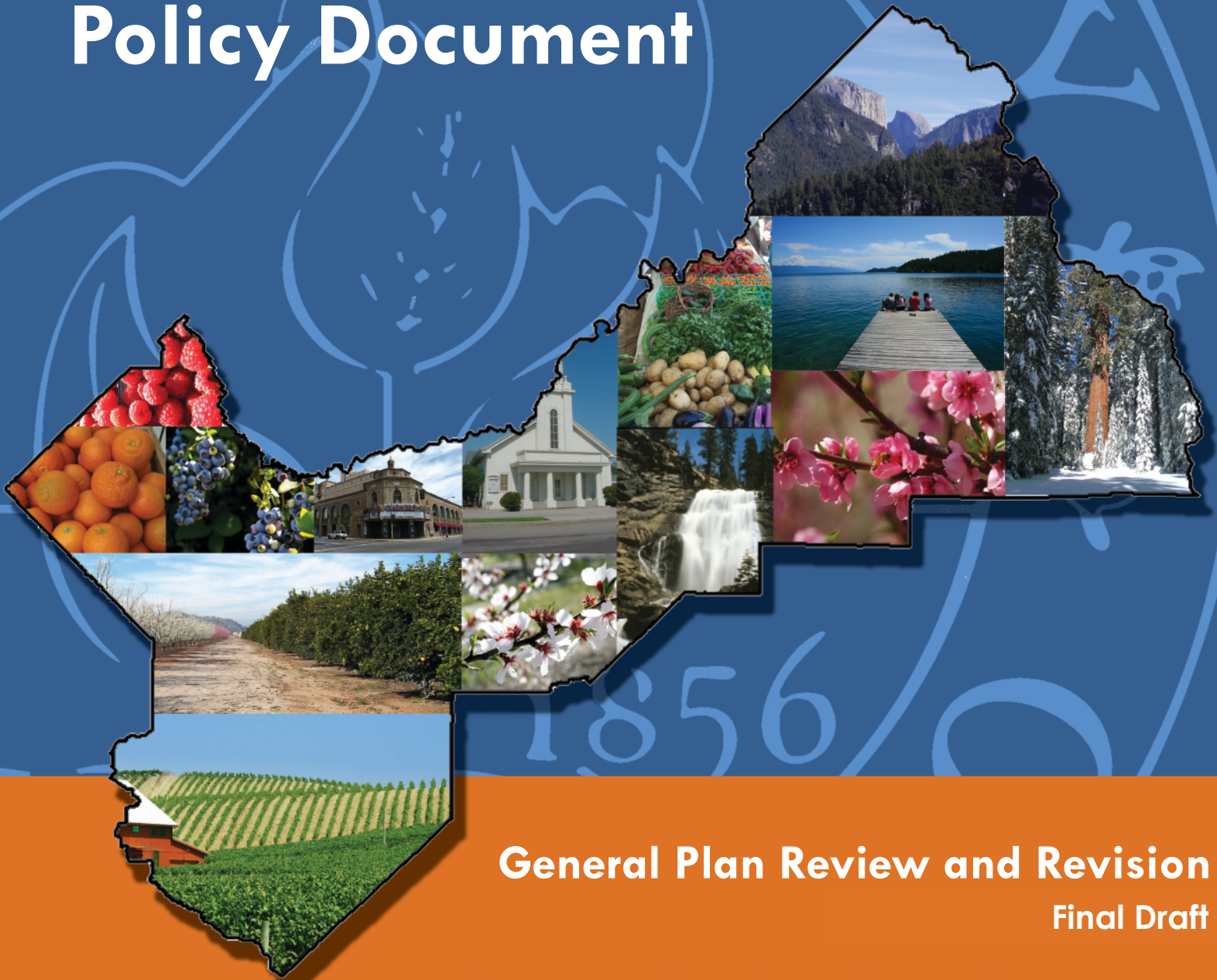


REDLINE DOCUMENT -
Changes from April 2023 to January 2024

Fresno County

General Plan Policy Document



General Plan Review and Revision
Final Draft

February 2024



FRESNO COUNTY GENERAL PLAN

COMPREHENSIVE GENERAL PLAN REVIEW AND REVISION

**FINAL DRAFT
FEBRUARY 2024**



FRESNO COUNTY GENERAL PLAN

This page left blank intentionally.



FRESNO COUNTY GENERAL PLAN

GENERAL PLAN REVIEW CREDITS

FRESNO COUNTY BOARD OF SUPERVISORS

Supervisor Brian Pacheco, *District 1*
Supervisor Steve Brandau, *District 2*
Supervisor Sal Quintero, *District 3*
Supervisor Buddy Mendes, *District 4*
Supervisor Nathan Magsig, *District 5*

FRESNO COUNTY PLANNING COMMISSION

Ken Abrahamian, *District 1 (Chairman)*
Glenda Hill, *At Large (Vice Chair)*
~~Austin Ewell, *District 2*~~
Esther Carver, *District 3*
Kuldip Chatha, *District 4*
John Arabian, *District 5*
Blake Zante, *At Large*
Lisa Woolf, *At Large*
Vacant, *At Large*

FRESNO COUNTY STAFF

Steven E. White
Director, Department of Public Works and Planning
Bernard Jimenez
Planning and Resource Management Officer, Department of Public Works and Planning
William Kettler
Manager, Development Services and Capital Projects Division
Chris Motta
Principal Planner, Development Services and Capital Projects Division

CONSULTANT TEAM

Rincon Consultants
Planning Consultants
Matt Maddox, AICP, *Principal*
Della Acosta, AICP, *Project Manager*
Reema Shakra, *Adaptation Program Manager*
Saara Chaudry, *Project Planner*
Camila Brobhoff, *Safety Element Lead*

Mintier Harnish
GHD

The Fresno County General Plan Review and Revision was a multi-year process. Many elected and appointed officials and members of the public participated in this update. Their contributions are appreciated.



FRESNO COUNTY GENERAL PLAN

This page left blank intentionally.



FRESNO COUNTY GENERAL PLAN

TABLE OF CONTENTS

Table of Contents will be included in the final document.

PART 1

INTRODUCTION TO THE GENERAL PLAN

The Fresno County General Plan is a comprehensive, long-term framework for the protection of the county’s agricultural, natural, and cultural resources and for development in the county. Designed to meet State general plan requirements, it outlines goals, policies, and programs and sets out plan proposals to guide day-to-day decisions concerning Fresno County’s future.

VISION STATEMENT

This General Plan sets out a vision reflected in goals, policies, programs, and diagrams for Fresno County through the plan horizon year of ~~2040~~ 2042 and beyond. This plan carries forward major policies that have been in place since the mid-1970s but expands and strengthens them to meet the challenges of the 21st century.

The County sees its primary role to be the protector of prime agricultural lands, open space, recreational opportunities, and environmental quality, and the coordinator of countywide efforts to promote economic development.

THEMES

ECONOMIC DEVELOPMENT

The plan seeks to promote job growth and reduce unemployment through the enhancement and expansion of its agricultural economic base plus facilitate business parks that include manufacturing, processing and distribution.

AGRICULTURAL LAND PROTECTION

The plan seeks to protect its productive agricultural land as the county’s most valuable natural resource and the historical basis of its economy through directing new urban growth to cities and existing unincorporated communities and by limiting the encroachment of incompatible development upon agricultural areas.

GROWTH ACCOMMODATION

The plan is designed to accommodate population growth through the year 2042 consistent with the forecasted projection of 234,591 people in the unincorporated County by 2042. This represents an additional population of approximately 24,607.



FRESNO COUNTY GENERAL PLAN

URBAN-CENTERED GROWTH

The plan promotes compact growth by directing most new urban development to incorporated cities and existing unincorporated urban communities where public facilities and infrastructure are available or can be provided consistent with the adopted General Plan or Community Plan to accommodate such growth. This plan assumes approximately 96 percent of new population growth and new job growth will occur within incorporated city spheres of influence and 7 percent would occur in unincorporated areas. Accordingly, this plan prohibits designation of new areas as Planned Rural Community and restricts the designation of new areas for rural residential development while allowing for the orderly development of existing rural residential areas.

Fresno County recognizes, however, that because of state-mandated directives, including the Regional Housing Needs Allocation, the County may be forced to consider approval of urban development in areas that are not currently planned for such uses. Careful consideration and Board policy direction will be necessary if Fresno County needs to designate new areas for urban development.

EFFICIENT AND FUNCTIONAL LAND USE PATTERNS

The plan promotes compact, mixed-use, and pedestrian- and transit-oriented development within city spheres as well as in the county's unincorporated communities.

SERVICE EFFICIENCY

The plan provides for the orderly and efficient extension of infrastructure such as roadways, water, wastewater, drainage, and expansion services to support the county's economic development goals and to facilitate compact growth patterns. The plan supports development of a multi-modal transportation system that meets community economic and freight mobility needs, improves air quality, and shifts travel away from single-occupant automobiles to less polluting transportation modes.

RECREATIONAL DEVELOPMENT

The plan supports the expansion of existing recreational opportunities and the development of new opportunities, particularly along the San Joaquin and Kings Rivers, in the foothills, and in the Sierras. This expansion would promote the employment of county residents and increase tourism as part of the county's diversified economic base.

RESOURCE PROTECTION

The plan seeks to protect and promote careful management of the county's natural resources, such as its soils, water, air quality, minerals, and wildlife and its habitat, to support the county's economic goals and to maintain the county's environmental quality.

HEALTH AND SAFETY PROTECTION

The plan seeks to protect county residents and visitors through mitigation of hazards and nuisances such as geological and seismic hazards, flooding, wildland fires, transportation hazards, hazardous materials, noise, and air pollution.

HEALTH AND WELL-BEING

The plan seeks to promote the health and well-being of its residents, recognizing that the natural and built-environment have the potential to influence community health. The plan seeks to ensure long-term conservation of agricultural lands and environmentally sensitive landscapes; encourage walking and biking and provide linked transit systems; promote greater access to healthy foods and produce, particularly fresh locally-grown produce; and create community centers that provide access to employment, education, business, and recreation.

ENHANCED QUALITY OF LIFE

The plan strives throughout all its elements to improve the attractiveness of the county for existing residents, new residents, and visitors through increased prosperity, attractive forms of new development, protection of open space and view corridors, promotion of cultural facilities and activities, efficient delivery of services, and expansion of recreational opportunities.

AFFORDABLE HOUSING

The plan seeks to assure the opportunity for adequate and affordable housing for all residents in Fresno County. While directing most new growth to cities, the plan also seeks to provide for the maintenance of existing housing and for new construction in designated areas within the unincorporated area of the county.

ENVIRONMENTAL JUSTICE

The plan is designed to create opportunities for every resident to live in healthy and safe communities regardless of race, color, national origin or income, and to create opportunities for meaningful community involvement in the development of laws and regulations that affect every community's natural surroundings, and the places people live, work, play and learn.

GENERAL PLAN ORGANIZATION

The Fresno County General Plan consists of multiple documents: the countywide General Plan Background Report, the Economic Development Strategy, the countywide General Plan Policy Document, and over 40 regional, community, and specific plans.

GENERAL PLAN POLICY DOCUMENT

The General Plan Policy Document contains explicit statements of goals, policies, and implementation programs that constitute the formal policy of Fresno County for land use, development, open space protection, safety, and environmental justice.

Each element includes goal statements relating to different aspects of the issues addressed in the element. Under each goal statement, the plan sets out policies that amplify the goal statement. Implementation programs are listed in Part 3, Administration and Implementation, and describe briefly the proposed action, the County agencies or departments with primary responsibility for carrying out the program, and the expected time frame for accomplishing the program.



FRESNO COUNTY GENERAL PLAN

The Land Use Element also describes the designations appearing on the Land Use Diagram and outlines the legally required standards of density and intensity for these land use designations. The Transportation and Circulation Element describes the proposed circulation system, including a description of the roadway classification system.

The General Plan Policy Document contains three parts and appendices as follows:

Part 1: Introduction to the Policy Document

The Introduction to the General Plan lays out the General Plan vision, themes, and organization; explains what the General Plan is and how to use the Plan; and reviews the process that was used to develop the General Plan. This part is organized as follows:

- Vision
- Themes
- General Plan Organization
- What is a General Plan?
- How to Use the General Plan
- How the General Plan was Prepared

Part 2: Goals and Policies

The eight topical elements of the General Plan set out goals and policies, as follows (Table 1-1 illustrates manner in which the required elements are organized/combined):

- Economic Development
- Agriculture and Land Use
- Transportation and Circulation
- Public Facilities and Services
- Open Space and Conservation
- Health and Safety
- Environmental Justice
- Housing (Adopted March 15, 2016, as a separate document).

Part 3: Administration and Implementation

The Administration and Implementation part of the General Plan contains procedures for maintaining and carrying out the General Plan in a systematic and consistent manner. The Administration and Implementation part of the General Plan is organized as follows:

- Introduction
- General Plan Maintenance and Monitoring
- General Plan Amendments
- General Plan Consistency in Implementation
- Categories of Implementation Actions/Tools
- Specific Implementation Programs

Appendices

- Appendix A: General Plan Glossary
- Appendix B: General Plan Amendments

GENERAL PLAN BACKGROUND REPORT

The General Plan Background Report, which inventories and analyzes existing conditions and trends in Fresno County, provides formal supporting documentation for General Plan policies. The Background Report is a separately bound document. This report addresses the following ten subject areas:

- Chapter 1: Introduction;
- Chapter 2: Demographics and Employment;
- Chapter 3: Land Use;
- Chapter 4: Housing (see adopted Housing Element);
- Chapter 5: Transportation and Mobility;
- Chapter 6: Public Facilities and Services;
- Chapter 7: Natural Resources;
- Chapter 8: Hazards and Safety;
- Chapter 9: Climate Change; and
- Chapter 10: Noise.



FRESNO COUNTY GENERAL PLAN

REGIONAL, COMMUNITY, AND SPECIFIC PLANS

In addition to the countywide General Plan elements described above, the Fresno County General Plan includes the following regional, community, and specific plans (see Figure 1).

Regional Plans

- Coalinga Regional Plan
- Kings River Regional Plan
- Sierra North Regional Plan
- Sierra South Regional Plan

Incorporated Community Plans

- Coalinga Community Plan
- Firebaugh Community Plan
- Fowler Community Plan
- Kerman Community Plan
- Kingsburg Community Plan
- Huron Community Plan
- Mendota Community Plan
- Orange Cove Community Plan
- Parlier West Parlier Community Plan
- Reedley Community Plan
- Sanger Community Plan
- San Joaquin Community Plan
- Selma Community Plan

Unincorporated Community Plans

- Biola Community Plan
- Caruthers Community Plan
- Del Rey Community Plan
- Easton Community Plan
- Friant Community Plan
- Lanare Community Plan
- Laton Community Plan
- Riverdale Community Plan
- Shaver Lake Community Plan
- Tranquility Community Plan

Fresno-Clovis Area Community Plans

- Bullard Community Plan
- Clovis Community Plan
- Edison Community Plan
- Fig Garden Neighborhood Plan
- Fresno High Roeding Community Plan
- McLane Community Plan
- Roosevelt Community Plan
- Woodward Park Community Plan

Specific Plans

- Bretz Mountain Village Specific Plan
- Millerton Specific Plan
- Quail Lake Estates Specific Plan
- Shaver Lake Forest Specific Plan
- Wildflower Village Specific Plan

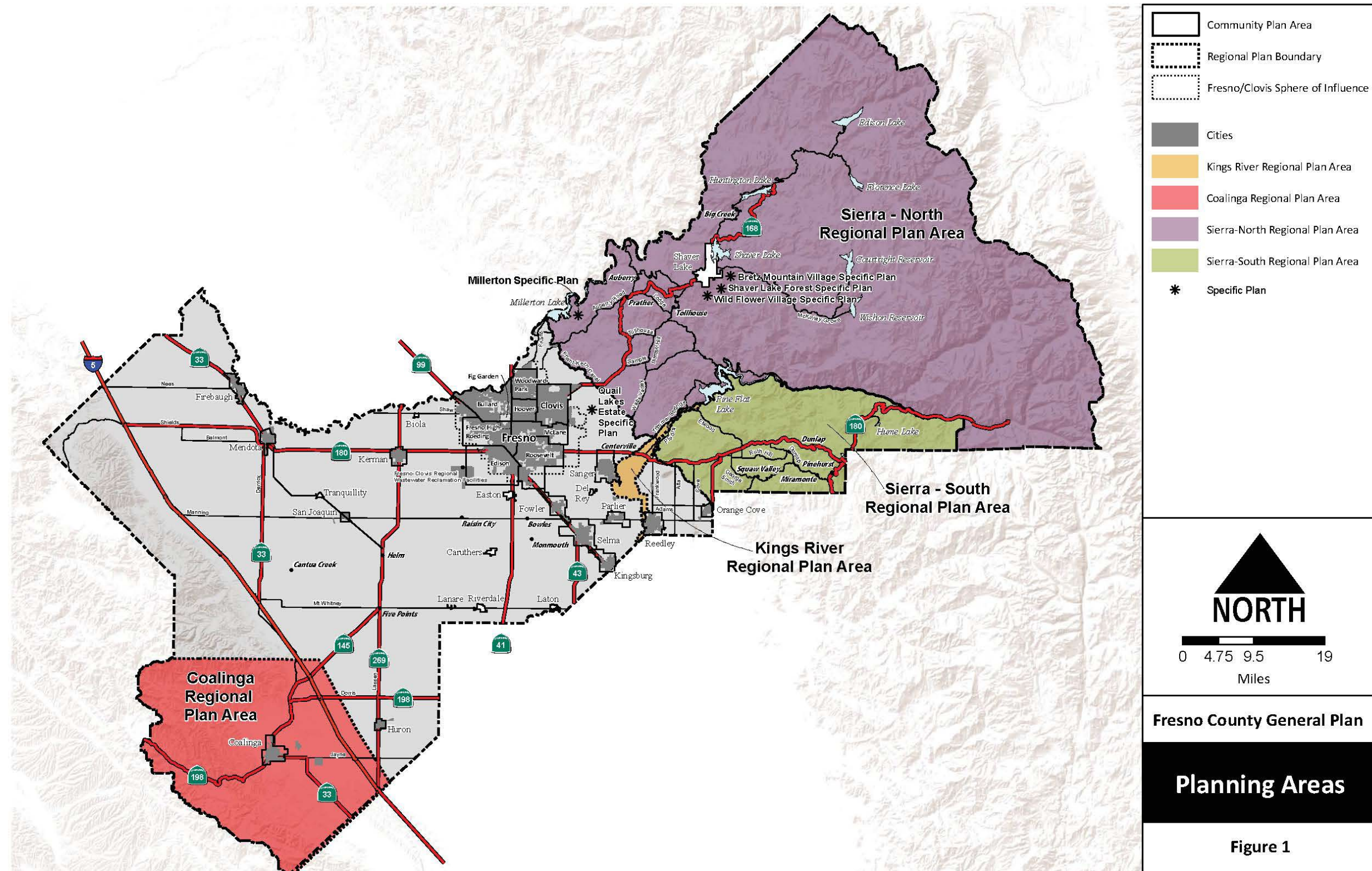
INTRODUCTION TO THE GENERAL PLAN **1**

This page left blank intentionally.



FRESNO COUNTY GENERAL PLAN

Figure 1 Planning Areas



This page left blank intentionally.



FRESNO COUNTY GENERAL PLAN

NATURE, CONTENT, AND PURPOSE OF THE GENERAL PLAN

A general plan is a legal document that serves as a community's “blueprint” or “constitution” for land use and development. State law requires every city and county in California to adopt a general plan that is comprehensive and long term. The plans must outline proposals for the physical development of the county or city and any land outside its boundaries which in the planning agency's judgment bears relation to its planning (California Government Code Section 65300 et seq.).

A general plan has four defining features:

- **General.** As the name implies, a general plan provides general guidance for future land use, transportation, environmental, and resource decisions.
- **Comprehensive.** A general plan addresses a wide range of social, economic, infrastructure, and natural resource topics. These topics include land use, urban development, housing, transportation, public facilities and services, recreation, agriculture, biological resources, and many other issues that impact the community.
- **Long-Range.** A general plan provides guidance on achieving a long-range vision of the future for a city or county. To reach this envisioned future, the general plan includes goals, policies, and implementation programs that address both near-term and long-term needs. General plan time horizons vary, but typically range anywhere from 15 to 25 years into the future.
- **Integrated and Coherent.** The goals, policies, and implementation programs in a general plan present a comprehensive, unified program for development, resource conservation, and other issues that impact the county. A general plan uses a consistent set of assumptions and projections to assess future demands for housing, employment, and public services (e.g., infrastructure). A general plan has a coherent set of policies and implementation programs that enables the public to understand the vision of the general plan, and enables landowners, businesses, and industries to be more certain about how policies will be implemented.

The General Plan Policy Document is organized into separate chapters which are the collection of “elements,” or topical areas, of which nine are mandatory. The nine State-mandated elements are: land use, circulation, housing, conservation, open space, noise, safety, environmental justice, and air quality. Jurisdictions may include other elements that address issues of particular local concern, such as economic development or public facilities and services. While the State requires the general plan to cover the requirements of the nine State-required elements, jurisdictions can organize their general plan in any way they choose, as long as the required topics are addressed. Table 1-1 shows how the elements of the Fresno County ~~2040-2042~~ General Plan are organized to meet the requirements of State law.

INTRODUCTION TO THE GENERAL PLAN



**TABLE 1-1
REQUIRED ELEMENTS**

Fresno County General Plan Elements	General Plan Elements Required by State Law									
	Land Use	Circulation	Housing	Conservation	Open Space	Noise	Safety	Air Quality	Environmental Justice	Optional
Economic Development	x									x
Agriculture and Land Use	x				x				x	
Transportation and Circulation		x						x		
Public Facilities and Services	x	x								x
Open Space and Conservation				x	x					
Health and Safety						x	x	x		
Environmental Justice									x	
Housing			x							

The Fresno County General Plan Policy Document is organized into the following eight elements under Part 2 of this document. The following provides a brief description of each element. The acronym following each element’s name represents the letters used to refer to the goals and policies under that element.

The **Agriculture and Land Use Element (LU)** designates the general distribution and intensity of all uses of the land in the community. This includes residential uses, commercial uses, industrial uses, public facilities, and open space, among others.

The **Transportation and Circulation Element (TR)** identifies the general location and extent of existing and proposed major transportation facilities, including major roadways, rail and transit, and airports, and other public utilities.

The **Public Facilities and Services Element (PF)** guides decision-making concerning public and private infrastructure, utilities, and services within the unincorporated county areas.

The **Open Space and Conservation Element (OS)** focuses on conserving the county’s natural and open space environment and maintaining the natural beauty and diversity of the county for present and future residents and visitors.

The **Health and Safety Element (HS)** establishes a policy framework for protecting people and property from unreasonable risks from natural disasters, crime, noise, air quality, and other hazards. It also focuses on disaster and emergency response.



FRESNO COUNTY GENERAL PLAN

The **Environmental Justice Element (EJ)** provides goals and policies to ensure that all people have equal protection from environmental hazards where they live, work, and play. Furthermore, the element provides ~~policy~~ **policies and programs** to ensure all people, including those who live in disadvantaged unincorporated communities, have an equal ability to participate in the decision-making process.

The **Housing Element (HE)** assesses current and projected housing needs and sets out policies and ~~proposals~~ **programs** for the improvement of housing and the provision of adequate sites for housing to meet the needs of all economic segments of the community. The Housing Element will be updated as part of a separate process in keeping with State requirements and deadlines and is not part of this General Plan Review.

For each locally relevant mandated issue or optional issue addressed, the general plan must do the following:

- Describe the nature and significance of the issue in the community (Background Information);
- Set out policy in text and maps for how the jurisdiction will respond to the issue (Policy); and
- Outline specific programs for implementing policies (Implementation Programs).

The format and structure of the general plan is left to local discretion, but regardless of the format or issues addressed, all substantive parts of the plan must be consistent with one another (i.e., internally consistent). For instance, the policies in the land use element must be consistent with those of the housing element and vice versa.

PURPOSES OF THIS GENERAL PLAN

Updating and maintaining the Fresno County General Plan serves several important purposes:

- Establishing within County government a framework for analyzing local and regional conditions and needs in order to respond effectively to the problems and opportunities facing Fresno County;
- Identifying Fresno County's economic, environmental, and social goals;
- Recording the County government's policies and standards for the maintenance and improvement of existing development and the location and characteristics of future development;
- Providing Fresno County citizens with information about their community and with opportunities to participate in the local planning and decision-making process;
- Improving the coordination of community development and environmental protection activities among the County, cities, and regional, State, and Federal agencies; and
- Establishing a basis for subsequent planning efforts, such as preparation and updating of community plans, specific plans, and special studies to deal with unique problems or areas in the community.

IMPLEMENTING THE GENERAL PLAN

Carrying out the plan, following its adoption, requires numerous individual actions and ongoing programs involving virtually every County department and many other public agencies and private organizations. The legal authority for these various actions and programs derives from two essential powers of local government: corporate and police powers. Using their “corporate power,” local governments collect money through bonds, fees, assessments, and taxes and spend it to provide services and facilities such as police and fire protection, streets, water systems, sewage disposal facilities, drainage facilities, and parks. Using their “police power,” local governments regulate the use of private property through zoning, subdivision, and building regulations in order “to promote the health, safety, and welfare of the public.” The general plan provides the formal framework for the exercise of these powers by local officials.

To ensure that the policies and proposals of the general plan are systematically implemented, State law since the early 1970s has increasingly insisted that the actions and decisions of local government concerning both its own projects and the private projects it approves are consistent with its adopted general plan. The courts have supported and furthered this trend through their interpretations of State law. Zoning must be consistent with the general plan. Local government approval of subdivisions must be consistent with the general plan. Local public works projects must be consistent with the general plan. The same is true for development agreements, specific plans, and many other plans and actions of cities and counties.

Implementation programs specify the primary responsibility for carrying out the action and an estimated time frame for its accomplishment. The time frames provided for implementation are general guidelines and may be adjusted based on County staffing and budgetary considerations.

REVISING AND AMENDING THE GENERAL PLAN

A general plan is a long-term document with a planning horizon of 15 to 25 years. For this General Plan Review, the planning horizon is the year 2042.

To achieve its purposes, the plan must be flexible enough to respond to changing conditions and at the same time specific enough to provide predictability and consistency in guiding day to day land use and development decisions. Over the years, conditions and community needs change and new opportunities arise; the plan needs to keep up with these changes and new opportunities. Every year, in accordance with the direction of Government Code Section 65400, the Planning Commission will review the Countywide General Plan’s implementation programs to assess the County's progress in carrying out the plan. From time to time the County will be asked to consider proposals for specific amendments to the plan. The County will initiate some of these proposals itself, but most will be initiated by private property owners and developers. Most general plan amendments involve changes in land use designations for individual parcels.

State law limits general plan amendments of mandatory elements to up to four times per year, but each amendment can include multiple changes. Like the adoption of the general plan itself, general amendments are subject to environmental review, public notice, and hearing requirements, and must not create inconsistencies with other parts of the plan. A complete list of General Plan amendments is provided in Appendix B.



FRESNO COUNTY GENERAL PLAN

GENERAL PLAN RELATIONSHIP TO OTHER PLANS AND REGULATIONS

The Fresno County General Plan provides policy direction for land use, development, open space protection, and environmental quality, but this policy direction must be carried out through numerous ordinances, programs, and agreements. The following discusses the most important tools for implementing the General Plan.

Zoning Ordinance

Fresno County’s Zoning Ordinance is the principal tool for implementing the Fresno County General Plan. The structure of the Zoning Ordinance parallels the structure of the Land Use Element in that both contain maps portraying the distribution of land uses throughout the County and both contain descriptions of and development standards for the various land use categories appearing on the maps. The Zoning Ordinance, which must by State law be consistent with the General Plan, is more detailed in its standards and procedures than the General Plan. While the General Plan is long-term in perspective, the Zoning Ordinance is immediate in its application.

Subdivision Ordinance

Fresno County’s Subdivision Ordinance is another important tool for implementing the Fresno County General Plan. The subdivision ordinance regulates the design and improvement of land divisions and the dedication of public improvements needed in connection with land divisions. All land divisions must by law be consistent with the General Plan. In particular, land divisions must be consistent with the minimum parcel sizes specified in the General Plan and the Zoning Ordinance.

City General Plans

All cities in California must prepare, adopt, and maintain general plans according to the same requirements that apply to counties. Typically, city general plans include territory outside their city limits that the city expects to eventually annex or that the city would like to see preserved or developed in a particular manner under county jurisdiction. City fringe areas, therefore, are covered by both the County’s General Plan and a city’s general plan. Under California law, there is no hierarchy among city plans and county plans; all plans have equal status. Legally, Fresno County continues to regulate land use according to its General Plan and any city-county memorandum of understanding that applies until land is annexed to the city (see discussion below).

Spheres of Influence

Adopted by a Local Agency Formation Commission (LAFCO), a “sphere of influence” is a boundary line surrounding cities and special service districts that defines the area into which the city or district may expand and extend public services. LAFCO is a State-mandated regulatory body that oversees changes in jurisdictional boundaries, which may include annexations, detachments, formations, dissolutions, consolidations, mergers, incorporations, and disincorporations. LAFCO is directed by State law (the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000) to establish and periodically review the spheres of influence for each agency under its jurisdiction. The Fresno County LAFCO has adopted spheres of influence for all 15 incorporated communities and numerous special districts in the county.

City/County Memoranda of Understanding

Historically, Fresno County has entered into memoranda of understanding with all 15 incorporated cities regarding land use and tax sharing for the development and annexation of lands within city spheres of influence. In general, the memoranda states that the County will consult with the affected city regarding growth management policies and when new development is proposed within the city's sphere of influence. In most cases the memoranda state that such development will be referred to the city for annexation before the County will consider approval, and that such development must be consistent with the city's general plan and development standards.

HOW TO USE THE GENERAL PLAN

The County's General Plan is intended for use by all members of the community including residents, businesses, developers, and decision-makers. The organization of the General Plan allows users to find topics or sections that interest them and to quickly review County policies, although users should realize that the policies throughout all elements are interrelated and should be examined comprehensively and must be considered together when making planning decisions.

RESIDENTS, BUSINESSES, DEVELOPERS, AND DECISION MAKERS

For Fresno County residents, the General Plan identifies the long-range plans and changes that may affect communities and includes the policies the County will use to evaluate development applications. The General Plan describes how the County will attract businesses that provide new jobs that are closely matched to educational skills. The General Plan informs residents how the County plans to improve transportation infrastructure, continue to provide adequate public services, and protect valued agricultural lands, open spaces, and environmental resources.

Cumulatively, the General Plan identifies the actions the County will take to ensure that the county and its communities remain great places to live. For Fresno County businesses and industries, the General Plan outlines the measures the County will take to protect investments and resources and encourage future success. Expectations for the county's business areas are spelled out, while policies ensure that business operations will be compatible with other businesses and nearby residential areas.

For developers within the county, or those moving homes or businesses to the county, the General Plan introduces the community, provides background information, and outlines development regulations. It is important to review all data, maps, policies, and standards throughout the Policy Document, Background Report, and the Fresno County Zoning Ordinance to get a complete perspective on how and where development may take place.

For decision makers, the General Plan is a tool to help County staff, the Planning Commission, other boards and commissions, and the Board of Supervisors make land use and public investment decisions. Future development decisions must be consistent with the General Plan. Finally, the Plan is also intended to help other public agencies, from Caltrans to cities to local school districts, as they contemplate future actions in and around the county.



FRESNO COUNTY GENERAL PLAN

The following definitions describe the nature of the statements of goals, policies, standards, implementation programs, and quantified objectives as they are used in the Policy Document:

- **Goal:** Ultimate purpose of an effort stated in a way that is general in nature and immeasurable. Each section (topic area) of the plan has only one goal.
- **Policy:** Specific statement guiding action and implying clear commitment.
- **Standard:** A specific, often quantified, guideline incorporated in a policy or implementation program, defining the relationship between two or more variables. Standards can often translate directly into regulatory controls.
- **Implementation Program:** An action, procedure, program, or technique that carries out general plan policy. Implementation programs also specify primary responsibility for carrying out the action and an estimated time frame for its accomplishment. These time frames are general guidelines and may be adjusted based on County staffing and budgetary considerations.
- **Quantified Objective (Housing Element only):** The number of housing units that the County expects to be constructed and the number of households the County expects will be assisted through Housing Element programs based on general market conditions during the time frame of the Housing Element.

The use of the word “shall” in a policy is an unequivocal directive; the word “should” is a less rigid directive that will be honored in the absence of compelling or countervailing considerations.

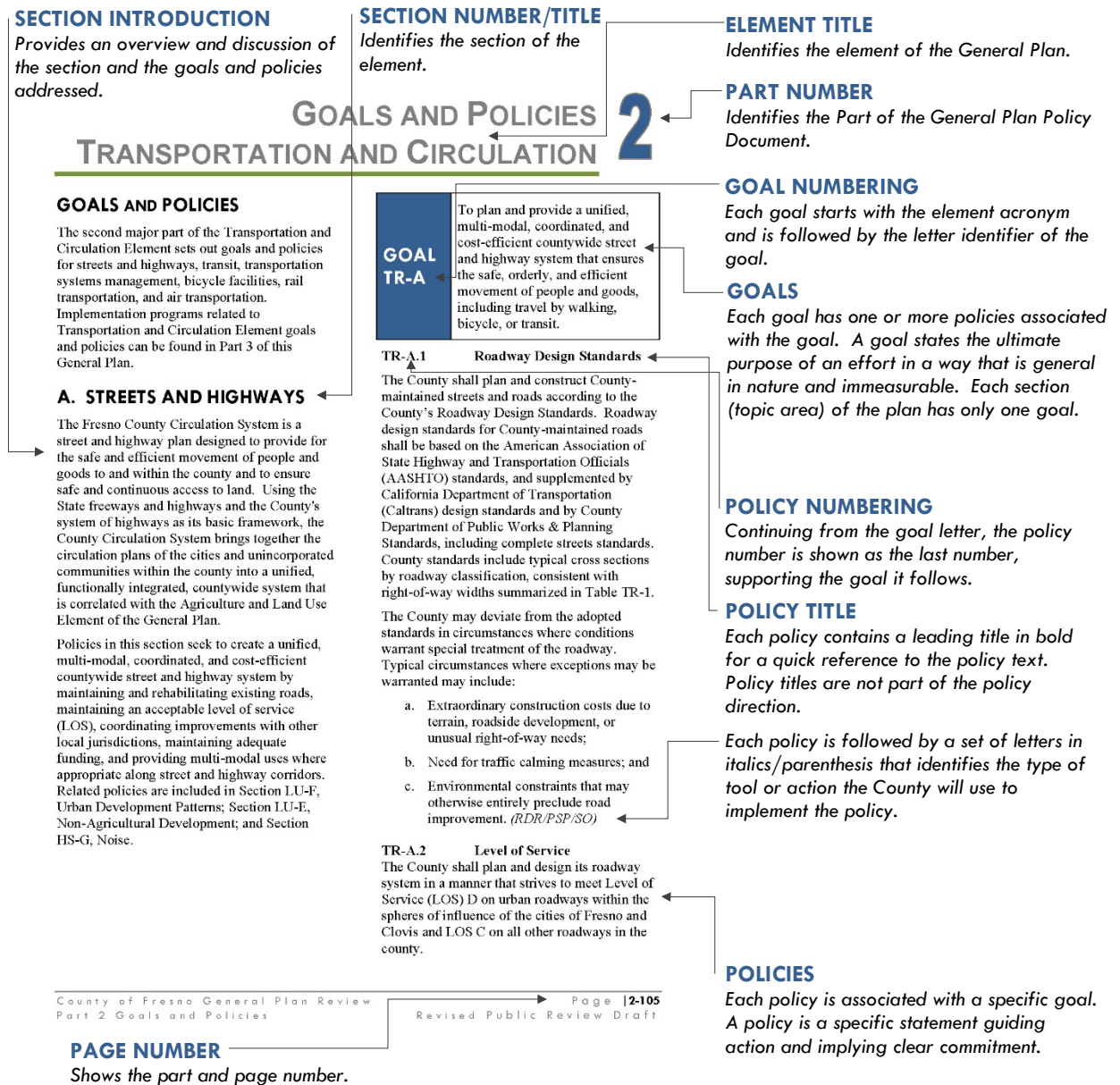
The term “decision-making body” refers to the Board of Supervisors, Planning Commission, or County Staff exercising authority over a policy or project matter in accordance with the General Plan or the Ordinance Code of Fresno County.

The term “County” with a capital “C” refers to the Fresno County Board of Supervisors, the Planning Commission, or County agencies and departments that carry out their responsibilities under the direction of the Fresno County Board of Supervisors. The term “county” with a lower case “c” refers to Fresno County as a geographic area.

The term “discretionary permit” or “approval” refers to a decision by a County decision-making body in which it exercises its discretion to approve, deny, or condition an approval (e.g., conditional use permit). By contrast, a “ministerial permit” must be approved or denied based almost solely on its compliance with adopted standards.

GOALS AND POLICIES READERS' GUIDE

Each element contains the goals and policies that will be used by the County to guide future land use, development, and environmental protection decisions.





FRESNO COUNTY GENERAL PLAN

IMPLEMENTATION PROGRAMS READERS' GUIDE

To help ensure that appropriate actions are taken to implement the General Plan, the Plan includes a set of implementation programs. Implementation programs identify the specific steps to be taken by the County to implement the policies. They may include revisions of current codes and ordinances, plans and capital improvements, programs, financing, and other measures that should be assigned to different County departments after the General Plan is adopted. The types of tools or actions the County can use to carry out its policies and implementation programs generally fall into the eight categories listed below. These categories are explained in detail in Part 3, Administration and Implementation, along with a list of specific implementation programs.

- Regulation and Development Review (RDR)
- Plans, Strategies, and Programs (PSP)
- Financing and Budgeting (FB)
- Planning Studies and Reports (PSR)
- County Services and Operations (SO)
- Inter-governmental Coordination (IGC)
- Joint Partnerships with the Private Sector (JP)
- Public Information (PI)

TABLE NUMBER AND NAME
Each section begins with a new table number and section name.

TIMELINE
Identifies an estimated time frame for when the implementation program will be completed. Implementation programs may not be completed as indicated due to budget or resource constraints.

IMPLEMENTATION PROGRAM TAG
Each implementation program is followed by a set of letters in italics/parenthesis that identifies the type of tool or action the County will use to implement the program.

Table 3-3 Transportation and Circulation Implementation Programs		2018-2020	2021-2025	Annual	Ongoing
TR-A.E	The County shall update and maintain the Improvement Standards for other County development improvements, including private roads dedicated to public use. <i>(RDR)</i>				✓
Implements Which Policy(ies)	TR-A.1				
Responsible Department(s)	Department of Public Works & Planning				

IMPLEMENTATION PROGRAM TEXT
Specific action(s) the County will take to implement the General Plan.

RESPONSIBLE DEPARTMENT(S)
Identifies which County department(s) are responsible to see the specific implementation is completed and which County department(s), if necessary, will support the responsible department.

SUPPORTING POLICY(IES)
Identifies which policy(ies) the implementation program supports.

PART 2 **GOALS AND POLICIES**

INTRODUCTION

The Goals and Policies are the heart of the General Plan. The goals and policies are organized in eight elements: Economic Development, Agriculture and Land Use, Transportation and Circulation, Public Facilities and Services, Open Space and Conservation, Health and Safety, Environmental Justice, and Housing (adopted March 15, 2016, as a separate document).

The goals and policies flow from the Vision Statement and Themes and address a broad range of topics, ranging from those required by State law to those that address unique local concerns. Implementation programs related to the goals and policies can be found in Part 3, Administration and Implementation. Goals, policies, and implementation programs contained in regional, community, and specific plans are more geographically specific and should be reviewed along with the General Plan goals and policies.



FRESNO COUNTY GENERAL PLAN

This page left blank intentionally.

PART 2: GOALS AND POLICIES

ECONOMIC DEVELOPMENT

ELEMENT

Entering the 21st Century, Fresno County's economy has been driven by agriculture and construction. For decades Fresno County has been one of the largest agricultural producing counties in the United States. Despite this success, Fresno County's unemployment rate has remained high and the county's average wage levels, while above the state minimum wage, still remain low.

To address these issues, Fresno County is taking a leadership role in promoting economic development. The long- and short-term objective of the County is to work with cities, the private sector, and other organizations to retain and expand existing businesses, encourage the development of value-added businesses, attract new industry, improve the skill of the workforce, and facilitate the creation of higher-paying jobs at a faster rate than population growth to elevate Fresno County's employment rates and wage levels.

The Economic Development Element sets out goals and policies organized into three sections: Job Creation, Economic Base Diversification, and Labor Force Preparedness. Specific implementation programs related to Economic Development Element goals and policies can be found in Part 3 of this General Plan.



FRESNO COUNTY GENERAL PLAN

A. JOB CREATION

Numerous agencies are involved in economic development in Fresno County, including County departments, the cities, and a variety of regional planning, marketing, and workforce training organizations. Fresno County's Economic Development Strategy seeks to increase business and employment growth in the county. For this effort, strong leadership and regional partnering and coordination are needed.

The first step in expanding the county's job base is to strengthen, diversify, and integrate the county's historical economic base of agriculture.

Technological and marketing advances have opened up new global markets for American produce and Fresno County has an opportunity to expand its markets. It is essential for the county's agricultural economy to remain at the cutting edge in crop selection and growing practices. At the same time, shifts in cropping patterns can have very positive impacts for employment opportunities.

Shifts in consumer preferences and technological advances in food, fiber, and other agricultural product processing have created many new economic opportunities in agriculture. Combined with emerging international markets, the volume of demand can support a scale of production well beyond the crop levels produced in Fresno County. Therefore, continued growth in value-added food, fiber, and agricultural product processing will lead to a stronger industrial sector in the county, creating an increased number of well-paying jobs.

Policies in this section address economic development planning and management, agricultural productivity, and high-value-added agriculture. Related policies are included in Section LU-A, Agriculture; Section LU-E, Non-Agricultural Rural Development; Section LU-F, Urban Development Patterns; and Section LU-G, Incorporated City, City Fringe Area, and Unincorporated Community Development.

GOAL ED-A

To increase job creation through regional leadership, agricultural productivity, development and expansion of high-value-added processing firms, manufacturing and distribution, and vocational educational opportunities.

ECONOMIC DEVELOPMENT PLANNING AND MANAGEMENT

ED-A.1 Economic Development Leadership

The County shall provide countywide leadership in economic development and coordination of economic development resources. *(RDR/IGC)*

ED-A.2 Economic Planning Coordination

The County shall allocate staff resources to economic planning for the County and to coordinate the related efforts of the cities and regional organizations. *(SO/IGC)*

ED-A.3 Economic Development Action Teams

The County shall support and staff an Economic Development Action Team (EDAT) with the following composition:

- a. Two members of the Board of Supervisors: The Chairman or another Supervisor designated by the Chairman and the Supervisor whose district includes the city(ies) that the EDAT is working with at a given time.
- b. County departments (County Administrative Officer and Public Works and Planning Director).
- c. City representatives (Mayor, Council President, and City Manager for the City of Fresno and mayor and city manager for the city(ies) involved in the project. *(PSP/IGC)*

GOALS AND POLICIES **2**

ECONOMIC DEVELOPMENT

ED-A.4 Economic Development Strategy

The County shall maintain, monitor, and update, as needed from time to time, an Economic Development Strategy, which shall be used as an operational guide to implementing the economic development goals, policies, and programs of the General Plan, as well as fulfilling Federal Economic Development Administration (EDA) requirements for a Comprehensive Economic Development Strategy (CEDS). *(PSP/SO)*

ED-A.5 Economic Development Cooperation and Assistance

The County shall cooperate with and assist cities and economic development organizations with their efforts to foster economic development consistent with the countywide strategy. Such assistance may involve joint sponsorship of funding applications, planning and development of regional infrastructure, coordinated marketing efforts and responses to site location requests, and other activities. *(PSP/FB/IGC)*

ED-A.6 Value-added Agricultural Facilities

The County shall continue to work cooperatively with cities when locating value-added agricultural processing facilities in proximity to cities sphere of influence. *(RDR)*

ED-A.7 Locating New Industrial Sites

The County shall encourage the location of new and expanding industry within Fresno County consistent with the County's Economic Development, Agriculture and Land Use and Environmental Justice Elements Goals, Policies and Zoning Ordinance. *(RDR/IGC)*

ED-A.8 Business Retention and Expansion Programs

The County shall support and participate in business retention and expansion programs and offer any available services to businesses in need. *(PSP/IGC)*

ED-A.9 Fresno County Business and Industrial Campus Special Study Area

The approximately 2,940-acre area generally bounded by North Avenue to the north, Peach Avenue and State Route 99 to the west, Fowler Avenue to the east, and American Avenue to the south is designated as a Special Study Area. The County shall evaluate this Special Study Area for possible future urban industrial, office and commercial land uses. If the County initiates formal discretionary land use entitlements (General Plan amendment or rezoning), the associated California Environmental Quality Act process shall include a health impact assessment and targeted outreach in at least English and Spanish to residents of Malaga and areas to the west along the State Highway 99 corridor to solicit their input as part of the land use and environmental review process. *(PSR)*

AGRICULTURAL LAND PRODUCTIVITY

ED-A.10 Higher-value Specialty Crops

The County shall support and encourage trends in agricultural production that shift suitable land into higher-value specialty crops that can support a more diverse processing sector with higher paying and more steady employment opportunities. *(RDR)*

ED-A.11 Crop Shift Assistance

The County shall support efforts of the UC Cooperative Extension, the Agricultural Commissioner, State and Federal agencies, universities, and other entities to provide technical assistance and research to support agricultural producers and processors attempting to shift to higher-value and drought-resistant crops in order to maintain Fresno County as a center for agricultural innovation, entrepreneurship, research, and development. *(PSR/IGC)*

ED-A.12 General Plan Implementation

The County shall implement General Plan land use policies and programs to conserve agricultural land. (See Section LU-A, Agriculture). *(RDR)*



FRESNO COUNTY GENERAL PLAN

ED-A.13 Farm-to-Market

The County shall promote Fresno County agriculture as a source of healthy, local produce by supporting the sale of local agricultural products direct from farms and in local stores and supporting the establishment of farmers markets, especially those that accept food stamps and other forms of financial aid. *(RDR/PSP)*

ED-A.14 Agricultural Workforce Training Programs

The County shall ensure that regional workforce training programs include modules that address the needs of agribusiness. *(PSP)*

HIGH-VALUE-ADDED AGRICULTURE

ED-A.15 Accelerated Firm Development

The County shall support accelerated development of high-value-added food, fiber, and other agricultural product processing firms and, whenever possible, encourage the vertical integration of the growing, processing, packaging, and marketing sectors to develop jobs within Fresno County. *(RDR/PSP)*

ED-A.16 Agricultural Product Marketing

The County shall support the marketing of Fresno County as a premier location for the production of food, fiber, and other agricultural products, and a primary location for food processing facilities. *(PSP)*

ED-A.17 Locating Regional Processing Facilities

The County shall encourage processing facilities that obtain raw products regionally rather than just locally, including those which may logically be expected to expand into regional processing facilities, to locate in areas with adequate infrastructure. Processing facilities located in proximity to disadvantaged communities shall comply with the applicable provisions of the Environmental Justice Element. *(RDR/PSP)*

ED-A.18 Technology Development Programs

Recognizing that certain critical requirements of food, fiber, and other agricultural product processing industries, such as wastewater treatment, solid waste, and food safety may require innovative, regional solutions, the County shall support and encourage technology development programs through collaboration with research institutions and other responsible agencies for use by industries and cities to support the expansion of agricultural industries. *(PSP/IGC)*

ED-A.19 Regional and Intermodal Transportation

The County shall support efforts to create and expand regional and intermodal transportation systems that support increased hauling of raw products into the county and export of finished goods nationally and globally. (See Transportation and Circulation Element) *(RDR/PSP)*

B. ECONOMIC BASE DIVERSIFICATION

In order to advance economic stability, accelerate the pace of job growth, and maintain the quality of life for residents in the county, it is important to diversify the job base in the county. Opportunities for diversification exist in new industrial sectors as well as in services and technology. Industries such as light manufacturing are now heavily engaged in production of a wide range of components for the consumer economy. Newer business opportunities in areas such as information processing, water, energy, and health care have gained a foothold in the county and should be nurtured and expanded into cornerstones of the future regional economy.

Every year, Fresno County hosts millions of visitors, more than half of whom are leisure travelers. As the county's economy diversifies, increased business travel will support growth in the travel sector requiring expansion of accommodations, amenities, and services. Similarly, the county's location as a gateway to

GOALS AND POLICIES

ECONOMIC DEVELOPMENT 2

Yosemite, Kings Canyon, and Sequoia National Parks and other High Sierra attractions creates the opportunity for recreational development in the foothills that can have a very beneficial impact on the local economy.

Policies in this section address non-agricultural industry as well as recreation and tourism. Related policies are included in Section TR-E, Rail Transportation; Section TR-F, Air Transportation; Section OS-H, Parks and Recreation; Section OS-J, Historical, Cultural, and Geological Resources; Section OS-K, Scenic Resources; Section OS-L, Scenic Roadways; and Section PF-J, Utilities.

GOAL ED-B

To diversify the economic base of Fresno County through the expansion of non-agricultural industry clusters and through the development and expansion of businesses providing recreation and visitor services.

ED-B.1 Non-agricultural Industry Expansion

The County shall encourage the expansion of non-agricultural industry clusters such as information technology, light manufacturing, and health care. *(RDR/PSP)*

ED-B.2 Non-agricultural Marketing

The County shall work with various agencies and organizations to actively market the county to non-agricultural firms. *(IGC)*

ED-B.3 Skills and Education Needs

The County shall ensure that training programs and educational institutions address the skills and education needed by employers in non-agricultural industry clusters such as information processing, water, energy, light manufacturing, green industries, and health care. *(PSP/IGC)*

ED-B.4 High-Speed Rail and Heavy Maintenance and Operations Facility

The County shall support the development and location of the statewide high-speed rail heavy maintenance and operation facility or maintenance of way facility within Fresno County. If either facility is located in an unincorporated area of Fresno County, the County shall plan and identify land uses necessary to support and serve these facilities in such a way as to protect sensitive receptors and Environmental Justice communities. *(See Policy TR-E.6) (RDR/IGC)*

ED-B.5 Air Passenger and Freight Service

The County shall collaborate with Fresno Yosemite International Airport and other general aviation air terminals to improve the level of air passenger and freight service to Fresno County. *(IGC)*

ED-B.6 Higher Learning and Technology

The County shall help facilitate, where possible, the collaboration between institutions of higher learning and local and regional technology firms in order to maintain Fresno County as a center for innovation, entrepreneurship, research, and development. *(IGC)*

ED-B.7 Cultural and Recreational Amenities

The County shall support efforts to enhance the cultural and recreational amenities available in the county in order to maintain the desired quality of life for its residents as well as to attract business entrepreneurs from other areas in California and throughout the nation and the world. *(RDR)*

ED-B.8 Access to Technology

The County shall actively support the efforts of new and existing businesses to access and maintain the highest levels of technology available for their operations. *(RDR/PSP/JP)*



FRESNO COUNTY GENERAL PLAN

RECREATION AND TOURISM

ED-B.9 Visitor Serving Businesses

The County shall encourage the development and expansion of businesses serving visitors in unincorporated areas where natural amenities and resources are attractive and would not be diminished by tourist activities. *(RDR)*

ED-B.10 River Recreation and Tourism

The County shall encourage the development of the San Joaquin and Kings Rivers for recreational use and as tourist destinations. *(RDR/PSP)*

ED-B.11 Foothill and High Sierra Visitor-Serving Businesses

The County shall encourage development of businesses serving visitors in the High Sierra and foothill areas such as Shaver Lake, Pine Flat, and Squaw Valley. *(RDR/PSP)*

ED-B.12 Trails and Bikeways Tourism

The County shall support the enhancement of the county's recreational trails and bikeways and promote the bikeway and trail network as a component of the county's tourism program. (See Policy TR-D.1) *(RDR/PSP)*

ED-B.13 Destination Marketing

The County shall encourage cooperative marketing by destination marketing organizations and tourism stakeholders. *(PSP/IGC)*

ED-B.14 Tourist Transit Initiatives

The County shall continue advocating public transit services to Yosemite National Park and to Sequoia and Kings Canyon National Parks via Sequoia/Kings Canyon Shuttle and participate, when feasible, in future regional transportation initiatives providing public transportation to tourist destinations in the foothill and mountain areas. *(IGC)*

ED-B.15 Gateway Recreation Opportunities

The County shall evaluate additional recreation opportunities in the coast range foothills and other areas where "gateway opportunities" exist as a component of the County's tourism program. *(RDR/PSP)*

ED-B.16 Tourism Job Creation

The County shall encourage tourism and related job creation through implementation of the open space and recreation goals, policies, and programs of the General Plan. *(RDR)*

ED-B.17 Agri-tourism Marketing

The County shall promote Fresno County's attractions by using agri-tourism marketing programs such as the Blossom and Fruit Trail events. *(PSP)*

ED-B.18 Heritage Tourism

The County shall encourage heritage tourism by highlighting Fresno County's historical and cultural resources. *(PI)*

C. LABOR FORCE PREPAREDNESS

The new jobs created through implementation of the Economic Development Strategy will not benefit the current and future labor force of the county if its members are not qualified to secure and retain the jobs created. Training and education must be expanded to build a base of skills that will be attractive to firms locating in the area or seeking to expand. A quality work force is a top-ranking requirement for selecting a site according to site location professionals. Employers will be increasingly interested in employees that can be trained to a higher skill level. Therefore, the efforts to meet this need must address employment opportunities across all ages and skill levels.

GOALS AND POLICIES

ECONOMIC DEVELOPMENT 2

Policies in this section seek to improve labor force preparedness for the local work force. Related policies are included in Section ED-A, Job Creation; Section LU-B, Economic Base Diversification; and Section PF-I, School and Library Facilities.

GOAL ED-C

To improve labor force preparedness by providing the local workforce with the skills needed to meet the requirements of an increasingly diverse business sector in the 21st century global economy.

ED-C.1 Workforce Skills Development

The County shall, through its own programs and through cooperative efforts with other agencies and organizations, support efforts to improve the skills of the county's workforce needed to meet the requirements of Fresno County's new and expanding businesses. *(PSP/IGC)*

ED-C.2 Student Skills and Career Development

The County shall encourage efforts to prepare students for the 21st century global economy. For example, the school districts in the county will be encouraged to incorporate vocational training and focus on the career and employment skill sets of those clusters and industries targeted for future growth. *(RDR/PSP/IGC/JP)*

ED-C.3 Targeted Employment Training

The County shall assist the community college districts and vocational centers in working with clusters and industries targeted for employment growth to develop and provide specialized training for their employees based on their specifications. *(PSP/IGC/JP)*

ED-C.4 Unemployed Job Readiness Programs

The County shall encourage and support programs that prepare the hard-to-serve unemployed for job readiness. *(PSP/IGC/JP)*



FRESNO COUNTY GENERAL PLAN

This page left blank intentionally.

PART 2: GOALS AND POLICIES

AGRICULTURE AND LAND USE

ELEMENT

The Agriculture and Land Use Element is divided into two major parts. The first part describes the County's Land Use Diagram, the land use designations that appear on the diagram, and related development standards. The second part of the Element sets out goals and policies under eight main sections:

- Agriculture
- Westside Rangelands
- River Influence Areas
- Westside Freeway Corridor
- Non-Agricultural Rural Development
- Urban Development Patterns
- Incorporated City, City Fringe Area, and Unincorporated Community Development
- General and Administrative Provisions

Specific implementation programs related to Agriculture and Land Use Element goals and policies can be found in Part 3 of this General Plan.

LAND USE DIAGRAM AND STANDARDS

The Land Use Diagram consists of multiple land use diagrams. The diagram that is broadest in scope is the Countywide Land Use Diagram, which depicts designations for resource lands primarily on the Valley floor and in the western foothills (see Figure LU-1a). The rest of the county is covered by land use diagrams for regional plan areas, community plan areas ([see page 1-6](#)), and specific plan areas. The various land use diagrams in the Agriculture and Land Use Element and in regional plans, community plans, and specific plans [collectively serve as the Land Use Diagram for Fresno County, and](#) generally employ a common set of land use designations, although not every land use diagram uses every designation. Figures LU-1b, LU-1c, LU-1d, and LU-1e show Open Space areas, Rural Residential areas, the Northeast Fresno-Clovis Metropolitan Area (FCMA), and Rural Settlement Areas, respectively.



FRESNO COUNTY GENERAL PLAN

Figure LU-1a — Countywide Land Use Diagram

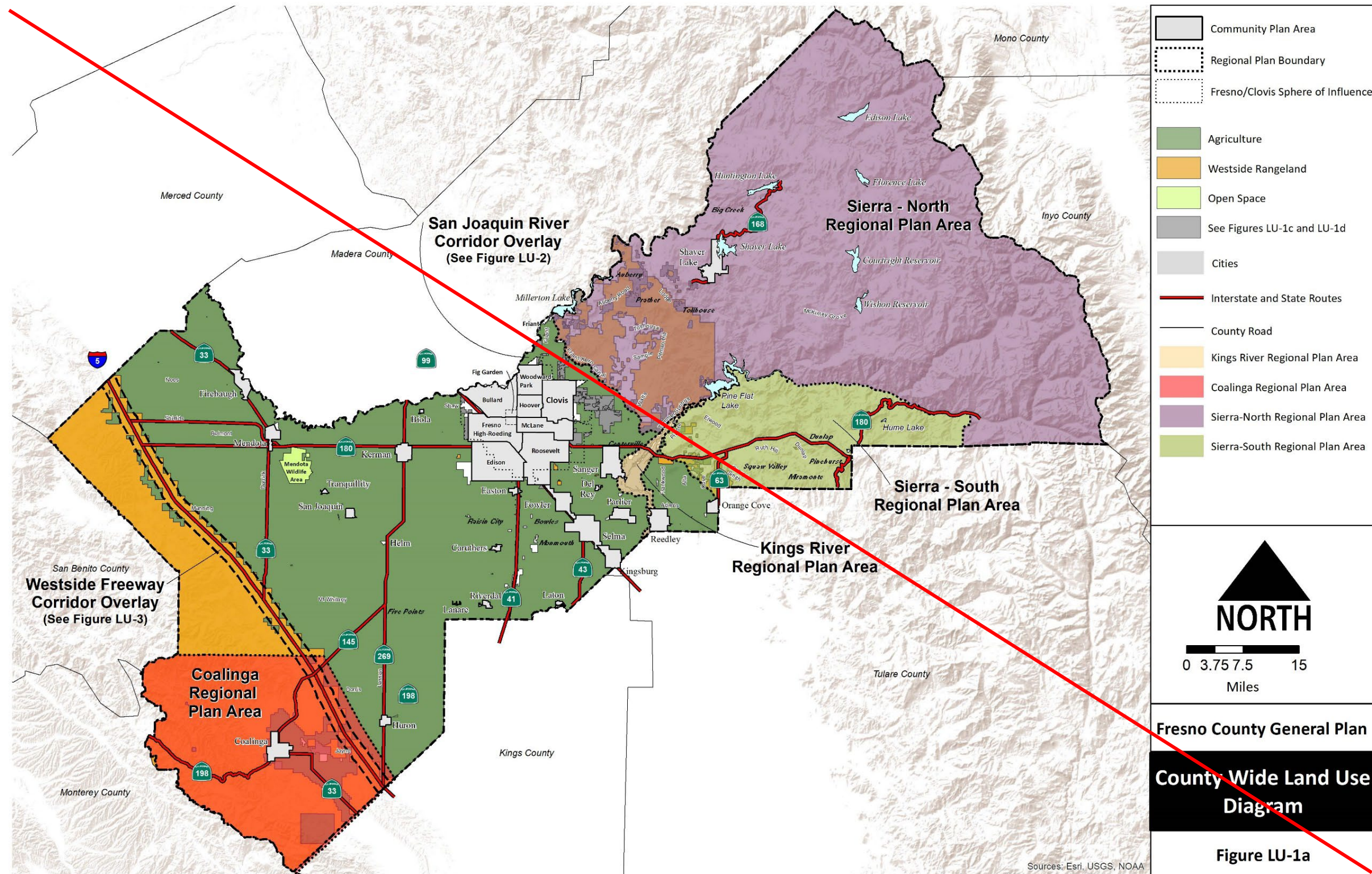
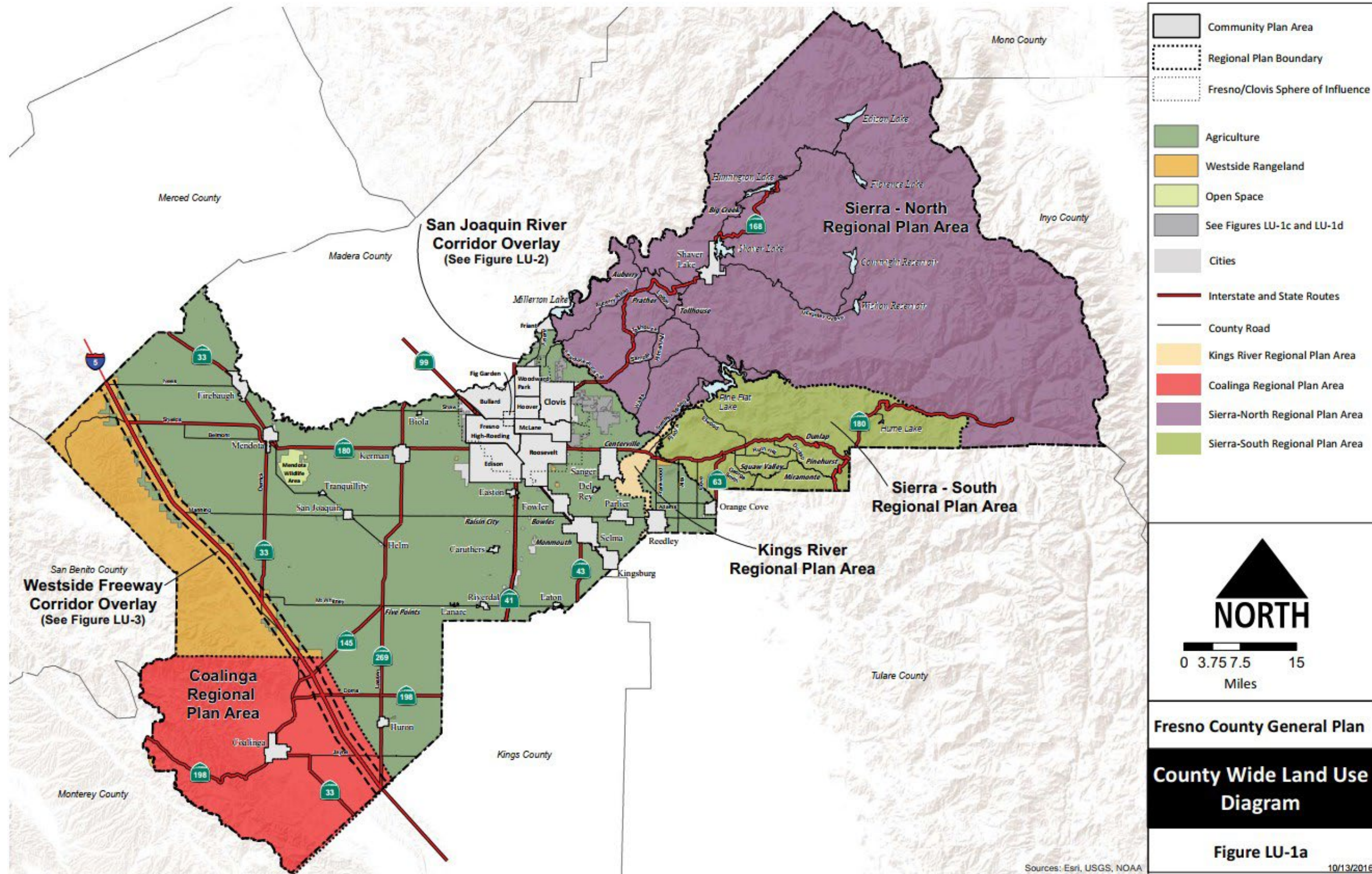


Figure LU-1a Countywide Land Use Diagram





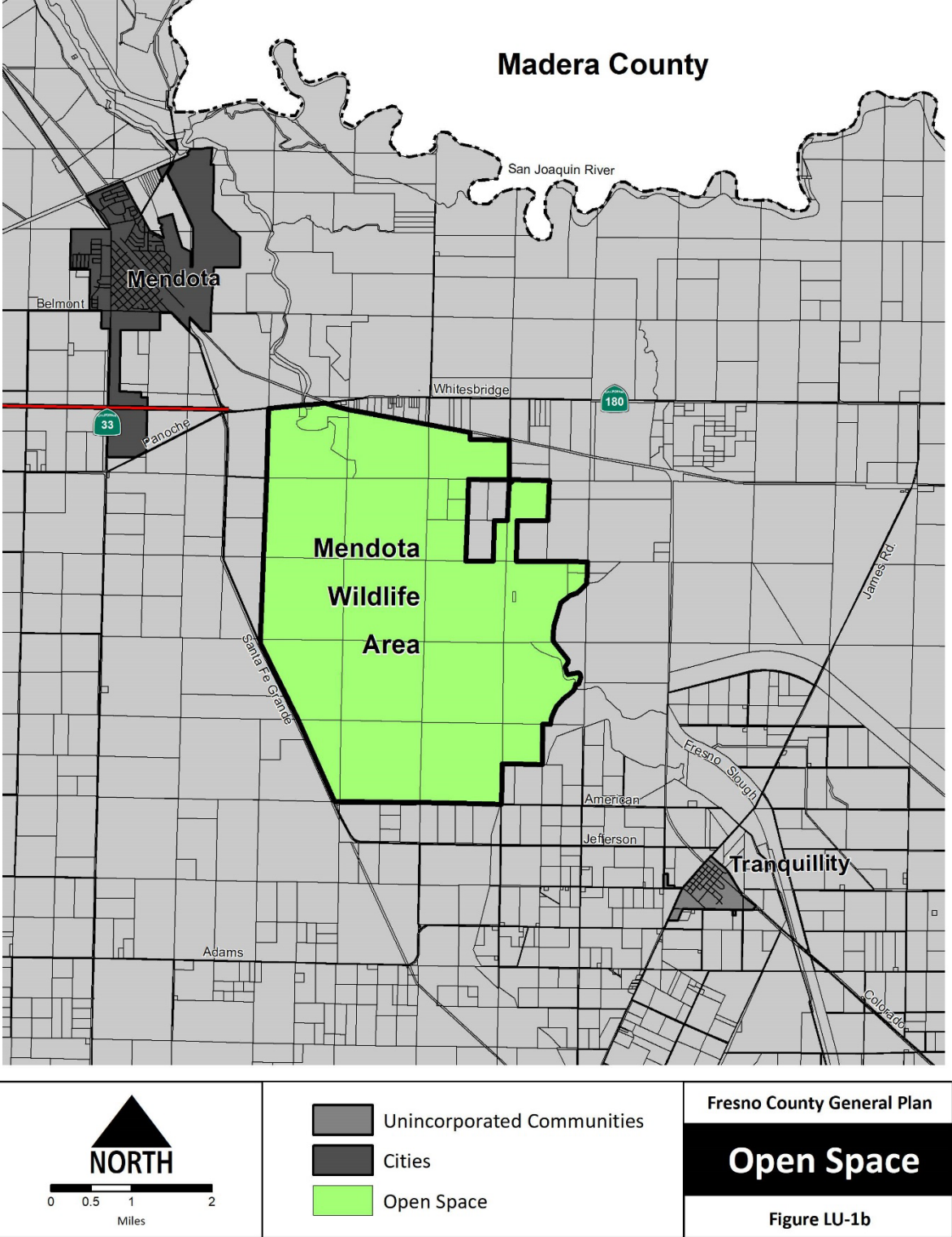
FRESNO COUNTY GENERAL PLAN

This page left blank intentionally.

GOALS AND POLICIES **2**

AGRICULTURE AND LAND USE

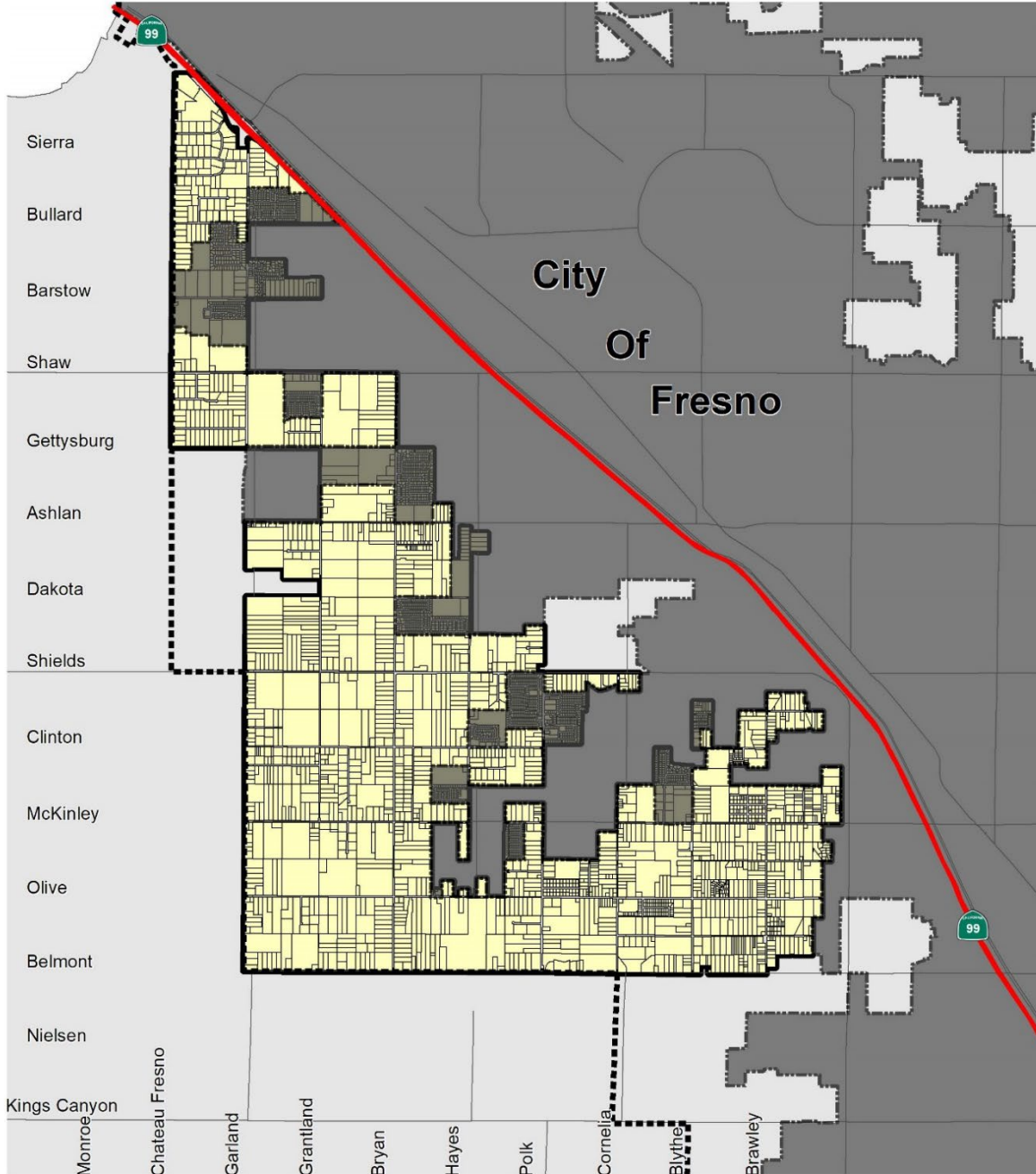
Figure LU-1b Open Space





FRESNO COUNTY GENERAL PLAN

Figure LU-1c Rural Residential

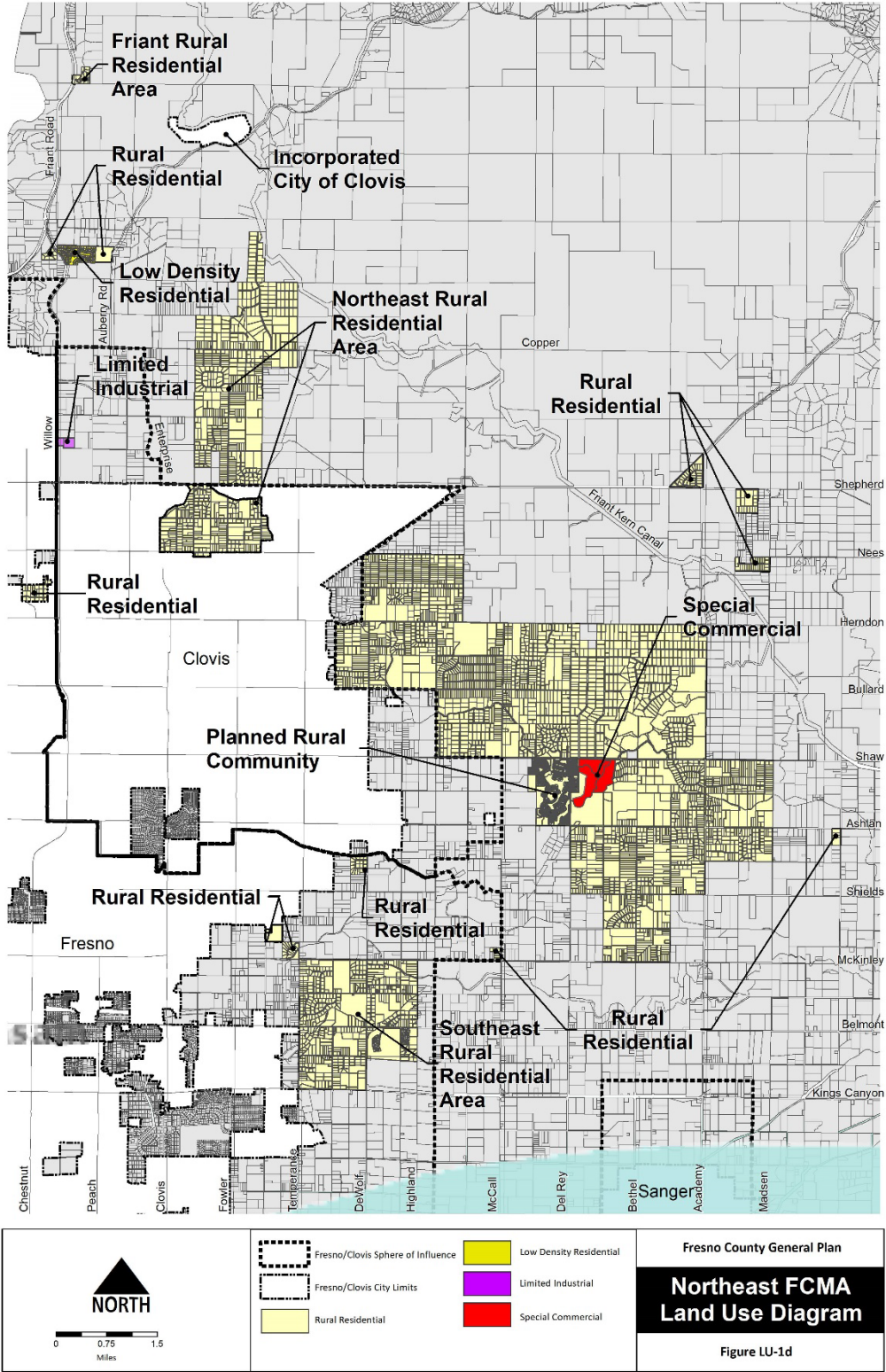


	Fresno Sphere of Influence	<p>Fresno County General Plan</p> <p>Rural Residential</p> <p>Figure LU-1c</p>
	Fresno City Limits Rural Residential	

GOALS AND POLICIES 2

AGRICULTURE AND LAND USE

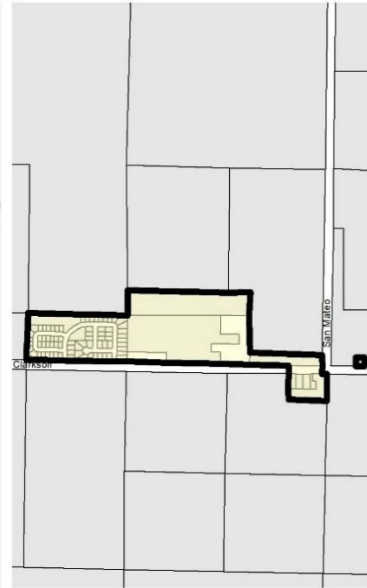
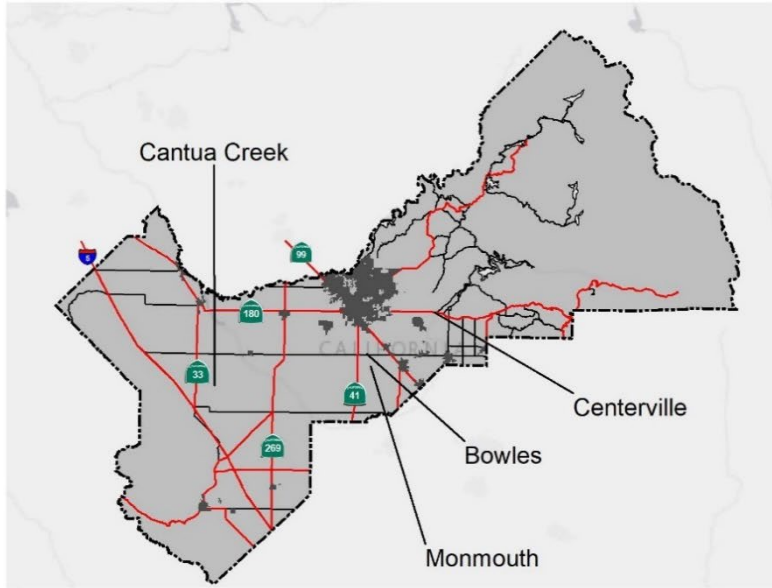
Figure LU-1d Northeast FCMA Land Use Diagram



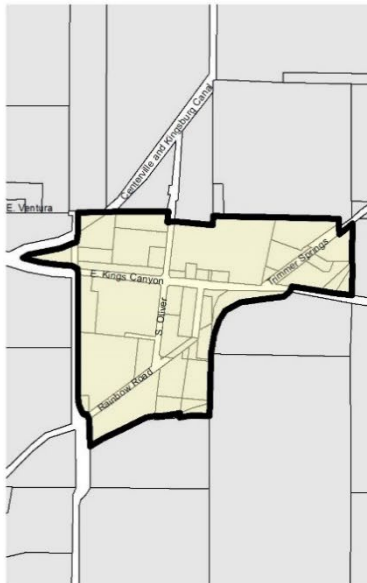


FRESNO COUNTY GENERAL PLAN

Figure LU-1e Rural Settlement Areas



CANTUA CREEK



CENTERVILLE



BOWLES



MONMOUTH

	<p>Rural Settlement Boundary</p>	<p>Fresno County General Plan</p> <p>Rural Settlement Areas</p> <p>Figure LU-1e</p>
--	----------------------------------	--

GOALS AND POLICIES 2

AGRICULTURE AND LAND USE

LAND USE INTENSITY STANDARDS

State planning law requires general plans to establish “standards of population density and building intensity” for the various land use designations in the plan (Government Code Section 65302(a)). To satisfy this requirement, the Fresno County General Plan includes density and intensity standards for each land use designation that appears on the Land Use Diagram. These standards are stated differently for residential and non-residential development. The following is an explanation of how these standards operate.

Residential Uses

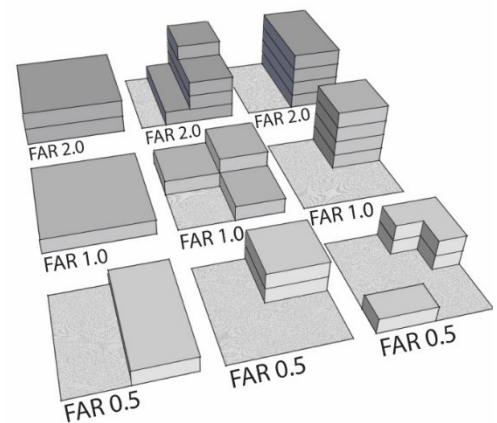
Standards of development density for residential uses are stated as the allowable range of dwelling units per gross acre. The term “gross acre” includes all land (including streets and rights-of-way) designated for a particular residential use, while net acreage excludes streets and rights-of-way. In urban areas net acreage is normally 20 to 25 percent less for a given area than gross acreage. In rural areas and open space areas, the difference between net and gross can be as low as 5percent. Net acreage is the standard typically used in zoning, while gross acreage is more commonly used in general plan designations.

Standards of population density for residential uses can be derived by multiplying the maximum allowable number of dwelling units per gross acre by the average number of persons per dwelling unit assumed for the applicable residential designation. Countywide in 2015 there were approximately 3.1 persons per dwelling unit.

Non-Residential Uses

Standards of building intensity for non-residential uses such as commercial and industrial development are stated as maximum *floor-area ratios* (FARs). A floor-area ratio is the ratio of the gross building square footage on a lot to the net square footage of the lot (or parcel).

For example, on a lot with 10,000 net square feet of land area, an FAR of 1.00 will allow 10,000 square feet of gross building floor area to be built, regardless of the number of stories in the building (e.g., 5,000 square feet per floor on two floors or 10,000 square feet on one floor). On the same 10,000-square-foot lot, an FAR of 0.50 would allow 5,000 square feet of floor area, and an FAR of 0.25 would allow 2,500 square feet. The diagram to the right shows graphically how various building configurations representing various FARs could cover a lot.





FRESNO COUNTY GENERAL PLAN

LAND USE DESIGNATIONS

The General Plan includes 31 resource, residential, commercial, industrial, and other land use designations that depict the types of land uses that will be allowed throughout the unincorporated county. These designations are broken down into two (2) categories: primary and overlay. The 27 primary land use designations consist of standard land use designations that appear on the land use diagram. There are also four overlay designations: Reserve, San Joaquin River Corridor, Westside Freeway Corridor, and Golden State Industrial Corridor.

Each primary land use designation is defined in terms of allowable uses and intensity standards. Overlay land use designations modify the policies, standards, or procedures established for the underlying primary land use designation. Allowable uses for each land use designation are set out in the descriptions that follow; intensity standards for the various land use designations are set out in Table LU-1. The land use designations are implemented largely through zoning.

GOALS AND POLICIES 2

AGRICULTURE AND LAND USE

TABLE LU-1
LAND USE DESIGNATIONS AND DEVELOPMENT INTENSITY STANDARDS¹
Fresno County

Land Use Designation	Allowed Uses	Residential Intensity (in gross acres) ²		Non-residential Intensity (FAR) ³
		Minimum Density	Maximum Density	
AGRICULTURE/RESOURCE				
Agriculture	This designation provides for the production of crops and livestock, and for location of necessary agriculture commercial centers, agricultural processing facilities, and certain nonagricultural activities.	n/a	1.0 DU/20 acres	0.10 ⁴
Irrigated Agriculture	This designation provides for the production of crops, necessary agricultural processing facilities, and certain nonagricultural activities. Irrigated agriculture requires a system that delivers at least one (1) acre-foot of water per acre per year.	n/a	1.0 DU/20 acres	0.10 ⁴
Westside Rangeland	This designation provides for grazing and other agricultural operations, mining, oil and gas development, wildlife habitat, various recreational activities, and other appropriate open space uses.	n/a	1.0 DU/40 acres	0.10 ⁴
Eastside Rangeland	This designation provides for grazing and other agricultural operations, wildlife habitat, various non-intensive recreational activities, and other appropriate open space uses.	n/a	1.0 DU/40 acres	0.10 ⁴
Open Space	This designation, which is applied to land or water areas that are essentially unimproved and planned to remain open in character, provides for the preservation of natural resources, the managed production of resources, parks and recreation, sacred Native American sites, lands adjacent to military installations, and the protection of the community from natural and manmade hazards.	n/a	1.0 DU/40 acres	0.10 ⁴
Public Lands and Open Space	This designation, which is applied to land or water areas that are essentially unimproved and planned to remain open in character, provides for the preservation of natural resources, the managed production of resources, parks and recreation, and the protection of the community from natural and manmade hazards.	n/a	1.0 DU/40 acres	0.10 ⁴



FRESNO COUNTY GENERAL PLAN

**TABLE LU-1
LAND USE DESIGNATIONS AND DEVELOPMENT INTENSITY STANDARDS¹
Fresno County**

Land Use Designation	Allowed Uses	Residential Intensity (in gross acres) ²		Non-residential Intensity (FAR) ³
		Minimum Density	Maximum Density	
RESIDENTIAL				
Rural Residential	This designation provides for single-family dwellings, accessory buildings, and small agricultural operations (e.g., greenhouses, fruit trees, nut trees, vines) in rural settings. Expansion of this designation is restricted by General Plan policy.	1.0 DU/5 acre	1.0 DU/2 acres	0.30
Mountain Residential	This designation provides for recreation-oriented residential development including single-family dwellings, multi-family dwellings, mobilehomes, and accessory structures.	1.0 DU/5 acre	14.5 DU/acre	0.50
Foothill Rural Residential	This designation provides for single-family dwellings, accessory buildings, and small agricultural operations (e.g., greenhouses, fruit trees, nut trees, vines) in rural settings in the Sierra Foothills. Expansion of this designation is restricted by General Plan policy.	1.0 DU/5 acre	1.0 DU/2 acres	0.30
Low-Density Residential	This designation provides for residential development that combines the space and privacy of a suburban setting with the amenities and services of urban areas. The predominant residential type is the single-family dwelling unit.	0.9 DU/acre	2.8 DU/acre	0.35
Medium-Density Residential	This designation provides for single-family dwellings, multi-family dwellings, and accessory structures.	2.8 DU/acre	5.8 DU/acre	0.40
Medium High-Density Residential	This designation provides for single-family dwellings, multi-family dwellings, accessory structures, churches, schools, and libraries. Maximum density shall be determined based on adequate infrastructure (community water and sewer, adequate roads/access and parking area).	5.8 DU/acre	3023 DU/acre (29 net)	0.50

GOALS AND POLICIES 2

AGRICULTURE AND LAND USE

TABLE LU-1
LAND USE DESIGNATIONS AND DEVELOPMENT INTENSITY STANDARDS¹
Fresno County

Land Use Designation	Allowed Uses	Residential Intensity (in gross acres) ²		Non-residential Intensity (FAR) ³
		Minimum Density	Maximum Density	
MULTIPLE CATEGORIES				
Mountain Urban	This designation provides for concentrations of residential development, various intensities of commercial activities, industrial uses where appropriate, and continued foothill rural residential uses.	1.0 DU/5 acres	14.5 DU/acre	1.00
Mountain Commercial	This designation provides for mixed retail, service, heavy commercial, and residential uses in mountain or foothill communities where existing land use patterns preclude the clustering of similar types of uses into unified commercial centers. It is applied primarily to specific sections of major thoroughfares where the combination of uses function as a small central business district.	n/a	n/a	1.00
Rural Settlement Area	This designation provides for a non-urban community in the rural areas designated for residential and supportive commercial uses serving the rural settlement and surrounding farm population.	1.0 DU/2 acres	1.0 DU/acre	0.50
Planned Rural Community	This designation provides for a variety of housing types in a semi-rural environment with public services and locally-oriented commercial uses such as grocery stores, restaurants, offices, and small retail shops. Expansion of this designation is prohibited by General Plan policy.	1.0 DU/acre	2.0 DU/acre	0.50



FRESNO COUNTY GENERAL PLAN

**TABLE LU-1
LAND USE DESIGNATIONS AND DEVELOPMENT INTENSITY STANDARDS¹
Fresno County**

Land Use Designation	Allowed Uses	Residential Intensity (in gross acres) ²		Non-residential Intensity (FAR) ³
		Minimum Density	Maximum Density	
COMMERCIAL				
Neighborhood Commercial	This designation provides for commercial activities ranging from a single commercial use, mixed-use developments, and neighborhood shopping center serving a local area. A neighborhood shopping center should provide convenience goods, personal services, and general merchandise for the daily needs of neighborhood residents and may offer specialty items.	5.8 DU/acre	20 -16 DU/acre (20 net)	0.50
Office Commercial	This designation provides for the concentration of administrative, business, medical, professional, general offices, and multi-family development in designated locations where development is compatible with surrounding land uses.	5.8 DU/acre	14.5 DU/acre	0.50
Community Commercial	This designation provides for development of unified retail centers that supplement Central Business Commercial. Typical uses include retail shops, services, restaurants, professional and administrative offices, department stores, furniture stores, supermarkets, mixed-use developments, and similar and compatible uses.	5.8 DU/acre	20 -16 DU/acre (20 net)	0.50
Central Business Commercial	This designation provides for development of commercial centers where the full range of retail services and professional and governmental offices are concentrated in a location that is central to most community residents. Typical uses include specialty shops, retail, entertainment uses, apparel stores, restaurants, hotels/motels, and financial, medical, professional offices, and mixed-use developments.	5.85 DU/acre	20 -16 DU/acre (20 net)	1.00

GOALS AND POLICIES 2

AGRICULTURE AND LAND USE

TABLE LU-1
LAND USE DESIGNATIONS AND DEVELOPMENT INTENSITY STANDARDS¹
Fresno County

Land Use Designation	Allowed Uses	Residential Intensity (in gross acres) ²		Non-residential Intensity (FAR) ³
		Minimum Density	Maximum Density	
Regional Commercial	This designation provides for a large cluster of commercial establishments that serve a defined regional trade area of more than 50,000 people. Typical uses include large-scale shopping centers, wholesale stores, factory outlets, and other commercial uses including retail stores, food and drug stores, apparel stores, specialty shops, motor vehicle sales and service, hotels/motels, theaters, entertainment uses, and other uses that serve a regional market.	n/a	n/a	1.00
Highway Commercial	This designation provides for one-stop concentrated commercial service nodes for the traveling public. Typical uses include hotels, motels, service stations, and restaurants.	n/a	n/a	1.00
Service Commercial	This designation provides for general commercial uses which, due to space requirements or the distinctive nature of the operation, are not usually located in commercial centers. Typical uses include repair, rental, sales, storage, and overnight lodging.	5.8 DU/acre	14.5 DU/acre	1.00
Special Commercial	This designation provides for commercial activities which do not fall within any other commercial land designation and whose frequency of occurrence does not warrant the establishment of additional specific use designations. Typical uses include drive-in theaters, airport-related and recreation-related commercial uses, and other such uses.	n/a	n/a	1.00
INDUSTRIAL				
Limited Industry	This designation provides for restricted non-intensive manufacturing and storage activities that do not have detrimental impacts on surrounding properties.	n/a	n/a	1.50
General Industry	This designation provides for the full range of manufacturing, processing, fabrication, and storage activities. Land designated General Industrial may be developed to a less intense industrial use when in a transitional area adjacent to land designated for non-industrial urban uses.	n/a	n/a	1.50



FRESNO COUNTY GENERAL PLAN

**TABLE LU-1
LAND USE DESIGNATIONS AND DEVELOPMENT INTENSITY STANDARDS¹
Fresno County**

Land Use Designation	Allowed Uses	Residential Intensity (in gross acres) ²		Non-residential Intensity (FAR) ³
		Minimum Density	Maximum Density	
PUBLIC				
Public Facilities	This designation provides for location of services and facilities that are necessary to the welfare of the community. Typical uses include liquid and solid waste disposal, ponding basins, parks, schools, civic centers, hospitals, libraries, penal institutions, and cemeteries.	n/a	n/a	0.50
OVERLAY				
Reserve Overlay	This overlay is intended to reserve certain lands for future more intensive development by permitting only limited agricultural uses on an interim basis. Typical uses include livestock raising; tree, vine, and field crops; single-family dwellings; and accessory buildings. Where such lands are located within a city sphere of influence, development will usually not occur until annexation to the city. Where such lands are peripheral to an unincorporated community, development shall be subject to the provision of public facilities and phasing.	n/a	1.0 DU/20 acres	0.10 ⁴
San Joaquin River Corridor Overlay	This overlay provides for agricultural activities with incidental homesites, sand and gravel extraction, various recreational activities, wildlife habitat areas, and uses which serve the San Joaquin River Parkway. This overlay designation does not restrict uses set forth in the Friant Community Plan.	n/a	1.0 DU/20 acres	0.10 ⁴

GOALS AND POLICIES 2

AGRICULTURE AND LAND USE

TABLE LU-1
LAND USE DESIGNATIONS AND DEVELOPMENT INTENSITY STANDARDS¹
Fresno County

Land Use Designation	Allowed Uses	Residential Intensity (in gross acres) ²		Non-residential Intensity (FAR) ³
		Minimum Density	Maximum Density	
Westside Freeway Corridor Overlay	This overlay provides for uses at designated interchanges that cater to needs of long distance freeway users and agriculture-related enterprises and prohibits uses which normally cater to the service and convenience needs of urban and rural population centers. Typical permitted uses include hotels, motels, service stations, restaurants and cafes, truck service and repair facilities, rest areas, camper and trailer parks, emergency medical facilities, grocery stores, employee housing facilities, public use airports, agriculture-related uses, and value-added agricultural uses. Areas outside designated interchanges are limited to agricultural uses.	n/a	n/a	1.00
Golden State Industrial Corridor Overlay	This overlay is intended for industrial development near Highway 99, a major transportation route, and planned available utilities. Consistent with the city/county tax sharing agreements, industrial developments within the sphere of influence of the cities will be directed to the appropriate city for possible annexation. To keep a positive image of Fresno County for the traveling public, industrial developments within this corridor are required to adhere to the Highway 99 Beautification Overlay District design guidelines.	n/a	n/a	1.00
Special Study Area	This designation represents an area that has been identified by the County for further evaluation and review.	n/a	n/a	n/a

¹These are the applicable standards of residential and non-residential building intensity unless otherwise specified in policy text.

²Maximum allowable residential intensity or allowable range of residential intensity. Gross acreage includes roadways and other rights-of-way. Net acreage is about 80 percent of gross acreage.

³Maximum allowable intensity for non-residential uses allowed as a matter of right in the compatible zone district where parcel size meets or exceeds minimum area requirements of applicable districts.

⁴Does not apply to facilities necessary for resource production.



FRESNO COUNTY GENERAL PLAN

GOALS AND POLICIES

This second major part of the Agriculture and Land Use Element sets out goals and policies under eight main sections:

- Agriculture
- Westside Rangelands
- River Influence Areas
- Westside Freeway Corridor
- Non-Agricultural Rural Development
- Urban Development Patterns
- Incorporated City, City Fringe Area, and Unincorporated Community Development
- General and Administrative Provisions

Implementation programs for the Agriculture and Land Use Element goals and policies can be found in Part 3 of this Plan.

The first four sections of this Element (Agriculture, Westside Rangelands, River Influence Areas, and the Westside Freeway Corridor), include goals and policies that reflect a basic commitment to preserve the existing open rural character of the county and protect its natural and managed resources. While necessarily protective, the policies also recognize the need to maintain economic productivity and allow for urban growth. The intent of the policies is not to preclude intensive development, but to direct it to minimize loss of valuable open space.

The goals and policies within the fifth section, Non-Agricultural Rural Development, guide development in areas designated Rural Residential, Rural Settlement Area, and Planned Rural Community. The policies provide for the continued development of areas within these designations in a manner that minimizes environmental impacts and public infrastructure investments, but generally limits expansion of these designations.

The goals and policies included within the sixth and seventh sections, Urban Development

Patterns and Incorporated City, City Fringe Area, and Unincorporated Community Development, direct intensive urban development to cities, unincorporated communities, and other areas planned for such development where public facilities and infrastructure are available or can be provided consistent with the adopted General Plan or Community Plan. Topics addressed under this section include: Incorporated Cities, Unincorporated Communities, Urban Residential, Urban Commercial, and Urban Industrial. These policies reflect a basic commitment to conserving natural and managed resources while directing growth and enhancing economic development.

Disadvantaged unincorporated communities, as identified per SB 244, can be found in Section 3.11 of the General Plan Background Report.

Goals and policies included within the eighth section, General and Administrative Provisions, address special development and administrative provisions that are applicable to many land use types and various areas of the county.

A. AGRICULTURE

Since the early 1950s Fresno County has been the leading agricultural county in the United States in the value of farm products. Since most of the county's highly productive agricultural soils could be easily developed by urban, rural residential, and other non-agricultural uses, careful land use decision-making is essential to minimizing the conversion of productive agricultural land. This land use conversion diminishes Fresno County's agricultural production capacity and economic viability and detrimentally impacts surrounding agricultural operations to the extent that further losses in production may occur.

As the introduction to the Economic Development Element states, the first step in expanding the county's job base is to strengthen the county's historical economic base of

GOALS AND POLICIES 2

AGRICULTURE AND LAND USE

agriculture. It is essential for the county's agricultural economy to reduce the conversion of productive agricultural land. Policies in this section seek to sustain agriculture by protecting agricultural activities from incompatible land uses, promoting agricultural land preservation programs, developing programs to preserve or maintain soil conditions or improve soil productivity, facilitating agricultural production by supplying adequate land for support services, and controlling expansion of non-agricultural development onto productive agricultural lands. Related policies are included in Section ED-A, Job Creation; Section LU-B, Westside Rangelands; and Section PF-C, Water Supply and Delivery.

GOAL LU-A

To promote the long-term conservation of productive and potentially productive agricultural lands and to accommodate agricultural-support services and agriculturally-related activities that support the viability of agriculture and further the County's economic development goals.

RESOURCE LANDS

LU-A.1 Agricultural Land Conservation

The County shall maintain agriculturally-designated areas for agriculture use and shall direct urban growth away from valuable agricultural lands to cities, unincorporated communities, and other areas planned for such development where public facilities and infrastructure are available or can be provided consistent with the adopted General or Community Plan. (RDR)

LU-A.2 Agriculture-related Uses

The County shall allow by right in areas designated Agriculture activities related to the production of food and fiber and support uses incidental and secondary to the on-site agricultural operation. (RDR)

LU-A.3 Special Agricultural Uses

The County may allow by discretionary permit in areas designated Agriculture, special agricultural uses and agriculturally-related activities, including value-added processing facilities, and certain non-agricultural uses. Approval of these and similar uses in areas designated Agriculture shall be subject to the following criteria:

- a. The use shall provide a needed service to the surrounding agricultural area which cannot be provided more efficiently within urban areas or which requires location in a non-urban area because of unusual site requirements or operational characteristics;
- b. The use should not be sited on productive agricultural lands if less productive land is available in the vicinity;
- c. The operational or physical characteristics of the use shall not have a detrimental impact on water resources or the use or management of surrounding properties within at least one-quarter (1/4) mile radius;
- d. A probable workforce should be located nearby or be readily available;
- e. For proposed agricultural commercial center uses the following additional criteria shall apply:

1. Commercial uses should be clustered in centers instead of single uses.
2. To minimize proliferation of commercial centers and overlapping of trade areas, commercial centers shall be located a minimum of two (2) miles from a city sphere of influence and four (4) miles from any existing or approved agricultural or rural residential commercial center or designated commercial area.
3. New commercial uses should be located within or adjacent to existing centers.
4. Sites should be located on a major road serving the surrounding area.
5. Commercial centers should not encompass more than one-quarter



FRESNO COUNTY GENERAL PLAN

(1/4) mile of road frontage, or one-eighth (1/8) mile if both sides of the road are involved, and should not provide potential for developments exceeding ten (10) separate business activities, exclusive of caretakers' residences;

f. For proposed value-added agricultural processing facilities, the evaluation under criteria "a" above, shall consider the service requirements of the use and the capability and capacity of cities and unincorporated communities to provide the required services; and

g. For proposed churches and schools, the evaluation under criteria LU-A.3a above shall include consideration of the size of the facility. Such facilities should be no larger than needed to serve the surrounding agricultural community.

h. When approving a discretionary permit for an existing commercial use, the criteria listed above shall apply except for LU-A.3b, e2, e4, and e5. *(RDR)*

LU-A.4 Resource Extraction in Agricultural Areas

The County shall require that the recovery of mineral resources and the exploration and extraction of oil and natural gas in areas designated Agriculture comply with the Mineral Resources Section of the Open Space and Conservation Element. (See Section OS-C) *(RDR)*

LU-A.5 Existing Agricultural Commercial Center Zoning

The County shall allow the Agricultural Commercial (AC) center zone district to remain in areas designated Agriculture if the land was so zoned prior to September 20, 1990. Commercial uses legally established prior to that date shall be deemed conforming, but expansion or the addition of new commercial uses shall require a discretionary permit as provided in Policy LU-A.3. *(RDR)*

LU-A.6 Minimum Agricultural Parcel Size

The County shall maintain twenty (20) acres as the minimum permitted parcel size in areas designated Agriculture, except as provided in Policies LU-A.9 and LU-A.10. The County may require parcel sizes larger than twenty (20) acres based on zoning, local agricultural conditions, and to help ensure the viability of agricultural operations. *(RDR)*

LU-A.7 Exceptions to Minimum Agricultural Parcel Size

The County shall generally deny requests to create parcels less than the minimum size specified in Policy LU-A.6 based on concerns that these parcels are less viable economic farming units, and that the resultant increase in residential density increases the potential for conflict with normal agricultural practices on adjacent parcels. Evidence that the affected parcel may be an uneconomic farming unit due to its current size, soil conditions, or other factors shall not alone be considered a sufficient basis to grant an exception. The decision-making body shall consider the negative incremental and cumulative effects such land divisions have on the agricultural community. *(RDR)*

LU-A.8 Agricultural Parcel Density

The County shall allow by right on each parcel designated Agriculture and zoned for agricultural use one (1) single-family residential unit. One (1) additional single-family residential unit shall be allowed for each twenty (20) acres in excess of twenty (20) acres where the required minimum parcel size is twenty (20) acres. One (1) additional single-family residential unit shall be allowed for each forty (40) acres in excess of forty (40) acres where the required minimum parcel size is forty (40) acres. The County may, by discretionary permit, allow a second unit on parcels otherwise limited by this policy to a single unit. *(RDR)*

GOALS AND POLICIES 2

AGRICULTURE AND LAND USE

LU-A.9 Homesite Minimum Parcel Size Exceptions

The County may allow creation of homesite parcels smaller than the minimum parcel size required by Policy LU-A.6, if the parcel involved in the division is at least twenty (20) acres in size, subject to the following criteria:

- a. The *minimum lot size shall be two to two and a half acres of gross area, except that a lesser area shall be permitted when the owner submits evidence satisfactory to the Health Officer that the soils meet the Water Quality Control Board Guidelines for liquid waste disposal.; and
- b. One of the following conditions exists:
 1. A lot less than twenty (20) acres is required for financing construction of a residence to be owned and occupied by the owner of abutting property; or
 2. The lot or lots to be created are intended for use by persons involved in the farming operation and related to the owner by adoption, blood, or marriage within the second degree of consanguinity, there is only one (1) lot per related person, and there is no more than one (1) gift lot per twenty (20) acres; or
 3. The present owner owned the property prior to the date these policies were implemented and wishes to retain his/her homesite and sell the remaining acreage for agricultural purposes.

*Parcels enrolled in a Williamson Act Contract are subject to minimum sizes as required by the Act – homesite exceptions parcels, currently 10 acres minimum.

