticipated to divide an established community, as development would occur consistent with existing land use patterns and primarily within existing communities. Impacts would be less than significant, similar to the proposed 2026 RTP/SCS.

The Enhanced Transit Alternative would continue to implement development consistent with applicable land use plans, policies, and regulations. While enhanced transit service would support regional goals related to mobility and sustainability, it would not substantially reduce the severity of environmental impacts associated with development of previously undeveloped land, as the overall development footprint would remain similar to the proposed 2026 RTP/SCS. Therefore, the potential for conflicts with land use plans adopted to avoid or mitigate environmental impacts would remain similar. Overall, land use and planning impacts under the Enhanced Transit Alternative would be similar to the proposed 2026 RTP/SCS and would remain less than significant.

k. Noise

The Enhanced Transit Alternative assumes a land use pattern similar to the proposed 2026 RTP/SCS and includes the same transportation projects, but incorporates substantial increases in transit service frequency and accessibility. From a programmatic perspective, construction-related noise impacts would be similar to the proposed 2026 RTP/SCS, as the same transportation infrastructure improvements would be implemented. Additional minor construction-related noise associated with transit enhancements (e.g., installation of stops or facilities) could occur but would not substantially increase the overall level of construction noise. Temporary construction noise impacts would remain significant and unavoidable, as they would under the proposed 2026 RTP/SCS.

Although the Enhanced Transit Alternative would reduce VMT due to increased transit ridership, regional traffic volumes would continue to increase with population growth. The reduction in VMT would not be sufficient to substantially change overall regional noise levels compared to the proposed 2026 RTP/SCS. However, increased transit frequency could result in localized increases in noise along transit corridors and near transit stops, potentially affecting nearby sensitive receptors. At the same time, reduced reliance on single-occupancy vehicles could incrementally decrease roadway noise in some areas. Whether operational noise impacts would be greater or less than those anticipated under the proposed 2026 RTP/SCS would depend on site-specific conditions that cannot currently be determined. Overall, mobile source noise levels would be similar. Because transit operations would be expanded under this alternative, there would be an increased potential for transit-related noise compared to the proposed 2026 RTP/SCS, particularly in areas experiencing more frequent service. However, these increases would be localized and would not substantially change regional noise conditions.

Construction vibration from transportation and land use projects under the Enhanced Transit Alternative could result in excessive groundborne vibration. As with the proposed 2026 RTP/SCS, local regulations and standard construction practices would reduce vibration impacts where feasible; however, impacts would remain significant and unavoidable. Overall, noise-related impacts under the Enhanced Transit Alternative would be similar to those under the proposed 2026 RTP/SCS, with some localized increases associated with enhanced transit service, and would continue to be significant and unavoidable.

l. Population and Housing

The Enhanced Transit Alternative would accommodate the same population, household, and employment growth as the proposed 2026 RTP/SCS. As such, this alternative would not result in substantial unplanned population growth and impacts would be less than significant, similar to the proposed 2026 RTP/SCS. Because this alternative maintains a similar land use pattern while enhancing transit service, residential development would occur at comparable densities and locations as the proposed 2026 RTP/SCS. As a result, this alternative would have less than significant impacts related to displacement of existing people and housing, similar to the proposed 2026 RTP/SCS. Increased transit accessibility may incrementally encourage redevelopment in certain areas, which could slightly increase localized displacement pressures; however, these effects would be limited and would not substantially change overall displacement trends.

At the same time, the Enhanced Transit Alternative would improve mobility and access to housing, employment, and services by increasing transit frequency and eliminating fares. These improvements would enhance housing accessibility, particularly for transit-dependent populations, and could provide greater connectivity between residential areas and job centers compared to the proposed 2026 RTP/SCS. Overall, population and housing impacts under the Enhanced Transit Alternative would be similar to the proposed 2026 RTP/SCS, with incremental benefits related to accessibility. Impacts would remain less than significant.

m. Public Services and Recreation

The Enhanced Transit Alternative would result in the same population increase in the region by 2046 as the proposed 2026 RTP/SCS. As such, overall demand for public services, including fire protection, police services, schools, libraries, and parks and recreational facilities, would be similar to the proposed 2026 RTP/SCS and may require the construction of new or expanded facilities to meet demand. Impacts would remain significant and unavoidable, as they would under the proposed 2026 RTP/SCS.

While this alternative does not substantially change the overall land use pattern, it enhances transit service and accessibility, which may incrementally support more efficient service provision in areas with existing infrastructure. Increased transit accessibility could improve access to public services and recreational facilities, particularly for transit-dependent populations. However, because development patterns and densities would remain largely similar to the proposed 2026 RTP/SCS, these benefits would not substantially reduce overall demand for new or expanded facilities. Overall, impacts to public services and recreation under the Enhanced Transit Alternative would be similar to the proposed 2026 RTP/SCS and would remain significant and unavoidable.

n. Transportation

The Enhanced Transit Alternative would include the same transportation projects as the proposed 2026 RTP/SCS while incorporating substantial increases in transit service frequency and accessibility, including fare-free transit. As a result, all planned highway, transit, and active transportation improvements would be implemented under this alternative, similar to the proposed 2026 RTP/SCS.

Because this alternative enhances transit service, overall VMT in the TCAG region would be reduced compared to the proposed 2026 RTP/SCS. In 2049, daily VMT would be 11,566,124 under the proposed 2026 RTP/SCS, compared to 11,558,404 under the Enhanced Transit Alternative, representing a slight reduction of 7,720 VMT (Appendix H). This reduction in VMT would result from increased transit ridership, improved service frequency, and the elimination of fares, which would encourage a shift away from single-occupancy vehicle travel.

By doubling fixed-route transit frequencies and eliminating fares, this alternative would significantly improve transit accessibility and reliability, resulting in increased ridership and improved system performance. These enhancements would better support regional transit goals and reduce reliance on private vehicles. Overall, the Enhanced Transit Alternative would result in reduced daily VMT and improve transit performance compared to the proposed 2026 RTP/SCS. While impacts related to VMT would be reduced under this alternative, they would remain significant and unavoidable. Conversely, impacts related to transit service and multimodal accessibility would be improved compared to the proposed 2026 RTP/SCS.

o. Tribal Cultural Resources

The Enhanced Transit Alternative assumes a land use pattern similar to the proposed 2026 RTP/SCS and includes the same transportation projects, along with substantial enhancements to transit service. Because this alternative does not substantially change the overall distribution or footprint of development, the extent and location of ground disturbance would be similar to the proposed 2026 RTP/SCS. As a result, the potential to disturb tribal cultural resources, including ancestral remains, sacred sites, and other culturally significant resources, would be comparable to the proposed 2026 RTP/SCS. Ground-disturbing activities associated with both transportation improvements and land use development would continue to occur in both urbanized and previously undeveloped areas, resulting in a similar likelihood of encountering tribal cultural resources.