Each homesite created pursuant to this policy shall reduce by one (1) the number of residential units otherwise authorized on the remainder parcel created from the original parcel. The

remainder parcel shall be entitled to no less than one residential unit. (RDR)

LU-A.10 Substandard Lots for Agricultural Commercial

The County may allow by discretionary permit creation of substandard lots when necessary for the development of an agricultural commercial center pursuant to Policy LU-A.3 or in conjunction with development within a designated commercial interchange within the Westside Freeway Corridor Overlay. Approval of such parcels shall take into consideration the proposed use of the property, surrounding uses, and the potential for abandonment of the planned commercial use at a future date. Appropriate conditions shall be applied to minimize adverse impacts on surrounding agricultural operations. Parcels for agricultural commercial centers shall in no case be less than one (1) gross acre. (RDR)

LU-A.11 Substandard Lots for Resource Exploration and Extraction

The County may allow by discretionary permit creation of substandard size lots when such action is deemed necessary by the Board of Supervisors for the recovery of mineral resources and the exploration and extraction of oil and gas in accordance with the policies of Section OS-C, Mineral Resources, of the Open Space and Conservation Element. In no case shall such action result in creation of lots less than five (5) gross acres in size. (RDR)

LU-A.12 Agricultural Protection

In adopting land uses policies, regulations, and programs, the County shall seek to protect agricultural activities from encroachment of incompatible land uses. (RDR)

LU-A.13 Agricultural Buffers

The County shall protect agricultural operations from conflicts with non-agricultural uses by requiring buffers between proposed non-agricultural uses and adjacent agricultural operations. Additionally, the County shall consider buffers between agricultural uses and



FRESNO COUNTY GENERAL PLAN

proposed sensitive receptors when processing discretionary land use applications. *(RDR)*

LU-A.14 Agricultural Land Conversion Review

The County shall ensure that the review of discretionary permits includes an assessment of the conversion of productive agricultural land and that mitigation be required where appropriate. *(RDR)*

LU-A.15 Right-to-Farm Notice

The County shall generally condition discretionary permits for development within or adjacent to agricultural areas upon the recording of a Right-to-Farm Notice, which is an acknowledgment that residents in the area should be prepared to accept the inconveniences and discomfort associated with normal farming activities and that an established agricultural operation shall not be considered a nuisance due to changes in the surrounding area. *(RDR)*

LU-A.16 Agricultural Land Preservation Programs

The County should implement agricultural land preservation programs for long-term conservation of viable agricultural operations. Examples of programs to be considered include: land trusts; conservation easements; dedication incentives; new and continued Williamson Act contracts; Farmland Security Act contracts; the California Farmland Conservancy Program; agricultural education programs; zoning regulations; agricultural mitigation fee program; urban growth boundaries; transfer of development rights; purchase of development rights; and agricultural buffer policies. *(PSP)*

LU-A.17 Williamson Act Contracts

The County should accept Williamson Act contracts on all designated agricultural land subject to location, acreage, and use limitations established by the County provided that the County receives full subvention payment as partial replacement of local property tax revenue foregone as a result of participating in the Williamson Act program. All development and

uses and activities that occur on land under contract shall comply with the requirements of the California Land Conservation Act and adopted County Rules. *(PSP)*

LU-A.18 Land Improvement Programs

The County shall encourage land improvement programs to increase soil productivity in areas containing lesser quality agricultural soils. *(PSP)*

LU-A.19 Reduced Soil Erosion

The County shall encourage landowners to participate in programs that reduce soil erosion and increase soil productivity. To this end, the County shall promote coordination between the Natural Resources Conservation Service, Resource Conservation Districts, UC Cooperative Extension, and other agencies and organizations. *(PSP)*

LU-A.20 Water Resources

The County shall adopt and support policies and programs that seek to protect and enhance surface water and groundwater resources critical to agriculture. (See Section OS-A, Water Resources; and Section PF-C, Water Supply and Delivery) *(PSP)*

LU-A.21 Public Education Programs

The County shall support and participate in on-going public education programs by organizations such as the County Agricultural Commissioner's Office, UC Cooperative Extension, Farm Bureau, and industry organizations to help the public better understand the importance of the agricultural industry. *(PI/IGC/JP)*

LU-A.22 Drought Impacts

The County shall adopt and support policies and programs that seek to minimize the impact of reoccurring drought conditions on ground water supply and the agricultural industry. *(PSP/SO/IGC)*

GOALS AND POLICIES **2**

AGRICULTURE AND LAND USE

LU-A.23 Prime Farmland Conversion

~~The County shall require discretionary land use projects which propose the permanent conversion of forty acres or more of Prime Farmland (as designated by the Farmland Mapping and Monitoring Program) to non-agricultural uses to undertake an evaluation of soil type, existing crop history and access to surface irrigation water to support the non-viability of the land for agricultural use. Should documentation indicate a loss of productive agricultural land would occur due to project development, consideration shall be given to offsetting land conversion through grants of perpetual conservation easements, deed restrictions, establishment of land trusts, in lieu fee payment program or other County approved farmland conservation mechanisms for the purpose of preserving agricultural land. This policy does not apply to land zoned or designated in the General Plan for non-agricultural land uses.~~

For discretionary land use projects that are not directly related to or supportive of agricultural uses and which propose the permanent conversion of twenty acres or more of Prime Farmland, Unique Farmland or Farmland of Statewide Importance (as designated by the Farmland Mapping and Monitoring Program) to nonagricultural uses, the County shall consider and adopt feasible measures including, but not limited to:

- Acquisition of conservation easements at a 1:1 ratio for lands lost to nonagricultural uses.
- Fee title of agricultural mitigation land that may be held by a third party or the County.
- In lieu fees paid to the County that may be used to acquire future mitigation property.
- Mitigation banks.

The County may exempt projects from agricultural mitigation requirements when it has

been determined that conversion is occurring pursuant to a local groundwater sustainability plan, or the project is for housing which is predominately for persons of low or moderate income as defined in section 50093 of the Health and Safety Code. Further, the County may exempt discretionary land use projects from agricultural mitigation requirements if it finds that the loss of agricultural land caused by the proposed conversion is outweighed by specific overriding economic, legal, social, technological, or other benefits of the conversion, as contemplated by section 21081(b) of the Public Resources Code.

LU-A.24 Important Farmland Map

The County shall encourage the State of California Department of Conservation to update its Important Farmland Map in consideration of recent restrictions to groundwater pumping, reduced access to surface water and the potential loss of irrigable land.

B. WESTSIDE RANGELANDS

The western rangelands of Fresno County's coastal foothills possess unique physiographic features and are relatively isolated from major population concentrations. This area is sensitive to human activity and is best suited for continuation of open space uses that protect important watershed areas, decrease flood hazards, and prevent loss of wildlife habitat, grazing land, and other desirable open space uses. At the same time, various non-intensive uses are suitable for this land including grazing and other agricultural operations, mining, oil and gas development, and various recreational activities such as hiking, hunting, and rock hounding.

Policies in this section seek to preserve rangelands by maintaining their open space character, minimizing grading and erosion, maintaining grazing and agricultural operations, accommodating mineral resource recovery, and protecting biological resources from development. Related policies are included in



FRESNO COUNTY GENERAL PLAN

Section LU-A, Agriculture and Section OS-E, Fish and Wildlife Habitat.

GOAL LU-B

To preserve the unique character of the Westside Rangelands, which includes distinctive geologic and topographic landforms, watersheds, important agricultural activities, and significant biological resources, while accommodating agriculture, grazing, recreation, resource recovery, and other limited uses that recognize the sensitive character of the area.

LU-B.1 Westside Rangeland Purpose

The County shall maintain areas designated Westside Rangeland for grazing and other appropriate open space uses and shall direct development to areas specifically planned for more intensive uses. *(RDR)*

LU-B.2 Allowed Uses

The County shall allow by right in areas designated Westside Rangeland, grazing and other agricultural activities related to the production of food and fiber and support uses incidental and secondary to the onsite agricultural operations. *(RDR)*

LU-B.3 Discretionary Uses

The County may allow by discretionary permit in areas designated Westside Rangeland special agricultural uses and agriculturally-related activities, and certain non-agricultural uses. Approval of uses in areas designated Westside Rangeland shall be subject to the following criteria:

a. The use shall provide a needed service to the surrounding agricultural area which cannot be provided more efficiently within urban areas or requires location in a non-urban area because of unusual site requirements or operational characteristics.

b. The use should not be sited on productive agricultural lands if less productive land is available in the vicinity.

c. The operational or physical characteristics of the use shall not have a detrimental impact on water resources or the use or management of surrounding properties within at least one quarter (1/4) mile radius.

d. A probable workforce should be located nearby or be readily available.

e. For proposed commercial uses the following additional criteria shall apply:

1. Commercial uses should be clustered in centers instead of single uses.
2. To minimize proliferation of commercial centers and overlapping of trade areas, commercial centers should be located a minimum of four (4) miles from any existing or approved agricultural or rural residential commercial center or designated commercial area of any city or unincorporated community.
3. New commercial uses should be located within or adjacent to existing centers.
4. Sites should be located on a major road serving the surrounding area.
5. Commercial centers should not encompass more than one-quarter (1/4) mile of road frontage, or one-eighth (1/8) mile if both sides of the road are involved, and should not provide potential for developments exceeding ten (10) separate business activities, exclusive of caretakers' residences.

f. For proposed churches and schools, the evaluation under criteria LU-B.3a above shall include consideration of the size of the facility. Such facilities should be no larger than needed to serve the surrounding agricultural community.

g. When approving a discretionary permit for an existing use, the criteria listed above shall apply except for LU-B.3b, e2, e4, and e5. *(RDR)*

GOALS AND POLICIES 2

AGRICULTURE AND LAND USE

LU-B.4 Resource Exploration and Extraction

The County shall require that the recovery of mineral resources and the exploration and extraction of oil and natural gas in areas designated Westside Rangeland comply with Section OS-C, Mineral Resources, of the Open Space and Conservation Element. (See Section OS-C, Mineral Resources) *(RDR)*

LU-B.5 Minimum Parcel Size

The County shall maintain forty (40) acres as the minimum permitted parcel size in areas designated Westside Rangeland, except as provided in Policies LU-B.8, and LU-B.9. The County may require parcel sizes larger than forty (40) acres based on zoning, local conditions, and to help ensure the viability of grazing and agricultural operations. *(RDR)*

LU-B.6 Maximum Density

The County shall allow by right on each parcel designated Westside Rangeland and zoned for agricultural use one (1) single family residential unit. One (1) additional single family residential unit shall be allowed for each forty (40) acres in excess of forty (40) acres where the minimum parcel size is forty (40) acres. The County may by discretionary permit, allow a second unit on parcels otherwise limited to a single unit. *(RDR)*

LU-B.7 Homesite Minimum Parcel Size Exceptions

The County may allow creation of homesites smaller than the minimum parcel size required by Policy LU-B.5 in areas designated Westside Rangeland if the parcel involved in the division is at least forty (40) acres in size and subject to the following criteria:

- a. The *minimum lot size shall be two to two and a half acres of gross area, except that a lesser area shall be permitted when the owner submits evidence satisfactory to the Health Officer that the soils meet the Water Quality Control Board Guidelines for liquid waste disposal, and
- b. One of the following conditions exists:

1. A lot less than forty (40) acres is required for financing construction of a residence to be owned and occupied by the owner of abutting property, or
2. The lot or lots to be created are intended for use by persons involved in the farming or ranching operations and related to the owner by adoption, blood, or marriage within the second degree of consanguinity, there is only one (1) lot per related person, and there is no more than one (1) gift lot per each forty (40) acres, or
3. The present owner owned the property prior to the date that these policies were implemented by adoption of the exclusive agriculture zone district and wishes to retain his homesite and sell the remaining acreage for grazing or other agricultural purposes.

*Parcels enrolled in a Williamson Act Contract are subject to minimum sizes as required by the Act – homesite exceptions parcels, currently 10 acres minimum.

Each homesite created pursuant to this policy shall reduce by one (1) the number of residential units otherwise authorized on the remainder parcel created from the original parcel. *(RDR)*

LU-B.8 Discretionary Agricultural Commercial Center

The County shall allow the Agricultural Commercial (AC) center zone district to remain in areas designated Westside Rangeland if the land was so zoned prior to September 20, 1990. Commercial uses legally established prior to that date shall be deemed conforming, but expansion or the addition of new commercial uses shall require a discretionary permit as provided in Policy LU-B.3. *(RDR)*



FRESNO COUNTY GENERAL PLAN

LU-B.9 Substandard Lots

The County may allow by discretionary permit creation of substandard lots when necessary for the development of an agricultural commercial center pursuant to Policy LU-B.3 or in conjunction with development within a designated commercial interchange within the Westside Freeway overlay. Approval of such parcels shall take into consideration the proposed use of the property, surrounding uses, and the potential for abandonment of the planned commercial use at a future date. Appropriate conditions shall be applied to minimize adverse impacts on surrounding agricultural operations. Parcels for agricultural commercial centers shall in no case be less than one (1) gross acre. *(RDR)*

LU-B.10 Substandard Lots for Resource Exploration and Extraction

The County may allow by discretionary permit creation of substandard size lots when such is deemed necessary by the Board of Supervisors for the recovery of mineral resources and the exploration of oil and gas in accordance with the policies in Section OS-C, Mineral Resources, of the Open Space and Conservation Element. In no case shall such action result in creation of lots less than five (5) gross acres in size. *(RDR)*

LU-B.11 Scenic Rangelands Protection

The County shall require that new development requiring a County discretionary permit be planned and designed to maintain the scenic open space character of rangelands including view corridors of highways. New development shall use natural landforms and vegetation in the least visually disruptive way possible, and use design, construction and maintenance techniques that minimize the visibility of structures on hillsides, ridgelines, steep slopes, and canyons. *(RDR)*

LU-B.12 Discretionary Project Preliminary Soils Report

The County shall require a preliminary soils report for discretionary development projects when the project site is subject to moderate or

high risk landslide potential and has slopes in excess of fifteen (15) percent.

If the preliminary soil report indicates soil conditions could be unstable, a detailed geologic report by a registered geologist and registered civil engineer, or a registered engineering geologist, shall be required indicating the suitability of any proposed or additional development. *(RDR)*

LU-B.13 Biological Resources

In conjunction with environmental reviews under CEQA, the County shall require applicants to identify biological resources to determine if there are sensitive and/or important flora and fauna that require special protection measures. *(RDR/PSR)*

LU-B.14 Williamson Act Contracts

The County should accept Williamson Act Contracts on all designated agricultural land subject to location, acreage, and use limitations established by the County provided that the County receives full subvention payment as partial replacement of local property tax revenue foregone as a result of participating in the Williamson Act program. All development and uses on land under contract shall comply with the requirements of the California Land Conservation Act and adopted County Rules. *(PSP)*

C. RIVER INFLUENCE AREAS

The San Joaquin and the Kings River valleys have unique features such as topography, wildlife, vegetation, micro-climate, and openness that make them attractive for multiple uses including agriculture, sand and gravel mining, recreation, and homesite development. These river valleys at the same time are subject to natural constraints to development such as periodic flooding and soils with a high water table and poor filtration capacity for domestic sewage.

Policies in this section seek to preserve and enhance the County's river influence areas by

GOALS AND POLICIES 2

AGRICULTURE AND LAND USE

avoiding adverse impacts from development and encouraging environmentally-friendly recreational and agricultural activities. Related policies are included in Section LU-A, Agriculture; Section LU-E, Non-Agricultural Rural Development; Section LU-F, Urban Development Patterns; Section OS-A, Water Resources; Section OS-C, Mineral Resources; Section OS-E, Fish and Wildlife Habitat; Section OS-I, Recreational Trails; and Section OS-K, Scenic Resources.

GOAL LU-C	To preserve and enhance the value of the river environment as a multiple use, open space resource; maintain the environmental and aesthetic qualities of the area; protect the quality and quantity of the surface and groundwater resources; provide for long-term preservation of productive agricultural land; conserve and enhance natural wildlife habitat; and maintain the flood-carrying capacity of the channel at a level equal to the one (1) percent flood event (100-year flood).
----------------------	--

LU-C.1 Kings River Regional Plan

The County shall regulate land use along the Kings River in accordance with policies of the Kings River Regional Plan. *(RDR)*

LU-C.2 San Joaquin River Corridor Overlay

Within the San Joaquin River Corridor Overlay, the County shall accommodate agricultural activities with incidental homesites, recreational uses, sand and gravel extraction, and wildlife habitat and open space areas. (See Figure LU-2) *(RDR)*

LU-C.3 San Joaquin River Parkway Commercial

The County may allow by discretionary permit commercial activities needed to serve San

Joaquin River Parkway visitors, such as sales of food and beverages, camper's grocery items, books, guides, and educational materials, consistent with the objectives and policies of the San Joaquin River Parkway Master Plan. *(RDR)*

LU-C.4 Kings River Aggregate Extraction

The County may allow the extraction of rock, sand, and gravel resources along the Kings River consistent with the Kings River Regional Plan policies and Section OS-C, Minerals Resources, of the Open Space and Conservation Element. (See Policy OS-C.11) *(RDR)*

LU-C.5 San Joaquin River Aggregate Extraction

The County may allow the extraction of rock, sand, and gravel resources along the San Joaquin River consistent with the Minerals Resources section policies of the Open Space and Conservation Element. *(RDR)*

LU-C.6 San Joaquin River Parkway Buffer

The County, in approving recreational facilities in the San Joaquin River Parkway adjacent to residential uses, shall require a buffer of at least 150 feet and screening vegetation as necessary to address river environment and land use compatibility issues. *(RDR)*

LU-C.7 Floodplain Development

Fresno County shall take into consideration the presence of the regulatory floodway or other designated floodway, the FEMA-designated 100-year floodplain, estimated 250-year floodplain, the Standard Project Flood, and the FMFCD Riverine Floodplain Policy in determining the location of future development within the San Joaquin River Parkway area. Any development sited in a designated 100-year floodplain shall comply with regulatory requirements at a minimum and with the FMFCD Riverine Floodplain Policy criteria, or requirements of other agencies having jurisdiction, where applicable. *(RDR)*



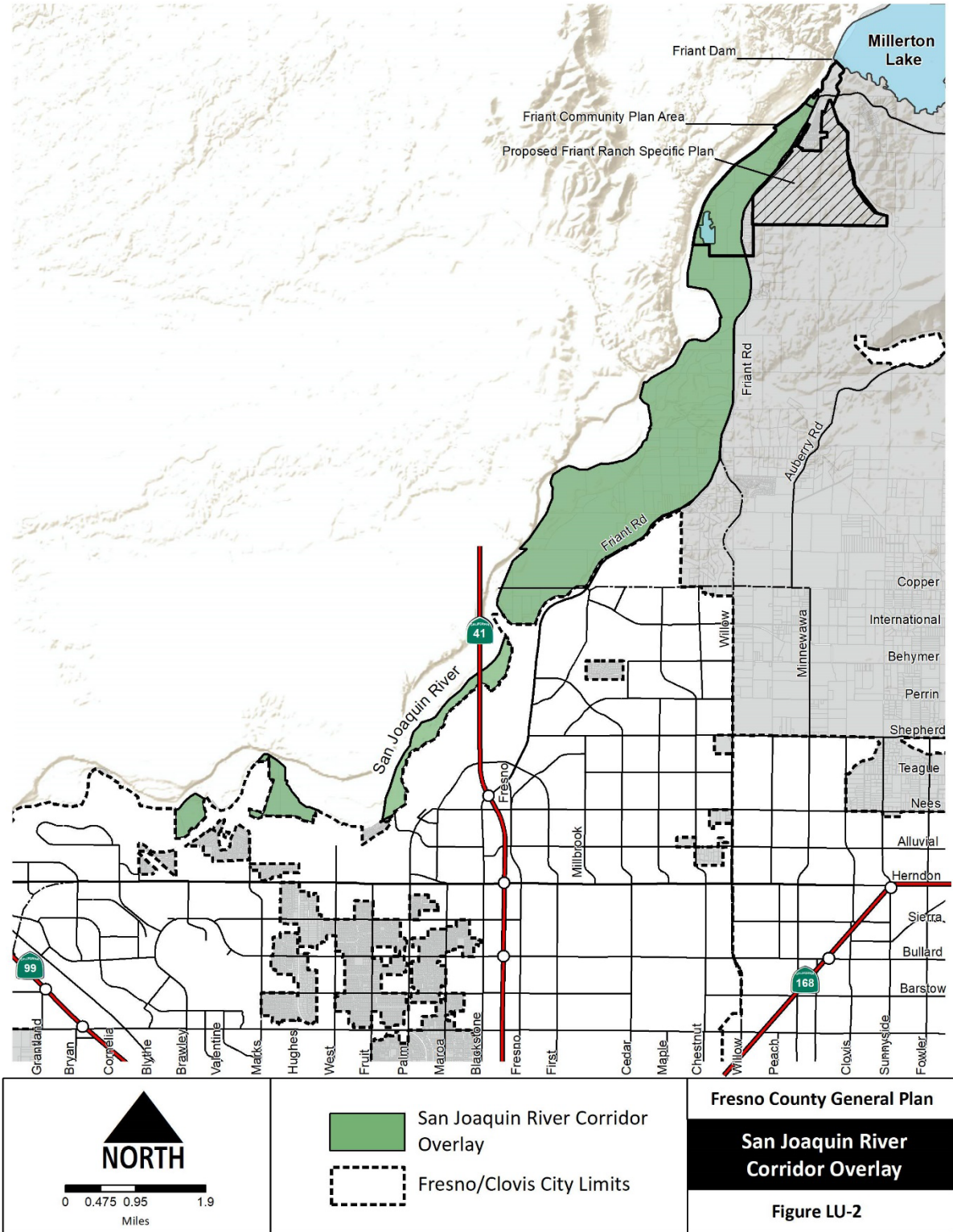
FRESNO COUNTY GENERAL PLAN

This page left blank intentionally.

GOALS AND POLICIES 2

AGRICULTURE AND LAND USE

Figure LU-2 San Joaquin River Corridor Overlay





FRESNO COUNTY GENERAL PLAN

This page left blank intentionally.

GOALS AND POLICIES 2

AGRICULTURE AND LAND USE

LU-C.8 San Joaquin River Wildlife Corridors

The County shall administer its land use regulations in the San Joaquin River Corridor Overlay to preserve and protect identified wildlife corridors along the San Joaquin River. The County shall administer these regulations in consultation with the San Joaquin River Conservancy. *(RDR/IGC)*

LU-C.9 San Joaquin River Natural Reserves

The County shall administer its land use regulations in the San Joaquin River Corridor Overlay to protect natural reserve areas in the San Joaquin River Parkway, principally in those areas adjoining the wildlife corridor along the river where the largest acreages of highest quality habitat exist. The County shall administer these regulations in consultation with the San Joaquin River Conservancy. *(RDR)*

LU-C.10 San Joaquin River Parkway Master Plan Coordination

The County shall continue to work with the San Joaquin River Parkway and Conservation Trust, San Joaquin River Conservancy, City of Fresno, and other interested agencies and organizations to implement the San Joaquin River Parkway Master Plan. *(RDR/IGC)*

LU-C.11 Kings River Coordination

The County shall work with the Kings River Conservancy and other similar organizations to develop opportunities for conservation and recreation consistent with the Kings River Regional Plan. *(IGC/JP)*

LU-C.12 Ribbon of Gems

The County recognizes the natural, aesthetics and recreational benefits of the Kings River and supports the Kings River Conservancy's implementation of the Ribbon of Gems. *(IGC)*

D. WEST SIDE FREEWAY CORRIDOR

The Westside Freeway (Interstate Route 5), constructed between 1965 and 1972, is a major travel corridor between Los Angeles and San Francisco. Because protecting the freeway as a major traffic artery is of paramount interest to the public, development along this corridor must be carefully planned.

In 1963 the California State Legislature adopted the Westside Freeway Park and Development Act, requiring each local jurisdiction traversed by Interstate 5 to prepare development policies for the interchange areas. In response to this legislation, the Fresno County Board of Supervisors adopted the General Plan for Land Use-Westside Freeway as a long-range guide for land use along the freeway and around its interchanges.

Policies in this section identify major and minor interchange areas where travel-related commercial and agriculture-related development is deemed appropriate, define the appropriate uses for these interchange areas, and seek to protect the rest of the corridor for agricultural operations. Related policies are included in Section LU-A, Agriculture; LU-B, Westside Rangelands (substandard lots); Section LU-F, Urban Development Patterns; and Section TR-A, Streets and Highways.

GOAL LU-D

To promote continued agricultural uses along Interstate 5, to the extent water is available, protect scenic views along the freeway, promote the safe and efficient use of the freeway as a traffic carrier, discourage the establishment of incompatible and hazardous uses along the freeway, and provide for attractive, coordinated development of commercial and service uses that cater specifically to highway travelers, and of agriculture-related uses at key interchanges along Interstate 5.



FRESNO COUNTY GENERAL PLAN

LU-D.1 Westside Freeway Corridor Overlay

The County designates the land bordering Interstate 5 (I-5) for a lateral distance of one mile on both sides as Westside Freeway Corridor Overlay. (See Figure LU-3). *(RDR)*

within the Westside Freeway Corridor. (See Figure LU-3). *(RDR)*

LU-D.2 Interchange Commercial Centers

Within the Westside Freeway Corridor, the County designates the interchanges of Panoche Road, Dorris Avenue, and Jayne Avenue as major commercial centers, and the interchanges of Nees Avenue, Derrick Avenue, and Lassen Avenue as minor commercial centers. (See Figure LU-3 and Figures LU-3a-f). The commercial centers shall be limited to a circle with a radius of one-half mile centered on the interchange, with the exact boundaries to be determined by adoption of a Freeway Interchange Master Plan. Both types of commercial interchanges shall allow a range of commercial, service, agriculturally-related, and value-added agricultural uses serving the needs of freeway users and the surrounding agricultural community, with major commercial centers allowing a broader range of uses than minor commercial centers. *(RDR)*

LU-D.3 Freeway Interchange Master Plan

Prior to development within an interchange center, the County shall require preparation and approval of a Freeway Interchange Master Plan as defined in the Zoning Ordinance for each interchange or quadrant of the interchange. The County shall require interchange centers to be designed to achieve aesthetic excellence and incorporate considerations for noise contours abutting roadways, architectural cohesiveness, and sign standards. *(RDR/MPSP)*

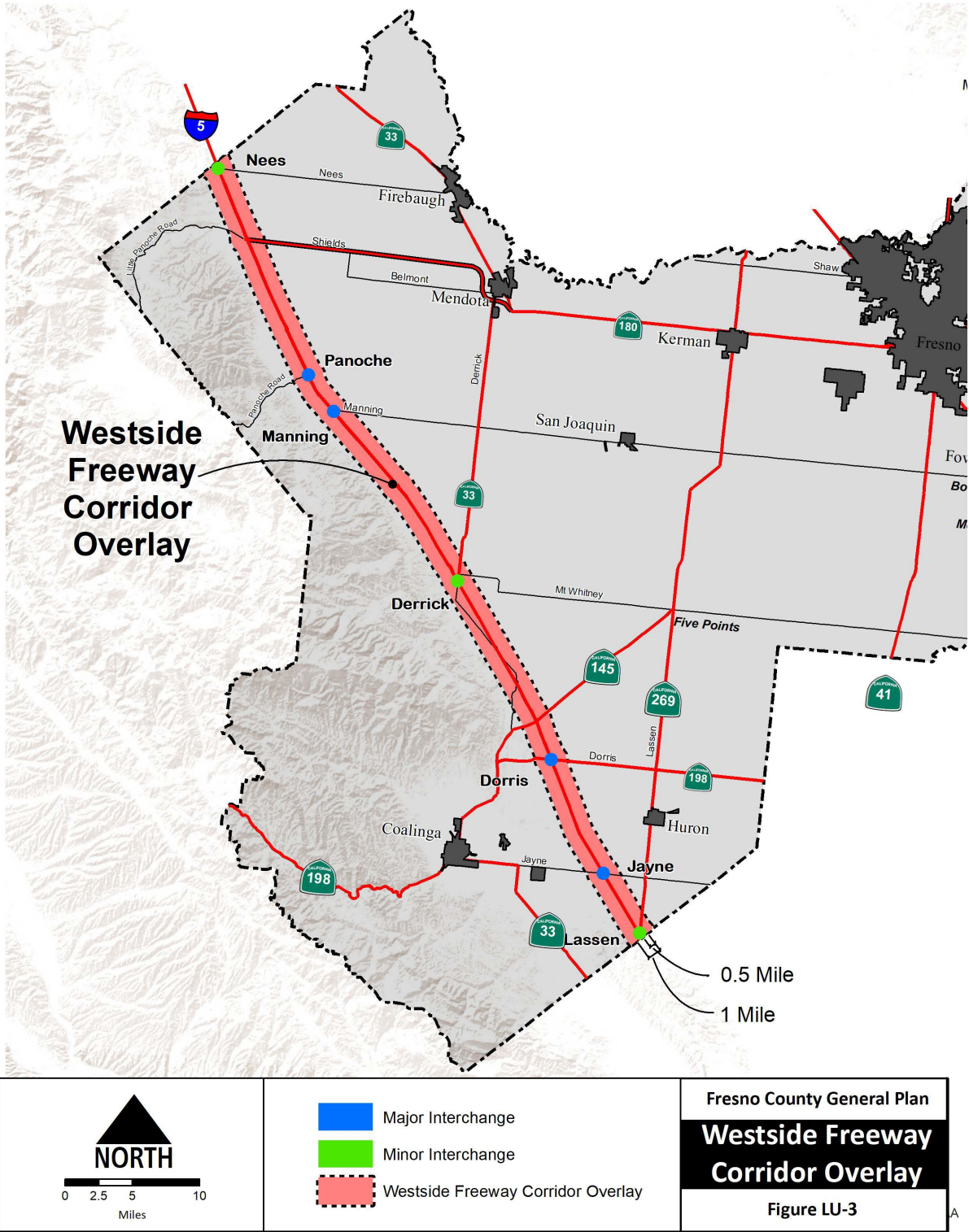
LU-D.4 Minimum Agricultural Lot Size

The County shall allow only agricultural uses with a minimum lot size of forty (40) acres at all interchanges not designated commercial center and on all other lands bordering the freeway outside the designated commercial center and

GOALS AND POLICIES **2**

AGRICULTURE AND LAND USE

Figure LU-3 Westside Freeway Corridor Overlay





FRESNO COUNTY GENERAL PLAN

Figure LU-3a-f Westside Freeway Interchanges

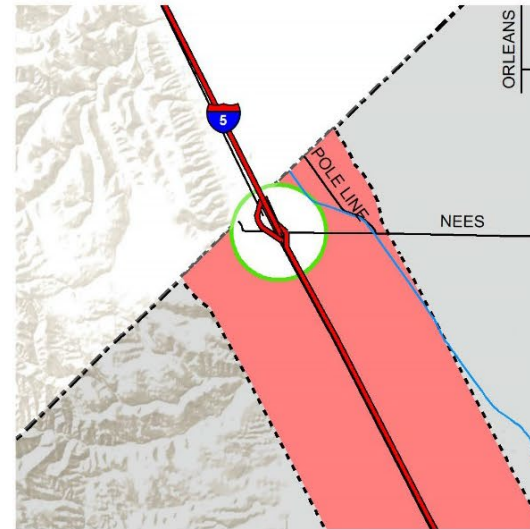


Figure LU-3a: Nees Interchange

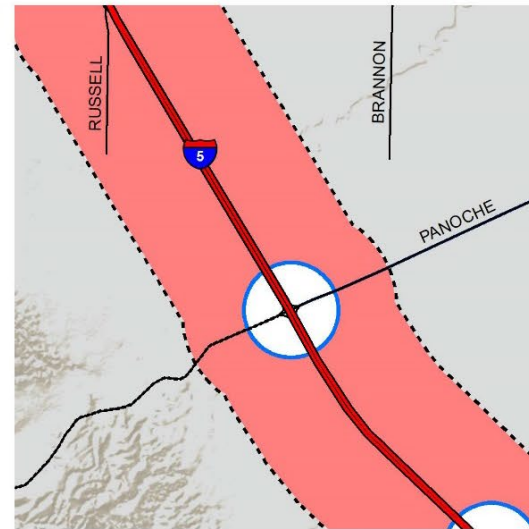


Figure LU-3b: Panoche Interchange

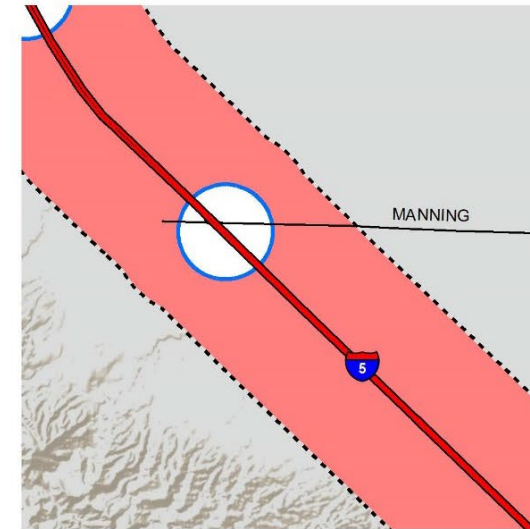


Figure LU-3c: Manning Interchange

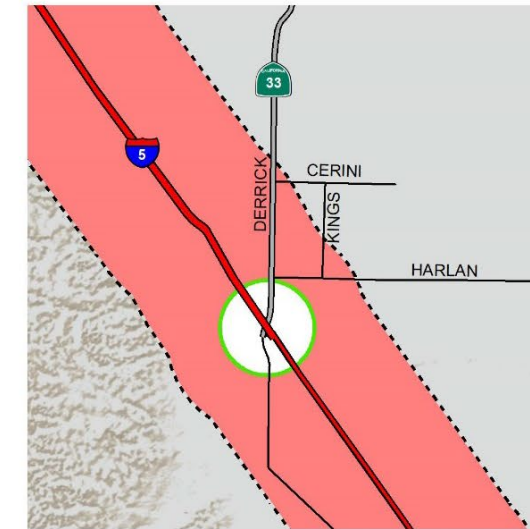


Figure LU-3d: Derrick Interchange

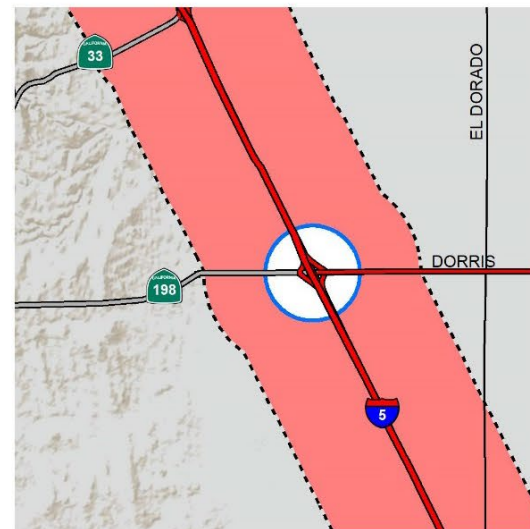


Figure LU-3e: Dorris Interchange

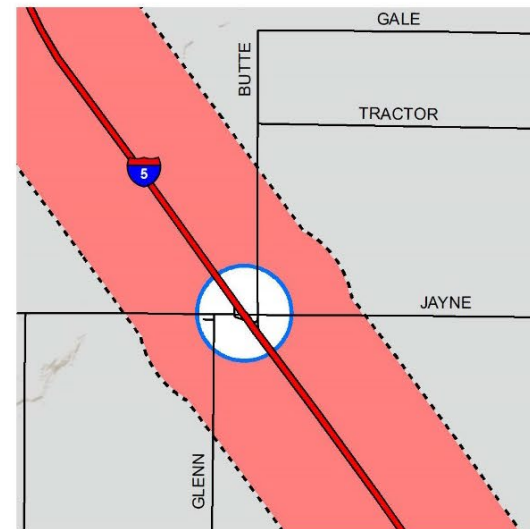


Figure LU-3e: Jayne Interchange

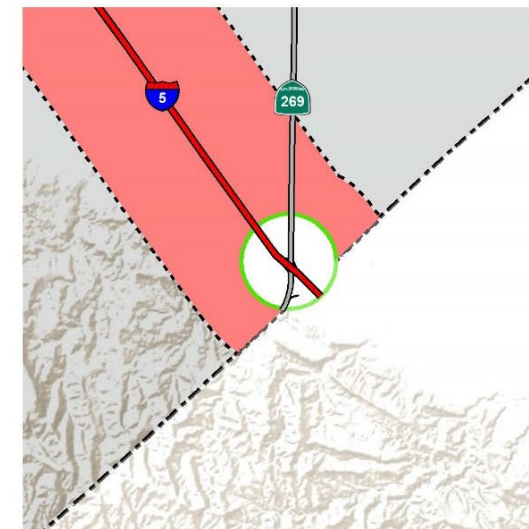


Figure LU-3f: Lassen Interchange

	<table border="0"> <tr> <td> Interstate 5</td> <td> Major Interchange</td> </tr> <tr> <td> State Routes</td> <td> Minor Interchange</td> </tr> <tr> <td> Streets</td> <td> Westside Freeway Corridor Overlay (One-Mile Buffer) World Terrain Base</td> </tr> <tr> <td> Fresno County Boundary</td> <td></td> </tr> </table>	Interstate 5	Major Interchange	State Routes	Minor Interchange	Streets	Westside Freeway Corridor Overlay (One-Mile Buffer) World Terrain Base	Fresno County Boundary		<p>Fresno County General Plan</p> <h2 style="background-color: black; color: white; padding: 5px;">Westside Freeway Interchanges</h2> <p>Figure LU-3a - LU-3f</p>
Interstate 5	Major Interchange									
State Routes	Minor Interchange									
Streets	Westside Freeway Corridor Overlay (One-Mile Buffer) World Terrain Base									
Fresno County Boundary										

This page intentionally left blank.



FRESNO COUNTY GENERAL PLAN

E. NON-AGRICULTURAL RURAL DEVELOPMENT

The vast majority of Fresno County’s rural area is designated for agricultural, rangeland, or open space uses. However, the General Plan also designates rural land for four types of rural development that are primarily residential in character: Rural Residential, Foothill Rural Residential, Rural Settlement Areas, and Planned Rural Communities.

Although Rural Residential designations exist, this plan restricts the designation of additional areas for such development. This restriction is because there is already a large inventory of vacant rural residential lots, additional rural residential development is not needed to accommodate projected unincorporated growth, and rural residential development has environmental and service impacts that can and should be avoided.

Rural Settlement Areas, which consist of small unincorporated residential settlements surrounded by agriculture and other open space uses, have experienced little growth since their early founding. Substantial population growth in these areas is not anticipated in the future. Planned Rural Community is an intermediate land use designation that provides for a density of development that is higher than that of the Rural Residential but still significantly lower than the General Plan’s urban designations. This designation has been applied to a single location (Quail Lake Estates Specific Plan). This General Plan prohibits the designation of any additional land as Planned Rural Community for the same reasons cited above. These restrictive land use policies retain land use planning options for future generations.

Policies in this section provide for appropriate development in rural areas by directing development away from productive and potentially productive agricultural areas, limiting expansion of existing designated rural residential areas, and minimizing the environmental and

service impacts of continued development within areas already designated for rural development. Related policies are included in Section LU-A, Agriculture; Section LU-B, Westside Rangeland; Section PF-C, Water Supply and Delivery; and Section PF-D, Wastewater Collection, Treatment, and Disposal.

GOAL LU-E

To provide for the continued development of areas already designated for rural-residential development in a manner that minimizes environmental impacts and public infrastructure and service costs while restricting designation of new areas for such development.

RURAL RESIDENTIAL DEVELOPMENT

LU-E.1 Rural Residential Allowed Uses

The County shall allow by right in areas designated Rural Residential single-family dwellings and limited agricultural uses related to the production of food and fiber. The County may allow by discretionary permit certain other agricultural uses and non-agricultural uses, including rural commercial centers. For proposed rural commercial centers, the following criteria shall apply:

- a. Commercial uses should be clustered in centers instead of single uses.
- b. The use shall provide a needed service to the surrounding rural residential community which cannot be provided more efficiently within urban centers.
- c. To minimize proliferation of commercial centers and overlapping of trade areas, commercial centers shall be located a minimum of two (2) miles from a city sphere of influence.
- d. New commercial uses should be located within or adjacent to existing centers.
- e. Commercial centers should not encompass more than one-quarter (1/4) mile of road frontage, or one-eighth (1/8) mile if both

GOALS AND POLICIES **2**

AGRICULTURE AND LAND USE

sides of the road are involved, and should not provide potential for development exceeding ten (10) separate business activities, exclusive of caretakers' residences.

f. The center shall be a minimum of four (4) miles from any agricultural commercial center, or designated rural settlement area, or the nearest existing or designated commercial area, or newly established rural residential commercial centers.

g. The center should be located at the corner of an intersection where at least one of the roads is classified as an arterial road on the Transportation and Circulation Element of the General Plan.

h. Distance from other existing commercial zoning and uses should be considered when siting commercial centers. *(RDR)*

LU-E.2 Discretionary Rural Commercial Uses

The County shall permit the Rural Commercial (RCC) zone district to remain in areas designated Rural Residential if the land was so zoned prior to September 20, 1990. Commercial uses legally established prior to that date shall be

deemed conforming, but expansion or addition of new commercial uses shall require a discretionary permit subject to the criteria in Policy LU-E.1. *(RDR)*

LU-E.3 Minimum Lot Size

The County shall maintain two (2) acres as the minimum permitted lot size, exclusive of all road and canal rights-of-way, recreation easements, permanent water bodies, intermittent stream easements, and public or quasi-public common use areas, except as provided for in policies LU-E.6 and LU-E.7. *(RDR)*

LU-E.4 Recognized Non-conforming Lots

The County shall recognize legal lots of less than two (2) acres that existed under separate ownership at the time of zone adoption within the rural residential zone districts. *(RDR)*

LU-E.5 Planned Residential Development

The County may allow planned residential developments in areas designated Rural Residential subject to Policies LU-H.6 and LU-H.7b (for developments permitted under Policy



FRESNO COUNTY GENERAL PLAN

LU-E.7), and Policies LU-H.7e through LU-H7k. (RDR)

LU-E.6 Planned Residential Development Conditions

The County shall allow planned residential developments in areas that are currently designated for rural residential development subject to the following conditions:

- a. The minimum lot area shall be two (2) acres.
- b. The buildable portion of the lot shall be a minimum of thirty-six thousand (36,000) square feet.
- c. Dwellings shall be limited to single family structures.
- d. The ratio of lot depth to width shall not exceed four (4) to one (1).
- e. Individual wells and septic systems, or community water and sewer systems may be used.
- f. The size and configuration of the buildable portion of the lot shall be based on sufficient geological and hydrological investigations.
- g. Common open space areas that provide a portion of the two-acre lot should not include road and canal rights-of-way, reservations, permanent water bodies, intermittent stream easements, and common use areas that are occupied by buildings, streets, maintenance sheds, tennis courts, parking lots, and similar uses that are not of an open character.
- h. Common open space areas that provide a portion of the two-acre lot shall be vested in fee title ownership to each individual property owner, but may be used for common use purposes. (RDR)

LU-E.7 Special Planned Residential Development

In existing Rural Residential Areas, the County may allow, by a Conditional Use Permit, planned residential developments of at least one hundred (100) acres that incorporates drought-tolerant open space (active and passive) where the minimum lot size is thirty-six thousand (36,000) square feet and the overall project

density is one (1) dwelling unit per two (2) acres. The following standards shall apply:

- a. Community water and sewer systems may be used.
- b. Drought-tolerant open space (active and passive) may be included in the calculation of the required one (1) unit per two (2) acre density.
- c. Drought-tolerant open space (active and passive) shall be considered as common area and maintained through means acceptable to the County. The lake(s) or pond(s) shall be permanently filled with water, except for periods when surface water is not available, or maintenance requires temporary drainage.
- d. Drought-tolerant open space (active and passive) shall constitute a minimum of twenty-five (25) percent of the open space of the project.
- e. Common open space areas that provide a portion of the two- (2) acre density shall be designated as open space and zoned to the Open Conservation (O) District.
- f. Use of a permanent water body shall only be approved consistent with the water policies of this plan. (RDR)

LU-E.8 Rural Residential Northeast of the Enterprise Canal

The County shall not allow further parcelization of uncommitted (designated) Rural Residential areas lying northeast of the Enterprise Canal due to potential groundwater supply problems.

These areas shall be zoned to a Limited Agricultural Zone District. However, rezoning and development for Rural Residential use may be permitted subject to the following criteria:

- a. The parcel to be developed is not productive agricultural land, and agricultural use of the property is not feasible.
- b. The County shall make a determination of the availability of an adequate water supply to serve the proposed development. If surface water is proposed, it must come from a reliable source and the supply must be made "firm" by water banking or other suitable arrangement. If groundwater is proposed, a "hydrogeologic investigation" or other information acceptable to

GOALS AND POLICIES **2**

AGRICULTURE AND LAND USE

the County shall be required to confirm the availability of groundwater in amounts necessary to meet project demand.

c. The County shall make a determination of the impact that the use of the proposed water supply will have on other water users in Fresno County. If use of surface water is proposed, its use must not have a significant impact on agriculture or other water users within Fresno County. If use of groundwater is proposed, a hydrogeologic investigation shall be required. Should the hydrogeologic investigation determine that significant pumping-related impacts will extend beyond the boundary of the property in question, those impacts shall be mitigated.

d. The County shall make a determination that the proposed water supply is sustainable or that there is an acceptable plan to achieve sustainability. The plan must be structured such that it is economically, environmentally, and technically feasible. In addition, its implementation must occur prior to long-term and/or irreversible physical impacts, or significant economic hardship, to surrounding water users. *(RDR)*

LU-E.9 Friant Rural Residential Area

The County shall limit development of the thirty (30)-acre Friant Rural Residential area to twelve (12) housing units. *(RDR)*

LU-E.10 Onsite Water and Sewer Systems

The County shall require new subdivisions within areas designated Rural Residential be designed to use individual on-site sewer and water systems. All proposals shall be reviewed by the County to determine the appropriate minimum lot size based on local hydro-geological conditions. Community systems and lots less than two (2) acres may be permitted only in conjunction with a Planned Residential Development pursuant to Policy LU-E.7; where consistent with the policies of the Sierra-North and Sierra-South Regional Plans; or where a graduated transition of density is needed to protect existing rural residential developments from land use conflicts at the interface with urban development on land outside and adjacent to the sphere-of-influence of a city. *(RDR)*



FRESNO COUNTY GENERAL PLAN

LU-E.11 Surface Water Entitlements

The County shall require subdividers of rural residential lots to install, provide, or participate in an effective means for utilization of available surface water entitlements for the area included in the subdivision, such as:

- a. Facilities to deliver surface water to each parcel;
- b. To develop a single recharge basin for the entire development (with necessary arrangements for its operation and maintenance); or
- c. To participate in the activities of a public agency to recharge the available supplies for the beneficial use of the properties within the development and the FCMA. The division shall not render inoperative any existing canal. *(RDR)*

LU-E.12 Natural Water Channel Protection

The County shall ensure through discretionary permit approvals and other development regulations that development within areas designated Rural Residential does not encroach upon natural water channels or restrict natural water channels in such a way as to increase potential flooding damage. Land divisions shall not render inoperative any existing channel. *(RDR)*

SPECIAL COMMERCIAL DEVELOPMENT IN RURAL RESIDENTIAL AREAS

LU-E.13 Shaw and Indianola Special Commercial

The Special Commercial designation comprising approximately 150 acres on the south side of Shaw Avenue at the Indianola alignment recognizes an existing recreational facility and provides for consideration of potential future expansion of the facility and the development of additional compatible commercial recreational uses. Application of consistent zoning, which may include conditional zoning, and approval of any subsequent discretionary permit(s) shall include a finding that expansion of the facility

will be compatible with the surrounding land uses. *(RDR)*

RURAL RESIDENTIAL DEVELOPMENT RESTRICTIONS

LU-E.14 Rural Residential and Foothill Rural Residential Sunset

The County shall not designate additional land for Rural Residential or Foothill Rural Residential development, except for unique circumstances to be determined by the Board of Supervisors. *(RDR)*

FOOTHILL RURAL RESIDENTIAL

LU-E.15 Foothill Rural Residential

Except as provided in this section, development within areas designated Foothill Rural Residential shall comply with the policies and standards of the Sierra-North Regional Plan and the Sierra-South Regional Plan. *(RDR)*

RURAL SETTLEMENT AREA

LU-E.16 Rural Settlement Area

The County shall apply the Rural Settlement Area designation only to those areas where a small concentration of housing and commercial or industrial uses serve the surrounding agricultural area. The following locations are designated as Rural Settlements: Bowles, Centerville, Monmouth, and Cantua Creek. (See Figure LU-1e). *(RDR)*

LU-E.17 Rural Settlement Area Uses

The County shall allow by right in areas designated Rural Settlement Area, single-family dwellings and limited agricultural uses related to the production of food and fiber. The County may allow by discretionary permit non-agricultural uses that provide a needed service to the surrounding rural area. Other uses consistent with the intent and purpose of these rural settlement policies may be added by amendment of the Rural Settlement Area zone district. *(RDR)*

GOALS AND POLICIES 2

AGRICULTURE AND LAND USE

LU-E.18 Rural Settlement Area Land Divisions

The County may approve land divisions in areas designated Rural Settlement Area when the following criteria are met:

- a. The minimum net lot size shall be two (2) acres, except as allowed by LU-E.23c below.
- b. The ratio of lot depth width shall not exceed four (4) to one (1).
- c. A minimum of thirty-six thousand (36,000) square feet per lot shall be permitted if community water facilities are available and soils are suitable for individual septic systems. *(RDR)*

LU-E.19 Rural Settlement Area Expansion

The County may allow expansion of existing Rural Settlement Areas to include vacant parcels, parcels wholly or partially committed to existing industrial uses, or parcels currently devoted to agricultural use if all of the following conditions are satisfied:

- a. The parcel is less than eighty (80) acres in area;
- b. The parcel is contiguous to properties in the Rural Settlement Area;

c. Productive agricultural use of the parcel is not economically feasible because incompatible non-agricultural uses on contiguous properties severely restrict normal agricultural practices; and

d. The parcel is needed for the expansion of an existing use within the Rural Settlement Area or to establish an essential service for the Settlement and/or the surrounding agricultural area. *(RDR)*

LU-E.20 Rural Settlement Area Commercial

The County shall require that the development of new commercial uses in Rural Settlement Areas be guided by the following criteria:

- a. The total number of existing and proposed commercial uses should not exceed fifteen (15), exclusive of caretakers' residence.
- b. The development should be designed to be compatible with existing uses on adjacent properties.
- c. The location of the proposed development shall satisfy one of the following conditions:
- d. The development should be on a major street or an intersection.



FRESNO COUNTY GENERAL PLAN

- e. The development should front on a road with existing commercial activity and should be within six hundred and sixty (660) feet of the nearest commercial use.
- f. Building height should not exceed the height of adjacent structures.
- g. Off-street parking should be sufficient for the proposed use. (RDR)

LU-E.21 Monmouth Rural Settlement Area

The County shall require that industrial zone districts within the Monmouth Rural Settlement Area be consistent with the following criteria:

- a. Parcels shall be wholly or partially committed to existing industrial uses; and
- b. Industrial zoning shall be conditioned to permit only agriculturally-related industry. (RDR)

PLANNED RURAL COMMUNITY

LU-E.22 Quail Lakes Planned Rural Community

The County shall allow development within the designated Quail Lakes Planned Rural Community to proceed in accordance with the Specific Plan adopted at the time the designation was granted by the County. The County may grant amendments to the Specific Plan provided the overall density of development is not increased and the plan continues to demonstrate the following:

- a. The development will have no significant adverse impacts on groundwater;
- b. Public improvements within a Planned Rural Community shall be designed and constructed in a manner that is not growth inducing but would not preclude future annexation to a city;
- c. Impacts on Fresno County for the provision of services including, but not limited to, police, fire protection, schools, and other essential public services are adequately mitigated;
- d. The development will not have a net adverse fiscal effect on Fresno County;

- e. Provide a service delivery plan and a maintenance and operation program which will assure appropriate delivery of services and funding measures for the development; and
- f. Provide for monitoring of mitigation measures established by the required Environmental Impact Report. (RDR)

LU-E.23 Planned Rural Community Designation Sunset

The County shall not approve expansion of the existing Planned Rural Community designation or designate additional areas for such development. (RDR)

RENO, GARONNE, WILLOW BLUFF RURAL RESIDENTIAL AREA

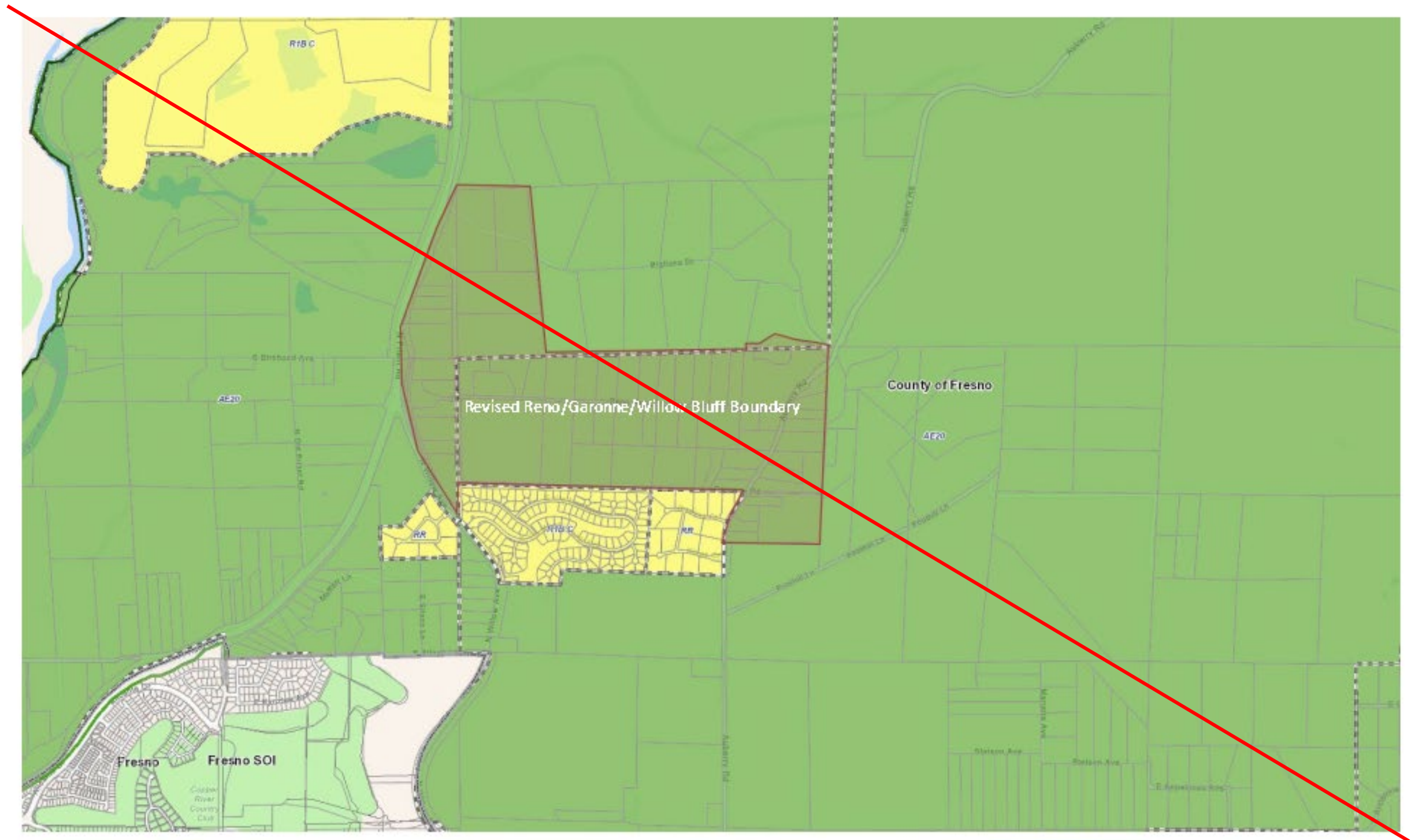
LU-E.24 Reno, Garonne, Willow Bluff Rural Residential Area

The Rural Residential designation comprising an approximate ~~400481~~-acre area generally bounded by Friant Road/Willow Avenue to the west, Garonne Avenue to the south, those parcels immediately east and adjacent to Auberry Road to the east and generally the Birkhead Road alignment to the north and encompassing those parcels immediately to the west, northeast, and east of the full length of Willow Bluff Avenue. This is ~~recognizes~~ an area committed to rural-sized parcels. The Limited Agricultural zoning reflects potential water resource constraints in the general vicinity. Future rezoning of this area to the implementing Rural Residential zoning district shall maintain a minimum five-acre parcel size and shall be subject to a determination of adequate water supply per Agriculture and Land Use Policy LU-E.8, and adequate road access and road maintenance as determined by the Director of the Department of Public Works and Planning (See Figure LU-4).

GOALS AND POLICIES 2

AGRICULTURE AND LAND USE

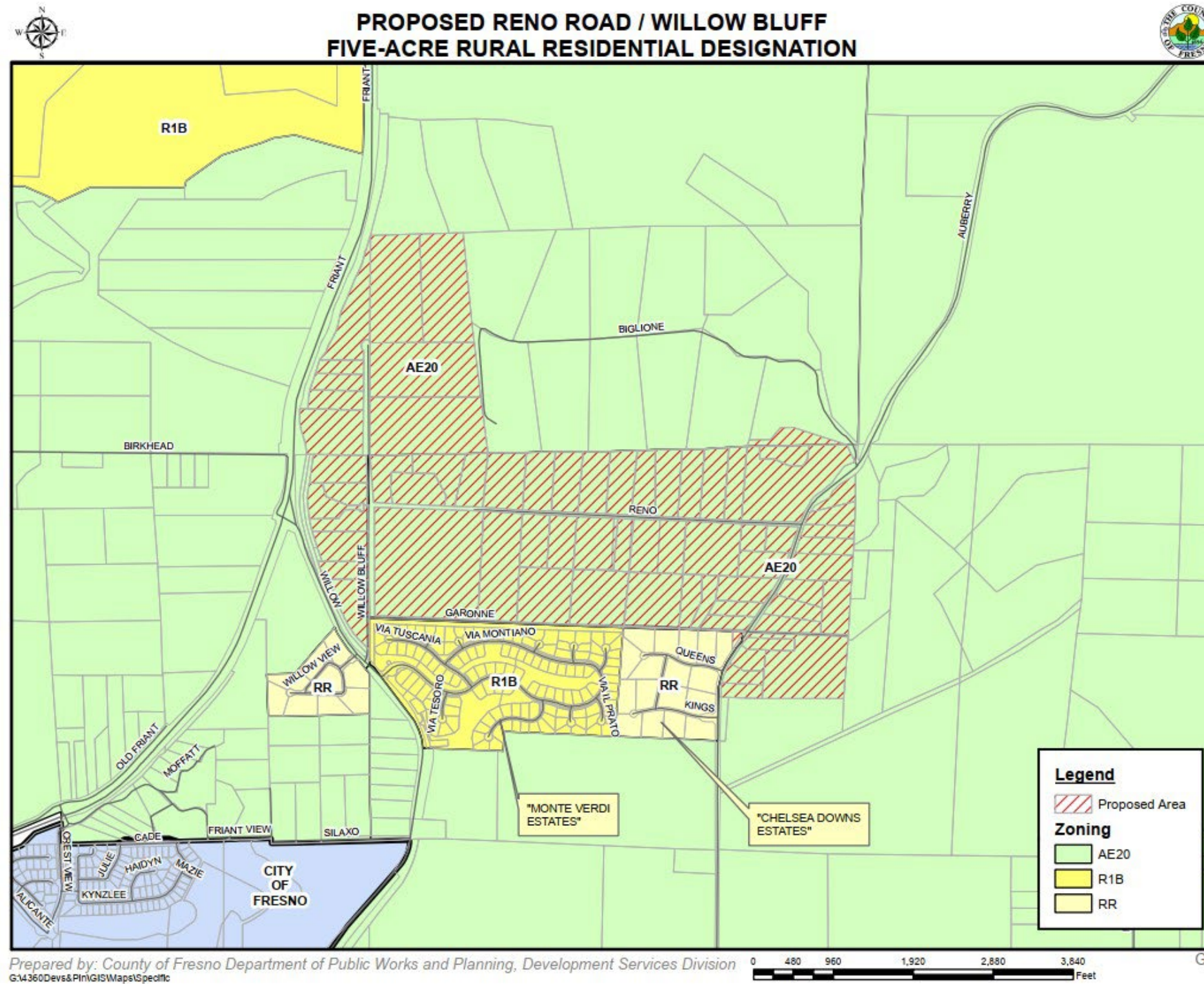
Figure LU-4 — Reno Road/Willow Bluff Five-Acre Rural Residential Designation





FRESNO COUNTY GENERAL PLAN

Figure LU-4 Reno Road / Willow Bluff Five-Acre Rural Residential Designation



This page left blank intentionally.



FRESNO COUNTY GENERAL PLAN

STATE ROUTE 180/TRIMMER SPRINGS ROAD SPECIAL STUDY AREA

LU-E.25 State Route 180/Trimmer Springs Road Special Study Area

The approximately 7,000-acre acres generally located north of the State Route 180/Trimmer Springs Road interchange is designated as a Special Study Area. The County shall evaluate this Special Study Area for possible future urban residential, educational, office, and commercial land uses. Any future application to develop the Study Area shall include an update of the Kings River Regional Plan.

F. URBAN DEVELOPMENT PATTERNS

The fundamental policy directive of this General Plan is to direct intensive development to cities, unincorporated communities, and other areas where public facilities and infrastructure are already available or can be provided consistent with the adopted General Plan or Community Plan (see page 9, Agricultural Land Protection Vision Statement). Fresno County recognizes, however, that because of state-mandated directives, including the Regional Housing Needs Allocation, the County may be forced to consider approval of urban development in areas that are not currently planned for such uses. Careful consideration and Board policy direction will be necessary if Fresno County needs to designate new areas for urban development. The County has a direct role in shaping the character of urban development as it continues to manage growth in the existing unincorporated communities and specific plan areas. At the same time, the County seeks to support and encourage the cities in their land use planning efforts to ensure that a quality living environment is provided for all existing and future residents of the county.

This section addresses development patterns in urban and urbanizing areas. The policies in this

section have two main purposes, the first is to encourage pedestrian- and transit-oriented development and infill of vacant or under-utilized urban land. These policies seek to create well-designed, mixed-use, higher-density developments in which jobs, commercial activities, and amenities are located along transit corridors and closer to residential areas to encourage pedestrian and transit access. The second purpose of this section is to establish development guidelines and standards for urban residential, commercial, and industrial development. Related polices are included in Section TR-B, Transit, Section TR-D, Bicycle Facilities, Section PF-I, School and Library Facilities; Section PF-C, Water Supply and Delivery, Section LU-D, Wastewater Collection, Treatment, and Disposal.

GOAL LU-F

To encourage mixed-use pedestrian and transit-oriented development and to establish development standards for residential, commercial, and industrial development in urban and urbanizing areas.

PEDESTRIAN AND TRANSIT-ORIENTED DEVELOPMENT

LU-F.1 Mixed-use Development

The County shall encourage mixed-use development that locates residences near compatible jobs and services. (RDR)

LU-F.2 Mixed-use Development Configuration

The County shall encourage the combination of residential, commercial, and office uses in mixed-use configurations on the same site. (RDR)

LU-F.3 High-Density Housing

The County shall promote development of higher-density housing in areas located along major transportation corridors and transit routes and served by the full range of urban services,

GOALS AND POLICIES **2**

AGRICULTURE AND LAND USE

including neighborhood commercial uses, community centers, and public services. *(RDR)*

LU-F.4 Urban Infill

The County shall selectively redesignate vacant land for higher-density uses or mixed uses to facilitate infill development. *(RDR)*

LU-F.5 Neighborhood Park Location

The County shall encourage subdivision designs that site neighborhood parks near activity centers such as schools, libraries, and community centers. *(RDR)*

LU-F.6 Urban Activity Centers

The County shall encourage the creation of activity centers including schools, libraries, community centers, and local stores in existing neighborhoods that promote walking and biking. *(RDR)*

LU-F.7 Reduced Parking Requirements

The County shall seek to reduce the amount of land devoted to parking in new urban non-residential development and encourage the use of shared parking facilities. *(RDR)*

LU-F.8 Complete Streets Design Guidelines

The County shall adopt Complete Streets design guidelines and incorporate them into community plans and specific plans. The County shall review development proposals for compliance with its Complete Streets design guidelines to identify design changes that can improve transit, bicycle, and pedestrian access. *(RDR)*

LU-F.9 Neighborhood Commercial Shopping Areas

The County shall plan adequate pedestrian-oriented neighborhood commercial shopping areas to serve residential development. *(RDR)*

LU-F.10 New School Siting

The County shall encourage school districts to site new schools in locations that allow students to safely walk or bicycle from their homes, and to incorporate school sites into larger

neighborhood activity centers that serve multiple purposes. *(RDR)*

LU-F.11 Community Gardens

The County shall support the development of community gardens in rural and urban communities where feasible and consistent with the underlying land use designation and zoning. *(RDR/PSP)*

URBAN RESIDENTIAL DEVELOPMENT STANDARDS

LU-F.12 Allowed Uses in Residential Areas

The County shall allow the following within designated residential areas:

- a. Public and semi-public uses and open recreational uses by discretionary permit.
- b. Office Commercial uses within unincorporated communities when there are no designated office commercial areas. *(RDR)*

LU-F.13 LDR Density

The County shall require a minimum of thirty-six thousand (36,000) square feet per dwelling unit in low-density residential areas with community water, but with no community sewer systems. *(RDR)*

LU-F.14 Residential Infill

The County may permit land designated Low and Medium Density Residential to develop to the next higher-density when such development will not have an adverse impact on surrounding land uses. This density increase is intended to be used to facilitate development of by-passed remnant parcels in substantially developed areas.

- a. The circumstances where more intensive development may be permitted include the following:
 1. Property which is contiguous to a higher density residential or other intensive non-residential urban uses.
 2. Property which has a shape or size that would make it difficult to be developed in a manner similar to



FRESNO COUNTY GENERAL PLAN

other surrounding property having the same land use designation.

b. If either of these circumstances exists, development of multiple-family and planned residential developments should be guided by the following criteria:

1. The building height should not exceed the height of surrounding structures.
2. The site development of residential units or a residential complex should be compatible with existing and planned uses on adjacent properties.
3. Off-street parking should be sufficient for residents of the development and their guests, and should be designed to minimize the impact on neighboring development. *(RDR)*

LU-F.15 Discretionary MDR Lot Size

The County may permit land designated Medium Density Residential to develop with less than six thousand (6,000) square foot lots and reduced development standards, subject to a discretionary permit. This increase in density and flexibility is intended to lower development costs and accommodate smaller homes than normally built in this designation. The following requirements shall apply:

- a. Minimum lot sizes shall not be less than four thousand five hundred (4,500) square feet if developed as part of a conventional subdivision. The development shall be compatible with existing and planned uses on adjacent properties.
- b. Small lot single-family residential subdivisions require more attention to planning details related to siting units, exterior and interior design, parking, outdoor space, and privacy.

Criteria to be considered include:

1. A minimum of thirty (30) percent of each lot's net area shall be designed for usable yard areas and setbacks for garage openings facing the access street and shall not be less than twenty (20) feet. If roll-up

garage doors are provided, the required setback for garage openings facing the access street may be reduced to eighteen (18) feet for projects located within the City of Fresno's Sphere of Influence.

2. Front yard setbacks should be staggered with varied roofline treatment and housing styles. The street pattern should use curving streets, cul-de-sacs, and parking bays to improve the appearance of the neighborhood.
3. A minimum of two (2) parking spaces in addition to the required covered parking should be required on each lot to compensate for reduced street frontages.

c. Maximum density shall not exceed one (1) dwelling unit per four thousand five hundred (4,500) square feet for Planned Residential Developments. *(RDR)*

LU-F.16 Context-sensitive Density

The County shall permit land designated Medium High Density Residential to develop to a lower urban residential density when contiguous to, or across the street from, a lower density residential area. *(RDR)*

LU-F.17 MHDR Lot Size

The County may permit land designated Medium High-Density Residential to develop to a density of one (1) dwelling unit per one thousand five hundred (1,500) square feet when such development will not have an adverse impact on surrounding land uses. This density increase is intended to be used to facilitate development of by-passed remnant parcels in substantially developed areas.

a. The circumstances where more intensive development may be permitted include the following:

1. Property which is contiguous to a higher-density residential or other intensive non-residential urban uses.
2. Property which has a shape or size that would make it difficult to be

GOALS AND POLICIES **2**

AGRICULTURE AND LAND USE

developed in a manner similar to other surrounding property having the same land use designation.

3. Property with a County commitment for allowing higher density than one (1) dwelling unit per two thousand four hundred (2,400) square feet at the time of plan adoption. For purposes of this sub-section, “County commitment” is limited to approved site plan reviews, conditional use permits, and fully developed R-3 zoned parcels.
- b. If any of these circumstances exists, development of multiple-family and planned residential developments should be guided by the following criteria:
 1. Community water and sewer facilities should be available.
 2. The building height should not exceed the height of surrounding structures.
 3. The site development of residential units or a residential complex should be compatible with existing and planned uses on adjacent properties.
 4. Off-street parking should be sufficient for residents of the development and their guests and should be designed to minimize the impact on neighboring development. *(RDR)*

LU-F.18 Primary/Accessory Uses

The County shall require new subdivided lots to be adequate in size and appropriate in shape for the range of primary and accessory uses designated for the area. *(RDR)*

LU-F.19 Residential Area Buffers

The County shall ensure that residential land uses are separated and buffered from such major facilities as landfills, airports, and sewage treatment plants. *(RDR)*

LU-F.20 Residential Design

The County shall require residential project design to consider natural features, noise exposure of residents, visibility of structures, circulation, access, and the relationship of the project to surrounding uses. Residential densities and lot patterns will be determined by these and other factors. As a result, the maximum density specified by General Plan designations or zoning for a given parcel of land may not be realized. *(RDR)*

LU-F.21 Interconnected Residential Areas

The County shall require residential subdivisions to be designed to provide interconnected internal and external street and pedestrian systems. *(RDR)*

LU-F.22 Residential Public Service Requirements

The County shall require community sewer and water services for urban residential development in accordance with the Fresno County Ordinance Code or as determined by the State Water Quality Control Board. *(RDR)*

URBAN COMMERCIAL DEVELOPMENT

LU-F.23 Office Development Location

The County shall generally require that significant new office developments locate near major transportation corridors and concentrations of residential uses. New office development may serve as buffers between residential uses and higher-intensity commercial uses. *(RDR)*

LU-F.24 Commercial Service Requirements

The County shall require community sewer and water services for commercial development in accordance with the provisions of the Fresno County Ordinance Code, or as determined by the State Water Quality Control Board. *(RDR)*



FRESNO COUNTY GENERAL PLAN

LU-F.25 Commercial Parking

The County shall require new commercial development to be designed to minimize the visual impact of parking areas on public roadways and maintain compatibility with surrounding land uses. *(RDR)*

LU-F.26 Pedestrian Circulation

The County shall require that new commercial development be designed to encourage and facilitate pedestrian circulation within and between commercial sites and nearby residential areas rather than being designed primarily to serve vehicular circulation. *(RDR)*

LU-F.27 Community Commercial Use Conditions

The County may allow land designated Community Commercial to develop with urban residential, office commercial, or neighborhood commercial uses or a combination of these uses where:

- a. The land is located in a transitional area and can be used as a buffer between the Community Commercial area and residential land uses; or
- b. The service area surrounding the property does not have the population to support the larger and more numerous shopping activities normally found in the Community Commercial district; or
- c. The property has a shape or size that would make it difficult to be developed for Community Commercial uses.

In these cases development should be guided by the following criteria:

- a. Visual compatibility with the existing and planned uses on adjacent property should be required.
- b. Off-street parking should be sufficient for the residents of any development and their guests, and for office customers and employees. It should be designed to minimize the impact on neighboring development.
- c. The building height should not exceed the height of surrounding structures. *(RDR)*

LU-F.28 Central Business Commercial Use Conditions

The County may allow land designated Central Business Commercial to develop with office commercial and urban residential uses or a combination of these uses where:

- a. The property is located in a transitional area and will serve as a buffer between the Central Business Commercial area, and office and residential uses.
- b. The property has a shape or size that would make it difficult to be developed for Central Business Commercial.

In these cases, development should be guided by the following criteria:

- a. No more than fifty (50) percent of a designated Central Business Commercial area should be designated for office or residential uses.
- b. The site development of residential units or office complexes should be visually compatible with the existing and planned uses on adjacent property.
- c. The building height should not exceed the height of surrounding structures.
- d. Off-street parking should be sufficient for the residents of any development and their guests and for office customers and employees. It should be designed to minimize the impact on neighboring development. *(RDR)*

LU-F.29 Service Commercial Use Conditions

The County may allow land designated Service Commercial to develop with non-intensive industrial uses if the applicable community plan does not designate any areas within the planned urban boundary of that community for industrial use. In this case, development should be guided by the following criteria:

- a. No more than fifty (50) percent of a designated Service Commercial area should be zoned for other than Service Commercial uses.
- b. Any non-intensive industrial development permitted should be local in nature, serving primarily the community and environs where it is located.

GOALS AND POLICIES **2**

AGRICULTURE AND LAND USE

- c. Any non-intensive industrial uses permitted should not be offensive or undesirable to the residents of the area, and should not adversely impact the surrounding properties.
- d. The building height should not exceed the height of structures permitted in the Service Commercial area.
- e. The site development should be compatible with existing and planned uses on adjacent properties.
- f. Off-street parking should be sufficient for customer, employee, and company vehicles. It should be designed to minimize the impact on neighboring development. *(RDR)*

URBAN INDUSTRIAL DEVELOPMENT

LU-F.30 Industrial Discretionary Use Permit

The County may approve rezoning requests and discretionary permits for new industrial development or expansion of existing industrial uses subject to conditions concerning the following criteria or other conditions adopted by the Board of Supervisors:

- a. Operational measures or specialized equipment to protect public health, safety, and welfare, and to reduce adverse impacts of noise, odor, vibration, smoke, noxious gases, heat and glare, dust and dirt, combustibles, and other pollutants on abutting properties.
- b. Provisions for adequate off-street parking to handle maximum number of company vehicles, salespersons, and customers/visitors.
- c. Mandatory maintenance of non-objectionable use areas adjacent to or surrounding the use in order to isolate the use from abutting properties.
- d. Limitations on the industry's size, time of operation, or length of permit.
- e. Compliance with the Environmental Justice Element policies for proposals in proximity to sensitive receptors and/or disadvantaged communities. *(RDR)*

LU-F.31 Industrial Service Requirements

The County shall generally require community sewer and water services for industrial development. Such services shall be provided in accordance with the provisions of the Fresno County Ordinance, or as determined by the State Water Quality Control Board. *(RDR)*

LU-F.32 Industrial Landscaping

The County shall require that all industrial uses located adjacent to planned non-industrial areas or roads carrying significant non-industrial traffic be designed with landscaping and setbacks comparable to the non-industrial area. Compliance with the Environmental Justice Element policies for proposals in proximity to sensitive receptors and/or disadvantaged communities. Related policies include EJ-A.1, EJ-A.2, EJ-A.3, EJ-A.8, EJ-A.12, EJ-A.13, EJ-A.14 and EJ-A.15. *(RDR)*

LU-F.33 Industrial Area Access Design and Control

Since access to industrial areas by way of local roads not designed for industrial traffic is generally inappropriate, the County may require facility design, traffic control devices, and appropriate road closures to eliminate this problem. *(RDR)*

LU-F.34 Industrial Area Parking Compatibility

The County shall require that permanent parking facilities permitted within designated industrial areas be designed to be compatible with the surrounding land use patterns. Parking for new industrial development shall also comply with EJ-A.13 regarding adequate shade cover. *(RDR)*

LU-F.35 Coalinga Air Cargo Port Specific Plan

The County shall require a specific plan for the development of the Coalinga Air Cargo Port as indicated in the Coalinga Regional Plan. *(RDR)*



FRESNO COUNTY GENERAL PLAN

LU-F.36 Golden State Industrial Corridor

The County may approve rezonings and discretionary permits within the Golden State Industrial Corridor (see Figure LU-5) subject to the following criteria and consideration of Implementation Program OS-L.A addressing beautification of Highway 99:

a. All persons whose proposal for development is within a city's sphere of influence shall be referred to the appropriate city and sanitation district for annexation. If the city does not respond to the proposal expressing an intent to annex within a reasonable time, the County shall accept the application.

b. The County shall refer to the appropriate city all applications for industrial and commercial development within a city's sphere of influence for review and recommendation.

c. The County may approve zoning or discretionary permits where the sanitation district stipulates that it will provide service or the Fresno County Health Officer and/or State Water Quality Control Board determines that service is necessary.

d. Properties lying easterly of the Union Pacific Railroad are planned for industry specifically because of railroad access potential. Development in this area shall be designed to provide railroad spur access or provide for future railroad extensions. The County may require any applicant for rezoning to provide communication from the railroad establishing an agreement to provide rail service.

e. Where proposed industrial zoning or development is adjacent to existing non-industrial uses or to land designated by the General Plan for non-industrial uses, policies contained in LU-F.29a, b, c, and d concerning development standards for general industry shall apply.

f. Access to properties between Highway 99 and Golden State Boulevard will be controlled to preserve the roadway capacity of Golden State Boulevard which is a super arterial. Dedication and improvement of frontage roads may be required as a condition of development.

g. Compliance with the provisions of the Highway 99 Beautification Ordinance. (RDR)

LU-F.37 Spur Tracks

Within the Golden State Industrial Corridor, the County may protest the installation of any additional spur tracks crossing Golden State Boulevard. The County shall permit the extension of existing spur tracks in the area west of Golden State Boulevard insofar as they do not cross any roadway intersecting with Highway 99. (RDR)

LU-F.38 Special Study Area for Fresno County Business and Industrial Campus

In accordance with Policy ED-A.98, a 2,940-acre Special Study Area (see Figure LU-6) generally bounded by North Avenue to the north, Peach Avenue and State Route 99 to the west, Fowler Avenue to the east, and American Avenue to the south shall be designated for the County to evaluate possible future urban industrial, office and commercial land uses. If the County initiates formal discretionary land use entitlements (General Plan amendment or rezoning), the associated California Environmental Quality Act process shall include a health impact assessment and targeted outreach in at least English and Spanish to residents of Malaga and areas to the west along the State Highway 99 corridor to solicit their input as part of the land use and environmental review process. (PSR)

GOALS AND POLICIES **2**

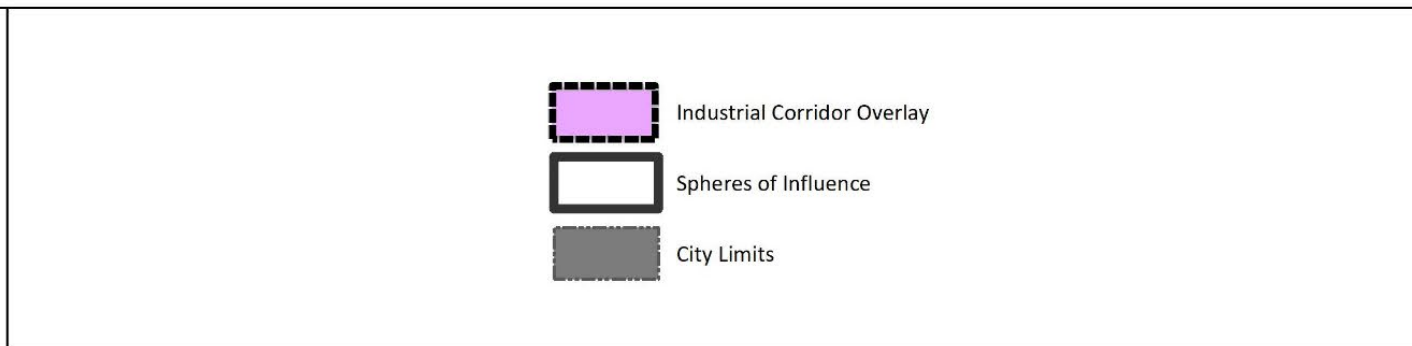
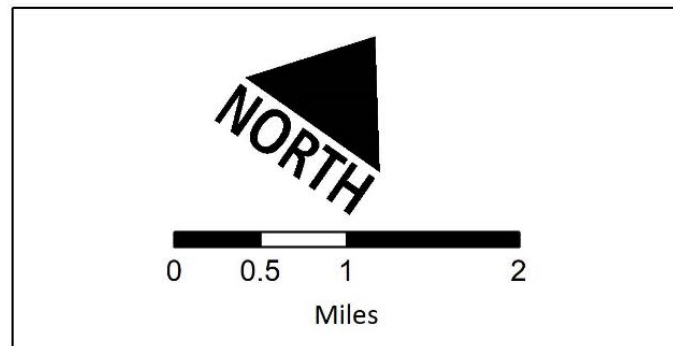
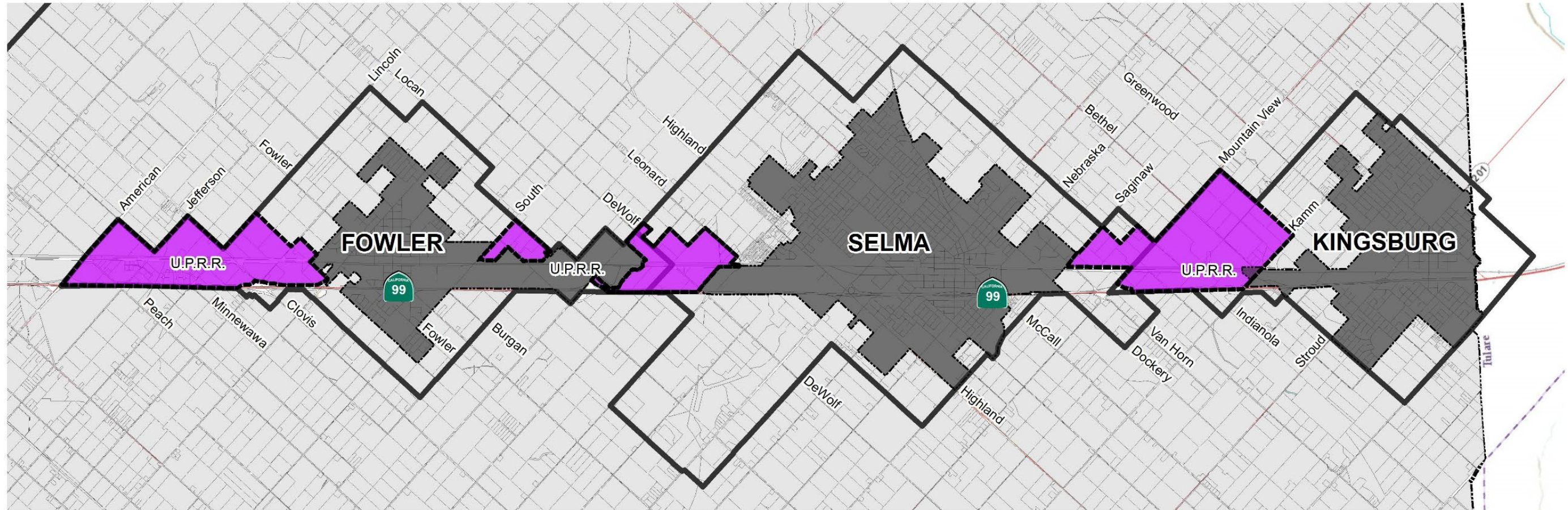
AGRICULTURE AND LAND USE

This page left blank intentionally.



FRESNO COUNTY GENERAL PLAN

Figure LU-5 Golden State Industrial Corridor

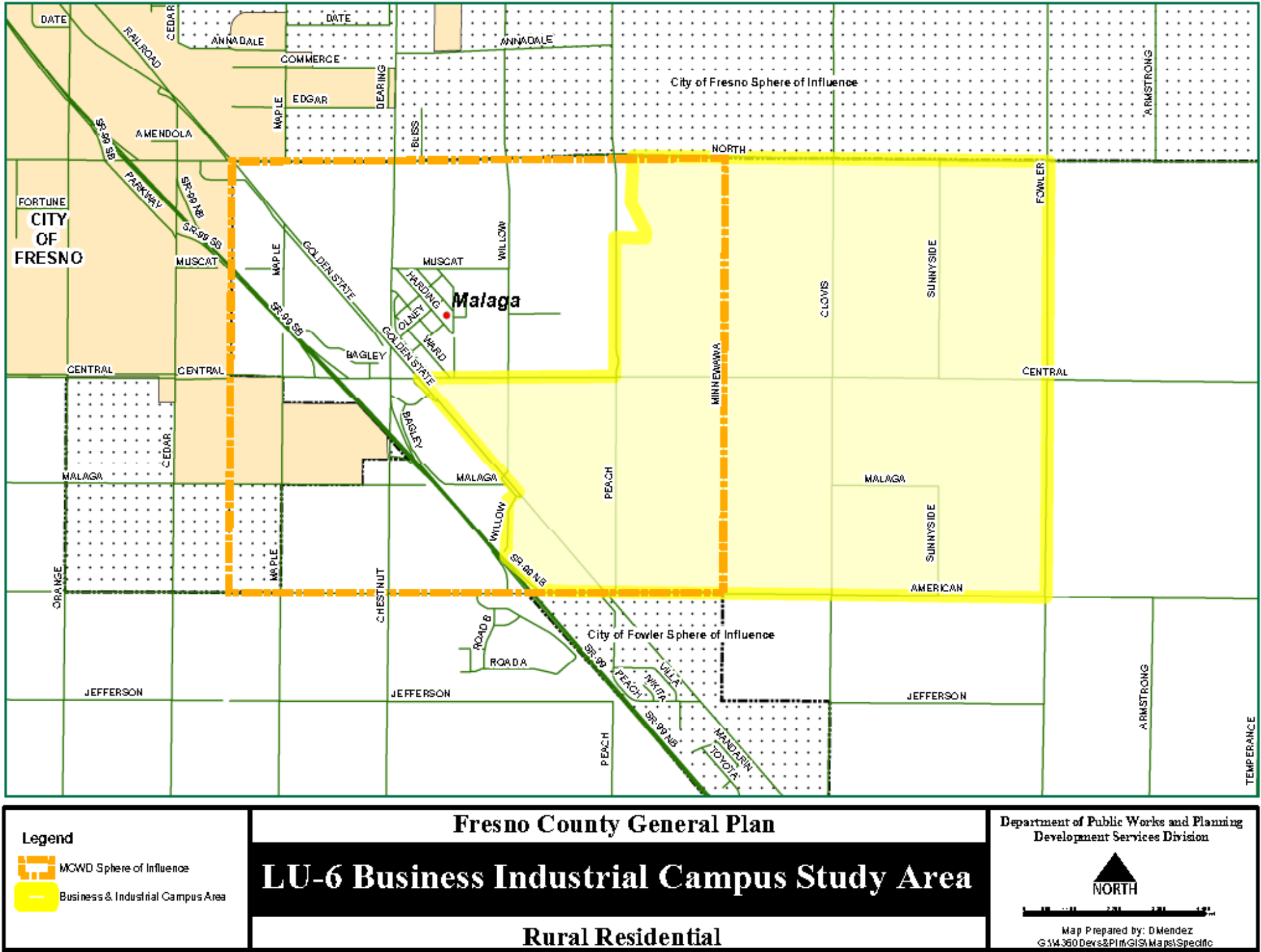


Fresno County General Plan

Golden State Industrial Corridor

Figure LU-5

Figure LU-6 Business Industrial Campus Study Area





FRESNO COUNTY GENERAL PLAN

G. INCORPORATED CITY, CITY FRINGE AREA, AND UNINCORPORATED COMMUNITY DEVELOPMENT

Fresno County consists of 15 incorporated cities. Each incorporated city in the county and its unincorporated urban fringe area functions as a single community, requiring an extensive system of urban services. The most efficient method to provide required urban services at the lowest cost to the taxpayers is to concentrate urban development within cities, thereby avoiding duplication of services and discouraging the formation of special purpose districts.

Fresno County also consists of unincorporated communities that have a substantial urban population and exist as separate, distinct communities surrounded by agriculture or other open space uses. These communities have problems similar to those of cities in that urban growth depends on the provision of adequate services. Improved land use planning is required to maintain compact urban boundaries, minimize intrusion of urban development into productive agricultural areas, and create the optimum situation for provision of services. The challenge of addressing these planning issues has historically been greatest in the urban fringe areas surrounding the cities of Fresno and Clovis, the two largest cities in Fresno County.

Policies in this section seek to encourage coordination and consistency with the County and the cities regarding all land use matters, encourage growth within the cities, and ensure that development in unincorporated areas has adequate water and sewer services. Related sections include Section LU-A, Agriculture; Section LU-F, Urban Development Patterns; Section PF-C, Water Supply and Delivery; and Section PF-D, Wastewater Collection, Treatment, and Disposal.

GOAL LU-G

To direct urban development within city spheres of influence to existing incorporated cities and to ensure that all development in city fringe areas is well planned and adequately served by necessary public facilities and infrastructure while taking into consideration state-mandated directives such as the Regional Housing Needs Allocation which may necessitate the approval of urban development within or outside spheres of influence that are not currently planned for urban development.

LU-G.1 City Spheres of Influence

The County acknowledges that the cities have primary responsibility for planning within their LAFCO-adopted spheres of influence and are responsible for urban development and the provision of urban services within their spheres of influence. *(RDR)*

LU-G.2 City Planning Consistency

The County shall work cooperatively with all cities of the county to encourage each city to adopt and maintain its respective plan consistent with the Fresno County General Plan. The County shall adopt complementary planning policies through a cooperative planning process to be determined by the respective legislative bodies. *(RDR/IGC)*

LU-G.3 Consistent Urban Development Policies

The County shall encourage the cities to adopt policies consistent with urban development policies LU-F.1 through LU-F.10 of this General Plan. *(RDR/IGC)*

LU-G.4 Orderly Outward Expansion

The County shall encourage orderly outward expansion of urban development by supporting only those city sphere of influence expansion proposals where the city has demonstrated a

GOALS AND POLICIES **2**

AGRICULTURE AND LAND USE

need for additional territory after documenting a good faith effort to implement an infill development program, maximize the residential density, address the population growth needs, and minimize conversion of productive agricultural lands to urban uses. *(RDR/IGC)*

LU-G.5 County Established Neighborhoods

The County shall encourage the cities to incorporate in their general plans County land use policies for neighborhoods that were established under County jurisdiction. *(RDR/IGC)*

LU-G.6 Minimize Land Use Conflicts

The County shall encourage cities to incorporate in their general plans land use policies that minimize potential land use conflicts with agriculturally-related industrial operations and other agricultural activities at the urban interface through the provision of appropriate buffers or other measures. *(RDR/IGC)*

LU-G.7 General Plan Amendment Consultations

Within the spheres of influence the County shall promote consultation between the cities and the County at the staff level in the early stages of preparing general plan amendments and other policy changes that may impact growth or the provision of urban services. Staff consultations, particularly concerning community plans, shall provide for meaningful participation in the policy formulation process and shall seek resolution of issues prior to presentation to the decision-making bodies. Because of state-mandated directives including but not limited to, the state Regional Housing Needs Allocation, the County may consider approval of urban development in areas within or outside spheres of influence that are not currently planned for urban development, in order to meet its obligations under a state-mandated directive. *(RDR/IGC)*

LU-G.8 Community Plan Updates

As part of the update of a city general or community plan, the County shall encourage the city to consider jointly updating the applicable County-adopted community plan. Any unresolved conflicts between the County and city plans shall be identified for the decision-making bodies. The County shall establish and maintain land use controls on unincorporated lands within the spheres of influence consistent with the policies of the County community plan and this countywide Agriculture and Land Use Element. *(RDR/PSP/IGC)*

LU-G.9 Preserve Areas

The County shall, during the update of its community plans pursuant to Policy LU-G.8, evaluate the alternative of re-designating undeveloped rural-residential areas to the Reserve designation to support the efforts of the affected city to achieve more efficient use of land within its existing sphere of influence. *(RDR/PSP)*

LU-G.10 Urban/Rural Conflicts

The County shall minimize potential land use conflicts at the interface between urban development and existing developed rural-residential areas. Provision for a graduated transition in density/lot size from higher- to lower-density between the two respective areas shall generally be required unless significant buffers or other measures are determined adequate to protect established rural residential developments. The County, while recognizing the cities' need to optimize use of land within their sphere boundaries, shall encourage cities to require buffering measures when urban development is proposed adjacent to existing developed rural-residential areas within their spheres-of-influence. *(RDR/IGC)*

LU-G.11 Annexation Consultation

The County shall promote consultation between the cities and the County at the staff level when cities are developing proposed annexation boundaries or proposed sphere of influence expansions. *(RDR/IGC)*



FRESNO COUNTY GENERAL PLAN

LU-G.12 Immediate Development

The County shall encourage cities to generally include in their annexation proposals only those properties that are proposed for immediate development, or necessary to achieve their Regional Housing Needs Allocation. *(RDR/IGC)*

LU-G.13 Leapfrog Growth

The County will oppose any annexation proposal that creates an island, peninsula, corridor, or irregular boundary. The County shall also oppose any annexation that does not annex the full width of road rights-of-way or results in the creation of bypassed segments of existing road rights-of-way. *(RDR/IGC)*

LU-G.14 Discretionary Permit Review

The County should generally not approve any discretionary permit for new urban development within a city's sphere of influence unless the development proposal has first been referred to the city for consideration of possible annexation pursuant to the policies of this section and provisions of any applicable city/county memorandum of understanding. *(RDR/IGC)*

LU-G.15 Sphere of Influence Policy

Within that portion of a city's sphere of influence which the County has identified on its community plan as existing urban and which is within one-half (1/2) mile of the city, the County shall:

- a. Maintain zoning on existing fully-developed properties consistent with the County's community plan.
- b. Maintain zoning on undeveloped or underdeveloped properties consistent with the County's community plan if such properties are small in size and there is no conflict with provision LU-G.17c below.
- c. Maintain a "holding zone" on undeveloped or underdeveloped properties to minimize further urban development on properties which the County considers appropriate for annexation by the city. Criteria used to determine which properties will be

placed in a "holding zone" include, but are not limited to, any one of the following:

1. The property is adjacent to the city.
 2. The property adjoins a series or grouping of properties which are eighty (80) percent vacant and in aggregate contain a minimum of five (5) acres.
 3. The property is proposed for commercial or industrial use on the County's community plan, is at least two (2) acres in size, and abuts vacant property planned for a similar use.
- d. Refer all applicants for subdivision (except residential parcel maps), rezoning, and conditional use permits to the city for annexation.
- e. Consider additional urban development on properties previously referred to the city for annexation if such action is recommended by the city. Any such urban development must be consistent with the County's community plan. *(RDR/IGC)*

LU-G.16 Planned Urban Boundary Policy

Within that portion of a city's planned urban boundary which the County has identified on its community plan as existing urban and which is more than one-half (1/2) mile from the city, the County shall:

- a. Maintain zoning on existing fully developed properties consistent with the County community plan.
- b. Maintain a "holding zone" on undeveloped or underdeveloped properties to preclude further urban development. This zoning may be changed subject to provisions LU-G.16c and d below.
- c. Consider subdivision, rezoning, or conditional use proposals on planned non-industrial properties where the proposed use is consistent with the County community plan. As conditions of approval, the County may require: (1) community sewer and water service; and (2) completion of all roadways providing access to the development as if they were part of the

GOALS AND POLICIES **2**

AGRICULTURE AND LAND USE

development to the nearest fully developed street.

d. Consider rezoning and conditional use permit proposals in planned industrial areas consistent with the County community plan. *(RDR, IGC)*

UNINCORPORATED COMMUNITIES

LU-G.17 Urban Communities

The County shall administer those unincorporated areas identified in the community plan as urban as follows:

- a. Maintain zoning consistent with the community plan.
- b. A holding zone may be applied to undeveloped or underdeveloped properties.
- c. Consider subdivision, rezoning, or discretionary permit proposals on planned non-industrial properties where the proposed use is consistent with the community plan. As conditions of approval, the County will require: (1) community sewer and water service; and (2) completion of all roadways providing access to the development, as if they were part of the development, to the nearest fully developed street; and (3) safe collection and disposition of flood and storm waters in accordance with the plans and directives of the County of Fresno, Department of Public Works and Planning.
- d. Consider rezoning and discretionary permit proposals in planned industrial areas consistent with the community plan. *(RDR)*

LU-G.18 Community Plan Reserve Areas

The County shall administer those areas designated Reserve (limited agriculture) in the community plan as follows:

- a. All such properties shall be zoned to permit only limited agriculture and to prohibit creation of lots less than twenty (20) acres in size.
- b. The Reserve (limited agriculture) may be authorized for development following the procedures in LU-G.17cor d, provided the development proposal is separated from existing urban zoning by no more than six hundred and sixty (660) feet.

c. No application will be accepted until the appropriate County departments and special districts have indicated that services are available and/or will be provided by the developer. *(RDR)*

LU-G.19 Unincorporated Community Public Services

The County shall ensure that the expansion of unincorporated communities can be provided with necessary public services and such expansion is consistent with other General Plan policies. *(RDR)*

H. GENERAL AND ADMINISTRATIVE PROVISIONS

The County authorizes different types of development, structures, and activities within the unincorporated area according to the assigned zoning provisions. These types include mobile home development, home occupations, second dwellings, and planned development. Policies in this section provide the overall framework for the regulation of these types of development and uses.

SB 1468, passed in 2002, requires cities and counties to consider the impact of growth on military readiness activities when preparing or updating their general plan for lands adjacent to military facilities or underlying designated military aviation routes and airspace.

Naval Air Station Lemoore straddles the Fresno County and Kings County line. NAS Lemoore, with two parallel runways and covering 30,000 acres, is the Navy's prime West Coast Tactical Naval Air Station, providing support for the US Pacific Fleet. NAS Lemoore averages approximately 210,000 flight operations annually, making it one of the Navy's busiest airfields. The base has more than 7,200 active-duty military and 1,300 civilian workers. Approximately 11,000 dependents live and work on and around the base. The US military has classified much of the air space above Fresno County as special use airspace or low-level



FRESNO COUNTY GENERAL PLAN

flight paths, restricting their use by civilian aircraft.

The Fresno County General Plan must be monitored and maintained regularly if the County is to achieve the goals of the plan. At the same time, the plan must be implemented systematically through further planning efforts, a wide range of programs and ordinances, and day-to-day decisions. Policies in this section provide direction for these follow-up efforts.

Policies in this section address mobile homes, home occupations, second unit dwellings, Planned Developments, the proposed Friant-Millerton Regional Plan, guidelines for updating the General Plan, and review of the countywide General Plan. Related sections include Section LU-F, Urban Development Patterns and Section LU-G, Incorporated City, City Fringe Area, and Unincorporated Development.

GOAL LU-H	To provide for mobile home development, home occupations, second dwellings, and planned development in appropriate locations under specified conditions, to ensure land use compatibility in areas where military readiness activities are conducted, and to provide for the effective and systematic implementation of the General Plan.
----------------------	---

MOBILE HOMES

LU-H.1 Mobile Homes

The County shall provide for use of various dwelling types, including mobile homes, in a manner that enhances the stability of neighborhoods and the value of the housing stock. In urban communities, mobile homes shall be accommodated primarily within mobile home parks and mobile home subdivision planned residential developments. Consistent with State law, the County shall permit mobile

homes on permanent foundations wherever other single-family homes are permitted. (RDR)

LU-H.2 Caretaker Occupancy

The County shall, under appropriate circumstances, accommodate use of mobile homes for caretaker's occupancy in conjunction with permitted uses in areas designated for industrial or commercial development. (RDR)

HOME OCCUPATIONS

LU-H.3 Home Occupations

The County shall provide for home occupations in areas where single-family dwellings are an allowed use as long as the work is clearly incidental and secondary to the use of the site for residential purposes and is harmonious with the appearance and character of the surrounding area. (RDR)

SECOND UNIT DWELLINGS

LU-H.4 Second Units

The County shall allow second units, not to be sold as a separate unit, in urban areas designated for low, medium, and medium high density residential subject to certain limitations defined in the County Zoning Ordinance. The second dwelling units in rural areas shall be subject to discretionary permit. The County shall permit accessory housing units, as defined in the County Zoning Ordinance, in all residential zones subject to limitations defined in the Zoning Ordinance, to further the availability of affordable housing and comply with State law. The second units and accessory housing units shall be clearly subordinate in size to the primary dwelling. (RDR)

PLANNED DEVELOPMENTS

LU-H.5 Planned Residential Development Allowed Uses

The County shall allow the following uses in Planned Residential Developments greater than twenty (20) acres:

GOALS AND POLICIES 2

AGRICULTURE AND LAND USE

a. Commercial, educational, religious, and professional uses which are designed for exclusive use by the residents of the development. Such elements must be compatibly and harmoniously incorporated into the development and shall not be exposed to public view in a manner which attracts residents living outside the planned residential development.

b. Mobile home development, when located and designed to be compatibly and harmoniously incorporated into the development. (RDR)

LU-H.6 Discretionary Planned Developments

The County may allow Planned Developments subject to a discretionary permit as follows:

a. Planned residential developments may be permitted in areas designated for low, medium, or medium high density residential use, or in rural residential areas subject to the Rural Residential section.

b. Planned office developments may be permitted in areas designated for office commercial use.

c. Planned commercial developments may be permitted in areas designated for commercial use. (RDR)

LU-H.7 Principles for Planned Development

The County shall apply the following general principles to Planned Development proposals:

a. Planned Developments may include any combination of single detached or attached units.

b. District property development standards, except as related to population density, may be modified or waived where it is determined that such modification or waiver will produce a more functional, and desirable site or building environment, and no adverse impact to adjacent properties will result therefrom.

c. Population density shall be calculated on gross acreage.

d. Community sewer and water facilities shall be provided except as specified in the rural residential policies.

e. The design of a Planned Development shall insure compatibility and harmony with existing and planned uses on adjacent properties. Design elements to be considered include, but are not limited to, architecture, distance between buildings, building setbacks, building height, off-street parking, lot design and size, fencing and walls, access, circulation, signing, open space, privacy, screening, and landscaping (to include shade trees in the parking areas).

f. Off-street parking facilities shall provide parking sufficient for occupants of the development and their guests or patrons, and shall be integrated into the development and minimize adverse impacts on neighboring development.

g. Planned residential developments shall provide common open space free of buildings, streets, driveways, or parking areas. The common open space shall be designed and located to be easily accessible to all the residents of the project and usable for open space and recreational uses.

h. The developer shall provide for perpetual maintenance of all common land and facilities through means acceptable to the County.

i. Conservation of natural site features, such as topography, vegetation, and water courses shall be considered in project design.

j. Energy conservation and utilization of renewable resources should be given prominent consideration.

k. Streets serving the development must be adequate to accommodate traffic generated by the proposed project. (RDR)

COMPATIBILITY WITH MILITARY FACILITIES AND OPERATIONS

LU-H.8 Compatible Land Use

The County shall designate for compatible land uses (e.g., open space, agricultural uses, or similar low intensity land uses) near NAS Lemoore and other areas where military operations could impact public health and safety (e.g., noise, accident potential, incompatible



FRESNO COUNTY GENERAL PLAN

land use) or where private activities could impact current or future military operations negatively. *(RDR)*

LU-H.9 Program- Early Consultation

The County shall provide early notification to the US military of development proposals and projects that have the potential to affect military operations, testing, or training activities. *(IGC)*

LU-H.10 Program- Coordination

The County shall work closely with military officials in regard to sharing information and discussing military readiness and land use planning issues. *(IGC)*

REGIONAL COORDINATION

LU-H.11 Regional Coordination

To promote regional planning coordination, the County shall coordinate with metropolitan and rural cities in Fresno County, and adjacent counties and discuss land use and transportation matters of mutual interest, regional development and planning projects and approaches to enhance planning coordination among agencies. *(IGC)*

LU-H.12 Regional Transportation Plan Review

The County shall participate in preparation of the Fresno Council of Governments' Regional Transportation Plan (RTP), including the Sustainable Communities Strategy or Alternative Planning Strategy, to ensure consistency of the RTP with the County's General Plan. *(IGC)*

UPDATING REGIONAL, COMMUNITY, AND SPECIFIC PLANS

LU-H.13 Periodic Updates

The County shall periodically update regional, community, and specific plans to ensure consistency with the countywide General Plan. *(RDR/SO)*

COUNTYWIDE GENERAL PLAN REVIEW

LU-H.14 General Plan Annual Review

The County shall review and report to the Planning Commission and Board of Supervisors on the General Plan annually, and revise it as deemed necessary. *(RDR/SO)*

LU-H.15 General Plan Amendments

The General Plan may be amended no more than four times per year. Each amendment, however, may include multiple changes. *(RDR)*

LU-H.16 General Plan Consistency

The County shall review and amend as necessary applicable ordinances and regulations to ensure consistency with the General Plan. *(RDR)*

GOALS AND POLICIES **2**

TRANSPORTATION AND CIRCULATION

PART 2: GOALS AND POLICIES

TRANSPORTATION AND CIRCULATION ELEMENT

The Transportation and Circulation Element provides the framework for Fresno County decisions concerning the countywide transportation system, which includes various transportation modes and related facilities. The Element also provides for coordination with the cities and unincorporated communities within the county, collaboration with State and Federal agencies that fund and manage transportation facilities within the county, consistency with the Regional Transportation Plan adopted by the Fresno Council of Governments, and Highway 99 beautification. The Transportation and Circulation Element reflects the duality of the urban and rural nature of Fresno County. The element establishes standards that guide the development of the transportation system in the unincorporated county, and directs the management of access to the highway system by new development.