While enhanced transit operations may introduce minor additional improvements (e.g., new or expanded transit stops and facilities), these would generally be small in scale and would not substantially increase the overall potential for disturbance. Future projects under this alternative would continue to be subject to AB 52 consultation requirements and other applicable regulations, which would reduce impacts to tribal cultural resources to the extent feasible. Overall, impacts to tribal cultural resources under the Enhanced Transit Alternative would be similar to those under the proposed 2026 RTP/SCS and would remain significant and unavoidable.

p. Utilities and Service Systems

Implementation of the Enhanced Transit Alternative would result in the same population increase in the region by 2046 as the proposed 2026 RTP/SCS. As such, overall demand for utilities and service systems, including water supply, wastewater treatment, stormwater drainage, solid waste, and energy infrastructure, would be similar to the proposed 2026 RTP/SCS and may require new or expanded facilities. Impacts would remain significant and unavoidable, as they would under the proposed 2026 RTP/SCS.

Because this alternative maintains a similar land use pattern, the geographic distribution of utility demand would also be comparable to the proposed 2026 RTP/SCS. However, enhanced transit service could incrementally support more efficient infrastructure use by encouraging development patterns that are better connected to existing service areas. These operational improvements would not substantially reduce the need for system expansion but could improve overall service efficiency.

Increases in water demand and wastewater capacity demand would remain primarily tied to population growth. Because development patterns would be similar to the proposed 2026 RTP/SCS, water demand and wastewater capacity demand would also be comparable. However, similar to the proposed 2026 RTP/SCS, development under this alternative would generate solid waste in excess of the capacity of local infrastructure and could otherwise impair the attainment of solid waste reduction goals. This impact would also be significant and unavoidable.

Overall, environmental impacts associated with utilities and service systems under the Enhanced Transit Alternative would be similar to the proposed 2026 RTP/SCS and would remain significant and unavoidable.

q. Wildfire

The Enhanced Transit Alternative assumes a land use pattern similar to the proposed 2026 RTP/SCS and includes the same transportation projects, while incorporating substantial improvements to transit service. Because this alternative does not substantially change the location or extent of development, the degree to which new housing and infrastructure would be located near wildland and wildland-urban interface areas would be similar to the proposed 2026 RTP/SCS. As such, the exposure of people and structures to wildland fire hazards would be comparable to the proposed 2026 RTP/SCS. Development would continue to occur both within existing communities and at the urban fringe, and transportation improvements may traverse areas subject to wildfire risk. Enhanced transit service would not substantially affect the placement of development in fire-prone areas, as it does not alter underlying land use patterns.

While increased transit use could incrementally improve evacuation capacity during emergency events by expanding mobility options, this benefit would not substantially reduce overall wildfire risk. Similarly, increased transit infrastructure would not meaningfully increase wildfire hazards. Overall, wildfire impacts under the Enhanced Transit Alternative would be similar to those under the proposed 2026 RTP/SCS and would remain significant and unavoidable.

6.6 Alternative 4: Concentrated Growth and Enhanced Transit Alternative

6.6.1 Description

The Concentrated Growth and Enhanced Transit Alternative combines the land use strategy of the Concentrated Growth Alternative with the transit service enhancements of the Enhanced Transit Alternative. Under this alternative, approximately 85 percent of new growth would be directed to the county's three largest cities (Tulare, Porterville, and Visalia) resulting in a more compact and urbanized development pattern. Concurrently, the transit system would be enhanced by doubling fixed-route service frequencies and eliminating fare costs, creating a fare-free system. This alternative includes all the transportation projects identified for the proposed 2026 RTP/SCS. By combining the Concentrated Growth Alternative with the Enhanced Transit Alternative, this alternative would further integrate land use and transportation by concentrating growth in areas

best served by transit while providing a high level of transit accessibility. Overall, this alternative reflects a coordinated strategy to reduce VMT, improve mobility through increased transit, pedestrian, and bicycle infrastructure, and promote more sustainable growth patterns.

6.6.2 Impact Analysis

a. Aesthetics

The Concentrated Growth and Enhanced Transit Alternative assumes a land use pattern that directs most future growth into Tulare, Porterville, and Visalia, while also incorporating enhancements to transit service, including increased frequency and a fare-free system. Because this alternative includes the same transportation projects as the proposed 2026 RTP/SCS, it would result in similar types of transportation-related visual changes, including the introduction of new or expanded roadway facilities and associated infrastructure.

By concentrating 85 percent of new population and employment growth within existing urban areas and emphasizing infill development, this alternative would reduce the extent to which new development introduces contrasting visual elements into natural landscapes, agricultural lands, and open space areas relative to the proposed 2026 RTP/SCS. As a result, the potential to affect scenic vistas, rural visual character, and eligible State Scenic Highways would be reduced compared to the proposed 2026 RTP/SCS. The more compact development pattern would limit the geographic spread of visual disturbances and focus aesthetic changes within already urbanized areas. At the same time, the increased development intensity within urban areas, combined with enhanced transit infrastructure such as more frequent service and associated facilities, would result in more urban visual changes. These could include higher building densities, additional transit stops and amenities, reduced open space within urban areas, and increased nighttime lighting. While these effects would be largely contained within developed areas, they could incrementally alter the visual character of urban environments compared to the proposed 2026 RTP/SCS.

Overall, the Concentrated Growth and Enhanced Transit Alternative would result in reduced aesthetics impacts related to the conversion of open space and the expansion of the urban footprint when compared to the proposed 2026 RTP/SCS, while introducing localized increases in visual intensity within urban centers. Impacts to aesthetics under this alternative would be reduced compared to the 2026 RTP/SCS but would remain significant and unavoidable.

b. Agriculture and Forestry Resources

The Concentrated Growth and Enhanced Transit Alternative assumes a land use pattern that directs most future growth into Tulare, Porterville, and Visalia, while incorporating transit enhancements and maintaining the same transportation projects as the proposed 2026 RTP/SCS. By concentrating 85 percent of new population and employment growth within existing urban areas, this alternative would reduce the extent of development occurring on undeveloped and agricultural lands at the urban fringe relative to the proposed 2026 RTP/SCS. As a result, this alternative would lead to the conversion of fewer acres of Important Farmland compared to the proposed 2026 RTP/SCS. Impacts related to the conversion of farmland to non-agricultural use, conflicts between urban and agricultural land uses, and inconsistencies with agricultural zoning and Williamson Act contracts would therefore be reduced relative to the proposed 2026 RTP/SCS. However, some farmland conversion would still occur to accommodate growth and transportation improvements, and impacts to agricultural resources would remain significant and unavoidable.

Because this alternative includes the same transportation projects as the proposed 2026 RTP/SCS, there would still be direct impacts to agricultural lands associated with roadway improvements and right-of-way acquisition. However, the more compact development pattern would reduce indirect impacts such as fragmentation of agricultural lands and edge effects compared to the proposed 2026 RTP/SCS. Similarly, the Concentrated Growth and Enhanced Transit Alternative would reduce the potential for conversion of forest land, timberland, or Timberland Production Zone lands by limiting outward expansion into undeveloped areas. While enhanced transit operations would not directly affect forestry resources, the overall reduction in dispersed development would lessen pressure on forested lands compared to the proposed 2026 RTP/SCS.

State and federal laws and locally adopted plans and policies would continue to protect agricultural and forestry resources. Overall, impacts to agricultural and forestry resources under the Concentrated Growth and Enhanced Transit Alternative would be reduced compared to the proposed 2026 RTP/SCS but would remain significant and unavoidable.

c. Air Quality

The Concentrated Growth and Enhanced Transit Alternative assumes a more compact land use pattern focused in Tulare, Porterville, and Visalia while incorporating transit service enhancements, including increased frequency and a fare-free system. Because this alternative includes the same transportation projects as the proposed 2026 RTP/SCS, construction-related air quality impacts would be similar in type, though somewhat reduced due to less dispersed development and reduced disturbance of previously undeveloped lands.

Operation of the Concentrated Growth and Enhanced Transit Alternative would result in lower emissions compared to the proposed 2026 RTP/SCS. By concentrating 85 percent of future growth within existing urban areas and improving transit accessibility, this alternative would reduce VMT through shorter trip lengths and increased transit use. As a result, emissions of criteria pollutants, including ROG, NOx, and particulate matter would be slightly reduced relative to the proposed 2026 RTP/SCS, as shown in Table 6-7.

Table 6-7 Regional Emissions Analysis for the Concentrated Growth and Enhanced Transit Alternative

Alternative	Regional VMT	ROG Emissions (tons/day)	NO_X Emissions (tons/day)	PM_{10} Emissions (tons/day)[1]
Concentrated Growth and Enhanced Transit	11,487,469	0.93	2.19	0.34
2026 RTP/SCS	11,566,124	0.94	2.21	0.34

VMT = vehicle miles traveled; ROG = reactive organic gases; NOx = nitrous oxide; PM_{10} = particulate matter with a diameter of 10 microns or less; CO = carbon monoxide; SOx = sulfur oxide

PM_{10} includes tire wear and brake wear emissions.

Source: on-road motor vehicle emissions were calculated by TCAG using EMFAC. Refer to 2026 RTP/SCS Chapter C and Appendix H for complete methodology.

These emission reductions reflect the combined land use and transportation strategy under this alternative, which would facilitate shorter trip lengths, improve access to transit, and increase the share of trips made by transit and other alternative modes. As a result, in terms of regional operational emissions and air plan consistency, this alternative would perform better than the proposed 2026 RTP/SCS, as reduced VMT and increased transit use would further support attainment of regional and state air quality goals.

Impacts related to localized particulate matter exposure would be similar compared to the proposed 2026 RTP/SCS. The reduction in regional VMT would decrease overall vehicle activity and associated PM emissions, including exhaust and non-exhaust sources such as tire and brake wear. However, because growth would be more concentrated in urban areas, localized activity levels in these areas could increase. Overall, regional reductions in VMT and emissions would slightly reduce overall particulate matter exposure, although localized conditions may remain similar to the proposed 2026 RTP/SCS in some high-activity corridors.

Future land use development under this alternative would be more compact and transit-oriented than under the proposed 2026 RTP/SCS, resulting in a greater proportion of residential and other sensitive land uses located near major roadways and transit corridors. While overall emissions would be reduced, this pattern would increase the potential for localized exposure of sensitive receptors to TACs in urban areas, particularly adjacent to heavily traveled roadways and frequent transit routes. Although reduced vehicle travel would lower regional TAC emissions, the increased proximity of receptors to emission sources would result in similar or incrementally greater localized exposure compared to the proposed 2026 RTP/SCS.

Overall, air quality impacts under the Concentrated Growth and Enhanced Transit Alternative would be reduced compared to the proposed 2026 RTP/SCS due to lower VMT and associated emissions. However, long-term operational impacts related to regional emissions and potential localized exposure of sensitive receptors to TACs would remain significant and unavoidable.

d. Biological Resources

The Concentrated Growth and Enhanced Transit Alternative would involve the same transportation projects as the proposed 2026 RTP/SCS, and would result in similar impacts associated with construction and operation of transportation improvements. However, this alternative would facilitate a more concentrated land use pattern by focusing 85 percent of new population and employment growth in already developed areas in Tulare, Porterville, and Visalia. Accordingly, this alternative would reduce the extent of land use development occurring on previously undisturbed land relative to the proposed 2026 RTP/SCS. As a result, this alternative would reduce the extent of habitat impacts compared to the proposed 2026 RTP/SCS, including impacts to special status species habitat, riparian habitat, federally protected wetlands, migratory wildlife corridors, and native wildlife nursery sites. The more compact and transit-oriented development pattern would also reduce habitat fragmentation and edge effects typically associated with dispersed growth.

Because this alternative includes the same transportation projects as the proposed 2026 RTP/SCS, some impacts to biological resources from roadway improvements and associated infrastructure would still occur. However, the combination of compact land use and reduced VMT would lessen indirect and cumulative impacts to biological resources relative to the proposed 2026 RTP/SCS. Overall, biological resource impacts under the Concentrated Growth and Enhanced Transit Alternative would be reduced compared to the proposed 2026 RTP/SCS due to decreased development of previously undeveloped land and a more efficient development pattern. However, because some disturbance to sensitive habitats and species would still occur, impacts would remain significant and unavoidable.

e. Cultural Resources

As described in Section 4.5, *Cultural Resources*, some of the transportation projects included in the proposed 2026 RTP/SCS may be located in proximity to historical resources or could involve the repair or replacement of potentially historic structures. Because the Concentrated Growth and Enhanced Transit Alternative directs 85 percent of future growth into existing urban areas and emphasizes infill and redevelopment, it would increase the potential for impacts to historical resources compared to the proposed 2026 RTP/SCS. Redevelopment activities in established urban areas may result in the alteration or demolition of older structures, including those with historic significance. However, the nature of these impacts would be similar to those of the proposed 2026 RTP/SCS and would remain significant.

Implementation of this alternative would involve a similar level of ground disturbance associated with transportation improvements, as it includes the same transportation projects as the proposed 2026 RTP/SCS. However, because land use development would be more concentrated within already developed areas, ground disturbance in previously undeveloped areas would be reduced. As such, the potential for uncovering previously unknown archaeological resources in undisturbed locations would be less compared to the proposed 2026 RTP/SCS. While redevelopment activities in urban areas could still encounter subsurface cultural resources, the overall likelihood of affecting intact archaeological deposits would be reduced.