The element is divided into two major parts. The first major part describes the County's Circulation Diagram and functional roadway classification system. The second major part sets out goals and policies organized into six sections: Streets and Highways; Transit; Transportation System Management; Bicycle Facilities; Rail Transportation; and Air Transportation. Specific implementation programs related to Transportation and Circulation Element goals and policies can be found in Part 3 of this General Plan.

CIRCULATION DIAGRAM AND STANDARDS

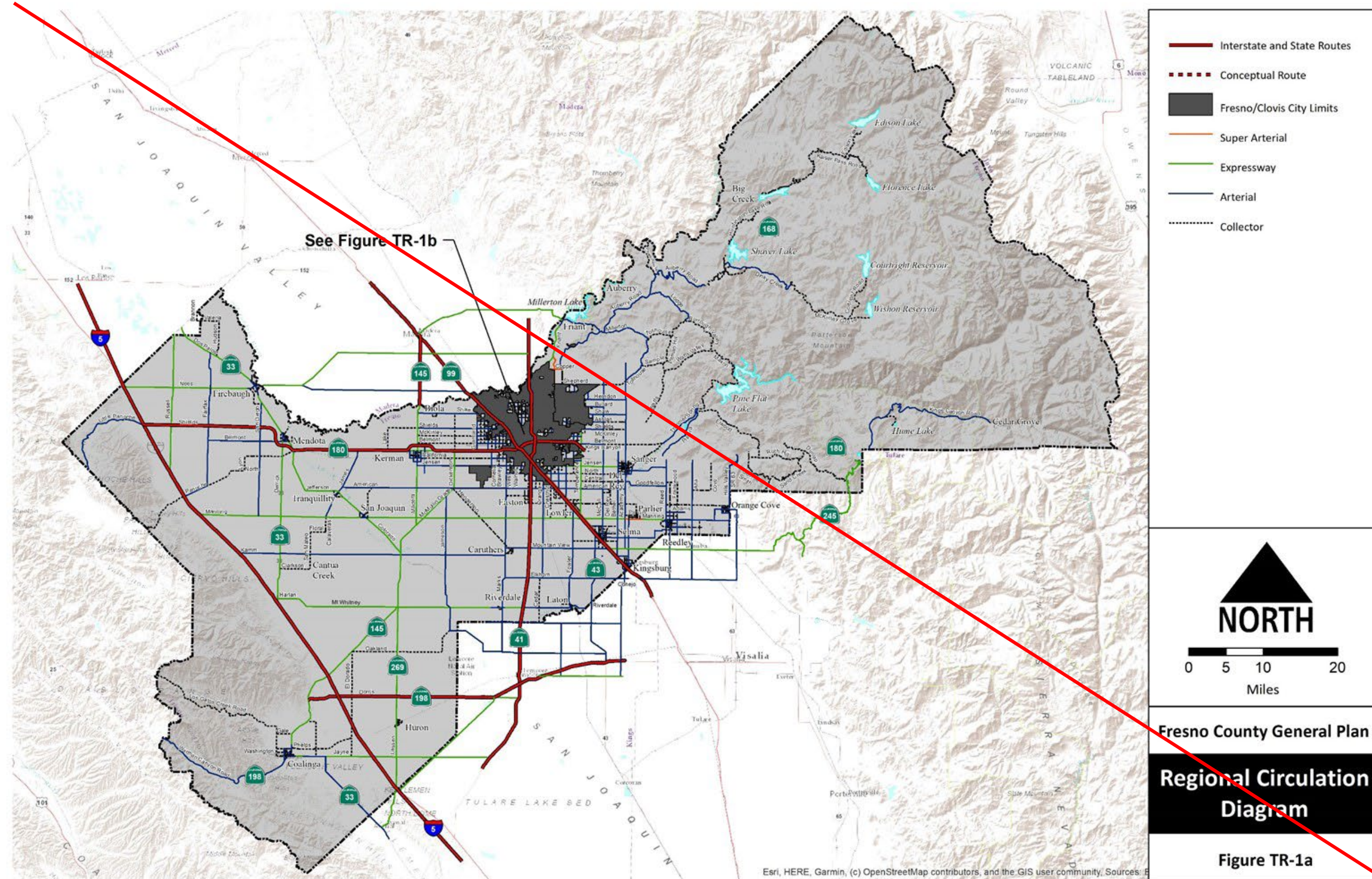
The Circulation Diagram depicts the circulation system for unincorporated Fresno County. The circulation system serves to support existing and planned development under the Land Use Diagram (see Figures TR-1a through TR-1c). This circulation system is shown on the diagram by means of a set of roadway classifications, developed to guide Fresno County's long-range planning and programming. Roadways are classified in this system based on the linkages they provide, their function in the hierarchy of roadways, and the importance of the route's service to the residents and businesses of Fresno County.



FRESNO COUNTY GENERAL PLAN

This page intentionally left blank

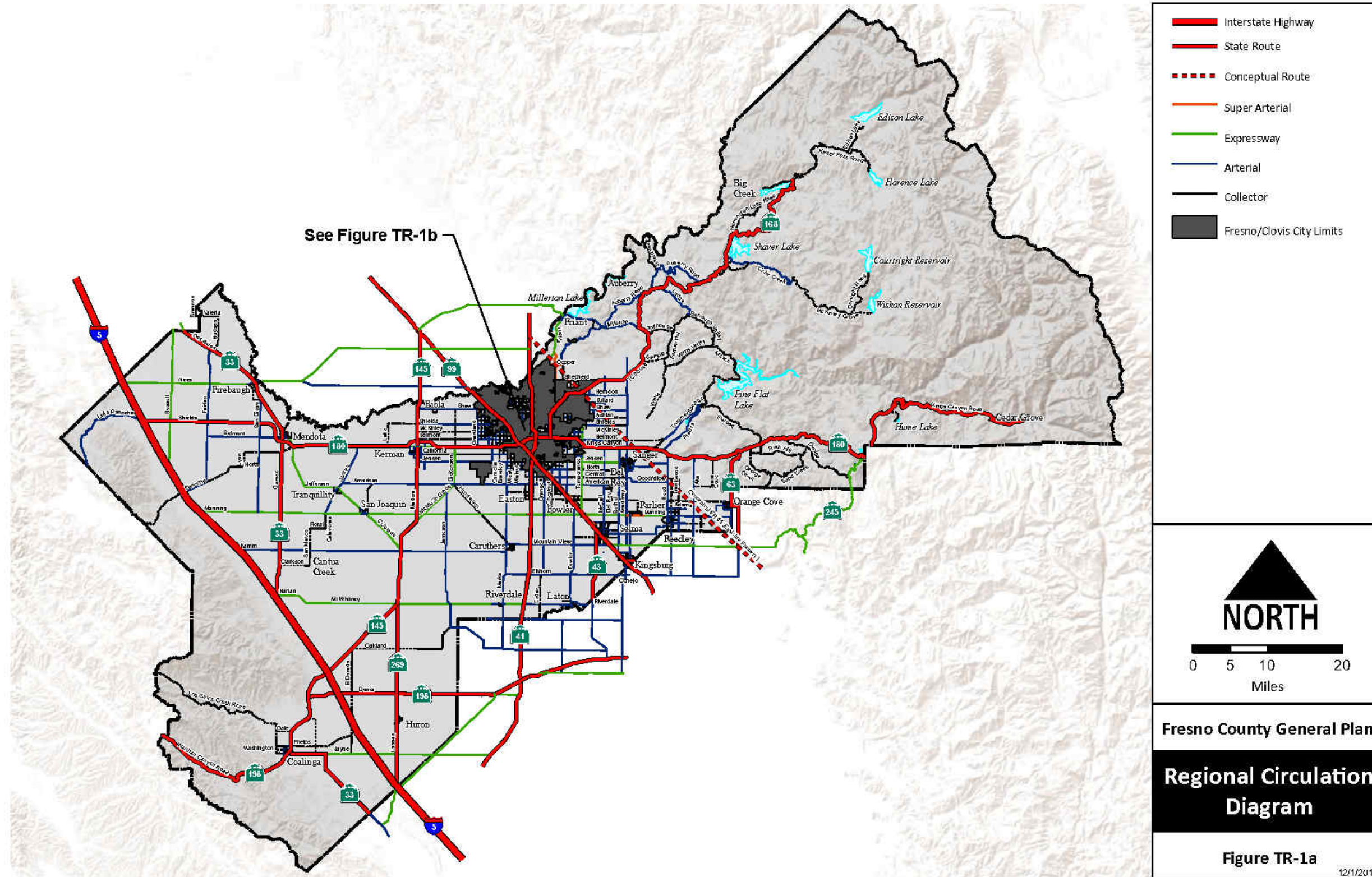
Figure TR-1a — *Regional Circulation Diagram*





FRESNO COUNTY GENERAL PLAN

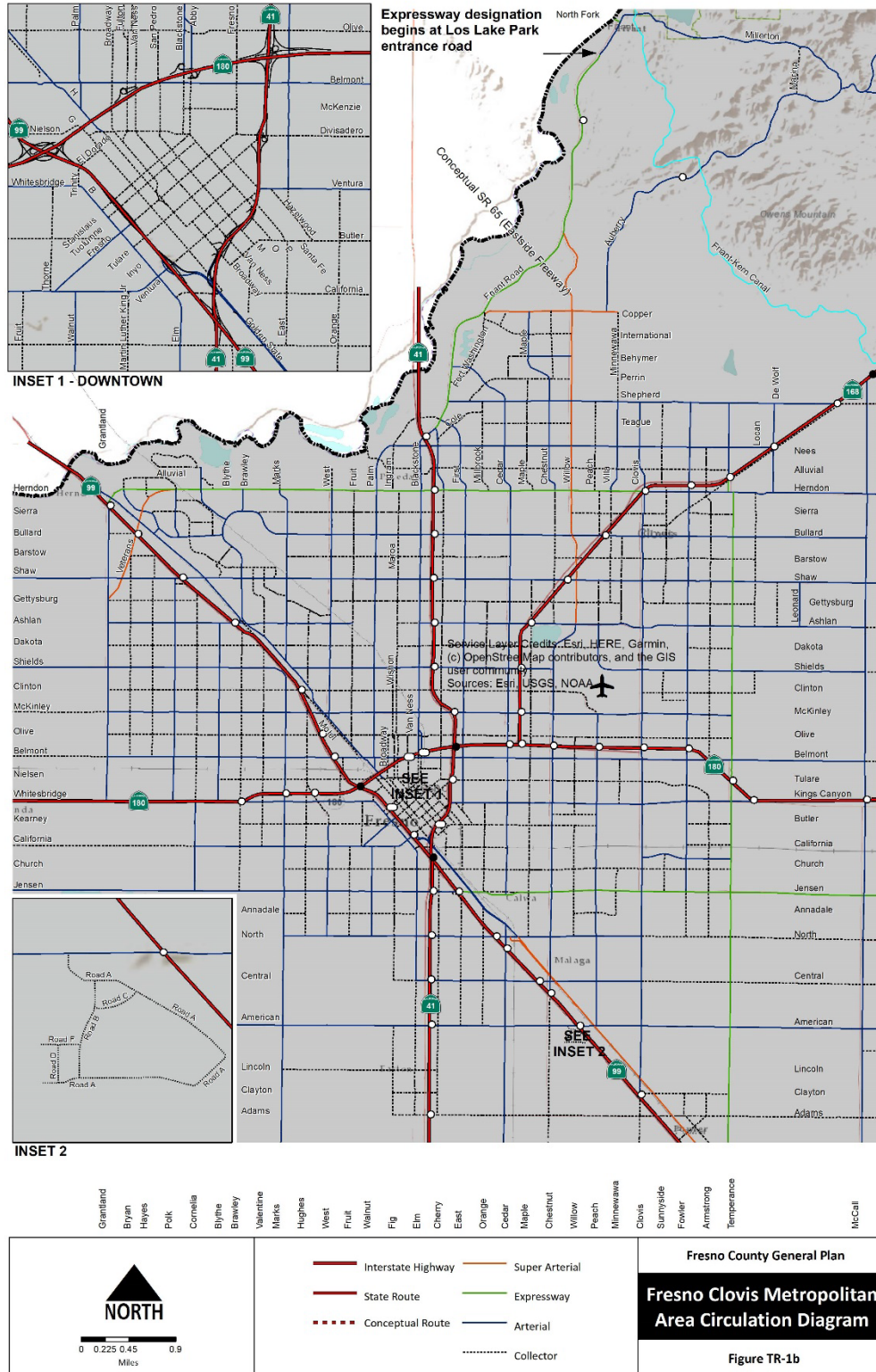
Figure TR-1a Regional Circulation Diagram



GOALS AND POLICIES

TRANSPORTATION AND CIRCULATION 2

Figure TR-1b Fresno Clovis Metropolitan Area Circulation Diagram

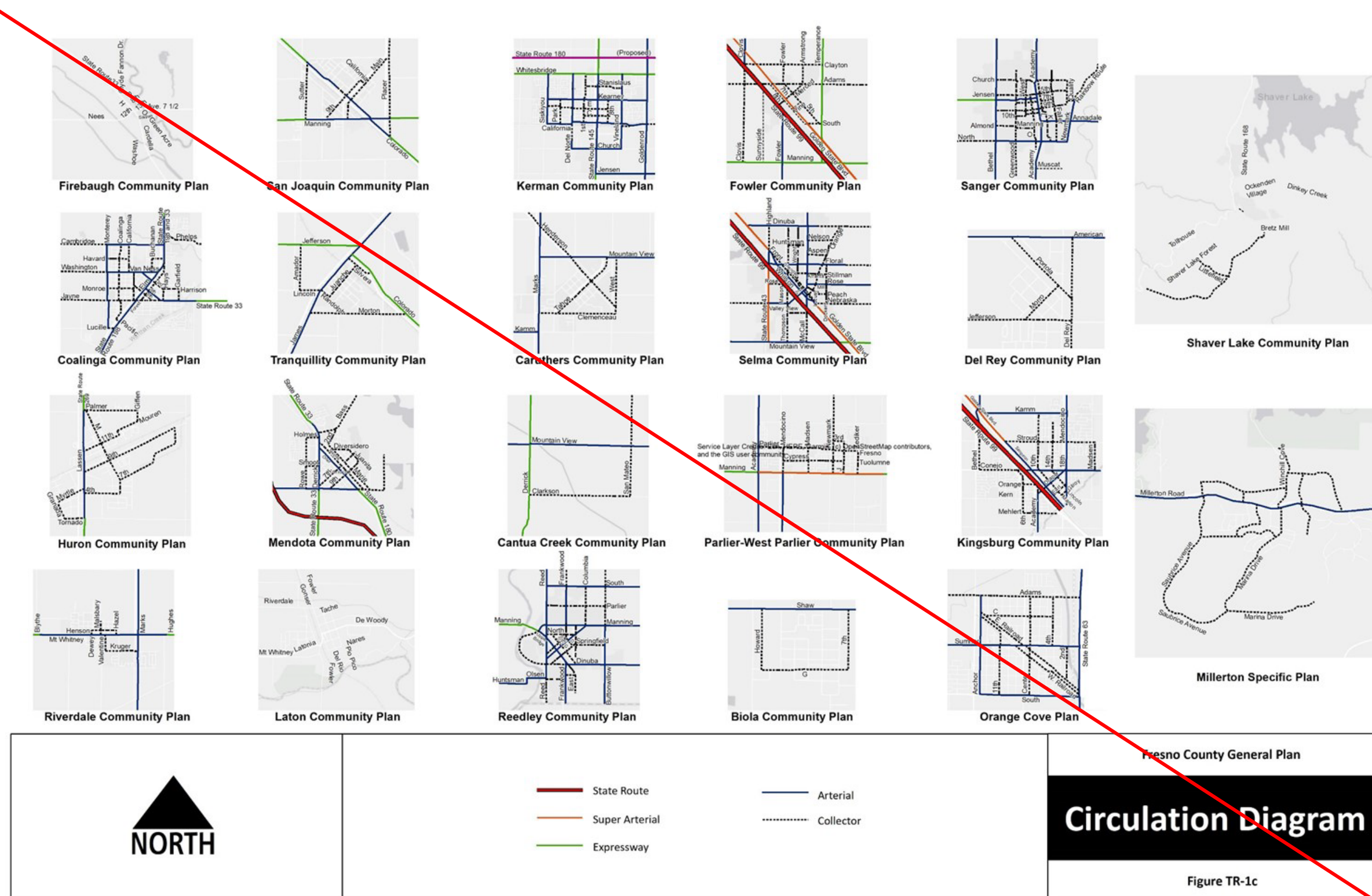




FRESNO COUNTY GENERAL PLAN

This page left blank intentionally.

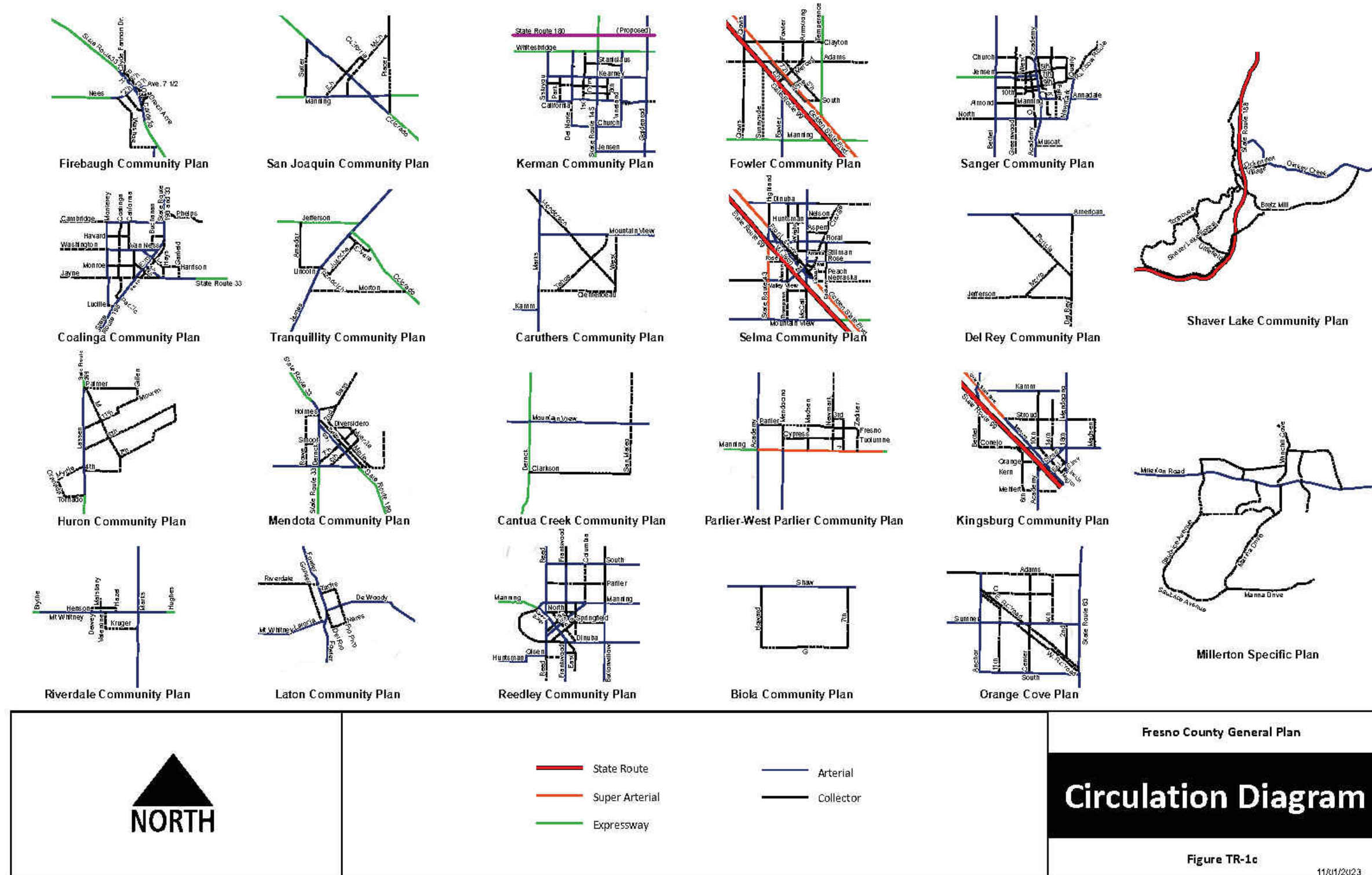
Figure TR-1c — Circulation Diagram





FRESNO COUNTY GENERAL PLAN

Figure TR-1c Circulation Diagram



This page left blank intentionally.



FRESNO COUNTY GENERAL PLAN

ROADWAY FUNCTIONAL CLASSIFICATION SYSTEM

Roadways serve two necessary but conflicting functions: mobility and property access. High and constant speeds, with few interruptions and limited conflicting traffic, are desirable for mobility. A functional classification system provides for specialization in meeting the access and mobility requirements of the development permitted under the General Plan. Local streets support property access; freeways, expressways, and arterials support high mobility for through-traffic; and collectors attempt to achieve a balance between both functions.

An efficient transportation system is an important component of a strong and dynamic economy. Access control is the greatest single correlative to traffic safety and regional mobility. Good access management practices will ensure that the transportation system will continue to serve the needs of Fresno County and the regional economy far into the future by insuring safe, efficient, and convenient mobility.

The Circulation Diagram represents the official functional classification of existing and proposed streets, roadways, and highways in Fresno County. This diagram depicts the State Routes and the expressway, super arterial, arterial, and collector roadway system in Fresno County. All other roadways are classified as local streets. The general standards for right-of-way, access control, and planned travel lanes for each roadway class are shown in Table TR-1. The County's functional classification system recognizes differences in roadway functions and standards between urban/suburban areas and rural areas. The following paragraphs define the linkage and functions provided by each class of roadways as well as their general design and access control standards.

GOALS AND POLICIES 2

TRANSPORTATION AND CIRCULATION

**TABLE TR-1
GENERAL ROADWAY STANDARDS FOR NEW DEVELOPMENT
BY FUNCTIONAL CLASS
Fresno County**

Functional Class	Access Control		Ultimate Cross Section	
	Public Roads Intersections (or interchanges)	Abutting Property Driveways and Private Roads	Lanes	ROW
	URBAN/SUBURBAN			
State Route	1 mile minimum spacing (interchange)	Prohibited	4-8 divided	--
Expressway	½ mile minimum spacing	Prohibited	4-6 divided*	100'-130'
Super Arterial	<ul style="list-style-type: none"> •Allowed with other arterials, expressways, and collectors •With local streets - restricted 	Restricted	4 divided*	100'-130'
Arterial	<ul style="list-style-type: none"> •Allowed with other arterials, expressways, and collectors •With local streets - restricted 	Restricted	4-6 divided*	100'-130'
Collector*	Allowed at all public road intersections	Permitted (access to new major generator may be restricted)	4 undivided*	80'-84'
Local	Allowed at all public road intersections	Permitted	2 undivided	60'
Highway Transit Corridor (Figure TR-3)	Per functional class	Per functional class	Functional class + 2 additional	Additional 24'
RURAL				
State Route	1-2 miles minimum (interchange)	Prohibited	4-6 divided	--
Expressway	½ mile minimum spacing	<ul style="list-style-type: none"> • Parcels 20 acres or more - permitted with restrictions • Parcels less than 20 acres - prohibited 	4 divided*	106'-126'
Super Arterial	<ul style="list-style-type: none"> •Allowed with other arterials, expressways, and collectors •With local streets - restricted 	Restricted	4 divided*	106'-126'
Arterial	<ul style="list-style-type: none"> •Allowed with other arterials, expressways, and collectors •With local streets - restricted 	Restricted	4 divided*	106'-126'
Collector	Allowed at all public road intersections	Permitted (access to new major generator may be restricted)	2 undivided*	80'-100'
Local	Allowed at all public road intersections	Permitted	2 undivided	60'-80'
*With ancillary lanes at intersections, which may require additional right-of-way.				



FRESNO COUNTY GENERAL PLAN

State Routes provide for high-speed through-traffic movement on continuous routes with full access control. State Routes connect points within the county and link the county to other parts of the state.

Expressways provide for rapid through-traffic movement on continuous routes which connect the cities and communities within the county with each other, with State Routes and other expressways, and with communities in adjoining counties. Expressways provide a high degree of access control.

Expressways shall be designed and constructed according to the cross-section standards specified in Table TR-1, with policies in Section TR-A, and with the following specifications:

- a. Urban expressways shall typically be developed as four (4) or six (6) lane divided roadways.
- b. Rural expressways shall typically be developed as two (2)-lane undivided or four (4)-lane divided roadways.
- c. Additional right-of-way may be necessary on one or both sides of an expressway for a frontage road to provide access to abutting property.
- d. Transit turnouts on urban Expressways shall be established out of the traveled way, and may require additional right-of-way.
- e. Bikeways along urban Expressway routes shall be Class I facilities on separate rights-of-way.
- f. Equestrian-hiking trails planned along designated Expressway routes shall be developed on separate rights-of-way not related to the highway facility.

Access for new development along expressways shall conform to the following specifications:

- a. Direct access from an urban Expressway to abutting property shall be prohibited. The County shall control access by acquiring access rights or by establishing design requirements on new development to limit access to frontage or other public roads.
- b. Access to an urban Expressway may occur at public road intersections spaced at one-half mile intervals. Existing intersecting streets which do not conform to the half-mile interval policy may be closed or realigned.
- c. Direct access from a rural Expressway to abutting agricultural parcels of twenty (20) or more acres may be permitted, in which case turnaround facilities on the agricultural property shall be required. Access to agricultural uses which generate high traffic volumes may be restricted by the use of frontage roads or special design considerations, as appropriate.
- d. Direct access from a rural Expressway to abutting agricultural commercial centers, agricultural parcels of less than twenty (20) acres, and nonagricultural uses will be prohibited. The County shall control access by acquiring access rights or by establishing design requirements on new developments to limit access to frontage or other roads.
- e. Access to rural Expressways may occur at public road intersections spaced at one-half mile intervals, or approximations thereof if a minor shift may better serve access management

GOALS AND POLICIES **2**

TRANSPORTATION AND CIRCULATION

purposes, where the shift will not result in a greater total number of access points. Existing intersecting roads which do not conform to this half-mile interval may be closed or realigned.

- f. Transit turnouts on urban Expressways shall be established out of the traveled way and may require additional right-of-way. Transit turnouts in rural areas may be required along established transit routes at locations which are regularly scheduled stops; where transit vehicles are not able to safely pull onto the road shoulder; and where traffic volumes, visibility, or other conditions recommend providing a transit turnout.

Super Arterials is a special designation originally developed to manage access on Golden State Boulevard (old State Highway 99), where all access rights were conveyed to the County following relinquishment by the State. Access to a Super Arterial is permitted by license and must conform to specific access and design criteria maintained by the Department of Public Works and Planning. In the case of Golden State Boulevard, access is limited to locations identified in the Golden State Boulevard Access Plan Map, maintained by the Department of Public Works and Planning.

Super Arterials provide for mobility within the county and its cities, carrying through traffic on continuous routes and joining major traffic generators, freeways, expressways, and other arterials. Access to abutting private property and intersecting local streets is restricted.

Super Arterials shall be designed and constructed according to the cross-section standards specified in Table TR-1, with policies in Section TR-A, and with the following specifications:

- a. Super Arterials shall typically be developed as four-lane divided roadways.
- b. Transit turnouts along urban Super Arterials may be established out of the traveled way and may require additional right-of-way.
- c. Bikeways along Super Arterials may be Class I, Class II, or Class III facilities.
- d. Equestrian hiking trails along Super Arterials shall be developed on separate rights of way not related to the highway facility.

Access for new development along Super Arterials shall conform to the following specifications:

- a. Access to Super Arterials shall require licensure by the County through the Department of Public Works & Planning.
- b. Direct access from a Super Arterial to abutting property, in order to maintain highway capacity and safety, shall be restricted through application of design requirements of new development and/ or new access locations which may provide for frontage roads, deceleration/ acceleration lanes, restricted turn movements, access to other roads or driveways, or limits on the number and/or location of direct access points.
- c. Standards for spacing location and design of access points and median openings shall conform to Super Arterial standards maintained by the Department of Public Works & Planning.
- d. Turnaround facilities shall be provided on parcels having direct access to Super Arterials so that vehicles do not back out onto the roadway.



FRESNO COUNTY GENERAL PLAN

- e. Existing direct access may be relocated, subject to the same standards as for new access.
- f. Direct access points shall be located at sufficient intervals from each other and from public roads to maintain the safety and the traffic carrying capacity of the roadway.
- g. Direct access to a Super Arterial may be restricted to right turn movements and median crossings may be prohibited.
- h. Public road access to a Super Arterial may occur at intersections with other arterials, expressways, and collectors. Access from local streets may be restricted through the use of islands and turn lanes.

Arterials provide for mobility within the county and its cities, carrying through traffic on continuous routes and joining major traffic generators, freeways, expressways, super arterials, and other arterials. Access to abutting private property and intersecting local streets shall generally be restricted.

Arterials shall be designed and constructed according to the cross-section standards specified in Table TR-1, with policies in Section TR-A, and with the following specifications:

- a. Urban arterials shall typically be developed as four (4)- or six (6)-lane divided roadways.
- b. Rural arterials may be developed as two (2)-lane undivided or four (4)-lane divided roadways.
- c. Transit turnouts along arterials may be established out of the traveled way and may require additional right-of-way. Transit turnouts in rural areas may be provided along established transit routes at locations which are regularly scheduled stops, where transit vehicles are not able to safety pull on to the road shoulder, and where traffic volumes, visibility, or other conditions recommend providing a transit turnout.
- d. Bikeways along designated arterials may be Class I, Class II, or Class III facilities.
- e. Equestrian-hiking trails along designated arterial routes shall be located on special rights-of-way not related to the highway facility.

Access for new development along arterials shall conform with the following specifications:

- a. Direct access from an arterial to abutting property to maintain highway capacity and safety shall be restricted through application of design requirements of new development which may provide for frontage roads, deceleration/ acceleration lanes, restricted turn movements, access to other roads or driveways, or limits on the number and/ or location of points of direct access.
- b. Turnaround facilities shall be provided on parcels having direct access to arterials so that vehicles do not back out onto the roadway.
- c. Direct access points shall be located at sufficient intervals from each other and from public roads to maintain the safety and the traffic carrying capacity of the roadway. Wherever possible, direct access points shall be located to allow existing parcels one (1) direct access to an arterial. In some instances, where there is not sufficient frontage, two (2) or more parcels may be required to

GOALS AND POLICIES **2**

TRANSPORTATION AND CIRCULATION

share one access point. In some instances where there is sufficient frontage, more than one direct access from a single parcel may be permitted.

- d. Existing direct access may be relocated, subject to the same standards as for new access.
- e. Access to a divided arterial may be restricted to right turn movements and median crossing may be prohibited.
- f. Access to an arterial may occur at intersections with expressways, super arterials, other arterials, and collectors. Access from local streets may be restricted through the use of islands and turn lanes.

Collectors provide for internal traffic movement within communities, and connect local roads to arterials, super arterials, and expressways. Direct access to abutting private property shall generally be permitted.

Collectors shall be designed and constructed according to the cross-section standards specified in Table TR-1, with policies in Section TR-A, and with the following specifications:

- a. Urban collectors may be developed as two (2)-lane or as four (4)-lane undivided roadways.
- b. Urban collectors which serve industrial uses shall typically be developed as four (4)-lane undivided roadways.
- c. Rural collectors shall typically be developed as two (2)-lane undivided roadways.
- d. Transit stops along designated urban collectors may be established on additional rights-of-way off of the travel way of the road.
- e. Bikeways along collectors may be developed as Class I, Class II, or Class III facilities.

Access for new development along collectors shall conform to the following specifications:

- a. Direct access from a collector to abutting property shall generally be permitted. In the case of new major traffic generators, direct access may be restricted through the establishment of development design requirements which provide for access to other roads, or limits on the number and/ or location of direct access points.
- b. Turnaround facilities shall be provided on parcels having direct access to collectors so that vehicles do not back out onto the roadway.
- c. Access to a collector may occur at all public road intersections.

Local Roads provide direct access to abutting property and connect with other local roads, collectors, arterials, super arterials, and expressways. Local roads are typically developed as two-lane undivided roadways. Access to abutting private property and intersecting streets shall be permitted.



FRESNO COUNTY GENERAL PLAN

CIRCULATION DIAGRAM

The Circulation Diagram shows adopted and proposed freeways (or freeway extensions) for State Routes 41, 43, 65, 168, and 180. The proposed freeways and freeway extensions shown are conceptual alignments only. Alignment studies, including environmental review under CEQA, will be required to define precise alignments for these proposed freeways that minimize adverse impacts while meeting the circulation objectives of the new roadways. State Route 65 is shown as a conceptual alignment along the eastern foothills of Fresno County.

BIKEWAY SYSTEM

The Regional Bikeways Plan (prepared by the Fresno Council of Governments) defines a bikeway system for Fresno County. The plan provides connectivity between cities and the unincorporated areas, between Fresno County and adjoining counties, and access to recreational areas, regional parks, and recreational bicycling routes. The Regional Bikeways Plan contains two bikeway system diagrams: one for the rural areas of the county and one for the Fresno-Clovis Metropolitan Area (FCMA). The Rural Bikeways Plan (Figure TR-2) depicts the proposed roadway-related bikeway system for unincorporated Fresno County that will be included in the updated Regional Bikeways Plan. The Rural Bikeways Plan is intended to guide bikeway planning and implementation in conjunction with new development or improvement of the roadways shown on this diagram. The Conceptual Recreational Trail Corridor Map (Figure OS-1) in the Open Space and Conservation Element, also includes some Class I and II bikeways and is intended to complement the Rural Bikeways Plan.

TRANSIT CORRIDORS

As population and employment in Fresno County increase, there will be greater need and opportunities for transit use, especially within the Fresno-Clovis Metropolitan Area (FCMA). These opportunities can be maximized with planning aimed at concentrating higher-intensity development and ensuring good transit accessibility in viable transit corridors. Similar to the roadway functional classification system that guides the long-range planning of roadways for mobility and access, the designation of transit corridors is intended to preserve rights-of-way in potential high-capacity transit corridors and provide adequate transit ridership in those corridors through land use and design standards that emphasize transit accessibility.

Figure TR-3 shows designated transit corridors within the FCMA according to two categories: 1) railroad corridors with potential for light rail or commuter rail transit; and 2) freeway corridors requiring adequate right-of-way for rail or other mass transit facilities. This does not imply that expanded or improved bus services will not continue to be viable in the FCMA in future years. Based on existing and planned development patterns, transit bus service is expected to continue to provide the highest service level, cost-efficiency, and route/area flexibility within the FCMA.

Transit corridors are designated only within the FCMA since this area has the best potential to achieve population and employment densities sufficient to support high-capacity transit services. The designation of transit corridors in the FCMA depends upon: 1) the availability of existing or future rights-of-way for “high-capacity” transit service (e.g., light rail); and 2) the availability of land that could be developed or redeveloped with higher-intensity residential uses and employment centers under the general plans of the cities and County. With the concentration of higher-intensity development in certain corridors, high-capacity transit service may be feasible, whereas higher intensities in scattered locations are unlikely to support high-capacity transit services, especially light rail service. The transit corridors target areas

GOALS AND POLICIES **2**

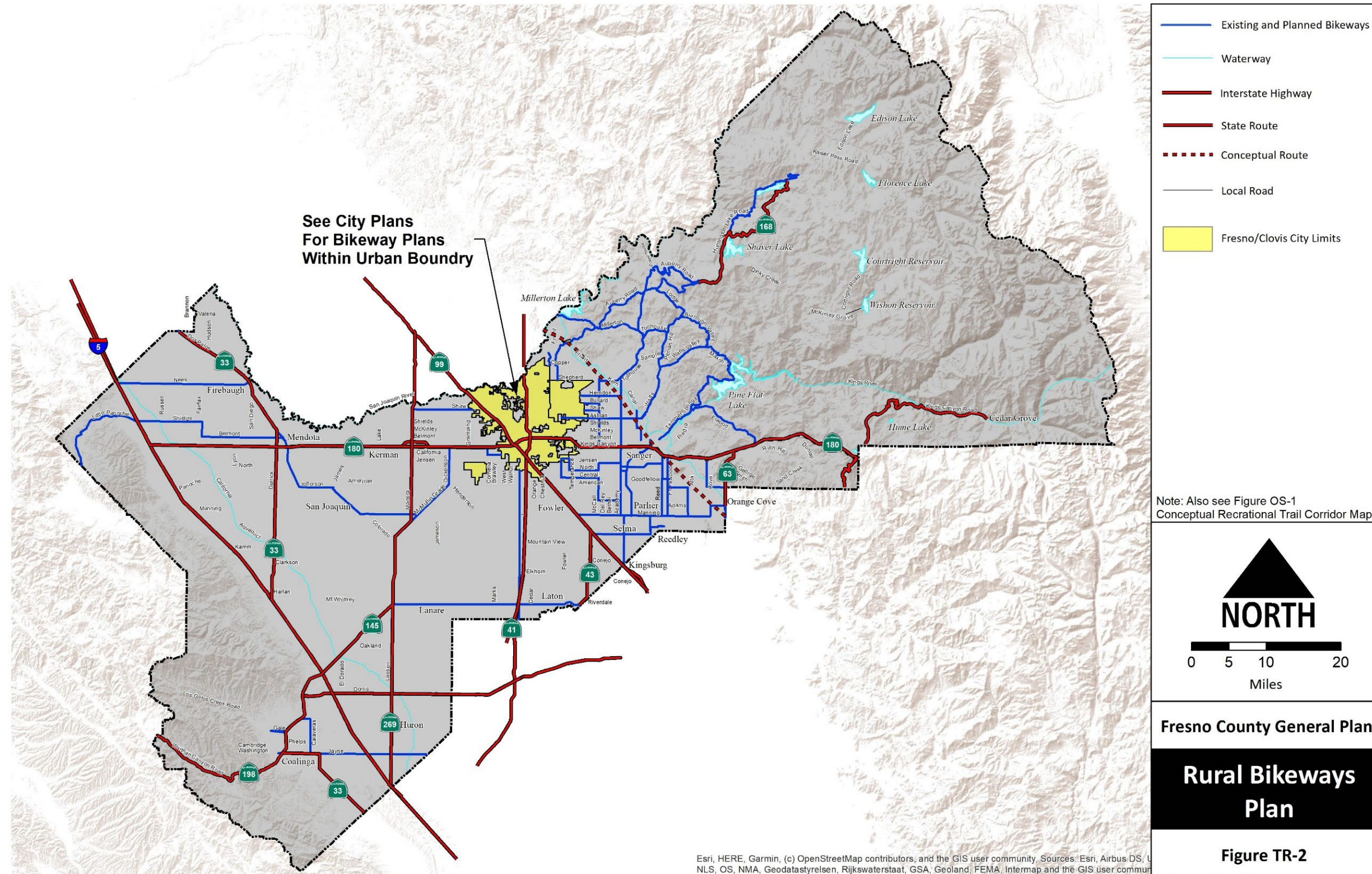
TRANSPORTATION AND CIRCULATION

where Fresno, Clovis, and the County should adopt and implement land use and design standards that increase the feasibility of high-capacity transit.



FRESNO COUNTY GENERAL PLAN

Figure TR-2 Rural Bikeways Plan



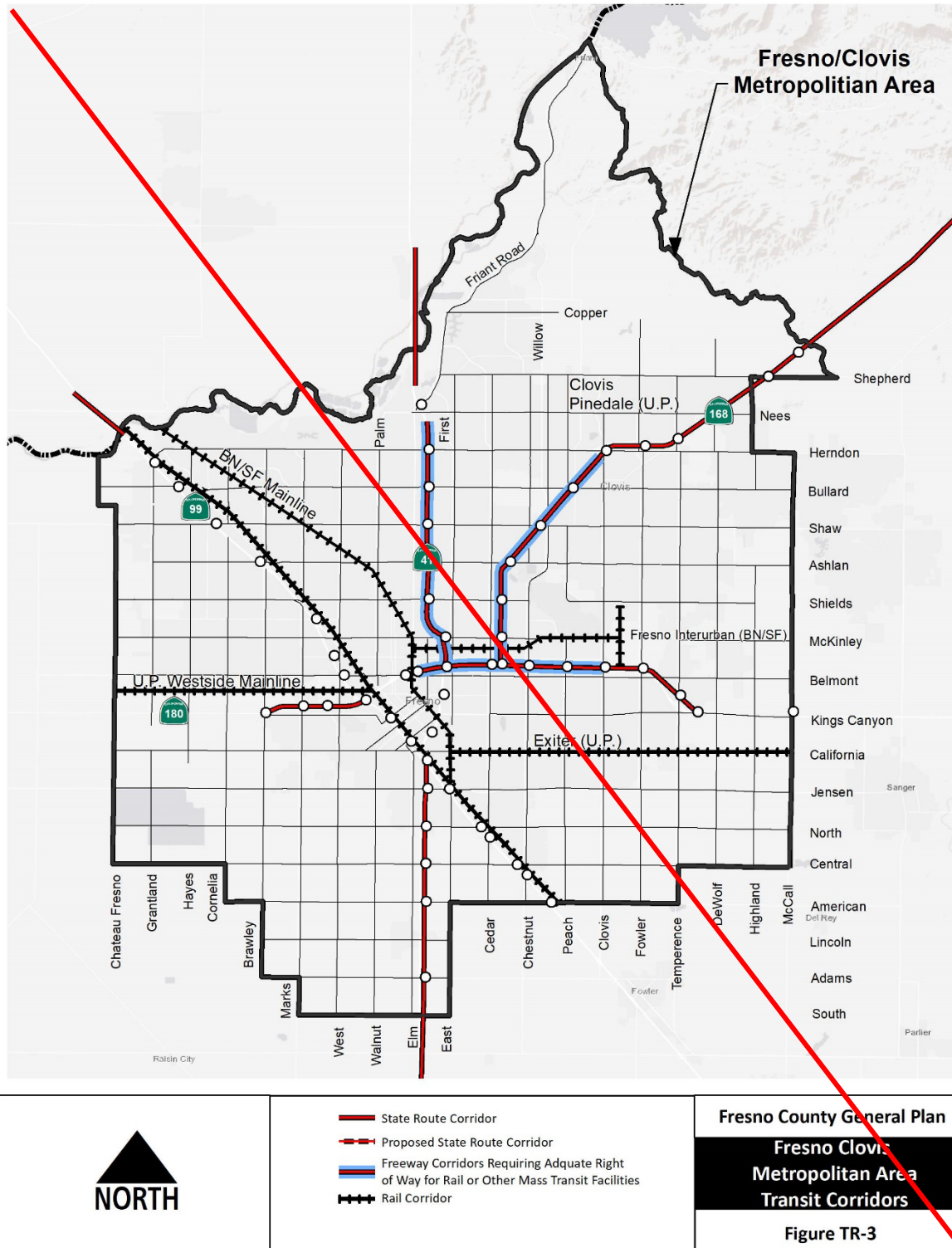
GOALS AND POLICIES TRANSPORTATION AND CIRCULATION **2**

This page left blank intentionally



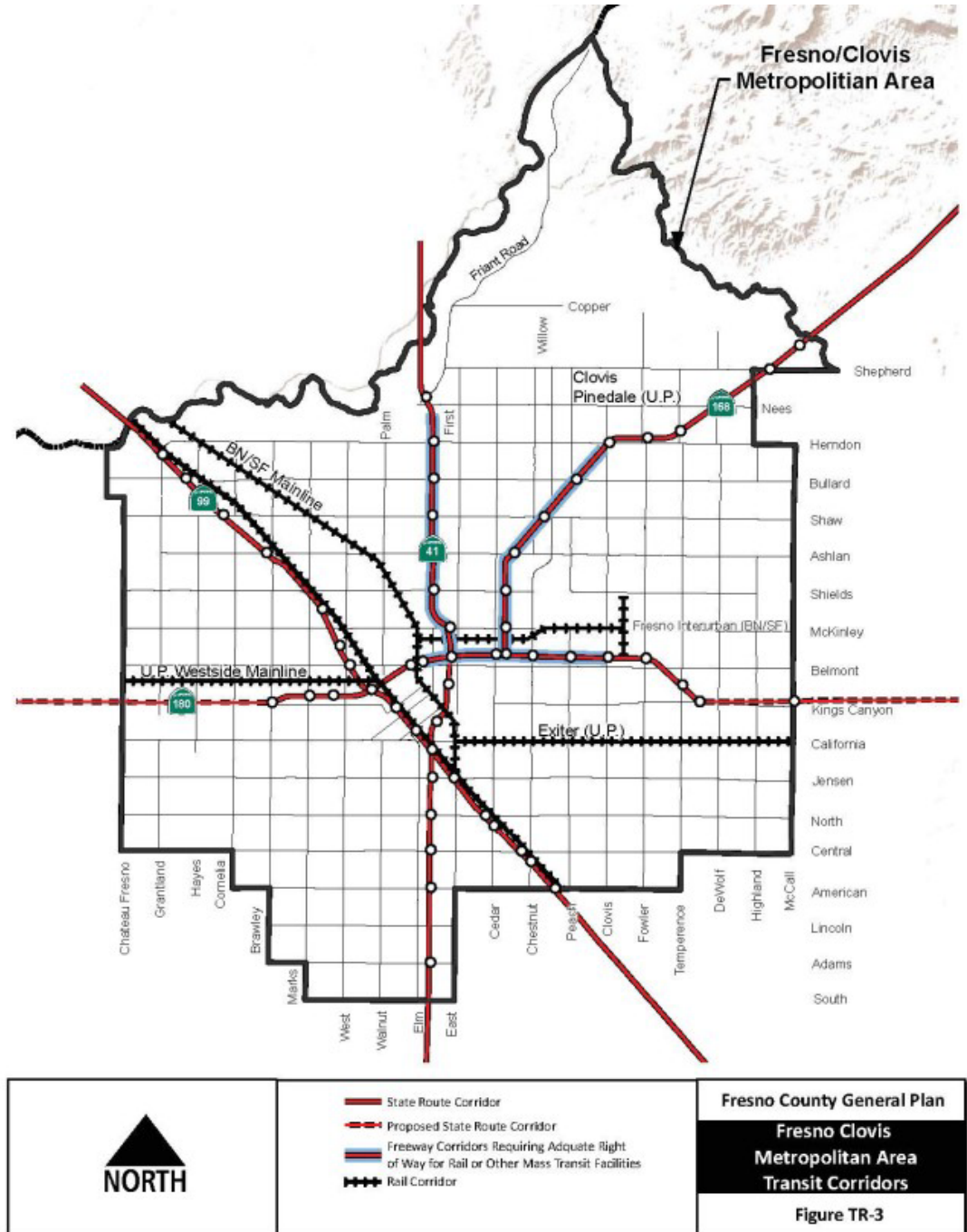
FRESNO COUNTY GENERAL PLAN

Figure TR-3 — Fresno-Clovis Metropolitan Area Transit Corridors



GOALS AND POLICIES TRANSPORTATION AND CIRCULATION

Figure TR-3 Fresno-Clovis Metropolitan Area Transit Corridors





FRESNO COUNTY GENERAL PLAN

This page left blank intentionally

GOALS AND POLICIES 2

TRANSPORTATION AND CIRCULATION

GOALS AND POLICIES

The second major part of the Transportation and Circulation Element sets out goals and policies for streets and highways, transit, transportation systems management, bicycle facilities, rail transportation, and air transportation.

Implementation programs related to Transportation and Circulation Element goals and policies can be found in Part 3 of this General Plan.

A. STREETS AND HIGHWAYS

The Fresno County Circulation System is a street and highway plan designed to provide for the safe and efficient movement of people and goods to and within the county and to ensure safe and continuous access to land. Using the State freeways and highways and the County's system of highways as its basic framework, the County Circulation System brings together the circulation plans of the cities and unincorporated communities within the county into a unified, functionally integrated, countywide system that is correlated with the Agriculture and Land Use Element of the General Plan.

Policies in this section seek to create a unified, multi-modal, coordinated, and cost-efficient countywide street and highway system by maintaining and rehabilitating existing roads, maintaining an acceptable level of service (LOS), coordinating improvements with other local jurisdictions, maintaining adequate funding, and providing multi-modal uses where appropriate along street and highway corridors. Related policies are included in Section LU-F, Urban Development Patterns; Section LU-E, Non-Agricultural Development; and Section HS-G, Noise.

GOAL TR-A

To plan and provide a unified, multi-modal, coordinated, and cost-efficient countywide street and highway system that ensures the safe, orderly, and efficient movement of people and goods, including travel by walking, bicycle, or transit.

TR-A.1 Roadway Design Standards

The County shall plan and construct County-maintained streets and roads according to the County's Roadway Design Standards. Roadway design standards for County-maintained roads shall be based on the American Association of State Highway and Transportation Officials (AASHTO) standards and supplemented by California Department of Transportation (Caltrans) design standards and by County Department of Public Works & Planning Standards, including complete streets standards. County standards include typical cross sections by roadway classification, consistent with right-of-way widths summarized in Table TR-1. The County may deviate from the adopted standards in circumstances where conditions warrant special treatment of the roadway. Typical circumstances where exceptions may be warranted may include:

- a. Extraordinary construction costs due to terrain, roadside development, or unusual right-of-way needs;
- b. Need for traffic calming measures; and
- c. Environmental constraints that may otherwise entirely preclude road improvement. *(RDR/PSP/SO)*



FRESNO COUNTY GENERAL PLAN

TR-A.2 Vehicle Miles Traveled (VMT) Standards and CEQA Evaluation

The County shall require evaluation of County General Plan land use designation changes, zone changes, and discretionary development for their individual (i.e., project-specific) and cumulative transportation impacts based on Vehicle Miles Traveled (VMT) under the California Environmental Quality Act (CEQA) pursuant to the methodology and thresholds of significance criteria established by the County. *(RDR)*

TR-A.3 Level of Service

The County shall plan and design its roadway system in a manner that strives to meet Level of Service (LOS) D on urban roadways within the spheres of influence of the cities of Fresno and Clovis and LOS C on all other roadways in the county.

Roadway improvements to increase capacity and maintain LOS standards should be planned and programmed based on consideration of the total overall needs of the roadway system, recognizing the priority of maintenance, rehabilitation, and operation of the existing road system.

The County may, in programming capacity-increasing projects, allow exceptions to the level of service standards in this policy where it finds that the improvements or other measures required to achieve the LOS policy are unacceptable based on established criteria. In addition to consideration of the total overall needs of the roadway system, the County shall consider the following factors:

- a. The right-of-way needs and the physical impacts on surrounding properties;
- b. Construction and right-of-way acquisition costs;
- c. The number of hours that the roadway would operate at conditions below the standard;
- d. The ability of the required improvement to significantly reduce delay and improve traffic operations; and
- e. Environmental impacts upon which the County may base findings to allow an exceedance of the standards.

In no case should the County plan for worse than LOS D on rural County roadways, worse than LOS E on urban roadways within the spheres of influence of the cities of Fresno and Clovis, or in cooperation with Caltrans and the Fresno Council of Governments, plan for worse than LOS E on State Routes in the county. *(RDR/PSP/IGC)*

TR-A.4 Roadway Access

The County shall require that new or modified access to property abutting a roadway and to intersecting roads conform to access specifications in the Circulation Diagram and Standards section. Exceptions to the access standards may be permitted in the manner and form prescribed in the Fresno County Zoning and Subdivision Ordinances, provided that the designed safety and operational characteristics of the existing and planned roadway facility will not be substantially diminished. *(RDR)*

TR-A.5 Roadway Improvement Priorities

The County shall program road improvements on a countywide priority basis using technical assessment tools such as the Road and Traffic Evaluation (RATE) and Pavement Management System (PMS). *(RDR/PSP)*

TR-A.6 Rights-of-Way Dedications

The County shall require dedication of right-of-way or dedication and construction of planned road facilities as a condition of land development and require an analysis of impacts of traffic from all land development projects including impacts from truck traffic. Each such project shall construct or fund improvements necessary to mitigate the effects of traffic from the project. The County may allow a project to fund a fair share of improvements that provide significant benefit to others through traffic impact fees. *(RDR)*

GOALS AND POLICIES **2**

TRANSPORTATION AND CIRCULATION

TR-A.7 Regional Transportation Plan Planning Coordination

The County shall coordinate its transportation planning with the Fresno Council of Governments, Caltrans, cities within the county, and adjacent jurisdictions. *(IGC)*

TR-A.8 Regional Transportation Plan Coordination

The County shall continue to participate with the Fresno Council of Governments, Caltrans, and other agencies, to maintain a current Regional Transportation Plan, and to identify funding priorities and development expenditure plans for available regional transportation funds, in accordance with regional, State, and Federal transportation planning and programming procedures. Such regional programming may include improvements to State Routes, city streets, and County roadways. *(PSP/FB/IGC)*

TR-A.9 Development Impact Fees

The County shall assess fees on new development sufficient to cover the fair share portion of that development's impacts on the local and regional transportation system. *(RDR/FB)*

TR-A.10 Roadway Improvements

The County shall ensure that land development that affects roadway use or operation or requires roadway access to plan, dedicate, and construct required improvements consistent with the criteria in the Circulation Diagram and Standards section of this element. *(RDR)*

TR-A.11 Inter-regional Highway Improvements

The County shall ensure that the funding of capacity-increasing projects on the Inter-regional Highway System (I-5, and rural portions of SR 99 and SR 41) uses State and Federal sources intended for improvements to that system. Fresno County and local development shall not be required to participate financially in the upgrading of the Inter-regional Highway System except as may affect local interchanges. *(FB/IGC)*

TR-A.12 Roadway Improvement Funding

The County shall actively seek all possible financial assistance, including grant funds available from regional, State, and Federal agencies for street and highway purposes when compatible with General Plan policies and long-term local funding capabilities. *(FB)*

TR-A.13 Matching Funds

The County shall ensure that funds allocated directly or are otherwise available to the County for road fund uses shall be programmed and expended to maximize the use of Federal and other matching funds, and shall be based on the following priorities:

- a. Maintenance, rehabilitation, reconstruction, and operation of the existing County-maintained road system;
- b. Safety improvements where physical modifications or capital improvements would reduce the number and/or severity of accidents; and
- c. Capital capacity improvements to expand capacity or reduce congestion on roadways at or below County LOS standards, and to expand the roadway network. *(FB)*

TR-A.14 Multi-modal Transportation Systems

The County, where appropriate, shall coordinate the multi-modal use of streets and highways to ensure their maximum efficiency and connectivity and shall consider the need for transit, bikeway, and recreational trail facilities when establishing the Ultimate Right-of-way Plan and Precise Plans of streets and highways. *(RDR/PSP)*

TR-A.15 Bikeways and Trails

The County shall develop and maintain a program to construct bikeways and recreation trails in accordance with the adopted Regional Bicycle and Recreational Trail Master Plan. The County shall seek funding for construction and maintenance of bicycle facilities and trails. *(PSP)*



FRESNO COUNTY GENERAL PLAN

TR-A.16 Truck Routes

The County ~~shall work working~~ with the cities of Fresno County, ~~in establishing shall establish~~ a system of designated truck routes through ~~urban~~ areas ~~of urban density~~. (*PSP/IGC*)

TR-A.17 Sensitive Land Uses

The County shall limit within ~~Urban Areas areas~~ ~~of urban density~~ the expansion of existing or designation of new truck routes within 500 feet of sensitive land uses such as schools and residential areas. (*RDR/PSP*)

TR-A.18 Interior Street Design

The County shall encourage street designs for interior streets within new subdivisions which protect neighborhoods from the intrusion of through traffic. (*RDR*)

TR-A.19 Landscaping Preservation

The County shall require that plans for County road improvement projects consider the preservation of unique existing landscaping to the extent that it will be consistent with user safety. (*RDR/PSP*)

TR-A.20 Minimize Road Construction Impacts

The County should utilize road construction methods that minimize the air, water, and noise pollution associated with street and highway development. (*PSP/SO*)

TR-A.21 Classified Roads

The County shall accept classified roads, as defined in Figures TR-1a, TR-1b, and TR-1c, into the County-maintained road system following construction in unincorporated areas, when constructed to County standards. The County may make exceptions for collector roads in the Millerton Specific or Shaver Lake Community Plan areas. The County shall not add local roads to the existing County-maintained road system. Provision of maintenance for newly constructed local public roads will be through a County Service Area zone of benefit or other means acceptable to the Board of Supervisors. (*PSP*)

TR-A.22 Future Rights-of-Way

The County may identify locations of needed future road rights-of-way, consistent with adopted functional classifications, through development and adoption of specific plan lines where appropriate. Circumstances where specific plan line development may be considered may include the following:

- a. Where major classified roadways or corridors are expected to require additional through lanes within a 20-year planning horizon;
- b. Where the future alignment is expected to deviate from the existing alignment, or to be developed asymmetrically around the existing section or center line;
- c. Where the adjacent properties are substantially undeveloped, so that property owners may benefit from prior knowledge of the location of rights-of-way of planned roadways before constructing improvements or developing property in a way which may ultimately conflict with identified transportation needs; and
- d. Expressways and associated frontage roads. (*PSP*)

TR-A.23 Urban Area Complete Streets

The County shall require new streets within unincorporated urban areas to be designed and constructed to serve all users, including pedestrians, bicyclists, and transit passengers, of all ages and abilities. This includes:

- a. Creating multi-modal street connections in order to establish a comprehensive, integrated, and connected transportation network for all modes of travel;
- b. Minimizing curb cuts along non-local streets to improve safety and capacity;
- c. Planting street trees adjacent to curbs and between the street and sidewalk to provide a buffer between pedestrians and vehicular traffic, where appropriate;
- d. Constructing sidewalks and bike lanes on both sides of streets, where feasible;
- e. Including parking options to provide a buffer between pedestrians and vehicular traffic, where appropriate;
- f. Coordinating with local jurisdictions and Fresno Council of Governments to ensure

GOALS AND POLICIES 2

TRANSPORTATION AND CIRCULATION

multimodal connections are established and maintained between jurisdictions; and

g. Incorporating traffic-calming devices such as roundabouts, bulb-outs at intersections, and traffic tables into the transportation system where appropriate to improve safety and encourage travel by active transportation modes. *(RDR)*

TR-A.24 Rural Area Complete Streets

The County shall strive to serve all users on rural roadways in the county by designing and constructing rural roadways to serve safely bicyclists, transit passengers, and agricultural machinery operators. This includes:

- a. Constructing wide shoulders to provide a safe space for bicyclists, and agricultural machinery vehicles;
- b. Removing visual barriers along rural roads, particularly near intersections, to improve the visibility of bicyclists; and
- c. Coordinating with local jurisdictions and Fresno COG to ensure multimodal connections are established and maintained between jurisdictions. *(RDR)*

TR-A.25 Vehicles Miles Traveled (VMT) Threshold

Projects that would generate or attract more than 110 daily vehicle trips shall be evaluated for a transportation VMT impact on an individual basis. The threshold of significance shall be 87 percent ~~below~~ of the countywide average rate of VMT. Any individual project resulting in VMT that exceeds 87 percent ~~below~~ of the countywide average shall be required to implement project-specific mitigation measures aimed at reducing VMT generated by the project.

B. TRANSIT

County shall strive to serve all users on rural roadways in the county by designing and constructing rural roadways to serve safely bicyclists, transit passengers, and agricultural machinery operators. This includes:

- a. Constructing wide shoulders to provide a safe space for bicyclists, and agricultural machinery vehicles;
- b. Removing visual barriers along rural roads, particularly near intersections, to improve the visibility of bicyclists; and
- c. Coordinating with local jurisdictions and Fresno COG to ensure multimodal connections are established and maintained between jurisdictions. *(RDR)*

Transit systems—both buses and rail—provide alternatives to automobile use and are especially important for those who cannot or do not drive. As Fresno County grows, the potential for transit use and the need for transit will increase. The General Plan supports expansion of the existing transit system, especially in connection with new development.

Policies in this section seek to develop a safe and efficient mass transit system by promoting transit services within urban corridors of dense population and employment, addressing user needs (i.e., seniors, minority, handicapped), developing convenient transfers between transportation systems, and ensuring adequate funding for the system. Related policies are included in Section LU-F, Urban Development Patterns; Section LU-E, Non-Agricultural Rural Development; Section HS-G, Noise; and Section OS-G, Air Quality.

GOAL TR-B

To promote a safe and efficient mass transit system that provides service to residents without access to automobiles and, in urban areas, helps to reduce congestion, improves the environment, and provides viable non-automotive means of transportation.



FRESNO COUNTY GENERAL PLAN

TR-B.1 Transit Service Coordination

The County shall work with transit providers to provide transit services within the county that are responsive to existing and future transit demand and that can demonstrate cost-effectiveness by meeting minimum farebox recovery levels required by State and Federal funding programs. *(IGC/FB)*

TR-B.2 Transit Service

The County shall promote transit services in designated corridors and communities where population and employment densities are sufficient or could be increased to support those transit services, particularly within the spheres of influence of the cities and along existing transit corridors and in communities in the rural area of the county. *(PSP/IGC/PI)*

TR-B.3 Transit Supportive Development

The County shall work with the Cities of Fresno and Clovis and other agencies to achieve land use patterns and densities in areas planned for development that support transit services, preserve adequate rights-of-way, and enhance transit services in the designated transit corridors shown in Figure TR-3. *(RDR/IGC)*

TR-B.4 Transit Service Funding

The County shall work with the Fresno Council of Governments and transit service providers to pursue all available sources of funding for transit services when consistent with General Plan policies and long-term funding capabilities. *(FB/IGC)*

TR-B.5 Special Transit Needs

The County shall consider the transit needs of senior, disabled, low-income, and transit-dependent persons in making recommendations regarding transit services. *(RDR/PSP/IGC)*

TR-B.6 Convenient Transit Transfers

The County shall encourage the development of facilities for convenient transfers between different transportation systems (e.g., train-to-bus, bus-to-bus). *(RDR/PSP/IGC)*

TR-B.7 Safe Routes to Schools

The County shall work with the school districts to plan transit routes to schools and to identify safe routes to encourage other modes of transportation such as biking to reduce vehicle trips to schools. *(PSP/IGC)*

C. TRANSPORTATION SYSTEMS MANAGEMENT

Fresno County has a relatively complex highway transportation system, serving cars, heavy trucks, agricultural and commercial vehicles, buses, transit, bicycles, and pedestrian traffic. Coordinating these many forms of transportation is critical to achieving maximum road efficiency and minimizing costly road expansion or construction.

Policies in this section seek to reduce travel demand on the county’s roadway system and maximize the operating efficiency of transportation facilities. The intent is to reduce vehicle emissions and reduce the needed investment in new or expanded facilities. In rural areas transportation management can sometimes be better addressed through development location and access management rather than conventional systems management. Related policies are included in Section LU-F, Urban Development Patterns; Section LU-E, Non-Agricultural Rural Development; Section TR-A, Streets and Highways; and Section OS-G, Air Quality.

GOAL TR-C	To reduce travel demand on the County’s roadway system and maximize the operating efficiency of transportation facilities so as to reduce the quantity of motor vehicle emissions and reduce the amount of investment required in new or expanded facilities.
----------------------	---

GOALS AND POLICIES 2

TRANSPORTATION AND CIRCULATION

TR-C.1 Transportation Control Measures

The County shall support all standards and regulations adopted by the San Joaquin Valley Air Pollution Control District (SJVAPCD) governing transportation control measures (TCMs). *(RDR/PSP/IGC)*

TR-C.2 Transportation System Management

The County shall consider transportation system management (TSM) measures to increase the capacity of the existing roadway network prior to constructing new traffic lanes. Such measures may include traffic signal synchronization and additional turning lanes. *(PSP)*

TR-C.3 Alternative Employee Transportation Modes

The County shall work with the Cities of Fresno and Clovis to encourage new urban development within the FCMA to provide appropriate on-site facilities that encourage employees to use alternative transportation modes as air quality and transportation mitigation measures. The type of facilities may include bicycle parking, shower and locker facilities, and convenient access to transit, depending on the development size and location. *(RDR/SO/IGC)*

D. BIKE FACILITIES

The bicycle has increasingly become a popular means of recreation, transportation, and healthful exercise. The extent of this increase is reflected in the dramatic rise of bicycle sales. This use of the bicycle by a growing segment of the public has generated an interest in the need for adequate facilities for cyclists.

Policies in this section seek to provide a safe, continuous, and easily accessible bikeway system that connects cities to other communities, to major facilities, and to recreational areas and regional parks; these policies also strive to establish bikeways along existing recreational bicycling routes, to encourage safety-oriented design, to link bikeways to other modes of

transportation, and to provide adequate funding. Related policies are included in Section LU-F, Urban Development Patterns; Section LU-E, Non-Agricultural Rural Development; and Section OS-I, Recreational Trails.

GOAL TR-D

To plan and provide a safe, continuous, and easily accessible bikeway system that facilitates the use of the bicycle as a viable alternative transportation mode and as a form of recreation and exercise.

TR-D.1 Bicycle Routes

The County shall implement a system of recreational, commuter, and inter-community bicycle routes in accordance with the Regional Bikeway Plan described in the Circulation Diagram and Standards section and depicted in Figure TR-2. The plan designates bikeways between cities and unincorporated communities, to and near major traffic generators such as recreational areas, parks of regional significance, and other major public facilities, and along recreational routes. *(PSP)*

TR-D.2 Bikeway Construction Priority

The County shall give priority to bikeways that will serve the most cyclists and destinations of greatest demand and to bikeways that close gaps in the existing system. *(PSP)*

TR-D.3 Regional Bikeways Plan

The County shall implement Regional Bikeways Plan routes as Class II facilities unless otherwise designated. *(PSP)*

TR-D.4 Bikeway Improvements

The County shall develop bikeways in conjunction with street improvement projects occurring along streets and roads designated on the Regional Bikeways Plan map. *(RDR)*

TR-D.5 Rights-of-Way Dedications

The County shall require as a condition of land development that adequate rights-of-way or



FRESNO COUNTY GENERAL PLAN

easements are provided for designated bikeways or trails. *(RDR)*

TR-D.6 Bicycle Safety Programs

The County should promote bicycle safety programs through education and awareness programs aimed at both cyclists and motorists. *(PSP/PI)*

TR-D.7 Minimize Conflicts

The County shall construct and maintain bikeways to minimize conflicts between bicyclists and motorists. *(RDR/PSP)*

TR-D.8 Bicycle and Transit Links

The County shall support development of facilities that help link bicycling with other modes of transportation. *(RDR/PSP/IGC)*

TR-D.9 Regional Bicycle and Recreational Trails Master Plan

The County shall maintain and implement the Regional Bicycle and Recreational Trails Master Plan as a framework for future development of the County’s bicycle and recreational trail network and enable the County to pursue local, State, and Federal funding for bicycle and trail facility improvements. *(RDR)*

E. RAIL TRANSPORTATION

Rail transportation has played an important historical role in the development of the county. Currently, the County’s role in rail transportation is limited primarily to land use regulation through the Zoning Ordinance. Federal and State agencies have primary jurisdiction over rail facilities and operations.

Policies in this section seek to provide a safe, efficient, and environmentally-sound rail system by supporting improvements to at-grade crossings, protecting and supporting acquisition of railroad rights-of-way, and developing multi-modal stations that link rail with other transportation modes. Related policies are included in Section LU-F, Urban Development

Patterns; Section LU-E, Non-Agricultural Rural Development; and Section HS-G, Noise.

GOAL TR-E

To plan for a safe, efficient, and environmentally-sound rail system to meet the needs of all Fresno County residents, industry, commerce, and agriculture.

TR-E.1 Railway Consolidation

The County shall support consolidation of the Burlington Northern Santa Fe main line traffic onto the Union Pacific right-of-way from Calwa to the San Joaquin River. *(PSP/JP)*

TR-E.2 At-grade Rail Crossings

The County shall support improvements to at-grade crossings on the Burlington Northern Santa Fe and Union Pacific mainline and spur or branch line tracks within the county. *(PSP)*

TR-E.3 Railway Rights-of-Way Acquisition

The County shall support acquisition by local agencies of railroad rights-of-way that are: 1) in designated transit corridors shown in Figure TR-3 and 2) required for public health, safety, and welfare. *(PSP/IGC)*

TR-E.4 Railway Rights-of-Way Protection

The County shall work cooperatively with the railroads on the long-term protection of railroad rights-of-way. *(PSP/IGC/JP)*

TR-E.5 Multi-modal Rail Stations

The County shall support multi-modal stations at appropriate locations to integrate rail transportation with other transportation modes. *(PSP/IGC)*

GOALS AND POLICIES **2**

TRANSPORTATION AND CIRCULATION

TR-E.6 High-Speed Rail

The County shall support the development of a statewide high-speed rail service through the Central Valley that serves downtown Fresno and that parallels the Burlington Northern/Santa Fe corridor south of the city of Fresno and the Union Pacific corridor through the city of Fresno. The County shall support locating a heavy maintenance facility for the high-speed train in Fresno County. *(PSP/IGC)*

TR-F.2 Airport Land Use Commission

The County shall continue support of the Airport Land Use Commission. *(RDR/IGC)*

TR-F.3 Regional Cargo Airport

The County shall support the concept of a regional cargo airport on the county's west side to serve the growing needs of agricultural commerce. *(PSP)*

F. AIR TRANSPORTATION

Air transportation plays a key role in the movement of goods and people not only to locations outside of the county but also between locations within the county. Currently, the County's role in air transportation is strictly limited to land use regulation through the Zoning Ordinance. State and Federal agencies have primary jurisdiction over airport facilities and operations.

Policies in this section seek to promote the maintenance and improvement of general and commercial aviation facilities by avoiding potential land use conflicts between airports and surrounding urban uses and supporting the local Airport Land Use Commission. Related policies are included in Section LU-F, Urban Development Patterns; Section LU-E, Non-Agricultural Rural Development; and Section HS-G, Noise.

GOAL TR-F

To promote the maintenance and improvement of general and commercial aviation facilities within the parameters of compatible surrounding land uses.

TR-F.1 Airport Land Use Regulations

The County shall continue to support Federal and State regulations governing operations and land use restrictions related to airports in the county. *(RDR)*



FRESNO COUNTY GENERAL PLAN

PART 2: GOALS AND POLICIES PUBLIC FACILITIES AND SERVICES ELEMENT

Effective development in Fresno County requires a complex yet reliable network of public facilities and services. The various public facilities and services in Fresno County must be bolstered and adapted to accommodate growth and change. The General Plan sets out policies and implementation programs to ensure that public facilities and services can respond to increased demands associated with community growth. Anticipated demands on public facilities and services in Fresno County reflect the major land use themes outlined within the General Plan. These land use themes include directing urban growth to existing communities, limiting the intrusion of development onto productive agricultural land, and limiting the spread of rural residential development.

The Public Facilities and Services Element sets out goals and policies organized into ten sections: General Public Facilities and Services; Funding; Water Supply and Delivery; Wastewater Collection, Treatment, and Disposal; Storm Drainage and Flood Control; Landfills, Transfer Stations, and Solid Waste Processing Facilities; Law Enforcement; Fire Protection and Emergency Medical Services; School and Library Facilities; and Utilities. Specific implementation programs related to Public Facilities and Services goals and policies can be found in Part 3 of this General Plan.

GOALS AND POLICIES 2

PUBLIC FACILITIES AND SERVICES

A. GENERAL PUBLIC FACILITIES AND SERVICES

Development requires a wide range of publicly-provided facilities and services, such as water, wastewater disposal, storm drainage, and garbage collection. The General Plan seeks to plan for the logical and efficient extension of these services as new development occurs.

Policies in this section seek to ensure public facilities and services are available in a timely manner to serve new development. Related policies are included in Section LU-E, Non-Agricultural Rural Development; Section LU-F, Urban Development Patterns; LU-G, Incorporated City, Fringe Area and Unincorporated Community Development; Section PF-B, Funding; Section PF-C, Water Supply and Delivery; Section PF-D, Wastewater Collection, Treatment, and Disposal; and PF-E, Storm Drainage and Flood Control.

GOAL PF-A

To ensure the timely development of public facilities and to maintain an adequate level of service to meet the needs of existing and future development.

PF-A.1 Infrastructure Plans

The County shall ensure that an infrastructure plan or area facility plan is prepared in conjunction with preparation of a new or update of an existing community plan or specific plan to address the technical, managerial, and financial capacity of special districts to serve the proposed and/or potential developments. Such plans shall include phasing and facility improvement timelines. (PSP)

PF-A.2 Facilities and Services

The County shall ensure through the development review process that public facilities and services will be developed, operational, and available to serve new development. The County shall not approve new development where existing facilities are inadequate unless

the applicant can demonstrate that all necessary public facilities will be installed or adequately financed and maintained (through fees or other means). (RDR)

PF-A.3 Industrial Infrastructure

The County shall require new industrial development to be served by community sewer, stormwater, and water systems where such systems are available or can feasibly be provided. (RDR)

PF-A.4 Sewer, Stormwater, and Water Systems

The County shall require new urban commercial and urban-density residential development to be served by community sewer, stormwater, and water systems. (RDR)

PF-A.5 Underground Utilities

The County shall encourage the placement of irrigation canals and utility lines underground as urban residential, commercial, and industrial development takes place. (RDR/PSP)

PF-A.6 Special District Consolidation

The County shall oppose the creation of new governmental entities within cities and their spheres of influence and will support efforts to consolidate existing special purpose districts. (RDR)

PF-A.7 Growth and Services

The County shall encourage the cities to consult the County on policy changes which may have an impact on growth or the provision of urban services. (RDR/IGC)

B. FUNDING

In the past, Federal and State grants paid for many improvements and expansions of public facilities, but this type of funding has dwindled in recent years. Generally, expansion of existing facilities or the development of new facilities is the responsibility of the private developer. Public entities are responsible for operation and maintenance of such facilities in accordance



FRESNO COUNTY GENERAL PLAN

with all State, Federal, and local laws. Residents and property owners within the service area are responsible for the costs of operation and maintenance of public facilities and services which are usually collected as assessments, charges, and fees for service. The occasional need to upgrade or replace capital facilities may be funded by service fees, surcharge fees, assessments, grants, loans, bonds or other financial instruments.

Policies in this section seek to ensure that new development accounts for the cost of new public facilities; that there are adequate funding sources for new facilities and services; and that public financing is equitable, financially feasible, and consistent with County guidelines, policies, and existing fee programs. The policies also seek to ensure that public facilities are constructed in accordance with an approved public facilities plan and in accordance with approved standards of the County or special district. Related policies are included in Section LU-E, Non-Agricultural Rural Development; Section LU-F, Urban Development Patterns; and Section LU-G, Incorporated City, City Fringe Area, and Unincorporated Community Development.

GOAL PF-B	To ensure that adopted facility and service standards are achieved and maintained through the use of equitable funding methods.
----------------------	---

PF-B.1 Facilities and Services Funding
The County shall require that new development pays its fair share of the cost of developing new facilities and services and upgrading existing public facilities and services. Exceptions may be made when new developments generate significant public benefits (e.g., low-income housing) and when alternative sources of funding can be identified to offset foregone revenues. *(RDR)*

PF-B.2 Broad-based Funding Sources
The County shall seek broad-based funding sources for public facilities and services that

benefit current and future residents of the county. *(FB)*

PF-B.3 Mitigating Facility Impacts
The County shall require that new development pays the costs of mitigating impacts on existing County facilities to the extent capacity is provided through existing infrastructure networks. *(RDR)*

PF-B.4 Public Financing Plan
The County shall require a public financing plan be in place prior to the start of construction of new development to ensure that all required public improvements are adequately funded and provided in a timely manner. *(RDR/FB)*

PF-B.5 Equitable and Feasible Financing
The County shall ensure that public financing be equitable, financially feasible, and consistent with County guidelines, policies, and existing fee programs. *(RDR/FB)*

PF-B.6 Public Finance Districts
If the County forms public financing districts, the County shall efficiently utilize bond proceeds, subject to the requirements of the County’s policy for use of public financing for private development projects. *(FB)*

PF-B.7 Equitable Share of Costs
The County shall allocate the cost of public improvements to all benefitting properties and, to the extent that a landowner is required to pay for facility oversizing, the County shall use reimbursement mechanisms to maintain equity among all benefitting property owners. *(FB)*

GOALS AND POLICIES **2**

PUBLIC FACILITIES AND SERVICES

C. WATER SUPPLY AND DELIVERY

Water supply and delivery is a critical issues for Fresno County and is essential to the environment, economy, and quality of life. Readily available groundwater and the development of facilities for the storage and conveyance of surface water have allowed Fresno County to grow and prosper as the nation’s premier agricultural region. Fresno County’s agriculture and its many dependent businesses are sustained by an affordable and reliable water supply made possible through conjunctive use of groundwater and stored surface water. In addition, the ready availability of high quality groundwater allows most residents, municipalities, and industries within Fresno County to meet their water supply needs without expensive delivery and treatment infrastructure.

However, there are a number of factors affecting the county’s existing water resources. Throughout much of the county, groundwater is in a state of overdraft. In some county areas, contamination from natural or manmade sources has reduced groundwater quality such that its use requires treatment. Increased contamination of surface water sources is also an emerging concern. There are also concerns regarding the import and export of surface water that could affect long-term supplies. Finally, there is the increase in water demand that will accompany the county’s anticipated growth.

Policies in this section seek to ensure an adequate water supply for both domestic and agricultural users by providing necessary facility improvements, ensuring water availability, and using water conservation measures. Related policies are included in Section OS-A, Water Resources; Section PF-B, Funding; and Section PF-E, Storm Drainage and Flood Control.

GOAL PF-C	To ensure the availability of an adequate and safe water supply for domestic and agricultural consumption.
----------------------	--

GENERAL

PF-C.1 Retain Existing Water Supplies

The County shall engage in, and support, the efforts of others within Fresno County to retain existing water supplies and develop new water supplies. *(PSP)*

PF-C.2 Import Surplus Water

The County shall actively engage in efforts and support the efforts of others to import flood, surplus, and other available waters for use in Fresno County. *(PSP)*

PF-C.3 Surface Water Use

To reduce demand on the county’s groundwater resources, the County shall encourage the use of surface water to the maximum extent feasible. *(PSP)*

PF-C.4 Water Storage

The County shall support efforts to expand groundwater and/or surface water storage that benefits Fresno County. *(PSP)*

PF-C.5 Water Banking

The County shall support water banking when the program has local sponsorship and involvement and provides new benefits to the County. *(PSP)*

PF-C.6 Urban Best Management Practices

The County shall recommend to all cities and urban areas within the county that they adopt the most cost-effective Urban Water Management Plans published and updated by the California Urban Water Agencies, California Department of Water Resources, or other appropriate agencies as a means of meeting some of the future water supply needs. *(PSP/IGC)*

PF-C.7 Infrastructure Planning for Water

The County shall require preparation of infrastructure master plans for the provision of potable water for areas undergoing urban growth. *(PSP)*



FRESNO COUNTY GENERAL PLAN

PF-C.8 Preserve Local Water Rights/Supply

The County shall work with local irrigation districts and water management agencies to preserve local water rights and supply. *(PSP/IGC)*

PF-C.9 Community Water Systems

The County shall require any community water system in new residential subdivisions to be owned and operated by a public entity or an entity governed by the California Public Utilities Commission and determined adequate/acceptable by the County. *(RDR)*

PF-C.10 Ongoing Water Supply

The County shall actively participate, or support the efforts of other local agencies, in the development and implementation of Sustainable Groundwater Management Plans to ensure a sustainable water supply is available to help support agriculture and accommodate future growth. *(PSP)*

DOMESTIC WATER SUPPLY

PF-C.11 Adequate Sustainable Water Supply

The County shall approve new development only if an adequate sustainable water supply to serve such development is demonstrated. *(RDR)*

PF-C.12 Limited Ground Water

In those areas identified as having severe groundwater level declines or limited groundwater availability, the County shall limit development to uses that do not have high water usage or that can be served by a surface water supply. *(RDR)*

PF-C.13 Water Quality Standards

The County shall require that water supplies serving new development meet US Environmental Protection Agency and California Department of Public Health and other water quality standards. *(RDR)*

PF-C.14 Surface Water Treatment

The County shall require that surface water used to serve new development be treated in accordance with the requirements of the California Surface Water Treatment Rule (California Code of Regulations, Title 22, Division 4, Chapter 17). *(RDR)*

PF-C.15 Water Demand Impact Mitigation

If the cumulative effects of more intensive land use proposals are detrimental to the water supplies of surrounding areas, the County shall require approval of the project to be dependent upon adequate mitigation. The County shall require that costs of mitigating such adverse impacts to water supplies be borne proportionately by all parties to the proposal. *(RDR)*

PF-C.16 Water Supply Evaluation

The County shall, prior to consideration of any discretionary project related to land use, require a water supply evaluation be conducted. The evaluation shall include the following:

- a. A determination that the water supply is adequate to meet the highest demand that could be permitted on the lands in question. If surface water is proposed, it must come from a reliable source and the supply must be made “firm” by water banking or other suitable arrangement. If groundwater is proposed, a hydrogeologic investigation may be required to confirm the availability of water in amounts necessary to meet project demand. If the lands in question lie in an area of limited groundwater, a hydrogeologic investigation shall be required.
- b. If use of groundwater is proposed, a hydrogeologic investigation may be required. If the lands in question lie in an area of limited groundwater, a hydrogeologic investigation shall be required. Should the investigation determine that significant pumping-related physical impacts will extend beyond the boundary of the property in question, those impacts shall be mitigated.

GOALS AND POLICIES **2**

PUBLIC FACILITIES AND SERVICES

c. A determination that the proposed water supply is sustainable or that there is an acceptable plan to achieve sustainability. The plan must be structured such that it is economically, environmentally, and technically feasible. In addition, its implementation must occur prior to long-term and/or irreversible physical impacts, or significant economic hardship, to surrounding water users. *(RDR/PSR)*

PF-C.17 Surface Water Entitlement

In the case of lands entitled to surface water, the County shall approve only land use-related projects that provide for or participate in effective use of the surface water entitlement such as:

- a. Constructing facilities for the treatment and delivery of surface water to lands in question;
- b. Developing facilities for groundwater recharge of the surface water entitlement;
- c. Participating in the activities of a public agency charged with the responsibility for recharge of available water supplies for the beneficial use of the subject lands. *(RDR)*

PF-C.18 Small Community Water Systems

The County shall discourage the proliferation of small community water systems. *(PSP)*

PF-C.19 Private Water Wells

The County shall not permit new private water wells within areas served by a public water system. *(RDR)*

PF-C.20 Wells Near Water Courses

For development projects that are subject to discretionary permit and include new wells near live streams or water courses, the County may require a hydrologic investigation to evaluate potential effects on live streams or water courses. *(RDR)*

AGRICULTURAL WATER SUPPLY

PF-C.21 Agriculture Surface Water

The County shall promote the use of surface water for agricultural use to reduce groundwater table reductions. *(PSP)*

WATER TRANSFER POLICIES

PF-C.22 Out-of-County Groundwater Transfers

The County shall support efforts to regulate the transfer of groundwater for use outside of Fresno County. This support shall extend to the substitution of groundwater for transferred surface water. *(RDR)*

WATER CONSERVATION

PF-C.23 Water Conservation Technologies

The County shall require that all new development within the county use water conservation technologies, methods, and practices as established by the County. *(RDR)*

PF-C.24 Reclaimed Water

The County shall encourage the use of reclaimed water where economically, environmentally, and technically feasible. *(PSP)*

PF-C.25 Integrated Regional Water Management Planning

The County shall participate in integrated Regional Water Management Planning efforts with other local and regional water stakeholders to plan for the efficient use, enhancement, and management of surface and groundwater supplies. *(PSP/PSR/IGC)*

PF-C.26 Agricultural Water Conservation

The County shall encourage agricultural water conservation where economically, environmentally, and technically feasible. *(PSP)*



FRESNO COUNTY GENERAL PLAN

PF-C.27 Tiered Water Pricing

The County may consider tiered water pricing within County Service Areas and County Waterworks Districts where appropriate in order to ensure adequate funding for maintenance or improvements associated with increases in consumption. *(RDR)*

PF-C.28 Man-made Lakes and Ponds

The County shall generally not approve land use-related projects that incorporate a man-made lake or pond that will be sustained by the use of groundwater. *(RDR)*

D. WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL

Cities and special districts own and operate numerous wastewater collection systems throughout the county. Residents in rural areas that are not served by centralized systems use on-site septic systems. Industrial uses in the county are required to provide treatment or pre-treatment of their wastewater and obtain separate discharge permits from the Central Valley California Regional Water Quality Control Board (Regional Board).

Wastewater service within the unincorporated county is generally provided by special districts. Many unincorporated communities in Fresno County have elected to form these special districts to provide sewage collection and wastewater treatment, as well as other services. Approximately 30 of these districts provide wastewater services. The County owns and operates ten wastewater treatment facilities on behalf of waterworks districts and County Service Areas.

Fresno County’s Mandatory Sewer Connection Ordinance requires connection to public sewer systems where they are available, precluding the issuance of permits for installation of individual on-site septic systems in such cases. In areas where public systems become available where they did not previously exist, structures served by individual septic systems must be connected

to the public system within three years, or sooner if the existing facilities pose a health risk.

Policies in this section seek to ensure the safe disposal of wastewater by promoting efficient water use, reduced wastewater system demand in centralized systems, and by ensuring safe development, operation, and maintenance of on-site septic systems. Related policies are included in Section OS-A, Water Resources, and Section PF-B, Funding.

GOAL PF-D

To ensure adequate wastewater collection and treatment and the safe disposal of wastewater.

PF-D.1 Public Water Treatment Facilities

The County shall encourage the installation of public wastewater treatment facilities in existing communities that are experiencing repeated septic system failures and lack sufficient area for septic system repair or replacement and/or are posing a potential threat to groundwater. *(PSP)*

PF-D.2 Wastewater Treatment Facility Operation

The County shall require that any new community sewer and wastewater treatment facilities serving residential subdivisions be owned and maintained by a public entity or entity governed by the California Public Utilities Commission and approved by the County. *(RDR)*

PF-D.3 Wastewater Treatment Standards

The County shall require that any new community wastewater treatment facility meet the policy standard of Policy OS-A.30. *(RDR)*

PF-D.4 Available Wastewater Treatment Capacity

The County shall limit the expansion of unincorporated, urban density communities to areas where community wastewater treatment facilities can be provided. *(RDR)*

GOALS AND POLICIES 2

PUBLIC FACILITIES AND SERVICES

PF-D.5 Reduced Wastewater System Demand

The County shall promote efficient water use and reduced wastewater system demand by:

- a. Requiring water conserving design and equipment in new construction;
- b. Encouraging retrofitting with water conserving devices; and
- c. Designing wastewater systems to minimize inflow and infiltration, to the extent economically feasible. *(RDR/PSP)*

PF-D.6 On-site Sewage Disposal Systems

The County shall permit individual on-site sewage disposal systems on parcels that have the area, soils, and other characteristics that permit installation of such disposal facilities without threatening surface or groundwater quality or posing any other health hazards and where community sewer service is not available and cannot be provided. *(RDR)*

PF-D.7 Sewer Master Plans

The County shall require preparation of sewer master plans for wastewater treatment facilities for areas experiencing urban growth. *(RDR/PSP)*

PF-D.8 Infrastructure Planning for Wastewater

The County shall require preparation of infrastructure master plans for the provision of wastewater collection for areas undergoing urban growth. *(PSP)*

E. STORM DRAINAGE AND FLOOD CONTROL

Flooding is a natural occurrence in the Central Valley because it is the drainage basin for thousands of watershed acres of Sierra Nevada and Coast Range foothills and mountains. During winter and spring months, heavy rainfall and snowmelt swell the county's river systems. Flooding in Fresno County occurs primarily along the Kings River in the central-eastern

portion of the county and some sections of the San Joaquin River and along many of the foothill streams along the east and west sides of the valley.

The valley floor of Fresno County has many challenges concerning storm drainage and flood control due to its mountain watersheds and the flat topography of the central valley floor. During the winter and spring months, river and stream systems in Fresno County swell with heavy rainfall and snow melt runoff. Diverting and retaining this water for groundwater replenishment is crucial for not only public safety but maintaining an adequate water supply for domestic and agricultural uses.

Most of the storm drainage systems within the Fresno/Clovis metropolitan area are managed by the Fresno Metropolitan Flood Control District. Storm drainage systems prevent flooding by diverting rainwater off of the streets and other paved surfaces and into a natural body of water.

Policies in this section seek to ensure safe, efficient, and environmentally-sound means to drain stormwater and provide flood control by providing necessary facility improvements, ensuring adequate funding, providing a means to detain/retain runoff, and ensuring the facilities meet State environmental regulations. Related policies are included in Section HS-C, Flood Hazards; Section OS-A, Water Resources; and Section PF-B, Funding.

Goal PF-E	To provide efficient, cost-effective, and environmentally-sound storm drainage and flood control facilities that protect both life and property and to divert and retain stormwater runoff for groundwater replenishment.
----------------------	---

PF-E.1 Flood Control Coordination

The County shall coordinate with the agencies responsible for flood control or storm drainage to assure that construction and acquisition of flood control and drainage facilities are adequate



FRESNO COUNTY GENERAL PLAN

for future urban growth authorized by the County General Plan and city general plans. *(RDR/IGC)*

PF-E.2 Multi-use Flood Control Facilities

The County shall encourage the agencies responsible for flood control or storm drainage to coordinate the multiple use of flood control and drainage facilities with other public agencies. *(PSP/IGC)*

PF-E.3 Equitable Flood Control Costs

The County shall encourage the Fresno Metropolitan Flood Control District to spread the cost of construction and acquisition of flood control and drainage facilities in the most equitable manner consistent with the growth and needs of this area. *(IGC)*

PF-E.4 Storm Drainage System Capacity

The County shall encourage the local agencies responsible for flood control or storm drainage to require that storm drainage systems be developed and expanded to meet the needs of existing and planned development. *(RDR/IGC)*

PF-E.5 Impacts to Flood Control Facilities

The County shall only approve land use-related projects that will not render inoperative any existing canal, encroach upon natural channels, and/or restrict natural channels in such a way as to increase potential flooding damage. *(RDR)*

PF-E.6 Drainage Facility Construction

The County shall require that drainage facilities be installed concurrently with and as a condition of development activity to ensure the protection of the new improvements as well as existing development that might exist within the watershed. *(RDR)*

PF-E.7 Fair-share of Costs

The County shall require new development to pay its fair share of the costs of Fresno County

storm drainage and flood control improvements within unincorporated areas. *(RDR)*

PF-E.8 Locating Drainage Facilities

The County shall encourage the local agencies responsible for flood control or storm drainage to precisely locate drainage facilities well in advance of anticipated construction, thereby facilitating timely installation and encouraging multiple construction projects to be combined, reducing the incidence of disruption of existing facilities. *(PSP/IGC)*

PF-E.9 100-year Flood Protection

The County shall require new development to provide protection from the 100-year flood as a minimum. *(RDR)*

PF-E.10 Drainage Facility Design

In growth areas within the jurisdiction of a local agency responsible for flood control or storm drainage, the County shall encourage that agency to design drainage facilities as if the entire areas of service were developed to the pattern reflected in the adopted general plans to assure that the facilities will be adequate as the land use intensifies. *(PSP/IGC)*

PF-E.11 Natural Site Drainage Patterns

The County shall encourage project designs that minimize drainage concentrations and maintain, to the extent feasible, natural site drainage patterns. *(RDR)*

PF-E.12 Drainage System Discharge Standards

The County shall coordinate with the local agencies responsible for flood control or storm drainage to ensure that future drainage system discharges comply with applicable State and Federal pollutant discharge requirements. *(RDR/IGC)*

PF-E.13 Natural Storm Water Drainage Systems

The County shall encourage the use of natural storm water drainage systems to preserve and enhance natural drainage features. *(RDR/PSP)*

GOALS AND POLICIES **2**

PUBLIC FACILITIES AND SERVICES

PF-E.14 Retention-Recharge Basins

The County shall encourage the use of retention-recharge basins for the conservation of water and the recharging of the groundwater supply. *(RDR/PSP)*

PF-E.15 Basin Landscaping and Open Space

The County should require that retention-recharge basins be suitably landscaped to complement adjacent areas and should, wherever possible, be made available to the community to augment open space and recreation needs. *(RDR/PSP)*

PF-E.16 Minimal Sedimentation and Erosion

The County shall minimize sedimentation and erosion through control of grading, cutting of trees, removal of vegetation, placement of roads and bridges, and use of off-road vehicles. The County shall discourage grading activities during the rainy season, unless adequately mitigated, to avoid sedimentation of creeks and damage to riparian habitat. *(RDR)*

PF-E.17 Groundwater Recharge

The County shall encourage the local agencies responsible for flood control or storm drainage retention-recharge basins located in soil strata strongly conducive to groundwater recharge to develop and operate those basins in such a way as to facilitate year-round groundwater recharge. *(PSP/IGC)*

PF-E.18 Minimum Number of Basins

The County shall encourage the local agencies responsible for flood control or storm drainage to plan retention-recharge basins on the principle that the minimum number will be the most economical to acquire, develop, operate, and maintain. *(PSP/IGC)*

PF-E.19 Major Courses for Drainage Discharges

In areas where urbanization or drainage conditions preclude the acquisition and use of retention recharge basins, the County shall

encourage the local agencies responsible for flood control or storm water drainage to discharge storm or drainage water into major canals and other natural water courses subject to the following conditions:

- a. The volume of discharge is within the limits of the capacity of the canal or natural water course to carry the water.
- b. The discharge complies with the requirements of applicable State and Federal regulations (e.g., National Pollution Discharge Elimination System).
- c. The agency responsible for ownership, operation, or maintenance of the canal or natural water course approves of the discharge. *(RDR/PSP/IGC)*

PF-E.20 Storm Water Drainage Discharges

The County shall require new development of facilities near rivers, creeks, reservoirs, or substantial aquifer recharge areas to mitigate any potential impacts of release of pollutants in flood waters, flowing rivers, streams, creeks, or reservoir waters. *(RDR)*

PF-E.21 Best Management Practices

The County shall require the use of feasible and practical best management practices (BMPs) to protect streams from the adverse effects of construction activities and shall encourage the urban storm drainage systems and agricultural activities to use BMPs. *(RDR/PSP)*

PF-E.22 Odor and Vector Control

The County shall encourage the local agencies responsible for flood control or storm drainage to control obnoxious odors or mosquito breeding conditions connected with any agency facility by appropriate measures. *(PSP/IGC)*

F. LANDFILLS, TRANSFER STATIONS, AND SOLID WASTE PROCESSING FACILITIES

Proper siting of solid waste facilities such as landfills, transfer and processing stations, and



FRESNO COUNTY GENERAL PLAN

resource recovery facilities is crucial to protecting the environment and meeting the increasingly stringent State and Federal requirements for such facilities.

Fresno County operates one active solid waste disposal facility, the American Avenue Landfill. This landfill has a service area of 6,000 square miles.

Policies in this section reaffirm and incorporate the goals and policies of the County Integrated Waste Management Plan and the Memorandum of Understanding (MOU) executed between the Cities of Fresno and Clovis and the County of Fresno, which address solid waste disposal and facilities. Related policies are included in Section HS-F, Hazardous Materials.

Goal PF-F	To ensure the safe and efficient disposal or recycling of solid waste generated in the county in an effort to protect the public health and safety.
----------------------	---

PF-F.1 Solid Waste Source Reduction

The County shall continue to promote maximum use of solid waste source reduction, reuse, recycling, composting, and environmentally-safe transformation of wastes. (PSP)

PF-F.2 Onsite Recycling Storage and Collection

The County shall require new commercial, industrial, and multi-family residential uses to provide adequate areas on-site to accommodate the collection and storage of recyclable materials. (RDR)

PF-F.3 Solid Waste Facility Siting

The County shall locate all new solid waste facilities including disposal sites, resource recovery facilities, transfer facilities, processing facilities, composting facilities, and other similar facilities in areas where potential environmental impacts can be mitigated and the facilities are compatible with surrounding land uses. Site selection for solid waste facilities shall be guided by the following criteria:

- a. Solid waste facility sites shall not be located within the conical surface, as defined by Federal Aviation Regulations, Part 77, of a public use airport, except for enclosed facilities;
- b. Solid waste facilities shall not be sited on productive agricultural land if less productive lands are available;
- c. Solid waste facilities shall be located in areas of low concentrations of people and dwellings; and
- d. Solid waste facilities shall be located along or close to major road systems. Facility traffic through residential neighborhoods should not be permitted. It is preferable that the roadways used for solid waste transfer conform to approved truck routes.
- e. Solid waste facilities shall not be located adjacent to rivers, reservoirs, canals, lakes, or other waterways. (RDR/PSP)

PF-F.4 Solid Waste Facility Encroachment

The County shall protect existing or planned solid waste facilities from encroachment by incompatible land uses that may be allowed through discretionary land use permits or changes in land use or zoning designations. (RDR)

PF-F.5 County Integrated Waste Management Plan

The County shall ensure that all new development complies with applicable provisions of the County Integrated Waste Management Plan. (RDR)

PF-F.6 Private Landfills

The County shall not allow the siting of new landfills. The County shall phase out privately-owned landfills, except for inert disposal sites. The County shall not permit existing privately-owned landfills to expand beyond the current capacities, which are defined in their solid waste facility permits. (RDR)

PF-F.7 Mitigated Impacts

The County shall impose site development and operational conditions on new solid waste

GOALS AND POLICIES **2**

PUBLIC FACILITIES AND SERVICES

facilities in order to mitigate potential environmental impacts on existing and planned land uses in the area. *(RDR)*

PF-F.8 Existing Public Landfills

The County has designated the American Avenue Landfill as the regional landfill to serve the incorporated and unincorporated areas of the county. The publicly-operated Coalinga and Clovis landfills may continue to operate provided the sites are operated economically and in compliance with all environmental laws and regulations. Existing publicly-operated landfills may be expanded. *(PSP)*

PF-F.9 Property Acquisition Near Landfills

The County should acquire properties, when feasible, near the regional landfill to protect the landfill from incompatible uses and to provide a buffer for the landfill. *(PSP)*

PF-F.10 Waste Transfer Stations

The County shall support the development of accessible waste transfer stations for county residents, and require the following siting criteria for transfer/processing stations:

- a. Sites shall be of adequate size to accommodate proposed transfer/ processing station operations and vehicle storage and should be of adequate size to provide for expansion to accommodate future shifts in resource recovery technology;
- b. Transfer stations shall be located within designated commercial or industrial areas except where commercial and industrial lands are only limitedly available within the Sierra North and Sierra South Regional Plans. Landfills closed under appropriate closure regulations may be considered for transfer station sites; and
- c. Transfer station sites with direct access to or in transportation corridors are preferable. *(RDR/PSP)*

PF-F.11 Resource Recovery Facilities Requirements

The County shall require the following siting criteria for resource recovery facilities:

- a. Sites shall be of adequate size to accommodate the proposed plant and facilities anticipated for future shifts in resource recovery and pollution control technology;
- b. Sites should provide opportunities for steam use or development of steam users or otherwise maximize energy use;
- c. Sites with existing or planned urban residential land uses downwind should be avoided; and
- d. Resource recovery sites with direct access to or in transportation corridors are preferable. *(RDR)*

PF-F.12 Waste Disposal Site Requirements

The County shall require the following siting criteria for inert waste disposal sites:

- a. Sites shall be of adequate size to accommodate proposed waste disposal operations;
- b. Operation of disposal sites should not increase the site elevation above elevations of adjacent properties and should not preclude reasonable future use of the property; and
- c. Permanent site improvements associated with inert waste disposal should be discouraged, as the inert disposal operation is a temporary operation. *(RDR)*

G. LAW ENFORCEMENT

As Fresno County continues to develop, consideration must be given to the capacity of law enforcement facilities and services.

Policies in this section seek to ensure the prompt and efficient provision of law enforcement service by providing that adequate staffing, facilities, and funding are available in new development areas. Related policies are included in Section PF-B, Funding, and Section TR-A, Streets and Highways.

**Goal
PF-G**

To protect life and property by deterring crime and ensuring the prompt and efficient provision of law enforcement service and



FRESNO COUNTY GENERAL PLAN

facility needs to meet the growing demand for police services associated with an increasing population.

PF-G.1 Effective Law Enforcement

The County shall ensure the provision of effective law enforcement services to unincorporated areas in the county. *(PSP/SO)*

PF-G.2 Law Enforcement Staffing Standards

The County shall strive to maintain a staffing ratio of two (2) sworn officers serving unincorporated residents per 1,000 residents served. (This count of officers includes all ranks of deputy sheriff personnel and excludes all support positions and all sworn officers serving countywide population interests such as bailiffs and sworn officers serving contract cities and grant-specific populations). *(PSP/SO)*

PF-G.3 Sheriff Facility Sites

The County shall identify and establish funds for acquisition of adequate sheriff facility sites in unincorporated locations of the county. *(PSP/FB)*

PF-G.4 Law Enforcement Service Standards

The County shall require development to pay its fair share of the costs for providing law enforcement facilities and equipment to maintain service standards. *(RDR)*

PF-G.5 Law Enforcement Service Standards

The County shall provide law enforcement support to adequately maintain its service standards, within the County’s budgetary constraints. *(PSP)*

PF-G.6 Safe Design Features

The County shall promote the incorporation of safe design features (e.g., lighting, adequate view from streets into parks) into new development by providing the Sheriff

Department the opportunity to review development proposals. *(RDR/PSP)*

H. FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

As the population grows, fire protection and emergency medical facilities and services may require more resources to accommodate increased demand. Fire protection services in the unincorporated county are provided by 9 different Fire Protection Districts (FPD), including the Fresno County Fire Protection District.

Policies in this section seek to facilitate the prompt and efficient provision of fire and emergency medical facility and service needs, ensure adequate funding for fire services are available in new development areas, and to protect the life and property of the Fresno County community. Related policies are included in Section HS-A, Emergency Management and Response; Section HS-B, Fire Hazards; Section PF-B, Funding; Section LU-G, Incorporated City, City Fringe Area, and Unincorporated Community Development; and Section TR-A, Streets and Highways.

Goal PF-H

To ensure the prompt and efficient provision of fire and emergency medical facility and service needs, to protect residents of and visitors to Fresno County from injury and loss of life, and to protect property from fire.