Overall, the Concentrated Growth and Enhanced Transit Alternative would result in a shift in the type and location of cultural resource impacts, with potentially greater impacts to historical resources from redevelopment and reduced impacts related to disturbance of previously undisturbed archaeological resources. The overall level of impact would be similar to the proposed 2026 RTP/SCS and impacts would remain significant and unavoidable.

f. Energy

The Concentrated Growth and Enhanced Transit Alternative would accommodate the same increase in population, households, and employment as the proposed 2026 RTP/SCS while directing 85 percent of growth into existing urban areas and improving transit service. Because this alternative maintains the same overall level of development but concentrates it within urban areas, building-related energy demand would be similar in total; however, the more compact development pattern would improve overall energy efficiency compared to the proposed 2026 RTP/SCS. By emphasizing higher-density infill and mixed-use development, this alternative would reduce per capita energy consumption associated with residential and commercial uses. Compact development typically results in more energy-efficient buildings and reduced heating and cooling demands compared to dispersed development patterns. In addition, the enhanced transit system would further reduce transportation-related energy consumption by shifting trips from private vehicles to transit and reducing VMT.

While transit operations would require additional energy due to increased service levels, this increase would be offset by reductions in gasoline and diesel consumption from decreased reliance on single-occupancy vehicles. Furthermore, the concentration of development within existing urban areas would reduce the need for expansion of electricity and natural gas infrastructure into undeveloped areas, thereby lowering indirect energy consumption associated with infrastructure construction and maintenance. Overall, energy consumption under the Concentrated Growth and Enhanced Transit Alternative would be reduced compared to the proposed 2026 RTP/SCS due to improved building efficiency and reduced transportation energy demand. However, impacts related

to inefficient, unnecessary, or wasteful direct or indirect energy consumption would remain less than significant, as they would for the proposed 2026 RTP/SCS.

g. Geology, Soils, and Mineral Resources

As discussed in Section 4.7, *Geology and Soils Resources and Mineral Resources*, the transportation improvements and land use development envisioned under the proposed 2026 RTP/SCS would not be expected to directly or indirectly cause substantial adverse effects related to rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure (including liquefaction), or landslides. Compliance with the CBC, the Alquist-Priolo Earthquake Fault Zoning Act, and preparation of site-specific geotechnical investigations would ensure impacts remain less than significant. Because the Concentrated Growth and Enhanced Transit Alternative includes the same transportation projects, geologic hazard exposure associated with infrastructure would be similar to the proposed 2026 RTP/SCS.

However, by directing 85 percent of future growth into existing urban areas and reducing the extent of development in previously undisturbed locations, this alternative would reduce the likelihood of placing new development in areas with higher susceptibility to geologic hazards, such as unstable soils or areas prone to seismic-related risks. As a result, impacts related to geologic hazards would be incrementally reduced compared to the proposed 2026 RTP/SCS, and would remain less than significant.

Impacts to paleontological resources would be reduced under this alternative compared to the proposed 2026 RTP/SCS due to the decreased extent of ground disturbance in previously undisturbed areas that may contain sensitive resources. While transportation projects and redevelopment activities would still result in ground disturbance, the more compact development pattern would reduce the overall potential to encounter intact paleontological resources. Nevertheless, impacts could still occur and would remain significant and unavoidable, similar to the proposed 2026 RTP/SCS.

Projects located within mineral resource zones would be required to comply with the California Surface Mining and Reclamation Act, as under the proposed 2026 RTP/SCS. Because the overall development footprint would be reduced and more concentrated in urban areas, potential conflicts with mineral resource extraction would be incrementally reduced. Impacts to mineral resources would remain less than significant.

h. Greenhouse Gas Emissions and Climate Change

The Concentrated Growth and Enhanced Transit Alternative would include the same transportation projects as the proposed 2026 RTP/SCS while combining a more compact land use pattern with enhancements to transit service. As a result, construction-related GHG emissions would be similar in type to the proposed 2026 RTP/SCS but could be incrementally reduced due to less dispersed development and reduced disturbance of previously undeveloped lands.

Operation of the Concentrated Growth and Enhanced Transit Alternative would result in lower GHG emissions compared to the proposed 2026 RTP/SCS. By directing approximately 85 percent of future growth into existing urban areas and substantially increasing transit service frequency while eliminating fares, this alternative would reduce VMT and encourage a shift away from single-occupancy vehicles. These changes would decrease mobile-source emissions and improve overall transportation efficiency. As a result, total and per capita GHG emissions would be reduced compared to the proposed 2026 RTP/SCS, as shown in Table 6-8.

Table 6-8 Concentrated Growth and Enhanced Transit, Net Change in Total GHG Emissions

Alternative	Per Capita GHG Emissions (lbs/day)
Concentrated Growth and Enhanced Transit	14.8
Proposed 2026 RTP/SCS	14.9
Difference	**0.1**

MT = metric tons; CO_2 = carbon dioxide; CO_2e = carbon dioxide equivalent

[1] Refer to Section 4.8, *Greenhouse Gas Emissions and Climate Change*

Source: Total GHG emissions were calculated by TCAG. Refer to 2026 RTP/SCS Chapter C and Appendix H for complete methodology.

This alternative would also be more consistent with applicable GHG reduction plans, policies, and regulations by further integrating land use and transportation strategies that support compact development and transit use. The combination of reduced trip lengths, increased transit ridership, and improved multimodal accessibility would contribute to more substantial reductions in GHG emissions than either strategy independently.

Despite these reductions, construction and operation under the Concentrated Growth and Enhanced Transit Alternative would still generate GHG emissions that contribute to global climate change. Therefore, while GHG emissions would be reduced compared to the proposed 2026 RTP/SCS, impacts related to climate change would remain significant and unavoidable.

i. Hazards and Hazardous Materials

The Concentrated Growth and Enhanced Transit Alternative would include the same transportation projects as the proposed 2026 RTP/SCS, along with a more compact land use pattern and enhancements to transit service. As a result, construction-related activities would involve a similar level of hazardous materials use, storage, and transport as the proposed 2026 RTP/SCS. However, because this alternative reduces the extent of dispersed development and concentrates growth within existing urban areas, the geographic spread of hazardous material use associated with land development would be reduced. The volume of hazardous materials required to support regional growth would remain generally similar, as this alternative accommodates the same increase in population, households, and employment as the proposed 2026 RTP/SCS. However, the combination of compact development and enhanced transit use would reduce reliance on private vehicles, which could incrementally reduce hazardous materials associated with fuel transportation, storage, and vehicle maintenance. These reductions would be beneficial but would not substantially change overall regional hazardous materials usage.

Because future development under this alternative would continue to comply with applicable federal, State, and local hazardous materials regulations and programs, impacts related to the routine transport, use, and disposal of hazardous materials; risk of upset and accidental release; emissions within one-quarter mile of a school; and airport hazards would remain less than significant, consistent with the proposed 2026 RTP/SCS. Similar to the proposed 2026 RTP/SCS, transportation and land use projects under this alternative could occur on sites included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Compliance with applicable regulations and implementation of Mitigation Measure HAZ-1 would reduce associated risks; however, impacts related to development on or near listed hazardous materials sites would remain significant and unavoidable.

Overall, hazards and hazardous materials impacts under the Concentrated Growth and Enhanced Transit Alternative would be similar to, or slightly reduced compared to, the proposed 2026 RTP/SCS due to the more compact and transit-oriented development pattern, but impacts would remain significant and unavoidable.

j. Hydrology and Water Quality

The Concentrated Growth and Enhanced Transit Alternative would result in a more compact land use pattern compared to the proposed 2026 RTP/SCS, with 85 percent of growth directed to existing urban areas. As a result, the overall extent of impervious surface expansion into undeveloped and rural areas would be reduced relative to the proposed 2026 RTP/SCS. This reduction in development of previously undeveloped land would decrease impacts to water quality associated with runoff from new development in previously undisturbed areas.

Because this alternative includes the same transportation projects as the proposed 2026 RTP/SCS, impacts related to roadway runoff, pollutant loading, and alterations to drainage patterns would be similar. However, the concentration of development within existing urban areas would limit the spatial extent of these impacts and allow for more efficient use and potential upgrading of existing stormwater infrastructure. Additionally, reduced VMT under this alternative could incrementally decrease the accumulation of roadway pollutants, resulting in minor water quality benefits compared to the proposed 2026 RTP/SCS.

Directing growth away from undeveloped areas would reduce the likelihood of placing new development in flood-prone locations compared to the proposed 2026 RTP/SCS. While flooding impacts would remain site-specific, the reduced footprint of development would lessen overall exposure to flood hazards. Similarly, the preservation of open space and pervious surfaces outside of urban areas would improve opportunities for groundwater recharge compared to the proposed 2026 RTP/SCS. Overall, hydrology and water quality impacts under the Concentrated Growth and Enhanced Transit Alternative would be reduced compared to the proposed 2026 RTP/SCS due to decreased development of previously undeveloped land , improved development efficiency, and reduced VMT. However, impacts would remain significant and unavoidable.

k. Land Use and Planning

The Concentrated Growth and Enhanced Transit Alternative would direct most future growth into Tulare, Porterville, and Visalia while maintaining the same transportation projects as the proposed 2026 RTP/SCS and substantially enhancing transit service. As with the proposed 2026 RTP/SCS, this alternative would not be anticipated to divide an established community, as development would occur primarily within existing urban areas and would be consistent with established land use patterns. Impacts would be less than significant, similar to the proposed 2026 RTP/SCS.

This alternative would place a greater emphasis on compact development and infill strategies compared to the proposed 2026 RTP/SCS, resulting in a reduced amount of development occurring in undeveloped and outlying areas. By focusing growth in areas best served by transit, this alternative would improve consistency with regional goals related to efficient land use, reduced urban sprawl, and improved integration of land use and transportation planning. In addition, enhanced transit service would support improved accessibility and mobility, further aligning with local and regional plans that promote multimodal transportation systems and sustainable development patterns. By reducing the severity of environmental impacts associated with dispersed growth—such as impacts to agricultural lands, biological resources, and hydrology—this alternative would also reduce the potential for conflicts with land use plans, policies, and regulations adopted

for the purpose of avoiding or mitigating environmental impacts. Overall, land use and planning impacts under the Concentrated Growth and Enhanced Transit Alternative would be reduced compared to the proposed 2026 RTP/SCS and would remain less than significant.

l. Noise

The Concentrated Growth and Enhanced Transit Alternative would include the same transportation projects as the proposed 2026 RTP/SCS while directing most development into existing urban areas and increasing transit service frequency. From a programmatic perspective, construction-related noise impacts would be similar to the proposed 2026 RTP/SCS due to the implementation of the same transportation infrastructure projects. However, because land use development would be more compact and concentrated within urban areas, construction activities and associated noise would be more localized. This could result in increased exposure for sensitive receptors in developed areas, although regional construction noise levels would remain similar. Construction noise impacts would continue to be significant and unavoidable.

Although this alternative would reduce VMT through a combination of compact development and enhanced transit use, regional traffic volumes would still increase with population growth. The reduction in VMT would not be sufficient to substantially alter overall regional noise levels compared to the proposed 2026 RTP/SCS. However, increased development intensity and more frequent transit service could result in localized increases in noise along transit corridors and within urban centers. Conversely, reduced reliance on single-occupancy vehicles may incrementally decrease roadway noise in some areas. Overall, mobile source noise levels would be similar at the regional scale and would remain significant and unavoidable.

Because transit service would be substantially enhanced under this alternative, there would be an increased potential for transit-related noise, particularly in areas with doubled service frequency and expanded operations. These changes would result in more frequent noise events near transit routes and stops, though such effects would be localized and generally occur within already urbanized environments. Construction vibration from transportation and land use projects under this alternative could result in excessive groundborne vibration, particularly in areas experiencing concentrated redevelopment. As with the proposed 2026 RTP/SCS, local regulations and standard construction practices would reduce vibration impacts where feasible; however, impacts would remain significant and unavoidable.

Overall, noise-related impacts under the Concentrated Growth and Enhanced Transit Alternative would be similar to the proposed 2026 RTP/SCS, with localized increases in urban areas due to concentrated development and enhanced transit activity and would continue to be significant and unavoidable.

m. Population and Housing

The Concentrated Growth and Enhanced Transit Alternative would accommodate the same population, household, and employment growth as the proposed 2026 RTP/SCS. As such, no substantial unplanned growth would occur and impacts would be less than significant, similar to the proposed 2026 RTP/SCS. This alternative emphasizes a more compact and transit-oriented development pattern, directing approximately 85 percent of growth into existing urban areas in Tulare, Porterville, and Visalia while substantially improving transit accessibility. As a result, higher-density development and increased infill and redevelopment activity would occur compared to the proposed 2026 RTP/SCS. This pattern could increase the potential for the displacement of existing people and housing, particularly in locations with improved transit access. While these effects

would be site-specific, displacement-related impacts could be incrementally greater under this alternative.

At the same time, the Concentrated Growth and Enhanced Transit Alternative would improve access to housing, employment, and services by providing more frequent and fare-free transit service. These improvements would enhance mobility and increase housing accessibility, particularly for transit-dependent populations. In addition, higher-density and mixed-use development could support a broader range of housing types and improve overall housing supply within urban areas compared to the proposed 2026 RTP/SCS.

Overall, population and housing impacts under the Concentrated Growth and Enhanced Transit Alternative would be similar to the proposed 2026 RTP/SCS, with some impacts increased (e.g., localized displacement potential) and others improved (e.g., accessibility and housing availability). Impacts would remain less than significant.

n. Public Services and Recreation

Implementation of the Concentrated Growth and Enhanced Transit Alternative would result in the same population increase in the region by 2049 as the proposed 2026 RTP/SCS. As such, overall demand for public services, including fire protection, police services, schools, libraries, and parks and recreational facilities would be similar to the proposed 2026 RTP/SCS and may require new or expanded facilities. Impacts would remain significant and unavoidable, as they would under the proposed 2026 RTP/SCS.