PF-H.1 Provision of Fire/Emergency Medical Service

The County shall work cooperatively with local fire protection districts to ensure the provision of effective fire and emergency medical services to unincorporated areas within the county. *(PSP/IGC)*

GOALS AND POLICIES **2**

PUBLIC FACILITIES AND SERVICES

PF-H.2 Adequate Fire Protection Facilities

Prior to the approval of a development project, the County shall determine the need for fire protection services. New development in unincorporated areas of the county shall not be approved until such time that fire protection facilities and services acceptable to the Public Works and Planning Director in consultation with the appropriate fire district are provided. *(RDR/PSP/PSR)*

PF-H.3 Fire Station Location

The County shall require that new fire stations be located to achieve and maintain a service level capability consistent with services for existing land uses. *(RDR/PSP)*

PF-H.4 Fire and Emergency Medical Sites

The County shall reserve adequate sites for fire and emergency medical facilities in unincorporated locations in the county. *(RDR/PSP)*

PF-H.5 Minimize Fire Hazard Risk

The County shall require that new development be designed to maximize safety and minimize fire hazard risks to life and property. *(RDR)*

PF-H.6 Long Response Areas

The County shall limit development to very low densities in areas where emergency response times will be more than 20 minutes. *(RDR)*

PF-H.7 Fire Protection Standards

The County shall encourage local fire protection agencies in the county to maintain the following as minimum fire protection standards (expressed as Insurance Service Organization (ISO) ratings):

- a. ISO 4 in urban areas;
- b. ISO 6 in suburban areas; and
- c. ISO 8 in rural areas. *(PSP/IGC)*

PF-H.8 Minimum Response Times

The County shall encourage local fire protection agencies in the county to maintain the following

as minimum standards for average first alarm response times to emergency calls:

- a. 5 minutes in urban areas;
- b. 15 minutes in suburban areas; and
- c. 20 minutes in rural areas. *(PSP/IGC)*

PF-H.9 Fair-share Costs

The County shall require new development to develop or to pay its fair share of the costs to fund fire protection facilities that, at a minimum, maintain the service level standards in the preceding policies. *(RDR)*

PF-H.10 California Fire Code

The County shall ensure that all proposed developments are reviewed for compliance with fire safety standards by responsible local fire agencies per the California Fire Code and other State and local ordinances. *(RDR)*

PF-H.11 Emergency Medical Service

The County shall encourage local fire protection agencies to provide and maintain advanced levels of emergency medical services (EMS) to the public, consistent with current practice. *(PSP/IGC)*

I. SCHOOL AND LIBRARY FACILITIES

New residential development has the potential to increase enrollment and overcrowd existing school facilities. One of the county's main priorities is to ensure that adequate public school facilities are available or will be available to meet the needs of the proposed development. New residential growth will also bring demand for new or expanded library facilities in the county.

Policies in this section seek to provide safe access to schools, maintain acceptable levels of service, and ensure adequate funding for new school and library facilities. Related policies are included in Section PF-B, Funding.



FRESNO COUNTY GENERAL PLAN

Goal PF-I

To provide for the educational needs of Fresno County and provide libraries for the educational, recreational, and literary needs of Fresno County residents.

PF-I.1 Quality Education Facilities

The County shall encourage school districts to provide quality educational facilities to accommodate projected student growth in locations consistent with land use, infrastructure, and service policies of the General Plan. *(PSP/IGC)*

PF-I.2 School Facility Siting

The County shall encourage school facility siting that establishes schools as focal points within the neighborhood and community with available school grounds for recreation activities and safe pedestrian and bicycle access. *(RDR/PSP/IGC)*

PF-I.3 School District Plans

The County shall consider school district plans when designating existing and future school sites in community plans and specific plans to accommodate school district needs. *(RDR/PSP)*

PF-I.4 Planning School Facility Needs

The County shall work cooperatively with school districts in monitoring housing, population, and school enrollment trends and in planning for future school facilities, infrastructure, and service needs, and shall assist school districts in locating appropriate sites for new schools. *(PSP/PSR/IGC)*

PF-I.5 School District Consultation

The County shall involve school districts in the early stages of residential land use and infrastructure planning, such as during the adoption or updating of specific, community, and regional plans or preparation of infrastructure plans, to provide a coordinated effort for the planning of school facilities and provision of services. *(RDR/PSP/IGC)*

PF-I.6 Siting New Schools

The County strongly discourages the siting of schools in agricultural areas due to the growth-inducing potential of schools and conflicts with farming practices such as pesticide applications. *(PSP/IGC)*

PF-I.7 New School Development

The County shall include schools among those public facilities and services that are considered an essential part of the development service facilities that should be in place as development occurs and shall work with residential developers and school districts to ensure that needed school facilities are available to serve new residential development. *(RDR)*

PF-I.8 Funding School Facilities

The County and school districts should work closely to secure adequate funding for new school facilities. The County shall support the school districts' efforts to obtain appropriate funding methods such as school impact fees. *(FB/IGC)*

PF-I.9 Library Services

The County shall promote provision of library services throughout the county and create new facilities as appropriate or expand existing facilities to meet additional demand from new growth. The need for library services should be addressed as part of the public services and facilities of the community plans when they are updated. *(RDR/PSP)*

J. UTILITIES

Within the county there are several private companies that provide electrical, gas, and telephone services. Mutual support among the County and these companies is essential to the efficient provision of existing services and to ensure that new service needs such as telecommunications are met.

Policies in this section seek to facilitate the efficient provision of necessary services and facilities and to minimize the impacts of utilities

GOALS AND POLICIES **2**

PUBLIC FACILITIES AND SERVICES

on surrounding land uses. Related policies are included in Section PF-B, Funding.

Goal PF-J	To provide efficient and cost-effective utilities that serve the existing and future needs of people in the unincorporated areas of the county.
----------------------	---

PF-J.1 Existing and Future Utility Demands

The County shall encourage the provision of adequate gas and electric, communications, and telecommunications service and facilities to serve existing and future needs. *(PSP)*

PF-J.2 Gas and Electric Systems

The County shall work with local gas and electric utility companies to design and locate appropriate expansion of gas and electric systems, while minimizing impacts to agriculture and minimizing noise, electromagnetic, visual, and other impacts on existing and future residents. *(RDR/PSP/IGC)*

PF-J.3 On-site Underground Utility Lines

The County shall require all new residential development along with new urban commercial and industrial development to underground utility lines on-site. *(RDR)*

PF-J.4 Wireless Communications Guidelines

The County shall require compliance with the Wireless Communications Guidelines for siting of communication towers in unincorporated areas of the county. *(RDR)*



FRESNO COUNTY GENERAL PLAN



FRESNO COUNTY GENERAL PLAN

PART 2: GOALS AND POLICIES

OPEN SPACE AND CONSERVATION ELEMENT

The Open Space and Conservation Element is focused on protecting natural resources, preserving open space areas, managing the production of commodity resources, protecting and enhancing cultural resources, and providing recreational opportunities.

The Open Space and Conservation Element outlines goals and policies under three main sections: Productive Resources, Natural Resources, and Recreation and Cultural Resources. Productive Resources includes three categories: Water Resources; Forest Resources; and Mineral Resources. Natural Resources includes four categories: Wetland and Riparian Areas; Fish and Wildlife Habitat; Vegetation; and Air Quality. Finally, Recreation and Cultural Resources includes five categories: Parks and Recreation; Recreational Trails; Historic; Cultural; and Geologic Resources; Scenic Resources; and Scenic Roadways. Specific Implementation programs related to Open Space and Conservation Element goals and policies can be found in Part 3 of this General Plan.

GOALS AND POLICIES 2

OPEN SPACE AND CONSERVATION

PRODUCTIVE RESOURCES

A. WATER RESOURCES

Fresno County is large and geographically diverse. The mountainous eastern region of the county receives on average up to 70 inches of precipitation annually, mostly in snowfall. Many small mountain lakes and streams in this region are tributaries to the San Joaquin and Kings Rivers which flow into the Central Valley. The valley and western portions of the county, by contrast, are extremely arid, receiving, on average, less than 10 inches of annual rainfall. Groundwater conditions and quality vary widely across the county.

There are a number of factors affecting the county's existing water resources. Throughout much of the county, groundwater is in a state of overdraft. In some county areas, contamination from natural or manmade sources has reduced groundwater quality such that its use requires treatment. Supplies of imported surface water have been reduced due to changing regulations, and there is growing pressure to allow long-term transfers of water out of the county. With anticipated increases in the county's water demand, these water resource challenges must be considered and addressed.

The Sustainable Groundwater Management Act (SGMA), which was enacted in 2014, requires local agencies in the state's high- and medium-priority basins to form groundwater sustainability agencies (GSAs). The Kings, Madera, Delta-Mendota, and Westside subbasins have all been designated by DWR as high-priority and subject to critical overdraft under SGMA. The GSAs are responsible for the development and implementation of a groundwater sustainability plan to meet the sustainability goal of the basin and to ensure that it operates within its sustainable yield, without causing undesirable results.

Policies in this section seek to protect and enhance the surface water and groundwater resources in the county. The policies address

broad water planning issues, groundwater recharge, the relationship of land use decisions to water issues, and water quality problems. Related policies are included in Section HS-C, Flood Hazards; Section PF-C, Water Supply and Delivery; Section PF-E, Storm Drainage and Flood Control; Section OS-D, Wetland and Riparian Areas; and Section LU-C, River Influence Areas. Other relevant policies are included in the Kings River Regional Plan.

Goal OS-A

To protect and enhance the water quality and quantity in Fresno County's streams, creeks, and groundwater basins.

GENERAL

OS-A.1 Water Resources Management Leadership

The County shall provide active leadership in the regional coordination of water resource management efforts affecting Fresno County and shall continue to monitor and participate in, as appropriate, regional activities affecting water resources, groundwater, and water quality. *(PSP/IGC)*

OS-A.2 Groundwater Management Leadership

The County shall provide active leadership in efforts to protect, enhance, monitor, and manage groundwater resources within its boundaries. *(PSP/IGC)*

OS-A.3 Water Storage

The County shall support efforts to create additional water storage that benefits Fresno County, and is economically, environmentally, and technically feasible. *(PSP)*

OS-A.4 Water Conservation and Quality Awareness

The County shall support public education programs designed to increase public participation in water conservation and water quality awareness. *(PSP/PI)*



FRESNO COUNTY GENERAL PLAN

GROUNDWATER RECHARGE

OS-A.5 Groundwater Recharge

The County shall encourage, where economically, environmentally, and technically feasible, efforts aimed at directly or indirectly recharging the county's groundwater. *(PSP)*

OS-A.6 Groundwater Recharge Protection

The County shall ensure that new development does not limit the capacity or function of groundwater recharge areas. *(RDR)*

OS-A.7 Groundwater Recharge Areas

The County shall direct, to the extent feasible, its available water resources to groundwater recharge areas. *(RDR)*

OS-A.8 Groundwater Recharge Sites Inventory

The County should, in cooperation with respective groundwater sustainability agencies, develop and maintain an inventory of sites within the County that are suitable for groundwater recharge. *(PSP/PSR)*

OS-A.9 Water Banking

The County shall support and/or engage in water banking (i.e., recharge and subsequent extraction for direct and/or indirect use on lands away from the recharge area) based on the following criteria:

- a. The amount of extracted water will never exceed the amount recharged;
- b. The water banking program will result in no net loss of water resources within Fresno County;
- c. The water banking program will not have a negative impact on other water users within Fresno County;
- d. The water banking program will not create, increase, or spread groundwater contamination; and
- e. The water banking program includes sponsorship, monitoring, and reporting by a local public agency;

f. The groundwater banking program will not cause or increase land subsidence;

g. The water banking program will not have a negative impact on agriculture within Fresno County; and

h. The water banking program will provide a net benefit to Fresno County. *(PSP)*

OS-A.10 Sustainable Groundwater Management

The County shall coordinate with the relevant Groundwater Sustainability Agency(ies) concerning their Groundwater Sustainability Plan(s) and refer any substantial proposed General Plan amendment to the agency for review and comment prior to adoption. The County shall give consideration to the adopted groundwater sustainability plan when determining the adequacy of water supply. *(IGC)*

OS-A.11 Over-irrigation of Surface Water

The County shall permit and encourage, where economically, environmentally, and technically feasible, over-irrigation of surface water as a means to maximize groundwater recharge. *(PSP)*

OS-A.12 Aquifer Recharge Program

The County shall directly and/or indirectly participate in the development, implementation, and maintenance of a program to recharge the aquifers underlying the county. The program shall make use of flood and other waters to offset existing and future groundwater pumping. *(PSP/IGC)*

LAND USE

OS-A.13 Watercourse Access and Benefit

The County shall require that natural watercourses are integrated into new development in such a way that they are accessible to the public and provide a positive visual element and a buffer area between waterways and urban development in an effort to protect water quality and riparian areas. *(RDR)*

GOALS AND POLICIES **2**

OPEN SPACE AND CONSERVATION

OS-A.14 Floodplain Protection

The County shall require the protection of floodplain lands and, where appropriate, acquire public easements for purposes of flood protection, public safety, wildlife preservation, groundwater recharge, access, and recreation. *(RDR/PSP)*

OS-A.15 San Joaquin River Protection

The County shall support the policies of the San Joaquin River Parkway Master Plan to protect the San Joaquin River as an aquatic habitat, recreational amenity, aesthetic resource, and water source. (See Policy OS-H.11) *(RDR)*

OS-A.16 Multi-use Public Lands

The County shall, where economically, environmentally, and technically feasible, encourage the multiple use of public lands, including County lands, to include groundwater recharge. *(PSP)*

OS-A.17 Septic Systems Design

The County shall not approve the creation of new parcels that rely on the use of septic systems of a design not found in the California Plumbing Code. (California Code of Regulations, Title 24, Part 5). *(RDR)*

WATER QUALITY

OS-A.18 Groundwater Quality Protection

The County shall protect groundwater resources from contamination and overdraft by pursuing the following efforts:

- a. Identifying and controlling sources of potential contamination;
- b. Protecting important groundwater recharge areas;
- c. Encouraging water conservation efforts and supporting the use of surface water for urban and agricultural uses wherever feasible;
- d. Encouraging the use of treated wastewater for groundwater recharge and other purposes (e.g., irrigation, landscaping, commercial, and non-domestic uses);

- e. Supporting consumptive use where it can be demonstrated that this use does not exceed safe yield and is appropriately balanced with surface water supply to the same area;
- f. Considering areas where recharge potential is determined to be high for designation as open space; and
- g. Developing conjunctive use of surface and groundwater. *(RDR/PSP)*

OS-A.19 Water Discharge Pollution Mitigation

The County shall require new development near rivers, creeks, reservoirs, or substantial aquifer recharge areas to mitigate any potential impacts of release of pollutants in storm waters, flowing river, stream, creek, or reservoir waters. *(RDR)*

OS-A.20 Minimization of Sedimentation and Erosion

The County shall minimize sedimentation and erosion through control of grading, cutting of trees, removal of vegetation, placement of roads and bridges, and use of off-road vehicles. The County shall discourage grading activities during the rainy season unless adequately mitigated to avoid sedimentation of creeks and damage to riparian habitat. *(RDR/PSP)*

OS-A.21 Best Management Practices

The County shall continue to require the use of feasible and practical best management practices (BMPs) to protect streams from the adverse effects of construction activities and urban runoff. *(PSP)*

OS-A.22 Water Quality Monitoring

The County shall support the monitoring of water quality and necessary measures to prevent contamination, including the prevention of hazardous materials from entering the wastewater system. *(PSP)*

OS-A.23 Wastewater Treatment Standards

The County shall only approve new wastewater treatment facilities that will not result in degradation of surface water or groundwater.



FRESNO COUNTY GENERAL PLAN

The County shall require treatment to tertiary or higher levels. *(RDR)*

OS-A.24 Low Risk for Groundwater Degradation

In areas with increased potential for groundwater degradation (e.g., areas with prime percolation capabilities, coarse soils, and/or shallow groundwater), the County shall only approve land uses with low risk of degrading groundwater. *(RDR)*

OS-A.25 Agricultural Drainage Facilities

The County shall support efforts to require the U.S. Bureau of Reclamation to provide San Joaquin Valley agricultural drainage facilities as intended in the authorization of the Central Valley Project. *(RDR/PSP/IGC)*

B. FOREST RESOURCES

Fresno County is home to a variety of conifer and hardwood forests and woodlands. These tree-dominated habitats can support diverse wildlife populations as well as timber production.

Almost all of the lands available for timber production in Fresno County lie within the southern part of the Sierra National Forest and the northern portion of the Sequoia National Forest. Timber from these areas is the only long-term supply for the local wood product industry. The challenge to Fresno County is to maintain current timber production operations without jeopardizing one of its most valuable natural assets—its forests.

Policies in this section seek to protect forestry resources by encouraging productive use of forest land, carefully managing the forest ecosystem, protecting forest resources, discouraging the development of land uses that conflict with timberland management, and encouraging participation in the Timberland Production Zone program. Related policies are included in Section OS-E, Fish and Wildlife Habitat, and Section OS-F, Vegetation.

Goal OS-B

To maintain healthy, sustainable forests in Fresno County, conserve forest resources, enhance the quality and diversity of forest ecosystems, reduce conflicts between forestry and other uses, encourage a sustained yield of forest products, protect and conserve lands identified as suitable for commercial timber production within the county, and conserve forest lands that have other resource values including recreation, grazing, watershed, and wildlife habitats.

OS-B.1 Forest Production

The County shall encourage the sustained productive use of forest land as a means of providing open space and conserving natural resources. *(PSP)*

OS-B.2 Forest Management Coordination

The County shall work closely with agencies involved in the management of forest ecosystems and shall coordinate with State and Federal agencies, private landowners, and private preservation/conservation groups in habitat preservation and protection of rare, endangered, threatened, and special concern species, to ensure consistency in efforts and to encourage joint planning and development of areas to be preserved. The County shall encourage State and Federal agencies to give notice to and coordinate with the County on any pending, contemplated, or proposed actions affecting local communities and citizens of the county. The County will encourage State and Federal agencies to address adverse impacts on citizens and communities of Fresno County, including environmental, health, safety, private property, and economic impacts. *(PSP/IGC)*

OS-B.3 Timber Harvest Coordination

The County shall coordinate with agencies involved in the regulation of timber harvest

GOALS AND POLICIES **2**

OPEN SPACE AND CONSERVATION

operations to ensure that County conservation goals are achieved. *(PSP/IGC)*

OS-B.4 Timber Harvest Plans

The County supports the continued collaboration between the California Department of Forestry and Fire Protection and the US Forest Service to amend and maintain plans to address public safety concerns, such as requiring alternate haul routes if use of proposed haul routes would jeopardize public safety or result in damage to public or private roads. *(RDR/IGC)*

OS-B.5 Wood Waste Use

The County shall encourage and promote the productive use of wood waste generated in the county. *(PSP)*

OS-B.6 Reforestation Programs

The County shall encourage and support conservation programs to reforest private timberlands. *(PSP)*

OS-B.7 Forest Resource Protection

The County shall protect forest resources for the production of timber resources and related activities. *(RDR/PSP)*

OS-B.8 Incomplete Forest Uses

The County shall discourage the development of land uses that conflict with timberland management. *(RDR)*

OS-B.9 Timberland Production Zone Program

The County shall encourage qualified landowners to enroll in the Timberland Production Zone program, pursuant to the Timberland Productivity Act of 1982. *(PSP)*

OS-B.10 Timberland Production Designations

The County shall maintain Timberland Production designations. Rezoning from the Timberland Production Zone District shall be based on criteria and procedures in accordance with the State Forest Taxation Reform Act and the Fresno County Zoning Ordinance. *(RDR)*

OS-B.11 Timberland Production Zone Removals

The County shall require parcels removed from the Timberland Production Zone in accordance with the Fresno County Zoning Ordinance to revert to the Resource Conservation Zone District. Removal from the Timberland Production Zone District shall be effective ten (10) years from the date the rezoning is approved or as otherwise specified by the State Forest Taxation Reform Act. *(RDR)*

C. MINERAL RESOURCES

Fresno County has been a leading producer of minerals because of the abundance and wide variety of mineral resources that are present in the county. Extracted resources include aggregate products (sand and gravel), fossil fuels (oil and coal), metals (chromite, copper, gold, mercury, and tungsten), and other minerals used in construction or industrial applications (asbestos, high-grade clay, diatomite, granite, gypsum, and limestone). Aggregate and petroleum are the county's most significant extractive resources and play an important role in maintaining the county's overall economy.

Policies in this section intend to preserve the future availability of mineral resources. In addition, policies in this section seek to promote the orderly extraction of mineral resources while minimizing the impact of these activities on surrounding land uses and the natural environment. Related policies are included in Section LU-C, River Influence Areas. Other relevant policies are included in the Kings River Regional Plan.

Goal OS-C

To conserve areas identified as containing significant mineral deposits and oil and gas resources for potential future use, while promoting the reasonable, safe, and orderly operation of mining and extraction activities within areas designated for such use, where environmental, aesthetic,



FRESNO COUNTY GENERAL PLAN

and adjacent land use compatibility impacts can be adequately mitigated.

MINERALS

OS-C.1 Incompatible Mining Uses

The County shall not permit incompatible land uses within the impact area of existing or potential surface mining areas. *(RDR)*

OS-C.2 Mineral Resource Zones

The County shall not permit land uses incompatible with mineral resource recovery within areas designated as Mineral Resource Zone 2 (MRZ-2). (See Figures 7-9, 7-10, and 7-11 in Fresno County General Plan Background Report.) *(RDR)*

OS-C.3 Surface Mine Operation

The County shall require that the operation and reclamation of surface mines be consistent with the State Surface Mining and Reclamation Act (SMARA) and special zoning ordinance provisions. *(RDR)*

OS-C.4 Mining Impacts

The County shall impose conditions as necessary to minimize or eliminate the potential adverse impact of mining operations on surrounding properties. *(RDR)*

OS-C.5 Surface Mine Reclamation

The County shall require reclamation of all surface mines consistent with SMARA and the County's implementing ordinance. *(RDR)*

OS-C.6 Williamson Act on Mineral Deposits

The County may accept California Land Conservation (Williamson Act) contracts on land identified by the State as containing significant mineral deposits subject to the use and acreage limitations established by the County. *(PSP)*

OS-C.7 Mining Buffers

The County shall require that new non-mining land uses adjacent to existing mining operations be designed to provide a buffer between the new development and the mining operations. The buffer distance shall be based on an evaluation of noise, aesthetics, drainage, operating conditions, biological resources, topography, lighting, traffic, operating hours, and air quality. *(RDR)*

OS-C.8 Aggregate Mine Buffers

The County shall, where feasible along the San Joaquin River, site recreational trails, bikeways, and other recreation areas at least three hundred (300) feet from the edge of active aggregate mining operations and separate them by physical barriers. Recreational trail/bikeway crossings of active haul routes should be avoided whenever possible; if crossings of haul routes are necessary, separate where feasible. *(RDR)*

OS-C.9 Mineral Resource Zone Compliance

The County shall require that any proposed changes in land use within areas designated MRZ-2 along the San Joaquin and Kings Rivers comply with the provisions of the State Surface Mining and Reclamation Act (SMARA). *(RDR)*

OS-C.10 Mineral Resource Lands Protection

The County shall not permit land uses that threaten the future availability of mineral resource or preclude future extraction of those resources. *(RDR)*

OS-C.11 Watershed-based Aggregate Mine Plan

As part of a future Kings River Regional Plan update the County shall undertake a watershed-based planning effort to assess future extraction of the aggregate resources and recreation uses along the Kings River as a part of an update of the Kings River Regional Plan. Such a planning effort would help to facilitate use of the resource while protecting other Kings River watershed resources and functions, including floodplain

GOALS AND POLICIES **2**

OPEN SPACE AND CONSERVATION

areas. (See Policy OS-H.10, Policy LU-C.4, and Program LU-C.A) *(RDR/PSP)*

OS-C.12 New Development Compatibility

The County shall ensure that new discretionary land use developments are compatible with existing and potential surface mining areas and operations as identified on the Mineral Resource Zone Maps prepared by the State Division of Mines and Geology and other mineral resource areas identified by the County. *(RDR)*

OIL AND GAS

OS-C.13 Oil and Gas Regulation Areas

Fresno County shall be divided into three areas for the regulation of oil and gas development.

- a. Urban areas including all land within one-fourth mile of the planned urban boundaries shown on adopted community plans.
- b. Established oil and gas fields as determined and updated by the California Division of Oil and Gas, excluding urban areas except where specifically included in these policies.
- c. Non-urban areas including all land not within either established oil and gas fields or urban areas. A non-urban area's designation shall be changed to an established oil and gas field designation upon: (1) its identification by the Division of Oil and Gas as an oil and gas field, and (2) subsequent approval by the County. *(RDR)*

OS-C.14 Oil and Gas Permits

The County shall require a special permit for certain oil and gas activities and facilities as specifically noted in the Oil and Gas Development Matrix (See Table OS-1) due to their potential significant adverse effects on surrounding land or land uses. *(RDR)*

OS-C.15 Small-scale Oil and Gas Facilities

The County shall permit by right small-scale oil and gas activities and facilities that can be demonstrated to not have a significant adverse

effect on surrounding or adjacent land uses in an established oil and gas field, an established oil and gas field in urban areas, or non-urban areas. *(RDR)*

OS-C.16 Oil Refineries

The County may permit oil refineries to locate within areas designated by the General Plan for industrial uses. Limited oil refining plants may be permitted to locate in non-urban areas provided:

- the plant is limited to only fractionating and blending operations;
- the plant is within an established oil and gas field or within one mile of the exterior boundary of each of two (2) or more noncontiguous oil and gas fields;
- the site has access to both natural gas and crude oil transmission pipelines and a system of feeder pipelines from nearby gas and oil fields;
- the plant is limited to a refining capacity of fifteen thousand (15,000) barrels of crude oil per day; and
- the site has been previously used for refining purposes. *(RDR)*



FRESNO COUNTY GENERAL PLAN

**Table OS-1
OIL AND GAS DEVELOPMENT MATRIX
Fresno County**

Major Activities and Facilities	Urban Areas	Established Oil and Gas Fields	Non-Urban Areas
Oil and Gas Exploration, Drilling, and Production			
Exploratory and Production Drilling	○	●	○
Drill Site and Pumping Equipment	○	●	○
Production Tanks and Gauging Facilities	○	●	○
Produced Water Treatment Facilities	○	●	○
Production Separators (Oil-Gas-Water)	○	●	○
Oil Field Service Lines	○	●	○
Oil and Gas Field Operations			
Gas Compressor or Absorption Plant	○	○	○
Steam Injection Plant	○	○	○
Other Secondary and Tertiary Recovery Facilities	○	○	○
Oil Cleaning Plant	X	○	○
Natural Gas Processing Plants	X	○	○
LPG Storage	X	○	○
Major Petroleum Transmission and Trunk Lines	X	○	○
Tank Farms	X	○	○
Pumping Plants	X	○	○
Oil and Gas Auxiliary Operations			
Offices	X	○	X
Shops	X	○	X
Laboratories	X	○	X
Work Camp Living Facilities	X	○	X
Storage Yards and Storage Facilities	X	○	X
Oil Well Services	X	○	X
Oil Refineries	X	X	X
Limited Oil Refining Plants	X	○	○

- Permitted by Right
- Subject to Special Permit
- X Not Permitted

GOALS AND POLICIES 2

OPEN SPACE AND CONSERVATION

OS-C.17 Petroleum Industry Support Activities

The County shall require manufacturing and marketing activities and facilities that serve the petroleum industry to be located in the appropriate areas designated by the General Plan. *(RDR)*

OS-C.18 Oil and Gas Site Reclamation

The County shall require the timely reclamation of oil and gas development sites upon termination of such activities to facilitate the conversion of the land to its primary land use as designated by the General Plan. *(RDR)*

OS-C.19 Exploration and Recovery Procedures

The County shall establish procedures to ensure that exploration and recovery of mineral resources, including oil and natural gas, will occur under appropriate locational and operational standards within areas designated Agriculture and Westside Rangeland. *(RDR/PSP)*

OS-C.20 Oil Field Clean-up

The County shall require non-petroleum-related discretionary projects proposed on abandoned oil fields to demonstrate that abandonment and cleanup have taken place in compliance with regulations administered by the State Division of Oil and Gas (California Public Resources Code Section 23000 et seq.) as a part of the due diligence procedures. *(RDR)*

OS-C.21 Active Petroleum Wells

The County shall not allow any building intended for human occupancy to be located near any active petroleum well unless suitable safety and fire protection measures and setbacks are approved by the local fire district. *(RDR)*

NATURAL RESOURCES

D. WETLAND AND RIPARIAN AREAS

Wetlands and riparian areas include resources such as freshwater sloughs, marshes, vernal pools, ponds, and other areas that are periodically or permanently covered by shallow water.

Historically, the rivers and streams that flow from the Sierra Nevada mountains have meandered through broad floodplains in the San Joaquin Valley. Because of urbanization and agriculture, these broad floodplains have been restricted to narrower belts along the rivers and streams or otherwise modified for flood control. These modified wetland areas include valuable riparian habitat.

Riparian habitats in Fresno County are of great value to county residents as well as migratory animal species, as they provide corridors and linkages to and from the different biomes of the county. The essential habitat elements provided by the remaining riparian/riverine corridors in Fresno County make them perhaps the most significant contributor to wildlife habitat throughout the county.

Policies in this section seek to protect riparian and wetland habitats in the county while allowing for compatible uses where appropriate. Related policies are included in Section LU-C, River Influence Areas; Section OS-A, Water Resources; Section OS-E, Fish and Wildlife Habitat; and Section OS-F, Vegetation.



FRESNO COUNTY GENERAL PLAN

Goal OS-D

To conserve the function and values of wetland communities and related riparian areas throughout Fresno County while allowing compatible uses where appropriate. Protection of these resource functions will positively affect aesthetics, water quality, floodplain management, ecological function, and recreation/tourism.

OS-D.1 No-Net-Loss Wetlands Policy

The County shall support the “no-net-loss” wetlands policies of the US Army Corps of Engineers, the US Fish and Wildlife Service, and the California Department of Fish and ~~Game~~ Wildlife. Coordination with these agencies at all levels of project review shall continue to ensure that appropriate mitigation measures and the concerns of these agencies are adequately addressed. *(RDR/IGC)*

OS-D.2 Wetland Loss Mitigation

The County shall require new development to fully mitigate wetland loss for function and value in regulated wetlands to achieve “no-net-loss” through any combination of avoidance, minimization, or compensation. The County shall support mitigation banking programs that provide the opportunity to mitigate impacts to rare, threatened, and endangered species and/or the habitat which supports these species in wetland and riparian areas. *(RDR)*

OS-D.3 Adjacent Wetland Protection

The County shall require development to be designed in such a manner that pollutants and siltation do not significantly degrade the area, value, or function of wetlands. The County shall require new developments to implement the use of Best Management Practices (BMPs) to aid in this effort. *(RDR)*

OS-D.4 Riparian Protection Zones

The County shall require riparian protection zones around natural watercourses and shall recognize that these areas provide highly valuable wildlife habitat. Riparian protection zones shall include the bed and bank of both low- and high-flow channels and associated riparian vegetation, the band of riparian vegetation outside the high-flow channel, and buffers of 100 feet in width as measured from the top of the bank of unvegetated channels and 50 feet in width as measured from the outer edge of the dripline of riparian vegetation. *(RDR)*

OS-D.5 Upland Habitat Protection

The County shall strive to identify and conserve remaining upland habitat areas adjacent to wetland and riparian areas that are critical to the feeding, hibernation, or nesting of wildlife species associated with these wetland and riparian areas. *(RDR/PSR)*

OS-D.6 Native Riparian Habitat Protection

The County shall require new private or public developments to preserve and enhance existing native riparian habitat unless public safety concerns require removal of habitat for flood control or other purposes. In cases where new private or public development results in modification or destruction of riparian habitat for purposes of flood control, the developers shall be responsible for creating new riparian habitats within or near the project area. Adjacency to the project area shall be defined as being within the same watershed sub-basin as the project site. Compensation shall be at a ratio of three (3) acres of new habitat for every one (1) acre destroyed. *(RDR/PSP)*

OS-D.7 Wetland and Riparian Plant Management

The County shall support the management of wetland and riparian plant communities for passive recreation, groundwater recharge, nutrient storage, and wildlife habitats. *(PSP)*

GOALS AND POLICIES 2

OPEN SPACE AND CONSERVATION

OS-D.8 Passive Recreation Areas

The County should consider the acquisition of wetland, meadows, and riparian habitat areas for parks limited to passive recreational activities as a method of wildlife conservation. (PSP)

E. FISH AND WILDLIFE HABITAT

Fresno County has a wide range of wildlife habitats, making it uniquely diverse among California counties. The county has four biological regions/subregions: the Central Western California Region, the Great Central Valley Region, the Sierra Nevada Region, and the High Sierra Nevada Subregions. These different regions consist of 29 distinct habitat types that are defined based on the composition and structure of vegetation found in each area.

Within the local habitats there is a interrelated relationship between natural vegetation and wildlife. The disruption of natural vegetation areas alters the food chain upon which many animals are dependent. The preservation of natural vegetation areas is, therefore, key abundance and well-being of many wildlife species.

Policies in this section seek to protect natural areas and to preserve the diversity of habitat in the county. Related policies are included in Section OS-A, Water Resources; Section OS-B, Forest Resources; Section OS-D, Wetland and Riparian Areas; Section OS-F, Vegetation; and Section LU-C, River Influence Areas.

Goal OS-E

To help protect, restore, and enhance habitats in Fresno County that support fish and wildlife species so that populations are maintained at viable levels.

OS-E.1 Avoid Habitat Loss

The County shall support efforts to avoid the “net” loss of important wildlife habitat where practicable. In cases where habitat loss cannot be avoided, the County shall impose adequate

mitigation for the loss of wildlife habitat that is critical to supporting special-status species and/or other valuable or unique wildlife resources. Mitigation shall be at sufficient ratios to replace the function and value of the habitat that was removed or degraded. Mitigation may be achieved through any combination of creation, restoration, conservation easements, and/or mitigation banking. Conservation easements should include provisions for maintenance and management in perpetuity. The County shall recommend coordination with the US Fish and Wildlife Service and the California Department of Fish and **Game Wildlife** to ensure that appropriate mitigation measures and the concerns of these agencies are adequately addressed. Important habitat and habitat components include nesting, breeding, and foraging areas, important spawning grounds, migratory routes, migratory stopover areas, oak woodlands, vernal pools, wildlife movement corridors, and other unique wildlife habitats (e.g., alkali scrub) critical to protecting and sustaining wildlife populations. (RDR/PSP/IGC)

OS-E.2 Construction Buffers

The County shall require adequate buffer zones between construction activities and significant wildlife resources, including both onsite habitats that are purposely avoided and significant habitats that are adjacent to the project site, in order to avoid the degradation and disruption of critical life cycle activities such as breeding and feeding. The width of the buffer zone should vary depending on the location, species, etc. A final determination shall be made based on informal consultation with the US Fish and Wildlife Service and/or the California Department of Fish and Wildlife. (RDR/IGC)

OS-E.3 Wildlife Habitat Protection

The County shall require development in areas known to have particular value for wildlife to be carefully planned and, where possible, located so that the value of the habitat for wildlife is maintained. (RDR)



FRESNO COUNTY GENERAL PLAN

OS-E.4 Wildlife Habitat Management Practices

The County shall encourage private landowners to adopt sound wildlife habitat management practices, as recommended by the California Department of Fish and Wildlife officials and the US Fish and Wildlife Service. *(PSP)*

OS-E.5 Habitat Conservation Plans

The County shall support preservation of habitats of rare, threatened, endangered, and/or other special-status species including fisheries. The County shall consider developing a formal Habitat Conservation Plan in consultation with Federal and State agencies, as well as other resource conservation organizations. Such a plan should provide a mechanism for the acquisition and management of lands that support special-status species. *(PSP)*

OS-E.6 Habitat Corridors

The County shall ensure the conservation of large, continuous expanses of native vegetation to provide suitable habitat for maintaining abundant and diverse wildlife populations, as long as this preservation does not threaten the economic well-being of the county. *(RDR/PSP)*

OS-E.7 Pesticide Use Monitoring

The County shall continue to closely monitor pesticide use in areas adjacent to habitats of special-status plants and animals. *(RDR/PSR/SO)*

OS-E.8 Pest Control

The County shall promote effective methods of pest (e.g., ground squirrel) control on croplands bordering sensitive habitat that do not place special-status species at risk, such as the San Joaquin kit fox. *(PSP)*

OS-E.9 Biological Resource Evaluation

Prior to approval of discretionary development permits, the County shall require, as part of any required environmental review process, a biological resources evaluation of the project site by a qualified biologist. The evaluation shall be based on field reconnaissance

performed at the appropriate time of year to determine the presence or absence of significant resources and/or special-status plants or animals. Such evaluation will consider the potential for significant impact on these resources and will either identify feasible mitigation measures or indicate why mitigation is not feasible. *(RDR/PSR)*

OS-E.10 Permanent Protection

The County shall support State and Federal programs to acquire significant fish and wildlife habitat areas for permanent protection and/or passive recreation use. *(PSP)*

OS-E.11 Water Withdrawal Protection

The County shall protect significant aquatic habitats against excessive water withdrawals that could endanger special-status fish and wildlife or would interrupt normal migratory patterns. *(RDR)*

OS-E.12 Water Habitat Protection

The County shall ensure the protection of fish and wildlife habitats from environmentally-degrading effluents originating from mining and construction activities that are adjacent to aquatic habitats. *(RDR)*

OS-E.13 Habitat Protection

The County should protect to the maximum extent practicable wetlands, riparian habitat, and meadows since they are recognized as essential habitats for birds and wildlife. *(RDR/PSP)*

OS-E.14 Wildlife Corridors

The County shall require a minimum 200-foot-wide wildlife corridor along particular stretches of the San Joaquin River and Kings River, whenever possible. The exact locations for the corridors should be determined based on the results of biological evaluations of these watercourses. Exceptions may be necessary where the minimum width is infeasible due to topography or other physical constraints. In these instances, an offsetting expansion on the opposite side of the river should be considered. *(RDR)*

GOALS AND POLICIES **2**

OPEN SPACE AND CONSERVATION

OS-E.15 Wildlife Migration Routes Protection

The County should preserve, to the maximum extent practicable, significant wildlife migration routes such as the North Kings Deer Herd migration corridors and fawn production areas. (RDR)

OS-E.16 High Value Fish and Wildlife Areas

The County should preserve in a natural state to the maximum possible extent areas that have unusually high value for fish and wildlife propagation. (RDR)

OS-E.17 Endangered Species Habitat

The County should preserve, to the maximum possible extent, areas defined as habitats for rare or endangered animal and plant species in a natural state consistent with State and Federal endangered species laws. (RDR)

OS-E.18 Habitat Easements and Regulation

The County should preserve areas identified as habitats for rare or endangered plant and animal species primarily through the use of open space easements and appropriate zoning that restrict development in these sensitive areas. (RDR/PSP)

OS-E.19 Nesting Birds

For development projects on sites where tree or vegetation/habitat removal is necessary and where the existence of sensitive species and/or bird species protected by California Fish and ~~Game~~ Wildlife Code Sections ~~30503~~ 3503 and ~~305.33503.5~~ and Migratory Bird Treaty Act has been determined by a qualified biologist, surveys for nesting birds shall be conducted within 14 days prior to project activities by a qualified biologist for all construction sites where activities occurring during nesting bird season (February 1 through September 15). The surveys shall include the entire disturbance area plus at least a 500-foot buffer around the project site.

If active nests are located, all construction work shall be conducted outside a buffer zone from the nest to be determined by the qualified biologist. The buffer shall be a minimum of 250 feet for non-raptor bird species and at least 500 feet for raptor species, unless determined otherwise by the qualified biologist. Buffer distances for bird nests shall be site-specific and an appropriate distance, as determined by a qualified biologist. The buffer distances shall be specified to protect the bird's normal behavior thereby preventing nesting failure or abandonment. The buffer distance recommendation shall be developed after field investigations that evaluate the bird(s) apparent distress in the presence of people or equipment at various distances. Abnormal nesting behaviors which may cause reproductive harm include, but are not limited to, defensive flights/vocalizations directed towards project personnel, standing up from a brooding position, and flying away from the nest. The qualified biologist shall have authority to order the cessation of all nearby project activities if the nesting birds exhibit abnormal behavior which may cause reproductive failure (nest abandonment and loss of eggs and/or young) until an appropriate buffer is established.

Larger buffers may be required depending upon the status of the nest and the construction activities occurring in the vicinity of the nest. The buffer area(s) shall be closed to all construction personnel and equipment until the adults and young are no longer reliant on the nest site. A qualified biologist shall confirm that breeding/nesting is completed, and young have fledged the nest prior to removal of the buffer. The biologist shall submit a report of these preconstruction nesting bird surveys to the County to document compliance within 30 days of its completion.

~~If active nests are located onsite, then a qualified biologist shall determine an appropriate avoidance buffer for construction activities.~~ (PSR)



FRESNO COUNTY GENERAL PLAN

F. VEGETATION

Beyond providing habitat for wildlife as addressed in the two previous sections, Fresno County’s native vegetation such as oak woodlands must be managed to maintain its diversity and health for ecological as well as aesthetic reasons.

Policies in this section seek to protect native vegetation resources primarily on private land within the county. Related policies are included in Section OS-A, Water Resources; Section OS-B, Forest Resources; Section OS-D, Wetland and Riparian Areas; Section OS-E, Fish and Wildlife Habitat; and Section LU-C, River Influence Areas.

Goal OS-F	To preserve and protect the valuable vegetation resources of Fresno County.
----------------------	---

OS-F.1 Terrain and Vegetation Preservation

The County shall encourage landowners and developers to preserve the integrity of existing terrain and natural vegetation in visually-sensitive areas such as hillsides and ridges, and along important transportation corridors, consistent with fire hazard and property line clearing requirements. *(RDR)*

OS-F.2 Compatible Species

The County shall require developers to use native and compatible non-native plant species, especially drought-resistant species, to the extent possible, in fulfilling landscaping requirements imposed as conditions of discretionary permit approval or for project mitigation. *(RDR)*

OS-F.3 Significant Natural Vegetation Areas

The County shall support the preservation of significant areas of natural vegetation, including, but not limited to, oak woodlands, riparian areas, and vernal pools. *(PSP)*

OS-F.4 Landmark Trees

The County shall ensure that landmark trees are preserved and protected whenever possible. *(RDR)*

OS-F.5 Rare, Threatened, and Endangered Species

The County shall establish procedures for identifying and preserving rare, threatened, and endangered plant species that may be adversely affected by public or private development projects. As part of this process, the County shall require, as part of the environmental review process, a biological resources evaluation of the project site by a qualified biologist. The evaluation shall be based on field reconnaissance performed at the appropriate time of year to determine the presence or absence of significant plant resources and/or special-status plant species. Such evaluation shall consider the potential for significant impact on these resources and shall either identify feasible mitigation measures or indicate why mitigation is not feasible. *(RDR/PSP)*

OS-F.6 Hillside Development

The County shall require that development on hillsides be limited to maintain valuable natural vegetation, especially forests and open grasslands, and to control erosion. *(RDR)*

OS-F.7 Natural Topography

The County shall require developers to take into account a site's natural topography with respect to the design and siting of all physical improvements in order to minimize grading. *(RDR)*

OS-F.8 Vegetation for Wildlife

The County should encourage landowners to maintain natural vegetation or plant suitable vegetation along fence lines, drainage and irrigation ditches, and on unused or marginal land for the benefit of wildlife. *(PSP)*

OS-F.9 Prescribed Burning

The County shall support the continued use of prescribed burning to mimic the effects of

GOALS AND POLICIES **2**

OPEN SPACE AND CONSERVATION

natural fires to reduce fuel volumes and associated fire hazards to human residents and to enhance the health of biotic communities. *(PSP)*

OS-F.10 Woodland Preservation

The County shall require that new developments preserve natural woodlands to the maximum extent possible. *(RDR)*

OS-F.11 Oak Woodland Preservation

The County shall promote the preservation and management of oak woodlands by encouraging landowners to follow the Fresno County Oak Management Guidelines, shown on the following page, to prepare an Oak Management Plan for their property. *(RDR/PSP)*

OS-F.12 Valley Arboretum

The County shall support the effort of the Cities of Fresno and Clovis to implement the Valley Arboretum. *(IGC)*



FRESNO COUNTY GENERAL PLAN

Fresno County Oak Woodland Management Guidelines (Policy OS-F.11)

1. When Building Within Oak Woodlands:

- Develop an Oak Woodland Management Plan to retain existing oaks, preserve agriculture, retain wildlife corridors, and enhance soil and water conservation practices.
- Avoid tree root compaction during construction by limiting heavy equipment in root zones.
- Carefully plan roads, cuts and fills, building foundations, and septic systems to avoid damage to tree roots. Design roads and consolidate utility services to minimize erosion and sedimentation to downstream sources. Also, consider reseeded any disturbed ground.
- Avoid landscaping which requires irrigation within ten (10) feet of the trunk of an existing oak tree to prevent root rot.
- Consider replacing trees whose removal during construction was avoidable.
- Use fire inhibiting and drought-tolerant and oak-compatible landscaping wherever possible.

2. Take Steps to Increase Fire Safety on Wooded Parcels:

- Recognize fire as a natural feature of the oak woodland landscape and plan accordingly.
- Set up a continuous management program as a part of your Oak Woodland Management Plan to maintain a fire safe property environment.
- Identify and manage trees to be fire safe.
- Recognize the impact of steep slopes on fire safety.
- Develop a fire safe and oak friendly landscape plan for your home or business.
- Create "Defensible Space" around buildings. Defensible space is that area which lies between a structure and an oncoming wildfire where the vegetation has been modified to reduce the wildfire threat and which provides an opportunity for firefighters to safely defend a structure.

3. When Implementing Range Improvement Practices in Oak Woodlands:

- When using prescribed fire as a range improvement practice, obtain professional assistance to maximize benefits and minimize risk.
- When converting oak woodlands to other agricultural uses, consider incorporating an oak retention component or a conservation easement in your Oak Woodland Management Plan.
- Develop water sources-ponds, troughs, seeps, and springs for livestock and wildlife.

4. When Harvesting Oaks for Fuel or Range Improvement, Plan Your Harvest to:

- Maintain an average canopy cover of 10 to 30 percent depending on site, elevation, and precipitation.
- Retain some oak trees of all sizes and species represented at the site and in clusters where possible.
- When safety permits, leave old hollow trees and those actively being used for nesting, roosting, or feeding.
- Where low fire risk and aesthetics allow, pile limbs and brush to provide wildlife cover.
- Where commercial or extensive harvest is being contemplated, seek professional advice.

GOALS AND POLICIES **2**

OPEN SPACE AND CONSERVATION

Adopted by the Fresno County Board of Supervisors on March 10, 1998 (Resolution # 98-150).



FRESNO COUNTY GENERAL PLAN

G. AIR QUALITY

Air quality can significantly contribute to the quality of life within an area. Air quality impacts, such as air pollution, can adversely affect human health, degrade the natural and built environments, cause agricultural loss, and change the earth's climate. Because air quality is regional, efforts to maintain and improve air quality must occur at the federal, State, and local level.

At the local level, governments can address air quality primarily by focusing on land use patterns, and transportation systems. The main method of local control over air quality in Fresno County is the reduction of the number of vehicular miles traveled (VMT) and resulting vehicular emissions. Fresno's air quality strategy focuses on ways to reduce air pollutants by promoting compact efficient development patterns that support transit use, walking, and bicycling as alternatives to single occupant vehicle use. However, this type of land use-based strategy can pose a challenge for a county such as Fresno, whose jurisdiction is primarily rural.

The primary role for Fresno County in this strategy is to direct development to population centers; to encourage jobs-housing balance; to avoid proliferation of scattered low-density residential development projects; and to minimize further parcelization and designation of land for rural-residential development.

Policies and implementation programs addressing air quality that are directly related to land use and transportation issues are included in the Land Use Element and the Transportation and Circulation Element as, described below.

Goal OS-G

To improve air quality and minimize the adverse effects of air pollution in Fresno County.

LAND USE RELATED AIR QUALITY POLICIES (LAND USE ELEMENT)

The land use related air quality policies address four objectives:

- To keep growth in existing development areas;
- To encourage compact development;
- To encourage mixed-use development; and
- To encourage pedestrian and transit-oriented development in urban areas.

TRANSPORTATION RELATED AIR QUALITY POLICIES (TRANSPORTATION AND CIRCULATION ELEMENT)

The main air quality-related transportation strategy is to make transportation infrastructure improvements that will reduce motor vehicle trips and vehicle miles traveled and encourage an increase in the share of non-automobile trips. Policies addressing this strategy are included in the Transportation and Circulation Element. These policies address the following aims:

- To plan for a multi-modal transportation system that meets community mobility needs, improves air quality, and shifts travel away from single-occupant automobiles to less-polluting transportation modes such as transit, carpools, bicycling, and walking; To ensure that transportation plans, programs, and projects will not impair efforts to meet air quality standards;
- To ensure that the design of streets, sidewalks, and bike paths/routes within new development encourages walking and biking;

GOALS AND POLICIES 2

OPEN SPACE AND CONSERVATION

- To ensure that the design of streets is compatible with present and future transit needs;
- To plan an extensive system of bikeways and pedestrian paths in urban areas to encourage bicycle and pedestrian trips that replace vehicular trips;
- To plan for future transit needs in the region which may include light rail, commuter rail, or expanded bus service, as appropriate; and
- To facilitate rural transit, paratransit, and carpooling to provide a range of transportation options from the small rural communities to the major cities in the county.

Policies in this section focus on assessing and mitigating air quality impacts; coordination and cooperation with local jurisdictions on regional air quality issues; employer-based trip reduction programs; establishment of congestion management and transportation control measures; and reduction of toxic and hazardous emissions, particulate matter, and fugitive dust. Related policies are included in Section TR-A, Streets and Highways; Section TR-B, Transit; Section TR-C, Transportation System Management; Section TR-D, Bicycle Facilities; and Section LU-F, Urban Development Patterns.

ENVIRONMENTAL ASSESSMENT AND MITIGATION

OS-G.1 Air Quality Evaluation

The County shall develop standard methods for determining and mitigating project air quality impacts and related thresholds of significance for use in environmental documents. The County will do this in conjunction with the San Joaquin Valley Air Pollution Control District (SJVAPCD) and the cities in Fresno County. *(PSP)*

OS-G.2 Air Quality Impact Assessment

The County shall ensure that air quality impacts identified during the CEQA review process are fairly and consistently mitigated. The County shall require projects to comply with the County's adopted air quality impact assessment and mitigation procedures. *(RDR)*

COORDINATION AND COOPERATION

OS-G.3 Regional Coordination

The County shall participate with cities, surrounding counties, and regional agencies to address cross-jurisdictional and regional transportation and air quality issues. *(IGC)*

OS-G.4 Air Quality Impact Coordination

The County shall consult with the SJVAPCD during CEQA review for projects that require air quality impact analysis and ensure that the SJVAPCD is on the distribution list for all CEQA documents. *(RDR/IGC)*

OS-G.5 Consistent Air Quality Programs

The County shall participate with cities, surrounding counties, and regional agencies in the San Joaquin Valley in efforts to promote consistent air quality programs and implementation programs to the extent possible (e.g., transportation control measures, trip reduction ordinances, indirect source programs, etc.). *(PSP/IGC)*

PUBLIC FACILITIES/OPERATION

OS-G.6 Employer-base Trip Reduction

The County shall develop and implement employer-based trip reduction programs for County employees. *(PSP/SO)*

OS-G.7 Telecommuting

The County shall encourage its departments to consider telecommuting programs as a trip reduction strategy. *(PSP/SO)*



FRESNO COUNTY GENERAL PLAN

OS-G.8 Fleet Replacement

The County fleet vehicle operators shall implement vehicle replacement practices that place a priority on replacement of older higher-emission vehicles and on purchasing new vehicles with engines using best available technologies and advanced fuels where feasible, consistent with cost-effective management of the program. (PSP/SO)

OS-G.9 Teleconferencing

The County shall support the use of teleconferencing in lieu of employee travel to conferences and meetings when feasible. (SO)

CONGESTION MANAGEMENT/TRANSPORTATION CONTROL MEASURES

OS-G.10 Work Centers

The County shall encourage the establishment of public/private partnerships to develop satellite and neighborhood work centers for telecommuting. (PSP/JP)

TOXIC AND HAZARDOUS EMISSIONS

OS-G.11 Sensitive Receptors

The County shall continue, through its land use planning processes, to avoid inappropriate location of residential uses and sensitive receptors in relation to uses that include, but are not limited to, industrial and manufacturing uses and any other uses which have the potential for creating a hazardous or nuisance effect. (RDR)

OS-G.12 Architectural Coating Reactive Organic Gases Content Limits

The County shall ~~review-require future~~ development projects under the GPR/ZOU, to the maximum extent feasible, to, and encourage the use of architectural coating materials, as defined in the San Joaquin Valley Air Pollution Control District's (SJVAPCD) Rule 4601, that are zero-emission or have a low-ROG content (below 10 grams per liter). Where such ROG coatings are not available, or feasible, the coating with the lowest ROG rating available

shall be used. These measures shall be noted on all construction plans, and the County shall perform periodic site inspections during construction to verify compliance.

OS-G.13 Diesel Engine Tier Requirements

~~The County shall require development projects to implement diesel construction equipment meeting California Air Resources Board (CARB) Tier 4 or equivalent emission standards for off road heavy duty diesel engines. If use of Tier 4 equipment is not possible due to availability, diesel construction equipment meeting Tier 3 emission standards shall be used. Tier 3 equipment shall use a Level 3 Diesel Particulate Filter.~~

OS-G.134 Valley Fever Mitigation

The County shall continue to promote public awareness of Valley Fever risks relating to ground disturbing activities through the provision of educational materials, webpages and resource contact information. For projects involving ground disturbance on unpaved areas left undisturbed for 6 months or more, the County shall require developers to provide project-specific Valley Fever training and training materials.

PARTICULATE MATTER/FUGITIVE DUST

OS-G.145 Fugitive Dust Control Measures

The County shall include fugitive dust control measures as a requirement for subdivision maps, site plans, and grading permits. This will assist in implementing the SJVAPCD's particulate matter of less than ten (10) microns (PM₁₀) regulation (Regulation VIII). Enforcement actions can be coordinated with the Air District's Compliance Division. (RDR/IGC)

OS-G.156 Access Road Standards

The County shall require all access roads, driveways, and parking areas serving new commercial and industrial development to be constructed with materials that minimize

GOALS AND POLICIES 2

OPEN SPACE AND CONSERVATION

particulate emissions and are appropriate to the scale and intensity of use. *(RDR)*

OS-G.167 Roadway Dust Control

The County shall continue to work to reduce PM₁₀ and PM_{2.5} emissions from County-maintained roads by considering shoulder treatments for dust control as part of road reconstruction projects. *(PSP)*

WOODBURNING

OS-G.178 Fireplace Inserts

The County shall require the use of natural gas or the installation of low-emission, EPA-certified fireplace inserts in all open hearth fireplaces in new homes. The County shall promote the use of natural gas over wood products in space heating devices and fireplaces in all existing and new homes. *(RDR)*

H. PARKS AND RECREATION

Fresno County has a wide variety of recreational resources. The county contains national, State, and regional parks, national forests, wilderness areas, and other recreational resources. The County's General Plan Service Department is responsible for development and maintenance of the County park system.

Policies in this section seek to enhance recreational opportunities in the county by encouraging the development of public and private recreation lands and by requiring future development to aid in funding additional parks and recreation facilities. Related policies are included in Section LU-C, River Influence Areas; Section OS-I, Recreational Trails; and Section OS-K, Scenic Resources.

Goal OS-H

To designate land for and promote the development and expansion of public and private recreational facilities to serve the needs of residents and visitors.

OS-H.1 Meeting Recreational Demand

The County shall promote the continued and expanded use of national forests, national parks, and other recreational areas to meet the recreational needs of County residents. *(PSP/ICG)*

OS-H.2 Park Standards

The County shall strive to maintain a standard of five (5) to eight (8) acres of County-owned improved parkland per one thousand (1,000) residents in the unincorporated areas. *(RDR/PSP)*

OS-H.3 Quimby Act

The County may require the dedication of land and/or payment of fees where applicable, in accordance with local authority and State law (e.g., Quimby Act), to ensure funding for the acquisition and development of public recreation facilities. The fees are to be set and adjusted, as necessary, to provide for a level of funding that meets the actual cost to provide for all the public parkland and park development needs generated by new development. *(RDR/FB)*

OS-H.4 Park Funding

The County shall consider the use of existing entities or the creation of assessment districts, community facilities districts, or other types of districts to generate funds for the acquisition and development of parkland and/or historical properties as development occurs in the county. *(FB)*

OS-H.5 Recreation Service Levels

The County shall encourage Federal, State, and local agencies currently providing recreation facilities to maintain, at a minimum, and improve, if possible, their current levels of service. *(PSP/ICG)*



FRESNO COUNTY GENERAL PLAN

OS-H.6 Centrally-located Parks

The County shall encourage the development of parks near public facilities such as schools, community halls, transit stops, libraries, museums, prehistoric sites, and open space areas and shall encourage joint-use agreements whenever possible. *(PSP)*

OS-H.7 Campgrounds and Vehicle Parks

The County shall encourage the development of public and private campgrounds and recreational vehicle parks where environmentally appropriate. The intensity of such development should not exceed the environmental carrying capacity of the site and its surroundings. *(RDR/PSP)*

OS-H.8 Private Recreation Facilities

The County shall encourage development of private recreation facilities to reduce demands on public agencies. *(PSP)*

OS-H.9 Kings River Recreation Plan

The County shall develop a recreation plan for the Kings River as part of the update to the Kings River Regional Plan. (See Policy OS-C.11 and Program LU-C.A). *(PSP)*

OS-H.10 San Joaquin River Parkway Master Plan

The County shall support the policies of the San Joaquin River Parkway Master Plan to protect the San Joaquin River as an aquatic habitat, recreational amenity, aesthetic resource, and water source. *(RDR/PSP)*

OS-H.11 San Joaquin River Recreation

The County shall in conjunction with the San Joaquin River Conservancy rehabilitate and improve existing recreation areas and facilities along the San Joaquin River at the earliest possible time, particularly Lost Lake and Skaggs Bridge Regional Parks. *(PSP/IGC)*

OS-H.12 San Joaquin River Parkway Development

The County shall require that structures and amenities associated with the San Joaquin River Parkway be designed and sited to ensure that such features do not obstruct flood flows, do not create a public safety hazard, or result in a substantial increase in off-site water surface elevations, and that they conform to the requirements of other agencies having jurisdiction. For permanent structures, such as bridge overcrossings, the minimum level of flood design protection shall be the greater of the Standard Project Flood (which is roughly equivalent to a 250-year event) or the riverine requirements of other agencies having jurisdiction to ensure flood flows are not dammed and to prevent flooding on surrounding properties. *(RDR)*

OS-H.13 Western Recreation Facilities

The County shall encourage the development of recreation facilities in western Fresno County. *(PSP)*

OS-H.14 Retention-recharge Basin Recreation Areas

The County shall utilize retention-recharge basins as open space areas for parks and recreation purposes. *(RDR/PSP)*

I. RECREATIONAL TRAILS

Recreational trails are trails designed primarily for the recreational use of bicyclists, pedestrians, or equestrians, or any combination thereof. They are intended to be primarily off-street facilities, although some recreational trails designed for bicycle use only may be on-street bikeways.

While many Fresno County communities have bikeways that provide both local and regional access, pedestrian and recreational facilities (including bicycling, equestrian, and hiking) are more localized and do not form a contiguous regional system.

GOALS AND POLICIES 2

OPEN SPACE AND CONSERVATION

Policies in this section seek to enhance recreational opportunities in the county by encouraging the development of a countywide trail system. Related policies are included in Section TR-D, Bicycle Facilities, and OS-C, Mineral Resources.

Goal OS-I

To develop a system of hiking, riding, and bicycling trails and paths suitable for active recreation and transportation and circulation.

OS-I.1 Recreation Trails

The County shall develop recreational trails in County recreation areas. *(PSP)*

OS-I.2 Trail Routes

The County shall encourage the preservation or advance acquisition of desirable trail routes, including linear open space along rail corridors and other public easements. *(RDR/PSP)*

OS-I.3 Trail/Bikeway Right-of-Way

The County shall require that adequate rights-of-way or easements are provided for designated trails or bikeways as a condition of land development approvals. *(RDR)*

OS-I.4 Multi-purpose Trails

The County shall provide for the separation of different types of users in multiple-purpose trail corridors when desirable for safety reasons or trail type needs. *(PSP)*

OS-I.5 Trail Development Corridor

The County shall coordinate development of its Recreational Trail Master Plan with the San Joaquin River Conservancy concerning the proposed multi-purpose trail between State Route 99 and Friant Dam in the San Joaquin River Parkway. *(PSP/IGC)*

OS-I.6 Trail Use Regulations and Enforcement

The County shall maintain and enforce regulations prohibiting the use of all County-developed and maintained recreational trails by

motorized vehicles, except for maintenance vehicles. *(RDR)*

OS-I.7 Trail Siting

The County shall use the following principles in the siting of recreational trails:

- a. Recreational trail corridors should connect urban areas to regional recreational amenities, follow corridors of scenic or aesthetic interest, or provide loop connection to such routes or amenities;
- b. Recreational trails should be located where motor vehicle crossings can be eliminated or minimized;
- c. Recreational trails should provide for connectivity to other transportation modes such as bus stops, train stations, and park and ride sites when feasible to enhance intermodal transportation opportunities; and
- d. Recreational trails should provide for connectivity to the on-street walkway and bikeway network when feasible to enhance non-motorized transportation opportunities.
- e. Recreational trails shall whenever possible make maximum use of existing public land and rights-of-way. *(RDR/PSP)*

OS-I.8 Trail Design

The County shall follow design guidelines published by the California Department of Transportation (Caltrans) in the Highway Design Manual, Chapter 1000 (Bikeway Planning and Design), in designing and constructing recreational trails. *(RDR/PSP)*

OS-I.9 Recreational Trails Master Plan

The County shall review development proposals for consistency with, and accessibility to, the trails in the Fresno County Regional Bicycle and Recreational Trails Master Plan. *(RDR/PSP)*

OS-I.10 Foothill and Mountain Trails

The County shall seek the provision of recreation trails in future foothill and mountain developments. *(RDR/PSP)*



FRESNO COUNTY GENERAL PLAN

OS-I.11 Trail Project Referrals

The County shall encourage communication and cooperation with the cities of the county, the Fresno County Council of Governments, and other agencies in the county by referring proposed trail projects for review and comment. *(RDR/IGC)*

OS-I.12 Trail Funding

The County shall actively seek all possible financial assistance for planning, acquisition, construction, and maintenance of trails when such funding does not divert funds available for preservation and improvement of the road system. *(FB)*

OS-I.13 Trail Maintenance

The Fresno County Department of Public Works and Planning shall maintain trails located within County parks along, but separated from the roadway, irrigation canals, flood control channels, abandoned railroad rights-of-way or easements, utility easements, and along floodplains. *(SO)*

OS-I.14 Roadway Trails

The Fresno County Department of Public Works and Planning shall maintain recreational trails located within the road right-of-way as integral parts of the roadway. *(SO)*

OS-I.15 Trail Partnerships

The County shall encourage public/private partnerships to implement and maintain trails. *(SO/JP)*

OS-I.16 Fresno County Active Transportation Plan

The County shall develop a Fresno County Active Transportation Plan through the combination and adoption into a single document of the Fresno Regional Trails Master Plan adopted by the Fresno Council of Governments (FCOG) Policy Board in April of 2021, the Fresno County Regional Active Transportation Plan adopted by the FCOG Policy Board in 2018, and the Fresno County Bicycle and Recreational Trails Master Plan

adopted by the County of Fresno in 2013. *(PSP/IGC)*

J. HISTORICAL, CULTURAL, AND GEOLOGICAL RESOURCES

Fresno County contains historically significant resources that are an important part of the county's heritage and identity. These historic resources include historic sites and structures that are an important part of the county's history or are an important example of past distinctive design architecture.

Fresno County has a rich indigenous Native American history as the historic home to Yokut tribes, Monache or Mono tribal groups, the Owens Valley Paiute, and the Salinan. The county also has a notable Spanish (1769-1822), Mexican (1822-1848), and American (1848-Present) history .

Within the county, there are numerous archeological and historic sites and identified historically significant buildings and landmarks. The county also contains several unique geological features and geological resources of bygone eras.

Policies in this section seek to preserve the historical, archeological, paleontological, geological, and cultural resources of the county through development review, acquisition, encouragement of easements, coordination with other agencies and groups, and other methods.

GOALS AND POLICIES 2

OPEN SPACE AND CONSERVATION

Goal OS-J

To identify, protect, and enhance Fresno County's important historical, archeological, paleontological, geological, and cultural sites and their contributing environment, and promote and encourage preservation, restoration, and rehabilitation of Fresno County's historically significant resources in order to promote historical awareness, community identify, and to recognize the county's valued assets that have contributed to past county events, trends, styles of architecture, and economy.

OS-J.1 Preservation of Historic Resources

The County shall encourage preservation of any sites and/or buildings identified as having historical significance pursuant to the list maintained by the Fresno County Historic Landmarks and Records Advisory Commission. (RDR)

OS-J.2 Historic Resources Consideration

The County shall consider historic resources during preparation or evaluation of plans and discretionary development projects that may impact buildings or structures. For a project projected on a property that includes buildings, structures, objects, sites, landscapes, or other features that are 45 years of age or older at the time of permit application, the project applicants shall be responsible for preparing and implementation the recommendations of a historical resources evaluation completed by qualified cultural resources practitioners. (RDR)

OS-J.3 Minimize Impacts

Whenever a historical resource is known to exist on a proposed project site, the County (i.e., Fresno County Historic Landmarks and Records Advisory Commission) shall evaluate and make

recommendations to minimize potential impacts to said resource. (RDR)

OS-J.4 Cultural Resources Protection and Mitigation

The County shall require that discretionary development projects, as part of any required CEQA review, identify and protect important historical, archeological, tribal, paleontological, and cultural sites and resources. For projects requiring ground disturbance and located within a high or moderate cultural sensitivity areas, a cultural resources technical report may be warranted, including accurate archival research and site surveys conducted by qualified cultural resources practitioners. The need to prepare such studies shall be determined based on the tribal consultation process and initial outreach to local or state information centers. (RDR)

OS-J.5 Archeological Sites Confidentiality

The County shall, within the limits of its authority and responsibility, maintain confidentiality regarding the location of archeological sites in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts. (SO)

OS-J.6 Native American Consultation

The County shall solicit the views of the local Native American community in cases where development may result in disturbance to sites containing evidence of Native American activity and/or sites of cultural importance. (RDR/IGC)

OS-J.7 Historical Sites Inventory

The County shall maintain an inventory of all sites and structures in the county determined to be of historical significance (Index of Historic Properties in Fresno County). (PSP)

OS-J.8 Landmark Designations

The County shall support the registration by property owners and others of cultural resources in appropriate landmark designations (i.e., National Register of Historic Places, California



FRESNO COUNTY GENERAL PLAN

Historical Landmarks, Points of Historical Interest, or Local Landmark). *(PSP)*

OS-J.9 Historical Site Markers

The County shall provide for the placement of historical markers or signs on adjacent County roadways and major thoroughfares to attract and inform visitors of important historic resource sites. If such sites are open to the public, the County shall ensure that access is controlled to prevent damage or vandalism. *(PSP)*

OS-J.10 Cultural Resource Preservation

The County shall use the State Historic Building Code and existing legislation and ordinances to encourage preservation of cultural resources and their contributing environment. *(RDR)*

OS-J.11 Interpretive Services and Facilities

The County shall support efforts of other organizations and agencies to preserve and enhance historic resources for educational and cultural purposes through maintenance and development of interpretive services and facilities at County recreational areas and other sites. *(PSP/IGC)*

OS-J.12 Geologic Resource Preservation

In approving new development, the County shall ensure, to the maximum extent practicable, that the location, siting, and design of any project be subordinate to significant geologic resources. *(RDR)*

OS-J.13 Open Space Easements

The County shall encourage property owners to enter into open space easements for the protection of unique geologic resources. *(PSP)*

OS-J.14 Geologic Resource Parks

The County shall consider purchasing park sites for the purpose of preserving unique geologic resources for public enjoyment. *(PSP)*

OS-J.15 Natural Landmarks

The County should encourage the inclusion of unique geologic resources on the National Registry of Natural Landmarks. *(PSP)*

OS-J.16 Permanent Geologic Resource Protection

The County shall encourage State and Federal agencies to purchase significant geologic resources for permanent protection. *(PSP/IGC)*

K. SCENIC RESOURCES

Fresno County encompasses a diverse landscape ranging from fine cultivated farmlands of the valley and foothill grasslands to high mountain peaks. The scenic qualities of the area are an important component of the quality of life in the county. Scenic resources also play an important role in the economic development of the region, including the expansion of tourism-based industries, and the locational decisions of businesses.

Policies in this section are intended to protect the scenic resources of the county and ensure that development enhances those resources through the identification of important scenic resources, development review, acquisition, encouragement of easements, coordination with other agencies and groups, and other methods. Related policies are included in OS-H, Parks and Recreation.

Goal OS-K

To conserve, protect, and maintain the scenic quality of Fresno County and discourage development that degrades areas of scenic quality.

OS-K.1 Scenic Resource Preservation

The County shall encourage the preservation of outstanding scenic views, panoramas, and vistas wherever possible. Methods to achieve this may include encouraging private property owners to enter into open space easements for designated scenic areas. *(RDR/PSP)*

GOALS AND POLICIES **2**

OPEN SPACE AND CONSERVATION

OS-K.2 Significant Scenic Resource Mapping

The County shall maintain an inventory and map of scenic resources within the county. *(RDR/PSP)*

designated roadways are shown in the Scenic Roadways list below. Figure OS-1 shows the locations of the designated roadways. *(RDR)*

OS-K.3 Scenic Areas Access

The County should preserve areas of natural scenic beauty and provide for public access to scenic vistas by purchasing sites for park use. *(PSP)*

OS-K.4 Incorporating Scenic Features

The County should require development adjacent to scenic areas, vistas, and roadways to incorporate natural features of the site and be developed to minimize impacts to the scenic qualities of the site. *(RDR)*

L. SCENIC ROADWAYS

Maintaining the existing scenic qualities of local roadways is an important aspect of preserving the quality of life in Fresno County. To maintain environmental quality and scenic resources across the county, there must be an emphasis placed on the preservation and enhancement of visual amenities along roadways.

Policies in this section are intended to protect the scenic resources along county roadways by identifying, developing, and maintaining scenic amenities along roads and highways and ensuring that development enhances those resources. Related policies are included in Section TR-A, Streets and Highways, and Section OS-K, Scenic Resources.

Goal OS-L	To conserve, protect, and maintain the scenic quality of land and landscape adjacent to scenic roads in Fresno County.
----------------------	--

OS-L.1 Scenic Roadway System

The County designates a system of scenic roadways that includes landscaped drives, scenic drives, and scenic highways. Definitions and



FRESNO COUNTY GENERAL PLAN

Fresno County-Designated Scenic Roadways (Policy OS-L.1) (See Figure OS-1)

Fresno County Designated Landscaped Drives

Landscaped drives are roads bordered by mature and consistent landscaping that have areawide significance. County-designated landscaped drives include the following:

- Kearney Boulevard from Westlawn Avenue to the City of Fresno
- Van Ness Avenue from the City of Fresno at Beverly to Shaw Avenue
- North Van Ness Boulevard from Shaw Avenue to the San Joaquin River
- Butler Avenue, Peach to Fowler
- Minnewawa Avenue, Kings Canyon to Central Canal

Fresno County Designated Scenic Drives

Scenic drives are rural roads traversing land with outstanding natural scenic qualities and connecting with scenic highways. County-designated scenic drives include the following:

- Trimmer Springs Road from State Route 180 to Trimmer, Maxson Road from Trimmer to Watts Valley Road, Watts Valley Road from Maxson Road to Pitman Hill Road, and Burrough Valley Road from Watts Valley Road to Tollhouse Road
- Piedra Road from State Route 180 to Piedra
- Dinkey Creek Road/McKinley Grove Road from proposed State Route 168 to Courtright Reservoir
- Edison Florence Lake Road from Huntington Lake to Florence Lake
- Blossom Trail Route
- Wild Flower Route
- Auberry Road
- Morgan Canyon Road
- Millerton Road
- Marina Drive

Friant Road from city of Fresno to Lost Lake Road Fresno County Designated Scenic Highways

Scenic highways are highways that traverse land with unique or outstanding scenic quality or provide access to regionally significant scenic and recreational areas. County-designated scenic highways include the following:

- Proposed State Route 168 from Friant Kern Canal to Lodge Road
- State Route 168 from Lodge Road to Pineridge
- Proposed State Route 168 from Pineridge to Huntington Lake Road
- State Route 168 from Huntington Lake Road to Huntington Lake
- State Route 180 from Trimmer Springs Road to the Tulare County Line

GOALS AND POLICIES **2**

OPEN SPACE AND CONSERVATION

- State Route 180 from Kings Canyon National Park boundary near General Grant Grove to Kings Canyon National Park boundary near Cedar Grove
- State Route 198 from Interstate 5 Freeway to Monterey County line, excluding city of Coalinga
- Interstate 5 freeway within Fresno County



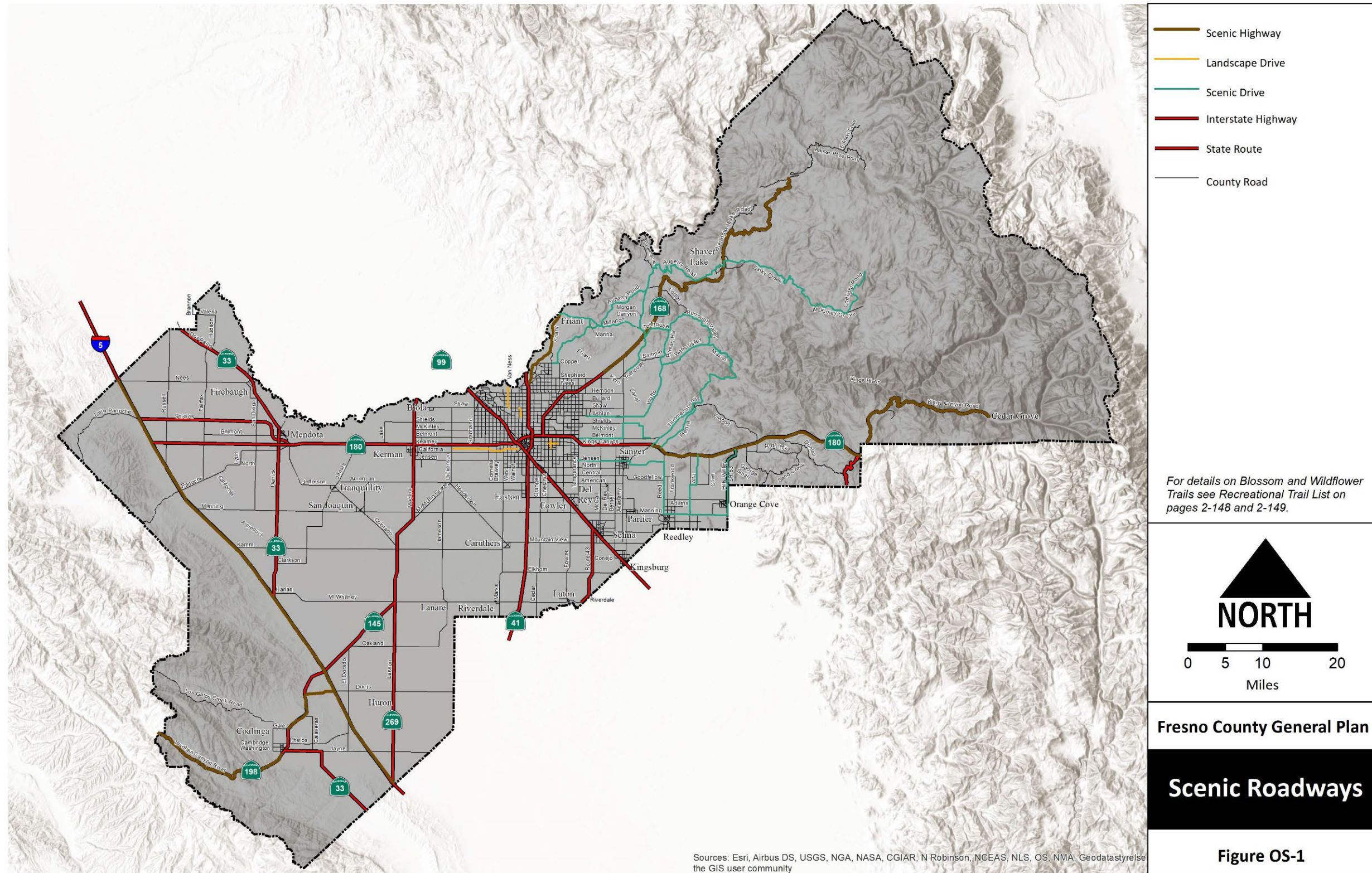
FRESNO COUNTY GENERAL PLAN

This page left blank intentionally.

GOALS AND POLICIES **2**

OPEN SPACE AND CONSERVATION

Figure OS-1 Scenic Roadways





FRESNO COUNTY GENERAL PLAN

This page left blank intentionally

GOALS AND POLICIES **2**

OPEN SPACE AND CONSERVATION

OS-L.2 Designated Landscape Drives

The County shall manage designated landscaped drives and adjacent land based on the following principles:

- a. Maintenance and improvement of landscaped drives should be directed toward preserving and enhancing the quality of the landscape within the right-of-way. Where deemed necessary or desirable, the Board of Supervisors should, by resolution, assume responsibility for maintenance and improvement of landscaped drives; and
- b. Development of land adjoining landscaped drives should be planned and designed to preserve the quality and integrity of the roadside landscape. *(RDR/PSP)*

OS-L.3 Scenic Roadway Management

The County shall manage the use of land adjacent to scenic drives and scenic highways based on the following principles:

- a. Timber harvesting within or adjacent to the right-of-way shall be limited to that which is necessary to maintain and enhance the quality of the forest;
- b. Proposed high voltage overhead transmission lines, transmission line towers, and cell towers shall be routed and placed to minimize detrimental effects on scenic amenities visible from the right-of-way;
- c. Installation of signs visible from the right of way shall be limited to business identification signs, on site real estate signs, and traffic control signs necessary to maintain safe traffic conditions. All billboards and other advertising structures shall be prohibited from location within view of the right-of-way;
- d. Intensive land development proposals including, but not limited to, subdivisions of more than four lots, commercial developments, and mobile home parks shall be designed to blend into the natural landscape and minimize visual scarring of vegetation and terrain. The design of said development proposals shall also provide for maintenance of a natural open space area two hundred (200) feet in depth parallel to the right of way. Modification of the setback

requirement may be appropriate when any one of the following conditions exist:

1. Topographic or vegetative characteristics preclude such a setback;
 2. Topographic or vegetative characteristics provide screening of buildings and parking areas from the right-of-way;
 3. Property dimensions preclude such a setback; or
 4. Development proposal involves expansion of an existing facility or an existing concentration of uses.
- e. Subdivision proposals shall be designed to minimize the number of right-of-way access drives;
- f. Developments involving concentration of commercial uses shall be designed to function as an integral unit with common parking areas and right-of-way access drives; and
- g. Outside storage areas associated with commercial activities shall be completely screened from view of the right-of-way with landscape plantings or artificial screens which harmonize with the natural landscape. *(RDR/PSP/SO)*

OS-L.4 Underground Utility Lines

The County shall require proposed new development along designated scenic roadways within urban areas and unincorporated communities to underground utility lines on and adjacent to the site of proposed development or, when this is infeasible, to contribute their fair share of funding for future undergrounding. *(RDR)*

OS-L.5 Ornamental Tree Preservation

The County road improvement projects involving designated scenic roadways shall be constructed to insure that consideration is given to preservation of ornamental trees consistent with public safety standards and accepted road design. *(RDR/PSP/SO)*



FRESNO COUNTY GENERAL PLAN

OS-L.6 Scenic Drive Maintenance Coordination

The County shall request city, State, and Federal agencies to maintain County-designated landscaped drives, scenic drives, and scenic highways under their jurisdictions in a manner consistent with the goals and policies in this section. *(PSP/IGC)*

OS-L.7 Freeway and Highway Landscaping

The County shall encourage the State of California to landscape urban freeway and highway routes which pass through Fresno County. *(IGC)*

OS-L.8 Complementary Scenic Roadways

The County shall encourage cities within Fresno County to develop complementary policies and principles to enhance the visual qualities of streets and highways within their boundaries. *(IGC)*

OS-L.9 Scenic Highways Designation

The County shall work with the Department of Transportation to pursue scenic highway designation from the State of California for the State highway segments eligible for such designation (including those listed in the Scenic Roadways list below and any other segments added). *(PSP/IGC)*

PART 2: GOALS AND POLICIES

HEALTH AND SAFETY ELEMENT

Planning for growth and development requires the consideration of a wide range of public safety issues. Safety hazards are naturally induced, such as seismic and geologic hazards, flooding, and wildland fire hazards. Some hazards are the result of natural hazards that are exacerbated by human activity and alteration of the natural environment, such as dam failure, wildland and urban fires, and development in sensitive areas such as floodplains and fire hazard zones or areas subject to erosion and landslides. Some hazards are manmade, including aircraft crash hazards, hazardous materials discharge exposure, poor/unhealthy air quality, and criminal activity. Changing conditions occurring in our climate are contributing to more extreme weather, which create hazardous conditions associated with extreme heat days, lengthening periods of drought, and precipitation extremes. In addition to safety issues related to hazardous conditions, the planning process should account for other issues related to community health and safety, such as noise exposure.

On December 1, 2009, the Fresno County Board of Supervisors approved Resolution No. 09-503 to adopt the Fresno County Multi-Jurisdictional Hazard Mitigation Plan (LHMP). The Multi-Hazard Mitigation Plan was developed by several County departments, cities, and special districts with oversight from the Fresno County Office of Emergency Services. The Plan was prepared pursuant to the requirements of the Disaster Mitigation Act of 2000. A Federally-approved hazard mitigation plan enables the County to apply for Federal pre-disaster hazard mitigation grant funds to support mitigation projects. The Plan (Resolution No. 09-503), originally approved by FEMA on January 9, 2009, is incorporated by reference into the Health and Safety Element of the General Plan below. The Plan incorporates a process where hazards are identified and profiled, the people and facilities at risk are analyzed, and mitigation actions are developed to reduce or eliminate hazard risk. The implementation of these mitigation actions, which include both short and long-term strategies, involve planning, policy changes, programs, projects, and other activities. Since its approval, the LHMP has been periodically updated to address change in circumstance, new information or hazards, changes in state law, or the changing needs of the County. As a dynamic document, the LHMP will continue to be incorporated by reference as an important part of the Health and Safety Element of the General Plan. The LHMP (<https://www.co.fresno.ca.us/home/showpublisheddocument/35154/636958419636600000>) can be found on the County of Fresno Office of Emergency Services page (<https://www.co.fresno.ca.us/departments/public-health/office-of-emergency-services-oes>). Many of the health and safety risks associated with development can be avoided through locational decisions made at the planning stages of development, while others may be lessened through the use of mitigation measures in the planning and land use regulation process. This element, in conjunction with the Fresno County Multi-Jurisdictional Local Hazard Mitigation Plan, sets out goals and policies for ensuring the maintenance of a healthy and safe physical environment. Specific implementation programs related to Health and Safety Element Goals and Policies can be found in Part 3 of this General Plan.

CLIMATE CHANGE

All communities in California will feel the effects of climate change over the next century. As required by State law, Fresno County completed a local climate change vulnerability assessment which evaluates



FRESNO COUNTY GENERAL PLAN

how climate change may impact key community members, natural resources, agriculture, critical facilities, buildings, services, and infrastructure in unincorporated Fresno County.

Climate change adaptation and resilience goals, policies, and implementation programs to address the identified vulnerabilities are provided in this Element of the General Plan. The Fresno County Climate Change Vulnerability Assessment identified and mapped communities most at risk to climate change hazards in unincorporated Fresno County (see Figure 19 Social Sensitivity in Fresno County in Appendix C). The Health and Safety Element refers to groups that are most sensitive to climate change hazards as vulnerable populations. Vulnerable populations in Fresno County are listed below:

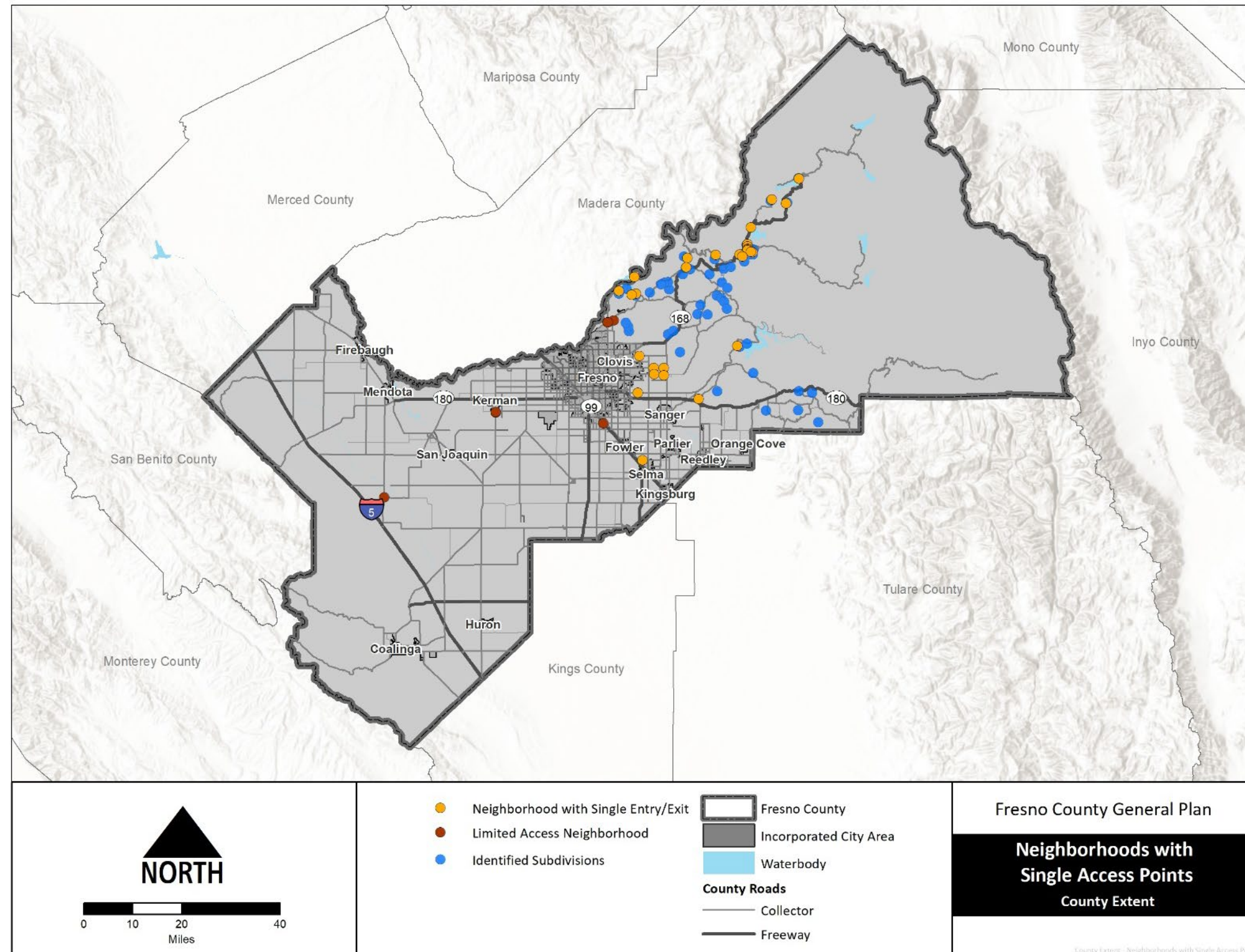
- Low Income
- People experiencing homelessness
- Undocumented immigrants
- Unemployed
- Older adults
- Children
- Military Veterans
- Non-white Communities
- Renters
- Outdoor Workers
- Single female heads of households with kids
- Linguistically Isolated
- American Native and Alaskan Native
- Individuals with disabilities
- Individuals with Asthma
- Individuals with Cardiovascular Disease
- Isolated Individuals
- Individuals with no health insurance
- Individuals with educational attainment less than four years of college
- Pollution Burdened Individuals
- Households without a computer
- Households without broadband internet

See Appendix C, for a detailed description of population groups considered vulnerable and adaptive capacity in the County.

NEIGHBORHOOD ACCESS

Wildfires, flooding, and other hazards can isolate areas of the county by impeding access from emergency services and egress for residents thus creating severe health and safety risks. State law requires identification of neighborhoods that have fewer than two emergency evacuation routes. In unincorporated Fresno County, there are 31 neighborhoods with 25 or more dwelling units that do not have at least two emergency evacuation routes. In addition, the County identified six Disadvantaged Unincorporated Communities with fewer than 25 dwelling units that have limited emergency evacuation access. Disadvantaged Unincorporated Communities are settled places not within city limits where the median household income is 80 percent or less than the statewide median household income (it should be noted that Disadvantaged Unincorporated Communities are a distinct classification from disadvantaged communities, which are described in the Environmental Justice Element). Through coordination with local and state fire law enforcement agencies, the County has identified, and inventoried existing residential developments located within identified hazard areas that do not have at least two identified emergency evacuation routes. The locations of neighborhoods with fewer than two emergency evacuation routes and existing subdivisions with more than 30 dwelling units, as identified by the California Board of Forestry and Fire Protection and the State Fire Marshall as part of the Subdivision Review Program (formed because of Assembly Bill 2911), in unincorporated Fresno County can be found in Figure HS-1, Figure HS-2, Figure HS-3, and Figure HS-4 below, and in Appendix D which provides more detailed mapping.

Figure HS-1 Neighborhoods with Single Access Points (County Extent)





FRESNO COUNTY GENERAL PLAN

Figure HS-2 Neighborhoods with Single Access Points (Page 1)

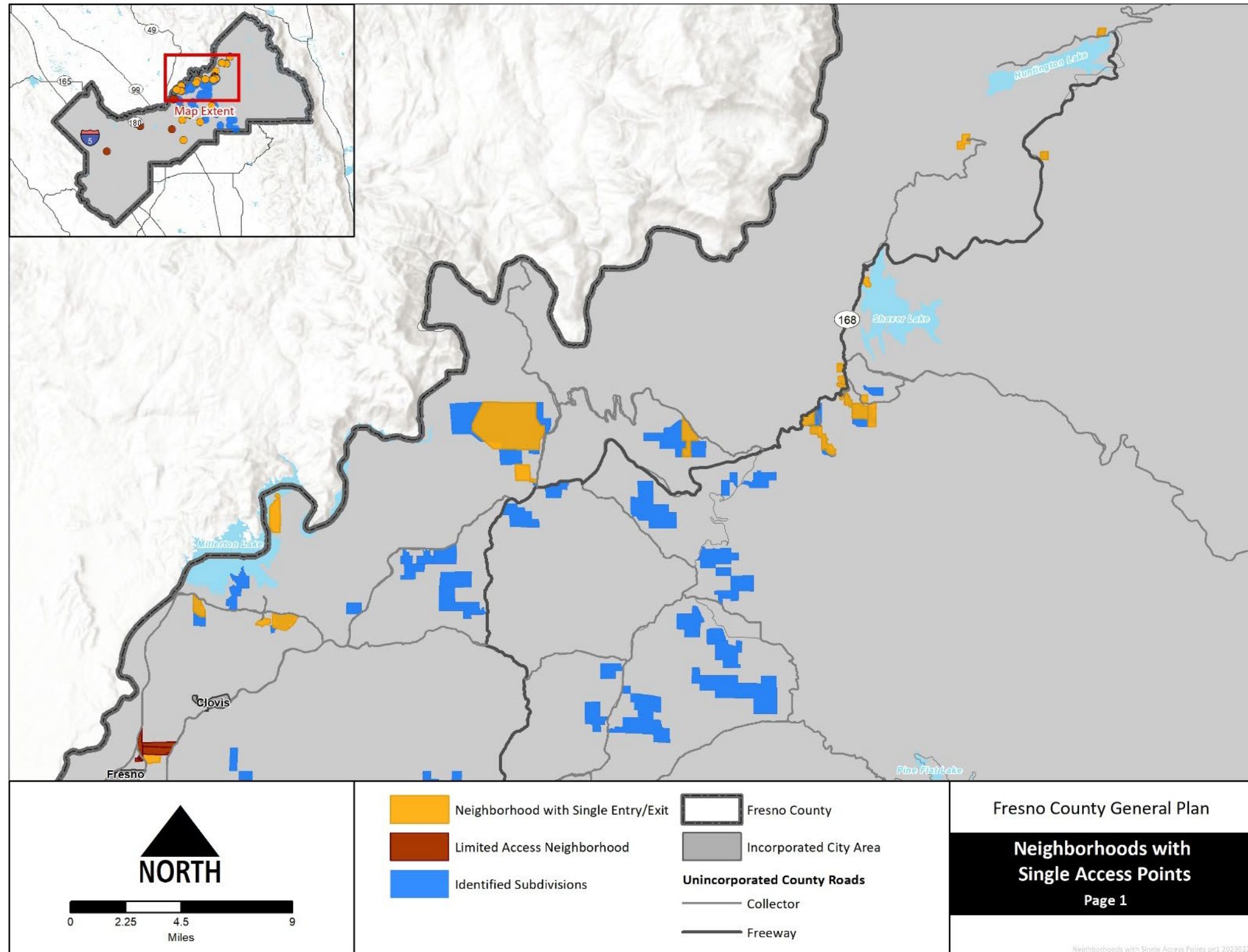
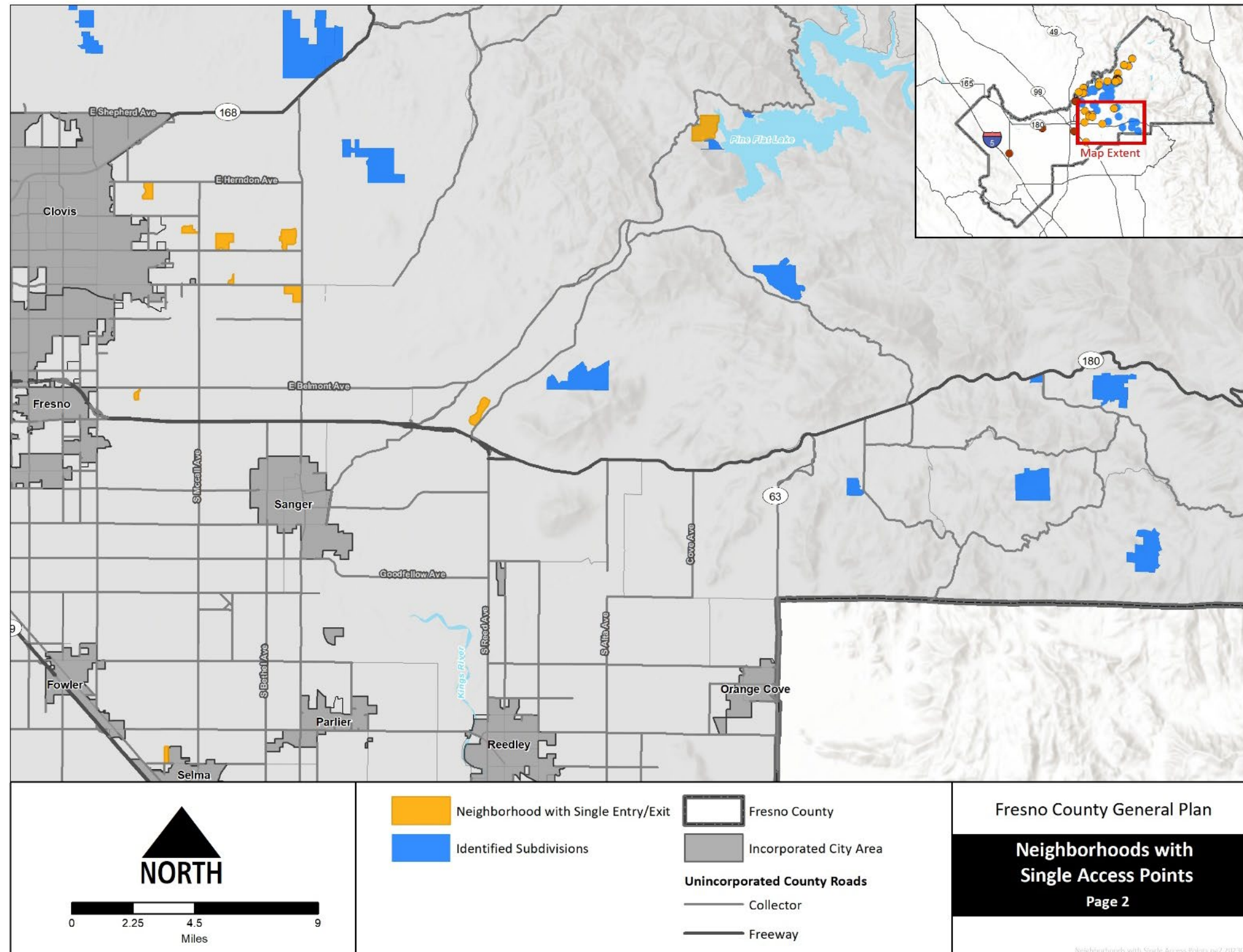


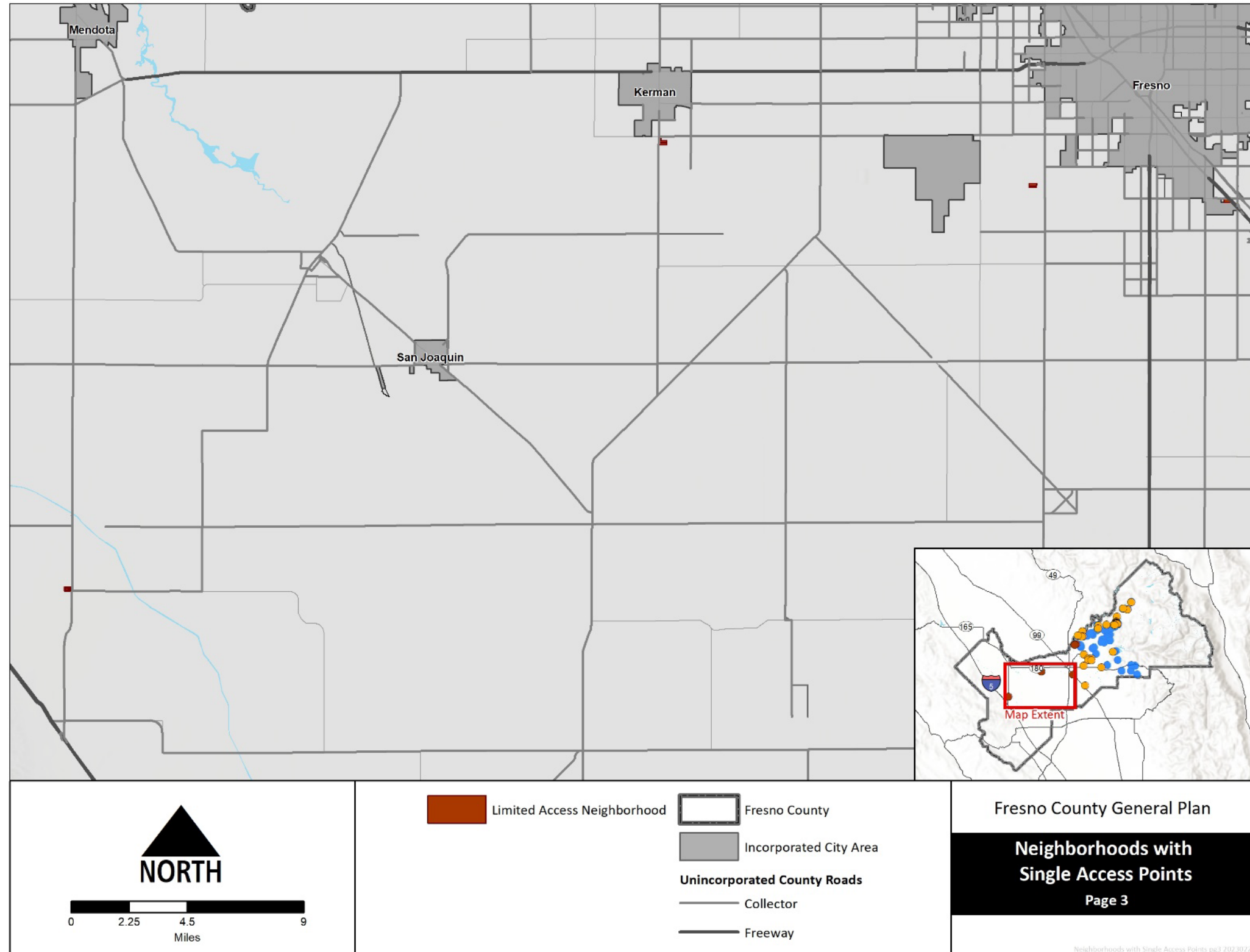
Figure HS-3 Neighborhoods with Single Access Points (Page 2)





FRESNO COUNTY GENERAL PLAN

Figure HS-4 Neighborhoods with Single Access Points (Page 3)



GOALS AND POLICIES 2

HEALTH AND SAFETY

CLIMATE ADAPTATION

The purpose of the Health and Safety Element is to prepare for, reduce, or eliminate long-term risk to people and property from hazards. State law requires that upon the next revision, beginning January 1, 2017, of the local hazard mitigation plan, the safety element is to be updated as necessary to address climate adaptation and resiliency strategies applicable to the County. Fresno County’s most recent Multi-Jurisdictional Hazard Mitigation Plan was updated in May 2018, which triggered the requirement to address climate adaptation and resiliency in the Health and Safety Element. Many policies that address health and safety risks for residents living in County are already present in other elements of the General Plan. Table HS-1 below provides a list of these policies. The goals, policies, and implementation programs in the Health and Safety Element aim to fill the gaps and ensure the General Plan fully addresses the needs of residents in the County.