However, because this alternative concentrates 85 percent of growth within existing urban areas and enhances transit accessibility, demand for public services and recreational facilities would be more efficiently distributed within established service areas. This could improve the efficiency of service provision and increase accessibility to existing parks, schools, and other public facilities, particularly in areas well served by transit. At the same time, the higher density of development in urban centers could result in increased localized demand and pressure on existing public services and recreational amenities. While enhanced transit would improve access, it would not eliminate the need for expanded or new facilities to accommodate population growth.

Overall, while this alternative would improve efficiency and accessibility of public services and recreation compared to the proposed 2026 RTP/SCS, total demand would remain similar and impacts would continue to be significant and unavoidable.

o. Transportation

The Concentrated Growth and Enhanced Transit Alternative would include the same transportation projects as the proposed 2026 RTP/SCS, while combining a more compact, urban-focused land use pattern with enhancements to transit service, including increased frequency and a fare-free system. As a result, all planned roadway, transit, and active transportation improvements would be implemented, similar to the proposed 2026 RTP/SCS.

Because this alternative integrates concentrated growth with significantly enhanced transit accessibility, VMT in the TCAG region would be reduced to a greater extent than under the proposed 2026 RTP/SCS. In 2049, daily VMT would be 11,566,124 under the proposed 2026 RTP/SCS, compared to 11,487,469 under the Concentrated Growth and Enhanced Transit Alternative resulting in a daily decrease of 78,655 VMT (Appendix H). This reduction would reflect both shorter trip lengths associated with compact development and a substantial shift toward transit usage.

The Enhanced Transit component of this alternative would further increase transit ridership beyond the proposed 2026 RTP/SCS. The combination of doubled service frequencies and fare-free transit would significantly improve transit accessibility, reliability, and attractiveness, thereby supporting higher ridership levels and reducing dependence on single-occupancy vehicles.

Overall, the Concentrated Growth and Enhanced Transit Alternative would result in the greatest reduction in daily VMT and the highest increase in transit ridership among the alternatives considered. While impacts related to VMT would be reduced compared to the proposed 2026 RTP/SCS, they would remain significant and unavoidable. Conversely, impacts related to transit service and multimodal accessibility would be substantially improved under this alternative.

p. Tribal Cultural Resources

The Concentrated Growth and Enhanced Transit Alternative assumes a land use pattern that directs most future growth into Tulare, Porterville, and Visalia while including the same transportation projects as the proposed 2026 RTP/SCS and enhancing transit service. Because this alternative does not change the overall extent of transportation improvements, the level of ground disturbance associated with transportation infrastructure would be similar to the proposed 2026 RTP/SCS. However, by concentrating 85 percent of new growth within existing urban areas, this alternative would reduce the extent of ground disturbance occurring in previously undeveloped areas. As a result, the potential to disturb tribal cultural resources would be reduced compared to the proposed 2026 RTP/SCS. Ground disturbance associated with infill and redevelopment in urban areas could still encounter tribal cultural resources; however, these locations are generally more disturbed and may have a lower likelihood of containing significant resources.

At the same time, the enhanced transit component of this alternative may introduce minor additional ground disturbance for transit-related improvements (e.g., bus stops, shelters, and operational facilities), though these would be relatively small in scale and would not substantially increase the overall potential for impacts. All future projects implemented under this alternative would be required to comply with AB 52 and other applicable regulations requiring consultation with California Native American tribes. Compliance with these requirements would reduce impacts to the extent feasible; however, the potential for disturbance of tribal cultural resources would remain.

Overall, impacts to tribal cultural resources under the Concentrated Growth and Enhanced Transit Alternative would be reduced compared to the proposed 2026 RTP/SCS due to the more compact development pattern, but would remain significant and unavoidable.

q. Utilities and Service Systems

Implementation of the Concentrated Growth and Enhanced Transit Alternative would result in the same population increase in the region by 2049 as the proposed 2026 RTP/SCS. As such, overall demand for utilities and service systems, including water supply, wastewater treatment, stormwater drainage, solid waste, and energy systems, would be similar to the proposed 2026 RTP/SCS and may require new or expanded facilities. Impacts would remain significant and unavoidable, as they would under the proposed 2026 RTP/SCS. However, because this alternative directs approximately 85 percent of growth into existing urban areas and enhances transit accessibility, demand for utilities would be more concentrated within established service areas. This pattern would allow for more efficient use of existing infrastructure and reduce the need to extend utilities into previously undeveloped areas compared to the proposed 2026 RTP/SCS. As a result, the environmental impacts associated with new or expanded utility infrastructure would be reduced.

Increases in water demand would remain primarily associated with population growth. While total demand would be similar to the proposed 2026 RTP/SCS, the more compact and higher-density development pattern would generally result in lower per capita water use (e.g., reduced outdoor irrigation). Additionally, reduced vehicle travel associated with enhanced transit service may incrementally decrease water and energy use related to transportation systems. Similarly, increased population would generate additional wastewater flows and solid waste, requiring expanded treatment capacity and disposal services; however, the concentration of growth within existing service areas would allow wastewater treatment facilities and solid waste collection systems to operate more efficiently and could reduce the need for new treatment plants, conveyance infrastructure, or landfill expansions in outlying areas.

Overall, environmental impacts associated with utilities and service systems under the Concentrated Growth and Enhanced Transit Alternative would be reduced compared to the proposed 2026 RTP/SCS due to increased efficiency and reduced infrastructure expansion. However, because additional capacity and upgrades would still be required to accommodate projected growth, impacts would remain significant and unavoidable.

r. Wildfire

The Concentrated Growth and Enhanced Transit Alternative would direct a substantial share of future growth into Tulare, Porterville, and Visalia while maintaining the same transportation projects as the proposed 2026 RTP/SCS and substantially enhancing transit service. By concentrating 85 percent of growth within existing urban areas, this alternative would reduce the extent to which new development encroaches into wildland and wildland-urban interface areas compared to the proposed 2026 RTP/SCS.

As a result, the exposure of people and structures to wildland fire hazards would be reduced compared to the proposed 2026 RTP/SCS. Limiting outward expansion into undeveloped and fire-prone areas would decrease the likelihood of placing new development in high fire hazard severity zones and reduce the need for extended emergency access and evacuation routes in these areas. In addition, enhanced transit service could incrementally improve evacuation capacity by providing additional mobility options during emergency events. However, wildfire risk would not be eliminated under this alternative. Some development would still occur near urban edges, and transportation infrastructure would continue to traverse areas subject to wildfire hazards. Increased population within urban areas could also incrementally increase evacuation demand during wildfire events.

Overall, wildfire impacts under the Concentrated Growth and Enhanced Transit Alternative would be reduced compared to the proposed 2026 RTP/SCS due to the more compact development pattern and reduced expansion into wildland areas. However, impacts would remain significant and unavoidable.

6.7 Environmentally Superior Alternative

CEQA Guidelines Section 15126.6 requires that an EIR identify the environmentally superior alternative among the alternatives analyzed. Section 15126.6(d)(2) states that if the No Project Alternative is identified as the environmentally superior alternative, the EIR shall also identify an environmentally superior alternative from among the other alternatives analyzed. This section compares the impacts of the four alternatives under consideration to those of the 2026 RTP/SCS, in compliance with the *CEQA Guidelines*.

Table 6-9 shows whether each alternative would have impacts that are less than, similar to, or greater than the proposed 2026 RTP/SCS for each of the issue areas studied. Relative cumulative impacts of the alternatives for each resource topic would be similar to direct impacts for that resource topic. Based on the above analysis and summary in Table 6-9, Alternative 4 is the environmentally superior alternative, assuming all environmental issue areas are weighted equally.

Under the Concentrated Growth and Enhanced Transit Alternative, future development would be more highly concentrated within existing urban areas while also incorporating transit enhancements, including increased service frequency and a fare-free system. This integrated land use and transportation strategy would result in the most efficient development pattern among the alternatives, reducing outward expansion and supporting a significant shift toward transit and multimodal travel. As a result, this alternative would reduce VMT to the greatest extent feasible and minimize the geographic extent of environmental disturbance.

Compared to the proposed 2026 RTP/SCS, the Concentrated Growth and Enhanced Transit Alternative would result in reduced impacts to several resource areas, including aesthetics, agricultural and forestry resources, biological resources, hydrology and water quality, GHG emissions, and wildfire. These reductions are primarily attributable to the more compact development pattern, which limits the conversion of undeveloped land and reduces habitat loss, farmland conversion, and exposure to environmental hazards. In addition, enhanced transit service would reduce reliance on single-occupancy vehicles, leading to lower emissions and improved regional air quality and climate outcomes.

While some resource areas, such as cultural resources, noise, hazards, population and housing, public services, and utilities, would experience impacts similar in nature to the proposed 2026 RTP/SCS, the Concentrated Growth and Enhanced Transit Alternative would generally reduce the overall intensity or geographic distribution of impacts due to its focused development pattern. In some cases, localized impacts (e.g., redevelopment-related impacts in urban areas or increased transit-related noise) could be incrementally greater; however, these do not outweigh the broader regional environmental benefits.

In contrast, the Enhanced Transit Alternative would improve transportation efficiency and reduce VMT and emissions relative to the proposed 2026 RTP/SCS but would not substantially reduce development of previously undeveloped land or impacts to resources such as biological resources, agriculture, and hydrology due to its similar land use pattern. The Concentrated Growth Alternative would reduce land use-related impacts to resources such as biological resources, agriculture, and hydrology, but would not achieve the same level of VMT and emissions reductions or mobility benefits as the Concentrated Growth and Enhanced Transit Alternative. The No Project alternative maintains a more dispersed development pattern and would result in greater environmental impacts overall due to increased development of previously undeveloped land, higher VMT, and greater disturbance of natural and agricultural resources. This alternatives would also be less effective in meeting regional sustainability and climate project objectives.

Overall, the Concentrated Growth and Enhanced Transit Alternative provides the greatest combined reduction in environmental impacts across multiple resource areas while still meeting the key objectives of the 2026 RTP/SCS. By integrating compact land use and enhanced transit strategies, this alternative represents the most balanced and effective approach to reducing environmental impacts and is therefore identified as the environmentally superior alternative.

Table 6-9 Impact Comparison of Alternatives

Impacts [1]	2026 RTP/SCS	Alternative 1: No Project	Alternative 2: Concentrated Growth	Alternative 3: Enhanced Transit	Alternative 4: Concentrated Growth and Enhanced Transit
Aesthetics and Visual Resources					
Impact AES-1: Have a substantial adverse effect on a scenic vista; AND Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway	SU	=	<	=	<
Impact AES-2: In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site or its surroundings; in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality	SU	=	<	=	<
Impact AES-3: Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area	SU	=	<	=	<
Agriculture and Forestry Resources					
Impact AG-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; AND Conflict with existing zoning for agricultural use, or a Williamson Act contract; AND Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use	SU	>	<	=	<
Impact AG-2: Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)): AND Result in the loss of forest land or conversion of forest land to non-forest use	LTS	>	<	=	<
Air Quality					
Impact AQ-1: Conflict with or obstruct implementation of the applicable air quality plan	LTS	>	<	<	<
Impact AQ-2: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (construction)	SU	<	=	=	<

[1] Relative cumulative impacts of the alternatives for each resource topic would be similar to direct impacts for that resource topic.

Impacts [1]	2026 RTP/SCS	Alternative 1: No Project	Alternative 2: Concentrated Growth	Alternative 3: Enhanced Transit	Alternative 4: Concentrated Growth and Enhanced Transit
Impact AQ-3: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (operation)	SU	<	<	=	<
Impact AQ-4: Expose sensitive receptors to substantial pollutant concentrations (particulate matter)	SU	>	<	<	<
Impact AQ-5: Expose sensitive receptors to substantial pollutant concentrations (TACs)	SU	<	>	=	>
Impact AQ-6: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people	LTS	<	<	<	<
Biological Resources					
Impact BIO-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service	SU	>	<	=	<
Impact BIO-2: 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 the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?; AND Would the project have a substantial adverse effect on state or federally protected wetlands (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means	SU	>	<	=	<
Impact BIO-3: 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	SU	>	<	=	<
Impact BIO-4: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance	LTS	>	<	=	<
Impact BIO-5: Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan	LTS	>	<	=	<

Impacts [1]	2026 RTP/SCS	Alternative 1: No Project	Alternative 2: Concentrated Growth	Alternative 3: Enhanced Transit	Alternative 4: Concentrated Growth and Enhanced Transit
Cultural Resources					
Impact CR-1: Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5	SU	<	>	=	>
Impact CR-2: Cause a substantial adverse change in the significance of an archaeological resource pursuant to *CEQA Guidelines* Section 15064.5	SU	>	<	=	<
Impact CR-3: Disturb any human remains, including those interred outside of formal cemeteries	LTS	>	=	=	=
Energy					
Impact E-1: Result in a significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation (including transportation), based on whether the project would result in an increase in overall per capita energy consumption relative to baseline conditions	LTS	>	<	=	<
Impact E-2: Result in a significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resource, during project construction or operation (including transportation), based on whether the project would result in an increased reliance on fossil fuels and decreased reliance on renewable energy sources	LTS	=	<	<	<
Impact E-3: Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	LTS	=	<	<	<
Geology and Soils and Mineral Resources					
Impact GEO-1: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides	LTS	>	<	=	<
Impact GEO-2: Result in substantial soil erosion or the loss of topsoil	LTS	>	<	=	<
Impact GEO-3: Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse; OR Be located on expansive soil, creating substantial risks to life or property	LTS	>	<	=	<
Impact GEO-4: Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater	LTS	>	<	=	<