**TABLE HS-1
POLICIES IN OTHER ELEMENTS ADDRESSING
ADAPTATION AND RESILIENCY**

Agriculture and Land Use Element	
AGRICULTURE	
Policy LU-A.13	Agricultural Buffers
Policy LU-A.14	Agricultural Land Conversion Review
Policy LU-A.20	Water Resources
Policy LU-A.21	Public Education Programs
Policy LU-A.22	Drought Impacts
WESTSIDE RANGELANDS	
Policy LU-B.12	Discretionary Project Preliminary Soils Report
RIVER INFLUENCE AREAS	
Policy LU-C.7	Floodplain Development
NONAGRICULTURAL RURAL DEVELOPMENT	
Policy LU-E.6	Planned Residential Development Conditions
Policy LU-E.8	Rural Residential Northeast of the Enterprise Canal
Policy LU-E.10	Onsite Water and Sewer Systems
Policy LU-E.11	Surface Water Entitlements
Policy LU-E.12	Natural Water Channel Protection
Policy LU-E.22	Quail Lakes Planned Rural Community
Public Services and Facilities Element	
WATER SUPPLY AND DELIVERY	
Policy PF-C.1	Retain Existing Water Supplies
Policy PF-C.2	Import Surplus Water
Policy PF-C.3	Surface Water Use
Policy PF-C.4	Water Storage
Policy PF-C.5	Water Banking
Policy PF-C.6	Urban Best Management Practices
Policy PF-C.7	Infrastructure Planning for Water
Policy PF-C.8	Preserve Local Water Rights/Supply
Policy PF-C.10	Ongoing Water Supply
Policy PF-C.11	Adequate Sustainable Water Supply
Policy PF-C.12	Limited Ground Water
Policy PF-C.13	Water Quality Standards
Policy PF-C.15	Water Demand Impact Mitigations



FRESNO COUNTY GENERAL PLAN

**TABLE HS-1
POLICIES IN OTHER ELEMENTS ADDRESSING
ADAPTATION AND RESILIENCY**

Policy PF-C.16	Water Supply Evaluation
Policy PF-C.17	Surface Water Entitlement
Policy PF-C.21	Agriculture Surface Water
Policy PF-C.22	Out-of-County Groundwater Transfers
Policy PF-C.23	Water Conservation Technologies
Policy PF-C.24	Reclaimed Water
Policy PF-C.25	Integrated Regional Water Management Planning
Policy PF-C.26	Agricultural Water Conservation
Policy PF-C.27	Tiered Water Pricing
Policy PF-C.28	Man-made Lakes and Ponds
STORM DRAINAGE AND FLOOD CONTROL	
Policy PF-E.1	Flood Control Coordination
Policy PF-E.2	Multi-use Flood Control Facilities
Policy PF-E.3	Equitable Flood Control Costs
Policy PF-E.4	Storm Drainage System Capacity
Policy PF-E.5	Impacts to Flood Control Facilities
Policy PF-E.6	Drainage Facility Construction
Policy PF-E.7	Fair-share of Cost
Policy PF-E.8	Locating Drainage Facilities
Policy PF-E.9	100-year Flood Protection
Policy PF-E.10	Drainage Facility Design
Policy PF-E.11	Natural Site Drainage Patterns
Policy PF-E.12	Drainage System Discharge Standards
Policy PF-E.13	Natural Storm Water Drainage Systems
Policy PF-E.14	Retention-Recharge Basins
Policy PF-E.15	Basin Landscaping and Open Space
Policy PF-E.16	Minimal Sedimentation and Erosion
Policy PF-E.17	Groundwater Recharge
Policy PF-E.18	Minimum Number of Basins
Policy PF-E.19	Major Courses for Drainage Discharges
Policy PF-E.20	Storm Water Drainage Discharges
Policy PF-E.21	Best Management Practices
Policy PF-E.22	Odor and Vector Control
FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES	
Policy PF-H.1	Provision of Fire/Emergency Medical Service
Policy PF-H.2	Adequate Fire Protection Facilities
Policy PF-H.3	Fire Station Location
Policy PF-H.4	Fire and Emergency Medical Sites
Policy PF-H.5	Minimize Fire Hazard Risk
Policy PF-H.6	Long Response Areas
Policy PF-H.7	Fire Protection Standards
Policy PF-H.8	Minimum Response Time
Policy PF-H.10	California Fire Code
Public Services and Facilities Element	
WATER RESOURCES	
Policy OS-A.1	Water Resource Management Leadership
Policy OS-A.2	Groundwater Management Leadership

GOALS AND POLICIES **2**

HEALTH AND SAFETY

TABLE HS-1
POLICIES IN OTHER ELEMENTS ADDRESSING
ADAPTATION AND RESILIENCY

Policy OS-A.4	Water Conservation and Quality Awareness
Policy OS-A.5	Groundwater Recharge
Policy OS-A.6	Groundwater Recharge Protection
Policy OS-A.7	Groundwater Recharge Areas
Policy OS-A.8	Groundwater Recharge Sites Inventory
Policy OS-A.9	Water Banking
Policy OS-A.10	Sustainable Groundwater Management
Policy OS-A.11	Over-irrigation of Surface Water
Policy OS-A.12	Aquifer Recharge Program
Policy OS-A.14	Floodplain Protection
Policy OS-A.15	San Joaquin River Protection
Policy OS-A.16	Multi-use Public Lands
WETLAND AND RIPARIAN AREAS	
Policy OS-D.1	No-Net-Loss Wetlands Policy
Policy OS-D.2	Wetlands Loss Mitigation
Policy OS-D.3	Adjacent Wetland Protection
Policy OS-D.4	Riparian Protection Zones
Policy OS-D.7	Wetland and Riparian Plant Management
VEGETATION	
Policy OS-F.1	Terrain and Vegetation Preservation
Policy OS-F.2	Compatible Species
Policy OS-F.6	Hillside Development
Policy OS-F.7	Natural Typography
Policy OS-F.9	Prescribed Burning
PARKS AND RECREATION	
Policy OS-H.11	San Joaquin River Parkway Master Plan
Policy OS-H.12	San Joaquin River Parkway Development
HISTORIC, CULTURAL, AND GEOLOGICAL RESOURCES	
Policy OS-J.1	Preservation of Historic Resources
Policy OS-J.2	Historic Resources Consideration
Policy OS-J.3	Minimize Impacts
Policy OS-J.4	Sites Protection and Mitigation



FRESNO COUNTY GENERAL PLAN

A. EMERGENCY MANAGEMENT AND RESPONSE

Although Fresno County seeks to minimize hazards and reduce safety risks, in the event of an emergency, quick and effective response is vital. The County’s Emergency Response Program is designed to respond to a wide range of emergency situations.

Policies in this section seek to create an effective emergency response and management system for Fresno County through periodic evaluation of the Emergency Response Program, by ensuring that vital public infrastructure is designed to remain operational during and after a major disaster event, by siting critical emergency response facilities as far from potential disaster impact areas as is practical, and through continuing public education and outreach on emergency preparedness and disaster response programs, particularly with the most vulnerable populations. Related policies are included in Section PF-H, Fire Protection and Emergency Medical Services.

The Fresno County Sheriff’s Office coordinates with Cal Fire, the Office of Emergency Services, and other key federal, State, and local agencies to develop identified evacuation routes. Routes vary depending on emergency/incident type and location. The incident commanders agree on the routes. Emergency evacuation route information is distributed through an updated public website.

GOAL HS-A	To protect public health and safety by preparing for, responding to, and recovering from the effects of natural or technological disasters.
----------------------	---

HS-A.1 Operational Area Master Emergency Service Plan

The County shall, through the Fresno County Operational Area Master Emergency Services Plan and the Fresno County Multi-Hazard Mitigation Plan, maintain the capability to

effectively respond to emergency incidents, including maintenance of an emergency operations center. *(PSP/SO)*

HS-A.2 Multi-Jurisdictional Hazard Mitigation Plan

In coordination with cities, special districts, and other State and Federal agencies, the County shall maintain the Fresno County Multi-Jurisdictional Hazard Mitigation Plan to identify and mitigate, to the extent feasible, natural and human-made hazards within the county. *(PSP)*

HS-A.3 Emergency Services During Major Disasters

The County shall, within its authority and to the best of its ability, ensure that emergency dispatch centers, emergency operations centers, communications systems, vital utilities, and other essential public facilities necessary for the continuity of government are designed in a manner that will allow them to remain operational during and following an earthquake or other disaster. *(PSP/SO)*

HS-A.4 Critical Emergency Response Facility Siting

The County shall ensure that the siting of critical emergency response facilities such as hospitals, fire stations, sheriff’s offices and substations, dispatch centers, emergency operations centers, and other emergency service facilities and utilities are sited and designed to minimize their exposure and susceptibility to flooding, seismic and geological effects, fire, landslides, avalanche, and explosions as required by State regulations. This includes locating new essential public facilities outside of Very High Fire Hazard Severity Zones, if feasible. Exception to this policy shall be allowed on the condition that the only alternative location would be so distant as to jeopardize the safety of the community, given that precautions are taken to protect the facility. *(PSP)*

GOALS AND POLICIES **2**

HEALTH AND SAFETY

HS-A.5 Disaster Response Coordination

The County shall maintain coordination with other local, State, and Federal agencies to provide coordinated disaster response, especially to the most impacted populations in the County. *(IGC)*

HS-A.6 Emergency Preparedness Public Awareness Programs

The County shall support local fire agencies through distribution of information during the permit process, through links on County websites, and by providing assistance at public meetings, in promoting the education of County residents concerning emergency preparedness, defensible space, and safety, as described in the Fresno-King Unit Fire-Plan information and public education outreach programs, focusing on the most vulnerable at-risk communities such as those in the Very High Fire Hazard Severity Zone. *(PSP/PI)*

HS-A.7 Building Design

The County shall review the design of all buildings and structures in the Very High Fire Hazard Severity Zones and State Responsibility Areas to ensure they are designed and constructed to State and local regulations and standards as part of the building permit plan check process. *(RDR)*

HS-A.8 Transportation Corridors and Evacuation Routes

The County shall continue to improve community transportation corridors to allow for effective evacuation routes for the public and effective access for emergency responders, including in areas that lack more than two emergency access routes. *(PSP/SP/PI)*

HS-A.9 Vector-Borne Disease Control

The County shall prevent and control the spread of vector-borne diseases through best practice vector control techniques on County properties and will encourage use of these practices on other properties. *(PSP/SO/IGC/PI)*

HS-A.10 Retrofit Existing Critical Facilities and Related Infrastructure

The County, as part of its five-year Capital Improvement Plan, shall conduct an evaluation of all County facilities including those operated by County first responders to determine retrofits that may be needed for long-term resilience to climate change hazards including wildfire and drought. *(PSP/SO/IGC)*

HS-A.11 Improve Resilience in Critical Facilities

The County shall invest in sustainable backup power sources as funding becomes available to provide redundancy and continued services for critical facilities in the event of a power outage triggered by a climate event. *(FB/SO)*

HS-A.12 Access/Evacuation Routes

Establish minimum standards for evacuation, including in the Very High Fire Hazard Severity areas, in the Emergency Operations Plan and continuously reassess access and evacuation route capacity and put mitigation measures and improvement plans in place if needed.

HS-A.13 Future Emergency Service Needs

The County shall periodically evaluate the ability of County facilities to function after a major disaster as well as project and assess future emergency needs.

B. FIRE HAZARDS

Structural and wildland fire hazards can threaten life and property in Fresno County. Wildland fires resulting from either natural or manmade causes occur in forests, brush, grasslands, fallow agricultural areas, and vacant lots. Such fires are capable of causing widespread damage to Fresno County's valuable range and forest lands, in addition to threatening the lives and personal property of persons residing in wildfire-prone areas. Wildfires can exacerbate air quality problems, particularly during the summer months when ambient air quality is already low.



FRESNO COUNTY GENERAL PLAN

Individuals with high outdoor exposure and individuals with chronic health conditions are particularly vulnerable to poor air quality. These populations are directly exposed to outdoor air pollutants and may have underlying respiratory and/or cardiovascular conditions. In addition, post wildfire debris flows can pose a risk to life and property especially in areas where landslide susceptibility for the County overlaps with wildfire hazard zones. Structural fires generally result from manmade causes and can easily spread through densely-settled urban areas, causing large-scale loss of personal property, personal injury, and, occasionally, fatalities. Figure HS-5 shows the wildfire hazard severity zones (Federal Responsibility Areas and State Responsibility Areas), and Figure HS-6 shows critical facilities and wildfire hazard severity zones.

The following First Responder Agencies and special districts provide fire protection services and/or medical aid services to the unincorporated and incorporated areas of Fresno County: Auberry Volunteer Fire, Bald Mountain Volunteer Fire, Clovis City Fire Department, Coalinga City Fire Department, Firebaugh Volunteer Fire Department, Fowler Fire Department, Fresno City Fire Department, CalFire/Fresno Co. Fire District., Hume Lake Volunteer Fire and Rescue Co., Huntington Lake Volunteer Fire, Kingsburg City Fire, Laton Volunteer Fire, Mountain Valley Volunteer Fire, Orange Cove Fire District, Reedley City Fire Department, Riverdale Volunteer Fire Department, Sanger City Fire Department, Selma City Fire Department, Shaver Lake Volunteer Fire, the United States Forest Service and the Bureau of Land Management. CalFire undertakes defensible space inspections, consistent with California’s Public Resources Code Section 4291, and utilize social media and flyers to reach the public on the importance of defensible space. County also continues to coordinate with CalFire, Cal OES, and the Sheriff’s Office on outreach when needed.

Policies in this section are designed to ensure that new development is constructed to

minimize potential fire hazards, minimize the risk of fire in already developed areas, and to provide public education concerning fire prevention. Related policies are included in Section PF-H, Fire Protection and Emergency Medical Services.

GOAL HS-B

To minimize the risk of loss of life, injury, and damage to property and natural resources resulting from fire hazards.

HS-B.1 Fire Hazards Review

The County shall review project proposals to identify potential fire hazards and to evaluate the effectiveness of preventive measures to reduce the risk to life and property. *(RDR)*

HS-B.2 Minimize Fire Hazard Risk Design

The County shall ensure that development in high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards by increasing resistance of structures to heat, flames, and embers. The County shall review current building code standards and other applicable statutes, regulations, requirements, and guidelines regarding construction, and specifically the use and maintenance of non-flammable materials (both residential and commercial) and consider adopting amendments to Title 15 of the County Ordinance Code (Building and Construction) to implement appropriate standards. Special consideration shall be given to the use of fire-resistant construction in the underside of eaves, balconies, unenclosed roofs and floors, and other similar horizontal surfaces in areas of steep slopes. *(RDR)*

HS-B.3 Telecommunications

The County shall coordinate with telecommunication service entities to fire-harden communications.

GOALS AND POLICIES **2**

HEALTH AND SAFETY

HS-B.4 Fire Risk Management

The County shall require that new discretionary development including residential subdivisions and large commercial proposals in high-fire-hazard areas have fire-resistant vegetation, cleared fire breaks separating communities or clusters of structures from native vegetation, or a long-term comprehensive vegetation and fuel management program. Fire hazard reduction measures shall be incorporated into the design of development projects in fire hazard areas. *(RDR/PSP)*

HS-B.5 Landscape Features

In consultation with the local fire agency and CalFire, the County shall require structures to be sited to maximize low-flammability landscape features to buffer against wildfire spread. Consultation with the local fire agency will be necessary to make this determination.

HS-B.6 Foothill and Mountain Fire and Emergency Service Access

The County shall require that new foothill and mountain subdivisions and residential areas in Very High Fire Hazard Severity Zones provide for safe and ready access for fire and other emergency equipment, for routes of escape that will safely handle evacuations, and for roads and streets designed to be compatible with topography while meeting fire safety needs. *(RDR)*

HS-B.7 Fire and Emergency Vehicle Access

The County shall require new discretionary development projects to have adequate access for fire and emergency vehicles and equipment. All major subdivisions shall have a minimum of two (2) points of ingress and egress. The County shall implement feasible recommendations in AB2911 Office of the State Fire Marshall Subdivision Survey Reports, which survey subdivisions without a secondary means of egress routes for evacuation and other fire safety factors *(RDR)*

HS-B.8 Fire Risk Management Coordination

The County shall work with local fire protection agencies, local wildfire mitigation groups, the California Department of Forestry and Fire Protection, and the U.S. Forest Service to promote the maintenance of existing fuel breaks and emergency access routes for effective fire suppression and in managing wildland fire hazards. *(RDR/PSP/IGC)*

HS-B.9 Community Fire Breaks Coordination

The County shall require that community fire breaks be coordinated with overall fire break plans developed by CalFire and local foothill and mountain fire agencies for Very High Fire Hazard Severity Zones and State Responsibility Areas. Firebreak easements in subdivisions of more than four parcels or in built-up areas shall include access for firefighting personnel and motorized equipment. Easements shall be dedicated for this purpose. *(RDR/PSP/IGC)*

HS-B.10 Fire Agency Review of Development Proposals

The County shall refer development proposals in the Very High Fire Hazard Severity Zones and State Responsibility Areas of the unincorporated county to the appropriate local fire agencies for review of compliance with fire safety standards. If dual responsibility exists, both agencies shall review and comment relative to their area of responsibility. If standards are different or conflicting, the more stringent standards shall apply. *(RDR/IGC)*

HS-B.11 Foothill and Mountain Year-round Fire Protection

The County shall work with Cal Fire and local fire agencies to establish development requirements for year-round fire protection in foothill and mountain areas having existing or proposed population concentrations that need structural fire protection, and for agricultural land uses located in and bordering fire hazard zones. *(RDR/PSP)*



FRESNO COUNTY GENERAL PLAN

HS-B.12 Public Assembly Building Fire Safety Measures

The County shall work to design new and modify existing County buildings of public assembly to incorporate adequate fire protection measures to reduce potential loss of life and property in accordance with State and local codes and ordinances and include consideration for filtration systems that improve air quality. *(RDR)*

HS-B.13 Water Storage

The County shall permit development only within areas that have adequate water resources available, to include water pressure, onsite water storage, or fire flows.

HS-B.14 Minimum Fire Flow Water Systems

The County shall require new discretionary development to have water systems that meet fire flow requirements as determined by applicable California Fire Code requirements and/or National Fire Protection Association (NFPA) standards under the authority of the Chief Fire Code Official and as referenced in County Ordinance Code. Where minimum fire flow is not available to meet these standards, alternate fire protection measures, including sprinkler systems and on-site water supply or storage, shall be identified, and may be incorporated into development if approved by the appropriate fire protection agency. The County shall require that all public water providers maintain the long-term integrity of adequate water supplies and flow to meet fire suppression needs. *(RDR)*

HS-B.15 Fire Protection

The County shall ensure that any new development will have adequate fire protection, including proximity to adequate emergency services, adequate provisions for fire flow and emergency vehicle access and fire hardened communication, including high speed internet service.

HS-B.16 Location of New Developments

The County shall restrict or require mitigation for new discretionary development along steep slopes and amidst rugged terrain to limit rapid fire spread and increase accessibility for firefighting.

HS-B.17 Smoke Detectors

The County shall promote installation and maintenance of smoke detectors in existing residences and commercial facilities that were constructed prior to the requirement for their installation. *(PSP)*

HS-B.18 High-visibility Fire Prevention Programs

The County shall work with local fire agencies to develop high-visibility fire prevention programs, including education programs and voluntary home inspections. *(PSP/IGC)*

HS-B.19 Site Specific Fire Management Plans

The County shall require all new discretionary development consisting of major residential subdivisions and large commercial projects in the Very High Fire Hazard Severity Zone and State Responsibility Areas to develop site-specific fire management plans to maintain adequate access for emergency vehicles, including two points of access for subdivisions and multifamily developments, address fuel modification and/or incorporation of open space or other defensible space areas, maintain vegetation clearance on public and private roads, and include disclosure requirements to future property owners or residents as required by state law. Require ongoing maintenance and upkeep to be incorporated or recorded as part of building covenants or homeowner covenants, conditions, and restrictions.

HS-B.20 Route Capacity, Safety and Visibility

As part of the next update to the Fresno County Multi-Hazard Mitigation Plan, the County, working with emergency service agencies, shall evaluate evacuation route capacity, safety, and

GOALS AND POLICIES **2**

HEALTH AND SAFETY

viability under a range of emergency scenarios to facilitate fire, law enforcement, and ambulance access and resident egress, consistent with the existing goals and objective of the Fresno County Multi-Hazard Mitigation Plan.

HS-B.21 Fuel Loads on Federal Lands

The County shall collaborate with federal agencies to better manage fuel loads and hazards that could impact County owned/operated infrastructure on federally owned or managed lands.

HS-B.22 Defensible Space

The County shall make available and promote educational materials for defensible space standards, or vegetation “clear zones,” and vegetation compliance for all existing and new structures in areas that are designated by the California Department of Forestry and Fire Protection and Local Ordinance 15.60 as State Responsibility Areas or Very High Fire Hazard Severity Zones.

HS-B.23 Non-conforming Developments

The County, working with applicable fire agencies, shall make reasonable effort to minimize the risk to existing developments in Very High Fire Hazard Severity Zones and State Responsibility Areas by educating property owners and responsible entities of the benefits of improving such developments to contemporary fire safe standards, in terms of road standards and vegetative hazard, and require all development to meet or exceed the County’s Title 15 – Building and Construction, Chapter 15.60 State Responsibility Area Fire Safe Regulations of the County under the County’s Code of Ordinances and applicable updates.

HS-B.24 Emergency Vehicle Access

The County shall require all new discretionary development consisting of major residential subdivisions and large commercial projects to provide, and existing development to maintain, adequate access for emergency vehicles, including two points of access for subdivisions and multifamily developments.

HS-B.25 State Responsibility Areas Fire Safe Regulation

Require development to adhere to standards that meet or exceed Title 14, CCR, Division 1.5, Chapter 7, Subchapter 2, Articles 1-5 (commencing with Section 1299.01) (Fire Hazard Reduction Around Buildings and Structures Regulations) for State Responsibility Areas and/or Very High Fire Hazard Severity Zones.

HS-B.26 Master Emergency Services Plan

The County shall maintain and update its Master Emergency Services Plan, as necessary, to include an assessment of current emergency service and projected emergency service needs, and goals or standards for emergency service training for County staff and volunteers.

HS-B.27 Post Fire Re-development

In the event of a large fire, the County shall evaluate re-development within the impacted fire zone to conform to contemporary fire safe standards and require all development to meet or exceed the County’s Title 15 - Building and Construction, Chapter 15.60 State Responsibility Area Fire Safe Regulations of the County under the County’s Code of Ordinances and applicable updates.

HS-B.28 Fire Safe New Construction and Re-Construction

The County shall coordinate with local and state fire agencies to ensure that all new developments and applicable re-constructions (as defined by state law) in the very high fire hazard severity zone and State Responsibility Areas, comply with defensible space regulations, home and street addressing and signage, the latest fire-safe standards, Board of Forestry and Fire Protection fire safe regulations and the most current version of the California Building Code and California Fire Code.

HS-B.29 Underground Power Lines

Coordinate with Southern California Edison and Pacifica Gas and Electric Company to



FRESNO COUNTY GENERAL PLAN

implement an electrical undergrounding plan with a focus on critical evacuation roadways and areas with highest wildfire risk.

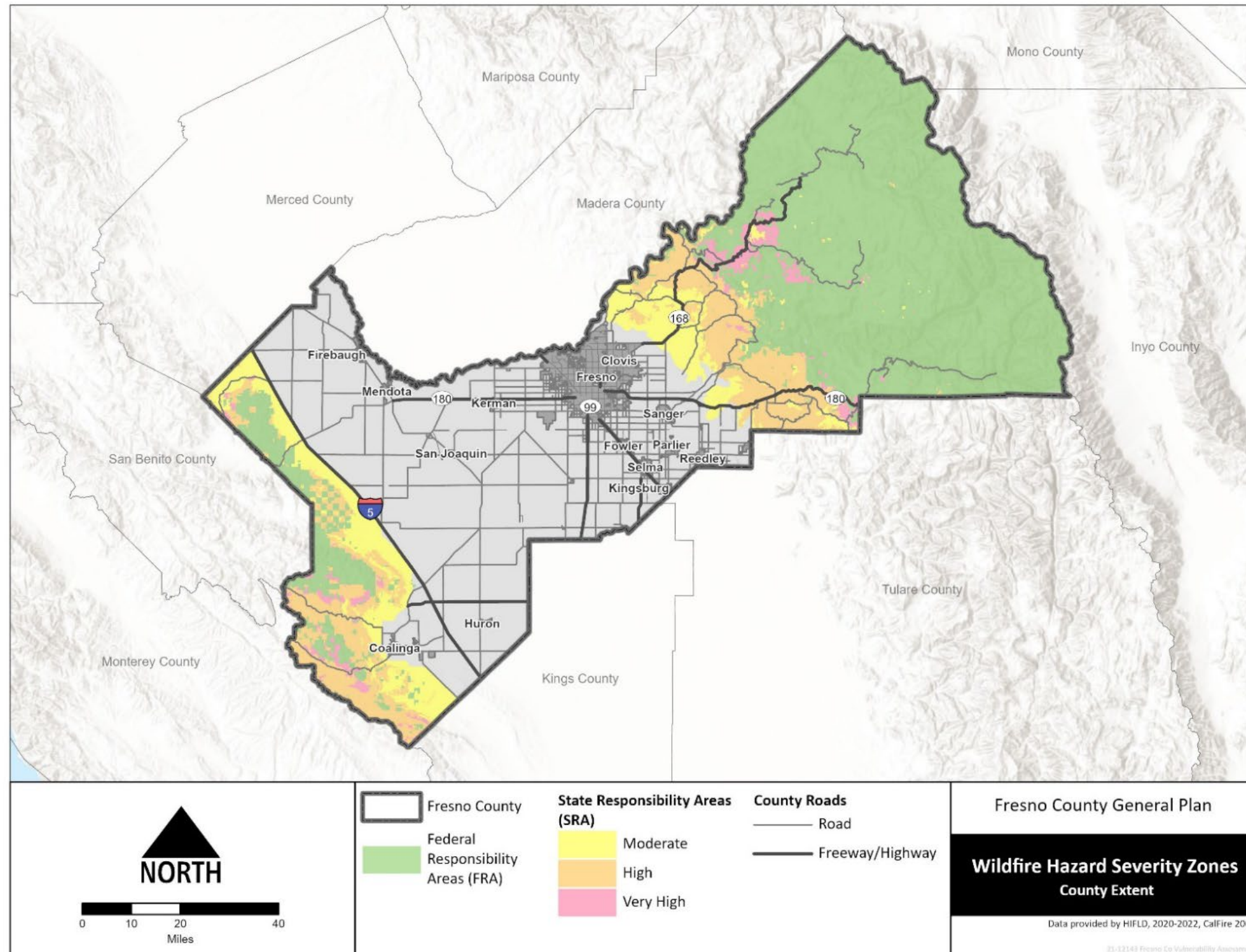
HS-B.30 Hazard Mitigation Plan

The County shall, if necessary, revise the Health and Safety Element upon each revision of the Housing Element or Fresno County Multi-Hazard Mitigation Plan, but not less than once every eight years, to identify new information relating to flood and fire hazards and climate adaptation and resiliency strategies applicable to the county.

HS-B.31 Restrict Parking

The County shall work with relevant agencies such as CAL FIRE, Fresno County Sheriff's Office, Caltrans, Fresno County Public Works and Planning, and private Home Owners Associations, to restrict parking periodically (e.g., on red flag days) along critical evacuation routes.

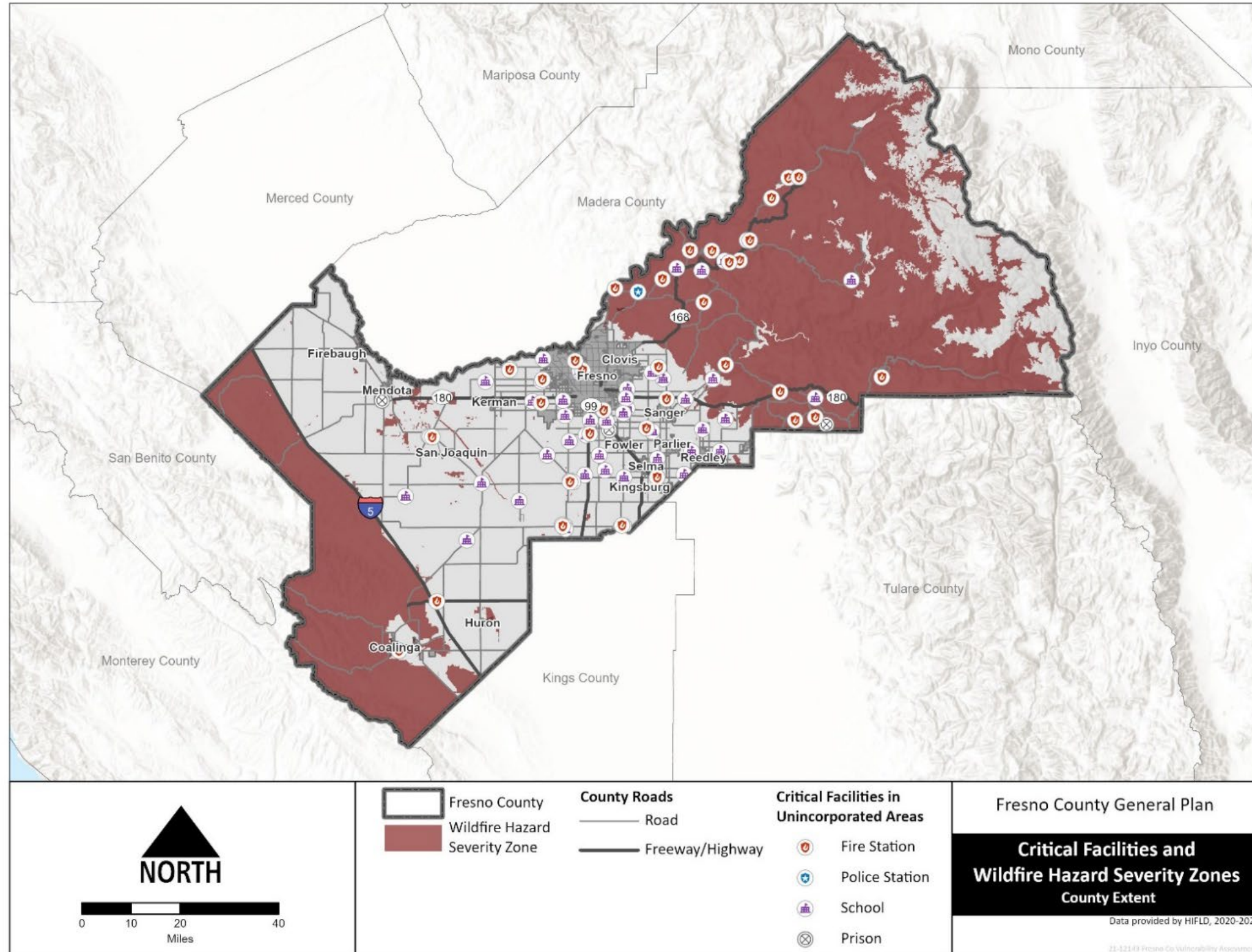
Figure HS-5 Wilfire Hazard Severity Zones





FRESNO COUNTY GENERAL PLAN

Figure HS-6 Critical Facilities and Wildfire Hazard Severity Zones



GOALS AND POLICIES 2

HEALTH AND SAFETY

C. *Flood hazards*

Flooding is a natural occurrence in the Central Valley because it is the drainage basin for thousands of watershed acres of Sierra Nevada and Coast Range foothills and mountains. Flooding in Fresno County occurs primarily along the Kings River in the central-eastern portion of the county, some sections of the San Joaquin River, and many of the foothill streams along the east and west sides of the valley. Flooding can also occur in the event of a failure of a dam. Figure HS-7 shows dam inundation hazards in Fresno County. A variety of mechanisms are currently employed to reduce flood damage in flood prone areas, including flood control reservoirs, levee systems, and watershed treatment.

The Legislature in 2007 passed a package of new laws that significantly strengthened flood protection regulations in California. SB 5 requires the California Department of Water Resources and Central Valley Flood Protection Board to prepare and adopt a Central Valley Flood Protection Plan (CVFPP) by 2012. The legislation also establishes certain flood protection requirements for local land use decision-making based on the CVFPP. This law sets new standards for flood protection for the San Joaquin Valley area. It requires an urban level of flood protection necessary to withstand a 1 in 200 chance of a flood event occurring in any given year (200-year flood) for areas developed or planned to have a population of at least 10,000. It also requires the County to collaborate with cities to develop a flood emergency response plan. AB 162 strengthened and expanded existing requirements for general plans to address flooding issues.

Policies in this section are designed to minimize flood hazards by restricting development in flood-prone areas, requiring development that does occur in floodplains to be designed to avoid flood damage, and through public education about flood hazards. Related policies are included in Section PF-E, Storm Drainage and Flood Control, and Section LU-C, River Influence Areas.

GOAL HS-C

To minimize the risk of loss of life, injury, and damage resulting from flood hazards.

HS-C.1 **Countywide Flood Emergency Plan**

The County shall coordinate with the cities in Fresno County to develop and maintain a countywide flood emergency plan that is consistent with the Fresno County General Plan and city general plans. (RDR)

HS-C.2 **Flood Risk Consideration**

The County shall prohibit new development in existing undeveloped areas (i.e., areas devoted to agriculture or open space that are not designated for development) protected by a State flood control project without appropriately considering significant known flooding risks and taking reasonable and feasible action to mitigate the potential property damage to the new development resulting from a flood. (RDR)

HS-C.3 **Finding of Flood Protection for New Development**

The County shall not enter into a development agreement, approve any building permit or entitlement, or approve a tentative or parcel map unless it finds one of the following:

- a. The flood control facilities provides 200-year level of protection in urban and non-urban areas consistent with the current Central Valley Flood Protection Plan;



FRESNO COUNTY GENERAL PLAN

b. Conditions imposed on the development will protect the property at a 200-year level of protection in urban and non-urban areas consistent with the current Central Valley Flood Protection Plan; or

c. The local flood management agency has made “adequate progress” on the construction of a flood protection system which will result in protection equal or greater than the 200-year flood event in urban and non-urban areas consistent with the current Central Valley Flood Protection Plan. *(RDR)*

HS-C.4 Floodwater Diversion

The County shall require new flood control projects or developments within areas subject to 100- and 200-year frequency floods are designed and constructed in a manner that will not cause floodwaters to be diverted onto adjacent property or increase flood hazards to property located elsewhere. *(RDR)*

HS-C.5 Minimize Public Facility Impacts

The County shall encourage all agencies that operate public facilities, such as wastewater treatment plants, gas, electrical, and water systems, located within areas subject to 100- and 200-year frequency floods to locate and construct facilities to minimize or eliminate potential flood damage. *(RDR)*

HS-C.6 Adapting Infrastructure to Climate Change

The County shall encourage, as applicable, expansion of stormwater and flood protection infrastructure capacity in order to accommodate changes in precipitation and extreme weather events including the establishment or expansion of recharge basins. *(RDR)*

HS-C.7 Relocation Assistance

The County shall support State and local flood management agencies to provide relocation assistance or other cost-effective strategies for reducing flood risk to existing economically-disadvantaged communities located in non-urbanized areas. *(IGC)*

HS-C.8 Flood Risk Information Base

The County shall work with local, regional, State, and Federal agencies to maintain an adequate information base, prepare risk assessments, and identify strategies to mitigate flooding impacts. *(PSP/PSR/IGC)*

HS-C.9 Stormwater Flow Control

The County shall encourage the Fresno Metropolitan Flood Control District to control stormwater flows originating in the streams of the Fresno County Stream Group and the stormwater resulting from urban development by means of construction of dams or joint-use flood control and recharge facilities at appropriate locations. *(PSP/IGC)*

HS-C.10 Dam and Levee Design

The County shall require that the design and location of dams and levees be in accordance with applicable design standards and specifications and accepted design and construction practices. *(RDR/PSP)*

HS-C.11 Land Use Regulation for Flood Risk Management

The County shall promote a floodplain management approach in flood hazard areas that are presently undeveloped by giving priority to regulation of land uses over development of structural controls as a method of reducing flood damage. *(RDR/PSP)*

HS-C.12 200-Year Water Surface Elevation Investigations

The County shall encourage the performance of appropriate investigations to determine the 200-year water surface elevations for the San Joaquin River, taking into account recent storm events and existing channel conditions, to identify the potential extent and risk of flooding. New development, including public infrastructure projects, shall not be allowed along the river until the risk of flooding at the site has been determined and appropriate flood risk reduction measures identified. *(RDR/PSR)*

GOALS AND POLICIES **2**

HEALTH AND SAFETY

HS-C.13 Flood Control Facility Planning

Where existing development is located in a flood hazard area, the County shall require that construction of flood control facilities proceed only after a complete review of the environmental effects and a project cost/benefit analysis. *(RDR/PSR)*

HS-C.14 200-Year Floodplain Protection

The County shall promote flood control measures that maintain natural conditions within the 200-year floodplain of rivers and streams and, to the extent possible, combine flood control, recreation, water quality, and open space functions. Existing irrigation canals shall be used to the extent possible to remove excess stormwater. Retention-recharge basins should be located to best utilize natural drainage patterns. *(PSP)*

HS-C.15 Federal Flood Insurance Program

The County shall continue to participate in the Federal Flood Insurance Program by ensuring compliance with applicable requirements. *(PSP)*

HS-C.16 Floodplain Management Ordinance

The County shall continue to implement and enforce its Floodplain Management Ordinance. During the building permit review process, the County shall ensure project compliance with applicable Federal Emergency Management Agency (FEMA) standards pertaining to residential and non-residential development in the floodplain, floodway, or floodway fringe. *(RDR)*

HS-C.17 Essential Facilities Siting

The County shall prohibit the construction of essential facilities (e.g., hospitals, police and fire facilities) in the 100- and 200-year floodplains, unless it can be demonstrated that the facility can be safely operated and accessed during flood events. *(RDR/PSP)*

HS-C.18 Flood Hazard Area Open Space

The County shall encourage open space uses in all flood hazard areas. Land Conservation contracts and open space and scenic easements should be made available to property owners. *(PSP)*

HS-C.19 Dam Inundation Review

The County shall consider dam failure inundation maps of all reservoirs in making land use and related decisions. *(RDR)*

HS-C.20 Flood Risk Public Awareness

The County shall continue public awareness programs to inform the general public and potentially affected property owners of flood hazards and potential dam failure inundation. *(PSP/PI)*



FRESNO COUNTY GENERAL PLAN

This page left blank intentionally

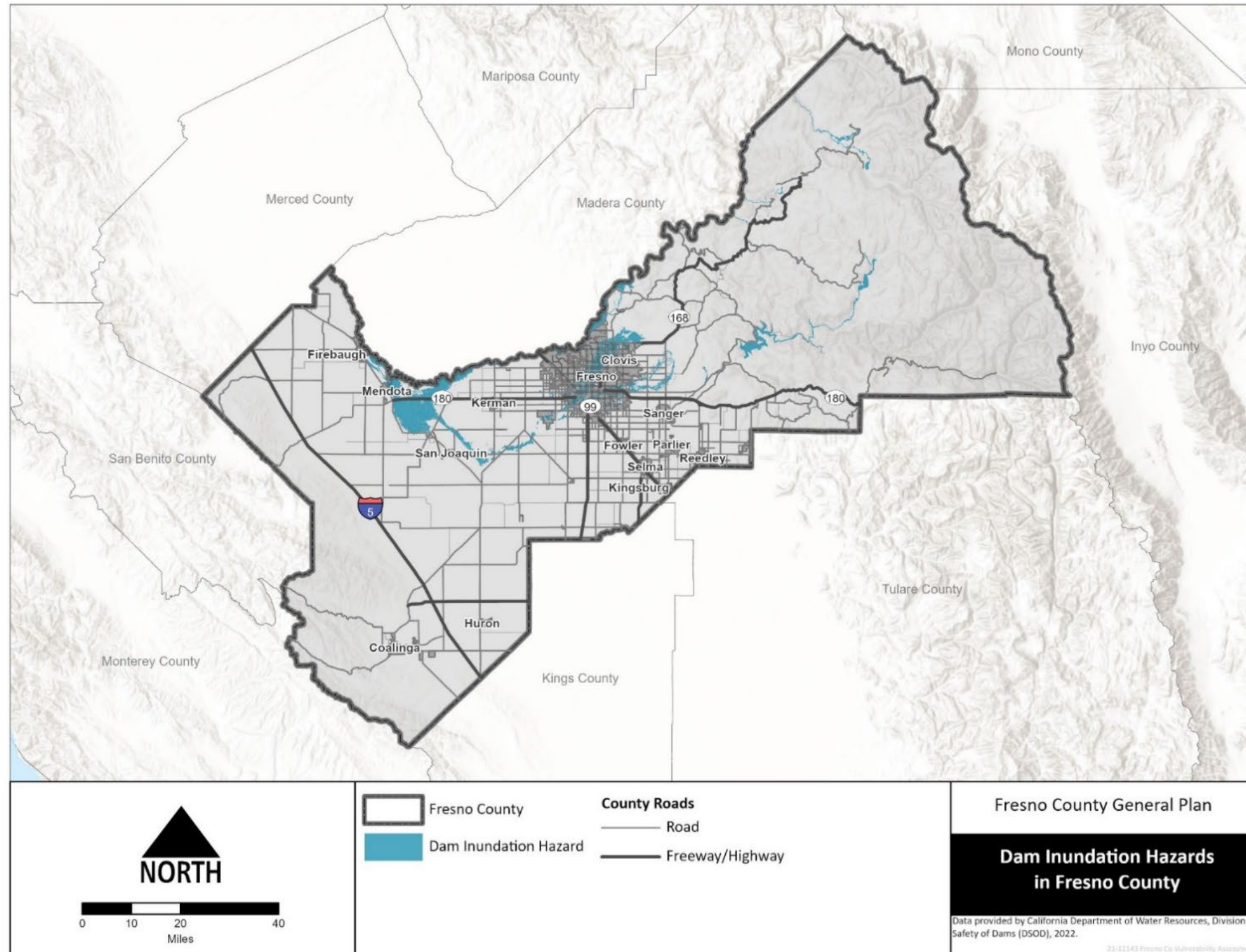
GOALS AND POLICIES HEALTH AND SAFETY **2**

This page left blank intentionally



FRESNO COUNTY GENERAL PLAN

Figure HS-7 Dam Inundation Hazards



D. SEISMIC AND GEOLOGICAL HAZARDS

There are a number of active and potentially-active faults within and adjacent to Fresno County. Although most of Fresno County is situated within an area of relatively low seismic activity by comparison to other areas of the state, the faults and fault systems that lie along the eastern and western boundaries of the county, as well as other regional faults, have the potential to produce high-magnitude earthquakes throughout the county. The principle earthquake hazard is ground shaking. Older buildings constructed before building codes were established and newer buildings constructed before earthquake-resistant provisions were included in the building codes are the most likely to be damaged during an earthquake. Other geologic hazards in Fresno County include landslides, subsidence, expansive soils and erosion, and volcanic hazards. Figure HS-8 shows seismic hazards and landslide susceptibility in the County.

Policies in this section seek to ensure that new buildings and facilities are designed to withstand seismic and geologic hazards.

GOAL HS-D	To minimize the loss of life, injury, and property damage due to seismic and geologic hazards.
----------------------	--

HS-D.1 Geologic Investigations and Knowledge

The County shall continue to support scientific geologic investigations that refine, enlarge, and improve the body of knowledge on active fault zones, unstable areas, severe ground shaking, avalanche potential, and other hazardous geologic conditions in Fresno County. *(PSR)*

HS-D.2 Geologic Hazard Mitigation Planning

The County shall ensure that the General Plan and/or County Ordinance Code is revised, as necessary, to incorporate geologic hazard areas formally designated by the State Geologist (e.g., Earthquake Fault Zones and Seismic Hazard Zones). Development in such areas, including public infrastructure projects, shall not be allowed until compliance with the investigation and mitigation requirements established by the State Geologist can be demonstrated. *(RDR)*

HS-D.3 Soils and Geologic-Seismic Analysis

The County shall require that a soils engineering and geologic-seismic analysis be prepared by a California-registered engineer or engineering geologist prior to permitting development, including public infrastructure projects, in areas prone to geologic or seismic hazards (i.e., fault rupture, ground shaking, lateral spreading, lurch cracking, fault creep, liquefaction, subsidence, settlement, landslides, mudslides, unstable slopes, or avalanche). *(RDR/PSR)*

HS-D.4 Soils and Geologic-seismic Structure Design

The County shall require all proposed structures, additions to structures, utilities, or public facilities situated within areas subject to geologic-seismic hazards as identified in the soils engineering and geologic-seismic analysis to be sited, designed, and constructed in accordance with applicable provisions of the California Building Code (Title 24 of the California Code of Regulations) and other relevant professional standards to minimize or prevent damage or loss and to minimize the risk to public safety. *(RDR)*



FRESNO COUNTY GENERAL PLAN

HS-D.5 Alquist-Priolo Earthquake Fault Act

Pursuant to the Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code, Chapter 7.5), the County shall not permit any structure for human occupancy to be placed within designated Earthquake Fault Zones unless the specific provisions of the Act and Title 14 of the California Code of Regulations have been satisfied. *(RDR)*

HS-D.6 Seismic Standards for Critical Facilities

The County shall ensure compliance with State seismic and building standards in the evaluation, design, and siting of critical facilities, including police and fire stations, school facilities, hospitals, hazardous material manufacture and storage facilities, bridges, large public assembly halls, and other structures subject to special seismic safety design requirements. *(RDR)*

HS-D.7 Soils Report

The County shall require a soils report by a California-registered engineer or engineering geologist for any proposed development, including public infrastructure projects, that requires a County permit and is located in an area containing soils with high “expansive” or “shrink-swell” properties. Development in such areas shall be prohibited unless suitable design and construction measures are incorporated to reduce the potential risks associated with these conditions. *(RDR/PSR)*

HS-D.8 Minimize Soil Erosion

The County shall seek to minimize soil erosion by maintaining compatible land uses, suitable building designs, and appropriate construction techniques. Contour grading, where feasible, and revegetation shall be required to mitigate the appearance of engineered slopes and to control erosion. *(RDR)*

HS-D.9 Drainage Plans

The County shall require the preparation of drainage plans for development or public infrastructure projects in hillside areas to direct runoff and drainage away from unstable slopes. *(RDR/PSP)*

HS-D.10 Maximum Slope Requirements

The County shall not approve a County permit for new development, including public infrastructure projects where slopes are over thirty (30) percent unless it can be demonstrated by a California-registered civil engineer or engineering geologist that hazards to public safety will be reduced to acceptable levels. *(RDR)*

HS-D.11 Landslide Hazard Areas

In known or potential landslide hazard areas, the County shall prohibit avoidable alteration of land in a manner that could increase the hazard, including concentration of water through drainage, irrigation, or septic systems, undercutting the bases of slopes, removal of vegetative cover, and steepening of slopes. *(RDR)*

HS-D.12 Avalanche Hazard Areas

The County shall not approve a County permit for new development, including public infrastructure projects, in known or potential avalanche hazard areas unless it can be demonstrated by a California-registered engineer or engineering geologist that the structures will be safe under anticipated snow loads and avalanche conditions. *(RDR)*

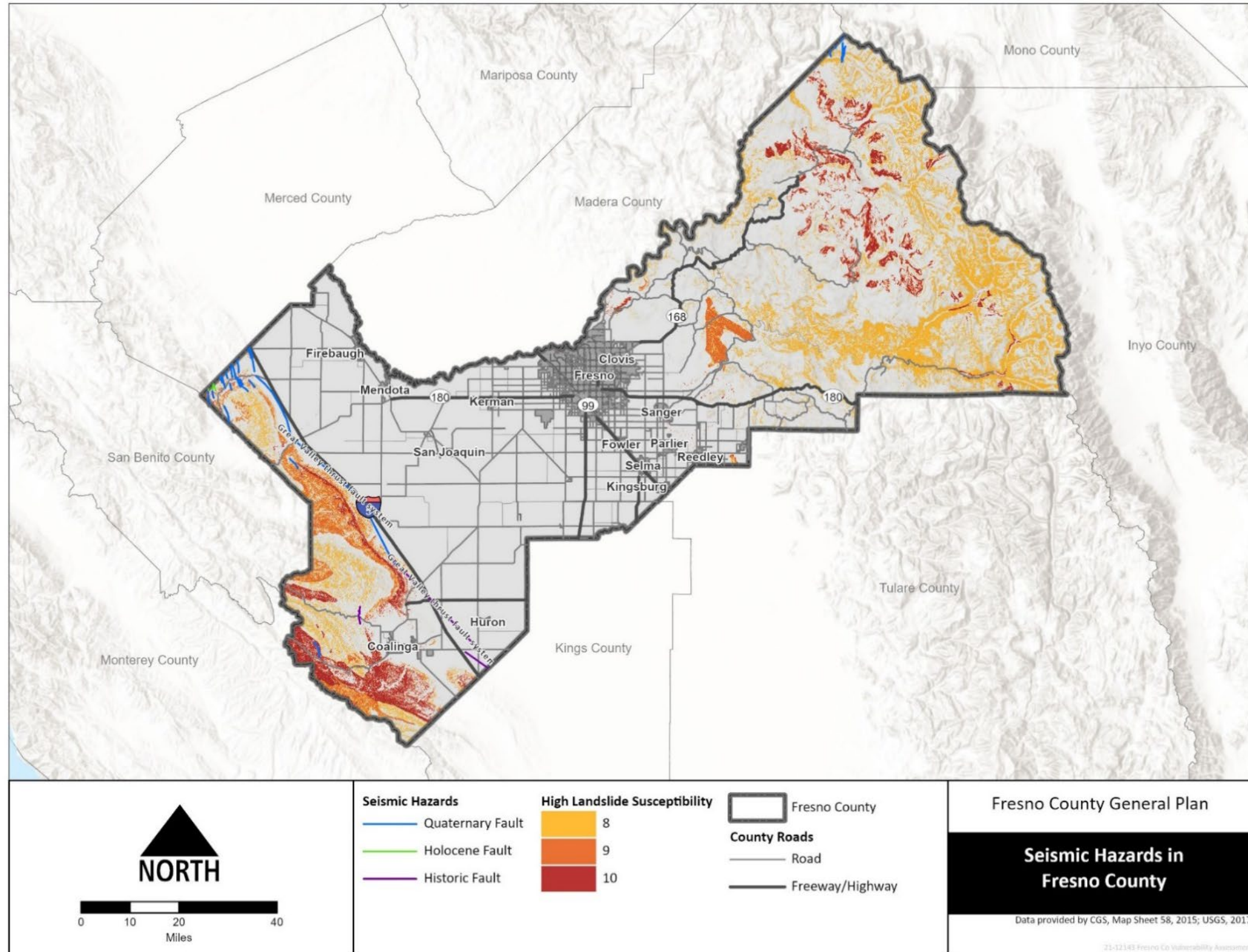
HS-D.13 Geologic Hazard Areas Designations

Whenever zoning is employed to restrict the use of land subject to severe geologic hazards (e.g., landslides), the County shall designate parcels so restricted for open space uses. *(RDR)*



FRESNO COUNTY GENERAL PLAN

Figure HS-8 Seismic Hazards





FRESNO COUNTY GENERAL PLAN

This page left blank intentionally

GOALS AND POLICIES 2

HEALTH AND SAFETY

E. AIRPORT HAZARDS

Airport safety hazards include hazards posed to aircraft and hazards posed by aircraft to people and property on the ground. With proper land use planning, aircraft safety risks can be reduced, primarily by avoiding incompatible land uses.

Policies in this section are designed to minimize public exposure to risks associated with airport operations and to minimize the siting of land uses near airports that might interfere with airport operations. Related policies are included in Section HS-F, Hazardous Materials, and Section HS-G, Noise.

GOAL HS-E	To minimize the exposure of the public to high noise levels and safety hazards through land use controls and policies for property in the vicinity of airports, and to limit urban encroachment around airports in order to preserve the safety of flight operations and the continued viability of airport facilities.
----------------------	---

HS-E.1 Airport Land Use Policy Plans

The County shall limit land uses in airport safety zones to those uses listed in the applicable CLUPPs as compatible uses. Exceptions shall be made only as provided for in the CLUPPs. Such uses shall also be regulated to ensure compatibility in terms of location, height, and noise. *(RDR)*

HS-E.2 Airport Safety Hazards

The County shall ensure that new development, including public infrastructure projects, does not create safety hazards such as glare from direct or reflective sources, smoke, electrical interference,

hazardous chemicals, or fuel storage in violation of adopted safety standards. *(RDR)*

HS-E.3 Federal Airport Safety Zones

The County shall ensure that development, including public infrastructure projects, within the airport approach and departure zones complies with Part 77 of the Federal Aviation Administration Regulations (Objects Affecting Navigable Airspace). *(RDR)*

F. HAZARDOUS MATERIALS

Hazardous waste handlers and generators in Fresno County include industries, businesses, public and private institutions, and households. The transport, storage, use, and disposal of toxic or hazardous materials poses potential safety hazards in the event of unintentional exposure, leak, fire, or accident.

Policies in this section are designed to ensure that development projects minimize public risks associated with both intended and unintended exposure to hazardous materials and wastes. Related policies are included in Section HS-A, Emergency Management and Response.

GOAL HS-F	To minimize the risk of loss of life, injury, serious illness, and damage to property resulting from the use, transport, treatment, and disposal of hazardous materials and hazardous wastes.
----------------------	---

HS-F.1 Hazardous Materials Facilities

The County shall require that facilities that handle hazardous materials or hazardous wastes be designed, constructed, and operated in accordance with applicable hazardous materials and waste management laws and regulations. *(RDR)*



FRESNO COUNTY GENERAL PLAN

HS-F.2 Hazardous Waste Applications

The County shall require that applications for discretionary development projects that will use hazardous materials or generate hazardous waste in large quantities include detailed information concerning hazardous waste reduction, recycling, and storage. *(RDR)*

HS-F.3 Hazardous Materials Incident Response Plan

The County, through its Hazardous Materials Incident Response Plan, shall coordinate and cooperate with emergency response agencies to ensure adequate countywide response to hazardous materials incidents. *(PSP/IGC)*

HS-F.4 Soil and Groundwater Contamination Reports

For redevelopment or infill projects or where past site uses suggest environmental impairment, the County shall require that an investigation be performed to identify the potential for soil or groundwater contamination. In the event soil or groundwater contamination is identified or could be encountered during site development, the County shall require a plan that identifies potential risks and actions to mitigate those risks prior to, during, and after construction. *(RDR/PSR)*

HS-F.5 Demolition Standards

The County shall require that demolition of structures where friable asbestos or other hazardous materials could be released into the environment comply with applicable regulations and standards. *(RDR)*

HS-F.6 Timely Site Cleanup

The County shall work cooperatively with the State Department of Toxic Substances Control and Regional Water Quality Control Board to promote the timely and efficient cleanup of contaminated sites under the regulatory oversight of these agencies. *(RDR/IGC)*

HS-F.7 Mining and Mineral Processing Standards

The County shall ensure that the mining and processing of minerals in the county is conducted in compliance with applicable environmental protection standards. *(RDR)*

HS-F.8 Household Hazardous Waste Collection Programs

The County shall encourage and promote household hazardous waste information and collection programs. *(PSP/PI)*

G. ADAPTATION AND RESILIENCY

The growing effects of climate change have increased the frequency and severity of natural disasters. The Fresno County Climate Change Vulnerability Assessment (Appendix C) evaluates how climate change may impact vulnerable populations, natural resources, agriculture, critical facilities, buildings, services, and infrastructure in unincorporated Fresno County. In Fresno County, average annual temperatures are expected to increase along with an increasing intensity of precipitation events and longer dry periods. These changes in temperature and precipitation patterns are expected to influence the frequency, duration, and magnitude of a variety of climate hazards including extreme heat, warm nights, chill hours, drought, wildfire, landslides, tule fog, riverine and stormwater flooding, and air quality. While the effects of these events pose great risks to life and property, implementation of adaptation and resiliency strategies and practices can increase the community's resiliency.

Goals and policies in this Element are based on the findings of the Fresno County Climate Change Vulnerability Assessment (Appendix C). Policies to address climate change impacts related to previous sections of the Health and Safety Element (Emergency Management and Response, Fire Hazards, Flood Hazards, Seismic

GOALS AND POLICIES 2

HEALTH AND SAFETY

and Geological Hazard) can be found in those sections. Goals and policies to address climate change-specific hazards including extreme heat, drought, air quality, chill hours, and tule fog, are addressed in this section. The climate change adaptation and resiliency goals and policies provide resilience benefits to the population groups and assets in Fresno County most at risk to the effects of climate change.

GOAL HS-G

To improve the sustainability and resiliency of the County through continued efforts to reduce the causes of and adapt to climate change.

HS-G.1 Reduce Impacts of Climate Change

The County shall support plans, standards, regulation, incentives, and investments based on sound science to reduce the impacts of climate change. *(IGC/MPSP/RDR/PSR)*

HS-G.2 Monitor Risks from the Effects of Climate Change.

The County shall regularly (at minimum every eight years) update the Fresno County Climate Change Vulnerability Assessment at each required update of the Safety Element to reflect the best available information from Federal, State, and regional agencies on the effects of climate change to determine if the County should implement additional adaptation strategies. *(IGC/CSO)*

HS-G.3 Collaborate on Climate Adaptation

The County shall continue to collaborate with Federal, State, regional, and local agencies, business and property owners, and residents to reduce generation of GHG and other emissions that contribute to climate change and effectively implement climate change adaptation policies and programs. *(IGC/JP)*

HS-G.4 Climate Pollution Reduction Practices for Income-Qualified Homes

The County shall support programs to provide financial assistance for the retrofitting of homes whose property owners are income qualified (such as water and energy efficiency upgrades, improved insulation, renewable energy upgrades, use of electric appliances, consideration of air quality, access to indoor cooling, structure hardening if the homes are in wildfire zones and elevating if homes are in flood zones). *(PSP/FB)*

HS-G.5 Cooling Centers

The County shall continue to work with cities and unincorporated community service districts to open cooling centers during extreme heat events, advertise the availability of these centers to unincorporated communities, and confirm that there is convenient access to these centers for unincorporated communities. *(PSP/SO/IGC)*

HS-G.6 Immediate Assistance and Emergency Shelters

The County shall work with community-based organizations to provide immediate assistance locations and emergency shelters in unincorporated areas of the County areas of the during extreme heat events, poor air quality, severe weather events, drought, and other highly hazardous conditions. The County shall focus outreach and education of resources to vulnerable communities. *(PSP/SO/IGC/JP)*

HS-G.7 Climate Adaptation on Urban Lands

The County shall utilize drought-tolerant plantings and shade structures for applicable County projects as part of cooling strategies in areas with impermeable surfaces to help reduce heat islands and energy demand during extreme heat events. Project implementation shall be prioritized in disadvantaged unincorporated communities. *(PSP)*



FRESNO COUNTY GENERAL PLAN

HS-G.8 Climate Adaptation on Agricultural Lands

The County shall work with groups such as the University of California Cooperative Extension and the Fresno County Farm Bureau to increase field observation and monitoring, develop a climate information services/early warning system and estimates of weather and climate impact (e.g., extreme heat, warm nights, chill hours, drought, and tule fog) on crop and livestock operations. *(PSP/JP)*

HS-G.9 Climate Adaptation on Natural Lands

The County shall identify and protect locations where native species may shift or lose habitat due to climate change impacts (e.g., extreme heat, wildfire and landslides) and consider ecosystem shift when updating conservation and land use plans. *(PSP/PSR)*

HS-G.10 Evacuation Awareness

The County shall identify and communicate safe and viable evacuation routes in multiple languages and across various communication platforms, as appropriate, to reach vulnerable populations. *(PSP/PI)*

HS-G.11 Safety Zones

The County shall identify appropriate temporary areas of refuge to provide for shelter-in-place when evacuation routes become blocked. *(PSP)*

HS-G.12-~~HS-H.10~~ Funding for a Greenhouse Gas Inventory and Preparation of a Climate Action Plan

The County shall seek a variety of sources including, but not limited to, grants, state funding, and or impact fees to fund the preparation and implementation of a Fresno County specific Climate Action Plan. Once funding is available, the County shall proceed to prepare a Climate Action Plan.

HS-G.13-~~HS-H.11~~ Preparation and Implementation of a Climate Action Plan

The County shall undertake a countywide Climate Action Plan (CAP) within two years of the adoption of General Plan Amendment No. 529 (General Plan Review) with the objective of meeting a GHG emissions reduction trajectory consistent with State law (currently codified in Health and Safety Code Section 38566 et seq. [Senate Bill 32] and Executive Order B-55-18).

H. NOISE

Noise is subjectively defined as unwanted sound. Noise can result from many sources, including traffic on freeways and other roads, railroad operations, aircraft, and industrial activities. Exposure to excessive noise is often cited as a health problem, primarily in terms of its contribution to undue stress and annoyance. The Background Report includes an analysis of major noise sources in the county and noise contours along major traffic corridors.

Policies in this section set noise standards and seek to protect noise-sensitive uses from excessive noise either through noise-reducing project design features or by allowing noise-sensitive land uses to only locate in areas with ambient noise levels below specific thresholds. Related policies are included in Section LU-D, Westside Freeway Corridor, and Section LU-F, Urban Development Patterns.

GOAL HS-H

To protect residential and other noise-sensitive uses from exposure to harmful or annoying noise levels; to identify maximum acceptable noise levels compatible with various land use designations; and to develop a policy framework necessary to achieve and maintain a healthful noise environment.

HS-H.1 Minimize Noise Impacts

The County shall require that all proposed development incorporate design elements necessary to minimize adverse noise impacts on surrounding land uses. *(RDR)*

HS-H.2 Acceptable Road Noise Levels

The County shall require new roadway improvement projects to achieve and maintain the normally acceptable noise levels shown in Figure HS-9: “Land Use Compatibility for Community Noise Environments.” *(RDR)*

HS-H.3 Noise-sensitive Land Uses

The County shall allow the development of new noise-sensitive land uses (which include, but are not limited to, residential neighborhoods, schools, and hospitals) only in areas where existing or projected noise levels are “acceptable” according to the Figure HS-9: “Land Use Compatibility for Community Noise Environments.” Noise mitigation measures may be required to reduce noise in outdoor activity areas and interior spaces to these levels. *(RDR)*

HS-H.4 Noise Mitigation Design and Acoustical Analysis

So that noise mitigation may be considered in the design of new projects, the County shall require an acoustical analysis as part of the environmental review process where:

a. Noise sensitive land uses are proposed in areas exposed to existing or projected noise

levels that are “generally unacceptable” or higher according to the Figure HS-9: “Land Use Compatibility for Community Noise Environments;”

b. Proposed projects are likely to produce noise levels exceeding the levels shown in the County’s Noise Control Ordinance at existing or planned noise-sensitive uses. *(RDR/PSR)*

HS-H.5 Noise Mitigation Measures

Where noise mitigation measures are required to achieve acceptable levels according to land use compatibility or the Noise Control Ordinance, the County shall place emphasis of such measures upon site planning and project design. These measures may include, but are not limited to, building orientation, setbacks, earthen berms, and building construction practices. The County shall consider the use of noise barriers, such as soundwalls, as a means of achieving the noise standards after other design-related noise mitigation measures have been evaluated or integrated into the project. *(RDR)*

HS-H.6 Construction-related Noise

The County shall regulate construction-related noise to reduce impacts on adjacent uses in accordance with the County's Noise Control Ordinance. *(RDR)*

HS-H.7 Noise impacts to Sensitive Uses

Where existing noise-sensitive uses may be exposed to increased noise levels due to roadway improvement projects, the County shall apply the following criteria to determine the significance of the impact:

a. Where existing noise levels are less than 60 dBLdn at outdoor activity areas of noise-sensitive uses, a 5 dBLdn increase in noise levels will be considered significant;

b. Where existing noise levels are between 60 and 65 dBLdn at outdoor activity areas of noise-sensitive uses, a 3 dBLdn increase in noise levels will be considered significant; and



FRESNO COUNTY GENERAL PLAN

c. Where existing noise levels are greater than 65 dBLdn at outdoor activity areas of noise-sensitive uses, a 1.5 dBLdn increase in noise levels will be considered significant. (RDR)

HS-H.8 Noise Levels Compatibility

The County shall evaluate the compatibility of proposed projects with existing and future noise levels through a comparison to Chart HS-1, "Land Use Compatibility for Community Noise Environments." (PSR)

HS-H.9 Noise Impacts Adjacent to Airports

The County shall not allow the development of new residential land uses in areas exposed to existing or projected levels of noise from aircraft operations at any airport or air base which exceed ~~60~~ 65 dBLdn or CNEL. (RDR)

~~HS-H.10—Funding for a Greenhouse Gas Inventory and Preparation of a Climate Action Plan~~

~~The County shall seek a variety of sources including, but not limited to, grants, state funding, and or impact fees to fund the preparation and implementation of a Fresno County specific Climate Action Plan. Once funding is available, the County shall proceed to prepare a Climate Action Plan.~~

~~HS-H.11—Preparation and Implementation of a Climate Action Plan~~

~~The County shall undertake a countywide Climate Action Plan (CAP) within two years of the adoption of General Plan Amendment No. 529 (General Plan Review) with the objective of meeting a GHG emissions reduction trajectory consistent with State law (currently codified in Health and Safety Code Section 38566 et seq. [Senate Bill 32] and Executive Order B-55-18).~~

HS-H.10~~2~~ Construction Vibration Control Measures

The following measures to minimize exposure to construction vibration shall be included as standard conditions of approval for projects involving construction vibration within 50 feet of historic buildings or nearby sensitive receivers shall:





- a. Avoid the use of vibratory rollers within 50 feet of historic buildings or residential buildings with plastered walls that are susceptible to damage from vibration and;
- b. Schedule construction activities with the highest potential to produce vibration to hours with the least potential to affect nearby institutional, educational, and office uses that are identified as sensitive to daytime vibration by the Federal Transit Administration in Noise and Vibration Impact Assessment (FTA 2018)

GOALS AND POLICIES

HEALTH AND SAFETY

Figure HS-9 Land Use Compatibility for Community Noise Environments

Land Use Category	Community Noise Exposure (Outdoor) Ldn or CNEL, dB							
	50	55	60	65	70	75	80	85
Residential: Low-Density Single-Family, Duplex, Mobile Homes	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Generally Unacceptable	Land Use Discouraged
Residential: Multiple Family	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Generally Unacceptable	Land Use Discouraged
Transient Lodging: Motels, Hotels	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Generally Unacceptable	Land Use Discouraged
Schools, Libraries, Churches, Hospitals, Nursing Homes	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Generally Unacceptable	Land Use Discouraged
Auditoriums, Concert Halls, Amphitheaters	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Generally Unacceptable	Land Use Discouraged
Sports Arena, Outdoor Spectator Sports	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Generally Unacceptable	Land Use Discouraged
Playgrounds, Neighborhood Parks	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Generally Unacceptable	Land Use Discouraged
Golf Courses, Riding Stables, Water Recreation, Cemeteries	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Land Use Discouraged
Office Buildings, Business Commercial and Professional	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Land Use Discouraged
Industrial, Manufacturing, Utilities, Agriculture	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Land Use Discouraged

<p> Normally Acceptable</p> <p> Conditionally Acceptable</p> <p> Generally Unacceptable</p> <p> Land Use Discouraged</p>	<p>Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.</p> <p>New construction or development should be undertaken only after a detailed analysis of the noise reduction requirement is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.</p> <p>New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.</p> <p>New construction or development should generally not be undertaken.</p>
--	--



FRESNO COUNTY GENERAL PLAN

PART 2: GOALS AND POLICIES ENVIRONMENTAL JUSTICE ELEMENT

INTRODUCTION

According to California Code section 65040.12, “environmental justice” is the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.” In California, some communities with lower incomes, lower levels of education, and higher proportions of minority residents bear a disproportionate burden of environmental hazards. These environmental inequities are largely a result of inappropriate zoning (e.g., residential uses located adjacent to industrial uses) and higher levels of exposure to air and water pollution in lower income communities. Environmental justice laws seek to eliminate these inequities.

Environmental justice policies and laws have been established to ensure that all people have equal protection from environmental hazards where they live, work and play. Furthermore, all people including those who live in disadvantaged communities should have the equal ability to participate in the decision-making process regarding environmental regulations.

As outlined in the California General Plan Guidelines, environmental justice is a subject that needs to be addressed in the General Plan either through integration into the seven mandatory elements of the plan, or as an optional element. The environmental justice goals, policies, and objectives are to be adopted or reviewed upon the adoption or revision of two or more elements concurrently on or after January 1, 2018. These objectives and policies should prioritize improvements and programs that address the needs of disadvantaged communities.

The County has elected to emphasize the importance of ensuring environmental equity for disadvantaged communities in Fresno County through adoption of a separate Environmental Justice Element. As provided by California General Plan law, the Element has the same weight as the mandatory elements of the general plan and must be internally consistent with the other elements. This element is a component of the General Plan to address environmental justice through a set of objectives and policies aimed at increasing the influence of target populations in the public decision-making process and reducing their exposure to environmental hazards. Staff, The Planning Commission, The Board of Supervisors, developers, the public and those who are planning for the physical development of the County, will use the Element.

The State of California has developed a screening methodology and mapping tool called CalEnviroScreen to identify communities that are disproportionately burdened by pollution. The majority of these communities are located in the San Joaquin Valley, including a large area of Fresno County. Census tracts in western Fresno County have some of the highest pollution burden scores in the state.

GOALS AND POLICIES 2

ENVIRONMENTAL JUSTICE

MAJOR FINDINGS

These major findings serve as a foundation for policy development. These are as follows:

- Western Fresno County has higher rates of disproportionate environmental hazard exposure, relative to the rest of the state, according to CalEnviroScreen 3.0.
- Socioeconomic disadvantage does not prove causation of pollution burden or health risk, though a general correlation does exist.
- CalEnviroScreen is the best-available tool for measuring environmental justice indicators; however, the use of census tracts places limitations on the data for identifying communities experiencing a combination of socioeconomic and environmental burdens when two differing communities share the same census tract.

EXISTING CONDITIONS

Environmental justice ensures that people of all socioeconomic backgrounds are treated equitably in the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies. Hazardous waste sites, truck routes, industrial facilities, and other sources of pollution are often located near communities with lower levels of education and income, and higher proportions of minority residents. Socioeconomically disadvantaged communities already disproportionately experience higher rates of health concerns, and environmental justice strives to remedy the inequity of the pollution burden.

HISTORY OF ENVIRONMENTAL JUSTICE

The State requirement for addressing environmental justice in general plans is relatively new; however, the issue of environmental justice is as old as 18th century Spanish colonization and loss of Native American lands. In more recent California history, the implementation of workplace protections for farmworkers, such as efforts to increase protection from toxic pesticides organized by Cesar Chavez in the 1960s, shows the progression of effort to address environmental injustice.

Beginning in the early 1980s in Afton, North Carolina, the phenomena of environmental justice and the concept of “environmental racism” gained widespread national attention when residents from the rural, low-income, and primarily African-American town staged six weeks of protests against the siting of a hazardous waste landfill and its impacts on their community. Similar protests have taken place throughout the country, including in Kettleman City, California in 1988, where a toxic waste incinerator was proposed in the predominately low-income farmworker and primarily Latino community. The community already had one of the largest hazardous waste landfills in the nation; ultimately, the proposal was withdrawn after three years of protest. Along with these anecdotal examples, several studies in the 1980s found race as a factor in the processes leading to the location of a disproportionately higher number of hazardous waste and toxic-producing facilities in poor and communities with more residents of racial minority groups.

The Federal government, through the Environmental Protection Agency (EPA), began addressing environmental justice issues by establishing the Environmental Equity Workgroup in 1990, followed by the establishment of the Office of Environmental Equity (now the Office of Environmental Justice) in 1992. In 1994, President Clinton signed Executive Order 12898, directing Federal agencies to develop strategies for addressing environmental and human health impacts in low-income and minority communities.



FRESNO COUNTY GENERAL PLAN

STATEWIDE EFFORT TO ADDRESS SOCIAL JUSTICE

California was the first state to address environmental justice in law, initiated when Governor Davis signed Senate Bill 115 (SB 115) in 1999. The bill defined environmental justice and directed CalEPA to develop and implement environmental justice laws. Following SB 115, California has since instituted a series of laws protecting communities from environmental injustices, requiring consideration of the issue in policies, programs, and activities. Most recently (2016), in response to increasing concerns about vulnerable communities in California experiencing instances of environmental injustice, the State Legislature passed and Governor Brown signed Senate Bill 1000 (SB 1000). SB 1000 requires general plans adopted after January 2018 to include an environmental justice element, or related goals, policies, and objectives integrated in other elements. The law requires general plans to:

- Identify disadvantaged communities within the area covered by the general plan of a city, county, or city and county.
- Identify the policies to reduce health risks in disadvantaged communities, including reduction of pollution exposure; air quality improvement; and the promotion of public facilities, access to healthy food, safe and sanitary homes, and physical activity.
- Identify objectives and policies to promote civil engagement in the public decision-making process.

ENVIRONMENTAL JUSTICE COMMUNITIES

CalEnviroScreen is a screening and mapping tool developed by the California Environmental Protection Agency's (CalEPA) Office of Environmental Health Hazard Assessment (OEHHA). This tool identifies communities that are most affected by pollution by measuring environmental, health, and socioeconomic data. The tool produces a numerical score for each census tract in the state. These scores are displayed on maps that enable a relative comparison of community pollution burden. The most recent (2017) version is CalEnviroScreen 3.0, which was released in January 2017. The State of California uses this tool to identify burdened and vulnerable communities when prioritizing resources, allocating grants, and making targeted investments from programs such as the State's cap-and-trade program.

The CalEnviroScreen model measures 20 indicators of pollution burden and population characteristics indicating vulnerability. These 20 indicators are used to create a CalEnviroScreen score and fall into two categories: Pollution Burden and Population Characteristics. These two categories are further divided into four more categories: exposures, environmental effects, sensitive populations, and socioeconomic factors. The individual factors for each category are listed below:

- **Pollution Burden**
 - Exposures: ozone, PM2.5 (fine particulate matter), diesel PM, pesticide use, traffic, drinking water contaminants, toxic releases from facilities
 - Environmental Effects: solid waste sites and facilities, cleanup sites, groundwater threats, impaired water bodies, hazardous waste generators and facilities
- **Population Characteristics:**
 - Sensitive Populations: asthma, cardiovascular disease, low birth-weight infants
 - Socioeconomic Factors: poverty, unemployment, educational attainment, linguistic isolation, housing burdened low income households

A weighted scoring system uses measurements of these factors to generate the average pollution burden for each census tract. The final score is generated by multiplying the pollution burden score (between 1

GOALS AND POLICIES 2

ENVIRONMENTAL JUSTICE

and 10) and the population characteristics score (between 1 and 10) together (for a score out of 100). This score is not a measure of health risk. It is only intended to show relative pollution burden vulnerability. For more information about how the scores are calculated, visit <http://oehha.ca.gov/calenviroscreen>.

Figure EJ-1 shows the CalEnviroScreen scores by percentile for all census tracts in the state. Many census tracts in Fresno County have relatively higher scores, indicating a higher pollution burden and socioeconomic disadvantage.

While CalEnviroScreen is used by the State of California to develop and execute environmental justice efforts, the tool has some limitations on a local level. The tool uses census data and scores are distributed by census tract, which does not account for communities that may be disproportionately burdened by socioeconomic and environmental factors but share a census tract with a prosperous and less burdened community. In this situation, the census tract could receive a score that does not reflect the burden of the disadvantaged community in that census tract. In these instances, these disadvantaged communities may be excluded from state funding for certain environmental programs that use CalEnviroScreen to determine eligibility; however, staff at local jurisdictions can still accurately distinguish these communities through familiarity with the region.

Figure EJ-2 shows the CalEnviroScreen 3.0 aggregate pollution burden and socioeconomic scores for all Fresno County census tracts. Figure EJ-3 shows only the pollution burden scores and Figure EJ-4 shows only the population characteristics scores. The percentile score is displayed, which relates to the frequency of the actual score; a percentile score not only indicates high rates of pollution and disadvantage but shows that it is also high in comparison to communities in the rest of the state. Not every socioeconomically disadvantaged community experiences pollution burden and not every community with advantageous population characteristics are free of pollution burden. The CalEnviroScreen scoring system is designed to find the intersection between the two factors (environmental burden and socioeconomic disadvantage) to identify communities with the greatest needs. When viewing Figures EJ-3 and EJ-4 together, the data reveals that some census tracts are more burdened by either socioeconomic disparity or environmental concerns.

In 2013, the Environmental Justice Compliance and Enforcement Working Group was created by CalEPA. The group coordinates compliance assistance and enforcement activities in the state's most disadvantaged communities to mitigate environmental injustice. In 2013, the Working Group selected an area of Fresno County for its first initiative, due the area's high scores in CalEnviroScreen. This study included 18 census tracts in both incorporated and unincorporated areas, in an area that spans four miles along Highway 99 and includes western parts of the city of Fresno and a nearby unincorporated area of the county. All 18 census tracts in the designated area fell into the top five percent of the highest scoring census tracts according to CalEnviroScreen, making them some of the most-burdened areas in the state. The study found that businesses in the study area had a relatively high level of compliance with environmental regulations, and the Working Group provided compliance consultation to businesses that were not in compliance through educational materials, targeted outreach, and trainings.



FRESNO COUNTY GENERAL PLAN

Figure EJ-1 *CalEnviroScreen 3.0 Percentile Scores*

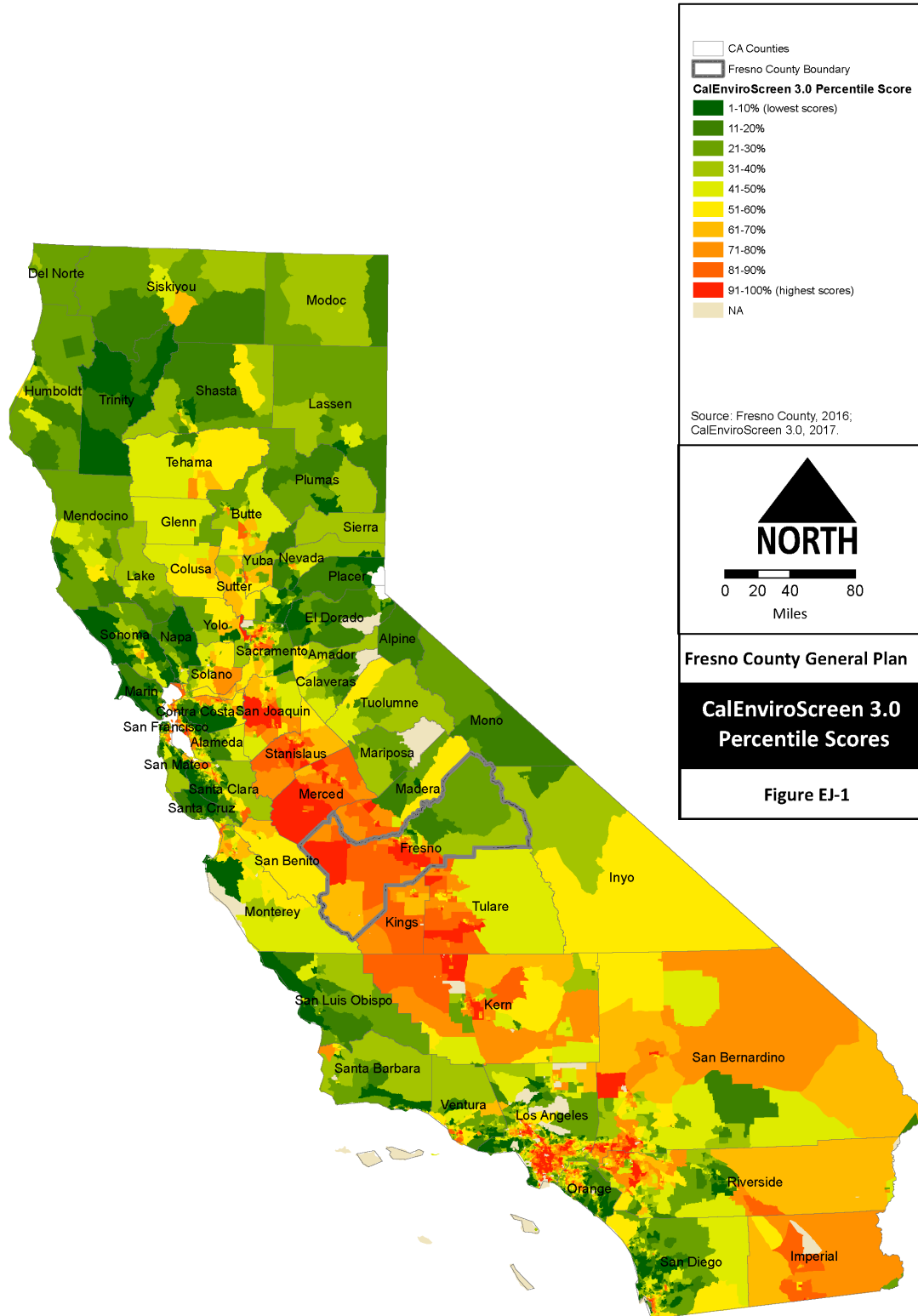
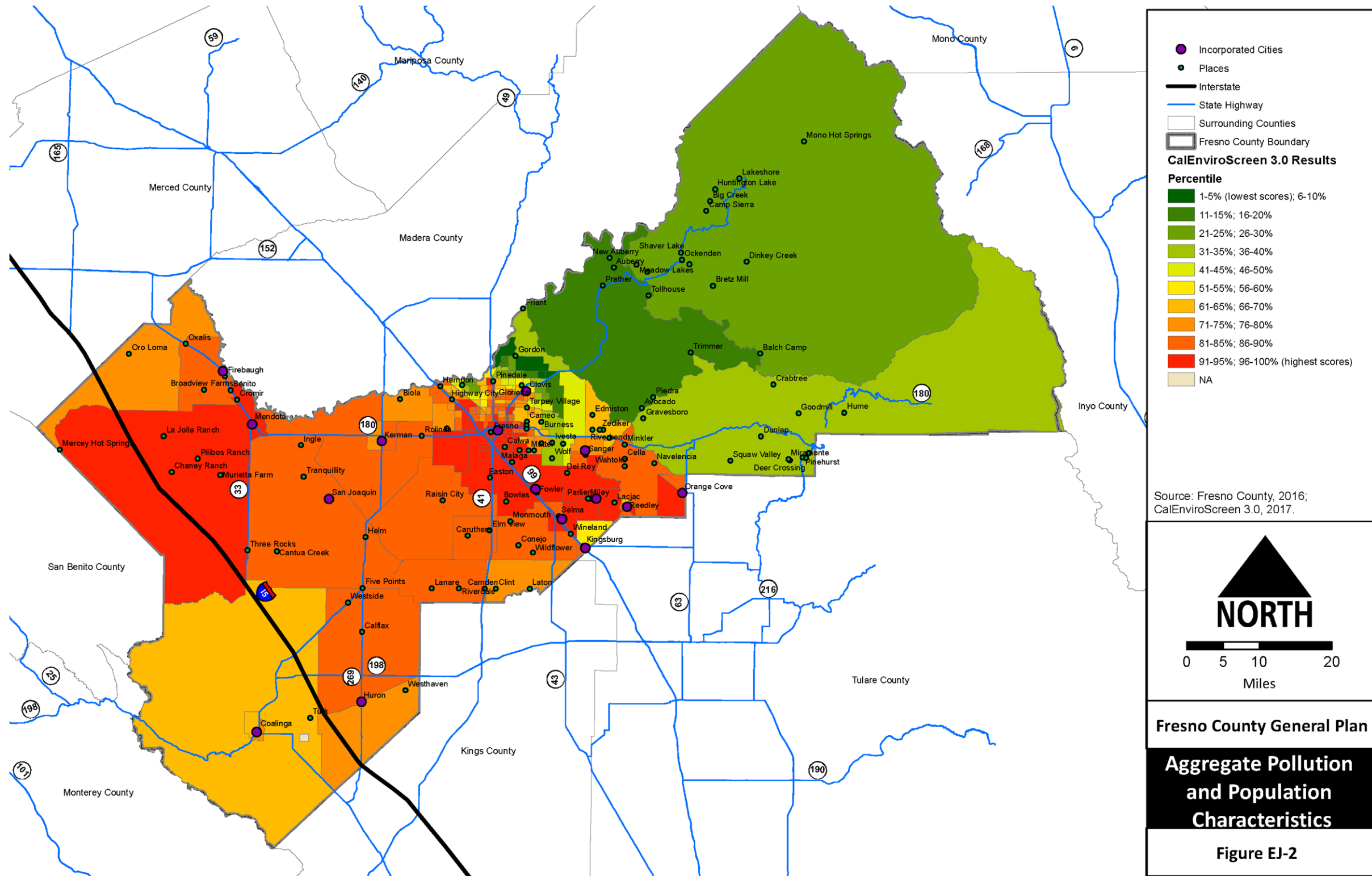


Figure EJ-2 Aggregate Pollution and Population Characteristics





FRESNO COUNTY GENERAL PLAN

Figure EJ-3 Pollution Burden

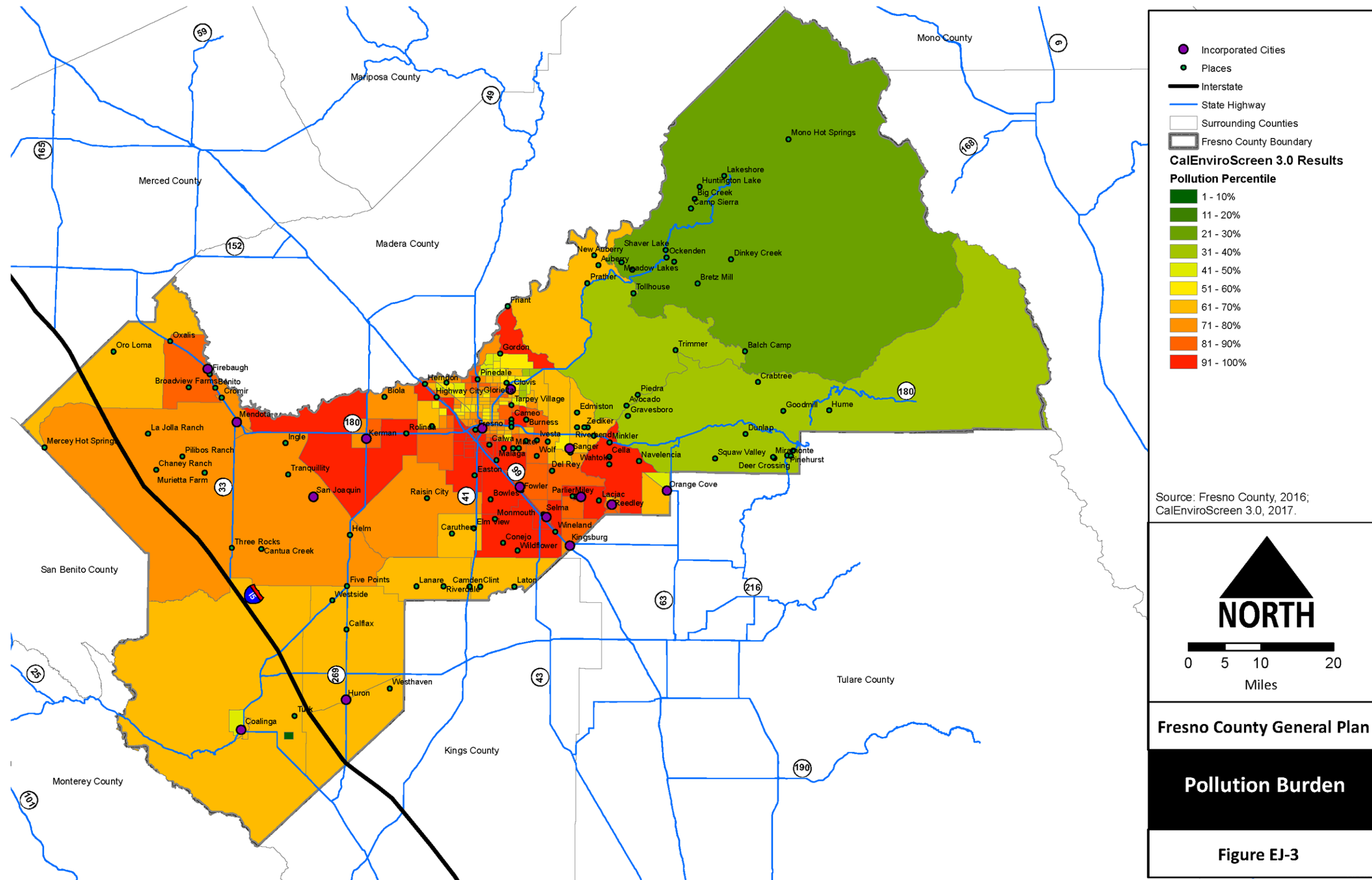
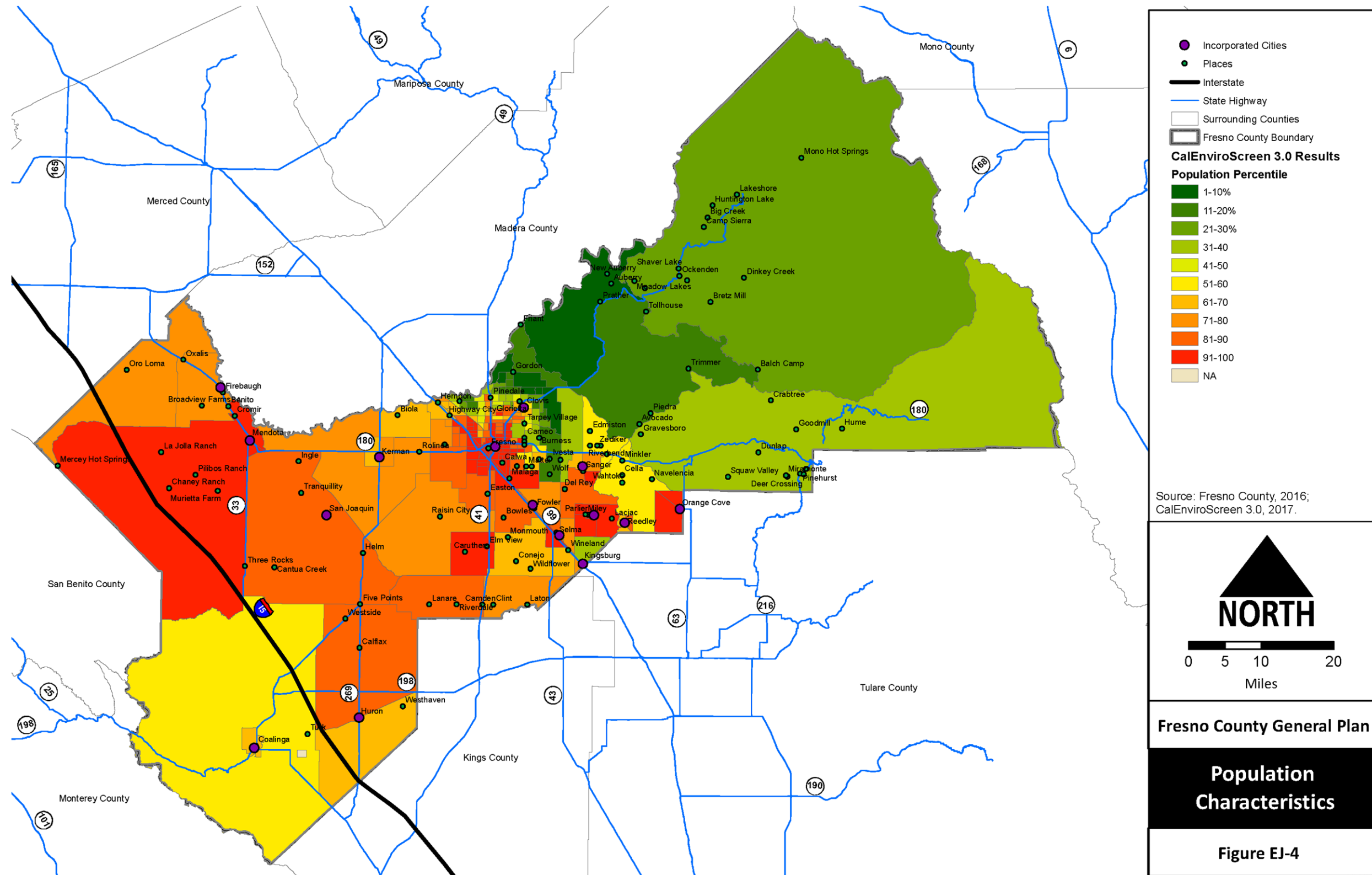


Figure EJ-4 Population Characteristics





FRESNO COUNTY GENERAL PLAN

This page left blank intentionally

GOALS AND POLICIES **2**

ENVIRONMENTAL JUSTICE

Disadvantaged communities are targeted by the State for investment from the cap-and-trade program. Senate Bill 535 outlines how the CalEPA will allocate these funds and relies on the CalEnviroScreen tool for making these decisions. In April 2017, CalEPA identified disadvantaged communities for the purpose of SB 535 by selecting the 25 percent highest scoring census tracts in CalEnviroScreen 3.0.

Table EJ-1 lists the unincorporated communities identified as disadvantaged, ~~62~~ 59 in total. Figure EJ-5 displays the identified census tracts and the unincorporated communities and incorporated cities in the county.

Table EJ-1

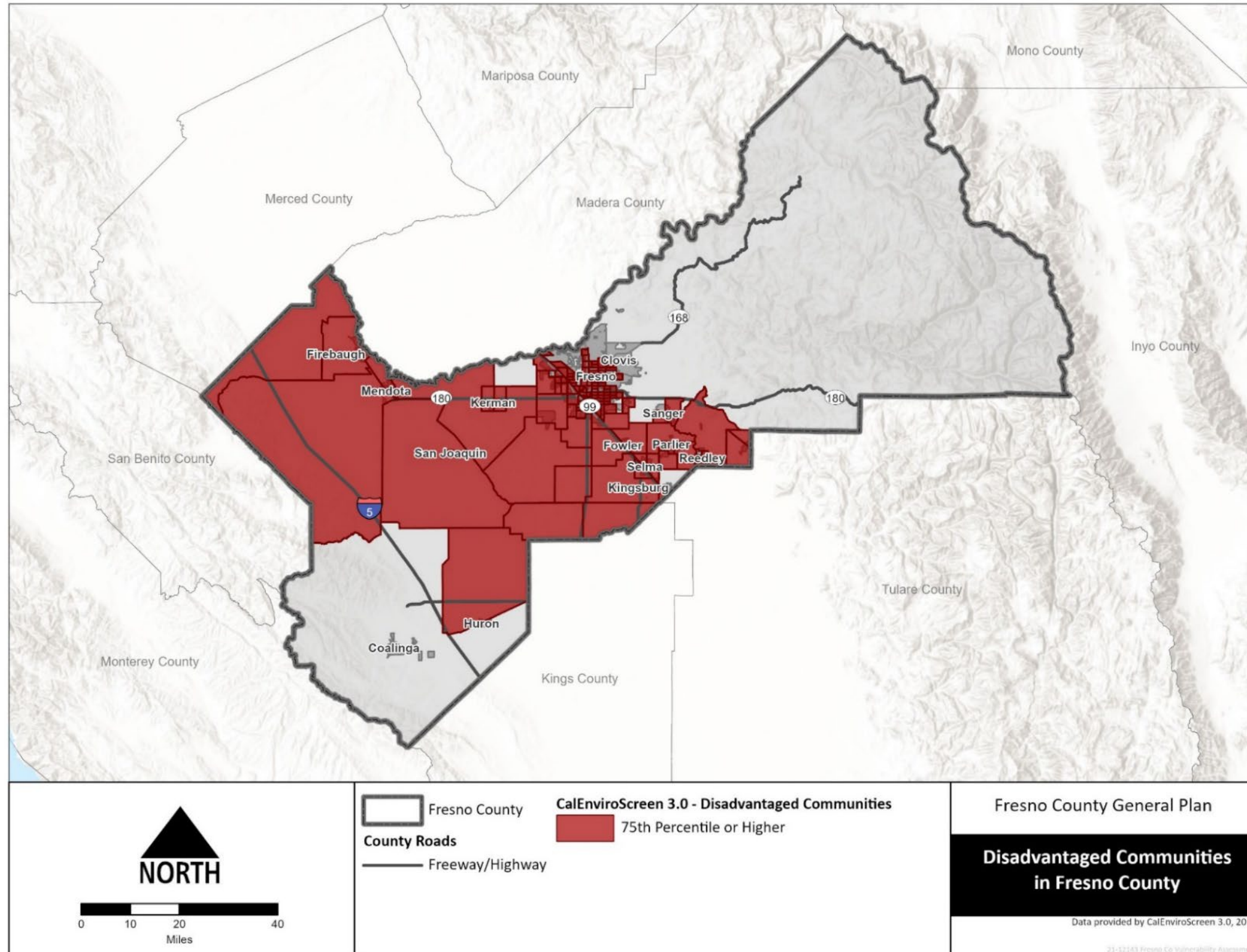
#	Place Name
<u>1</u>	Benito
2	Bowles
3	Britton/Cherry Avenue Community <u>Broadview Farms</u>
4	Broadview Farms <u>Calflax</u>
5	Burrel Community <u>Calwa</u>
6	Calwa <u>Camden</u>
7	Camden <u>Cantua Creek</u>
8	Carillo Avenue Community <u>Caruthers</u>
9	Caruthers <u>Cecile</u>
10	Cecile <u>Cella</u>
11	Church/Floyd Avenue Community <u>Chaney Ranch</u>
12	Conejo <u>Clint</u>
13	Cornelia/Floral Avenue Community <u>Conejo</u>
14	Cromir
15	CSA 30 Community – El Porvenir <u>Del Rey</u>
16	CSA 32 Community – Cantua Creek <u>Easton</u>
17	CSA 39 Community – Zone A (Church/Valentine) <u>Elm View</u>
18	CSA 39 Community – Zone B/West Park <u>Five Points</u>
19	CSA 43 Community – Raisin City <u>Helm</u>
20	CSA 49 Community – O’Neil Farms/Westside <u>Herndon</u>
21	Del Rey <u>Highway City</u>
22	East Adams Avenue Community <u>Ingle</u>
23	Easton <u>Laejae</u>
24	Elm View <u>La Jolla Ranch</u>
25	Five Points <u>Lanare</u>
26	Flamingo Mobile Home Community <u>Las Palmas</u>
27	Hayes Road/Perrin Colony Community <u>Laton</u>
28	Helm <u>Locans</u>
29	Hughes/Magnolia Avenue Community <u>Lone Star</u>
30	Ingle <u>Malaga</u>



FRESNO COUNTY GENERAL PLAN

#	Place Name
31	<u>La Jolla Ranch Mercey Hot Springs</u>
32	<u>Lacjac Miley</u>
33	<u>Lanare Minkler</u>
34	<u>Laton Monmouth</u>
35	<u>Locans Murietta Farm</u>
36	<u>Lone Star Navelencia</u>
37	<u>Madera Avenue Community Oro Loma</u>
38	<u>Malaga Oxalis</u>
39	<u>Miley Patton</u>
40	<u>Minkler Pilibos Ranch</u>
41	<u>Monmouth Pinedale</u>
42	<u>Murietta Farm Raisin City</u>
43	<u>Navelencia Riverdale</u>
44	<u>Oro Loma Rolinda</u>
45	<u>Oxalis Sanger</u>
46	<u>Parlier/Elm Avenue Community Sunnyside</u>
47	<u>Pilibos Ranch Three Rocks</u>
48	<u>Patton Tranquillity</u>
49	<u>Riverdale Wahtoke</u>
50	<u>Rolinda</u>
51	<u>Russell Avenue Community</u>
52	<u>Shady Lakes Mobile Home Community</u>
53	<u>Three Rocks</u>
54	<u>Tombstone Territory</u>
55	<u>Tranquillity</u>
56	<u>Wahtoke</u>
57	<u>Wildflower</u>
58	<u>Wineland</u>
59	<u>Yuba Avenue Community</u>

Figure EJ-5 SB 535 Disadvantaged Communities





FRESNO COUNTY GENERAL PLAN

This page left blank intentionally

GOALS AND POLICIES 2

ENVIRONMENTAL JUSTICE

GOALS AND POLICIES

The following goals and policies provide a framework for Fresno County to address issues related to environmental justice. Due to Fresno County's relatively higher rates of environmental justice concerns in comparison to the rest of the state, it is especially important to address these issues as part of this General Plan. The focus of this element is to help ensure new development does not disproportionately impact disadvantaged communities.

A. LAND USE AND THE ENVIRONMENT

Certain commercial and industrial developments may result in air and water pollution exposure, emit odors, generate truck traffic, create noise, light, and glare which may have an adverse impact on sensitive receptors including residential areas in disadvantaged communities.

This section addresses issues related to land use planning to ensure new developments do not disproportionately burden disadvantaged communities.

GOAL EJ-A

To ensure the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation and enforcement of environmental laws, regulations and policies do not disproportionately impact any individual race, any culture, income or education level.

EJ-A.1 Location of Sensitive Land Uses

The County, during the development review process, shall require proposed new sensitive land uses (such as residential uses, schools, senior care facilities, and day care facilities) to be located an appropriate distance, to be

determined during the development review process, from freeways, major roadways, and railroad tracks based on analysis of physical circumstances of the project location so as to minimize potential impacts including, but not limited to, air and water pollution exposure, odor emissions, light, and glare.

EJ-A.2 Mitigate for Sensitive Land Uses Near Environmental Concerns

The County shall require buffering and screening requirements as part of the development review process for all new potentially pollution producing land uses proposed to be located adjacent to existing sensitive land uses that have historically been associated with heightened levels of pollution. These land uses associated with pollution include industrial land uses, agricultural operations using pesticides applied by spray techniques, wastewater treatment plants, and landfills and waste treatment facilities.

EJ-A.3 Use of Best Practice

The County shall during the development review land use process coordinate with local commercial and industrial developments to review and require incorporation into their projects the latest technologies and best practices to reduce emissions.

EJ-A.4 Educate on Air Quality and Clean Air Technology

The County shall partner with the Fresno County Tobacco Free Coalition, and local nonprofits to educate and enhance public awareness on improving resident air quality, including lead mitigation and clean air technologies (HEPA filters and ventilation systems) and reducing secondhand smoke exposure to residents in multi-unit housing as funding allows.

EJ-A.5 Diesel Particulate Matter

The County shall seek funding, such as the Congestion Mitigation and Air Quality Improvement Program (CMAQ), to develop projects to mitigate roadway pollution, such as



FRESNO COUNTY GENERAL PLAN

widening roadway shoulders, the creation of green barriers and the prohibition of truck routing near or through sensitive land uses in an effort to improve Diesel Particulate Matter pollution along major thoroughfares the County.

EJ-A.6 Caltrans Coordination

The County shall coordinate with Caltrans to encourage the development of projects to mitigate roadway pollution along major interstates, such as the development of green barriers near existing sensitive land uses.

EJ-A.7 Air Pollution Control District

During the development review process, the County shall direct project applicants for projects located within the South-Central Fresno area to coordinate with the San Joaquin Valley Air Pollution Control District (District) to ensure review by the District regarding implementation of the strategies outlined within the District's Community Emissions Reduction Program (CERP) for the South-Central Fresno area. Prior to action on applicable development permits, the County shall require the applicant to provide documentation from the District verifying that CERP strategies have been reviewed/addressed.

EJ-A.8 Community Input on Development Projects

The County shall provide residents within disadvantaged communities the opportunity to review and comment on discretionary development projects within their communities.

EJ-A.9 Air Quality Education

The County shall partner with the San Joaquin Valley Air Pollution Control District to support dispersing public education and information regarding the threat of air quality hazards and options for increasing personal health and safety related to pollution exposure.

EJ-A.10 Safe Drinking Water

Annually, the County shall coordinate a meeting with community water and sewer providers to identify system upgrade, expansion, and consolidation of funding opportunities to ensure all community members have access to safe drinking water and wastewater services.

EJ-A.11 Prioritization of Improvement and Programs

The County shall give priority to disadvantaged communities when seeking infrastructure and active transportation funding opportunities.

EJ-A.12 Industrial Development

New industrial development, which has the potential to create compatibility conflicts with surrounding sensitive uses, shall incorporate measures such as landscaped setbacks along road frontage, block walls, signage disclosing on-site emergency contact information, enclosed loading docks, and placement of loading docks and idling areas away from sensitive receptors in order to minimize potential impacts.

EJ-A.13 Landscape and Parking Areas for New Industrial Development

Automobile parking areas for new industrial development shall be planted with trees in a manner to provide adequate shade cover of at least 35% of the parking area utilizing trees or a combination of trees and photovoltaic solar shade structures. Landscaping for new industrial development shall use drought tolerant species with low biogenic emissions.

EJ-A.14 Truck Routes

The County shall prohibit truck traffic from new industrial development to traverse through existing residentially zoned **neighborhoods areas**.

EJ-A.15 Sensitive Receptor Setbacks

Consistent with the provisions contained in the California Air Resources Board (CARB) Air Quality and Land Use Handbook, project applicants shall identify appropriate measures for projects with sensitive uses located within

GOALS AND POLICIES 2

ENVIRONMENTAL JUSTICE

500 feet of freeways, heavily traveled arterials (daily vehicle trips of 10,000 or more), railways, and other sources of diesel particulate matter (DPM) and other known carcinogens. The County shall require development projects that are located within 500 feet of freeways, heavily traveled arterials (daily vehicle trips of 10,000 or more), railways, and other sources of DPM and other known carcinogens to retain a qualified air quality consultant to prepare a health risk assessment (HRA) in accordance with the CARB and the California Environmental Protection Agency's Office of Environmental Health and Hazard Assessment requirements to determine the exposure of nearby sensitive receptors to emission sources resulting from the project. Measures identified in the HRA shall be enforced by the County.

EJ-A.16 Infrastructure Deficits and Funding Sources

The County shall, within one year of General Plan adoption, prepare a chart based on General Plan Amendment No. 559 (SB 244 Analysis), approved by the County in 2020 summarizing infrastructure deficits in disadvantaged unincorporated communities, and funding sources that could be used to remedy the infrastructure deficits. In each annual general plan progress report, the County shall report on what funding was sought and whether the funding was appropriated or awarded.

B. PROMOTING PHYSICAL ACTIVITY AND FACILITY ACCESS

Adequate access to active transportation and public facilities can bolster a community's overall health. A community that is pedestrian and bicycle friendly facilitates daily exercise among community residents and promotes a healthy living environment. Convenient access to parks and other recreational facilities encourages community residents to walk and ride bicycles rather than driving personal vehicles.

GOAL EJ-B

To promote physical activities in unincorporated communities by creating equitable opportunities for bicycling, walking, and access to open space areas.

EJ-B.1 Access to Services

During the community plan update process the County shall encourage walking and bicycling as daily physical activities by placing neighborhood services and recreational facilities within a target area of ¼ mile from existing residential areas of disadvantaged communities.

EJ-B.2 Encouraging Outdoor Activity

Annually, the County shall coordinate a meeting with community service districts to explore opportunities for developing equitable and American with Disabilities Act compliant public infrastructure that promotes outdoor physical activity and removes barriers to outdoor activity.

EJ-B.3 Safe Routes to Schools

The County shall collaborate partner with local school districts and local, regional, and state organizations, if requested, to develop safe and walkable pedestrian routes to school.

EJ-B.4 Bicycle Facilities

The County shall require new multi-family residential, commercial, and industrial developments to provide bicycle-parking racks.

EJ-B.5 Bicycle Routes

The County shall seek funding to expand and maintain existing bicycle routes consistent with the planned bikeways outlined within the Fresno County Regional Bicycle & Recreational Trails Master Plan.

EJ-B.6 Park and Trails Quality

The County shall annually inspect its public parks, trails, and open space areas to ensure that the quality of infrastructure, including lighting and equipment, is adequately maintained. County shall partner with the Fresno County Tobacco Free Coalition to evaluate and



FRESNO COUNTY GENERAL PLAN

determine the feasibility of implementing smoke free policies at its parks and recreational areas.

EJ-B.7 Park Funding

The County shall seek funding from the California Department of Parks and Recreation and other funding sources to develop a targeted Park Improvement Fund to improve the quality, availability, and maintenance of parks in and serving disadvantaged communities. The County shall work with local community services districts in disadvantaged communities to provide support and assistance in their development of park improvement funds for parks in disadvantaged communities that are not owned or operated by the County.

EJ-B.8 Rural Complete Streets

The County shall prioritize street safety and accessibility by developing a Rural Complete Streets program addressing roadway issues in rural areas of the community.

C. ACCESS TO HEALTH CARE AND HEALTHY FOODS

The disadvantaged communities often lack access to health clinics and healthy food outlets such as full-service grocery stores, farmers markets, and community gardens.

GOAL EJ-C

To have consistent, equitable, and improved access to healthy foods and beverages, health services, and resources that enhance quality of life.

EJ-C.1 Local Healthcare Access

The County shall encourage the location of health care facilities that are easily accessible within disadvantaged communities that are medically underserved.

EJ-C.2 Healthy Food Establishments

The County shall encourage the establishment of full-service (small and large) grocery stores, farmers markets, community gardens, and

mobile healthy food vendors in disadvantaged communities that are considered food deserts.

EJ-C.3 Education on Healthy Eating and Food Recovery

The County shall partner with local stakeholders to enhance public awareness on diet-related chronic diseases such as obesity, diabetes, and hypertension. Education will include but not limited to the importance of nutrition, access to affordable healthy foods and beverages, food waste, food recovery and distribution, and the location of local healthy food resources as funding allows.

EJ-C.4 Farmers Markets

The County shall encourage the consistent access to healthy foods for Fresno County residents by creating opportunities for the development of farmer's markets in areas that are considered food deserts (disadvantaged communities of the County). Further, the County shall encourage farmer's market vendors to accept Supplemental Nutrition Assistance Program (SNAP) payment.

EJ-C.5 Strategic Partnerships for Food Access and Recovery

The County shall partner with local stakeholders and food networks to decrease the barriers to accessing the food network and develop policy solutions to address food insecurity and building resilience in the food network to increase consistent, readily available access to food for insecure residents in disadvantaged communities.

EJ-C.6 Education on Chronic Diseases

The County shall partner with local stakeholders to enhance public awareness of chronic diseases.

D. SAFE & SANITARY HOMES

Maintaining safe and sanitary homes is critical to promoting broader community well-being. Unsafe housing conditions may contribute to a range of health and safety problems.

GOALS AND POLICIES 2

ENVIRONMENTAL JUSTICE

GOAL EJ-D

Ensure that Fresno County residents have equitable access to safe and sanitary living conditions.

EJ-D.1 Home Rehabilitation

The County shall continue to administer its Housing Assistance Rehabilitation Program (HARP) and explore expanded funding opportunities to finance home-based improvements for income qualified residents.

EJ-D.2 Assisted Home Rehabilitation

The County shall support vulnerable residents from disadvantaged communities by continuing to administer its programs that provide funding to support necessary housing rehabilitation projects for senior residents, residents with disabilities, and low-income residents as funding allows.

E COMMUNITY PARTICIPATION

The focus of this section is to ensure that decision makers are informed of community residents' experiences with health and environmental burden, especially in communities where residents are already experiencing other forms of health risks.

GOAL EJ-E

Encourage and facilitate equitable civic engagement in the decision-making process by all County residents.

EJ-E.1 Engage Disadvantaged Communities

The County shall partner with local agencies and non-profits to conduct ongoing periodic workshop in disadvantaged communities to effectively and equitably engage area residents regarding Fresno County programs and projects (health services and healthy

foods, HOME program, major infrastructure).

EJ-E.2 Participation in Decision Making Process

The County shall, to the extent feasible, ensure that residents of disadvantaged communities are provided the opportunity to participate in discussions that may direct decisions that have an adverse impact to their health.

EJ-E.3 Meeting Accessibility

The County shall, to the extent feasible, ensure the accessibility of community meetings by ensuring that all meetings are held at times and in manners (e.g., virtual, in person) that are most accommodating to the community members most affected.

EJ-E.4 Community Noticing and Outreach

The County shall consider diversity of its residents when developing noticing and outreach materials for community meetings to ensure pertinent information is equitably dispersed and simply understood.

PART 3

ADMINISTRATION AND IMPLEMENTATION

If the County's General Plan is to serve its purpose effectively, it must be reviewed, maintained, and implemented in a systematic and consistent manner. This section of the General Plan outlines the process for reviewing and updating the General Plan, provides requirements and a program for monitoring and implementation, and provides an overview of the types of actions or tools the County will use to implement the Plan's policies. This section concludes with a table of the implementation programs that support the General Plan policies.

GENERAL PLAN MAINTENANCE AND MONITORING

The County is committed to annually reviewing its progress in implementing the goals and policies of the General Plan. Since many of the factors and issues that the General Plan addresses change from year-to-year, an annual review and reporting of implementation will help ensure the County is moving forward to achieve the Plan's vision. This review will report on the status of each specific implementation program in the General Plan and take into account the availability of new implementation tools, changes in funding sources, and feedback from Plan monitoring activities. This annual reporting will be in compliance with Government Code Section 65400 and 65700 which mandates that all cities and counties submit an annual report on the status of the General Plan and progress in its implementation to their legislative bodies, the Governor's Office of Planning and Research (OPR) and the Housing and Community Development (HCD) by April 1 of each year.

GENERAL PLAN ANNUAL PROGRESS REPORT

As part of the County's General Plan Annual Progress Report, the County staff will provide an update on the implementation of the General Plan and as needed, identify areas to address that should be considered for change as part of future General Plan Amendments.

GENERAL PLAN AMENDMENTS

As conditions and needs change, the County will need to consider proposed amendments to the General Plan. State law limits general plan amendments to four times per year, but each amendment can include multiple changes. Like the adoption of the general plan itself, General Plan amendments are subject to environmental review, public notice, and hearing requirements and must not create inconsistencies with other parts of the plan. Some of these will be policy changes, while many will likely be changes to the Land Use Diagram. Each of the changes will need to be carefully evaluated not only for merit and potential impact, but also for consistency with the rest of the General Plan. State law requires that the general plan be an integrated and internally consistent set of goals, policies, standards, programs, and diagrams.



FRESNO COUNTY GENERAL PLAN

GENERAL PLAN CONSISTENCY IN IMPLEMENTATION

To ensure that the policies and proposals of the general plan are systematically implemented, State law since the early 1970s has increasingly insisted that the actions and decisions of each local government concerning both its own projects and the private projects it approves are consistent with its adopted general plan. The courts have supported and furthered this trend through their interpretations of State law.

The following is a partial list of County actions that must be consistent with the General Plan:

- Specific plans
- Capital projects (including indirectly facility master plans)
- Development agreements
- Subdivision approvals
- Development Code and Zoning
- Development projects

CATEGORIES OF IMPLEMENTATION ACTIONS/TOOLS

The County will implement the goals and policies of the General Plan through many actions and tools that can be grouped according to the eight categories listed below. The two- to four-letter identifiers (*italicized and in parentheses*) are used in Part 2 of the General Plan to indicate how each policy will be implemented. The identifiers are also used in the Specific Implementation Programs section of Part 3 to indicate the type of specific implementation program:

- Regulation and Development Review (RDR)
- Plans, Strategies, and Programs (PSP)
- Financing and Budgeting (FB)
- Planning Studies and Reports (PSR)
- County Services and Operations (SO)
- Intergovernmental Coordination (IGC)
- Joint Partnerships with the Private Sector (JP)
- Public Information (PI)

REGULATION AND DEVELOPMENT REVIEW (RDR)

Many General Plan policies are implemented through regulations adopted by the County based on the County's "police power" to protect the public health, safety, and welfare. County ordinances also create a development review process that provides for County review of individual project proposals and authorizes the County to approve, deny, or condition projects based on their consistency with the General

Plan. The following is a list of regulatory plans and ordinances commonly used to implement the General Plan:

- Master plans
- Specific plans
- Zoning Ordinance
- Subdivision Ordinance
- Building and other codes
- Habitat conservation plans
- California Environmental Quality Act (CEQA)
- Development review

PLANS, STRATEGIES, AND PROGRAMS (PSP)

The County has adopted many plans, strategies, and programs focusing the County's attention on various types of County services and facilities, types of development, or geographic areas. These are prepared to provide more specific direction for county decision-makers, staff, and the public on how the General Plan will be implemented. They are not elements or components of the General Plan. The following is a list of plans, strategies, and programs commonly used to implement the General Plan.

- Economic Development Strategy
- Facility (water, wastewater, drainage) plans
- Service (law enforcement, fire) plans
- Agriculture Mitigation Program
- Economic Development Strategy

FINANCING AND BUDGETING (FB)

The development, maintenance, and operation of public facilities such as parks and drainage facilities and the provision of County services require financial resources that are derived from various sources. Programming of County capital projects and their funding over time is outlined in the County's budget, which is updated annually. The following is a list of typical revenue sources used by or available to the County to support development, maintenance, or operation of public facilities and services:

- Property tax revenue
- Sales tax revenue
- User fees
- Development fees
- Quimby Act (Park) dedications
- Community facilities and special assessment districts



FRESNO COUNTY GENERAL PLAN

- Municipal bonds
- Special taxes
- State and Federal funding

PLANNING STUDIES AND REPORTS (PSR)

The County conducts studies and produces reports to collect and evaluate information related to specific issues. These studies and reports are undertaken at the direction of the Board of Supervisors as needed or are prepared annually to report on the status and implementation of the General Plan or a master plan.

The following is a list of planning studies and reports commonly prepared by a county:

- Annual General Plan implementation report
- Vacant land inventory

COUNTY SERVICES AND OPERATIONS (SO)

The County provides a broad range of services to its residents, businesses, and visitors and manages and operates its facilities to meet community needs. How the County provides services and carries out its operations makes a significant difference in how effectively the General Plan is implemented. The following is a list of services and operations commonly carried out by a County:

- Water, wastewater, drainage service
- Solid-waste service
- Law enforcement/fire service
- Parks service

INTER-GOVERNMENTAL COORDINATION (IGC)

The County must coordinate with numerous local, regional, State, and Federal agencies to implement the General Plan. These agencies provide services, facilities, or funding and administer regulations that directly or indirectly affect many issues addressed in the General Plan. The following is a partial list of public agencies that may play a role in implementing the General Plan:

- Local agencies such as cities within the county, special districts, and school districts
- Regional agencies such as Fresno County Local Agency Formation Commission (LAFCO), San Joaquin Valley Air Pollution Control District (SJVAPCD), and Fresno Council of Governments (FCOG)
- State agencies such as Caltrans, General Services, Fresno State, California Environmental Protection Agency (EPA), and Native American Heritage Commission (NAHC)
- Federal agencies such as U.S. Military, U.S. Fish and Wildlife Services (USFWS), U.S. Army Corps of Engineers, and Federal Emergency Management Agency (FEMA)

JOINT PARTNERSHIPS WITH THE PRIVATE SECTOR (JP)

The County can combine its efforts with private sector efforts to improve public service delivery, manage public sector assets, or leverage private sector investment. By expanding the role of the private sector, the County can use its technical, management, and financial resources in creative ways to achieve objectives of the General Plan. The following is a list of joint partnership arrangements with the private sector commonly used by a County:

- Design-build
- Design-finance-build
- Design-build-maintain/operate
- Service, operation, and maintenance contracts
- Public service operation license
- Divestiture

PUBLIC INFORMATION (PI)

The County can use a wide range of tools to keep the county's residents informed of County services or other issues of current interest. A wide range of tools to keep the residents informed of local services or other issues of current interest. Public information can be distributed through media or outreach efforts such as:

- Brochures and pamphlets
- Websites
- Public access television
- Radio
- Newspapers
- Workshops and seminars
- Public hearings
- Neighborhood and community meetings
- Customer service hotlines



FRESNO COUNTY GENERAL PLAN

SPECIFIC IMPLEMENTATION PROGRAMS

An implementation program is an action, procedure, program, or technique that carries out general plan policy. Specific implementation programs for this General Plan are listed in the following tables. Each implementation program is followed by a description of which policy(ies) the program implements, which County department(s) is responsible for implementation, and an estimated timeframe for implementation. The identified timeframes are general guidelines and may be adjusted based on County staffing and budgetary considerations.

The implementation program tables are organized as follows:

- Table 3-1: Economic Development Implementation Programs
- Table 3-2: Agricultural and Land Use Implementation Programs
- Table 3-3: Transportation and Circulation Implementation Programs
- Table 3-4: Public Facilities and Services Implementation Programs
- Table 3-5: Open Space and Conservation Implementation Programs
- Table 3-6: Health and Safety Implementation Program
- Table 3-7: Environmental Justice Implementation Programs

ADMINISTRATION AND IMPLEMENTATION

3

Economic Development Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
ED-A.A	The County shall allocate resources to support the County’s economic development implementation programs. <i>(SO)</i>				
Implements Which Policy(ies)	ED-A.2 and ED-A.3				✓
Responsible Department(s)	Board of Supervisors County Administrative Officer				
ED-A.B	The County shall collaborate with the Fresno Council of Governments and existing food, fiber, and agricultural product processing firms to assess the current state of regional and intermodal transportation infrastructure, the needs for the future, and the role of the County and other agencies in facilitating infrastructure development. <i>(PSR/IGC/JP)</i>				
Implements Which Policy(ies)	ED-A.18	✓			
Responsible Department(s)	Board of Supervisors County Administrative Officer Department of Public Works and Planning				
ED-C.A	The County shall continue to work with regional workforce training organizations, community colleges, vocational centers, and others to promote and maintain the existing countywide workforce preparation system. <i>(IGC/JP)</i>				
Implements Which Policy(ies)	ED-C.1, ED-C.3, and ED-C.4				✓
Responsible Department(s)	Workforce Investment Board Department of Employment & Temporary Assistance/Adult Services				
ED-C.B	The County shall provide skills inventory information on the CalWORKs labor pool, upon request, for local expansion and new businesses seeking employees. <i>(PI)</i>				
Implements Which Policy(ies)	ED-C.1 and ED-C.4				✓
Responsible Department(s)	Department of Employment & Temporary Assistance/Adult Services				
ED-C.C	The County shall continue to improve and maintain tracking systems for employment and retention for CalWORKs recipients. <i>(SO/PSR)</i>				
Implements Which Policy(ies)	ED-C.1 and ED-C.4				✓
Responsible Department(s)	Department of Employment & Temporary Assistance/Adult Services				



FRESNO COUNTY GENERAL PLAN

Economic Development Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
ED-C.D	The County shall continue efforts to assist placement agencies and businesses in hiring CalWORKs recipients who match required skill sets and are in need of employment. <i>(SO/IGC/JP)</i>				
Implements Which Policy(ies)	ED-C.1 and ED-C.4				✓
Responsible Department(s)	Department of Employment & Temporary Assistance/Adult Services				
ED-C.E	The County shall continue its collaborative planning and funding efforts with agencies such as the Fresno County Office of Education, State Economic Development Department (EDD), local school districts, post secondary educational institutions, training agencies, vocational centers, and the cities. Such efforts may include education management services, employment placement services, retention services, youth employment programs, job readiness, and career information. <i>(SO/FB/IGC/JP/PI)</i>				
Implements Which Policy(ies)	ED-C.1 and ED-C.2				✓
Responsible Department(s)	Department of Social Services				
ED-C.F	The County shall continue to work with regional workforce training organizations to provide the necessary training in the skills required by the clusters and industries targeted for expansion, attraction, and new enterprise development. <i>(IGC/JP/SO)</i>				
Implements Which Policy(ies)	ED-C.3				✓
Responsible Department(s)	Workforce Investment Board				

Agriculture and Land Use Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
LU-A.A	The County shall review and amend its Zoning and Subdivision Ordinances to ensure consistency with policies and standards of this section.				
Implements Which Policy(ies)	LUA.1 through LU-A.21	✓			
Responsible Department(s)	Department of Public Works and Planning				

ADMINISTRATION AND IMPLEMENTATION

3

Agriculture and Land Use Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
<p>LU-A.B During the develop review process, the County shall evaluate and incorporate all practical buffers for new non-agricultural uses proposed in agricultural areas of the county. Buffer design and maintenance guidelines shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> a) Buffers shall be physically and biologically designed to avoid conflicts between agriculture and non-agricultural uses. b) Buffers shall be located on the parcel for which a permit is sought and shall protect the maximum amount of farmable land. c) Buffers generally shall consist of a physical separation between agricultural and non-agricultural uses. The appropriate width shall be determined on a site-by-site basis taking into account the type of existing agricultural uses, the nature of the proposed development, the natural features of the site, and any other factors that affect the specific situation. d) Appropriate types of land uses for buffers include compatible agriculture, open space and recreational uses such as parks and golf courses, industrial uses, and cemeteries. e) The County may condition its approval of a project on the ongoing maintenance of buffers. f) A homeowners association or other appropriate entity shall be required to maintain buffers to control litter, fire hazards, pests, and other maintenance problems. g) Buffer restrictions may be removed if agricultural uses on all adjacent parcels have permanently ceased. <i>(RDR/PSP)</i> 					✓
Implements Which Policy(ies)	LU-A.13				
Responsible Department(s)	Department of Public Works and Planning				
<p>LU-A.C The County shall continue to implement the County’s Right-to-Farm Ordinance, and provide information to the local real estate industry to help make the public aware of the right-to-farm provisions in their area. <i>(RDR/JP/PI)</i></p>					✓
Implements Which Policy(ies)	LU-A.15				
Responsible Department(s)	Department of Agriculture				



FRESNO COUNTY GENERAL PLAN

Agriculture and Land Use Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
LU-A.D	The County shall periodically review agricultural land preservation programs and assess their effectiveness in furthering the County's agricultural goals and policies. <i>(PSP)</i>				✓
Implements Which Policy(ies)	LU-A.16				
Responsible Department(s)	Department of Public Works and Planning				
LU-A.E	The County should assist interested farmers and ranchers in obtaining grants under provisions of the California Farmland Conservancy Program for conservation easements. <i>(PSP/FB)</i>				✓
Implements Which Policy(ies)	LU-A.16				
Responsible Department(s)	Department of Public Works and Planning				
LU-A.F	The County, in cooperation with UC Cooperative Extension, resource conservation districts, and other industry agencies, should develop and implement a public outreach program to inform agriculturalists and the public of the advantages of participation in land trust agreements, conservation easements, dedication incentives, Williamson Act contracts, Farmland Security Act contracts, and the California Farmland Conservancy. <i>(IGC/JP/PI)</i>		✓		✓
Implements Which Policy(ies)	LU-A.16 and LU-A.17				
Responsible Department(s)	Department of Public Works and Planning				
LU-A.G	The County shall maintain an inventory of lot size exceptions granted by discretionary permit. This inventory, including number of exceptions, size of the lots, and their location, shall be presented to the Board of Supervisors during the annual review of the General Plan. <i>(PSR)</i>	✓			
Implements Which Policy(ies)	LU-A.9, LU-A.10, LU-A.11, LU-B.8, and LU-B.7, LU-B.9, and LU-B.10		✓		✓
Responsible Department(s)	Department of Public Works and Planning				
LU-C.A	As funding become available, the County will update and maintain the Kings River Regional Plan to guide County decision-making concerning land use and environmental quality within the Kings River influence area. <i>(PSP)</i>				✓
Implements Which Policy(ies)	LU-C.1, LU-C.11, LU-C.12, and OS-H.9				

ADMINISTRATION AND IMPLEMENTATION

3

Agriculture and Land Use Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
Responsible Department(s)	Board of Supervisors Department of Public Works and Planning				
LU-C.B	The County shall continue to work with the San Joaquin River Parkway and Conservation Trust, San Joaquin River Conservancy, City of Fresno, and other interested agencies and organizations to implement the San Joaquin River Parkway Master Plan. <i>(RDR/IGC)</i>				
Implements Which Policy(ies)	LU-C.2, LU-C.6, LU-C.8, LU-C.9, LU-C.10, OS-H.10, OS-H.11, and OS-H.12				✓
Responsible Department(s)	Board of Supervisors Department of Public Works and Planning				
LU-F.A	The County shall work with the Cities of Clovis and Fresno and other cities as appropriate to encourage adoption of incentives and disincentives that lead to compact urban development and infill of vacant and under-utilized land. <i>(RDR/IGC)</i>				✓
Implements Which Policy(ies)	LU-F.1 through LU-F.11 and LU-F.14				
Responsible Department(s)	Board of Supervisors				
LU-F.B	The County shall review its Zoning Ordinance and Subdivision Ordinance to incorporate amendments that will implement the policies for pedestrian and transit-oriented development. <i>(RDR)</i>				✓
Implements Which Policy(ies)	LU-F.1 through LU-F.11				
Responsible Department(s)	Board of Supervisors				
LU-G.A	The County shall review and revise, as appropriate, its Zoning Ordinance to facilitate moderate increases in density of housing in unincorporated urban communities. <i>(RDR)</i>				✓
Implements Which Policy(ies)	LU-G.19 through LU-G.21 and LU-F.14				
Responsible Department(s)	Department of Public Works and Planning				
LU-G.B	The County shall review all annexation proposals submitted to the Local Agency Formation Commission (LAFCO) and prepare a recommendation to LAFCO for each proposal. The County shall formally protest when the				✓



FRESNO COUNTY GENERAL PLAN

Agriculture and Land Use Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
annexation is inconsistent with a city’s adopted general plan or with the County’s General Plan, or with the standards of annexation which is included in the memorandum of understanding between the County and the cities within the county. <i>(RDR/SO/IGC)</i>					
Implements Which Policy(ies)	LU-G.1 through LU-G.16				
Responsible Department(s)	Department of Public Works and Planning Board of Supervisors				
LU-H.A	The Planning Commission shall review the General Plan annually, focusing principally on actions undertaken in the previous year to carry out the implementation programs of the plan. The Planning Commission’s report to the Board of Supervisors shall include, as the Commission deems appropriate, recommendations for amendments to the General Plan. <i>(RDR/PSR)</i>				
Implements Which Policy(ies)	LU-H.14			✓	✓
Responsible Department(s)	Planning Commission Board of Supervisors Department of Public Works and Planning				

Transportation and Circulation Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
TR-A.A	The County shall update and maintain the Improvement Standards for other County development improvements, including private roads dedicated to public use. <i>(RDR)</i>	✓			
Implements Which Policy(ies)	TR-A.1				
Responsible Department(s)	Department of Public Works and Planning				
TR-A.B	The County shall prepare and adopt a priority list of street and highway improvements for the Road Improvement Program (RIP) based on a horizon of at least five (5) years. The Board of Supervisors shall update the RIP every year based on the recommendation of the Department of Public Works and			✓	

ADMINISTRATION AND IMPLEMENTATION

3

Transportation and Circulation Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
<p>Planning. The RIP shall program maintenance and rehabilitation, reconstruction, capacity, operational, safety improvements, and specific plan lines on a prioritized basis. <i>(PSP)</i></p>					
Implements Which Policy(ies)	TR-A.4 and TR-A.13				
Responsible Department(s)	Department of Public Works and Planning Board of Supervisors				
TR-A.C	The County shall coordinate its transportation planning with the Fresno Council of Governments, Caltrans, cities within the county, and adjacent jurisdictions. <i>(IGC)</i>				
Implements Which Policy(ies)	TR-A.7 and TR-A.8				✓
Responsible Department(s)	Department of Public Works and Planning				
TR-A.D	The County shall consider adopting a traffic impact fee ordinance for areas outside the spheres of influence of cities in the county. The traffic fees should be designed to achieve the adopted LOS and preserve structural integrity based on a twenty (20) year time horizon. The traffic mitigation fees should be updated at least every five years, or concurrently with the approval of any significant modification of the land use allocation used to develop the fees. The County shall require new development within the spheres of influence of cities in the county to pay the traffic impact fees of those cities. <i>(RDR/FB)</i>		✓		✓
Implements Which Policy(ies)	TR-A.9				
Responsible Department(s)	Department of Public Works and Board of Supervisors				
TR-A.E	The County shall continue to identify and pursue appropriate new funding sources for transportation improvements. Grant funds from regional, State, and Federal agencies should be pursued and utilized when compatible with the General Plan policies and long-term local funding capabilities. <i>(FB)</i>				✓
Implements Which Policy(ies)	TR-A.11, TR-A.12, and TR-A.13				
Responsible Department(s)	Department of Public Works and Planning				
TR-A.F	The County shall prepare Complete Streets Design Guidelines and update the them every five years. <i>(RDR)</i>		✓		✓



FRESNO COUNTY GENERAL PLAN

Transportation and Circulation Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
Implements Which Policy(ies)	TR-A.14 and TR-A.15				
Responsible Department(s)	Department of Public Works and Planning				
TR-B.A	The County shall work with the Fresno Council of Governments (FCOG) and transit providers in the county to periodically review and update the short-range transit plans in the county. <i>(IGC)</i>				✓
Implements Which Policy(ies)	TR-B.1				
Responsible Department(s)	Department of Public Works and Planning				
TR-B.B	The County shall encourage transit providers and FCOG to prepare, adopt, and implement a long-range strategic transit master plan for the county or subareas of the county. The master plan shall review the transit corridors in this Policy Document and designate a set of transit corridors so that appropriate planning can be concentrated on these corridors. The plan(s) shall be reviewed and updated on a regular basis. <i>(IGC)</i>				✓
Implements Which Policy(ies)	TR-B.1				
Responsible Department(s)	Department of Public Works and Planning				
TR-B.C	The County shall work with Caltrans and other agencies to determine the need for additional or expanded park-and-ride lots and to identify additional sites for such lots. <i>(PSR/IGC)</i>				✓
Implements Which Policy(ies)	TR-B.2				
Responsible Department(s)	Department of Public Works and Planning				
TR-B.D	The County shall work with the FCOG and other agencies to identify right-of-way needs within designated transit corridors and to acquire needed rights-of-way, including abandoned rights-of-way and track structures. <i>(PSR/IGC)</i>				✓
Implements Which Policy(ies)	TR-B.3				
Responsible Department(s)	Department of Public Works and Planning				
TR-B.E	The County shall work with the cities in the county to prepare and adopt land use and design standards for areas within designated urban transit corridors to promote transit accessibility and use. <i>(RDR/IGC)</i>	✓			

ADMINISTRATION AND IMPLEMENTATION

3

Transportation and Circulation Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
Implements Which Policy(ies)	TR-B.3				
Responsible Department(s)	Department of Public Works and Planning				
TR-B.F	The County shall work with FCOG and FCRTA (a joint powers agency) to identify and pursue funding for transit. <i>(FB/IGC)</i>				
Implements Which Policy(ies)	TR-B.4				✓
Responsible Department(s)	Department of Public Works and Planning				
TR-D.A	The County shall continue to identify and pursue appropriate new funding sources for bikeway implementation. Grant funds from regional, State, and Federal agencies should be pursued and used when compatible with the General Plan policies and long-term local funding capabilities. <i>(FB)</i>				✓
Implements Which Policy(ies)	TR-D.1				
Responsible Department(s)	Department of Public Works and Planning				
TR-D.B	The County shall require that sufficient pavement width for bikeways shown on the Regional Bikeway Plan be constructed in conjunction with road construction projects, and that adequate right-of-way and/or pavement width for bicycle facilities be included in frontage improvements required of new development. Implementation through signing and striping is an operational decision, and may not coincide with initial construction. <i>(RDR)</i>				✓
Implements Which Policy(ies)	TR-D.4 and TR-D.5				
Responsible Department(s)	Department of Public Works and Planning				
TR-D.C	The County shall use California Department of Transportation (Caltrans) or American Association of State Highway and Transportation Officials (AASHTO) standards as guidelines for construction of Class I, II, III bicycle facilities. <i>(RDR/SO)</i>				✓
Implements Which Policy(ies)	TR-D.1, TR-D.3, TR-D.4, and TR-D.5				
Responsible Department(s)	Department of Public Works and Planning				



FRESNO COUNTY GENERAL PLAN

Transportation and Circulation Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
TR-D.D	The County shall work with other agencies to provide facilities that help link bicycles to other modes of transportation, including provision of bike racks or space on buses and parking or lockers for bicycles at transportation terminals. <i>(RDR/IGC)</i>				✓
Implements Which Policy(ies)	TR-D.8				
Responsible Department(s)	Department of Public Works and Planning				
TR-D.E	The County shall periodically review and update the Regional Bicycle and Recreational Trails Master Plan. <i>(RDR)</i>				✓
Implements Which Policy(ies)	TR-D.9				
Responsible Department(s)	Department of Public Works and Planning				
TR-E.A	The County shall use appropriate zoning and work with other agencies to plan line-designated railroad corridors to facilitate the preservation of important railroad rights-of-way for future rail expansion or other appropriate transportation facilities. <i>(RDR)</i>				✓
Implements Which Policy(ies)	TR-E.3 and TR-E.4				
Responsible Department(s)	Department of Public Works and Planning				
TR-E.B	The County shall participate in the Council of Fresno County Governments Rail Committee to support improvement, development, and expansion of rail service in Fresno County. <i>(IGC)</i>				✓
Implements Which Policy(ies)	TR-E.1 through TR-E.6				
Responsible Department(s)	Department of Public Works and Planning				

ADMINISTRATION AND IMPLEMENTATION

3

Public Facilities and Service Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
PF-C.A	The County shall participate in Inter-Regional Water Management Plan (IRWMP) efforts with other regional partners to identify and implement projects and programs to improve water supply reliability and quality. <i>(IGC)</i>				
Implements Which Policy(ies)	PF-C.1 through PF-C.16				✓
Responsible Department(s)	County Office of Emergency Services Public Works and Planning				
PF-C.B	The County shall work with service providers to prepare or cause to be prepared water master plans for water delivery systems for development proposed in unincorporated communities. The County shall approve such plans prior to, or concurrently with, approval of the proposed development. <i>(RDR)</i>				✓
Implements Which Policy(ies)	PF-C.7				
Responsible Department(s)	Department of Public Works and Planning				
PF-C.C	The County shall prepare a Water Conservation Ordinance that includes water conservation technologies, methods, and practices to maximize the beneficial use of water resources. The County shall review and update the ordinance periodically to eliminate practices that no longer prove beneficial and add new technologies that become available. <i>(RDR)</i>	✓			✓
Implements Which Policy(ies)	PF-C.23 through PF-C.28				
Responsible Department(s)	Department of Public Works and Planning				
PF-C.D	The County shall assess the need for, and suitability of, a tiered water pricing structure for specific County Service Areas and Waterworks Districts on an as needed basis. <i>(FB/SO)</i>		✓		
Implements Which Policy(ies)	PF-C.27				
Responsible Department(s)	Department of Public Works and Planning				
PF-C.E	The County shall adopt cost-effective urban best water conservation management practices, consistent with the intent of the California Urban Water Agencies, advisories, California Department of Water Resources, or similar authoritative agencies or organizations. <i>(PSP)</i>		✓		✓
Implements Which Policy(ies)	PF-C.28				



FRESNO COUNTY GENERAL PLAN

Public Facilities and Service Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
Responsible Department(s)	Department of Public Works and Planning				
PF-D.A	The County shall work with service providers to prepare, or cause to be prepared, sewer master plans for wastewater treatment facilities for development proposed in unincorporated communities. The County shall approve such plans prior to or concurrently with approval of the proposed development. <i>(PSP)</i>				✓
Implements Which Policy(ies)	PF-D.7				
Responsible Department(s)	Department of Public Works and Planning				
PF-E.A	The County shall work with responsible flood control agencies to pursue adoption of appropriate regulations and programs as necessary and appropriate to implement required actions under State and Federal stormwater quality programs. <i>(RDR/PSP/IGC)</i>				✓
Implements Which Policy(ies)	PF-E.1				
Responsible Department(s)	Department of Public Works and Planning Board of Supervisors				
PF-F.A	The County shall require new commercial, industrial, and multi-family residential uses to provide adequate areas on-site to accommodate the collection and storage of recyclable materials.				✓
Implements Which Policy(ies)	PF-F.1 and PF-F.2				
Responsible Department(s)	Department of Public Works and Planning				
PF-H.A	The County shall work with the California Department of Forestry and Fire Protection, local fire protection agencies, and city fire departments to maximize the use of resources to develop functional and/or operational consolidations and standardization of services and to maximize the efficient use of fire protection resources. <i>(IGC)</i>				✓
Implements Which Policy(ies)	PF-H.1 and PF-H.2				
Responsible Department(s)	County Administrative Officer				
PF-I.A	The County shall coordinate the updating of regional, community, and specific plans necessitated by the General Plan with applicable school districts to				✓

ADMINISTRATION AND IMPLEMENTATION

3

Public Facilities and Service Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
identify the need for and potential location of new or expanded school facilities. <i>(PSP/IGC)</i>					
Implements Which Policy(ies)	PF-I.3, PF-I.4, and PF-I.5				
Responsible Department(s)	Department of Public Works and Planning				
PF-I.B	The County shall coordinate the updating of regional, community, and specific plans with applicable library districts and library interest groups to identify the need for and potential location of new or expanded library facilities. The Library Master Facility Plan shall be used as part of this process. <i>(PSP/IGC)</i>				
Implements Which Policy(ies)	PF-I.9				✓
Responsible Department(s)	Department of Public Works and Planning County Library				

Open Space and Conservation Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
OS-A.A	The County shall coordinate with Groundwater Sustainability Agencies and other water resource management agencies to identify and protect lands sustainable for groundwater recharge. <i>(PSP)</i>				
Implements Which Policy(ies)	OS-A.6, OS-A.7, OS-A.8, and OS-A.10	✓			✓
Responsible Department(s)	Department of Public Works and Planning				
OS-B.A	The County, in consultation with the California Department of Forestry and Fire Protection, shall conduct an evaluation of the Forest Practice Rules with regard to: clearcutting and other forest management practices with potential visual impacts; use of prescribed burning; protection of biological, soil, and water resources; and protection of old growth forest in Fresno County. If the Forest Practice Rules are determined to be inadequate, a compilation of Special Forest Practice Rules for Fresno County shall be proposed to the Board of Forestry to address those inadequacies. <i>(IGC)</i>		✓		



FRESNO COUNTY GENERAL PLAN

Open Space and Conservation Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
Implements Which Policy(ies)	OS-B.2 OS-B.3, OS-B.3, OS-B.4, and OS-B.6				
Responsible Department(s)	Department of Public Works and Planning				
OS-B.B	The County shall encourage the California Department of Forestry and Fire Protection to complete an inventory, including the condition, of existing and residual stands of ancient and old growth forest on private timberlands in Fresno County. The results of this inventory shall be incorporated into the County’s biological resources database for use in future land use planning decisions. <i>(PSR/IGC)</i>	✓			✓
Implements Which Policy(ies)	OS-B.2				
Responsible Department(s)	Department of Public Works and Planning				
OS-B.C	The County shall participate in U.S. Forest Service management plan development and encourage the U.S. Forest Service and the California Department of Forestry and Fire Protection to address multiple forest management goals supporting healthy forests, habitat, watershed, fuels reduction, special management of old growth forest and other unique biotic or geologic features, and economic and recreational uses of forest resources. <i>(IGC)</i>				✓
Implements Which Policy(ies)	OS-B.2				
Responsible Department(s)	Department of Public Works and Planning				
OS-B.D	The County shall encourage the California Department of Forestry and Fire Protection to include educational materials for residents in its Notice of Intent to Harvest Timber. Such materials should include information concerning the Forest Practice Act, Forest Practice Rules, and Department of Forestry and Fire Protection Timber Harvest Plan review process. <i>(IGC)</i>				✓
Implements Which Policy(ies)	OS-B.2 and OS-B.3				
Responsible Department(s)	Department of Public Works and Planning				
OS-D.A	The County shall work toward the acquisition by public agencies or private non-profit conservation organizations of creek corridors, wetlands, and areas rich in wildlife or of a fragile ecological nature as public open space where such areas cannot be effectively preserved through the regulatory process.				✓

ADMINISTRATION AND IMPLEMENTATION

3

Open Space and Conservation Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
Such protection may take the form of fee acquisition or protective easements and may be carried out in cooperation with other local, State, and Federal agencies and private entities. Acquisition shall include provisions for maintenance and management in perpetuity. <i>(IGC/JP)</i>					
Implements Which Policy(ies)	OS-D.2 and OS-D.8				
Responsible Department(s)	Department of Public Works and Planning				
OS-F.A	The County shall make the Fresno County Oak Management Guidelines and other educational resources available to landowners located in oak woodland habitat. <i>(PI)</i>				
Implements Which Policy(ies)	OS-F.11				✓
Responsible Department(s)	Department of Public Works and Planning				
OS-G.A	The County shall work cooperatively with the SJVAPCD to review their published Guide for Assessing and Mitigating Air Quality Impacts and consider the feasibility to adopt procedures for performing air quality impact analysis and mitigation measures with any modifications deemed appropriate. <i>(RDR/PSP)</i>	✓			
Implements Which Policy(ies)	OS-G.1				
Responsible Department(s)	Department of Public Works and Planning				
OS-G.B	The County shall continue to implement programs to reduce its employees' work-related vehicular trips. <i>(PSP/SO)</i>				
Implements Which Policy(ies)	OS-G.6 and OS-G.7				✓
Responsible Department(s)	County Administrative Officers Department of Public Works and Planning				
OS-G.C	The County shall amend its Subdivision and Grading Ordinances and Development Standards to address dust control measures for new development, access roads, and parking areas. <i>(RDR)</i>	✓			
Implements Which Policy(ies)	OS-G.12 and OS-G.14				
Responsible Department(s)	Department of Public Works and Planning				



FRESNO COUNTY GENERAL PLAN

Open Space and Conservation Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
OS-H.A	The County shall work with local, State, and Federal agencies to complete a comprehensive inventory of all County owned parks and recreation areas and services in the county and to identify other areas suitable for potential park acquisition and development as funds permit. The County shall consider preparation of a County park and recreation master plan to provide a policy framework for independent implementation by the cooperating agencies. (PSR)	✓	✓		
Implements Which Policy(ies)	OS-H.1 through OS-H.3				
Responsible Department(s)	Department of Public Works and Planning				
OS-H.B	As new development occurs, the County shall consider contracting with existing entities that have the authority to receive dedications or grants of land or funds, plus the ability to charge fees for acquisition, development, and maintenance of parks, open space, and riding, hiking, and bicycle trails. (FB/SO)				✓
Implements Which Policy(ies)	OS-H.4				
Responsible Department(s)	Department of Public Works and Planning				
OS-J.A	The County shall prepare and maintain, using a GIS database, an inventory of historical sites, buildings, and landmarks. (PSR)		✓		
Implements Which Policy(ies)	OS-J.7				
Responsible Department(s)	Fresno County Historic Landmarks and Records Commission				
OS-L.A	The County shall work with Caltrans to apply for scenic highway designation for the State highway segments eligible for such designation, and take necessary steps for approval, including adoption of scenic corridor protection programs for eligible segments. (PSP/IGC)				✓
Implements Which Policy(ies)	OS-L.9				
Responsible Department(s)	Department of Public Works and Planning				

ADMINISTRATION AND IMPLEMENTATION

3

Health and Safety Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
HS-A.A In coordination with cities, special districts, and State and Federal agencies, the County shall review and update regularly the Fresno County Multi-Jurisdictional Hazard Mitigation Plan. <i>(IGC)</i>					
Implements Which Policy(ies)	HS-A.1 and HS-A.2				
Responsible Department(s)	County Office of Emergency Services Sheriff's Office County Administrative Officer Public Works and Planning Department CalFire/Fresno Co. Fire District Local Fire Agencies and Special Districts				✓
HS-A.B The County shall continue to monitor and periodically evaluate County emergency planning, operations, and training capabilities. The County shall support post disaster response efforts that are targeted toward the most vulnerable populations by developing culturally sensitive responses, including language access services, communications, and other support services. <i>(PSP)</i>					✓
Implements Which Policy(ies)	HS-A.1, HS-A.5				
Responsible Department(s)	County Office of Emergency Services				
HS-A.C The County shall continue to review actions in the Fresno County Multi-Jurisdictional Hazard Mitigation Plan on an annual basis to be considered for annual FEMA Pre-Disaster Mitigation grant allocations or after a presidential disaster declaration in California for Hazard Mitigation Grant Program funding as well as for other local, state, and federal funding opportunities.					
Implements Which Policy(ies)	HS-A.2			✓	
Responsible Department(s)	County Office of Emergency Services Sheriff's Office County Administrative Officer Public Works and Planning Department County Fire District				
HS-A.D The County shall continue to periodically evaluate County-owned safety and emergency management facilities and public utility systems for susceptibility to damage due to flood inundation, seismic or geologic					✓



FRESNO COUNTY GENERAL PLAN

Health and Safety Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
hazards, or wildfire hazards and implement corrective actions should problems be identified. (SO)					
Implements Which Policy(ies)	HS-A.3, HS-A.5, HS-A.6, and HS-A.8				
Responsible Department(s)	Department of Public Works and Planning County Office of Emergency Services				
HS-A.E	The County shall research available funding sources to provide sustainable backup power sources for critical facilities in the event of a power outage triggered by a climate event.	✓	✓		
Implements Which Policy(ies)	HS-A.11				
Responsible Department(s)	Department of Public Works and Planning				
HS-A.F	The County shall continue to conduct programs to inform the general public of emergency preparedness and disaster response procedures. Programs shall be developed to reach the most vulnerable populations in the County. (PI)				✓
Implements Which Policy(ies)	HS-A.6, HS-G.10, and HS-G.11				
Responsible Department(s)	County Office of Emergency Services				
HS-A.GF	The County shall continue to support standardized informational and telecommunications systems among local, regional, State and Federal agencies to provide for better interoperability.				
Implements Which Policy(ies)	HS-A.5, HS-A.6, and HS-B.24				
Responsible Department(s)	County Office of Emergency Services Sheriff's Office County Administrative Officer Public Works Department County Fire District				✓
HS-A.HG	The County shall identify residential developments in hazard areas that do not have at least two emergency evacuation routes and work with affected residents to help prepare them to anticipate their evacuation alternatives. As part of development review process, fire responders should evaluate applications for compliance with the Attorney General Wildfire Guidance from October 22, 2022, which states that new development should have adequate fire protection, including proximity to adequate emergency services, adequate provisions for fire flow and				✓

ADMINISTRATION AND IMPLEMENTATION

3

Health and Safety Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
emergency vehicle access and fire hardened communication, including high speed internet service.					
Implements Which Policy(ies)	HS-A.8				
Responsible Department(s)	Department of Public Works and Planning County Office of Emergency Services Sherriff's Office				
HS-A.IH The County shall seek and secure funding to conduct near-term and long-term climate hazard assessment (such as for flooding and wildfire) for at-risk County facilities. The assessment shall identify adaptation or retirement plans for at-risk buildings and facilities, and prioritize necessary retrofits or upgrades based on the age, criticality, and vulnerability and need of the County facility.		✓	✓		
Implements Which Policy(ies)	HS-A.10 and HS-A.11				
Responsible Department(s)	County Fire District, Department of Public Works and Planning				
HS-B.A In partnership with neighborhood- and community-based organizations, the County shall seek funding to establish a climate change education program that would inform residents and businesses about climate change preparedness and the benefits of improving homes and businesses to contemporary fire safe standards.		✓			
Implements Which Policy(ies)	HS-B.2				
Responsible Department(s)	County Fire District				
HS-B.B To promote consistency with changing State Fire Code requirements, the County will update its County Code in accordance with State Fire Code revisions.					✓
Implements Which Policy(ies)	B.10, B.12				
Responsible Departments	Department of Public Works and Planning, County Fire District				
HS-B.C The County shall update emergency planning documents, such as the Emergency Operations Plan, and procedures every 8 years in tandem with required Safety Element updates to minimize emergency response and evacuation challenges county-wide.					✓



FRESNO COUNTY GENERAL PLAN

Health and Safety Implementation Programs		2021 - 2025	2025 - 2030	Annual	Ongoing
Implements Which Policy(ies)	HS-B.20, HS-B.26, and HS-B.30				
Responsible Departments	Office of Emergency Services, Department of Public Works and Planning, County Fire District, Sheriff's Office				
HS-B.D	The County shall seek federal and/or state funding to support enforcement of defensible space and hardening standards to mitigate structure ignitions and reduce losses.				
Implements Which Policy(ies)	HS-B.2, HS-B.9, HS-B.10, HS-B.12, HS-B.17, HS-B.18, HS-B.21, HS-B.22, HS-B.23, HS-B.25, and HS-B.28				✓
Responsible Departments	County Fire District				
HS-B.E	As part of the application process, the County shall review proposed new and existing developments and ensure they have adequate emergency access, water supplies and provisions for fire suppression.				
Implements Which Policy(ies)	HS-B.6, HS-B.13, HS-B.14, HS-B.15, HS-B.17, HS-B.24, and HS-B.31				✓
Responsible Departments	Department of Public Works and Planning, County Fire District				
HS-B.F	The County shall continue to coordinate with CAL FIRE, the U.S. Forest Service, and neighboring jurisdictions on wildfire risk reduction activities in fire hazard severity zones in, wildland urban interface areas, and open spaces.				
Implements Which Policy(ies)	HS-B.3, HS-B.4, HS-B.8, HS-B.11, HS-B.16, HS-B.19, and HS-B.21				✓
Responsible Department(s)	County Fire District				
HS-C.A	The County shall prepare, maintain, and implement a Countywide Flood Emergency Plan that is consistent with the Fresno General Plan and city adopted general plans. The plan should be prepared in coordination with cities in Fresno County and address the requirements of Senate Bill 5. (PSR)				
Implements Which Policy(ies)	HS-C.1		✓		
Responsible Department(s)	Department of Public Works and Planning				

ADMINISTRATION AND IMPLEMENTATION

3

Health and Safety Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
HS-C.B	The County shall with each revision of its Housing Element review and update as necessary the General Plan to include new flooding information not previously available, as required by with AB 162 (2007). <i>(PSP)</i>	✓			
Implements Which Policy(ies)	HS-C.8, HS-C.11, HS-C.12, and HS-C.14				
Responsible Department(s)	Department of Public Works and Planning				
HS-C.C	The County shall update and periodically review the Special Flood Hazard Areas provisions contained in the County Code to ensure adequate protection for structures located within identified flood zones. <i>(PSR)</i>				✓
Implements Which Policy(ies)	HS-C.2, HS-C.3, HS-C.5, HS-C-11, and HS-C.16				
Responsible Department(s)	Department of Public Works and Planning				
HS-C.D	The County shall establish development standards for new construction to reduce flooding. Standards should include minimizing paved areas or impervious surfaces, retaining large areas of undisturbed, naturally vegetated habitat to allow for water infiltration, and intermix areas of pavement with naturally vegetated infiltration sites to reduce the concentration of stormwater runoff from pavement and buildings.		✓		
Implements Which Policy(ies)	HS-C.4				
Responsible Department(s)	Department of Public Works and Planning				
HS-C.E	The County shall, as part of the development review process, require that the design and location of dams and levees be in accordance with applicable design standards and specifications and accepted design and construction practices. The County shall ensure development applications are routed to the proper review agencies and departments to confirm design standards are met. <i>(RDR/PSP)</i>				✓
Implements Which Policy(ies)	HS-C.10				
Responsible Department(s)	Department of Public Works and Planning				
HS-C.FE	The County shall develop, implement, and maintain a monitoring program to assess overall system capabilities.				✓
Implements Which Policy(ies)	HS-C.3, HS-C.8, and HS-C.9				



FRESNO COUNTY GENERAL PLAN

Health and Safety Implementation Programs		2021 - 2025	2025 - 2030	Annual	Ongoing
Responsible Department(s)	Department of Public Works and Planning				
HS-C.GF	The County shall participate in the investigation and support the construction of water storage and banking facilities by other entities for the upper San Joaquin River Basin.				✓
Implements Which Policy(ies)	HS-C.6 and HS-C.7				
Responsible Department(s)	Department of Public Works and Planning				
HS-C.HG	The County shall maintain flood hazard maps and other relevant floodplain data and shall revise or update this information as new information becomes available. In the County’s review of applications for building permits and discretionary permits and proposals for capital improvement projects, the County shall determine whether the proposed project is within the 100-year floodplain based on these maps and shall encourage open space uses in flood zones. (PSP/RDR)				✓
Implements Which Policy(ies)	HS-C.17, HS-C.18, HS-C.15				
Responsible Department(s)	Department of Public Works and Planning				
HS-C.IH	The County shall continue to develop and review relevant dam failure evacuation plans and continue to provide public information on dam failure preparedness. (PSP)				✓
Implements Which Policy(ies)	HS-C.19 and HS-C.20				
Responsible Department(s)	Office of Emergency Services Department of Public Works and Planning				
HS-D.A	The County shall regularly review readily available information published by the California Division of Mines and Geology and other agencies and use the information to update County maps and the General Plan Background Report. (PSP/PSR)				✓
Implements Which Policy(ies)	HS-D.1 and HS-D.2				
Responsible Department(s)	Department of Public Works and Planning				
HS-D.B	The County shall create and adopt a Geologic Hazards Checklist to be utilized during the development review process. (PSP/PSR)		✓		
Implements Which Policy(ies)	HS-D.3, HS-D.4, HS-D.5, HS-D.6, HS-D.7, HS-D.8, HS-D.9, HS-D.10, HS-D.11, and HS-D.12				

ADMINISTRATION AND IMPLEMENTATION

3

Health and Safety Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
Responsible Department(s)	Department of Public Works and Planning				
HS-E.A	The County shall refer to the Fresno County Airport Land Use Commission for review projects within the Airport Review Area requiring amendments of general plans, community and specific plans, airport master plans, rezoning applications, zoning ordinance text amendments, and building code amendments for consistency with the appropriate Airport Land Use Policy Plan. <i>(RDR/IGC)</i>				✓
Implements Which Policy(ies)	HS-E.1 and HS-E.3				
Responsible Department(s)	Department of Public Works and Planning Fresno County Airport Land Use Commission				
HS-E.B	The County shall, as part of the development review process, ensure that new development, including public infrastructure projects, does not create manmade safety hazards such as glare from direct or reflective sources, smoke, electrical interference, hazardous chemicals, or fuel storage in violation of adopted safety standards.				✓
Implements Which Policy(ies)	HS-E.2				
Responsible Department(s)	Department of Public Works and Planning				
HS-F.A	The County shall continue to review discretionary uses which involve use of hazardous materials or generate hazardous wastes in regulated quantities. <i>(RDR)</i>				✓
Implements Which Policy(ies)	HS-F.1 and HS-F.2				
Responsible Department(s)	Department of Public Works and Planning Department of Public Health				
HS-F.B	The County shall coordinate with the Regional Water Quality Control Board to review plans to mitigate soil or groundwater contamination for redevelopment or infill projects. <i>(IGC/RDR)</i>				✓
Implements Which Policy(ies)	HS-F.4 and HS-F.6				
Responsible Department(s)	Department of Public Works and Planning Department of Public Health				



FRESNO COUNTY GENERAL PLAN

Health and Safety Implementation Programs		2021 - 2025	2025 - 2030	Annual	Ongoing
HS-G.<u>AB</u> The County shall support property owners in applying for and accessing financial assistance for eligible low-income individuals for constructing and retrofitting buildings to be more energy efficient and for the purchasing of low-carbon-emitting appliances. (PSP/SO/PI)			✓		
Implements Which Policy(ies)	HS-G.4				
Responsible Department(s)	Board of Supervisors County Administrative Officer				
HS-G.<u>BC</u> The County shall coordinate with Cities to identify and map cooling centers in locations accessible to vulnerable populations and establish standardized temperature triggers for when they will be opened. (PSP/SO/PI)		✓			
Implements Which Policy(ies)	HS-G.5				
Responsible Department(s)	Department of Public Health				
HS-G.<u>CD</u> The County shall work with community based organizations to site immediate assistance and emergency shelter hubs in areas with high numbers of vulnerable populations and establish climate related triggers for opening the Immediate Assistance and Emergency Shelter Hubs (such as temperature thresholds and air quality thresholds). The following essential resources shall be made available at Immediate Assistance and Emergency Shelter Hubs: health programming and resources, food and water, refrigeration, charging stations, basic medical supplies, and other emergency supplies.					✓
Implements Which Policy(ies)	HS-G.6				
Responsible Department(s)	Department of Public Works & Planning Department of Public Health				
HS-G.<u>DE</u> The County shall identify corridors, particularly pedestrian pathways and bikeways that connect transit stations to nearby residential areas and public spaces, with the greatest need for shade and impermeable surfaces. Project implementation shall be prioritized in disadvantaged unincorporated communities.					✓
Implements Which Policy(ies)	HS-G.7				
Responsible Department(s)	Department of Public Works and Planning				

ADMINISTRATION AND IMPLEMENTATION

3

Health and Safety Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
HS-G.EF	The County shall work with the University of California Cooperative Extension and the Farm Bureau to develop an education and outreach campaign best suited to agricultural producers in the county, that increases field observation and monitoring and provides climate information services to agricultural producers in the County. Climate information services shall include early warnings systems for extreme weather events and estimates weather and climate impacts on crop and livestock operations.		✓		
Implements Which Policy(ies)	HS-G.8				
Responsible Department(s)	Agricultural Commissioner				
HS-H.A	The County shall amend and enforce the Fresno County Noise Ordinance as necessary consistent with the policies and standards within this element. (RDR)		✓		
Implements Which Policy(ies)	HS-H.1 through HS-H.9				
Responsible Department(s)	Department of Public Health Sheriff's Department				
HS-H.B	The County shall develop an effective noise control program that includes: a. An ordinance (1) defining acceptable noise levels based on land use, (2) setting forth monitoring methodology and determination of violations, (3) defining exemptions and variance procedures, and (4) delineating enforcement and abatement procedures; and b. A public information program to inform county residents of the impact of noise on their lives. (RDR)		✓		
Implements Which Policy(ies)	HS-H.5				
Responsible Department(s)	Department of Public Works and Planning Department of Public Health				
Environmental Justice Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
EJ-A.A	During the development review process, the County shall ensure that adequate measures, including but not limited to, landscaping, buffers, and setbacks are incorporated into each project to minimize potential				✓



FRESNO COUNTY GENERAL PLAN

Health and Safety Implementation Programs		2021 - 2025	2025 - 2030	Annual	Ongoing
project impacts associated with odor, light, glare, groundwater contamination and air emissions on disadvantaged community residents.					
Implements Which Policy(ies)	EJ-A.1				
Responsible Department(s)	Department of Public Works and Planning				
EJ-A.B The County shall incorporate into its Zoning Ordinance development standards and that address potentially pollution producing land uses that are proposed to be located adjacent to existing sensitive land uses (such as residential uses, schools, senior care facilities, and day care facilities).					✓
Implements Which Policy(ies)	EJ-A.2				
Responsible Department(s)	Department of Public Works and Planning				
EJ -A.C The County, in coordination with the San Joaquin Valley Air Pollution Control District, shall develop a list of pollution reducing technologies and best practices to make available to the local commercial and industrial industry. <i>(IGC)</i>					✓
Implements Which Policy(ies)	EJ-A.3				
Responsible Department(s)	Department of Public Works and Planning				
EJ-A.D The County shall seek funding from the San Joaquin Valley Air Pollution Control District and the CalEPA to establish a Healthy Homes HVAC retrofitting subsidy program.		✓			
Implements Which Policy(ies)	EJ-A.4				
Responsible Department(s)	Department of Public Works and Planning				
EJ-A.E The County shall coordinate with the San Joaquin Valley Air Pollution Control District on County-initiated infrastructure projects and large-scale public or private developments for applicable funding opportunities to mitigate roadway pollution.					✓
Implements Which Policy(ies)	EJ-A.5				
Responsible Department(s)	Department of Public Works and Planning				
EJ-A.F The County shall continue coordination with the San Joaquin Valley Air Pollution Control District for project review and comment on both County- and privately initiated projects.					✓
Implements Which Policy(ies)	EJ-A.7				
Responsible Department(s)	Department of Public Works and Planning				
EJ-A.G The County shall mail a written notice to property owners and occupants within 15 days of the County’s acceptance of a discretionary development review application located within a disadvantaged community. Notification shall be in English and Spanish and shall provide the opportunity for residents to submit written comments					✓

ADMINISTRATION AND IMPLEMENTATION

3

Health and Safety Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
within 15 days following the date of the notice. Notification shall be from the exterior boundary of the property proposed for development and shall be in accordance with the Fresno County Zoning Ordinance public noticing requirements.					
Implements Which Policy(ies)	EJ-A.8				
Responsible Department(s)	Department of Public Works and Planning				
EJ-A.H Annually, the County shall develop a list of viable infrastructure and active transportation improvement projects for its disadvantaged communities and shall seek available grant funding.					✓
Implements Which Policy(ies)	EJ-A.11				
Responsible Department(s)	Department of Public Works and Planning				
EJ-A.I During the development review process, new industrial projects shall be subject to the Zoning Ordinance industrial development standards to reduce impacts to sensitive receptors and conflicts with surrounding properties.					✓
Implements Which Policy(ies)	EJ-A.12, EJ-A.13, EJ-A.14				
Responsible Department(s)	Department of Public Works and Planning				
<u>EJ-A.J</u> <u>Truck traffic from new industrial development is prohibited from traveling through existing residential zoned areas.</u>					✓
<u>Implements Which Policy(ies)</u>	<u>EJ-A.14</u>				
<u>Responsible Department(s)</u>	<u>Department of Public Works and Planning</u>				
EJ-B.A Periodically, and during the updating of the County’s unincorporated community plans, the County shall meet with local school districts and local, regional, and state organizations to identify need and the funding necessary to implement safe and walkable pedestrian routes to schools.					✓
Implements Which Policy(ies)	EJ-B.3				
Responsible Department(s)	Department of Public Works and Planning				
EJ-B.B The County shall seek funding from the California Department of Parks and Recreation’s Outdoor Equity Grants Program and Per Capita Program to develop a targeted Park Improvement Fund. The County shall work with and assist local community services districts in disadvantaged communities to seek funding from the parks related grant programs to develop their Park Improvement Funds.					✓
Implements Which Policy(ies)	EJ-B.7				
Responsible Department(s)	Department of Public Works and Planning				



FRESNO COUNTY GENERAL PLAN

Health and Safety Implementation Programs		2021 - 2025	2025 - 2030	Annual	Ongoing
EJ-B.C	The County shall seek funding from the Department of Transportation's Safe Streets and Roads to develop the Rural Complete Streets Program.				✓
Implements Which Policy(ies)	EJ- B.8				
Responsible Department(s)	Department of Public Works and Planning				
EJ-C.A	The County shall continue to promote Federally Qualified Health Centers (FQHCs) within disadvantaged areas through letters of support and engagement with local city and County decision-making bodies.				✓
Implements Which Policy(ies)	EJ-C.1				
Responsible Department(s)	Department of Public Works and Planning				
EJ-C.B	Annually, the County shall meet with medical service providers to identify obstacles to providing services in disadvantaged communities.				✓
Implements Which Policy(ies)	EJ-C.1				
Responsible Department(s)	Department Public Works and Planning, Code Enforcement				
EJ-C.C	The County shall collaborate with Fresno County Rural Transit to maintain and/or identify new routes to healthcare facilities and shopping outlets that provide access to healthy foods, including fresh produce and proteins.				✓
Implements Which Policy(ies)	EJ-C.1				
Responsible Department(s)	Department Public Works and Planning				
EJ-C.D	The County shall develop a local definition of food desert and develop a food desert map (food access points). The County will evaluate available public transportation routes and assess feasibility of integration into an existing public asset or increasing/adding healthy food availability services.		✓		
Implements Which Policy(ies)	EJ-C.2				
Responsible Department(s)	Department Public Works and Planning				
EJ-C.E	The County shall develop a list of potential stakeholder contacts and relevant administering departments prior to initiating outreach. After initial outreach occurs the County shall conduct periodic updates to stakeholder lists and initiate subsequent outreach efforts as needed to ensure education and awareness programs remain current with changing state and local disease indicators and nutrition guidelines.	✓			
Implements Which Policy(ies)	EJ-C.3				
Responsible Department(s)	Department Public Works and Planning				

ADMINISTRATION AND IMPLEMENTATION

3

Health and Safety Implementation Programs		2021-2025	2025-2030	Annual	Ongoing
EJ-C.F	The County shall include provisions in its Zoning Ordinance that permits the establishment and operation of farmer’s markets without the need for a discretionary development review permit.	✓			
Implements Which Policy(ies)	EJ-C.4				
Responsible Department(s)	Department Public Works and Planning				
EJ-C.G	The County shall establish, in partnership with local nonprofits and food banks, a countywide food recovery program focused on increasing food access in low-income communities.	✓			
Implements Which Policy(ies)	EJ-C.5				
Responsible Department(s)	Department Public Works and Planning				
EJ-C.H	The County shall evaluate all federal, state, and local resources that can support the development of a countywide food recovery program. The County shall also evaluate its solid waste landfill fee structure and update it as necessary in order to support diverting organic waste into the landfill.	✓			
Implements Which Policy(ies)	EJ-C.5				
Responsible Department(s)	Department Public Works and Planning				
EJ-C.I	The County shall provide the public available data for chronic diseases via the Fresno County Health Priority Index webpage or other local, State/Federal developed resources that reflect the impact of the most prevalent chronic diseases impacting Fresno County residents.				✓
Implements Which Policy(ies)	EJ-C.6				
Responsible Department(s)	Department Public Works and Planning				
EJ-D.A	The County shall utilize available notification techniques to convey information to community residents on projects that may affect their community and encourage their participation in the planning process and expressing their concerns to the decision makers. (RDR, PI)				✓
Implements Which Policy(ies)	EJ-D.1				
Responsible Department(s)	Department Public Works and Planning				
EJ-D.B	The County shall seek funding from the California Department of Housing and Community Development to fund housing programs focused on supporting disadvantaged and underserved communities, such as the CalHome grant, the National Housing Trust Fund, and Regional Early Action Planning (REAP) grants.				✓
Implements Which Policy(ies)	EJ-D.3				
Responsible Department(s)	Department Public Works and Planning				



FRESNO COUNTY GENERAL PLAN

Health and Safety Implementation Programs		2021 - 2025	2025 - 2030	Annual	Ongoing
EJ-E.A	Annually, the County shall utilize existing community events and regularly scheduled (i.e., farmer’s markets, festivals, school events, parades, community service district meetings) events to effectively and equitably engage area residents regarding Fresno County programs and projects (health services and healthy foods, HOME program, major infrastructure).				✓
Implements Which Policy(ies)	EJ-E.1				
Responsible Department(s)	Department Public Works and Planning				
EJ-E.B	The County Board of Supervisors shall develop and adopt a countywide public noticing and public outreach policy document applicable to all County departments that consider diversity in race, ethnicity, culture, language, age, ability, and socioeconomic status.	✓			
Implements Which Policy(ies)	EJ-E.2, EJ-E.3, EJ-E.4				
Responsible Department(s)	Department Public Works and Planning, County Administrative Office				

APPENDIX A

GENERAL PLAN GLOSSARY

Appendix A provides definitions for key terms used in the General Plan. This glossary is organized by the General Plan elements contained in Part 2.



FRESNO COUNTY GENERAL PLAN

ECONOMIC DEVELOPMENT ELEMENT

Industry

A term for the collective activities of a group of firms that produce the same kind of commodity or service, or are engaged in the same kind of operations. The auto industry and the steel industry are examples of industries within the manufacturing sector.

Industry Cluster

The cluster is a geographically proximate group of firms and industries that are interdependent, complementary, and/or competitive. At the core are industries and firms which have a high demand for inputs of materials and services, and their purchase of various inputs then drives the growth and development of supplier industries. Generally, there is a regionally-based economic infrastructure that provides the foundation required by the cluster. This could be a specialized work force, higher education system, etc. The synergies or relations among cluster firms help to spur new innovations and to attract other firms to service or become a part of the core cluster.

Labor Force

The universe for measuring the labor force begins with all persons aged 16 and over. In this report the labor force includes civilians only (i.e., members of the armed services are excluded). The labor force is further divided into two groups: persons currently employed and persons looking for work (unemployed). The unemployment rate is calculated as a proportion of the civilian labor force that is currently unemployed. Persons not employed and not looking for work are also excluded from the labor force count; they are not counted as unemployed. In this report labor force is a residence-based measure, while employment is measured at the place of work.

Value-Added

The increase in the value of products over the cost of their raw materials. Higher-value-added products support higher wages and generally return greater economic benefits to the locality in which they are produced.

AGRICULTURE AND LAND USE ELEMENT

Agricultural Land

Productive (Prime) Agricultural Land: Soils which are suitable for the production of most climatically adapted irrigated crops. Such land includes the following soils:

1. All land which qualifies for rating as Class I or II soils in the Natural Resources Conservation Service land use capability classifications;
2. Land which qualifies for rating with a Storie index rating of 80 through 100; and
3. Land which supports livestock used for the production of food and fiber and which has an annual carrying capacity equivalent to at least one (1) animal unit per acre as defined by the USDA.

Potentially Productive Agricultural Land

Soils which within the realm of economic possibility can be altered using certain reclamation or modification practices to make them more productive for essential food crops such as grain and vegetables. Included are certain Class III and IV soils and soils with a Storie index of 60-80.

Agricultural Commercial Centers

Small commercial centers located primarily in areas designated Agriculture or Rangeland that provide services to the surrounding area.

Agriculturally-Related Uses

Uses that are generally related to agriculture (e.g., commercial processing facilities that serve the agricultural community).

Agricultural Uses

The growing of food and fiber and the raising of livestock and poultry.

Community Plan

A subset of the General Plan covering a specific area of the county typically smaller than a regional plan. Community plans are a type of area plan with a geographic focus at the community level. Community plans are part of the General Plan. Since the General Plan is required to be internally consistent, the provisions of a community plan must be consistent with all other provisions of the General Plan. Community plans also have the same authority as the General Plan. Zoning, subdivisions, specific plans, conditional use permits, and other tools must be consistent with the General Plan, and therefore must also be consistent with an applicable community plan.

Neighborhood Plan

A policy document adopted by a city or a county establishing a vision and implementation strategies to enhance the character and quality of a specific neighborhood. A neighborhood plan establishes the vision and implementation strategies for a specific neighborhood. Unlike community plans and regional plans, neighborhood plans are not part of the General Plan and therefore do not carry the same regulatory weight as community plans, regional plans, or specific plans.

Overlay Land Use Designation

A land use designation on the General Plan Land Use Diagram that modifies in some specific manner the land uses or development standards of the underlying primary land use designation.

Parcel (Lot)

A lot, or continuous group of lots, in single ownership or under single control, usually considered a unit for purposes of development.

Planned Urban Boundary

A line encompassing all land designated by a city for urban uses within the city's service area boundary, including land designated "Reserve" in a County-adopted community plan for the city. The boundary may be coterminous with or smaller than the Sphere of Influence.

Primary Land Use Designation

A land use designation on the General Plan Land Use Diagram that defines allowable uses and development standards for agricultural, residential, commercial, and industrial development, and other basic categories of land use.

Regional Plan

A subset of the General Plan covering a fairly large area of the county. There are four adopted regional plans, including Sierra North Regional Plan, Sierra South Regional Plan, Kings River Regional Plan, and Coalinga Regional Plan Area. Regional plans are a type of area plan and are also part of the General Plan. Regional plans have a wider geographic focus than community plans but must still be consistent with the General Plan. Zoning, subdivisions, specific plans, conditional use permits, and other tools that must be consistent with the General Plan must also be consistent with an applicable regional plan. Although the area covered by a regional plan may surround the area covered by a community plan, the community plan area is carved out from the regional plan area. This means that the regional plan does not apply to the community plan area. There are four adopted regional plans consisting of the Sierra North Regional Plan, Sierra South Regional Plan, Kings River Regional Plan, and Coalinga Regional Plan Area.



FRESNO COUNTY GENERAL PLAN

Resource Lands

Lands generally designated and devoted to agriculture, grazing, resource extraction, and other open space uses.

Rural (Non-Agricultural) Development

Development that is generally characterized by very low-density residential development (2- to 5- acre parcels) that is not necessarily limited to agricultural or other resource uses.

Rural Settlement Areas

As provided in the General Plan, rural settlement areas apply “only to those areas where a small concentration of housing and commercial or industrial uses serve the surrounding agricultural area.” A rural settlement area is akin to a land use designation, but with special policy features and standards outlined in General Plan Policies LU-E.16 through LU-E.21. A rural settlement area includes a set of policies and standards contained within the General Plan and regulates the land but is not a separate regulatory document.

Second Unit

A self-contained living unit, either attached to or detached from, and in addition to, the primary residential unit on a single lot. Sometimes called “granny unit.”

Sphere of Influence (SOI)

The probable physical boundaries and service area of a local agency, as determined by the Local Agency Formation Commission.

Specific Plan

A legal tool authorized by Article 8 of the Government Code (Section 65450 et seq.) for the systematic implementation of the General Plan for a defined area of the unincorporated county or a city. Specific plans must be consistent with the General Plan, and therefore must also be consistent with applicable community plans and regional plans. Zoning, conditional use permits, and other tools must be consistent with a specific plan.

Storie Index

A numerical system (0-100) rating, the degree to which a particular soil can grow plants and produce crops, based on four (4) factors, including soil profile, surface texture, slope, and soil limitations.

Urban Development/Urban Area

Development generally characterized by moderate- and higher-density residential development (i.e., three or more dwelling units per acre), commercial development, and industrial development, and supported by public services such as central water and sewer systems.

Value-Added Agricultural Uses (Processing Facilities)

Uses or facilities that increase the value of agricultural produce over the cost of raw produce, such as canning, drying, freezing, or packaging agricultural produce for the ultimate sale to consumers.

TRANSPORTATION AND CIRCULATION ELEMENT

Class I Bikeway (Bicycle Path)

A paved route separated from a street or roadway and expressly reserved for non-motorized traffic, with cross traffic minimized.

Class II Bikeway (Bicycle Lane)

A paved striped lane for one-way bicycle travel on a street or roadway.

Class III Bikeway (Bicycle Route)

A shared-use street or roadway, identified by bicycle route signs.

Complete Street

A transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit vehicles, truckers, and motorists, appropriate to the function and

context of the facility. Complete street concepts apply to rural, suburban, and urban areas.

Level of Service

A qualitative measurement of operational characteristics of traffic flow on a roadway or at the intersection of roadways, based on traffic volumes and facility type. Levels range from “A” to “F”, with “A” representing the highest level of service.

Mode

Refers to a means of transportation: automobile, bus, train, airplane, pedestrian, or bicycle. The different modes of travel may each require minimum facilities for their unique needs, although there is a significant amount of overlap in surface transportation modes. Multi-modal, as used herein, refers to a facility providing for more than one type of transportation.

Right-of-way

A strip of land occupied or intended to be occupied by certain transportation and public use facilities, such as roadways, railroads, and utility lines.

Transit

The conveyance of persons or goods from one place to another by means of local public transportation such as a rail or bus system.

Transit Corridor

An area along a major transportation facility (i.e., freeway, arterial, rail line), designated by the General Plan, that can be planned for higher-intensity land use. Transit corridors are designated based upon: 1) existing and future availability of “high-capacity” transit service; and 2) availability of land that could be developed or redeveloped for higher-intensity residential and employment centers.

Transportation Systems Management (TSM)

Programs to reduce travel demand and improve vehicle flow by encouraging mode shifts (i.e., bus, carpool, rapid transit, bicycle, etc.), and by

applying operational efficiencies (i.e., signal synchronization, bus turn-outs, bicycle lanes, etc.) to highway systems. TSM is intended to emphasize improved transportation system efficiencies rather than road expansion or construction.

Vehicle Miles Traveled (VMT)

A measure of the amount of travel for all vehicles in a geographic region over a given period of time, typically a one-year period.

PUBLIC FACILITIES AND SERVICES ELEMENT

Capital Improvement Program (CIP)

A plan that matches the costs of future projects such as water, sewers, roads, and storm drainage to anticipated revenues. It is a governmental timetable for constructing the permanent improvements and includes timing of the projects, their costs, and the methods for financing.

Composting

To convert a mixture of decaying organic matter into fertilizer or soil amendment.

Municipal Solid Waste

All solid wastes generated by residential, commercial, and industrial sources, as well as all solid waste generated at construction and demolition sites and at food processing facilities, which are collected and transported under the authorization of a jurisdiction or are self-hauled.

Individual On-site Sewage Disposal Systems

A sewage disposal system that includes a settling tank through which liquid sewage flows and in which solid sewage settles and is decomposed by bacteria in the absence of oxygen. On-site (septic) systems are often used for individual-home waste disposal where an urban sewer system is not available.



FRESNO COUNTY GENERAL PLAN

Inert Waste Disposal Site

A tract of land which is used for the disposal of inert solid waste which includes rock, concrete, brick, sand, soil, fines, asphalt, and unsorted construction and demolition wastes. Inert solid waste shall not contain hazardous waste or soluble pollutants at concentrations in excess of applicable water quality objectives, and shall not contain significant quantities of decomposable waste.

Public and Quasi-Public Facilities

Institutional, academic, governmental, and community service uses either publicly owned or operated by non-profit organizations.

Regional Landfill

A landfill designed to serve multiple entities (i.e., several cities and unincorporated areas).

Resource Recovery Facility

A solid waste facility designed to use a mixed stream of municipal solid waste for conversion to energy or as fuel for conversion to energy after other reusable solid wastes have been reclaimed.

Solid Waste

All putrescible and nonputrescible solid, semisolid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes. Solid waste does not include hazardous waste.

Solid Waste Facility

A place, location, tract of land, area, or premises which is in use or intended to be used or which has been used for the disposal or management of municipal solid waste. Solid waste facilities do not include facilities for management of segregated separated waste for salvage or recovery, including segregated agricultural waste.

Transfer/Processing Stations

Solid waste facilities designed to: receive municipal solid wastes; temporarily store, separate, convert, or otherwise process the materials in the solid wastes; or to transfer the solid wastes directly from smaller vehicles to larger vehicles for transport. Excluded from this definition are facilities whose principal function is to receive, store, convert, or otherwise process wastes which have already been separated for reuse and are not intended for disposal (i.e., "recycling center").

OPEN SPACE AND CONSERVATION ELEMENT

Archeological

Relating to the material remains of past human life, culture, or activities.

California Environmental Quality Act (CEQA)

A State law requiring the State and local agencies to regulate activities with consideration for environmental protection. If a proposed activity has the potential for a significant adverse environmental impact, an environmental impact report (EIR) must be prepared and certified as to its adequacy before taking action on the proposed project.

Commercial Recreation Facilities

Facilities serving recreational needs, but operated for private profit (e.g., riding stables, tourist attractions, amusement parks).

Conservation

The management of natural resources to prevent waste, destruction, or neglect.

Consumptive Use

The component of water lost to evaporation or transpiration through agricultural, municipal, and industrial uses, including maintenance leaching, and the deep percolation to a usable water source.

Geological

Pertaining to rock or solid matter.

Habitat

The natural environment of a plant or animal.

Open Space Land

Any parcel or area of land or water that is essentially unimproved and devoted to an open space use for the purposes of: 1) the preservation of natural resources; 2) the managed production of resources; 3) outdoor recreation; or 4) public health and safety.

Rare or Endangered Species

A species of animal or plant listed in Sections 670.2 or 670.5, Title 14, California Administrative Code or Title 50, Code of Federal Regulations, Section 17.11 or Section 17.2, pursuant to the Federal Endangered Species Act designating species as rare, threatened, or endangered.

Riparian Habitat

The land and plants bordering a watercourse or lake.

River or Stream

A natural watercourse as designated by a solid line or dash and three dots symbol shown on the United States Geological Survey map most recently published, or any well-defined channel with distinguishable bed and bank that shows evidence of having contained flowing water as indicated by scourer deposit of rock, sand, gravel, soil, or debris.

Scenic Vista

An area designated, signed, and accessible to the public for purposes of viewing and sightseeing.

Vernal Pool

Ephemeral wetlands that form in shallow depressions in the ground which are underlain by a substrate that restricts water percolation. These depressions fill with rainwater during the fall and winter and can remain inundated until spring or early summer.

Watercourse

Natural or once natural flowing (perennially or intermittently) water including rivers, streams, and creeks. Includes natural waterways that have been channelized, but does not include manmade channels, ditches, and underground drainage and sewage systems.

Watershed

The total area above a given point on a watercourse that contributes water to the flow of the watercourse; the entire region drained by a watercourse.

Wetland

Areas that are permanently wet or periodically covered with shallow water, such as saltwater and freshwater marshes, open or closed brackish marshes, swamps, mud flats, vernal pools, and fens. This also includes wetlands under the jurisdiction of the US Army Corps of Engineers which encompasses vernal pools and other areas with hydrology, soils, and vegetation meeting Federal regulatory standards.

HEALTH AND SAFETY ELEMENT

Alquist-Priolo Earthquake Fault Zone

A regulatory zone, delineated by the State Geologist, within which site-specific geologic studies are required to identify and avoid fault rupture hazards prior to subdivision of land and/or construction of most structures for human occupancy.

Critical Facility

Facilities which either provide emergency services or house or serve many people who would be injured or killed in case of disaster damage to the facility. Examples include hospitals, fire, police, and emergency service facilities, utility “lifeline” facilities such as water, electricity, gas supply, sewage disposal, and communications and transportation facilities.



FRESNO COUNTY GENERAL PLAN

dB

Decibel; a unit used to express the relative intensity of a sound as it is heard by the human ear.

dBA

The “A-weighted” scale for measuring sound in decibels; weighs or reduces the effects of low and high frequencies in order to simulate human hearing. Every increase of 10dBA doubles the perceived loudness though the noise is actually ten times more intense.

Fault

A fracture in the earth’s crust forming a boundary between rock masses that have shifted.

Flood, 100-Year

The magnitude of a flood that has 1/100, or one percent chance of occurring in any given year.

Flood, 200-Year

The magnitude of a flood that has 1/200 chance of occurring in any given year.

Flood Hazard Area

Those areas subject to inundation by a 100- or 200-year flood, or subject to damage from shallow groundwater.

Geologic Hazards

Include the following:

- Seismic hazard areas delineated on fault maps as subject to potential surface rupture, on soil maps indicating materials particularly prone to shaking or liquefaction, and in local and regional seismic safety plans;
- Landslide hazard areas delineated on slope stability maps and in local and regional geologic or safety plans; and
- Other geologic hazards such as expansive soils and subsidence areas.
Hazardous Material: Any substance 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. The term includes, but is not limited to, hazardous substances and hazardous wastes. Examples include pesticides, herbicides, toxic metals and chemicals, liquefied natural gas, explosives, volatile chemicals, and nuclear fuels.

Ldn

Day-Night Average Sound Level. The A-weighted average sound level for a given area (measured in decibels) during a 24-hour period with a 10 dB weighting applied to night-time sound levels. The Ldn is approximately numerically equal to the CNEL for most environmental settings.

Levee

A bank constructed to control or confine flood waters.

Liquefaction

The transformation of loose water-saturated granular materials (such as sand or silt) from a solid into a liquid state. A type of ground failure that can occur during an earthquake.

Noise

Any sound that is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. Noise, simply, is "unwanted sound."

Noise Attenuation

Reduction of the level of a noise source using a substance, material, or surface, such as earth berms and/or solid concrete walls.

Seismic

Caused by or subject to earthquakes or earth vibrations.

Subsidence

The gradual local settling or sinking of the earth's surface with little or no horizontal motion (subsidence is usually the result of gas, oil, or water extraction, hydrocompaction, or peat oxidation, and not the result of a landslide or slope failure).

Wildland Fire

A fire occurring in a suburban or rural area which contains uncultivated lands, timber, range, watershed, brush, or grasslands. This includes areas where there is mingling of developed and undeveloped lands.

ENVIRONMENTAL JUSTICE ELEMENT**Disadvantaged Community**

An area identified by the California Environmental Protection Agency pursuant to Section 39711 of the Health and Safety Code or an area that is a low-income area that is disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation.

Disadvantaged Unincorporated Communities (DUCs)

In response to Senate Bill (SB) 244, the General Plan and the General Plan Background Report were amended to include reference to 36 legacy DUCs identified within Fresno County. The County completed an analysis of water, wastewater, stormwater drainage, and structural fire protection needs or possible infrastructure deficiencies for the identified communities. Although the presence of a DUC does not necessitate a separate planning policy area, they often overlap with one of the plan area boundaries identified above, such as a community plan, and the presence of a DUC is a consideration in land use and infrastructure planning.

Disproportionate Effects

Significantly higher and more adverse health and environmental effects on minority populations, low-income populations or indigenous peoples. (Source: EPA EJ 2020 Glossary)

Environmental Justice (EJ)

The fair treatment and meaningful involvement of all people regardless of race, color, culture, national origin, income, and educational levels with respect to the development, implementation, and enforcement of protective environmental laws, regulations, and policies. (Source: EPA EJ 2020 Glossary)

Low-Income

A reference to populations characterized by limited economic resources. The US Office of Management and Budget has designated the Census Bureau's annual poverty measure as the official metric for program planning and analysis, although other definitions exist. (Source: EPA EJ 2020 Glossary)

Low-Income Area

An area with household incomes at or below 80 percent of the statewide median income or with household incomes at or below the threshold designated as low income by the Department of Housing and Community Development's list of state income limits adopted pursuant to Section 50093.

Meaningful Involvement

Potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health. (Source: EPA EJ 2020 Glossary)

Overburdened Community

Minority, low-income, tribal, or indigenous populations or geographic locations in the United States that potentially experience disproportionate environmental harms and risks. (Source: EPA EJ 2020 Glossary)



FRESNO COUNTY GENERAL PLAN



FRESNO COUNTY GENERAL PLAN

This page left blank intentionally.

APPENDIX B

GENERAL PLAN AMENDMENTS

Appendix B provides an ongoing list of General Plan Amendments that have occurred since the General Plan was adopted in 2000. Table B-1 provides a summary of the amendments by Board of Supervisors Resolution. Figure B-1 shows where amendments to the General Plan Land Use Diagram have occurred. Amendments to community plans and specific plans are not included in this table.

**Table B-1
GENERAL PLAN AMENDMENTS SUMMARY
Fresno County**

GPA Number	BOS Resolution Number	Date	General Plan Element	Amendment Summary
477	00-646	12/19/2000	Agriculture and Land Use	Re-designate 36.52 acres from Agriculture to Rural Residential on the east side of Auberry Road, 1.5 miles north of Copper Avenue. <i>Applicant: Judith Lau</i>
472	00-646	12/19/2000	Agriculture and Land Use	Amend and add text establishing New Planned Urban Village designation and related policies, and re-designate 762 acres from Agriculture to Planned Urban Village on the north side of E. Copper Avenue between N. Friant Road and N. Willow Avenues. <i>Applicant: Copper River Ranch, L.L.C.</i>
487	02-125	3/19/2002	Agriculture and Land Use	Re-designate 2.92 acres from Agriculture to Limited Industrial on the west side of S. Fowler Ave, between E. Central and E. Malaga Avenues approximately one and one-half miles north of the City of Fowler. <i>Applicant: Barrels Unlimited</i>
495	00-334	6/18/2002	Housing	Adopt updated Housing Element as Section 7 of the Policy Document and add Appendices C-K to the Policy Document.
491	03-087	2/25/2003	Agriculture and Land Use	Re-designate 220 acres from Agriculture to Public Facilities to allow a juvenile justice campus on the southwest quadrant of the State Highway 99/American Avenue Interchange. <i>Applicant: County of Fresno</i>



FRESNO COUNTY GENERAL PLAN

**Table B-1
GENERAL PLAN AMENDMENTS SUMMARY
Fresno County**

GPA Number	BOS Resolution Number	Date	General Plan Element	Amendment Summary
499	03-120	3/25/2003	Housing	Amend the Housing Element addressing comments from the California Department of Housing and Community Development. <i>Applicant: County of Fresno</i>
493	04-318	3/16/2004	Agriculture and Land Use	Re-designate 19.54 acres from Agriculture to Limited Industrial on the south side of E. Central Avenue Frontage Road between S. East and S. Orange Avenues, adjacent to the City of Fresno. <i>Applicant: Copart Inc./Patrick Thomas</i>
505	03-548	11/25/2003	Transportation and Circulation	Addresses access onto rural expressways at Interstate 5 Freeway commercial interchanges. Allows reasonable accommodation for commercial uses at designated commercial interchanges, while preserving the regional mobility function of expressways. <i>Applicant: County of Fresno</i>
507	05-147	1/05/2005	Transportation and Circulation	Amend the Golden State Industrial corridor to re-designate 39.98 acres of land located at the southeast corner of E. Manning and S. De Wolf Avenues from Agriculture to Golden State Industrial Corridor (Amend Figure LU-4) <i>Applicant: Roger Van Gronigen</i>
509	08-070	2/5/2008	Transportation and Circulation	Amend Figure TR-1a to redesignate part of Academy Avenue from a “Local” road to an “Arterial” road. <i>Applicant: County of Fresno</i>
527	11-287	8/9/2011	Agriculture and Land Use	Re-designate 153.78 acres from Agriculture to General Industrial to allow limited heavy industrial uses on the west side of S. Peach Avenue between E. Kamm and E. Conejo Avenues, approximately five miles southwest of the City of Selma.
537	14-368	9/30/2014	Agriculture and Land Use	Re-designate a 5.5-acre portion of a 13.06 acre-site from Agricultural to Community Commercial.
540	15-508	10/13/2015	Agriculture and Land Use	Re-designate a 10.80-acre parcel of land from Ag to RR.
542	15-588	12/8/2015	Housing	Amending General Plan Housing Element Updating it for the Fourth-Cycle Planning Period (2008-2015).

**Table B-1
GENERAL PLAN AMENDMENTS SUMMARY
Fresno County**

GPA Number	BOS Resolution Number	Date	General Plan Element	Amendment Summary
543	16-145	3/15/2016	Housing	Amending General Plan Housing Element Updating it for the Fifth-Cycle Planning Period (2015-2023).
544	16-060	2/9/2016	Agriculture and Land Use	Amend the text of General Plan Policy LU-E.14 to add “Cemetery” as an allowable use on a 14.06-acre parcel designated Special Commercial and zoned C-6(c).
548	17-257	4/25/2017	Agriculture and Land Use	Amend the General Plan by re-designating a .45-acre piece of land from Agricultural to Limited Industrial and an Amendment Application to rezone the same property from the AE-20 Zone District to the M-1 Zone District, to allow conversion of an ag-exempt metal building to a storage building for non-ag-related products.
551	18-186	5/8/2018	Agriculture and Land Use	Amend the Fresno High-Roeding Community Plan by redesignating a 3.57-acre parcel from Rural Residential to Limited Industrial and rezone from R-R to M-1(conditionally limited to Contractor Storage Yard) Zone District.
554	19-318	8/6/2019	Agriculture and Land Use	Redesignate a five-acre area of a 40-acre parcel from “Park” to “Medium Density Residential” in the Millerton Specific Plan and rezone from O to R-1(c) Zone District, and redesignate a 13-acre area of the same 40-acre parcel from Medium Density Residential to Open Space and rezone from R-1(c) to O Zone District.
556	19-458	12/10/2019	Agriculture and Land Use	Redesignate an approximately 0.34-acre parcel from Low Density Residential to Medium Density Residential in the Roosevelt Community Plan and rezone from R-1-B to R-2 Zone District.
559	20-328	10/20/2020	Agriculture and Land Use	Amend the Agriculture and Land Use Element of the General Plan to identify disadvantaged unincorporated communities and add an analysis of water, wastewater, stormwater, drainage, and structural fire protection needs or possible infrastructure deficiencies for the identified communities.
563	20-356	11/24/2020	Agriculture and Land Use	Amend the Agriculture and Land Use Element of the General Plan to increase the residential density for certain land use designations to increase the residential density to 20 units per acre.



FRESNO COUNTY GENERAL PLAN

This page left blank intentionally.

APPENDIX C

CLIMATE CHANGE VULNERABILITY ASSESSMENT

EXECUTIVE SUMMARY

The Fresno County Climate Change Vulnerability Assessment evaluates how climate change may impact vulnerable community members, natural resources, agriculture, critical facilities, buildings, services, and infrastructure in unincorporated Fresno County. While there may be overlap of infrastructure and services in incorporated areas, this assessment solely identified and evaluated populations and assets in unincorporated Fresno County. This report will inform Fresno County of potential climate change impacts and help prepare the required climate adaptation goals, policies, and implementation programs for the Safety Element as part of the County's General Plan Review project.

Climate change is a global phenomenon that can impact local health, natural resources, infrastructure, emergency response, and many other aspects of society through changes in climate conditions. In Fresno County, temperature and precipitation are expected to change in the following ways:

- **Increasing temperatures.** Average maximum temperatures in Fresno County are expected to rise between 4.1° Fahrenheit (F) and 5.1°F by 2050, and between 5.3°F and 8.7°F by 2100.
- **Increasing intensity of precipitation events and longer dry periods.** It is projected that 13 percent more precipitation will occur during extreme events, with wet extremes occurring three times more frequently.

Changes in temperature and precipitation are expected to influence the frequency, duration, and magnitude of a variety of climate hazards. Climate change models indicate that Fresno County is expected to experience the following by the end of the century:

- **Extreme Heat.** Fresno County is projected to experience an increase in the annual number of extreme heat days in the coming decades. In Fresno County, an extreme heat day occurs when the maximum temperature is above 94.3°F. The annual number of extreme heat days is projected to increase by as much as 59 days.
- **Warm Nights.** The county is projected to experience an increase in the annual number of warm nights. In Fresno County, a warm night is when the minimum temperature is above 62.3°F.
- **Chill Hours.** The county is projected to experience a significant decrease in the number of chill hours due to increase in minimum temperatures. Chill hours are defined as hours below 45°F, which influence the quality and quantity of crops within the San Joaquin Valley.
- **Drought.** The county is projected to experience increases in the length of dry spells.
- **Wildfire.** The county is projected to experience an increase in area burned from wildfires.
- **Landslides.** Susceptibility of landslides in Fresno is projected to increase as precipitation variability increase and wildfires increase in frequency, area, and severity.



FRESNO COUNTY GENERAL PLAN

- **Tule Fog.** This fog layer, which forms after intense precipitation, helps fruit and nut trees produce flowers and fruit. Since 1980 the frequency of Tule Fog has dropped by 75%. Tule Fog occurrences are projected to further decline as average temperature increases and precipitation frequency decreases.
- **Riverine and Stormwater Flooding.** Climate change may cause changes in precipitation patterns, leaving low-lying areas throughout unincorporated Fresno County to experience more frequent flooding and could increase the extent of 100-year floods.
- **Air Quality.** Air Quality within the San Joaquin Valley is projected to worsen as a result of an increase in wildfires and average maximum temperature. Longer periods of drought coupled with precipitation and tule fog decreases will also contribute to worsening air quality.

REPORT ORGANIZATION

The report is composed of the following seven parts:

1. **Section 1 Introduction** describes the methodology and key data sources used to prepare the Climate Change Vulnerability Assessment.
2. **Section 2 Climate Hazards** outlines climate drivers, relevant climate hazards, historical hazards events, how hazards are expected to change, and includes figures mapping climate hazards spatially across Fresno County.
3. **Section 3 Community Assets and Services at Risk** identifies populations and assets most at risk to climate change.
4. **Section 4 Vulnerability Analysis** describes potential impacts to distinct aspects of the community, and summarizes plans, policies, and programs in place to minimize such impacts. The chapter includes scores of low, medium, or high for each population group and asset.
5. **Section 5 Conclusion** presents the key findings of this report.
6. **Appendix A Adaptive Capacity** summarizes plans, policies, and programs that help Fresno County cope with climate hazard events.
7. **Appendix B Asset Manager Interview** summarizes the results of a survey conducted among asset managers to solicit input that informed this report.

POPULATIONS, ASSETS, AND SERVICES AT RISK

Projected changes in climate drivers and hazards will adversely impact community members, natural resources, agriculture, critical facilities, buildings, services, and infrastructure in unincorporated Fresno County. The Fresno County Climate Change Vulnerability Assessment describes the impacts climate change is expected to have on the following populations and assets:

VULNERABLE POPULATIONS

- Individuals with high outdoor exposure
- Under-resourced individuals
- Individuals facing societal barriers
- Individuals with chronic health conditions or health related sensitivities

AGRICULTURE

- Cropland
- Rangeland

NATURAL RESOURCES

- County parks
- Open spaces
- Forested land
- Critical habitat
- Rivers and streams
- Waterbodies
- Wetlands

BUILDINGS AND FACILITIES

- County buildings
- Educational facilities
- Hospitals
- Residential and commercial development
- Roadways and transportation facilities
- Active transportation routes
- Fire stations
- Police stations

INFRASTRUCTURE AND CRITICAL SERVICES

- Water services
- Wastewater
- Storm drainage and flood protection
- Solid and hazardous waste and recycling
- Fire services
- Emergency services
- Medical services
- Utilities and major utility corridors
- Public transportation
- Roadways
- Active transportation routes.



FRESNO COUNTY GENERAL PLAN

ADAPTIVE CAPACITY

Adaptive capacity is the ability to adjust to the consequences of climate change. Types of adaptive capacity include adjustments in behavior, resources, processes, and technologies. Fresno County has actively taken steps to increase the county's adaptive capacity by relying on existing policies, plans, programs, and institutions that increase the county's resilience to climate change. There are existing plans, programs, and policies in place to mitigate impacts of wildfire, flooding, and drought on the county's agriculture, buildings, facilities, infrastructure, and critical services, as well as to mitigate impacts of extreme heat, drought, and wildfire on the county's vulnerable populations. A detailed summary of the county's adaptive capacity can be found in Appendix A: Adaptive Capacity.

VULNERABILITY ANALYSIS

Climate change is expected to impact public health, agriculture, buildings and facilities, and infrastructure and critical facilities. Understanding local climate risks and impacts allows communities to prepare for the future and increase their resilience. Population groups and asset categories with high vulnerability scores are described below.

Vulnerable Populations

- **Extreme Heat.** Increased number of extreme heat days will result in increased public health risks, particularly to vulnerable populations, through heat-impacted diseases and air quality degradation. Individuals with high outdoor exposure, under-resourced individuals, individuals facing societal barriers, and individuals with chronic health conditions are all vulnerable to extreme heat.
- **Drought.** Individuals with high outdoor exposure are particularly at risk to drought conditions. During prolonged drought conditions, people experiencing homelessness may have difficulty accessing clean and affordable drinking water. Drought can also impact water quality and quantity which can exacerbate existing vulnerabilities. In addition, outdoor workers and people experiencing homelessness may experience increased risk to Valley Fever, a disease caused by inhaling fungal spores carried in soil dust. The frequency of dust storms, which are common in drought conditions, and Valley Fever incidents are positively correlated.
- **Wildfire.** Vulnerable populations are more likely to live in wildfire hazard zones and experience complications with evacuations. Additionally, vulnerable populations may experience injuries or death from smoke inhalation or burns and are less likely to receive medical treatment.
- **Riverine and Stormwater Flooding.** Outdoor workers may be exposed to hazardous work conditions during riverine and/or stormwater flooding events and therefore are vulnerable to health impacts. People experiencing homelessness are disproportionately at risk to health impacts during flood events because they often live in flood hazard areas and do not have access to transportation or resources needed to evacuate inundated areas.
- **Air Quality.** Individuals with high outdoor exposure and individuals with chronic health conditions are particularly vulnerable to poor air quality. Outdoor workers and people experiencing homelessness are disproportionately vulnerable to poor air quality because they are outdoors and are directly exposed to outdoor air pollutants. Individuals with chronic health conditions or health related sensitivities are at risk of developing or experiencing exacerbated health impacts from poor air quality. Children are extremely vulnerable to health impacts from poor air quality because their

respiratory system has not fully developed yet. Older adults, military veterans, and pollution burdened individuals are vulnerable to health impacts from poor air quality because they are more likely to have underlying respiratory and/or cardiovascular conditions. Individuals with cardiovascular disease, individuals with asthma, and individuals with chronic obstructive pulmonary disease (COPD) may experience severe health impacts if exposed to poor air quality.

Agriculture

- **Extreme Heat.** Higher temperatures will decrease the snowpack and raise the snowline, decreasing one of the most important surface water reserves for agriculture within the Sierra Nevada of the county. Extreme heat and warm nights can result in declines in crop yields because of heat stress and anomalous warmth during periods that are typically cooler. Lower crop yields can increase costs and ultimately decrease agriculture profitability. Livestock operations are potentially less viable during extreme heat events as livestock may suffer from heat related illness.
- **Chill Hours.** Orchards depend on chill hours to break dormancy during the winter, to synchronize blooming, facilitate pollination, and produce standard quality and quantity of the crops (Fresno County, 2018). Climate change is decreasing the number of chill hours for crops, resulting in reduced tree yield, particularly for pistachios and walnuts, and decreasing suitable locations for these trees.
- **Drought.** Like extreme heat and warm nights, drought is linked to declines in crop yields, increasing costs, and decreasing crop profitability. Drought can result in regional losses of crops and can stress the statewide water supply. Crops such as rice, alfalfa, almonds, and pistachios are dependent on high depths of water and subsequently higher water intensity needs. Almonds and pistachios account for two of the top three most economically productive crops within Fresno County.
- **Wildfire.** Crops and rangelands border wildfire hazard zones at the base of both the Sierra Nevada and the Coastal Range. Given the projected expansion of wildfire prone areas, larger areas of crop and rangeland may be within fire hazard severity zones in the future due to climate change. Wildfires can destroy crops and disrupt rangeland operations while wildfire smoke may stress the health of crops and livestock.
- **Air Quality.** The direct impacts of air quality on agriculture within Fresno County is a of primary concern to crop yield and livestock health. Both are negatively impacted by worsening air quality as they are dependent on clean air for overall health.
- **Tule Fog.** Fog plays a critical role to achieve the necessary dormancy that some fruit and nut trees require to improve their quality and total crop yield. Tule fog frequency is decreasing due to climate change which may impact the profitability of orchards in Fresno. Tule Fog can also have impacts on moisture presence of the air affecting air quality.

Natural Resources

- **Extreme Heat.** Wildlife under these conditions face impacts of heat stress and heat related illness as well as disrupted reproductive cycles, and compounding risks associated with early and extended seasonal temperature increases. Because it is seasonally warmer earlier in the year species can emerge early with no food source and potentially face a delayed cold front which increases mortality rates. Timing of seasonal warmth may not overlap with food sources and extreme heat may stress dependent vegetation communities and wildlife. Plants are more likely to experience heat stress and drying, species' habitat ranges may shift. Some pests can proliferate more easily with warmer temperatures, and some plants and animals ill-suited to the new warmer conditions



FRESNO COUNTY GENERAL PLAN

may suffer increased mortality rates. Natural resources are highly exposed to extreme heat and warm nights.

- **Drought.** Impacts from drought involve risks associated with water scarcity and availability for reliant natural resources. Drought will disrupt habitats and wildlife abilities to survive from dehydration and reliable food sources. Extended or variable drought conditions effect the amount and duration water is available in ephemeral and permanent waters sources, impacting plants and wildlife dependent on those aquatic resources. Fresno County includes several State and federally listed threatened or endangered species dependent on aquatic resources (rivers, streams, lakes, wetlands) for survival. These species have already been identified as vulnerable to extinction due to habitat loss or other disrupters which will be further compounded by drought. There is a risk of generally stressed natural resources and unsupportable conditions for consistent stream flow.
- **Wildfire.** The largest direct impacts to natural resources are caused by wildfires. There is direct mortality and loss of resources and wildlife from wildfire as well as indirect mortality due to uninhabitable areas, loss of available food sources and seed bank. The severity and frequency of wildfires can exacerbate these impacts further through habitat conversions resulting in vegetation communities that no longer supports the species using that habitat. Projected annual burned acreage are expected to increase to 400 percent of historical levels by the end of the century. Eastern Fresno County is within a wildfire zone which also contains the majority of natural resources. Several state and federally listed threatened or endangered species are dependent on habitats within high wildfire risk areas. These species have already been identified as vulnerable to extinction due to habitat loss or other disrupters which will be further compounded by increased frequency and severity of wildfires.
- **Landslides.** Landslide susceptibility directly overlaps with most natural resource areas across the County. The likelihood of landslides occurring is determined by precipitation and wildfire occurring sequentially. In the event of a landslide there is potential for loss of lands, habitat, and disruption of waterbodies in areas of debris flow. The susceptibility of natural resource lands in Fresno County to landslides is less than other hazards such as wildfire but the risks around loss of topsoil and habitat conversions create a high scope of impact. Wildlife and plants face a compounding risk when presented with landslide events. Landslide susceptibility is highest within the Sierra Nevada in the eastern portion of the county.
- **Riverine and Stormwater Flooding.** Riverine and stormwater flooding will mostly affect sensitive species of plants and wildlife that are not upland based. Other impacts include damage from inundation within storm flooded areas such as habitats and lands around streams and waterbodies in the County.
- **Air Quality.** Risk relates to plant and wildlife health as increased air pollutants causes stress and mortality. Impacts from air quality can further impact natural resources since air quality declines correspond with other hazards, compounding risks.

Buildings and Facilities

- **Extreme Heat.** Extreme heat could impact occupants of buildings and facilities that are not adequately weatherized for increased temperatures.
- **Wildfire.** The structures and buildings that occupy wildfire hazard zones in Fresno County are at risk of structural damage from wildfires. Wildfire hazard zones may expand by end of century which

- could lead to more facilities at risk of structural damage. There are many critical facilities, including fire stations, police stations, schools, and a prison (the Miramonte Corrections Department), in the County's wildfire hazard zones.
- **Riverine and Stormwater Flooding.** Several schools and fire stations are located within the FEMA 100-year and 500-year floodplains, demonstrating a risk of impact from flooding.