Impacts [1]	2026 RTP/SCS	Alternative 1: No Project	Alternative 2: Concentrated Growth	Alternative 3: Enhanced Transit	Alternative 4: Concentrated Growth and Enhanced Transit
Impact GEO-5: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature	SU	>	<	=	<
Impact GEO-6: Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; AND 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	LTS	>	=	=	=
Greenhouse Gas Emissions and Climate Change					
Impact GHG-1: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. An increase that exceeds the following threshold would be considered a significant impact: a) A net increase in GHG emissions by 2049 compared to existing baseline conditions	SU	>	<	<	<
Impact GHG-2: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. An increase that exceeds the following threshold would be considered a significant impact: **a)** A net increase in GHG emissions by 2049 compared to existing baseline conditions	SU	>	<	<	<
Impact GHG-3: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Any conflict with the following thresholds would be considered a significant impact: a) Conflict with regional SB 375 per capita passenger vehicle CO_2 emission reduction targets of 16 percent by 2035 from 2005 levels	LTS	>	<	<	<
Impact GHG-4: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Any conflict with the following thresholds would be considered a significant impact: b) Conflict with state's ability to achieve SB 32 GHG reduction target, which aims to reduce statewide emissions to 40 percent below 1990 levels by 2030 c) Conflict with state's ability to achieve EO S-3-05 GHG reduction 2050 goal, which aims to reduce statewide emissions to 80 percent below 1990 levels by 2050 and EO B-55-18; or d) Conflict with applicable local GHG reduction plans	SU	>	<	<	<

Impacts [1]	2026 RTP/SCS	Alternative 1: No Project	Alternative 2: Concentrated Growth	Alternative 3: Enhanced Transit	Alternative 4: Concentrated Growth and Enhanced Transit
Hazards and Hazardous Materials					
Impact HAZ-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; AND 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	LTS	=	<	=	<
Impact HAZ-2: Emit hazardous emissions or handles hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school	LTS	=	=	=	=
Impact HAZ-3: Be located on a site which is included on a list of hazardous materials compiled by the Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment	SU	=	=	=	=
Impact HAZ-4: 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	LTS	=	=	=	=
Hydrology and Water Quality					
Impact HYD-1: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality	LTS	=	<	=	<
Impact HYD-2: Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin	SU	=	<	=	<
Impact HYD-3: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or impede or redirect flood flows	LTS	=	<	=	<
Impact HYD-4: In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation	LTS	=	<	=	<
Impact HYD-5: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan	SU	=	<	=	<

Impacts [1]	2026 RTP/SCS	Alternative 1: No Project	Alternative 2: Concentrated Growth	Alternative 3: Enhanced Transit	Alternative 4: Concentrated Growth and Enhanced Transit
Land Use					
Impact LU-1: Physically divide an established community	LTS	=	<	=	<
Impact LU-2: Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation (including, but not limited to, the General Plan or Zoning Ordinance) and result in a physical change to the environment not already addressed in the other resource chapters of this EIR?	LTS	>	<	=	<
Noise					
Impact N-1: Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; AND Generation of a substantial absolute noise increase over existing noise levels	SU	=	=	=	=
Impact N-2: Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; AND Generation of a substantial absolute noise increase over existing noise levels	SU	=	=	=	=
Impact N-3: Generation of excessive ground-borne vibration or ground-borne noise levels	SU	=	=	=	=
Impact N-4: Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; AND Generation of a substantial absolute noise increase over existing noise levels	SU	=	=	=	=
Impact N-5: Expose people residing or working in the project area to excessive aviation related noise levels	SU	=	=	=	=
Population and Housing					
Impact POP-1: Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)	LTS	<	=	=	=
Impact POP-2: Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere	LTS	<	>	=	>

Impacts [1]	2026 RTP/SCS	Alternative 1: No Project	Alternative 2: Concentrated Growth	Alternative 3: Enhanced Transit	Alternative 4: Concentrated Growth and Enhanced Transit
Public Services and Recreation					
Impact PS-1: Result in substantial adverse physical impacts associated with the provision of new of physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire and police protection, parks, or other public facilities	SU	=	=	=	=
Impact PS-2: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools	LTS	=	=	=	=
Impact PS-3: Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; AND Include recreational facilities or require construction or expansion of recreational facilities which might have an adverse physical effect on the environment	SU	=	=	=	=
Transportation					
Impact T-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities	LTS	>	<	=	<
Impact T-2: Conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) a. An overall increase in total regional VMT above baseline (2021) conditions would be considered a significant impact b. A change in VMT per capita in the region that fails to reach 15 percent below baseline (2021) VMT per capita conditions would be considered a significant impact; OR c. A substantial increase in induced travel due to roadway capacity expansions would be considered a significant impact	SU	>	<	<	<
Impact T-3: Result in a substantial increase in induced travel demand due to roadway capacity expansions**.**	LTS	=	<	<	<
Impact T-4: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)	LTS	>	<	=	<

Impacts [1]	2026 RTP/SCS	Alternative 1: No Project	Alternative 2: Concentrated Growth	Alternative 3: Enhanced Transit	Alternative 4: Concentrated Growth and Enhanced Transit
Impact T-5: Result in inadequate emergency access; AND Impair implementation or physically interfere with an adopted emergency response plan or emergency evacuation plan	LTS	>	<	=	<
Tribal Cultural Resources					
Impact TCR-1: 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: a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe	SU	>	<	=	<
Utilities and Service Systems					
Impact UTIL-1: Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects; AND Result in a determination by the wastewater treatment provider which serves or may serve the project that is has inadequate capacity to serve the projects projected demand in addition to the provider's existing commitments	SU	=	<	=	<
Impact UTIL-2: Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals	SU	=	<	=	<
Impact UTIL-3: Not comply with federal, state and local statutes and regulations related to solid waste	SU	=	=	=	=
Impact UTIL-4: Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years	LTS	>	=	=	=

Impacts [1]	2026 RTP/SCS	Alternative 1: No Project	Alternative 2: Concentrated Growth	Alternative 3: Enhanced Transit	Alternative 4: Concentrated Growth and Enhanced Transit
Wildfire					
Impact W-1: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones: a) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire b) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment c) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes d) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires	SU	>	<	=	<

Note: Comparison of impacts is based on the overall impact of the alternative on the resource or issue.

< Alternative impacts would be less than those of the proposed 2026 RTP/SCS

= Alternative would result in impacts similar to the proposed 2026 RTP/SCS

> Alternative impacts would be greater than those of the proposed 2026 RTP/SCS

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