Infrastructure and Critical Facilities

- **Extreme Heat.** As temperatures increase, roadways, active transportation routes, and railroads are vulnerable to damages through sustained heat such as buckled railroad ties and cracked surfaces. Cascading impacts include service line disruption through power outages and/or strained emergency services.
- **Drought.** Drought can impact water reliability and water infrastructure. All emergency services depend on water, particularly firefighters who require adequate water supply for fire suppression. Water providers within the county will encounter increased difficulty as drought impacts general service reliability. Regionally it has been found that drought and subsequent overuse of groundwater has exacerbated unsafe drinking water in rural areas. Fresno County shifted to surface water from groundwater because of historic drought impacts out of necessity, however, the overall scarcity of water in California, alongside projected changes in snowpack, temperature, and precipitation rates from climate change, will result in water scarcity through the end of the century. Drought impacts can create service strain for emergency and medical services. Cracked pavements from drought compounded with extreme heat affects roadways and transportation routes.
- **Wildfire.** There are many facilities located within a wildfire hazard severity zone in Fresno County. Additionally, electricity distribution lines as well as natural gas and oil lines are interdependent systems for the county that are present in wildfire zones. Utility lines have the potential to be damaged in high-risk locations, resulting in oil and gas leaks and power outages. Utility lines under certain high wind conditions can also trigger wildfires through downed power lines. Additionally, power safety shut offs in response to wildfire risk can affect service reliability of power. Increased frequency of wildfires can place strain on fire and emergency services. Evacuation routes could be disrupted during a wildfire event limiting emergency responders and ability for people to evacuate as well. Post-wildfire there are additional issues of displacement and needs for temporary shelters for uprooted communities.
- **Landslides.** Pipelines for water, electrical distribution lines, and roadways are vulnerable to landslide impacts which could occur in sloped areas that extend into wildfire zones. With high landslide susceptibility along roadways in the Sierra Nevada as well as several fire stations there is a risk of emergency service disruption and impacts to evacuation.
- **Air Quality.** Higher incidence of unsafe air quality generated by increased ozone, dust and wildfire smoke can create general strain on existing infrastructure and critical services through increased rates of hospitalization and emergency and medical services.

KEY FINDINGS

The Climate Change Vulnerability Assessment identifies the community members, natural resources, agriculture, critical facilities, buildings, services, and infrastructure most vulnerable to climate change hazards in unincorporated Fresno County. Although the County has policies and programs in place to



FRESNO COUNTY GENERAL PLAN

prepare for climate related hazards, gaps remain as summarized in the Climate Change Vulnerability Assessment. This assessment is a starting point for establishing an adaptation framework that can increase resilience in unincorporated Fresno County, including policies and programs in the Fresno County Safety Element.

INTRODUCTION

BACKGROUND ON CLIMATE CHANGE

This report evaluates how climate change may impact vulnerable community members, natural resources, agriculture, critical facilities, building, services, and infrastructure in unincorporated Fresno County. Government Code §65302, as amended by Senate Bill (SB) 379, requires cities, counties, and unincorporated areas across California to prepare a Climate Change Vulnerability Assessment to inform updates to the Safety Element of the General Plan. Understanding Fresno County's vulnerabilities to climate change provides a foundation to develop required climate adaptation goals, policies, and implementation programs for the Safety Element.

Causes of Climate Change

Climate change is caused by the addition of excess greenhouse gases (GHGs) to the atmosphere, which traps heat near the earth's surface raising global average temperatures in what is referred to as the greenhouse effect. This increase in average temperatures across the globe affects sea level rise, precipitation patterns, the severity of wildfires, the prevalence of extreme heat events, water supply, and ocean temperatures and chemistry (NASA 2022). According to the Intergovernmental Panel on Climate Change (IPCC), GHGs are now higher than they have been in the past 400,000 years, raising carbon dioxide levels from 280 parts per million to 410 parts per million in the last 150 years (IPCC 2021). The dramatic increase in GHGs is attributed to human activities beginning with the industrial revolution in the 1800s, which represented a shift from an agrarian and handicraft-based economy to one dominated by industry and machine manufacturing (NASA 2022).

FRESNO COUNTY SNAPSHOT

Fresno County is 6,000 square miles and occupies a large portion of the San Joaquin Valley and Sierra Nevada regions (Fresno County, 2018). Elevations across the county range from 100 feet at the San Joaquin Valley floor to 4,000 feet at the Coastal mountains on the western end of the county and 14,000 feet at the Sierra Nevada mountains on the eastern end of the county. The large latitudinal spread of Fresno County is divided geographically into three sub regions: the Coastal Range, Central Valley, and Sierra Nevada, with approximately 45 percent valley and 55 percent mountainous lands (Fresno County, 2018). The County has two major rivers, the San Joaquin, and Kings Rivers, which are fed by Sierra Nevada snow runoff. Fresno County includes 15 cities, 29 census-designated places, and 10 unincorporated communities (Biola, Caruthers, Del Rey, Easton, Friant, Lanare, Laton, Riverdale, Shaver Lake, and Tranquility). Approximately 1 million people live in Fresno County with around 170,000 people in unincorporated Fresno County. Agriculture is the largest economic driver in the county with an annual production value of 7 billion dollars (Fresno County 2018). Agriculture is the largest source of jobs for the county as well as one of the most significant portions of land use (Fresno County, 2018).

LEXICON

Several words and phrases are used throughout the report to illustrate climate vulnerabilities within Fresno County.

- **Adaptation.** The process of adjustment to actual or expected climate and its effects, either to minimize harm or exploit beneficial opportunities. In natural systems, human intervention may facilitate adjustment to expected climate (IPCC, 2012).
- **Adaptive Capacity.** Fresno County’s ability to cope with and adjust to the impacts of climate change.
- **Asset.** Asset refers to a structure, facility or service that is relied on by a community.
- **Cascading Impact.** Climate hazard caused impacts that compromise infrastructure or disrupt critical services (i.e., power supply or water conveyance) (Collins et al. 2019).
- **Climate Driver.** A change in the climate which acts as the main source of change for subsequent climate hazards. Climate drivers relevant to the county and discussed in this report are temperature and precipitation.
- **Climate Hazard.** A dangerous or potentially dangerous condition created by the effects of the local climate (Cal OES, 2020). Climate hazards of concern for Fresno County are extreme heat, warm nights, chill hours, drought, wildfire, landslides, tule fog, riverine and stormwater flooding, and air quality.
- **Compounding Risk.** When two or more extreme events or average events occur simultaneously and increase the scope of impact or severity of the event (Seneviratne et al. 2012).
- **Impact.** Effects on natural and human systems including effects on lives, livelihoods, health, ecosystems, economies, societies, cultures, services, and infrastructure due to the interaction of climate hazards and the vulnerabilities of the system or asset effected (IPCC 2012).
- **Mitigation.** An act or sustained actions to reduce, eliminate, or avoid negative impacts or effects (Cal OES 2020).
- **Resilience.** The capacity of an entity (an individual a community, an organization, or a natural system) to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience (Cal OES 2020)
- **Sensitivities.** The degree to which a species, natural system, community, asset, or other associated system would be affected by changing climate conditions (Cal OES 2020).
- **Vulnerable Populations.** Vulnerable populations experience heightened risk and increase sensitivity to climate change and have less capacity and fewer resources to cope with, adapt to, or recover from climate impacts (Cal OES 2020).
- **Vulnerability.** The propensity or predisposition to be adversely affected (IPCC 2012).

VULNERABILITY ASSESSMENT METHODOLOGY

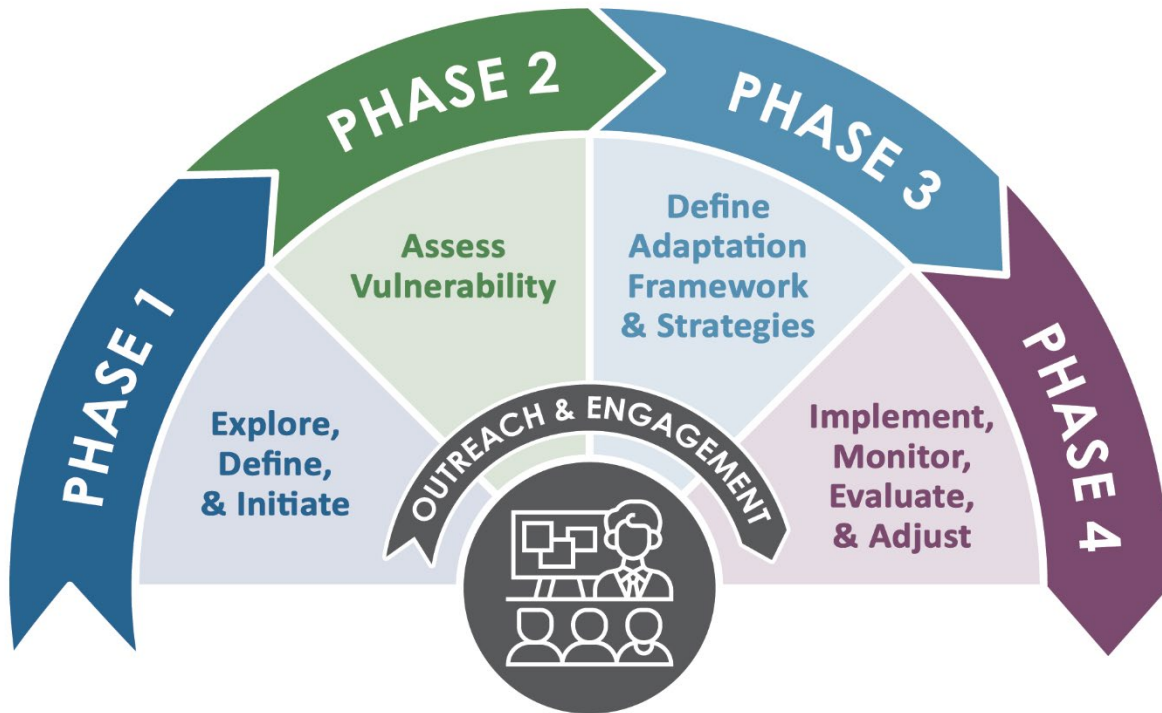
California Adaptation Planning Guide Phases

The Fresno County Climate Change Vulnerability Assessment follows the vulnerability assessment process recommended by the California Governor’s Office of Emergency Services, as documented in the 2020 California Adaptation Planning Guide (Cal APG). The adaptation planning process outlined by the



FRESNO COUNTY GENERAL PLAN

Cal APG consists of four phases, illustrated in the graphic below, with Phase 2 detailing the vulnerability assessment process (Cal OES 2020).



Graphic: 2020 California Adaptation Planning Guide

The Fresno County Climate Change Vulnerability Assessment is prepared consistent with Phase 2 of the Cal APG, and is composed of the following six parts:

1. **Section 1 Introduction** describes the methodology and key data sources used to prepare the Climate Change Vulnerability Assessment
2. **Section 2 Climate Hazards** outlines climate drivers, relevant climate hazards, historical hazards events, how hazards are expected to change, and includes figures mapping climate hazards spatially across Fresno County.
3. **Section 3 Community Assets and Services at Risk** identifies populations and assets most at risk to climate change.
4. **Section 4 Vulnerability Analysis** describes potential impacts to distinct aspects of the community, and summarizes plans, policies, and programs in place to minimize such impacts. The chapter includes scores of low, medium, or high for each population group and asset.
5. **Section 5 Conclusion** presents the key findings of this report.
6. **Appendix A Adaptive Capacity** summarizes plans, policies, and programs that help Fresno County cope with climate hazard events.
7. **Appendix B Asset Manager Interview** summarizes the results of a survey conducted among asset managers to solicit input that informed this report.

Key Data Sources

The following data sources and tools, many of which are recommended within the Cal APG, were used in preparation of this report.

- **Cal-Adapt 2.0** is an online tool that presents historic and modeled projections based on 10 different global climate models. tool was developed and is maintained by the University of California, Berkeley Geospatial Innovation Facility with funding and oversight by the California Energy Commission (CEC). This tool was used to present projection data related to minimum and maximum temperature, precipitation, extreme heat, warm nights, drought, and wildfire (CEC 2021).
- **California’s Fourth Climate Change Assessment** was developed by the CEC and other State of California coordinating agencies to present up-to-date climate science, projections and potential impacts associated with climate change. The CEC and coordinating agencies developed nine regional reports to provide regional-scale climate information to support local planning and action. The San Joaquin Valley Region Summary Report (2022) presents an overview of climate science, regional projections, specific strategies to adapt to climate impacts, and key research gaps needed to spur additional progress on safeguarding the San Joaquin Valley Region from climate change. The San Joaquin Valley Region Summary Report was used to understand regional changes that may affect the county both directly and indirectly (Angel et al. 2021).
- **Fresno County Hazard Mitigation Plan** presents information on existing processes and plans in place that address the County’s ability to prepare for climate change impacts and informed the adaptive capacity discussion of this report. The Fresno County Hazard Mitigation Plan (2018) was also used to identify recent historical events (Fresno County 2018).
- **The California Healthy Places Index 2.0 (HPI)** is an online mapping tool that reports on community conditions that are known to predict health outcomes and life expectancy. The tool was prepared by the Public Health Alliance of Southern California, a collaborative of local health departments in Southern California. HPI displays 25 community characteristics at various legislative boundaries, including census tracts and city and county boundaries. The community characteristics relate to the following identified Policy Action Areas: economic, education, housing, health care access, neighborhood, clean environment, transportation, and social factors. HPI applies a relative percentile score across all census tracts in California using statistical modeling techniques based on the relationship of the Policy Action Areas to life expectancy at birth. Low percentile scores reflect unhealthy conditions. HPI was used to prepare the social sensitivity index score as described in more detail below. HPI is a useful in providing both big picture and localized insights into community health. The limitation of this tool is the data behind the measurements and percentile scores is based on US Census information from 2014. Though much of the community health indicators have remained constant the tool was supplemented with additional information from **CalEnviroScreen** to ensure that the best available data is used in this report (PHASoCal 2022).

Repeatedly Damaged Sites in Fresno County

Government Code 65302 (g) (4) (A) (V) requires that the Climate Change Vulnerability Assessment acknowledge sites in Fresno County that have been repeatedly damaged by climate hazards. The Fresno County Hazard Mitigation Plan (2018) describes past hazard events and associated damages in certain areas of the county on pages 12-15, 29-30, 74-76, 87-88, 116-117, 121, and 148-152.



FRESNO COUNTY GENERAL PLAN

- **U.S. Census, 2015-2019 American Community Survey (ACS)** presents demographic data by census tract and was used to supplement the HPI percentile score. U.S. Census data was used to identify the percentage of the Fresno County population that corresponds to each vulnerable group (US Census 2020).
- **CalEnviroScreen4.0** uses a variety of statewide indicators to characterize pollution burden (the average of exposures and environmental effects) and population characteristics (the average of sensitive populations and socioeconomic factors). The model scores each of the indicators using percentiles and combines the scores to determine a CalEnviroScreen score for a given census tract relative to others in the state. Designated disadvantaged communities are those communities that scored within the highest 25 percent of census tracts across California (CalEnviroScreen percentile scores of 75 or higher), in addition to other parameters relating to income status (OEHHA 2021).

Social Sensitivity Index Methodology

The presence and overall distribution of vulnerable populations in unincorporated Fresno County were identified based on HPI, CalEnviroScreen, and ACS data. This report follows Cal APG's methodology for identifying, grouping, and analyzing vulnerable populations.

The Cal APG consider the most vulnerable populations in a community to include:

- Low income
- Homeless
- Incarcerated
- The unemployed or underemployed
- Seniors and young children
- Military veterans
- Non-white communities
- Renters
- Students
- Visitors and seasonal residents
- Outdoor workers
- Single female heads of households
- Undocumented immigrants
- Non-English speakers
- Tribal and indigenous communities
- Individuals with impaired health/disabilities
- Isolated individuals (e.g., no car or transit access)
- Individuals with educational attainment less than 4 years of college
- Individuals who live in areas of high violent crime

Vulnerable populations were identified in unincorporated Fresno County through several state recommended data sources. For populations analyzed using U.S. Census data, the report identified vulnerable populations for unincorporated areas when Fresno County had a higher vulnerability than the statewide average. Census tracts that received a percentile score of 75 or higher in CalEnviroScreen were included as vulnerable areas. For populations analyzed using HPI, this report used a percentile score of 25 or lower to designate vulnerable populations. Fresno County's sensitive populations are described in the Community Assets and Services at Risk section later in this report.

Vulnerability Scoring Methodology

Vulnerability scoring is a valuable step in the climate vulnerability assessment process because it identifies which assets and populations face the highest threat to climate hazards. This can aid in the prioritization of adaptation actions. The impact and adaptive capacity scores utilized in this report were

developed using a qualitative methodology outlined in the Cal APG, as presented in Table 1. Impact and adaptive capacity scores were identified for each asset and population and each climate hazard (see Chapter 4).

Table 1 Impact and Adaptive Capacity Scoring Rubric

Score	Impact	Adaptive Capacity
Low	Impact is unlikely based on projected exposure; would result in minor consequences to public health, safety, and/or other metrics of concern.	The population or asset lacks capacity to manage changes; major changes would be required.
Medium	Impact is somewhat likely based on projected exposure; would result in some consequences to public health, safety, and/or other metrics of concern.	The population or asset has some capacity to manage climate impact; some changes would be required.
High	Impact is highly likely based on projected exposure; consequences to public health, safety, and/or other metrics of concern.	The population or asset has high capacity to manage climate impact; minimal to no changes are required.

Source: Cal OES 2020

The impact and adaptive capacity scores are combined to form the vulnerability score based on the approach presented in **Error! Not a valid bookmark self-reference.**, which is also consistent with methodology from Cal APG.

Table 2 Vulnerability Score Matrix

Potential Impacts	High	Medium	High	High
	Medium	Medium	Medium	High
	Low	Low	Medium	Medium
		High	Medium	Low
Adaptive Capacity				

Source: Cal OES 2020

Data Limitations

The limitations of this report and analysis stem from gaps in data availability and completeness of data methods. Census data can miss portions of the population (e.g., homeless populations) and general demographic information may not fully identify the full extent of populations vulnerable to climate change (Cantwell, 2021). Federal Emergency Management Agency (FEMA) 100-year and 500-year flood plains do not account for climate change projections, zones are instead based on historical information. The California Department of Forestry and Fire Protection (CalFire) very high fire hazard severity zones are based on vegetation, fire history, and terrain but also has similar limitations in not projecting fire zones into the future (OSFM 2022). Extrapolating landslides and air quality hazard exposure data in the context of climate change is difficult and the estimates of exposure to these hazards are likely to be underestimated (Angel et al. 2018).

The data presented in **Cal-Adapt** tools are projections, or estimates, of future climate. The limitation in these projections is that the long-term behavior of the atmosphere is expressed in averages – for example, average annual temperature, average monthly rainfall, or average water equivalent of



FRESNO COUNTY GENERAL PLAN

mountain snowpack at a given time of year. The averages discussed often downplay the extremes by which daily weather events occur and when presented as an average, only show moderate changes within the climate. What is often lost in averages is that the frequency of extremes, like atmospheric rivers, may increase while low-moderate intensity weather events decrease through the end of the century. In instances of modeled precipitation projections, it maintains an average similar to historic levels which does not account for anticipated fluctuations in extremes (CEC, 2021).

STAKEHOLDER ENGAGEMENT

Asset Manager Interviews

To support the development of the Climate Change Vulnerability Assessment, various asset managers and stakeholders in Fresno County were asked a series of questions to determine how climate change has impacted assets, facilities, and people, and to identify existing policies and programs that help minimize impacts. Stakeholders were also asked to identify obstacles experienced when trying to reduce impacts of climate hazards. Questions were generated based on guidance provided in Cal APG for Phase 2 Assess Vulnerability.

Questions were organized by the following climate change hazards:

- Wildfires
- Poor air quality
- Extreme heat events
- Drought
- Landslides
- Flooding
- Power outages due to wildfire or extreme heat events
- Chill hours

Survey questions were distributed to 40 different asset managers, including:

- **Transportation and Critical Infrastructure Managers**
 - Agricultural Commissioner - Fresno County
 - CalFire
 - CalTrans
 - County of Fresno Librarian
 - Fresno County Department of Public Health
 - Fresno County Public Works and Planning – Roads Maintenance and Operations Division
 - Fresno County Rural Transit Agency (FCRTA)
 - Fresno Economic Opportunities Commission
 - Fresno County Public Works and Planning – Community Development Division
 - Fresno County Public Works and Planning – Resources and Parks Division
 - Fresno County Public Works and Planning – Special Districts Division

- Fresno County Public Works and Planning – Landfill Division
- Fresno County Public Works and Planning – Construction Division
- Fresno County Public Works and Planning – Design Division
- Fresno County Public Works and Planning – RMO Division
- Fresno County Rural Transit Agency
- Fresno County Superintendent of Schools
- The Fresno Metropolitan Flood Control District
- Fresno Irrigation District
- Utilities – Pacific Gas and Electric, Southern California Edison
- Westlands Water District
- Malaga Water District
- Pinedale Water District
- State Center Community College District
- Fresno County Water Works
- Consolidated Irrigation District
- Firebaugh Canal Water District
- Kings River Conservation District
- **Emergency Services and Response Managers**
 - Coalinga – Huron Mosquito Abatement District
 - Fresno County Office of Emergency Services
 - Medical Communication Center
 - Fresno County Sherriff’s Office
 - Fresno County Fire Protection District
 - Fresno Westside Mosquito Abatement District
 - Consolidated Mosquito Abatement District
 - Fresno Mosquito & Vector Control District
- **Agriculture and Open Space Managers**
 - Fresno County Department of Agriculture/Agricultural Commissioner
 - Agricultural Operations Managers
 - Sierra Resource Conservation District
 - Westside Resource Conservation District

Twelve individuals representing the following 10 entities provided responses to the survey:

- Auberry Volunteer Fire Department
- Fresno County Department of Public Health
- Fresno County Fire Protection District



FRESNO COUNTY GENERAL PLAN

- Fresno County Public Works and Planning – Roads Maintenance and Operations Division
- Fresno County Public Works and Planning – Community Development Division
- Fresno County Public Works and Planning – Resources and Parks Division
- James Irrigation District
- McMullin Area Groundwater Sustainability Agency
- State Center Community College District
- Westlands Water District

With the exception of landslide events, approximately half of the asset managers described experiencing impacts from recent climate events to facilities and assets they manage. Often, workers were also reported as impacted. Asset managers cited the most common existing policies and programs in place to help minimize the negative impacts of climate change were outreach, education, and hazard notification programs (see Figure 1). Barriers to adequate response and preparation for climate change were often attributed to attitudes and motivations, lack of funding and resources, and staffing (see Figure 2). Figure 1 and Figure 2 reflect responses totaled across all hazard themed questions. The survey questionnaire also solicited detailed information on the types of impacts experienced in the recent past which has been included in the Climate Hazards and Vulnerability Analysis sections of this report. The survey results also identified policies and programs which informed the adaptive capacity section of this report (see Vulnerability Analysis and Appendix A).

Figure 1 Existing Programs or Policy Opportunities to Minimize Hazard Impacts

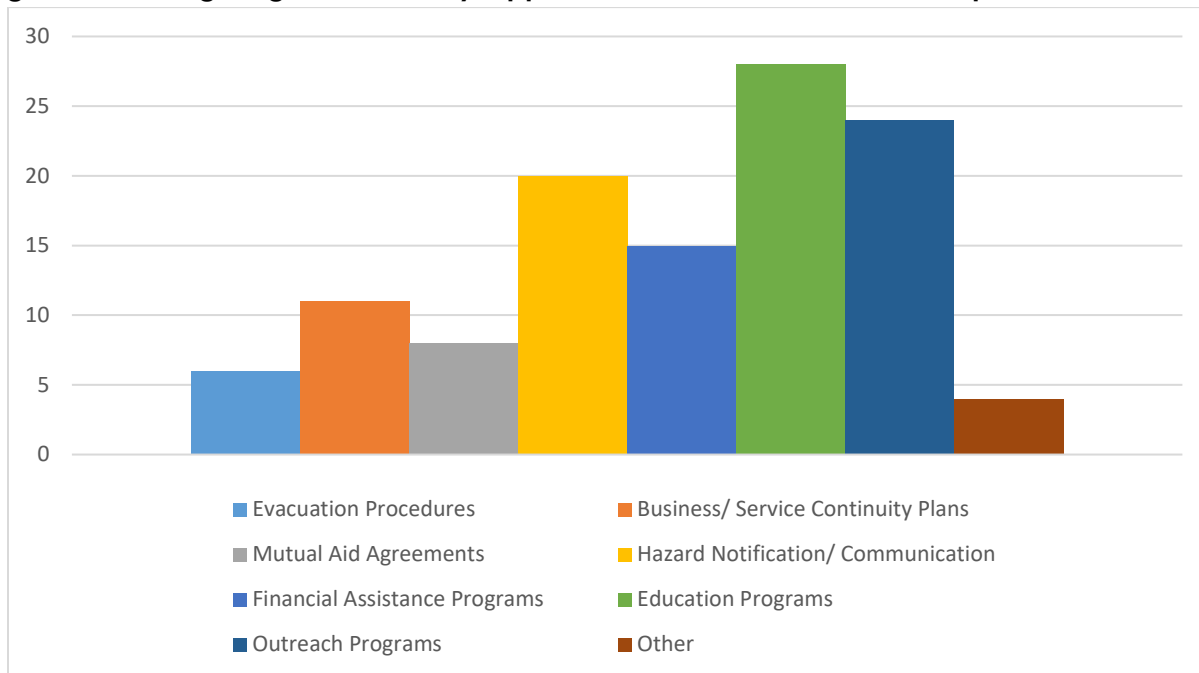
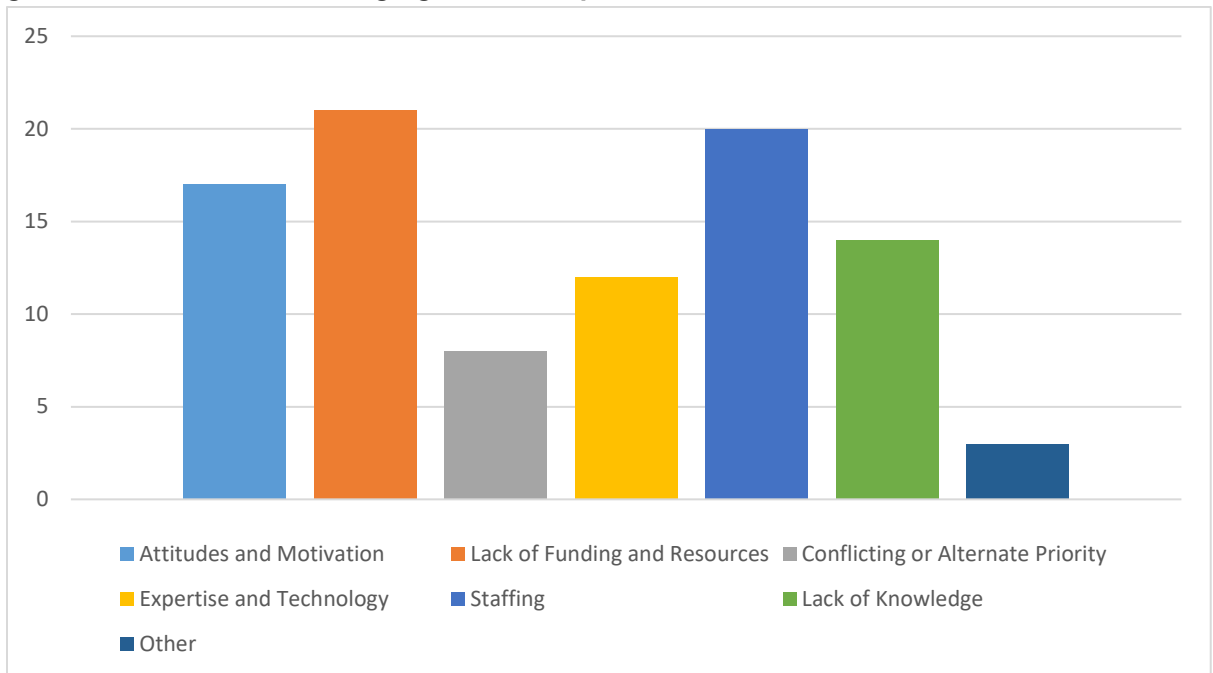


Figure 2 Obstacles to Managing Hazard Impacts

CLIMATE HAZARDS

Climate change is a global phenomenon that can impact local health, natural resources, infrastructure, emergency response, and many other aspects of society through changes in climate hazards. Projected changes to the climate are dependent on location. The Cal-Adapt tool provides climate data from global scale models that have been localized (downscaled) to 3.7-mile by 3.7-mile grids (CEC, 2021). The data in Cal-Adapt is presented in this section to model county-level hazard projections. The California Fourth Climate Change Assessment San Joaquin Valley Regional Report provides regional trend information regarding climate. Both sources are used to describe existing and projected hazards within Fresno County through the end of the century.

Consistent with guidance on climate change from the IPCC and Cal APG, two scenarios are used within this assessment to compare future GHG emissions projections.

- The Representative Concentration Pathway (RCP) 4.5 represents a “medium emissions” scenario in which emissions peak around 2040 and then decline at the end of the century. This scenario assumes global agreement and implementation of GHG reduction strategies.
- The RCP 8.5 represents a “high emissions” scenario in which emissions continue to rise throughout the 21st century (Intergovernmental Panel on Climate Change [IPCC] 2021).

This assessment relies on Cal-Adapt, an interactive online tool that is aligned with the IPCCs emissions scenarios, to present localized climate change projections and impacts. Additionally, projections are forecasted to mid-century (2035-2064) and end-century (2070-2099) 30-year averages to be compared to a modeled historical baseline (1961-1990) (CEC, 2021). Per the Cal APG it is recommended that RCP 8.5 be used through 2050, and for more conservative planning to use RCP 8.5 for end-of-century



FRESNO COUNTY GENERAL PLAN

projections (Cal OES, 2018). Both RCP 4.5 and 8.5 were utilized in this report to present a full range of possible scenarios.

Across all Cal-Adapt figures presented in this section, the purple line shows high emissions scenario (RCP 8.5), the blue line shows the medium emissions scenario (RCP 4.5), the grey lines show the current trend (observed). The shaded areas indicate the range for the emissions scenario to account for uncertainty in future projections and variability between climate models. For example, the blue shaded areas represent the range of data for the medium emissions scenario (RCP 4.5).

The Climate Drivers section describes projected trends in average conditions over time for temperature and precipitation. The Hazards section provides information on projected changes to relevant natural hazards of extreme heat, drought, wildfire, landslides, and riverine and stormwater flooding resulting from changes to climate drivers.

CLIMATE DRIVERS

In Fresno County, the climate drivers of concern include temperature and precipitation. The following section summarizes projected changes to the identified climate drivers. Projections are pulled from the Cal-Adapt Local Climate Change Snapshot tool consistent with the California Fourth Climate Change Assessment San Joaquin Valley Regional Report (Angel et al. 2021, CEC, 2021).

Temperature

Fresno County has an average maximum temperature of 67.3°F. Average maximum temperatures are expected to increase throughout the San Joaquin Valley region. There has been an already observed increase of 1°F compared to a historical 30-year average between 1961 to 1990 (Angel et al. 2021). Fresno County is projected to experience an increase in temperatures through both mid-century and end-century projections in both emissions scenarios (CEC, 2021). Figure 3 and Figure 4 show the increase in average maximum temperature for the County in graphical and table form.

- By 2050, Fresno County may experience an increase in average maximum temperature of 4.1°F (RCP 4.5) and 5.1°F (RCP 8.5). The average maximum temperature is expected to be 71.4°F to 72.4°F.
- By 2100, Fresno County may experience an average maximum temperature increase between a 5.3°F (RCP 4.5) and an 8.7°F (RCP 8.5). The average maximum temperature is expected to be 72.6°F to 76.0°F.

Historical, mid-century, and end-century maximum temperature shifts shown in Figure 5, Figure 6, and Figure 7 display county-wide increases spanning the entirety of the Coastal Range, Central Valley, and Sierra Nevada. While each region of Fresno County experiences large temperature shifts the biggest change occurs in the Sierra Nevada. The average historical maximum temperature for the Sierra Nevada is a range between 41°F and 50°F while projected end-century maximum temperature ranges between 55°F and 68°F.

Figure 3 Historical and Projected Average Maximum Temperature in Fresno County (Graph) (CEC 2021)

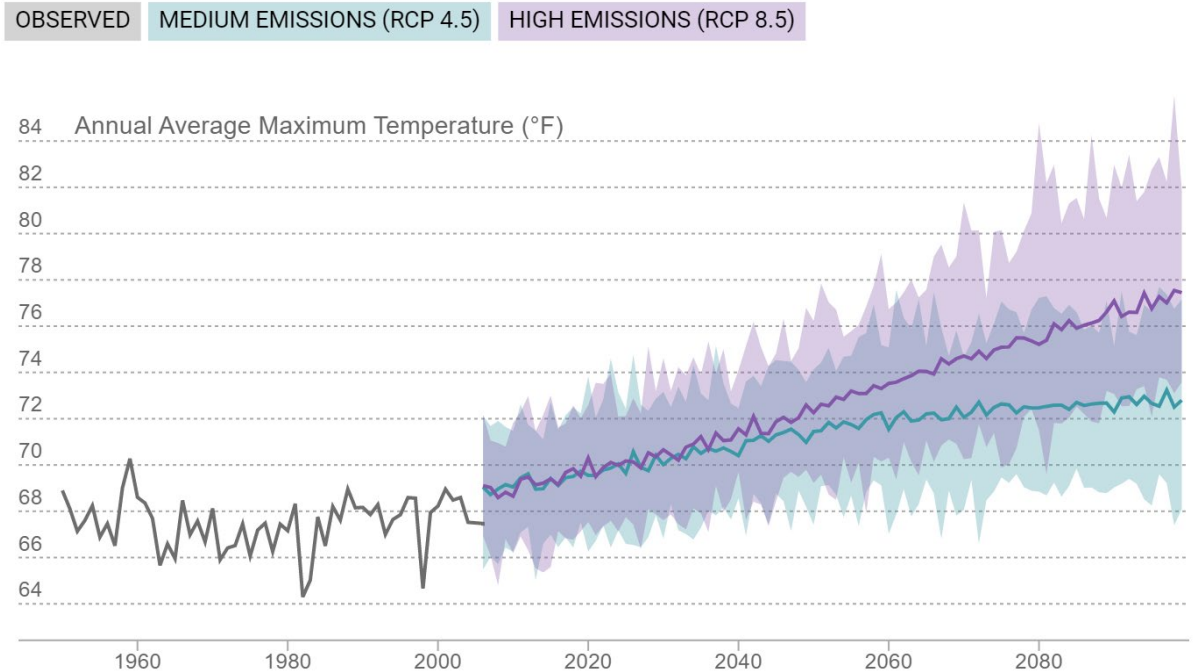


Figure 4 Historical and Projected Average Maximum Temperature in Fresno County (Table) (CEC 2021)

Observed (1961-1990) 30yr Average: 67.1 °F

		30yr Average	30yr Range
Baseline (1961-1990)			
MODELED HISTORICAL	-	67.3 °F	67.0 - 67.6 °F
Mid-Century (2035-2064)			
MEDIUM EMISSIONS (RCP 4.5)	+4.1 °F	71.4 °F	69.4 - 73.2 °F
HIGH EMISSIONS (RCP 8.5)	+5.1 °F	72.4 °F	70.2 - 75.5 °F
End-Century (2070-2099)			
MEDIUM EMISSIONS (RCP 4.5)	+5.3 °F	72.6 °F	70.3 - 75.5 °F
HIGH EMISSIONS (RCP 8.5)	+8.7 °F	76.0 °F	72.8 - 80.8 °F



FRESNO COUNTY GENERAL PLAN

Figure 5 Historical Average Maximum Temperature Across Fresno County

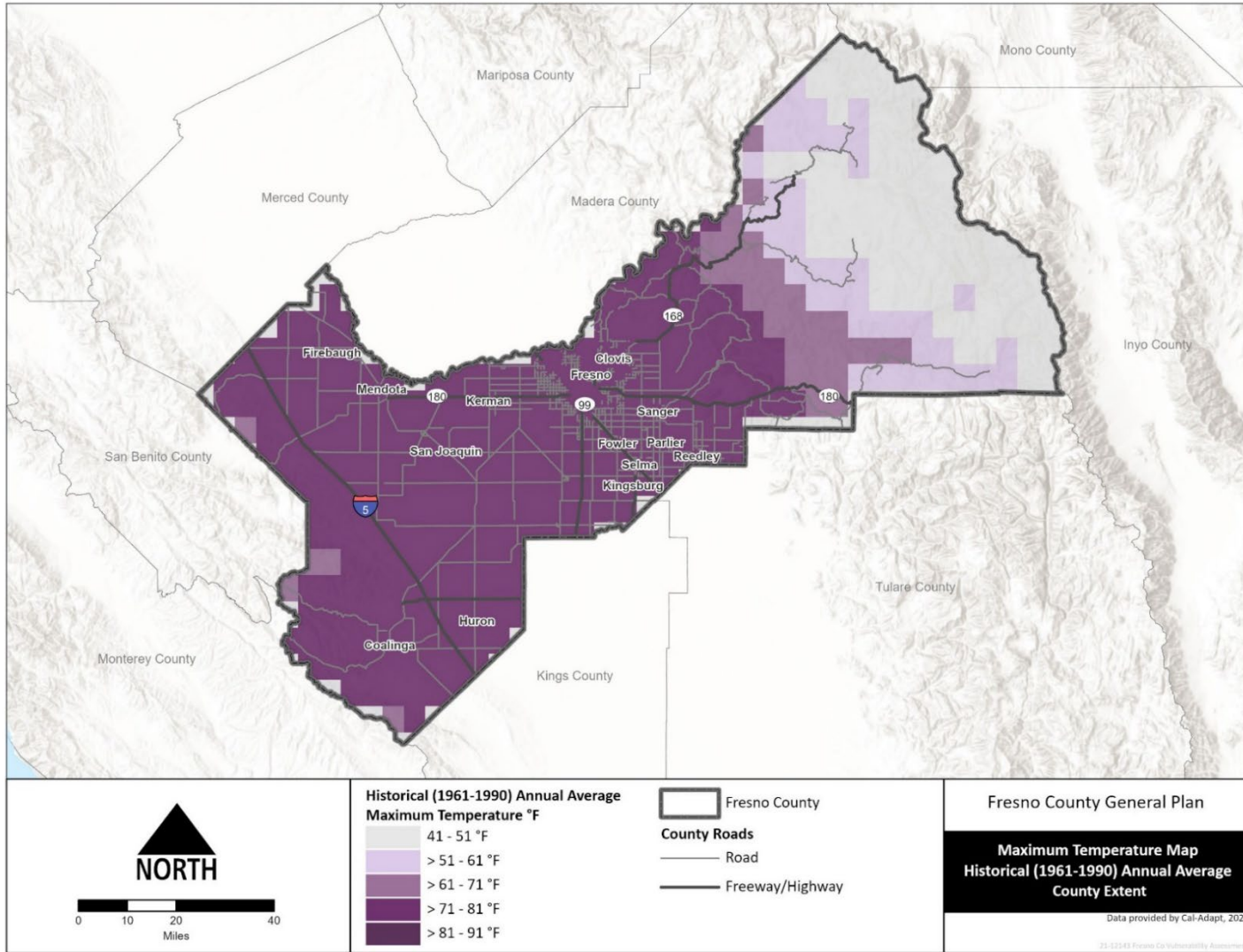
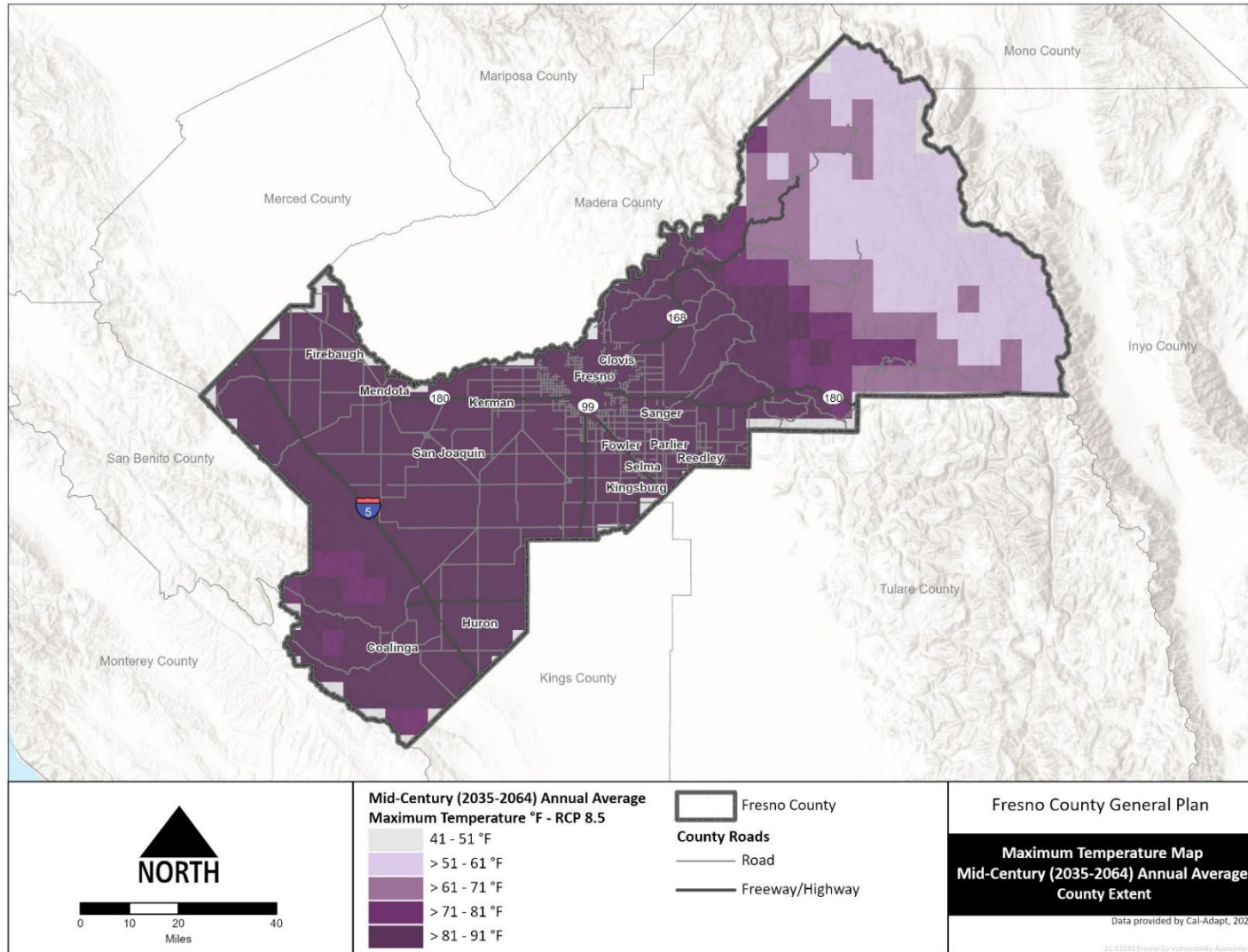


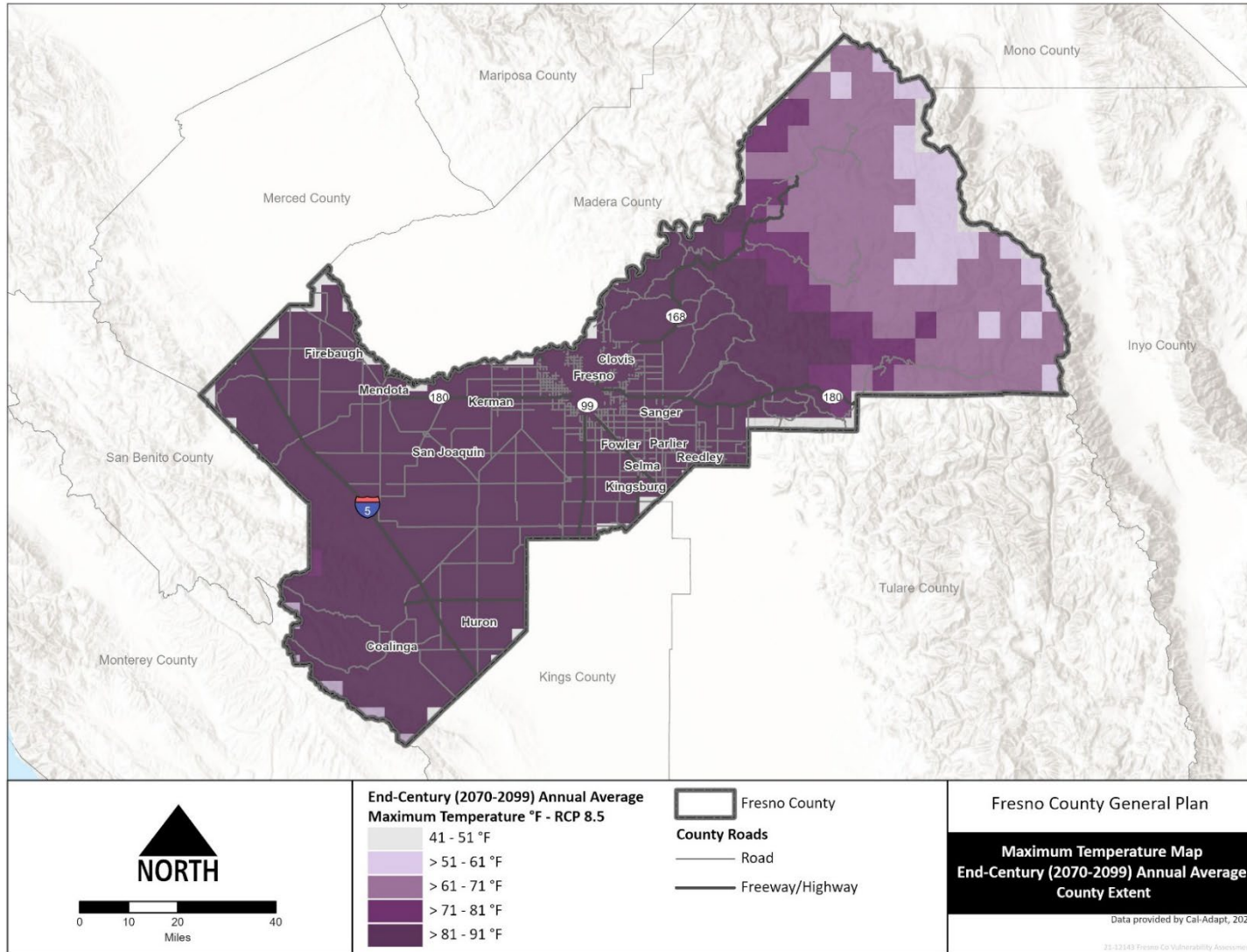
Figure 6 Mid-Century Average Maximum Temperature Across Fresno County





FRESNO COUNTY GENERAL PLAN

Figure 7 End-Century Average Maximum Temperature Across Fresno County



This page left blank intentionally.



FRESNO COUNTY GENERAL PLAN

Precipitation

Increased intensity of precipitation events is expected for the greater San Joaquin Valley and Fresno County through the end of the century. It is projected that 13% more precipitation will come in extreme events with wet extremes occurring three times more often (Angel et al. 2021). The projections show that there will be more dry periods punctuated by increased precipitation intensities of the largest storms or wet periods, producing little net change in precipitation totals but more extreme conditions (Angel et al. 2021). Figure 8 shows the projected changes in annual precipitation totals and Figure 9 show the changes in maximum 1-day precipitation for Fresno County.

While simulations show that the San Joaquin Valley will likely experience a modest (5%) increase in 100-year storm precipitation depth (Scripps Institute of Oceanography), that precipitation will occur in fewer events (Angel et al. 2021). Precipitation will likely be more intense, increasing the fraction of precipitation falling from November to March from 75% (current conditions) to 80% (by the end of the century). This translates into longer dry seasons with 20% less precipitation in average that may lead to increased groundwater pumping to compensate the diminished surface water supplies

Figure 8 Historical and Projected Average Annual Precipitation in Fresno County (CEC 2021)

Observed (1961-1990) 30yr Average: 20.9 inches

		30yr Average	30yr Range
Baseline (1961-1990)			
MODELED HISTORICAL	-	21.9 inches	20.2 - 23.7 inches
Mid-Century (2035-2064)			
MEDIUM EMISSIONS (RCP 4.5)	-0.6 inches	21.3 inches	18.0 - 28.8 inches
HIGH EMISSIONS (RCP 8.5)	0.0 inches	21.9 inches	17.4 - 27.7 inches
End-Century (2070-2099)			
MEDIUM EMISSIONS (RCP 4.5)	-0.2 inches	21.7 inches	18.1 - 26.4 inches
HIGH EMISSIONS (RCP 8.5)	0.0 inches	21.9 inches	16.1 - 31.3 inches

Figure 9 Historical and Projected Average Maximum 1-Day Precipitation in Fresno County (CEC 2021)

Observed (1961-1990) 30yr Average: 1.750 inches

		30yr Average	30yr Range
Baseline (1961-1990)			
MODELED HISTORICAL	-	1.810 inches	1.581 - 2.063 inches
Mid-Century (2035-2064)			
MEDIUM EMISSIONS (RCP 4.5)	+0.085 inches	1.895 inches	1.578 - 2.312 inches
HIGH EMISSIONS (RCP 8.5)	+0.177 inches	1.987 inches	1.629 - 2.477 inches
End-Century (2070-2099)			
MEDIUM EMISSIONS (RCP 4.5)	+0.160 inches	1.970 inches	1.598 - 2.373 inches
HIGH EMISSIONS (RCP 8.5)	+0.257 inches	2.067 inches	1.675 - 2.615 inches

HAZARDS

Climate drivers (temperature, precipitation) are expected to influence the frequency, duration, and magnitude of the following climate hazards:

- Extreme Heat
- Warm Nights
- Chill Hours
- Wildfire
- Drought
- Landslides
- Riverine and Stormwater Flooding
- Tule Fog
- Air Quality

All projections are pulled from the Cal-Adapt Local Climate Change Snapshot tool (CEC, 2021).



FRESNO COUNTY GENERAL PLAN

Extreme Heat

Extreme heat events are defined as days in which the daily maximum temperature exceeds the 98th percentile value of the historical average (CEC 2021). For Fresno County, extreme heat days occur when the maximum temperature is above 94.3°F (CEC 2021). Figure 10 depicts the projected increase in extreme heat days to be experienced annually within Fresno County.

- The modeled baseline historical average for Fresno County is 4 extreme heat days annually.
- Mid-century projections range between 26 (RCP 4.5) to 34 (RCP 8.5) extreme heat days annually.
- End-century projections range between 35 (RCP 4.5) to 63 (RCP 8.5) extreme heat days annually.

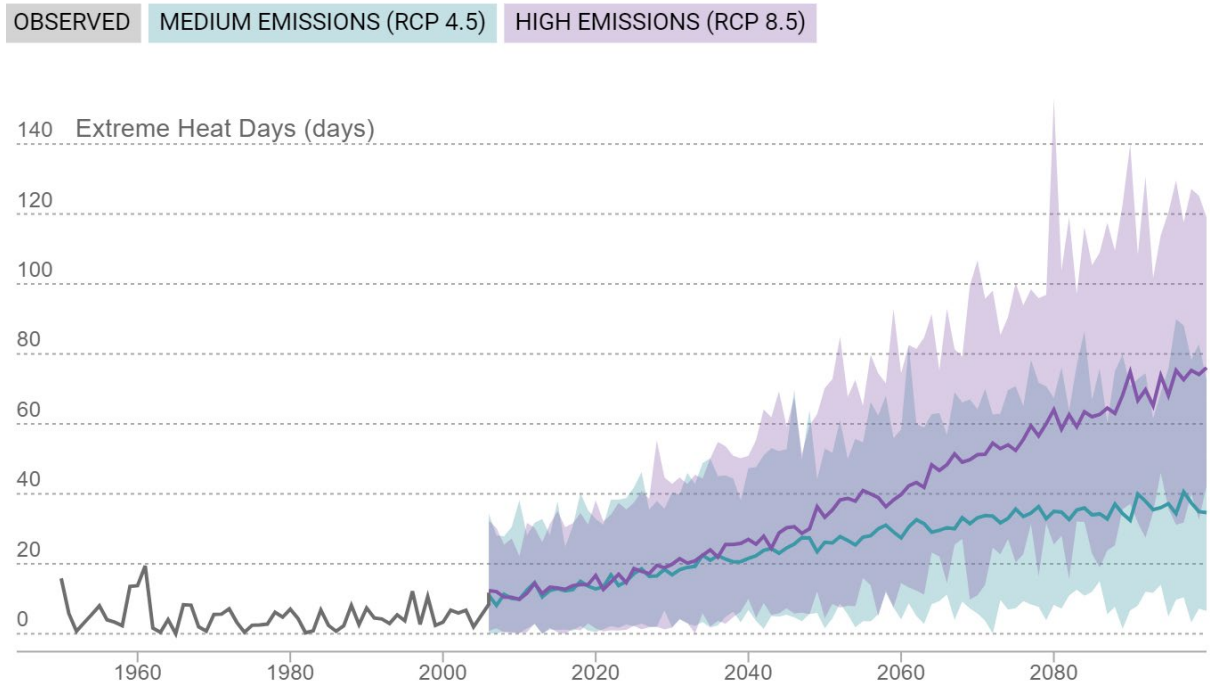
Increased frequency of extreme heat days will result in increased public health risks, particularly to vulnerable populations like older adults, young children, and individuals with underlying chronic diseases, through heat-related illnesses and increased vector-borne illnesses (CDPH 2020, Angel et al. 2021).

Recent Extreme Heat Events

During the summer of 2017 there were three historic level extreme heat events occupying the months of June, August, and September. The summer highs set regional and local records for temperature maximums and duration of events. High pressure systems spanned the entirety of Fresno County impacting the central valley as well as the foothills of the Sierra Nevada (Fresno County 2018).

Based on a survey of Fresno County asset managers, the County Public Health Department observed an increase in heat-related illnesses at local hospital emergency rooms during the summer of 2017 (Prado 2022). The James Irrigation District experienced power outages to their groundwater wells and booster pumps which interrupted the provision of water to agricultural growers (Amorelli 2022). Personnel with County Fire maintained services during extreme heat days which resulted in some personnel experiencing heat-related injuries. In an effort to limit impacts to fire personnel, resources were added to allow workers the flexibility to adjust their work hours to occur during a cooler time of day (Michaels 2022).

Figure 10 Historical and Projected Annual Average of Extreme Heat Days in Fresno County (CEC 2021)



Warm Nights

A higher frequency of warm nights is projected year-to-year with as many as 91 warm nights annually as shown in Figure 11 (CEC, 2021). Warm nights are similarly defined to extreme heat when daily minimum temperature is above a threshold temperature of 62.3 °F (CEC, 2021).

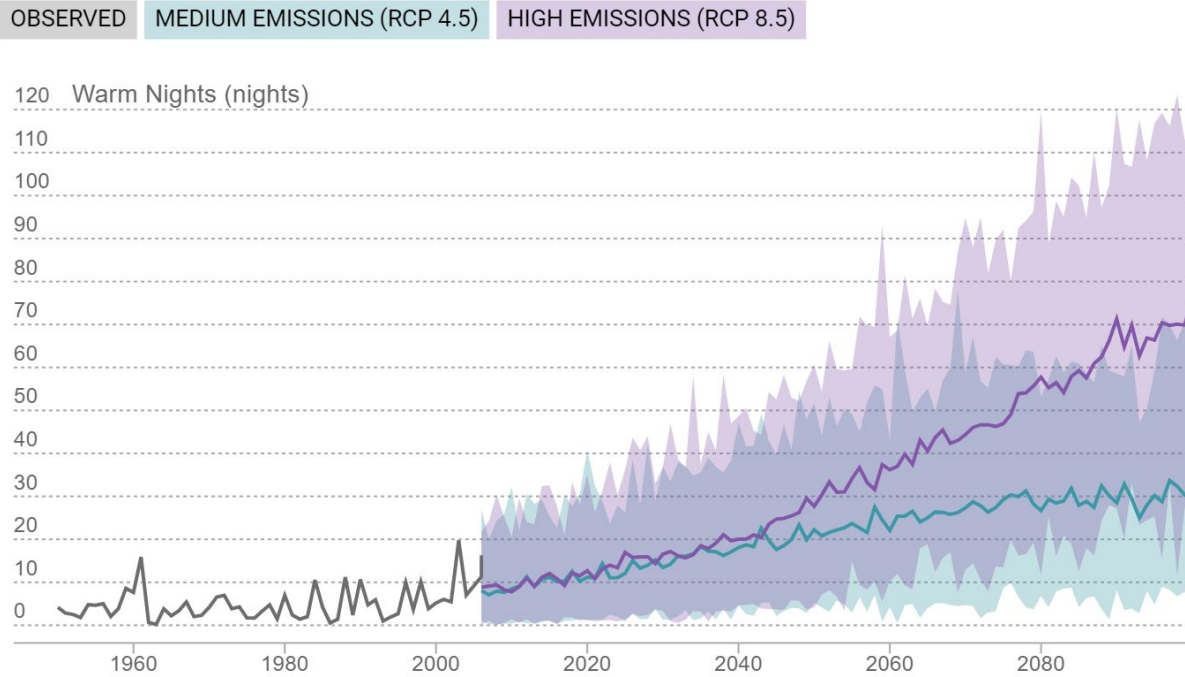
- The baseline historical modeled average of warm nights within Fresno County is 4 nights annually.
- Mid-Century projections range between a 17 night (RCP4.5) and 24 night (RCP 8.5) increase in warm nights annually.
- End-Century projections range between a 25 night (RCP4.5) and 55 night (RCP 8.5) increase in warm nights annually.

Warm nights affect the body’s ability to cool during extreme heat and heightened temperatures exacerbating heat-related problems for vulnerable populations such as heat stress and dehydration.



FRESNO COUNTY GENERAL PLAN

Figure 11 Historical and Projected Annual Average of Warm Nights in Fresno County (CEC 2021)



Chill Hours

Fresno County contains large portions of agricultural land use types making the hazard of chill hours decline of acute concern (Angel et al. 2021). Chill hours are defined as hours below 45°F which help in facilitating synchronized blooming, pollination, and standardized production of quality and quantity of crops within the San Joaquin Valley (Angel et al. 2021). Chill hours are a necessary component of agricultural activity and a proxy measure of minimum temperature shows a steady decrease in time spent below the 45°F threshold (Angel et al. 2021).

Figure 12 and Figure 13 depict the increase in average minimum temperature for Fresno County through the end of the century (CEC, 2021). The projected average minimum temperature shift within Fresno County results in zero Chill Hours by the end of century under both emissions scenarios (CEC, 2021).

- The modeled baseline historical average minimum temperature is 40.7°F.
- Mid-century projections range between a 3.6°F (RCP 4.5) and a 4.5°F (RCP 8.5) increase in average minimum temperature for a range of 44.3°F to 45.2°F.

Recent Chill Hour Hazards

Fresno County has experienced a decline in Chill Hours that has been linked to significant county-wide agricultural damages. In 2014 the USDA declared a Chill Hours disaster which amounted to \$53 million in damages for the county (Fresno County 2018).

Based on a survey of Fresno County asset managers, the McMullin Area Groundwater Sustainability Agency observed a loss of crops, plants, and trees because of the 2014 Chill Hours disaster (Hurley 2022).

- End-century projections range between a 4.6°F (RCP 4.5) and an 8.0°F (RCP 8.5) increase in average minimum temperature for a range of 45.3°F to 48.7°F.

Chill hour declines impact the Fresno County agricultural industry by disrupting crop production.

Figure 12 Historical and Projected Average Minimum Temperature in Fresno County (Graph) (CEC 2021)

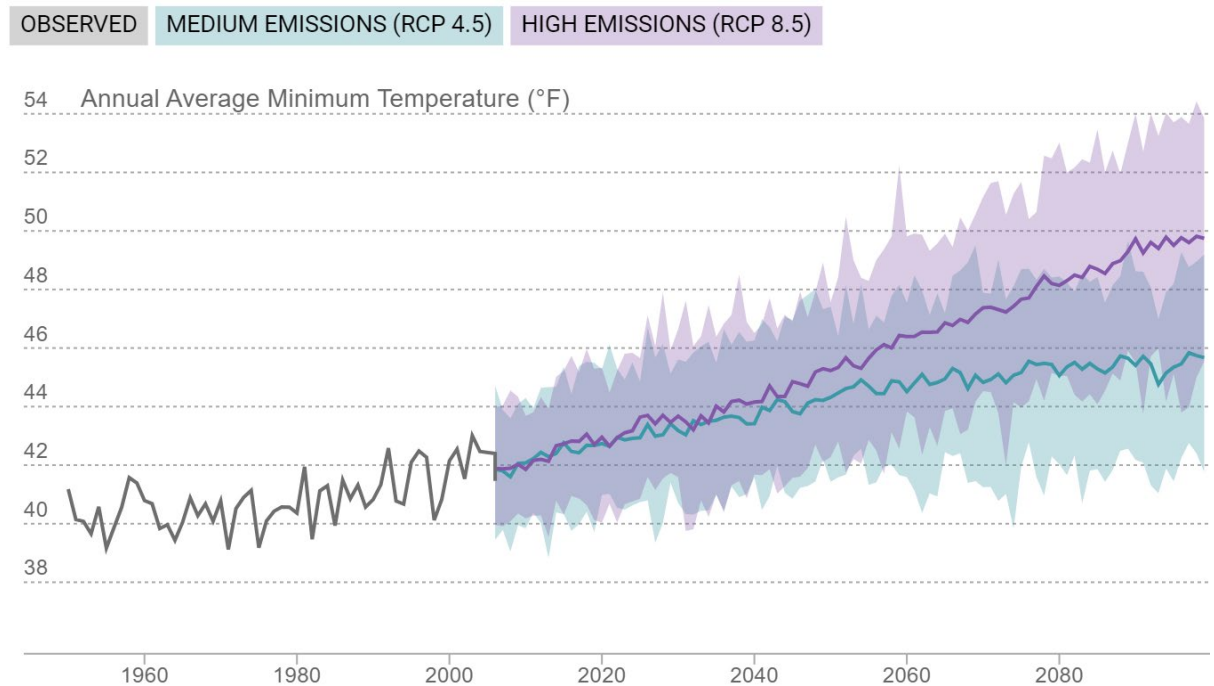


Figure 13 Historical and Projected Average Minimum Temperature in Fresno County (Table) (CEC 2021)

Observed (1961-1990) 30yr Average: 40.5 °F

		30yr Average	30yr Range
Baseline (1961-1990)			
MODELED HISTORICAL	-	40.7 °F	40.4 - 41.0 °F
Mid-Century (2035-2064)			
MEDIUM EMISSIONS (RCP 4.5)	+3.6 °F	44.3 °F	42.5 - 45.5 °F
HIGH EMISSIONS (RCP 8.5)	+4.5 °F	45.2 °F	43.2 - 47.4 °F
End-Century (2070-2099)			
MEDIUM EMISSIONS (RCP 4.5)	+4.6 °F	45.3 °F	42.8 - 47.5 °F
HIGH EMISSIONS (RCP 8.5)	+8.0 °F	48.7 °F	45.3 - 51.7 °F



FRESNO COUNTY GENERAL PLAN

Drought

Climate change will increase the likelihood that low-precipitation years and will coincide with above-average temperature years (Angel et al. 2021). Warming temperatures increase seasonal dryness and the likelihood of drought due to decreased supply of moisture and increased atmospheric demand for moisture as evaporation from bare soils and evapotranspiration from plants increases (Angel et al. 2021). The increased moisture loss from soils and vegetation amplifies dryness during periods without precipitation (Angel et al. 2021). In California's highly variable climate setting, climate models project less frequent but more extreme daily precipitation, with year-to-year precipitation becoming more volatile and the number of dry years increasing (Angel et al. 2021).

The duration of dry spells is projected to vary based on emissions scenario. Like patterns in precipitation some of the annual variability is obscured within 30-year averages (Angel et al. 2021). Despite this, the clear trend is for maximum lengths of dry spells to increase through the end of century as shown in Figure 14 (CEC, 2021).

- The modeled baseline historical average maximum length of dry spell for Fresno County is 110 days.
- Mid-century projections range between a 5 day (RCP 4.5) and a 6 day (RCP 8.5) increase in maximum length of dry spell for a range of 116 to 117 days.
- End-century projections range between a 5 day (RCP 4.5) and a 12 day (RCP 8.5) increase in maximum length of dry spell for a range of 116 to 123 days.

Drought can affect vulnerable populations as well as economic productivity throughout Fresno County. Vulnerabilities for natural resources as well as agriculture can include stressed vegetation and habitat depletion while populations may be more vulnerable to heat stress and dehydration. Drought can lead to over drafted water basins and contaminated groundwater resources stressing accessibility to safe drinking water for rural areas (DWR 2021) Populations in Fresno County may experience health impacts associated with reduced water quality and quantity.

Recent Drought Hazards

California has experienced a great number of droughts over the years with many afflicting Fresno County. The USDA disaster declared droughts occurred as recently as 2009, 2012-2016 and 2018 to present. The USDA Risk Management Agency identified 5 Fresno County insufficient water supply hazards during those drought years which each caused between 10 and 40 million dollars in crop losses (Fresno County 2018).

Based on a survey of Fresno County asset managers, the Westlands Water District has seen an overall increase in water rates across municipal, industrial, and agricultural customers. This has led to deferred maintenance and has reduced opportunities for farming, leading to job losses (Gutierrez 2022). The McMullin Area Groundwater Sustainability Agency has noted that increased water scarcity has led to an increased reliance on depleted groundwater resources and caused an overall drop in agricultural productivity (Hurley 2022). The Auberry Volunteer Fire Department relies exclusively on groundwater wells which have experienced issues related to drought conditions (Schacher 2022). Fresno County Public Works and Planning experienced higher water rates, and observed tree die-offs due to insufficient water and dry groundwater wells (Flores-Becker 2022).

Figure 14 Historical and Projected Changes to Maximum Dry Spell in Fresno County (CEC 2021)

Observed (1961-1990) 30yr Average: 110 days

		30yr Average	30yr Range
Baseline (1961-1990)			
MODELED HISTORICAL	-	111 days	99 - 124 days
Mid-Century (2035-2064)			
MEDIUM EMISSIONS (RCP 4.5)	+5 days	116 days	94 - 136 days
HIGH EMISSIONS (RCP 8.5)	+6 days	117 days	94 - 137 days
End-Century (2070-2099)			
MEDIUM EMISSIONS (RCP 4.5)	+5 days	116 days	95 - 137 days
HIGH EMISSIONS (RCP 8.5)	+12 days	123 days	91 - 150 days

An additional measurement of drought is the Keetch- Byram Drought Index (KBDI) which also acts as a proxy measure of wildfire probability through projections of how dry the soil is in an area which is in turn affected by drought conditions (CEC, 2021). The KBDI levels are expected to increase furthering the basis for drought condition projections (CEC, 2021). By using the KBDI climate indicator it is possible to project wildfire risk, but it is more direct in indicating drought conditions. In Figure 15, the KBDI projections show an increase in the number of days where the KBDI values are greater than 600 which is indicative of severe drought, extreme wildfire risk and increased wildfire occurrence (CEC, 2021).

- The modeled baseline historical average amount of KBDI> 600 days for Fresno County is 85 days.
- Mid-century projections range between a 35 day (RCP 4.5) and a 38 day (RCP 8.5) increase in KBDI>600 days for a range of 119 to 122 days.
- End-century projections range between a 39 day (RCP 4.5) and a 63 day (RCP 8.5) increase in KBDI>600 days for a range of 123 to 147 days.
- Drought conditions heightened though the end of the century create a difficult environment for agricultural operations as well as risks for vulnerable populations related to water scarcity.



FRESNO COUNTY GENERAL PLAN

Figure 15 KBDI Historical and Projected Changes in Fresno County (CEC 2021)

KBDI > 600

Number of days in a year where Keetch-Byram Drought Index (KBDI) > 600. KBDI provides an estimate for how dry the soil and vegetative detritus is.

KBDI is cumulative. The KBDI values increase on dry and warm days and decrease during rainy periods. In California we would expect KBDI to increase from the end of the wet season (spring) into the dry season (summer & fall). The list below explains what values of KBDI represent:

0–200	Soil moisture and fuel moistures are high, low wildfire risk.
200–400	Soil and fuels start to dry, average wildfire risk.
400–600	Onset of drought with moderate to serious wildfire risk.
600–800	Severe drought, extreme wildfire risk and increased wildfire occurrence.

Observed (1961-1990) 30yr Average: 85 days

		30yr Average	30yr Range
Baseline (1961-1990)			
MODELED HISTORICAL	-	84 days	60 - 109 days
Mid-Century (2035-2064)			
MEDIUM EMISSIONS (RCP 4.5)	+35 days	119 days	80 - 147 days
HIGH EMISSIONS (RCP 8.5)	+38 days	122 days	90 - 161 days
End-Century (2070-2099)			
MEDIUM EMISSIONS (RCP 4.5)	+39 days	123 days	86 - 158 days
HIGH EMISSIONS (RCP 8.5)	+63 days	147 days	108 - 204 days

Wildfire

In Fresno County, the Hazard Mitigation plan has identified many notable fires with a higher frequency in the last decade compared to historical events (Fresno County 2018). Severe wildfire risk conditions for Fresno County shown in Figure 15 depict a large increase in frequency of wildfires.

Wildfires within Fresno County are of significant risk within the Coastal Range and Sierra Nevada. Both subregions in the county are categorized as CAL FIRE moderate, high, or very high fire hazard severity zones (VHFHSZ) shown in Figure 17. In addition to the wildfire conditions of the region, projections for Fresno County observe an overall 400 percent increase in total acreage burned annually through the end of the 21st century as shown in Figure 16 (CEC 2021).

- The modeled baseline historical annual average area burned for Fresno County is approximately 13,299 acres.
- Mid-century projections range between approximately 21,200 acres (RCP 4.5) and 25,200 acres (RCP 8.5) of annual average area burned.
- End-century projections range between approximately 24,700 acres (RCP 4.5) and 53,200 acres (RCP 8.5) of annual average area burned.
- Wildfires can create risk of injury, death, or financial hardship if personal property is damaged as well as physical damage to all other assets and reliant infrastructure such as power lines.

Recent Wildfire Events

Between July and August of 2016, the Curry Fire, Goose Fire, and Mineral Fire consumed a total of 12,190 acres. All three resulted in property damages and regional issues regarding evacuation and wildfire smoke. The following year in July of 2017 the Garza Fire burned 48,888 acres (Fresno County 2018).

The Creek Fire burned through Fresno County in September 2020 – December 2020, causing damage to infrastructure to several County-maintained water and wastewater systems in the Shaver Lake area (Bump 2022).

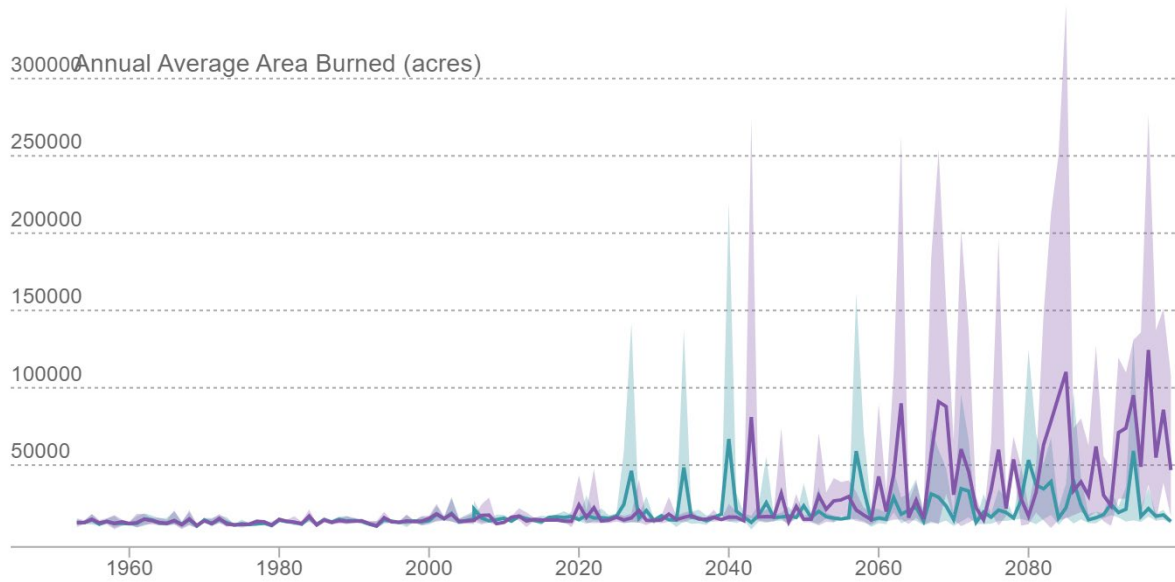
Based on a survey of Fresno County asset managers, the Creek Fire depleted Auberry Volunteer Fire Department’s water source within the first two days of the event. Volunteer fire fighters actively worked to suppress the fire without returning to their homes, sleeping in the apparatus bays which lacked formal sleeping facilities. The fire fighters’ families were impacted by the Creek Fire and had to evacuate, further straining the personal toll fire fighters experienced. The Auberry Volunteer Fire Department has experienced a record number of wildland fires in the last five years (Schacher 2022). The Fresno County Road Maintenance & Operations Division Manager reported cascading impacts from wildfires of road damages including blocked culverts, downed guard railings, and broken signage as well as degraded downstream water quality broadly impacted the County and immediate surrounding area. Many of the structural and property damages were burdened by the community (Querin 2022). According to the Fresno County Department of Public Health, several residential areas were burned by wildfires in recent years, causing displacement of residents. The Department also noted that county-wide, there was an increase in smoke-related illnesses (Prado 2022).



FRESNO COUNTY GENERAL PLAN

Figure 16 Annual Average Area Burned in Fresno County (CEC 2021)

OBSERVED MEDIUM EMISSIONS (RCP 4.5) HIGH EMISSIONS (RCP 8.5)

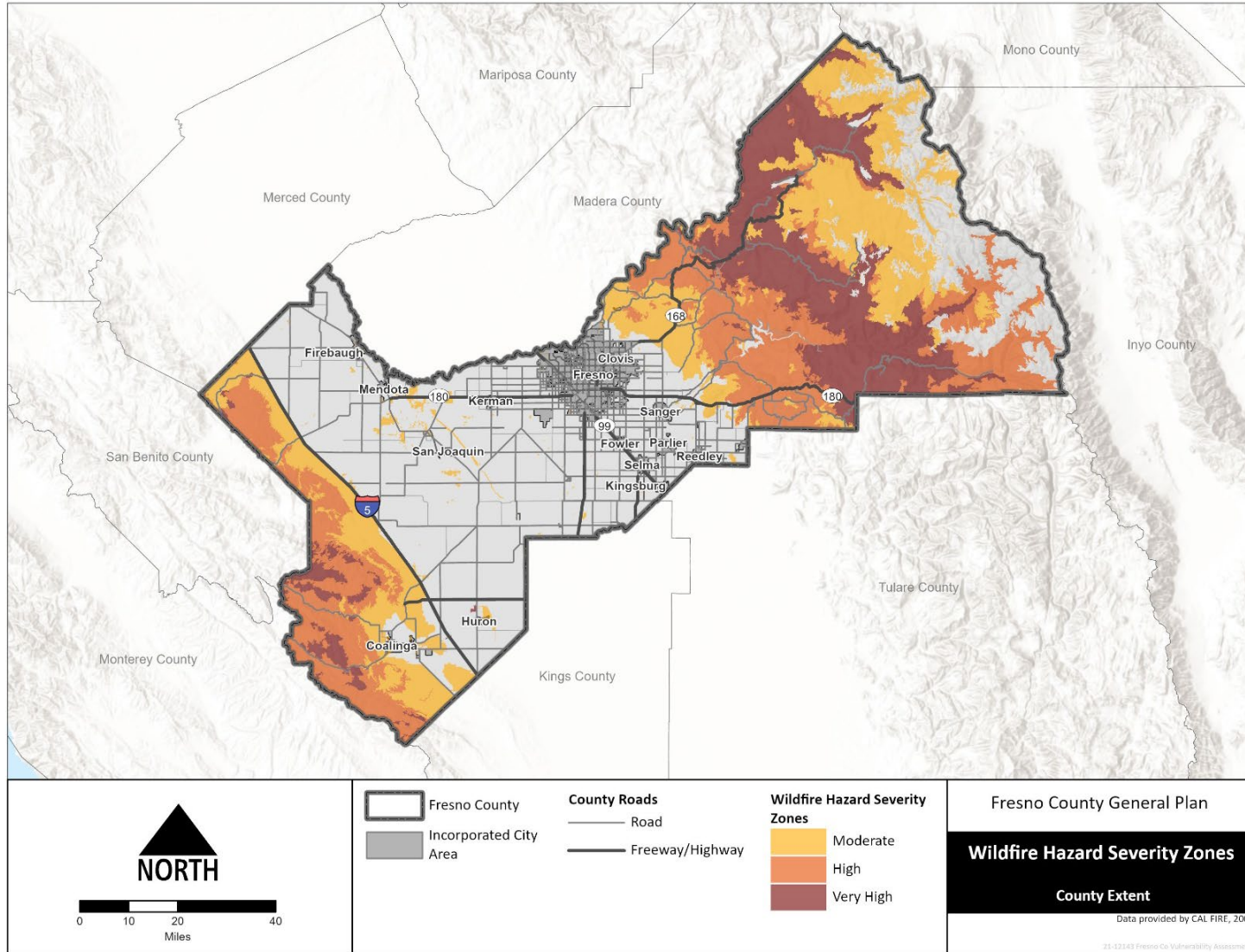


This page left blank intentionally.



FRESNO COUNTY GENERAL PLAN

Figure 17 Wildfire Hazard Severity Zones in Fresno County



This page left blank intentionally.



FRESNO COUNTY GENERAL PLAN

Landslides

Triggered by extreme bouts of precipitation or wildfires, the susceptibility of unincorporated Fresno County to landslides is projected to increase as precipitation variability increases and wildfires increase in frequency, area, and severity. Landslides for the area are likely given the steep geography of the Sierra Nevada at the eastern end of the County. Fresno County has many landslide susceptible geographies mapped by the California Department of Conservation occupying regions that overlap with wildfire zones, and along sloped areas in the coastal range and Sierra Nevada (CDOC 2021).

Tule Fog

Tule fog forms after intense precipitation through a combination of radiant heat and cool nights. This fog layer helps fruit and nut trees attain dormancy requirements, a component of the crop cycle that requires moisture and cool temperatures. Since 1980 the frequency of Tule Fog has dropped by 75%. With projected increases in average temperature as well as decreases in precipitation frequency, Tule Fog occurrences are projected to further decline (Angel et al. 2021).

Riverine and Stormwater Flooding

Climate change may cause low-lying areas throughout unincorporated Fresno County to experience more frequent flooding and could increase the extent of 100-year floods. Riverine flooding is projected to increase as precipitation extremes increases (CEC 2021). Figure 18 maps the 100- and 500-year floodplains within Fresno County. Stormwater systems may be overwhelmed more frequently as more extreme rain events occur, causing localized flooding.

Historic Landslide Events

November 30, 2011. Rock and mudslides caused by record rainfall occurred after a 4-month dry period compounding heavy precipitation and low weakened soil to create a landslide hazard. Damages and slides occurred mainly on Highway 168 about 15 miles northeast of Clovis (Fresno County 2018). Based on a survey of Fresno County asset managers, landslides along Highway 168, in November 2011, disrupted emergency routes for Fresno County responders (Schacher 2022).

Recent Flood Events

Fresno County has experienced several recent flood events since 1955 in 1986, 1995, 1997, 2004, and 2005 (Fresno County 2018).

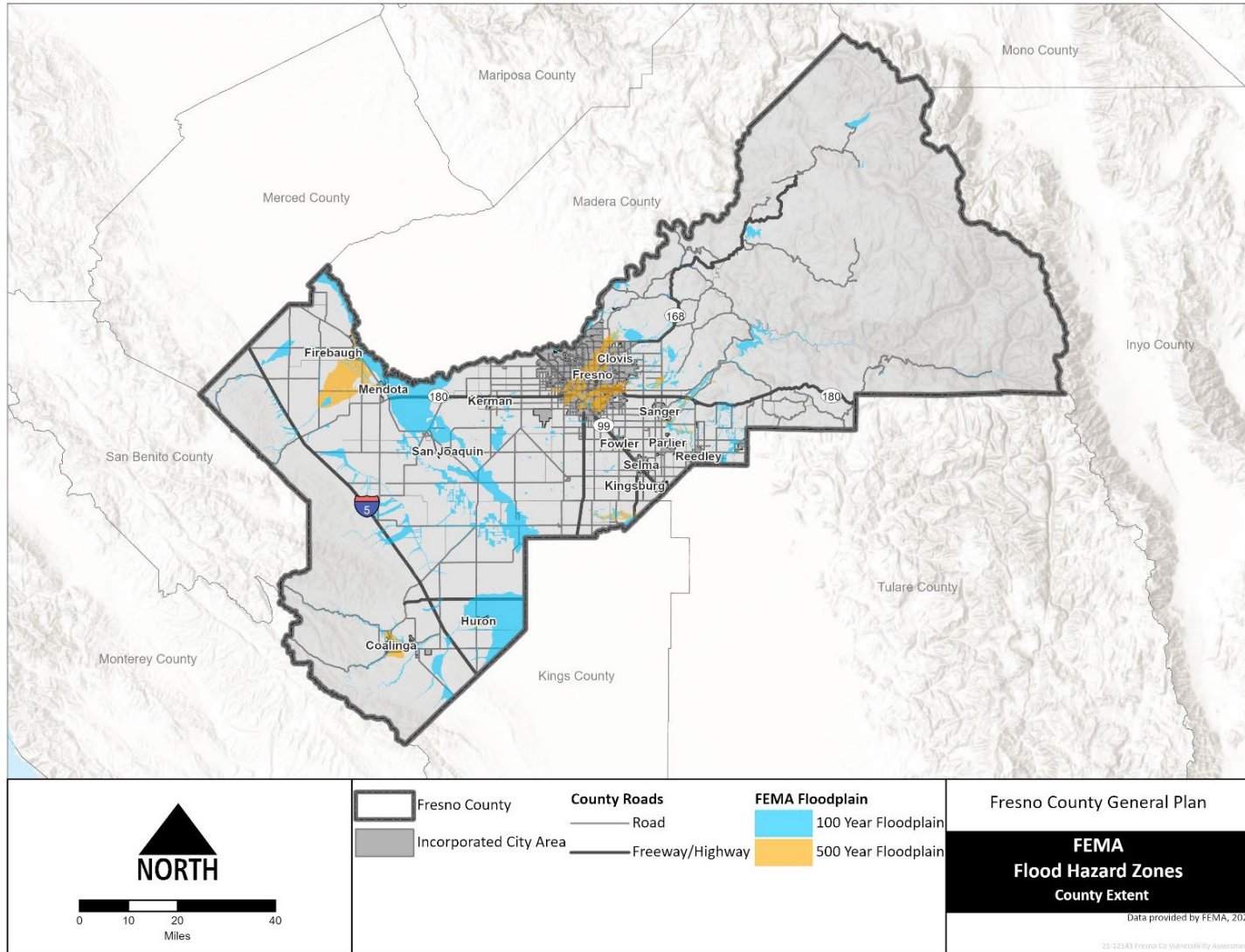
In October and December of 2007 extreme precipitation and poor drainage resulted in numerous flooded roadways and properties across Fresno County accounting for over \$675,000 in property damages (Fresno County 2018). Based on a survey of Fresno County asset managers, the communities of Mendota and Firebaugh experienced heightened risk from flooding on both the San Joaquin and Kings Rivers (Hurley 2022).

This page left blank intentionally.



FRESNO COUNTY GENERAL PLAN

Figure 18 100 and 500 Year Floodplain in Fresno County



This page left blank intentionally.



FRESNO COUNTY GENERAL PLAN

Air Quality

Air Quality within the San Joaquin Valley is projected to worsen as a result of an increase in Wildfires and increase in Temperature. Longer periods of Drought increases coupled with Precipitation and Tule Fog decreases will also contribute to worsening air quality (Angel et al. 2021).

- **Dust.** Increased temperature leads to dry, dusty conditions also associated with drought which can lead to infectious disease and soil- or air-borne diseases. (Angel et al. 2021)
- **Ozone.** Increases in ambient temperature can lead to higher emissions of ozone. Ground-level ozone is created by chemical reactions between oxides of nitrogen and volatile organic compounds produced by cars, energy plants and industrial operations. Ground-level ozone specifically will be experienced at higher rates leading to raised cardiovascular and respiratory morbidity and mortality rates (CDPH 2014). Ground-level ozone has also been shown to have particularly disproportionate adverse impacts on populations experiencing homelessness and lower median income (PNAS 2021). Fresno County may experience increases in ozone concentrations in parallel to temperature increases. Additionally, Fresno experiences a mesoscale metrological phenomenon (termed the Fresno Eddy), a circulation of local air patterns that exacerbate existing ozone levels through unique geographic and atmospheric conditions in rural areas surrounding the City of Fresno (Beaver et al. 2008).
- **Fewer Natural Filtrations.** Precipitation variability and long periods of dry spells lead to declines of Tule fog providing less reliable air quality for the entire region. Moisture in the air can filter pollutants and provide for overall improved conditions (Angel et al. 2021). Additional broad regional factors of shifts in marine wind and inversion layer declines can further decrease natural filtrations for the county.

Recent Air Quality Events

Between 2009 and 2012 the annual rate of Coccidioidomycosis or “Valley Fever” increased by nearly 70% within the San Joaquin Valley Region in parallel to worsening air quality from extended drought conditions (Fresno County 2018).

Based on a survey of Fresno County asset managers, the Auberry community and surrounding areas experienced a severe smoke event from the Creek Fire in 2020 (Schacher 2022). The Fresno County Department of Public Works and Planning found that poor air quality from fires in 2020 lead to a decrease in county park and campground attendance which triggered a loss in revenue. Visitors that did visit parks were exposed to poor air quality conditions (Bernal 2022). The Fresno County Department of Public Works and Planning, Fresno County Road Maintenance & Operations Division, and Fresno County Fire reported that county outdoor workers were exposed to poor air quality during fall 2020 fires (Bernal 2022; Querin 2022; Flores-Becker 2022). Fresno County Fire also experienced increased energy costs due to severe smoke conditions which decreased the amount of solar energy produced at District facilities (Michaels 2022). The McMullin Area Groundwater Sustainability Agency noted that farmworker schedules were impacted due to poor air quality conditions (Hurley 2022).

- **Wildfire Smoke.** Temperature, severe wildfire conditions, and the area burned by wildfires throughout the state has increased and will continue to increase. Wildfires have occurred at higher elevations in the Sierra Nevada Mountains (Angel et al. 2021). Higher temperatures accompanied by an increase in the incidence and extent of large wildfires will lead to increased wildfire smoke and air pollution

Worsening air quality can create respiratory issues for vulnerable populations and impact indoor areas without adequate air filtration systems.

COMPOUNDING RISKS

Risks associated with specific aspects of climate change (i.e., extreme temperatures, wildfire, etc.) are often assessed and planned for separately. However, one type of risk can increase the potential for new or more amplified hazard events and conditions. For example, an extreme precipitation event occurring after a wildfire event increasing the severity of a landslide hazard. Compounding risks, as presented in the IPCC report on Changes in Climate Extremes, can include: “(a) extremes that occur simultaneously or successively; (b) extremes combined with background conditions that amplify their overall impact; or (c) extremes that result from combinations of ‘average’ events” (Seneviratne et al. 2012). Compounding risks are discussed further throughout the Vulnerability Analysis section.

CASCADING IMPACTS

Cascading impacts are viewed as compromised infrastructure or critical service disruptions (e.g., power outages), caused by a climate-related event. The IPCC describes cascading impacts within Chapter 6 of the 2019 Special Report, “Extremes, Abrupt Changes and Managing Risks” (Collins et al. 2019). These cascading impacts can increase the severity of a climate event by affecting multiple sectors of the community. For Fresno County, an example of cascading impacts would be intense precipitation leading to downed communication networks which could subsequently impact public health, safety, and emergency communications. Cascading impacts are further described in the Vulnerability Analysis section as part of Infrastructure and Critical Services.

COMMUNITY ASSETS AND SERVICES AT RISK

Populations and assets are affected by climate change depending on their sensitivity to climate hazards. This section identifies sensitive populations and assets within Fresno County. Potential impacts from the climate hazards of concern on sensitive populations and assets are presented in the Vulnerability Analysis section.

VULNERABLE POPULATIONS

While all people in a community will experience climate change, some may be more affected than others. For example, older adults and young children may be more at-risk to heat illness during an extreme heat event. Several factors influence sensitivity to climate hazards including an individual’s health, age, and ability, societal disadvantages, inequities in access to health care, economic opportunity, education and other resources, and inequities found in basic needs and exposure to environmental stressors (Cal OES, 2020). Vulnerable populations experience heightened risk to climate change and



FRESNO COUNTY GENERAL PLAN

have fewer resources to adapt and recover from climate change impacts. Fresno County has several vulnerable populations that will disproportionately experience climate change. These include those listed in Table 3 below. Percentages were identified for only unincorporated areas of the county, unless stated otherwise.

To understand where in Fresno County the vulnerable population groups are present in concentrated numbers, a social sensitivity index was created.

Social Sensitivity Index Score

A social sensitivity index was developed using 23 data indicators as listed in Table 3. Each indicator represents a characteristic that increases a person’s sensitivity to climate hazards. The indicators represent characteristics that increase a person’s physiological sensitivity to climate hazards, the ability of an individual to prepare for, cope with or recover from climate hazards, or a combination of both. There are eleven categories of social sensitivity indicators including multiple population types under each indicator, as seen below. Indicators and population types included are consistent with those identified in the Cal APG and were identified based on characteristics that increase an individual’s sensitivity to climate hazards (Cal OES 2020). For more information on why these individuals are considered sensitive to climate change impacts, see Section 0.

1. Age: Under 6 and over 65 years old
2. Language and Nation of Origin: Non-or limited English-speaking abilities, undocumented immigrants
3. Occupation: Outdoor workers, unemployed
4. Education: Less than 4 years of college
5. Housing: Renters, people experiencing homelessness
6. Income: Low-income, single female heads of households with kids
7. Race and Ethnicity: Non-white communities, American Native and Alaskan Native
8. Transportation: Households without vehicle access
9. Access to Technology & Information: Households without broadband internet, households without a computer
10. Health: Disability, asthma, cardiovascular disease, chronic obstructive pulmonary disease (COPD), no health insurance
11. Exposure to pollutants: Pollution burdened

Table 3 Vulnerable Population Types in Fresno County

Population Type	Population Description	Percentage of Population or Households
Low Income	Individuals below the federal poverty level	45%
People experiencing homelessness ¹	Individuals who currently lack fixed, regular, and adequate housing	0.3%
Undocumented immigrants	Individuals residing in the United States without legal documentation	Not Available
Unemployed	Individuals 16 and older who are out of work and able to work but are not	9%

Population Type	Population Description	Percentage of Population or Households
Older adults	Individuals 65 years or older	12%
Children	Individuals 5 years and younger	8%
Military Veterans	Individuals who have served but are not currently serving in the US Armed Forces	5%
Non-white Communities	All individuals that do not identify as white	71%
Renters	Housing units that are renter occupied	38%
Outdoor Workers	Individuals who are employed, 16 and older, and work outdoors	15%
Single female heads of households with kids	Female householder with children under 18-year-old and no spouse/partner present	7%
Linguistically Isolated	Households with individuals who are non or limited English-speaking	13%
American Native and Alaskan Native	Individuals that identify as American Native or Alaskan Native	1%
Individuals with disabilities	Individuals with access and functional needs (physical and mental)	12%
Individuals with Asthma ²	Individuals diagnosed with Asthma	10%
Individuals with Cardiovascular Disease	Individuals diagnosed with cardiovascular disease	14%
Individual with COPD	Individuals diagnosed with chronic obstructive pulmonary disease (COPD)	6%
Isolated Individuals	Households without access to a vehicle	7%
Individuals with no health insurance	Individuals aged 18 to 64 years old currently uninsured	25%
Individuals with education attainment less than 4 years of college	Individuals who do not have a 4-year degree.	82%
Pollution Burdened Individuals ³	Individuals with disproportionate potential exposure to pollutants and adverse environmental conditions	50%
Households without a computer	Households without access to a computer.	12%
Households without broadband internet	Households without access to broadband internet.	23%

¹ People experiencing homelessness percentage includes data for incorporated Fresno County and Madera County.

² Asthma percentage includes data for incorporated Fresno County.

³ CalEnviroScreen developed the Pollution Burden metric through the aggregation of exposure and environmental factors, as indicated in the CalEnviroScreen 4.0 Model: <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>

The above population types were used to assess the geographic spread and proportion of vulnerable populations within Fresno County who may be disproportionately sensitive to climate hazards. Data for these populations was obtained from CalEnviroScreen 4.0, the California Healthy Places Index (HPI), and the Census Bureau's American Community Survey (ACS) 2015-2019.



FRESNO COUNTY GENERAL PLAN

Each population type was identified as present in a census tract within unincorporated Fresno County and given a score of 1 if the population type's amount exceeded the relative state average amount (e.g., the statewide average for households without broadband internet is 13 percent, if the census tract had an average greater than 13 percent, it would receive a score of 1). If the population type's amount equaled or was less than the state average amount, a score of 0 was applied. Once each population type was scored for all unincorporated census tracts in Fresno County, the scores were totaled. Low, moderate, and high social sensitivity rankings were assigned to each census tract depending on the total score (see Table 4). If a census tract had a score of 6 or less, the census tract was ranked as having a low social sensitivity. If a census tract had a score of 7-11, the census tract was ranked as having a moderate social sensitivity. Lastly, if a census tract had a score of 12-16, the census tract was ranked as having a high social sensitivity. Table 4 summarizes the social vulnerability scoring range for the unincorporated county census tracts.

Table 4 Social Sensitivity Ranking

Social Sensitivity Rank	Score Range	Number of Census of Tracts
Low	2-6	18
Moderate	7-11	46
High	12-16	34

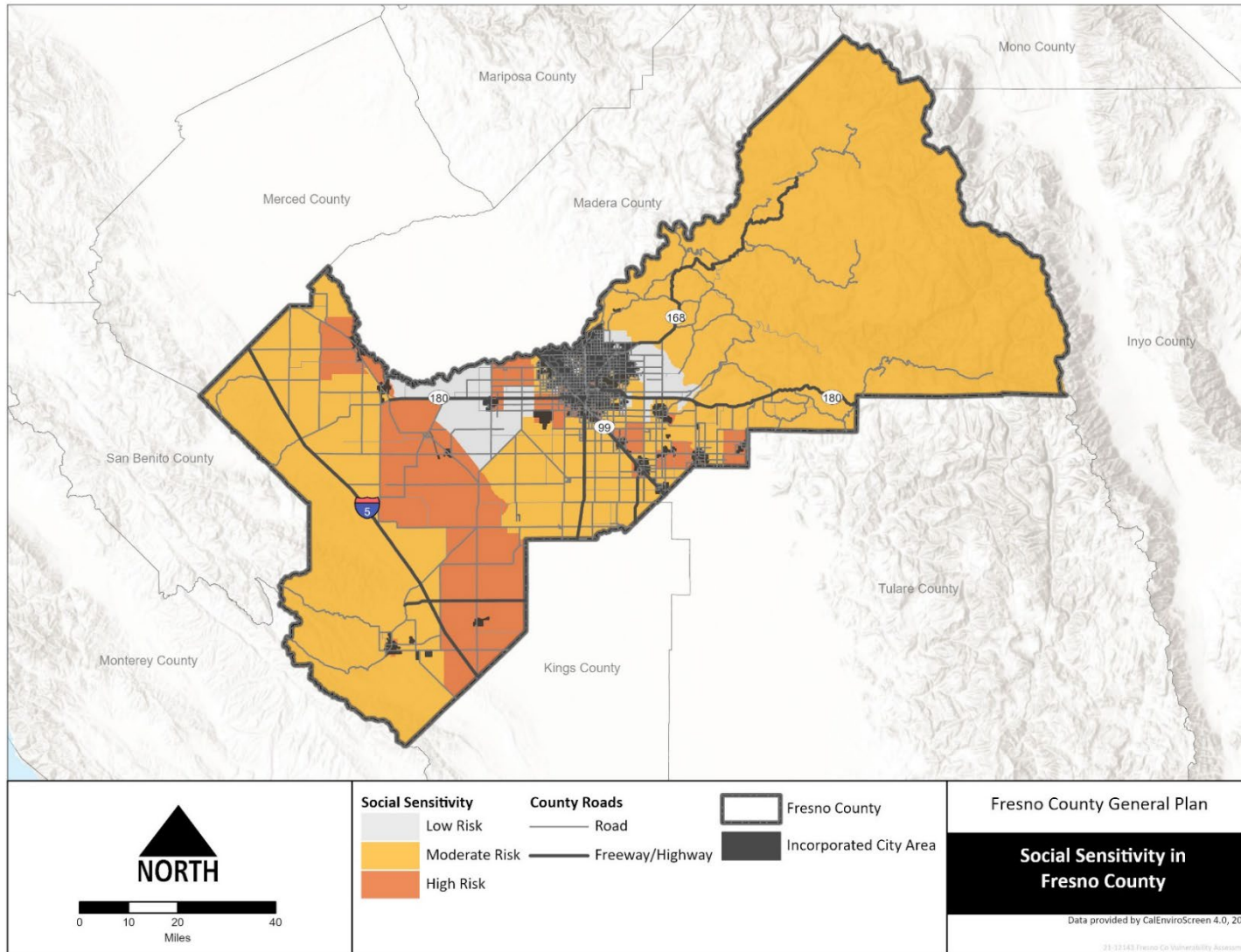
Figure 19 displays social sensitivity in unincorporated Fresno County by census tract. Overall, a majority of unincorporated Fresno County is ranked as moderate or high risk. The most at risk populations in Fresno County are located directly east of Interstate-5. Most moderate risk populations in the county are located west of Interstate-5 and east of the City of Fresno. The unincorporated census tracts with highest social sensitivity are located primarily in the central and eastern areas of Fresno County.

This page left blank intentionally.



FRESNO COUNTY GENERAL PLAN

Figure 19 Social Sensitivity in Fresno County



This page left blank intentionally.



FRESNO COUNTY GENERAL PLAN

PHYSICAL AND SERVICE-RELATED ASSETS

Fresno County assets, as summarized in Table 5, were identified consistent with the asset grouping and list of assets detailed in the Cal APG based on information from the Fresno County Local Hazard Mitigation Plan and Fresno County General Plan. A discussion of impacts to these assets is provided in the Vulnerability Analysis section, along with figures identifying locations of assets in relation to climate hazards.

Table 5 Assets, Descriptions, and Asset Managers in Fresno County

Asset	Description
Agriculture	Croplands and Rangelands
Natural Resources	Parks, Open Space, Critical Habitats, Rivers and Streams, Waterbodies and Wetlands
Buildings and Facilities	County Buildings, Educational Facilities, Hospitals, Residential and Commercial Development, Transportation Facilities
Infrastructure and Critical Services	Water Services, Wastewater, Storm Drainage and Flood Protection, Solid and Hazardous Waste and Recycling, Fire Services, Emergency Services, Medical Services, Utilities and Major Utility Corridors, Public Transportation, Roadways and Active Transportation Routes

VULNERABILITY ANALYSIS

The following sections outline the impacts each climate hazard has on community assets and services (as described in Chapter 3). Existing policies and programs that contribute to the adaptive capacity of the assets is also included. A detailed summary of the county's adaptive capacity can be found in Appendix A: Adaptive Capacity. An impact score and an adaptive capacity score is identified for each asset and climate hazard type, along with the overall vulnerability score.

VULNERABLE POPULATIONS

Overview

As climate change impacts occur, virtually all populations in a community will be affected; however, some individuals are more sensitive and therefore will be disproportionately impacted depending on the climate hazard and type and magnitude of sensitivity. Based on the social sensitivity map provided in Community Assets and Services at Risk, the most vulnerable populations in Fresno County are primarily located directly east of Interstate-5. These areas are projected to experience the highest extreme heat impacts in the County, as seen in Figure 5 and Figure 7. Because they are located in the FEMA Floodplain they are also at risk to riverine and stormwater flooding, as seen in Figure 18. The moderately vulnerable populations in Fresno County are primarily located west of Interstate-5 and east of the City of Fresno. These areas are most vulnerable to wildfire because they are within fire hazard severity zones, as seen in Figure 17.

Vulnerable populations are grouped below according to a variety of social sensitivity indicators, as outlined in the social sensitivity score section in this assessment. Vulnerable populations were grouped based on potential exposure to climate hazards, access to resources to prepare, cope with, or recover

from climate hazards, whether individuals face societal disadvantages, or if individuals have health conditions or health sensitivities that leave them vulnerable to climate hazards. Often individuals have characteristics that make them vulnerable in a variety of ways; however, for the purpose of this assessment, they were grouped based on the sensitivity that increases their risk the most. Compounding sensitivities are further explained for each vulnerable population in the grouping overviews and climate hazard impact sections.

Individuals with High Outdoor Exposure

- Outdoor workers
- People experiencing homelessness

Outdoor workers and people experiencing homelessness face high outdoor exposure, causing them to be extremely vulnerable to climate hazards. According to California Employment Development 2016 data, Fresno County had the second highest number of farmworkers of any county in California with 111,800 farmworkers in 2016 (Martin et al. 2019). Agricultural workers are the largest portion of jobs in Fresno County at 36 percent in 2013 (Fresno County 2018).

The Fresno County and Madera County region had an estimated 3,641 people experiencing homelessness in 2020 (Fresno County 2020). Unhoused individuals often suffer from high rates of respiratory conditions, mental illness and other chronic health conditions and therefore are more vulnerable to climate hazards.

Potential Impacts

Extreme Heat

Outdoor workers and people experiencing homelessness are at risk to health impacts from extreme heat. Outdoor workers, including farmworkers, construction workers, roofers, and landscapers, are often subject to strenuous work conditions and are vulnerable during extreme heat events. People experiencing homelessness are exposed to health-related impacts associated extreme heat because they have limited access to shelter and air conditioning. The primary health impacts to these populations are heat-related illnesses, such as heat stress, heat stroke, and dehydration, which can be life-threatening (California Department of Public Health 2020).

Drought

Outdoor workers and people experiencing homelessness are at risk to drought conditions and associated cascading impacts. During prolonged drought conditions, people experiencing homelessness may have difficulty accessing clean and affordable drinking water (Gamble et al. 2016). Outdoor workers and people experiencing homelessness may experience increased risk to Valley fever, a disease caused by inhaling fungus spores carried in soil dust. The frequency of dust storms, which are common in drought conditions, and Valley Fever incidents are positively correlated. (California Department of Public Health 2017).



FRESNO COUNTY GENERAL PLAN

Wildfire

- Outdoor workers may be exposed to hazardous work conditions during wildfire events and may become injured from smoke inhalation or burns. According to Fresno County asset manager interviews, State Center Community College District outdoor employees experienced negative health impacts due to smoke inhalation from recent regional wildfires (Cousineau 2022). Additionally, the Fresno County Department of Public Health reported in the asset manager survey that several residential areas were burned by wildfires in recent years, causing displacement of residents and increasing outdoor exposure (Prado 2022). People experiencing homelessness are particularly at-risk during wildfire events as they often suffer from respiratory conditions, mental illness, and chronic health conditions that may be exacerbated from physical contact with wildfire or smoke inhalation. People experiencing homeless have limited access to shelter and do not have access to transportation to evacuate from burning areas. They may also have their personal belongings destroyed or damaged during a wildfire event (California Department of Public Health 2017).

Riverine and Stormwater Flooding

Outdoor workers may be exposed to hazardous work conditions during riverine and/or stormwater flooding events and therefore are vulnerable to health impacts (California Department of Public Health 2020). People experiencing homelessness are disproportionately at risk to health impacts during flood events because they often live in flood hazard areas and do not have access to transportation to evacuate inundated areas. They may also have their personal belongings destroyed or damaged during a flood event. (Ramin & Svoboda 2009).

Air Quality

Outdoor workers and people experiencing homelessness are disproportionately vulnerable to poor air quality because they are outdoors and are directly exposed to air pollutants (California Department of Public Health 2017). Both populations may experience exacerbation or development of respiratory diseases and conditions, such as asthma and chronic obstructive pulmonary disease (COPD), and respiratory infections, which in some cases may be life-threatening (Ramin & Svoboda 2009). The McMullin Areas Groundwater Sustainability Agency has noted that farmworker schedules were impacted due to poor air quality conditions from recent wildfires (Hurley 2022). Fresno County Fire and the County Department of Public Works and Planning reported that during the Creek Fire in 2020, many outdoor workers were subject to harsh air quality and smoke conditions (Michaels 2022) (Bernal 2022).

Adaptive Capacity

There are existing plans, policies, and programs in place to help individuals with high outdoor exposure mitigate and adapt to climate hazards particularly around extreme heat and wildfire.

- **Fresno County Heat Illness Program:** outlines health-focused strategies to mitigate impacts of extreme heat exposure to for outdoor workers (Fresno County 2016).
- **Fresno County Public Health Emergency Preparedness:** provides extreme heat, flood, and wildfire response and recovery resources for individuals with high outdoor exposure (Fresno County 2022)

- **Climate Change Health Profile Report for Fresno County:** includes wildfire, drought, flooding, extreme heat, and air quality adaptation strategies for populations with high outdoor exposure (California Department of Public Health 2017)
- **Fresno County Cooling Center:** provides cooling during extreme heat events to all populations exposed to extreme heat (Fresno County 2022)
- **Fresno County Affordable Housing Program:** provides financial assistance to all individuals who are experiencing water shortages (Fresno County 2022).
- **Fresno County Multi-Hazard Mitigation Plan:** outlines vulnerabilities from extreme heat, wildfire, drought, poor air quality, and flooding to outdoor workers and people experiencing homelessness (Fresno County 2018).
- **Integrated Strategies for a Vibrant and Sustainable Fresno County Report:** outlines strategies to reduce impacts from wildfire, drought, flooding, extreme heat, and poor air quality to outdoor workers and people experiencing homelessness (ClimateWise 2011).

Vulnerability Score

Climate Hazard	Impact Score	Adaptive Capacity Score	Vulnerability Score
Extreme Heat	High	Medium	High- 4
Drought	High	Low	High- 5
Wildfire	High	Medium	High- 4
Riverine and Stormwater Flooding	High	Low	High- 5
Air Quality	High	Low	High- 5

Under-resourced Individuals

- Low-income
- Unemployed
- Individuals with no health insurance
- Households without a computer
- Households without a broadband internet
- Renters
- Isolated individuals
- Single-female heads of households
- Individuals with educational attainment of less than 4 years of college

Under-resourced individuals often do not have access or the ability to afford resources needed to prepare for, cope with, and recover from climate change impacts. Individuals who are unemployed or are low-income often face financial barriers when preparing for and recovering from climate change hazards. Individuals in these groups often live in homes that are less protected against climate hazards. Low-income individuals may not be able to take time off work to address health concerns either caused by or exacerbated by climate hazards.

Individuals with educational attainment of less than 4 years of college usually have lower earning potential than those with a 4-year college degree. As defined by the U.S. Census Bureau, this population



FRESNO COUNTY GENERAL PLAN

group does not include individuals who have attended trade schools, apprentice program, or who have attained associates degrees. These individuals are more likely to work in outdoor and/or labor-intensive environments (California Department of Public Health, 2017). Individuals with 4-year degrees are half as likely to be unemployed than those who only have a high school degree (Association of Public and Land-Grant Universities, N.d). Individuals in this group are less likely to have access to transportation, healthcare, and other basic needs. Under-resourced individuals often lack the financial resources to evacuate from a climate hazard and/or find an affordable place to evacuate to.

“Single female heads of households,” defined by the U.S. Census as female householders with children under 18-years-old and no spouse/partner present, often face high levels of work-life conflict and financial hardship, which can make preparing for, coping with, and recovering from climate hazards difficult. They are also more likely to serve as the primary caretaker of children which can make evacuating during a hazard scenario difficult (Flanagan et al. 2011). Additionally, women’s wages tend to be lower than their male counterparts. According to U.S. Census Bureau data, in 2020, women earned 84% of what men earned (Pew Research Center 2021).

Households without a computer or broadband internet may not receive emergency alerts or governmental guidance before or during a climate hazard event, making them particularly vulnerable in evacuation scenarios. Individuals without health insurance are more likely to have undiagnosed pre-existing health conditions which may make them more vulnerable to health impacts from climate hazards (Gamble et al., 2016). Individuals who rent housing have limited ability to weatherize their homes for hazard events. They also may not have temperature control in their housing units and generally experience a higher water and energy utilities cost burden than homeowners (Cooley et al. 2012).

Potential Impacts

Extreme Heat

Under-resourced individuals may not be able to pay for adequate air conditioning or fans, increasing their exposure to extreme heat. Isolated individuals don’t have access to a vehicle to travel to cooling centers or move to temporary shelters during extreme heat event (Cooley et al. 2012). Under-resourced individuals are less likely to receive medical care for illnesses triggered or exacerbated by extreme heat. Households without a computer or broadband internet may not receive heat advisory warnings or governmental guidance, causing them to experience health impacts from extreme heat exposure (CDPH 2017).

Drought

During periods of prolonged drought, under-resourced individuals are more likely to experience the cost burden associated with increased water rates (Feinstein et al. 2017). According to Fresno County asset managers, Fresno County has already experienced increased water rates due to drought, in recent years (Gutierrez 2022) (Flores-Becker 2022). Additionally, these individuals may struggle to access clean and affordable drinking water which may cause dehydration and/or exacerbate underlying health conditions and illnesses (Gamble et al. 2016). Droughts often trigger cascading economic impacts through the agricultural sector, decreasing job availability and leaving low-income individuals particularly vulnerable to financial hardships (Howitt et al. 2015).

Wildfire

Under-resourced individuals may experience injuries or death from smoke inhalation or burns and are less likely to receive medical treatment (CDPH 2017). These individuals may have their belongings and homes damaged by a wildfire. If this occurs, under-resourced individuals are likely to suffer from the cost burden associated with losses or damage. Households without a computer or internet may not receive communications and evacuations to safely evacuate from hazard areas. Isolated individuals are vulnerable during wildfires because they do not have access to a vehicle to evacuate. Renters have limited control over home hardening and improvements that may protect against fire and smoke. Subsequently, they may experience economic and health impacts and a greater loss of belongings than homeowners (Gamble et al. 2016).

Riverine and Stormwater Flooding

Under-resourced individuals may experience injuries or death from high velocity flooding and are less likely to receive medical treatment (California Department of Public Health 2017). Individuals in these groups may experience cost burdens if their belongings and homes are damaged from floodwater inundation. Isolated individuals have limited or no access to a vehicle to evacuate flood hazard areas. Households without a computer or internet may not receive communications and emergency alerts to safely evacuate from hazard areas (California Department of Public Health 2020). Renters have limited control over home improvements that may protect against flood damage. Subsequently, they may experience economic and health impacts and a greater loss of belongings than homeowners (Gamble et al. 2016).

Air Quality

Under-resourced individuals may be disproportionately impacted by poor air quality because their housing may require physical labor jobs and lack sufficient air filtration and they may not be able to afford supplemental air filtration equipment (Gamble et al. 2016). Individuals in these groups may experience the development or exacerbation of respiratory illnesses and are less likely to receive medical treatment (California Department of Public Health 2017).

Adaptive Capacity

There are existing plans, policies, and programs in place to help under-resourced individuals mitigate and adapt to climate hazards particularly around extreme heat, drought, and wildfire.

- **Climate Change Health Profile Report for Fresno County:** includes wildfire, drought, flooding, extreme heat, and air quality adaptation strategies for under-resourced individuals (California Department of Public Health, 2017).
- **Fresno County Cooling Center:** provides cooling during extreme heat events to all populations exposed to extreme heat (Fresno County, 2022).
- **Fresno County Affordable Housing Program:** provides financial assistance to all individuals who are experiencing water shortages (Fresno County, 2022).
- **PG&E Community Wildfire Safety Program:** provides support to under-resourced individuals facing impacts from public safety power shutoffs and wildfires (PG&E, 2021).



FRESNO COUNTY GENERAL PLAN

- **Fresno County Multi-Hazard Mitigation Plan:** outlines vulnerabilities from extreme heat, wildfire, drought, poor air quality, and flooding to under-resourced individuals (Fresno County, 2018).
- **Integrated Strategies for a Vibrant and Sustainable Fresno County Report:** outlines strategies to reduce impacts from wildfire, drought, flooding, extreme heat, and poor air quality to under-resourced individuals (ClimateWise, 2011).
- **PG&E Climate Change Vulnerability Assessment and Resilience Strategies Report:** outlines available funding for under-resourced communities to mitigate a variety of climate hazards (PG&E 2016).
- **The Fresno County Master Emergency Services Plan:** includes strategies to mitigate impacts of hazard events to under-resourced individuals (Fresno 2018).

Vulnerability Score

Climate Hazard	Impact Score	Adaptive Capacity Score	Vulnerability Score
Extreme Heat	High	Medium	High- 4
Drought	Medium	Medium	Medium- 3
Wildfire	Medium	Medium	Medium- 3
Riverine and Stormwater Flooding	Medium	Low	High- 4
Air Quality	Medium	Low	High- 4

Individuals Facing Societal Barriers

- Non-white communities
- Linguistically isolated
- American Native and Native Alaskan
- Undocumented individuals

According to U.S. Census, 2019 American Community Survey, a majority of Fresno County’s population identifies as non-white (58% Latino/a/x, 4% Black, 7% Asian, and 1% American Native and Native Alaskan)Communities of color face societal disadvantages in preparing for, coping with, and recovering from climate hazards. Individuals facing societal barriers are directly impacted by social and economic challenges that are ubiquitous in our modern society. These challenges create educational, resource, economic, and health disparities that leave communities of color extremely vulnerable to climate change impacts (Baird 2008). Across California, non-white individuals are more likely to live in high hazard risk areas and less likely to be homeowners, which leaves them vulnerable to climate hazards (CDPH 2020). Undocumented immigrants often lack access to medical services, quality housing, and basic needs. Because these individuals are not citizens, they lack access to social and economic services that would allow them to prepare for, respond to, and cope with climate hazards. Individuals who are linguistically isolated have no or limited English-speaking ability. If evacuation and/or advisory notices, hazard preparedness material, or governmental guidance is not provided in non-English versions, linguistically isolated individuals may not be able to prepare for, cope with, or recover from a climate hazard (Gamble et al., 2016). Fresno County is located on the ancestral lands of the Yokuts and Monache (Mono) people. The county has a rich human history that continues to this day with several tribal groups having ties to the land. There are three federally recognized tribes in the county: Big Sandy Rancheria of

Western Mono Indians, Cold Springs Rancheria of Mono Indians, and Table Mountain Rancheria (FCOG, 2019). Not all county residents who identify as American Indian or Native American have ties to tribal communities within Fresno County. However, most Native Americans experience some degree of the implications of colonial violence, cultural erasure, and social marginalization, and as a result, they are more likely to be under-resourced and low-income (Lynn et al. 2011). In 2020, one in three Native Americans across the United States were living in poverty (Northwestern Institute for Policy Research, 2020). Native Americans and tribal communities have lower health status and life expectancies compared to other populations due to a variety of factors including inadequate education, disproportionate poverty, cultural differences, and discrimination in the delivery or accessibility of health services. Native Americans are also less likely to have health insurance, which may limit their ability to seek medical care for injuries or illnesses caused or exacerbated by climate change impacts (Indian Health Services, 2019). Additionally, tribal communities are often geographically isolated, making accessing healthcare services difficult. Native Americans are more likely to live in high hazard risk areas and less likely to be homeowners, which leaves them vulnerable to climate impacts (Gamble et al. 2016). The close relationship some tribal communities have with their surrounding ecosystems and natural resources leaves these populations particularly at risk to climate change impacts because the natural systems their livelihoods are dependent on are rapidly changing (Baird, 2008). Climate change impacts can disrupt traditional ways of life for some tribal communities by threatening the health of local plants, animals, and ecosystems that play a critical role in the maintenance of their cultural traditions, and climate hazards may damage or destroy a tribal community's cultural resources and sacred land (Karuk Tribe Department of Natural Resources, 2016).

Potential Impacts

Extreme Heat

Across California, non-white communities and undocumented immigrants live in housing with insufficient protection from extreme heat events and limited or no affordable air conditioning at a higher rate than white communities. Nationally, Latino/a/x populations are 21 percent more likely than white populations to live in the hottest parts of cities, which have high concentrations of heat-retaining surfaces and sparse to no tree cover. Across the U.S., over 40 percent of Latino/a/x households are energy insecure and cannot afford to pay for the energy required to cool their homes (Hispanic Access Foundation 2021). Linguistically isolated individuals may not be able to read heat advisory warnings or governmental guidance, potentially causing them to experience greater exposure to extreme heat (Gamble et al. 2016). The primary health impacts to these populations are heat-related illnesses, such as heat stress, heat stroke, and dehydration, which can be life-threatening (California Department of Public Health 2020). Undocumented immigrants may not have access to medical services to treat heat-related illnesses. Tribal elders may have limited or reduced mobility, making it difficult for them to seek medical treatment or refuge from extreme heat (California Department of Public Health 2020).

Drought

Non-white communities and undocumented immigrants are at higher risk to drought conditions and associated cascading impacts. Individuals in these groups may face systemic and/or cultural barriers when seeking to access affordable and clean drinking water, which may cause dehydration and/or exacerbate underlying health conditions and illnesses (Gamble et al. 2016). Non-white communities and



FRESNO COUNTY GENERAL PLAN

undocumented immigrants are more likely to live in housing with insufficient air filtration, and therefore may become exposed to Valley fever, a disease caused by inhaling fungus spores carried in soil (Mendez et al. 2020). Valley fever can cause extreme health impacts to those with underlying respiratory and cardiovascular health conditions and illnesses (California Department of Public Health 2017). Undocumented immigrants may not have access to medical services or drought relief programs and services (Mendez et al. 2020). Tribal communities may experience food insecurity if a drought negatively impacts local food sources (Lynn et al. 2011). Drought conditions and declining stream flows may negatively impact tribal fisheries which may disrupt tribal cultural traditions and tribal eco-tourism economies (Karuk Tribe Department of Natural Resources 2016).

Wildfire

- Non-white communities and undocumented immigrants are more likely to live in wildfire hazard zones and in housing with insufficient protection against wildfire. Linguistically isolated individuals may not be able to read wildfire or smoke advisory warnings or governmental guidance, potentially causing them to experience greater exposure to smoke and/or wildfire. Individuals in these groups may face systematic and/or cultural barriers to access resources to safely evacuate hazard areas (Gamble et al. 2016). Individuals in these groups may experience injuries or death from smoke inhalation or burns (California Department of Public Health 2017). Undocumented immigrants may not have access to medical services to treat injuries (Mendez et al. 2020). Wildfires may damage or destroy a tribal community's cultural resources and sacred land. Tribal communities often rely on local natural resources for economic opportunities. These communities may face economic impacts if natural resources are damaged or destroyed from a wildfire (Karuk Tribe Department of Natural Resources 2016).

Riverine and Stormwater Flooding

- Across California, non-white communities and undocumented immigrants are more likely to live in flood hazard areas and in housing with insufficient protection against riverine and stormwater flooding (CDPH 2020). Linguistically isolated individuals may not be able to read flood warning or governmental guidance, potentially causing them to experience greater exposure to flooding. Individuals in these groups may face systematic and/or cultural barriers when seeking to access resources needed to safely evacuate hazard areas (Gamble et al. 2016). Individuals in these groups may experience injuries or death from high velocity flooding (California Department of Public Health 2017). Undocumented immigrants may not have access to medical services to treat injuries (Mendez et al. 2020). Tribal communities often rely on local natural resources for economic opportunities. These communities may face economic impacts if natural resources are damaged or destroyed from flooding (Karuk Tribe Department of Natural Resources 2016).

Air Quality

Non-white communities and undocumented immigrants are vulnerable to health impacts associated with poor air quality because their housing may lack sufficient air filtration and they may not be able to afford supplemental air filtration equipment (CDPH 2020). Undocumented immigrants are less likely to receive medical treatment for health impacts from poor air quality exposure (Mendez et al. 2020). Linguistically isolated individuals may not be able to read air quality advisory warnings or governmental guidance that are in English, potentially causing them to experience greater exposure to extreme heat

(CDPH 2017). Tribal elders may have limited or reduced mobility, making it difficult for them to seek medical treatment or refuge from poor air quality (California Department of Public Health 2020).

Adaptive Capacity

There are existing plans, policies, and programs in place to help individuals facing societal barriers mitigate and adapt to climate hazards particularly focused around wildfire.

- **PG&E and SCE Automated Systems:** provide communication to non-English speakers during power outages (PG&E 2022) (SCE 2022).
- **Climate Change Health Profile Report for Fresno County:** includes wildfire, drought, flooding, extreme heat, and air quality adaptation strategies for individuals facing societal institutional barriers (California Department of Public Health 2017).
- **Fresno County Cooling Center:** provides cooling during extreme heat events to all populations exposed to extreme heat (Fresno County 2022).
- **Fresno County Affordable Housing Program:** provides financial assistance to all individuals who are experiencing water shortages (Fresno County 2022).
- **PG&E Community Wildfire Safety Program:** provides support to individuals facing societal barriers experiencing impacts from public safety power shutoffs and wildfires (PG&E 2021).
- **Fresno County Multi-Hazard Mitigation Plan:** outlines vulnerabilities from extreme heat, wildfire, drought, poor air quality, and flooding to under-resourced individuals (Fresno 2018).
- **Integrated Strategies for a Vibrant and Sustainable Fresno County Report:** outlines strategies to reduce impacts from wildfire, drought, flooding, extreme heat, and poor air quality to individuals facing societal barriers (ClimateWise).
- **PG&E Climate Change Vulnerability Assessment and Resilience Strategies Report:** outlines available funding for individuals facing societal barriers to mitigate a variety of climate hazards (PG&E 2016).
- **The Fresno County Master Emergency Services Plan:** includes strategies to mitigate impacts of hazard events to individuals facing societal barriers (Fresno County 2018).



FRESNO COUNTY GENERAL PLAN

Vulnerability Score

Climate Hazard	Impact Score	Adaptive Capacity Score	Vulnerability Score
Extreme Heat	High	Low	High- 5
Drought	Medium	Low	High- 4
Wildfire	Medium	Medium	Medium- 3
Riverine and Stormwater Flooding	Medium	Low	High- 4
Air Quality	Medium	Low	High- 4

Individuals with Chronic Health Conditions or Health Related Sensitives

- Older adults
- Children
- Individuals with disabilities
- Individuals with asthma
- Individuals with cardiovascular disease
- Individuals with COPD
- Military Veterans
- Pollution Burdened

Individuals with chronic health conditions or health related sensitivities are socially and physiologically vulnerable to climate change impacts and hazards. Older adults and individuals with disabilities may have limited or reduced mobility, mental function, or communication abilities, making it difficult to evacuate during or prepare for a climate hazard event. They may also have medical needs for electricity which may be impacted during a public safety power shutoff or climate hazard event. Individuals in these groups are more likely to have pre-existing medical conditions or chronic illnesses that may exacerbate the risk of illnesses and medical problems from climate hazards. Similarly, individuals with asthma, individuals with cardiovascular disease, and individuals with COPD are more likely to experience health impacts from climate hazards because of their pre-existing conditions or diseases. Children are socially and physiologically vulnerable to climate hazards. They often have limited understandings of climate hazards and insufficient resources to independently prepare for and safely respond during a climate hazard event. Children, especially young ones, are reliant on their parental figures to ensure their health, safety, and wellbeing. Children also have vulnerable physical characteristics because they have not fully physiologically developed and are therefore more vulnerable to health effects of climate change impacts (Kenney et al. 2014). Individuals experiencing pollution burden are most likely already experiencing the negative respiratory and cardiovascular health impacts associated with environmental stressors. These individuals are particularly at risk to exacerbated health impacts from climate change impacts (Gamble et al. 2016). Military veterans may have been exposed to a variety of environmental, physical, and chemical stressors during military service which may have caused physiological or psychological health conditions, illnesses, or disabilities that make them particularly vulnerable to climate hazards. Military veterans are more likely to be low-income and experience homelessness after their service, which also makes them vulnerable to preparing and responding to climate hazards (Olenick et at. 2015).

Potential Impacts

Extreme Heat

Individuals with chronic health conditions or health related sensitivities are particularly at risk to heat related illnesses during extreme heat events. Individuals with disabilities, older adults, and children may have difficulty turning on air conditioning or traveling to cooling centers during extreme heat events. Extreme heat conditions can exacerbate asthma, cardiovascular disease, certain disabilities, and other respiratory and cardiovascular conditions, potentially causing heat-related illnesses such as heat stress, heat stroke and dehydrations, which can be life threatening (CDPH 2020). Children are still physiologically developing which means that they are less able to regulate their bodies during extreme heat events while older adults are at greater risk of mortality under extreme heat events (Kenney et al. 2014, CDPH 2020).

Drought

Individuals with chronic health conditions or health related sensitivities are at risk to drought conditions and associated cascading impacts including lower water quality and risk of waterborne illness. Prolonged drought conditions can lead to water scarcity and individuals may need to rely on poor quality water supplies. Households dependent on domestic well water and unsustainable ground water are vulnerable to drought (Pauloo 2020). Individuals with chronic health conditions or health related sensitivities may experience negative health impacts if they become dehydrated. Children and older adults are especially at risk to dehydration as their bodies are not able to regulate as well (Kenney et al. 2014). Dehydration may exacerbate underlying health conditions and illnesses. During periods of drought, individuals with chronic health conditions or health related sensitivities may experience Valley fever, a disease caused by inhaling fungus spores carried in soil. Valley fever can cause extreme health impacts to those with underlying respiratory and cardiovascular health conditions and illnesses (CDPH 2017).

Wildfire

Individuals with chronic health conditions or health related sensitivities may experience injuries or death from smoke inhalation or burns (California Department of Public Health 2017). Older adults, military veterans, and pollution burdened individuals are vulnerable to health impacts from wildfire smoke pollutants because they are more likely to have underlying respiratory and/or cardiovascular conditions and illnesses (CDPH 2020). Children may experience respiratory health impacts from wildfire smoke because their respiratory systems are not fully developed and are sensitive to stressors. Individuals with cardiovascular disease may experience severe cardiovascular health impacts if exposed to wildfire smoke pollutants. Individuals with asthma and individuals with COPD may experience severe respiratory health impacts such as difficulty breathing if exposed to wildfire smoke pollutants. According to Fresno County asset manager interviews, there was an increase county-wide in smoke-related illnesses due to recent regional wildfires (Prado 2022). Individuals with disabilities, children, and older adults may have difficulty evacuating from wildfires, increasing the risk of health impacts from wildfire smoke inhalation or fire burns (EPA 2022).



FRESNO COUNTY GENERAL PLAN

Riverine and Stormwater Flooding

Older people and children are particularly at risk to injury and/or death from high velocity flooding (California Department of Public Health 2017). Riverine and stormwater flooding may also limit access to transportation systems, healthcare centers, and emergency response to those that are injured or in need or consistent medical care, such as those with chronic health conditions or illnesses. Children, older adults, individuals with disabilities, and individuals with chronic health conditions or illnesses may not be able to safely evacuate floodwater hazard areas.

Air Quality

Individuals with chronic health conditions or health related sensitivities are at risk of developing or experiencing exacerbated health impacts from poor air quality. Children are extremely vulnerable to health impacts from poor air quality because their respiratory system has not fully developed yet (CDPH 2020). Older adults, military veterans, and pollution burdened individuals are vulnerable to health impacts from poor air quality because they are more likely to have underlying respiratory and/or cardiovascular conditions. Individuals with cardiovascular disease, individuals with asthma, and individuals with COPD may experience severe health impacts if exposed to poor air quality (EPA 2022).

Adaptive Capacity

There are existing plans, policies, and programs in place to help individuals with chronic health conditions or health related sensitivities mitigate and adapt to climate hazards particularly focused on extreme heat and wildfire.

- **PG&E's and SCE's Medical Baseline Programs:** provide customers with medical needs for electricity with notification during power shut offs (PG&E 2022) (SCE 2022).
- **PGE&E's and SCE's Self Generation Incentive Programs:** provide battery storage options for customers enrolled in their Medical Baseline programs (PG&E 2022) (SCE 2022).
- **Fresno County Public Health Emergency Preparedness:** provides extreme heat, flood, and wildfire response and recovery resources for individuals with chronic health conditions or health related sensitivities (Fresno County 2022)
- **Climate Change Health Profile Report for Fresno County:** includes wildfire, drought, flooding, extreme heat, and air quality adaptation strategies for individuals with chronic health conditions or health related sensitivities (California Department of Public Health 2017).
- **Fresno County Cooling Center:** provides cooling during extreme heat events to all populations exposed to extreme heat (Fresno County 2022).
- **Fresno County Affordable Housing Program:** provides financial assistance to all individuals who are experiencing water shortages (Fresno County 2022).
- **PG&E Community Wildfire Safety Program:** provides support to individuals with chronic health conditions or health related sensitivities experiencing impacts from public safety power shutoffs and wildfires (PG&E 2021).
- **Fresno County Multi-Hazard Mitigation Plan:** outlines vulnerabilities from extreme heat, wildfire, drought, poor air quality, and flooding to individuals with chronic health conditions or health related sensitivities (Fresno County 2018).

- **Integrated Strategies for a Vibrant and Sustainable Fresno County Report:** outlines strategies to reduce impacts from wildfire, drought, flooding, extreme heat, and poor air quality individuals with chronic health conditions or health related sensitivities (ClimateWise2011).
- **The Highway 168 Fire Council:** provides wildfire mitigation support to individuals with chronic health conditions or health related sensitivities (Highway 168 Fire Council 2022).
- **The Fresno-Kings Unit Strategic Fire Plan:** includes strategies to address wildfire risk to individuals with chronic health conditions or health related sensitivities (CalFire 2021).
- **The Fresno County Master Emergency Services Plan:** includes strategies to mitigate impacts of hazard events on individuals with chronic health conditions or health related sensitivities (Fresno County 2018).

Vulnerability Score

Climate Hazard	Impact Score	Adaptive Capacity Score	Vulnerability Score
Extreme Heat	High	Medium	High- 4
Drought	Medium	Low	High- 4
Wildfire	High	Medium	High- 4
Riverine and Stormwater Flooding	Medium	Low	High- 4
Air Quality	High	Low	High- 5

AGRICULTURE

Overview

California crops originating from the greater Central Valley account for 95 percent of US crop production (Fresno County, 2018). The majority of Fresno County’s economy is based in agriculture and is valued at over \$7 billion annually (Angel et al. 2021). Impacts to the County’s agricultural sector will be far reaching. The 2020 Fresno County Agricultural Crop and Livestock Report states that while the agricultural economy is improving, the industry struggles with labor shortages during peak harvest periods, increased production expenses, and climate hazard-related losses (County of Fresno Department of Agriculture, 2020). According to the California Department of Conservation, approximately 58 percent of unincorporated Fresno County is agricultural land. Some of the top economically profitable crop or rangeland types that can be found in are:

- Field Crops: Cotton, Corn
- Seed Crops: Alfalfa
- Vegetable Crops: Garlic, Tomatoes
- Fruit and Nut Crops: Grapes, Almonds, Pistachios, Oranges, Peaches
- Nursery Products
- Livestock and Poultry: Cattle, Poultry
- Apiary Products and Pollination Services
- Industrial Crops: Timber



FRESNO COUNTY GENERAL PLAN

Impacts relevant to agriculture as outlined within Climate Hazards include additional asset-specific hazards of Chill Hours and Tule Fog.

Potential Impacts

Extreme Heat and Warm Nights

Higher temperatures will decrease the snowpack and raise the snowline, decreasing one of the most important surface water reserves for agriculture (Angel et al. 2021). Extreme heat and warm nights can result in declines in crop yields because of heat stress and anomalous warmth during periods that are typically cooler (Parker Et.al, 2020). Lower crop yields can increase costs and ultimately decrease agriculture profitability. Livestock operations are potentially less viable during extreme heat events as livestock may suffer from heat related illness.

Chill Hours

Orchards depend on chill hours to break dormancy during the winter, to synchronize blooming, facilitate pollination, and produce standard quality and quantity of the crops (Fresno County, 2018). Climate change is decreasing the number of chill hours for crops, resulting in reduced tree yield, particularly for pistachios and walnuts, and decreasing suitable locations for these trees.

Drought

Like extreme heat and warm nights, drought is linked to declines in crop yields, increasing costs, and decreasing crop profitability. Drought can result in regional losses of crops and can stress the statewide water supply. Crops such as rice, alfalfa, almonds, and pistachios are dependent on high depths of water and subsequently higher water intensity needs (Cooley et al. 2015). Almonds and pistachios account for two of the top three most economically productive crops within Fresno County (County of Fresno Department of Agriculture, 2020). According to Fresno County asset managers, recent drought lead to a decrease in agricultural productivity in the county, as water scarcity has increased (Hurley 2022).

Wildfire

Most of the agricultural land uses within a wildfire hazard zone are rangeland which are located west of Interstate 5 and east of Clovis, as shown in Figure 20.

Crops and rangelands border wildfire hazard zones at the base of both the Sierra Nevada and the Coastal Range. Given the projected expansion of wildfire prone areas, larger areas of crop and rangeland may be within fire hazard severity zones in the future due to climate change. Wildfires can destroy crops and disrupt rangeland operations while wildfire smoke may stress the health of crops and livestock.

Landslides

Few rangeland and crop lands are located within landslide hazard areas.

Tule Fog

Fog plays a critical role to achieve the necessary dormancy that some fruit and nut trees require to improve their quality and total crop yield. Tule fog frequency is decreasing due to climate change which

may impact the profitability of orchards in Fresno. Tule Fog can also have impacts on moisture presence of the air affecting air quality.

Riverine and Stormwater Flooding

Crop and Farmland between Mendota and Huron is located within a 100-year floodplain while areas east of Firebaugh are located within a 500-year floodplain shown in Figure 21. Operations of these croplands in addition to areas along the rivers that run through the County have the potential to be disrupted during flood events and could result in reduction in crop yields. Agricultural worker residences could also be inundated

Air Quality

The direct impacts of air quality on agriculture within Fresno County is a of primary concern to crop yield and livestock health. Both are negatively impacted by worsening air quality as they are dependent on clean air for overall health (Angel et al. 2021).



FRESNO COUNTY GENERAL PLAN

Figure 20 Agriculture in Wildfire Hazard Zones

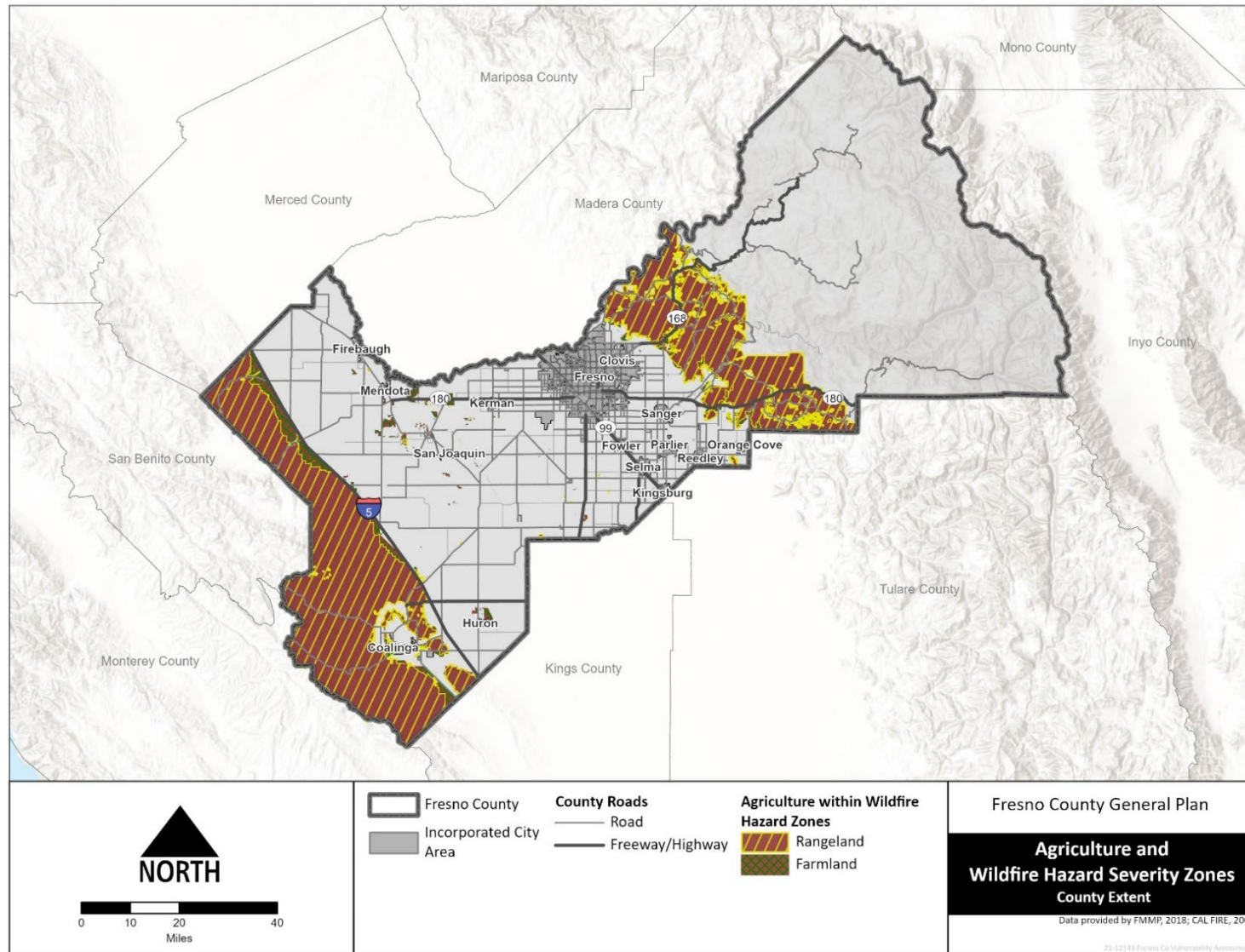
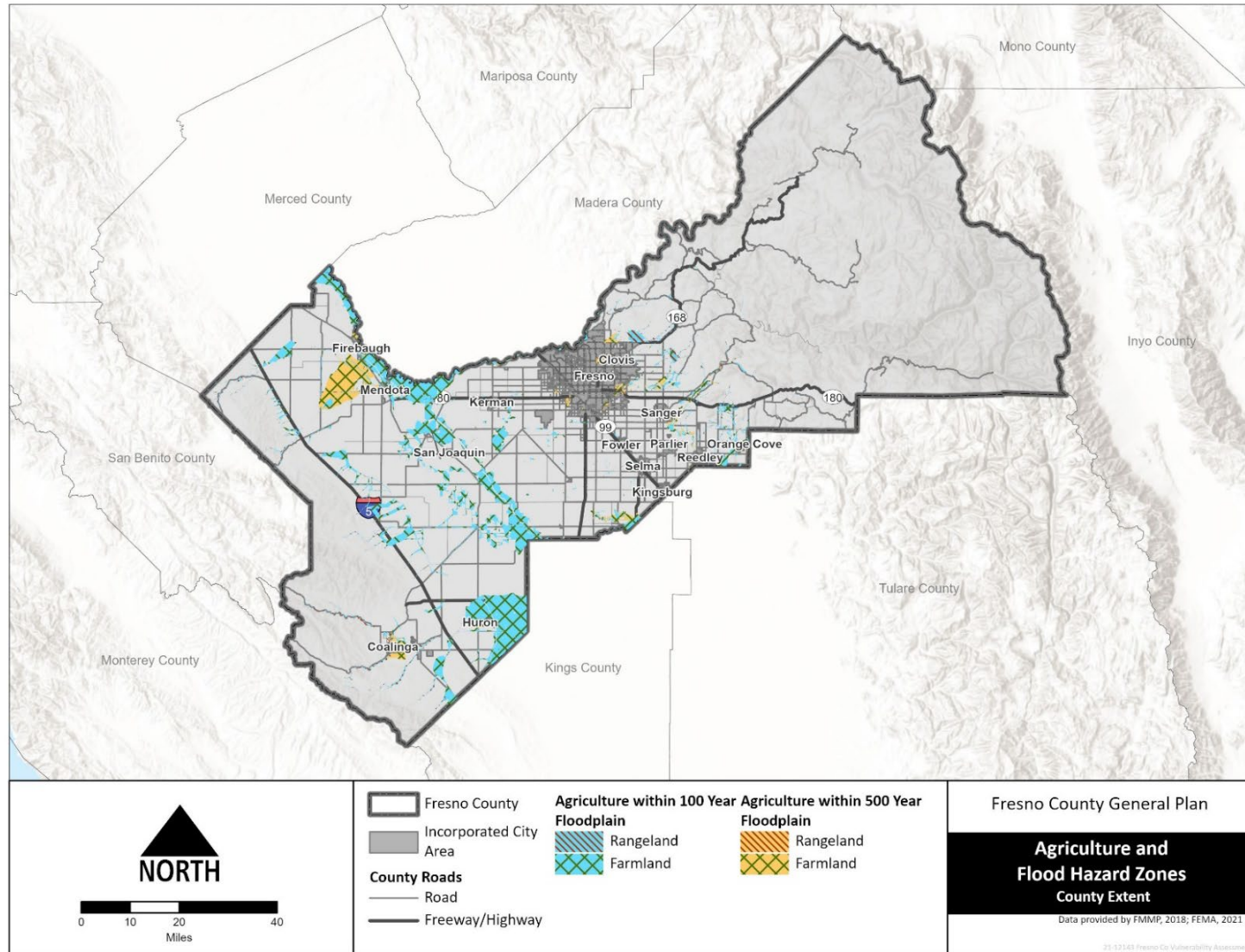


Figure 21 Agriculture in 100 and 500 Year Floodplains





FRESNO COUNTY GENERAL PLAN

Plans and Programs in Place to Alleviate Climate Impacts on Agriculture (Adaptive Capacity)

The USDA offers several programs that provide coverage to all US agricultural producers to help them manage risk and protect their operations from climate hazards and disasters. Assistance programs include the Agricultural Risk Coverage (ARC) and Price Loss Coverage (PLC) programs, Dairy Margin Coverage (DMC) program, Noninsured Crop Disaster Assistance Program, the Crop Insurance Program, Emergency Loan Program, and Disaster Set-Aside Program. The USDA programs help farmers protect and recover from drought, wildfire, and winter storms.

Fresno County’s Groundwater Sustainability Management Plans aim to minimize drought impacts on the local agricultural productions while maintaining the sustainable use of groundwater resources and groundwater water quality.

The Integrated Strategies for a Vibrant and Sustainable Fresno County Report addresses the vulnerabilities of County agricultural assets. The Report provides a set of recommended climate adaptation strategies for wildfire, drought, flooding, extreme heat, poor air quality, and chill hours.

Vulnerability Score

Climate Hazard	Impact Score	Adaptive Capacity Score	Vulnerability Score
Extreme Heat/Warm Nights	High	Low	High- 5
Chill Hours	High	Low	High- 5
Drought	High	Medium	High- 4
Wildfire	High	Medium	High- 4
Landslides	Low	Low	Medium- 3
Tule Fog	High	Low	High- 5
Riverine and Stormwater Flooding	Medium	Medium	Medium- 3
Air Quality	Medium	Low	High- 4

NATURAL RESOURCES

Overview

Natural resources as defined within the Fresno County Hazard Mitigation Plan includes county parks, open spaces, forested land, critical habitats, vegetation communities, rivers and streams, waterbodies, wetlands, and wildlife (Fresno County 2018). The majority of Fresno County’s natural resources are located within the eastern portion of the County where the Central Valley meets the foothills of the Sierras and stretches to the easternmost end of the County. Primary vulnerabilities for natural resources are associated with climate hazard-caused stress and physical damage to resource types within this asset group. Compounding climate hazards stress natural ecosystems past their ability to absorb individual climate hazards as described in Climate Hazards. Wildlife will seek out more conducive habitats during climate hazards such as extreme heat or drought which tend to be where people recreate (USDA 2020). Recreational areas are also placed under increased risk via climate projections creating additional stress and competing needs for safe habitats.

Potential Impacts

Extreme Heat and Warm Nights

The impacts under extreme heat and warm nights are similar to impacts experienced by vulnerable populations. Wildlife under these conditions face impacts of heat stress and heat related illness as well as disrupted reproductive cycles, and compounding risks associated with early and extended seasonal temperature increases (Backlund 2008). Because it is seasonally warmer earlier in the year species can emerge early with no food source and potentially face a delayed cold front which increases mortality rates. Timing of seasonal warmth may not overlap with food sources and extreme heat may stress dependent vegetation communities and wildlife (Dale, 1997, Hamerlynck 1995, Maclean 2011). Plants are more likely to experience heat stress and drying, species' habitat ranges may shift. Some pests can proliferate more easily with warmer temperatures (Hamerlynck 1995), and some plants and animals ill-suited to the new warmer conditions may suffer increased mortality rates (Angel et al. 2021). Natural resources are highly exposed to extreme heat and warm nights. Both mid- and end- of century projections in Figure 10 depict dramatic increases in extreme heat days.

Drought

Impacts from drought involve risks associated with water scarcity and availability for reliant natural resources. Drought will disrupt habitats and wildlife abilities to survive from dehydration and reliable food sources. Extended or variable drought conditions effect the amount and duration water is available in ephemeral and permanent waters sources, impacting plants and wildlife dependent on those aquatic resources. Fresno County includes several State and federally listed threatened or endangered species dependent on aquatic resources (rivers, streams, lakes, wetlands) for survival per the Biological Resources chapter of the Fresno County Environmental Impact Report (Fresno County 2023). These species have already been identified as vulnerable to extinction due to habitat loss or other disrupters which will be further compounded by drought. There is a risk of generally stressed natural resources and unsupportable conditions for consistent stream flow (Burkett 2000). Fresno County Public Works and Planning observed tree die-offs due to insufficient water and dry groundwater wells during recent periods of drought (Flores-Becker 2022).

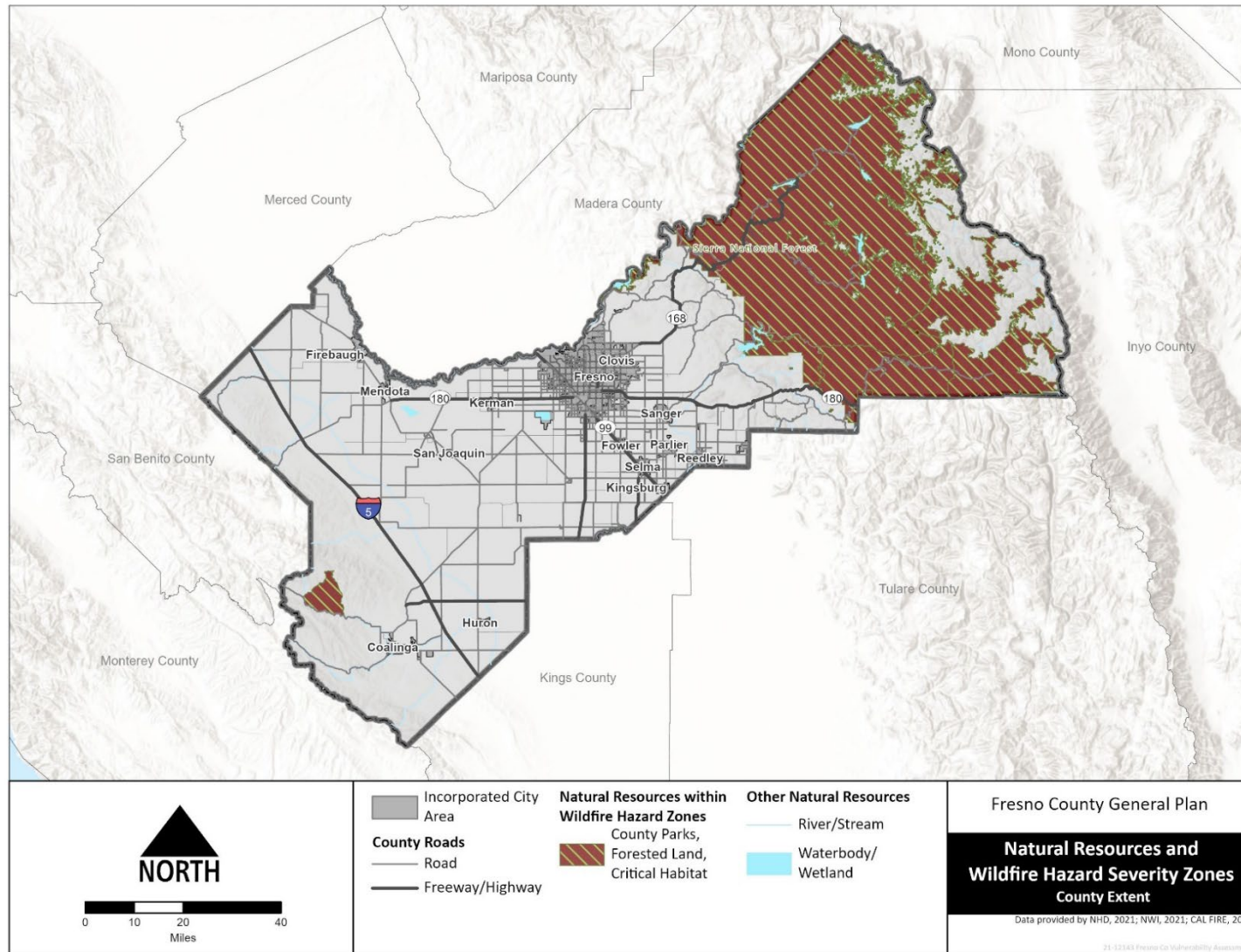
Wildfire

The largest direct impacts to natural resources are caused by wildfires. There is direct mortality and loss of resources and wildlife from wildfire as well as indirect mortality due to uninhabitable areas, loss of available food sources and seed bank (Backlund 2008). The severity and frequency of wildfires can exacerbate these impacts further through habitat conversions resulting in vegetation communities that no longer supports the species using that habitat (Bell et.al 1999, Stephenson et.al 1999, Coop et. al 2020). As discussed with the Climate Hazards section, projected annual burned acreage are expected to increase to 400 percent of historical levels by the end of the century. Figure 18 shows the entirety of eastern Fresno County within a wildfire zone which also contains the vast majority of natural resources. The map in Figure 22 shows all natural resources in wildfire zones. Several state and federally listed threatened or endangered species are dependent on habitats within high wildfire risk areas (Fresno County 2022). These species have already been identified as vulnerable to extinction due to habitat loss or other disrupters which will be further compounded by increased frequency and severity of wildfires.



FRESNO COUNTY GENERAL PLAN

Figure 22 Natural Resources in Wildfire Hazard Zones



This page left blank intentionally.



FRESNO COUNTY GENERAL PLAN

Landslides

Landslide susceptibility directly overlaps with most natural resource areas across the County. The likelihood of landslides occurring is determined by precipitation and wildfire occurring sequentially (Angel et al. 2021). In the event of a landslide there is potential for loss of lands, habitat, and disruption of waterbodies in areas of debris flow. The susceptibility of natural resource lands in Fresno County to landslides is less than other hazards such as wildfire but the risks around loss of topsoil and habitat conversions create a high scope of impact. Wildlife and plants face a compounding risk when presented with landslide events.

Riverine and Stormwater Flooding

There are several rivers that run through the Sierra Nevada. Flooding impacts are mainly caused by associated erosion and the detrimental effects flooding can have on water quality, especially to aquatic and fish species dependent on water quality for survival (Talbot 2018). Riverine and stormwater flooding will mostly affect sensitive species of plants and wildlife that are not upland based. Other impacts include damage from inundation within storm flooded areas such as habitats and lands around streams and waterbodies in the County.

Air Quality

The direct effects of air quality declines on natural resources are similar to the effects on Agriculture. Air quality risk relates to plant and wildlife health as increased air pollutants causes stress and mortality. Impacts from air quality can further impact natural resources since air quality declines correspond with other hazards, compounding risks.

Plans and Programs in Place to Alleviate Climate Impacts on Natural Resources (Adaptive Capacity)

The Highway 168 Fire Council runs several programs to mitigate wildfire risk and to protect natural resources, including wildlife habitat and endangered plant species including the Beal Fuel Break, Sugarloaf Fuel Break, and Shaver West Fuel Break programs.

The Fresno-Kings Unit Strategic Fire Plan outlines a vegetation management program that strives to protect wildlife habitat in the Fresno Kings Unit.

The Fresno County LHMP broadly outlines the county-wide goal to minimize the loss of endangered species, native plants, land, and native wildlife to climate hazards.

The Sierra Conservation District's Eastern Fresno County Firesafe & Fuels Reduction Program aims to advise private landowners on how to implement management practices that simultaneously reduce wildfire risk and promote forest stewardship through reforestation, soil erosion control, and thinning vegetation.

The Integrated Strategies for a Vibrant and Sustainable Fresno County Report includes adaptation strategy recommendations for freshwater aquatic, riparian, wildlands, forest, grasslands, and semi-desert species and ecosystems. The Report includes recommendations that can increase adaptive capacity to drought, wildfire, disease, and invasive species.

Vulnerability Score

Climate Hazard	Impact Score	Adaptive Capacity Score	Vulnerability Score
Extreme Heat/Warm Nights	High	Low	High- 5
Drought	High	Low	High- 5
Wildfire	High	Medium	High- 4
Landslides	High	Low	High- 5
Riverine and Stormwater Flooding	Medium	Low	High- 4
Air Quality	Medium	Low	High- 4

BUILDINGS AND FACILITIES

Overview

A jurisdiction’s vulnerability increases when buildings and facilities are not designed, operated, and/or maintained to function effectively under extreme weather conditions or can be damaged by extreme weather conditions. Climate change is expected to amplify extreme weather as described in Section 2.2 Hazards. The following County buildings and facilities would be particularly sensitive to climate change: county buildings, educational facilities, hospitals, residential and commercial development, roadways and transportation facilities, active transportation routes, fire stations, and police stations. Vulnerabilities of this asset category primarily concern physical exposure and damages related to Climate Hazards. Impacts associated with operations of critical services are discussed Infrastructure and Critical Services.

Potential Impacts

Extreme Heat and Warm Nights

Extreme heat could impact occupants of buildings and facilities that are not adequately weatherized for increased temperatures.

Drought

Drought will have minimal impact on the physical structures of buildings and facilities across Fresno County.

Wildfire

The structures and buildings that occupy wildfire hazard zones are at risk of structural damage from wildfires. Wildfire hazard zones may expand by end of century which could lead to more facilities at risk of structural damage. There are many critical facilities, including fire stations, police stations, schools, and the Miramonte Corrections Department, prison, in the County’s wildfire hazard zones (see in Figure 23). According to asset manager survey results the Creek Fire caused damaged to infrastructure in several County maintained water and wastewater systems in the Shaver Lake area (Bump 2022).



FRESNO COUNTY GENERAL PLAN

Landslides

Landslide susceptibility for the County overlaps with wildfire hazard zones (CDOC 2021). Impacts to buildings and facilities could occur at the eastern end of the County with several fire stations and a school in the potential path of post wildfire debris flows.

Riverine and Stormwater Flooding

There is minimal risk to the physical structures outlined under this asset category to riverine and stormwater flooding. The location of floodplains in Figure 18 and the placement of several schools and fire stations in Figure 24 show a slight risk of impact to flooding.

Air Quality

The impact of reduced air quality will have a similar effect as extreme heat for buildings and facilities. The ability to filter air will greatly affect the reliant subsystems, services, and populations reliant on the buildings and facilities. The direct impact on structures is low.

Plans and Programs in Place to Alleviate Climate Impacts on Buildings and Facilities (Adaptive Capacity)

Fresno County SRA Safe Regulations include certain requirements for new buildings that mitigate wildfire risk.

The Sierra Resource Conservation District’s Eastern Fresno County Firesafe and Fuels Reduction Program aims to encourage property owners to develop defensible space areas on their properties to protect their homes and property.

The Fresno County LHMP include the goal to provide protection for critical facilities, utilities, and services from hazard impacts. The Plan describes the County’s objective to upgrade or replace critical county facilities found to be vulnerable to major hazards.

Vulnerability Score

Climate Hazard	Impact Score	Adaptive Capacity Score	Vulnerability Score
Extreme Heat/Warm Nights	Medium	Low	High- 4
Drought	Low	Medium	Medium- 2
Wildfire	High	Medium	High- 4
Landslides	Low	Low	Medium- 3
Riverine and Stormwater Flooding	Medium	Low	High- 4
Air Quality	Low	Low	Medium- 3

INFRASTRUCTURE AND CRITICAL SERVICES

Overview

Within Fresno County there is a large array of infrastructure and critical services that are vulnerable to climate change. Assets within this category include Water Services, Wastewater, Storm Drainage and

Flood Protection, Solid and Hazardous Waste and Recycling, Fire Services, Emergency Services, Medical Services, Utilities and Major Utility Corridors, Public Transportation, Roadways and Active Transportation Routes. Overall vulnerabilities associated with this asset category involve structural preparedness and service reliability in the face of climate change. This section details the Cascading Impacts detailed previously.

Potential Impacts

Extreme Heat and Warm Nights

As temperatures increase, roadways, active transportation routes, and railroads are vulnerable to damages through sustained heat such as buckled railroad ties and cracked surfaces (Angel et al. 2021). Additional impacts from extreme heat are associated with increased emergency service calls which could strain medical services. Electrical infrastructure could be overwhelmed by demand and result in blackouts or energy providers could conduct power safety shutoffs to avoid impacts to electrical facilities. Power outages have significant impacts on communication networks, water conveyance, and vulnerable populations. The ability for emergency services to fully function is a cascading impact of power outages which can place additional strain on services during extreme heat events. According to asset manager survey results, County emergency services are further impacted by extreme heat in their ability to provide services based on personnel impacts from extreme heat resulting in a need for additional resources (Michaels 2022) .

Drought

Drought can impact water reliability and water infrastructure. All emergency services depend on water, particularly firefighters who require adequate water supply for fire suppression. Water providers within the county will encounter increased difficulty as drought impacts general service reliability. Regionally it has been found that drought and subsequent overuse of groundwater has exacerbated unsafe drinking water in rural areas (Angel et al. 2021). Fresno shifted to surface water from groundwater because of historic drought impacts out of necessity, however, the overall scarcity of water in California, alongside projected changes in snowpack, temperature, and precipitation rates from climate change, will result in water scarcity through the end of the century (Fresno County 2018). Drought impacts can create service strain for emergency and medical services. Cracked pavements from drought compounded with extreme heat affects roadways and transportation routes.

Wildfire

There are many facilities located within a wildfire hazard severity zone as displayed in Figure 23. Additionally, electricity distribution lines as well as natural gas and oil lines are interdependent systems for the county that are present in wildfire zones shown in Figure 25. Utility lines have the potential to be damaged in high-risk locations, resulting in oil and gas leaks and power outages. Utility lines under certain high wind conditions can also trigger wildfires through downed power lines (Angel et al. 2021). Additionally, power safety shut offs in response to wildfire risk can affect service reliability of power. Increased frequency of wildfires in areas shown in Figure 15 and Figure 16 and can place strain on fire and emergency services. Evacuation routes could be disrupted during a wildfire event limiting emergency responders and ability for people to evacuate as well. Post-wildfire there are additional issues of displacement and needs for temporary shelters for uprooted communities (Prado 2022).



FRESNO COUNTY GENERAL PLAN

Wildfires can also impact water quality downstream. Based on Fresno County asset manager survey results, the McMullin Area Groundwater Sustainability Agency noted that water resources within the agency's jurisdiction experienced degraded water quality from August 2016-July 2017 due to a wildfire.(Hurley 2022).

This page left blank intentionally.



FRESNO COUNTY GENERAL PLAN

Figure 23 Critical Facilities and Wildfire Hazard Severity Zones

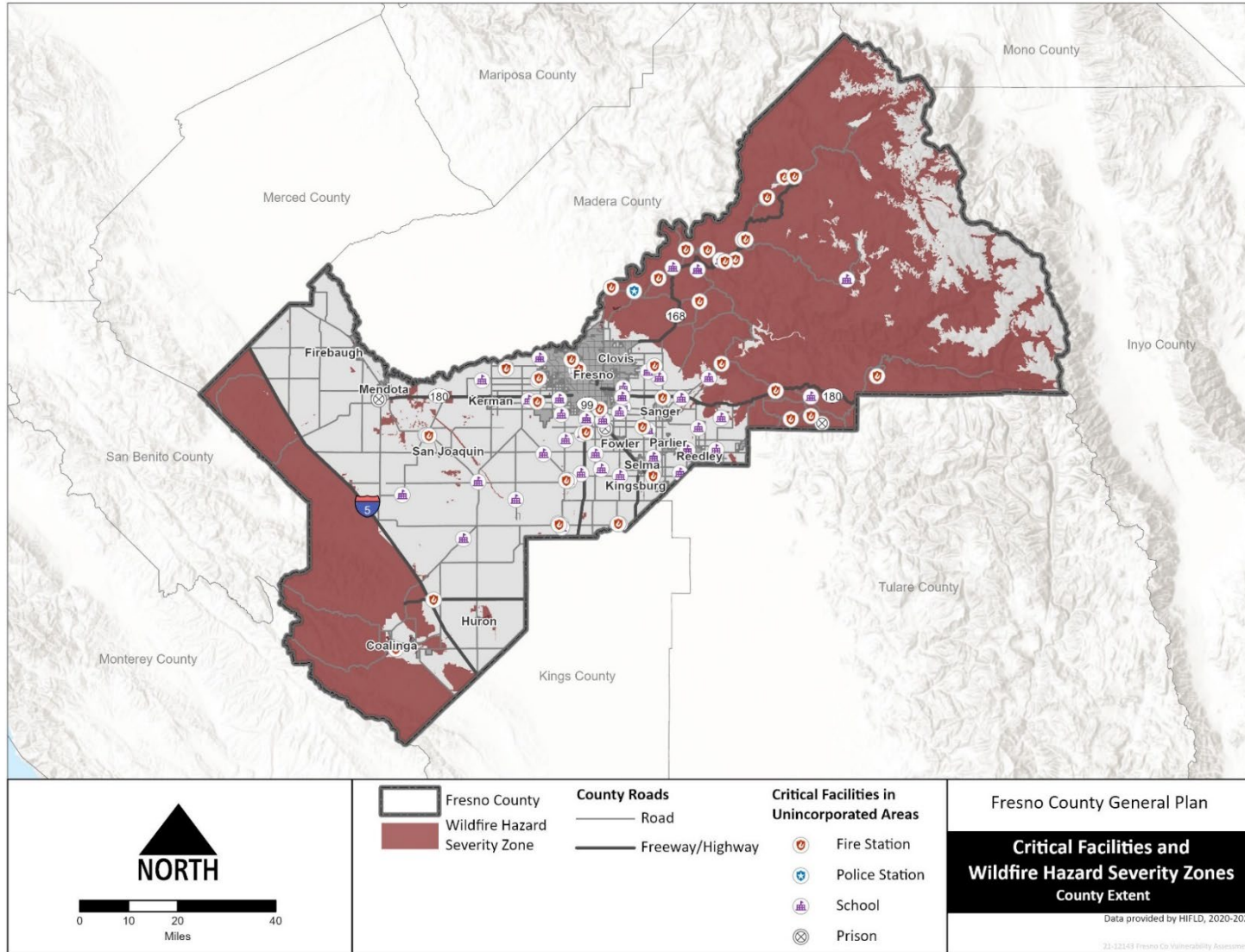
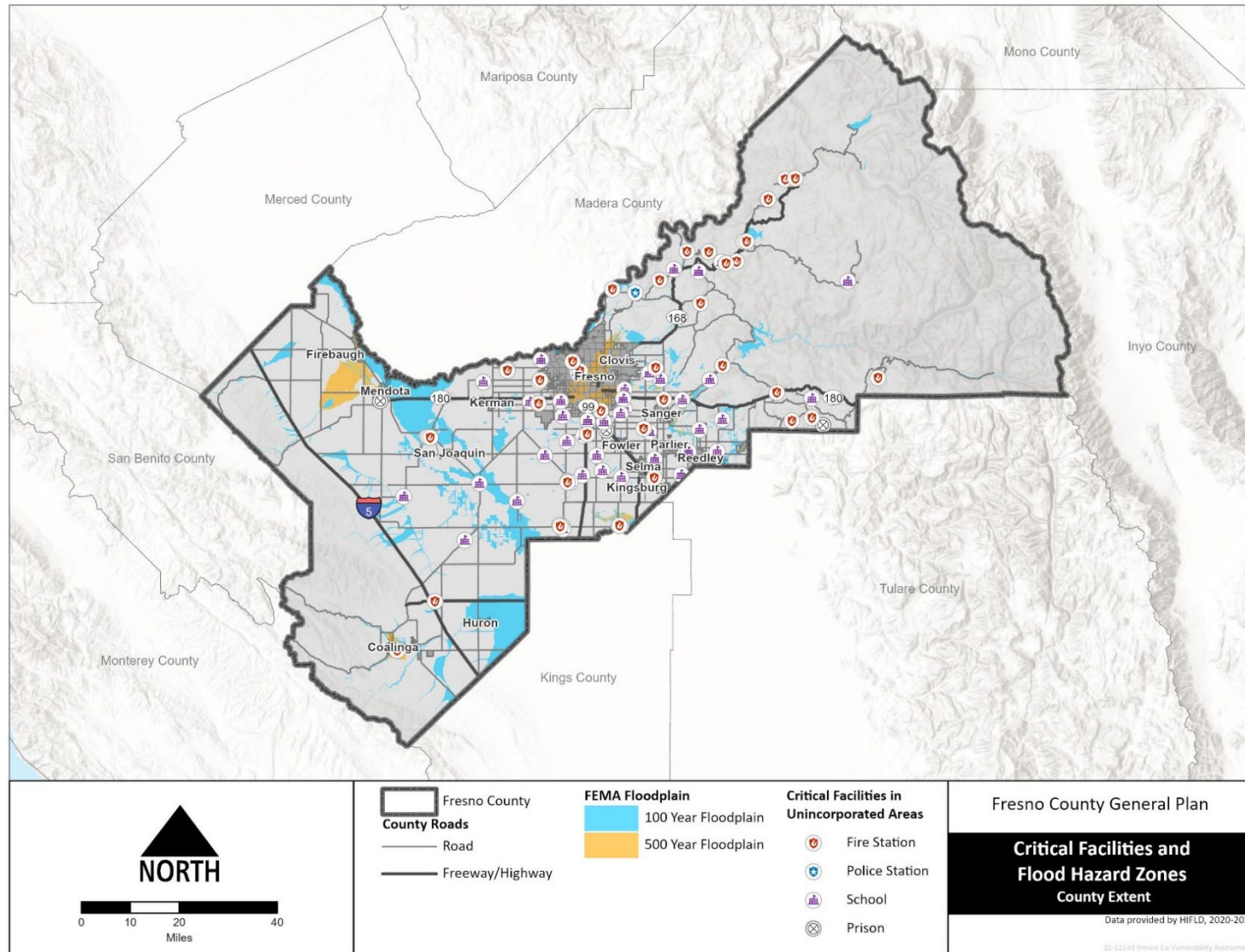


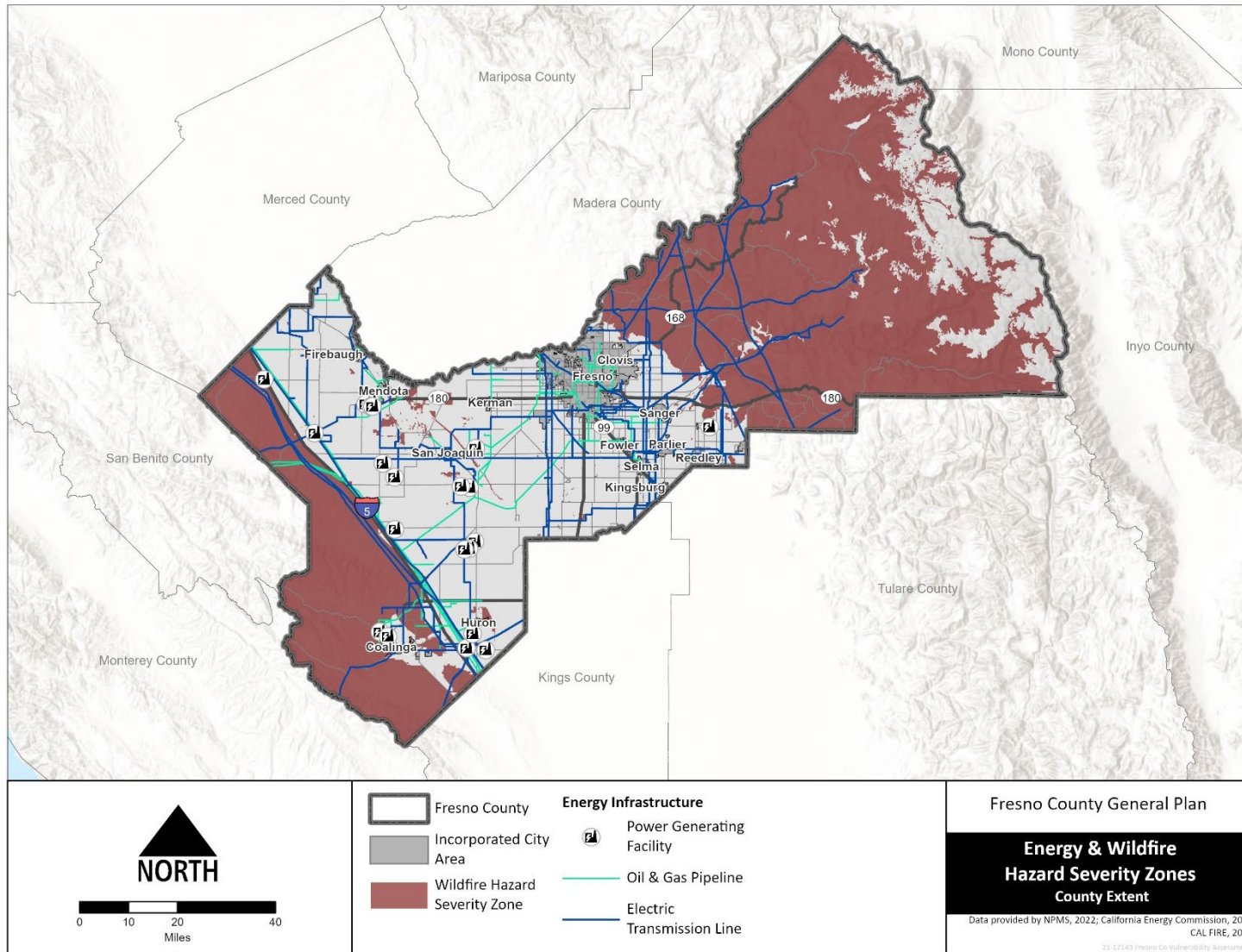
Figure 24 Critical Facilities and 100 and 500 Year Floodplain in Fresno County





FRESNO COUNTY GENERAL PLAN

Figure 25 Oil & Gas and Electrical Transmission Systems in Wildfire Hazard Severity Zones



This page left blank intentionally.



FRESNO COUNTY GENERAL PLAN

Landslides

Pipelines for water, electrical distribution lines, and roadways are vulnerable to landslide impacts which could occur in sloped areas that extend into wildfire zones. With high landslide susceptibility along roadways in the Sierra Nevada as well as several fire stations there is a risk of emergency service disruption and impacts to evacuation (CDOC 2021). According to the Auberry Volunteer Fire Department, historic landslides along and near Highway 168 disrupted emergency routes for Fresno County responders (Schacher 2022).

Riverine and Stormwater Flooding

Impervious surfaces can impede the absorption of water and augment stormwater flooding in areas of Fresno County. There is risk of damage from increased extreme precipitation events including erosion, washouts, and sinkholes. Storm drainage and flood protection services for the County may be impacted by these events and potential areas of impact can be found in Figure 18. Water supply for fire suppression as well as wildfire-caused declines in water quality are additional cascading impacts.

Air Quality

Higher incidence of unsafe air quality generated by increased ozone, dust and wildfire smoke can create general strain on existing infrastructure and critical services through increased rates of hospitalization and emergency and medical services (CDPH, 2020).

Plans and Programs in Place to Alleviate Climate Impacts on Infrastructure and Critical Services (Adaptive Capacity)

Fresno County SRA Safe Regulations include certain requirements for new infrastructure including roads, driveways, and fire hydrants to ensure emergency access and mitigate wildfire risk.

The Fresno County LHMP includes the broad goal of protecting critical facilities, utilities, and services from hazard impacts. The Plan includes goals to increase flood water conveyance facilities and capacity, prepare stormwater drainage master plans, and construct water storage options in the County. The Plan describes the County's objective to improve transportation corridors to create better evacuation routes for the public and increased accessibility for emergency responders.

The Integrated Strategies for a Vibrant and Sustainable Fresno County Report includes recommendations on strategies and projects for improved flood protection, groundwater recharge, and climate resilient energy infrastructure.

PGE's Community Wildfire Safety Program implements improvements within Fresno County energy infrastructure to reduce wildfire risk and increase resilience to climate hazards including strong storms and wildfire.

Heat illness prevention programs exist internally within emergency services and county departments for County responders and staff in addition to community cooling centers and heat related work cycles (Michaels 2022, Prado 2022).

Vulnerability Score

Climate Hazard	Impact Score	Adaptive Capacity Score	Vulnerability Score
Extreme Heat	High	Low	High- 5
Drought	High	Low	High- 5
Wildfire	High	Medium	High- 4
Landslides	Medium	Low	High- 4
Riverine and Stormwater Flooding	Medium	Medium	Medium- 3
Air Quality	Medium	Low	High- 4

CONCLUSION

This report evaluates how climate change may impact vulnerable community members, natural resources, agriculture, critical facilities, buildings, services, and infrastructure in unincorporated Fresno County. The report provides a prioritized list of vulnerable population groups and assets for which adaptation policies and programs should be developed and implemented to increase community resilience. Vulnerability is based on the combination of potential impacts and adaptive capacity, as identified in the Vulnerability Analysis section of the report.

A list of the population groups and asset categories with high vulnerability scores is provided below.

- All 22 of the sensitive population types identified are highly vulnerable to extreme heat, riverine and stormwater flooding, and air quality with many population groups also vulnerable to drought and wildfires. The populations with the highest social sensitivity are primarily located in central and eastern areas of Fresno County.
- Agriculture assets in the County are highly vulnerable to extreme heat, warm nights, chill hours, drought, wildfire, tule fog, and air quality. Rangelands, located in or near wildfire hazard severity zones are particularly vulnerable to direct damage from fire and could experience a disruption of operations.
- Buildings and facilities in the County are highly vulnerable to extreme heat, wildfire, and riverine and stormwater flooding. Buildings and facilities located in wildfire hazard zones or FEMA flood zones are at risk of structural damage from wildfire and/or flooding.
- Natural resources are highly vulnerable to extreme heat, drought, wildfire, landslides, riverine and stormwater flooding, and air quality. Vulnerability for natural resources is focused on habitat conversions and damage, mortality, and scarcity of resources for plants and wildlife.
- Infrastructure and critical facilities are highly vulnerable to extreme heat, drought, wildfire, landslides, and air quality. Drought is projected to impact water reliability and water infrastructure, leading to exacerbated rates of unsafe drinking water in rural areas (Angel et al. 2021) and straining water supply for fire suppression. Fire stations, schools, a police station, and a prison (the Miramonte Corrections Department) are located in the wildfire hazard severity zones in eastern Fresno County. These buildings and facilities are at risk of structural damage from wildfire. Infrastructure and dependent populations experience additional cascading impacts around power outages from downed utility lines, power safety shut offs and grid overload. All forms of power outages can affect how critical services are able to perform their needed functions during a hazard.



FRESNO COUNTY GENERAL PLAN

Climate Hazard	Impact Score	Adaptive Capacity Score	Vulnerability Score
Individuals with high outdoor exposure (outdoor workers and people experiencing homelessness)			
Extreme Heat	High	Medium	High- 4
Drought	High	Low	High- 5
Wildfire	High	Medium	High- 4
Riverine and Stormwater Flooding	High	Low	High- 5
Air Quality	High	Low	High- 5
Under-resourced individuals (low-income, unemployed, individuals with no health insurance, households without a computer, households without a broadband internet, renters, isolated individuals, single-female heads of households, individuals with educational attainment of less than 4 years of college)			
Extreme Heat	High	Medium	High- 4
Riverine and Stormwater Flooding	Medium	Low	High- 4
Air Quality	Medium	Low	High- 4
Individuals facing societal barriers (non-white communities, linguistically isolated, American Native and Native Alaskan, undocumented individuals)			
Extreme Heat	High	Low	High- 5
Drought	Medium	Low	High- 4
Riverine and Stormwater Flooding	Medium	Low	High- 4
Air Quality	Medium	Low	High- 4
Individuals with chronic health conditions or health related sensitivities (older adults, children, individuals with disabilities, individuals with asthma, individuals with cardiovascular disease, individuals with COPD military veterans, pollution burdened)			
Extreme Heat	High	Medium	High- 4
Drought	Medium	Low	High- 4
Wildfire	High	Medium	High- 4
Riverine and Stormwater Flooding	Medium	Low	High- 4
Air Quality	High	Low	High- 5
Agriculture			
Extreme Heat	High	Low	High- 5
Chill Hours	High	Low	High- 5
Drought	High	Medium	High- 4
Wildfire	High	Medium	High- 4
Tule Fog	High	Low	High- 5
Air Quality	Medium	Low	High- 4
Natural Resources			
Extreme Heat	High	Low	High- 5
Drought	High	Low	High- 5
Wildfire	High	Medium	High- 4
Landslides	High	Low	High- 5
Riverine and Stormwater Flooding	Medium	Low	High- 4

Climate Hazard	Impact Score	Adaptive Capacity Score	Vulnerability Score
Air Quality	Medium	Low	High- 4
Buildings and Facilities			
Extreme Heat	Medium	Low	High- 4
Wildfire	High	Medium	High -4
Riverine and Stormwater Flooding	Medium	Low	High- 4
Infrastructure and Critical Facilities			
Extreme Heat	High	Low	High- 5
Drought	High	Low	High- 5
Wildfire	High	Medium	High- 4
Landslides	Medium	Low	High -4
Air Quality	Medium	Low	High- 4

This assessment is a starting point for identifying adaptation policies and programs that can increase resilience in unincorporated Fresno County. The Fresno County Safety Element will include policies and programs that provide resilience benefits to the population groups and asset categories in unincorporated Fresno County with the highest vulnerability.

REFERENCES

Amorelli, Manny. 2022. *James Irrigation District*. Personal Communication via Fresno County Asset Manager Survey. Rincon Consultants, Inc. June 10, 2022

Angel Santiago Fernandez-Bou, J. Pablo Ortiz-Partida, Chantelise Pells, Leticia M. Classen-Rodriguez, Vicky Espinoza, Jose M. Rodríguez-Flores, Lorenzo Booth, Julia Burmistrova, Alan Cai, Ariadna Cairo, John A. Capitman, Spencer Cole, Humberto Flores-Landeros, Alexander Guzman, Mahesh L. Maskey, Dalia Martínez Escobar, Pedro Andres Sanchez-Perez, Jorge Valero-Fandiño, Joshua H. Viers, Leroy Westerling, and Josué Medellín Azuara. 2021. Regional Report for the San Joaquin Valley Region on Impacts of Climate Change. California Natural Resources Agency. Publication number: SUM-CCCA4-2021-003.

Association of Public & Land-Grant Universities. N.d. How does a college degree improve graduates' employment and earnings potential? <https://www.aplu.org/our-work/5-archived-projects/college-costs-tuition-and-financial-aid/publicvalues/publicvalues-resources/q3/employment-and-earnings.pdf>

Baird, Rachel. 2008. The Impact of Climate Change on Minorities and Indigenous People. <https://minorityrights.org/wp-content/uploads/old-site-downloads/download-524-The-Impact-of-Climate-Change-on-Minorities-and-Indigenous-Peoples.pdf>. Accessed April 2022

Beaver, Scott, A. Palazoglu and A. Singh, Univ. of California, Davis, CA; Fresno Eddy recirculation and its impact on ozone buildup in the San Joaquin Valley of California. 2008. https://ams.confex.com/ams/88Annual/techprogram/paper_132276.htm

Bell, C., J. DiTomaso, and M. Brooks. Invasive Plants and Wildfires in Southern California. https://ucanr.edu/sites/SAFElandscapes/Fire_in_Southern_California_Ecosystems/



FRESNO COUNTY GENERAL PLAN

- Bernal, Chris. 2022. *Department of Public Works and Planning*. Personal Communication via Fresno County Asset Manager Survey. Rincon Consultants, Inc. June 10, 2022
- Bump, Christopher. 2022. *Fresno County, Department of Public Works and Planning*. Personal Communication via Fresno County Asset Manager Survey. Rincon Consultants, Inc. June 10, 2022
- Burkett, V. and J. Kusler. 2000. Climate change: Potential impacts and interactions in wetlands of the United States. *Journal of the American Water Resources Association* 36(2):313-320
- California Department of Conservation (CDOC). 2021. CGS Map Sheet 58: Deep-Seated Landslide Susceptibility. <https://www.arcgis.com/home/item.html?id=3cdc744bec6b45c28206e472e8ad0f89#>
- California Department of Forestry and Fire Protection (CAL FIRE) et al. 2021. Fresno-Kings Unit Strategic Fire Plan. https://osfm.fire.ca.gov/media/ssjl2m3m/2021_fku_fireplan.pdf
- California Department of Public Health (CDPH). 2014. Average Daily Maximum Ozone Concentration. https://www.cdph.ca.gov/Programs/OHE/CDPH%20Document%20Library/CHVIs/BRACE_Ozone_801_Narrative.pdf
- _____. 2020. Climate Change and Health Vulnerability Indicators for California. <https://www.cdph.ca.gov/Programs/OHE/Pages/CC-Health-Vulnerability-Indicators.aspx>
- _____. 2017. Climate Change and Health Profile Report Fresno County. https://www.cdph.ca.gov/Programs/OHE/CDPH%20Document%20Library/CHPRs/CHPR019Fresno_County2-23-17.pdf
- California Energy Commission (CEC). Cal-Adapt Local Climate Change Snapshot for Fresno County. 2021. <https://cal-adapt.org/tools/local-climate-change-snapshot>
- California Governor's Office of Emergency Services, The (Cal OES). 2020. California Adaptation Planning Guide. <https://www.caloes.ca.gov/HazardMitigationSite/Documents/CA-Adaptation-Planning-Guide-FINAL-June-2020-Accessible.pdf>
- California Office of Emergency Services (Cal OES). 2018. California State Hazard Mitigation Plan. <https://www.caloes.ca.gov/cal-oes-divisions/hazard-mitigation/hazard-mitigation-planning/state-hazard-mitigation-plan>
- California Department of Water Resources (DWR). Drought. 2021. <https://water.ca.gov/water-basics/drought>
- Cantwell, Pat. How We Complete the Census When Households or Group Quarters Don't Respond. 2021. <https://www.census.gov/newsroom/blogs/random-samplings/2021/04/imputation-when-households-or-group-quarters-dont-respond.html>
- ClimateWise. 2011. Integrated Strategies for a Vibrant and Sustainable Fresno County. http://uccrna.org/wp-content/uploads/2017/06/80_Fresno_2011_Integrated-Strategies-for-a-Vibrant-and-Sustainable-Fresno-County.pdf
- Collins M., M. Sutherland, L. Bower, S.-M. Cheong, T. Frölicher, H. Jacot Des Combes, M. Koll Roxy, I. Losada, K. McInnes, B. Ratter, E. Rivera-Arriaga, R.D. Susanto, D. Swingedouw, and L. Tibig, 2019: Extremes, Abrupt Changes and Managing Risk. In: IPCC Special Report on the Ocean and

- Cryosphere in a Changing Climate [H.-O. Pörtner, D.C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, A. Alegría, M. Nicolai, A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.)]. In press.
- Cooley, Heather, Eli Moore, Matthew Heberger, and Lucy Allen. Social Vulnerability to Climate Change in California. 2012. <https://pacinst.org/wp-content/uploads/2012/07/social-vulnerability-climate-change-ca.pdf>. Accessed April 2022
- Cooley, Heather. Pacific Institute. California Agricultural Water Use: Key Background information. 2015. Available: <https://pacinst.org/wp-content/uploads/2015/04/CA-Ag-Water-Use.pdf>. Accessed April 7, 2022
- Coop, et. Al., (2020) Wildfire-Driven Forest Conversion in Western North American Landscapes *BioScience* 70: 659–673. Published by Oxford University Press on behalf of the American Institute of Biological Sciences. doi:10.1093/biosci/biaa061
- The County of Fresno (Fresno County). Fresno County Multi-Jurisdictional Hazard Mitigation Plan. 2018. <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2020/12/FresnoCountyHMPFinal.pdf>
- County of Fresno Department of Agriculture. Fresno County 2020 Crop Report. 2020. Available: https://www2.co.fresno.ca.us/VisionLive/Agricultural%20Commissioner/Fresno%20County%20AG%20Crop%20Report_2020_FOR%20POSTING%20ONLINE.pdf
- Cousineau, Darren. 2022. *State Center Community College District*. Personal Communication via Fresno County Asset Manager Survey. Rincon Consultants, Inc. June 10, 2022
- Dale, Virginia H. First published: 01 August 1997. Photosynthetic and stomatal responses to high temperature and light in two oaks at the western limit of their range ERIK HAMERLYNCK1,2 and ALAN K. KNAPP1 1 Division of Biology, Kansas State University, Ackert Hall, Manhattan, KS 66506-4901, USA 2 Present address: Department of Biological Sciences, University of Nevada Las Vegas, 4505 Maryland Parkway, Box 454004, Las Vegas, NV 89154-4004, USA Received May 25, 1995 [https://doi.org/10.1890/10510761\(1997\)007\[0753:TRBLUC\]2.0.CO;2](https://doi.org/10.1890/10510761(1997)007[0753:TRBLUC]2.0.CO;2)
- Feinstein Laura, Phurisamban Rapichan, Ford Amanda, Christine Tyler, and Crawford Ayana. 2017. Drought and Equity in California. https://pacinst.org/wp-content/uploads/2017/01/PI_DroughtAndEquityInCA_Jan_2017_Executive_Summary.pdf
- Flanagan Barry, Gregory Edward, Heitgerd Janet, Lewis Brian. 2011. A Social Vulnerability Index for Disaster Management. <https://svi.cdc.gov/A%20Social%20Vulnerability%20Index%20for%20Disaster%20Management.pdf>
- Flores-Becker, Amina. 2022. *Fresno County Department of Public Works*. Personal Communication via Fresno County Asset Manager Survey. Rincon Consultants, Inc. June 10, 2022
- Fresno County. 2022. Affordable Housing Programs Drought Water Shortage and Drought Assistance. <https://www.co.fresno.ca.us/home/showpublisheddocument/59207/637680096519600000>. Accessed April 2022



FRESNO COUNTY GENERAL PLAN

- _____. 2021. Annual Water Conservation Report.
<https://www.co.fresno.ca.us/home/showpublisheddocument/49310/637360292660200000>.
Accessed April 2022
- _____. 2022. Code of Ordinances. https://library.municode.com/ca/fresno_county. Accessed April 2022
- _____. 2018. Fresno County Heat Emergency Contingency Plan. Accessed April 2022
- _____. 2022. Extreme Heat. <https://www.co.fresno.ca.us/departments/public-health/office-of-emergency-services-oes/about-fresno-county-office-of-emergency-services/extreme-heat>.
Accessed April 2022
- _____. 2000. Fresno County General Plan.
<https://www.co.fresno.ca.us/home/showpublisheddocument/18117/636753797422170000>
Accessed April 2022
- _____. 2016. Heat Illness Prevention Program. Accessed April 2022
- _____. 2018. Fresno County Multi-Hazard Mitigation Plan. <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2020/12/FresnoCountyHMPFinal.pdf>. Accessed April 2022
- _____. 2018. Master Emergency Services Plan.
<https://www.co.fresno.ca.us/home/showpublisheddocument/30146/636712189481700000>
- _____. 2022. Public Health Emergency Preparedness (PHEP).
<https://www.co.fresno.ca.us/departments/public-health/community-health/public-health-emergency-preparedness-phep>
- _____. 2022. Sustainable Groundwater Management Act (SGMA).
<https://www.co.fresno.ca.us/departments/public-works-planning/divisions-of-public-works-and-planning/admin-division/sustainable-groundwater-management-act>
- _____. 2022. Fresno County Sheriff's Office Evacuation Guidelines.
<https://www.fresnosheriff.org/community/fire-season-information/fresno-county-sheriff-s-office-evacuation-guidelines.html>
- _____. 2023. Environmental Impact Report (EIR) Biological Resources Chapter.
<https://www.co.fresno.ca.us/home/showpublisheddocument/73292/638180979009230000>
- Fresno County of Governments. 2019. Tribal Consultation Plan. <https://2ave3l244ex63mgdyc1u2mfp-wpengine.netdna-ssl.com/wp-content/uploads/2020/07/Appendix-B-Tribal-Consultation-1.pdf>
- Fresno County Fire Protection District. 2022. Fresno County SRA Fire Safe Regulations.
<https://www.fresnocountyfire.org/stations-and-functions/fire-prevention/planning-engineering/protection-and-planning/fresno-county-sra-fire-safe-regulations/>
- Fresno Irrigation District. 2020. Annual Report. <https://www.fresnoirrigation.com/annual-report>
- Fresno Irrigation District et al. 2006. Fresno Area Regional Groundwater Management Plan.
<http://www.fresnofloodcontrol.org/wp-content/uploads/2019/10/Fresno-Area-Regional-GWMP-Final.pdf>
- Fresno Metropolitan Flood Control District. 2022. Flood Control Program.
<http://www.fresnofloodcontrol.org/wp-content/uploads/2016/06/Flood-Control-Program.pdf>

- Fresno Metropolitan Flood Control District Rural Streams Program. 2022.
<https://www.fresnofloodcontrol.org/urban-basins-sandbags-dams-streams/>
- Gamble & Balbul. 2016. The Impacts of Climate Change on Human Health in the United States.
https://health2016.globalchange.gov/low/ClimateHealth2016_09_Populations_small.pdf
- Gutierrez, Jose. 2022. Westlands Water District. Personal Communication via Fresno County Asset Manager Survey. Rincon Consultants, Inc. June 10, 2022
- Hurley, Matthew. 2022. *McMullin Area Groundwater Sustainability Agency*. Personal Communication via Fresno County Asset Manager Survey. Rincon Consultants, Inc. June 10, 2022
- Highway 168 Fire Safe Council. 2022. Projects. <https://www.highway168firesafecouncil.org/projects>
- Hispanic Access Foundation. 2021. 2021 Conservation Policy Toolkit.
https://www.hispanicaccess.org/news-resources/research-library/item/download/27_b8d58d0cba84ecde3091eb6e2f7f303d
- Intergovernmental Panel on Climate Change (IPCC). 2012. Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation, a special report of Working Groups I and II of the IPCC, ed. C. B. Available:
https://www.ipcc.ch/site/assets/uploads/2018/03/SREX_FD_SPM_final-2.pdf. Accessed February 14, 2022.
- Indian Health Service. 2019. Disparities. <https://www.ihs.gov/newsroom/factsheets/disparities/>
- IPCC. The Intergovernmental Panel on Climate Change Sixth Assessment Report. 2021.
<https://www.ipcc.ch/report/ar6/wg1/#FullReport>
- Karuk Tribe Department of Natural Resources. 2016. Karuk Tribe Climate Vulnerability Assessment.
<https://karuktribeclimatechangeprojects.files.wordpress.com/2016/11/final-karuk-climate-assessment1.pdf>
- Kenney WL, Craighead DH, Alexander LM. 2014. Heat waves, aging, and human cardiovascular health. *Med Sci Sports Exerc.* ;46(10):1891-9. doi: 10.1249/MSS.0000000000000325. PMID: 24598696; PMCID: PMC4155032.
- Lauren E Parker, Andrew J McElrone, Steven M Ostoja, Elisabeth J Forrestel, (Parker Et.al.). Extreme heat effects on perennial crops and strategies for sustaining future production, *Plant Science*, Volume 295, 2020, 10397, ISSN 0168-9452, Available:
<https://www.sciencedirect.com/science/article/pii/S0168945219315705>. Accessed April 7, 2022
- Lynn Kathy, MacKendrick Katharine, Donoghue M. Ellen. 2011. Social Vulnerability and Climate Change Synthesis of Literature. https://permanent.fdlp.gov/gpo12563/pnw_gtr838.pdf
- Maclean, M.D. and R.J. Wilson. 2011. Recent ecological responses to climate change support predictions of high extinction risk. *Proceedings of the National Academy of Sciences*. Published online before print July 11, 2011. Magness, D.R, and J.M. Morton.
- Martin, Hooker, and Stockton. 2019. Ratio of farmworkers to farm jobs in California increased to 2.3 in 2016. <https://calag.ucanr.edu/Archive/?article=ca.2019a0002>



FRESNO COUNTY GENERAL PLAN

- Mendez, Michael, Flores-Haro, Genevieve, and Zucker, Lucas. 2020. The (in)visible victims of disaster: Understanding the vulnerability of undocumented Latino/a and indigenous immigrants. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7413658/>
- Michaels, Ryan. 2022. *Fresno County Fire*. Personal Communication via Fresno County Asset Manager Survey. Rincon Consultants, Inc. June 10, 2022
- The National Aeronautics and Space Administration (NASA). 2022. The Effects of Climate Change. Available: <https://climate.nasa.gov/effects/>. Accessed February 2, 2022.
- Northwestern Institute for Policy Research. 2020. What Drives Native American Poverty? <https://www.ipr.northwestern.edu/news/2020/rebird-what-drives-native-american-poverty.html>
- Oak to Timberline Fire Safe Council. 2022. <https://www.oaktotimberline.org/>.
- Office of Environmental Health Hazard Assessment (OEHHA) CalEnviroScreen4.0 Model: 2021. <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>
- Office of the State Fire Marshall (OSFM). 2022. How is the FHSZ determined. <https://osfm.fire.ca.gov/divisions/community-wildfire-preparedness-and-mitigation/wildfire-preparedness/fire-hazard-severity-zones/?lang=zh-CN>
- Pacific Gas & Electric (PG&E). 2016. Climate Change Vulnerability Assessment and Resilience Strategies. https://www.pgecurrents.com/wp-content/uploads/2016/12/PGE_climate_resilience_report.pdf
- _____. 2022. Outage notification. https://www.pge.com/en_US/residential/outages/alerts/alerts.page?WT.mc_id=Vanity_outage_alerts
- _____. 2021. Community Wildfire Safety Program. https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/CWSP-Fact-Sheet.pdf
- _____. 2021. Medical Baseline Program. https://www.pge.com/en_US/residential/save-energy-money/help-paying-your-bill/longer-term-assistance/medical-condition-related/medical-baseline-allowance/medical-baseline-allowance.page
- _____. 2021. Self Generation Incentive Program. https://www.pge.com/en_US/residential/save-energy-money/savings-solutions-and-rebates/understand-the-solar-process.page
- Pauloo, R A et al 2020 Environ. Res. Lett. 15 044010. <https://iopscience.iop.org/article/10.1088/1748-9326/ab6f10>
- Pew Research Center. 2021. Gender pay gap in U.S. held steady in 2020. <https://www.pewresearch.org/fact-tank/2021/05/25/gender-pay-gap-facts/>
- Prado, Joe. 2022. *County of Fresno Department of Public Health*. Personal Communication via Fresno County Asset Manager Survey. Rincon Consultants, Inc. June 10, 2022

- Proceedings of the National Academy of Sciences of the United States of America (PNAS). 2021. Spatial variation in the joint effect of extreme heat events and ozone on respiratory hospitalizations in California. <https://doi.org/10.1073/pnas.2023078118>
- Public Health Alliance of Southern California (PHASoCal). The California Healthy Places Index 2.0 (HPI). 2022. <https://map.healthyplacesindex.org/>
- Querin, Martin. 2022. *Fresno County Road Maintenance & Operations Division Manager*. Personal Communication via Fresno County Asset Manager Survey. Rincon Consultants, Inc. June 10, 2022
- Ramin & Svoboda. 2009. Health of the Homeless and Climate Change. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2704276/>
- SAFER (Sustainable And Fire Resistant) Landscapes. University of California Agriculture and Natural Resources Group
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2018. 2018 Plans for the 1997, 2006, and 2012 PM2.5 Standards. <https://www.valleyair.org/pmplans/documents/2018/pm-plan-adopted/2018-Plan-for-the-1997-2006-and-2012-PM2.5-Standards.pdf>
- Schacher Jr, Richard. 2022. *Auberry Volunteer Fire Department*. Personal Communication via Fresno County Asset Manager Survey. Rincon Consultants, Inc. June 10, 2022
- Seneviratne, S.I., Et.al. 2012. “Changes in climate extremes and their impacts on the natural physical environment,” In: Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change (IPCC). Cambridge University Press, Cambridge, UK, and New York, NY, USA, pp. 109-230. 2012 https://www.ipcc.ch/site/assets/uploads/2018/03/SREX-Chap3_FINAL-1.pdf
- Sierra Resource Conservation District. 2021. Eastern Fresno County Firesafe & Fuels Reduction Program. <https://sierrarcid.com/eastern-fresno-country-firesafe-and-fuels-reduction-program/>
- Southern California Edison (SCE). 2021. Critical Care Backup Battery Program. <https://www.vencolibrary.org/sites/default/files/Critical%20Care%20Backup%20Battery%20Program%2C%207-15-20.pdf>
- Stephenson, John R., and Gena M. Calcarone. 1999. Southern California Mountains and Foothills Assessment: Habitat and Species Conservation Issues. General Technical Report GTR-PSW-172, Pacific Southwest Research Station, Forest Service, USDA. 402 pp.
- _____. 2022. Medical Baseline Program. <https://www.sce.com/residential/assistance/medical-baseline>
- _____. 2022 Public Safety Power Shutoff. <https://www.sce.com/wildfire/psps>
- Talbot, C.J., Bennett, E.M., Cassell, K. et al. The impact of flooding on aquatic ecosystem services. *Biogeochemistry* 141, 439–461 (2018). <https://doi.org/10.1007/s10533-018-0449-7>
- US Census. Quick Facts Fresno County. 2020. <https://www.census.gov/quickfacts/fact/table/fresnocountycalifornia/AGE775221#AGE775221>
- United States Department of Agriculture (USDA). 2022. Protect and Recover. <https://www.farmers.gov/protection-recovery>



FRESNO COUNTY GENERAL PLAN

USDA Forest Service RMRS-GTR-375. 2018 Chapter 10: Effects of Climate Change on Outdoor Recreation. Michael S. Hand, Jordan W. Smith, David L. Peterson, Nancy A. Brunswick, and Carol P. Brown

USGCRP, 2018: Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II: [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 1515 pp. doi: 10.7930/NCA4.2018.

CLIMATE CHANGE VULNERABILITY ASSESSMENT APPENDIX A

Adaptive Capacity

Adaptive capacity is the ability to adjust to the consequences of climate change. This section summarizes the ways in which the County currently manages for the negative impacts of climate change. Types of adaptive capacity include adjustments in behavior, resources, and technologies. Fresno County has actively taken steps to increase the county’s adaptive capacity. Existing policies, plans, programs, and institutions that increase the county’s resilience to climate change impacts are organized by climate hazard and listed in Table 6, Table 7, Table 8, and Table 9.

Extreme Heat, Warm Nights, Chill Hours, Tule Fog

Table 6 lists programs, plans, and policies that help communities become more resilient to an increase in extreme heat and warm nights, and reduction in chill hours and tule fog.

Table 6 Program, Plans, and Policies to Manage Increased Temperature Impacts

Existing and Planned Programs, Plans, and Policies	Objectives
Fresno County Heat Illness Prevention Program (Fresno County 2016) (Flores-Becker 2022) (Cousineau 2022)	The program aims to reduce the potential for heat illnesses by making workers within the county aware of heat illnesses, ways to prevent them, and actions to take if symptoms occur. The program specifically addresses vulnerabilities to outdoor workers. According to the asset manager survey results, the following entities engage in the heat illness prevention program and related annual trainings: Fresno County Department of Public Works and Planning and the State Center Community College District.
Fresno County Designated Cooling Centers (Fresno County 2022)	Fresno County coordinates with local governments to open and maintain cooling centers for county residents when temperatures are forecasted by the National Weather Service (NWS) to exceed certain highs.
Fresno County Heat Emergency Contingency Plan (Fresno County 2018)	As referenced in the Fresno County Multi-Hazard Mitigation Plan (2018), the Fresno County Heat Emergency Contingency Plan includes a two-phase planning approach to mitigate and reduce the impacts of extreme heat. Phase I calls for the initiation of a heat awareness campaign to launch at the start of the heat season. Phase II calls for a county-wide response to be triggered once the County Health Officer declares a heat emergency.
Pacific Gas & Electric (PG&E) Medical Baseline Program (PG&E 2021)	PG&E provides eligible customers with a medical need for electricity (for oxygen, dialysis, etc.) with extra notifications (i.e., calls, texts, or door-bell rings) in advance of a public safety power shutoff. Public safety power shutoffs may occur during an extreme heat event (Collins et al. 2019).
Pacific Gas & Electric (PG&E) Self-Generation Incentive Program (PG&E 2020)	The PG&E Self-Generation Incentive Program pays for all costs associated with procuring battery storage for eligible customers. Medical Baseline Program customers qualify for full benefits of the Self-Generation Incentive Program.



FRESNO COUNTY GENERAL PLAN

Existing and Planned Programs, Plans, and Policies	Objectives
Southern California Edison (SCE) Medical Baseline Program (SCE 2022)	SCE provides assistance to individuals with medical need for electricity to develop emergency back-up contingency plans in the event of a power outage.
Southern California Edison (SCE) Critical Care Backup Battery Program (SCE 2021)	SCE offers customers enrolled in the Medical Baseline Program a free portable backup battery to power a medical device in the event or a power outage as well as a solar panel kit, at no cost.
Pacific Gas & Electric (PG&E) Automated System (PG&E 2022)	PG&E regularly communicates with customers in the county during power outages and notifies customers when power will be restored. PG&E provides translation assistance to non-English speaking individuals and the option to update language preference for PSPS alerts.
Southern California Edison (SCE) Automated System (SCE 2022)	SCE regularly communicates with customers in the County during power outages and notifies customers when power will be restored. SCE provides customer service contact numbers for non-English speakers.

Riverine and Stormwater Flooding and Droughts

Table 7 lists programs, plans, and policies that help increase the community’s resilience to droughts and riverine and stormwater flooding.

Table 7 Programs, Plans, and Policies to Manage Precipitation Impacts

Existing and Planned Programs, Plans, and Policies	Objectives
Fresno County Code of Ordinances: Flood Hazard Areas (Fresno County 2022)	Chapter 15.48 of the Fresno County Code of Ordinances, <i>Flood Hazard Areas</i> , includes flood management regulations to promote public health, safety, and general welfare of county residents. This chapter restricts or prohibits certain uses due to water or erosion hazards, requires vulnerable uses to be protected against flood damage, limits alterations to floodplains and stream channels, and regulates the construction of flood barriers.
Fresno County Water Conservation Ordinance (Fresno County 2014)	The Fresno County Water Conservation Ordinance regulates and promotes water conservation efforts in the county. It limits the available water supplies of the county by preventing the waste and unsustainable use of water.
Fresno Irrigation District 2020 Annual Report (Fresno Irrigation District 2020)	The Fresno Irrigation District provides water services to over 200,000 acres of agricultural farmland in Fresno County. The district’s 2020 Annual Report describes annual water deliveries as well as construction, maintenance, and groundwater recharge projects. The Report does not consider changing conditions due to climate change.
Fresno Area Regional Groundwater Management Plan (Fresno County et al. 2006)	The Fresno Area Regional Groundwater Management Plan was developed collaboratively among nine public agencies and one private water company to create regional approaches and goals around sustainable groundwater management. The Plan does not address changing conditions due to climate change.

Existing and Planned Programs, Plans, and Policies	Objectives
County of Fresno, Affordable Housing Programs Drought Water Shortage and Drought Assistance (Fresno County 2022)	The County’s Affordable Housing Program provide financial assistance to residents of unincorporated areas of the county who are experiencing water shortages.
Fresno Metropolitan Flood Control District Flood Control Program (Fresno County Flood Control District 2022)	The Fresno Metropolitan Flood Control District’s Flood Control Program manages storm flows in the Fresno/Clovis Metropolitan area with Fresno County through a planned system of dams, reservoirs, channels, and streams in order to minimize severe flooding. Climate change is not specifically acknowledged on the program pamphlet.
Fresno Metropolitan Flood Control District Rural Streams Program (Fresno County Flood Control District 2022)	The Fresno Metropolitan Flood Control District’s Rural Streams Program preserves, restores, and maintains channels in the eastern portion of the District’s management areas to minimize severe storm flows flooding and safely convey storm flows . Climate change is not specifically acknowledged on the program webpage.
Groundwater Sustainability Plans (Kings, Delta-Mendota, and Westside subbasins) (Fresno County 2022)	The California Department of Water Resources (DWR) designated the Kings, Delta-Mendota, and Westside subbasins as high-priority overdraft areas, therefore requiring a Groundwater Sustainability Agency (GSA) to be identified for each subbasin and that each subbasin implement a Groundwater Sustainability Plan. The Groundwater Sustainability Plans for each subbasin (GSP) detail strategies to increase groundwater recharge capacity and drought resilience. The GSPs acknowledge future changing climate conditions as they outline strategies for ensuring groundwater supplies be sustainable by 2040 2042 .

Wildfires, Landslides, and Air Quality

Table 8 lists programs, plans, and policies that help increase the community’s resilience to wildfires, landslides, and air quality.

Table 8 Programs, Plans, and Policies to Manage Wildfire Impacts

Existing and Planned Programs, Plans, and Policies	Objectives
Fresno County SRA Fire Safe Regulations (Fresno County Fire Protection District 2022)	Fresno County requires new construction located within State Responsibility Areas (SRA) to meet minimum uniform standards for emergency access, perimeter wildfire protection measures, private water supply reserves for emergency fire use, signing and building numbering, and vegetation modifications.
Fresno County Sheriff’s Office Evacuation Guidelines for Residents (Fresno County 2022)	The Fresno County Sheriff’s Office hosts a website which provides wildfire safety recommendations and evacuation guidelines for the residents of Fresno County.



FRESNO COUNTY GENERAL PLAN

Existing and Planned Programs, Plans, and Policies

Objectives

Highway 168 Fire Safe Council (Highway 168 Fire Safe Council 2022)

The Highway 168 Fire Safe Council is a non-profit group serving the eastern rural Fresno County unincorporated communities of Friant, Prather, Tollhouse, Auberry, Big Sandy, Meadow Lakes, Pine Ridge, Shaver Lake, Big Creek, and Huntington Lake. The group runs several programs aimed at mitigating wildfire risk, including the Shaver West Fuel Break Project, Beal Fuel Break Project, Sugarloaf Fuel Break Project and community education and outreach efforts. The Highway 168 Fire Council provides older adults and disabled residents with assistance to maintain their defensible space and reduce wildfire risk on their properties.

Oak to Timberline Fire Safe Council (Oak to Timberline Fire Safe Council 2022)

The Oak to Timberline Fire Safe Council is a non-profit group serving the southeastern rural communities of Piedra, Tivy Valley, Wonder Valley, Squaw Valley, Dunlap, Miramonte, Pinehurst, Badger, Eshom Valley, Hartland, Sequoia, and Hume Lakes. The Oak to Timberline Fire Safe Council runs several programs including the Pinehurst Community Fuel Break program which aims to reduce hazard wildfire hazard fuels levels in and around the Pinehurst community. The McKenzie Ridge Fuels Reduction project aims to ensure properties and camps along the road are safer for ingress and egress.

Fresno-Kings Unit Strategic Fire Plan (CAL FIRE et al. 2021)

The Fresno-Kings Unit Strategic Fire Plan was collaboratively developed among various stakeholders, including SCE, PG&E, and the Highway 168 Fire Safe Council, and is jointly managed by CAL FIRE and the Fresno County Fire Protection District. The Plan identifies and prioritizes wildfire mitigation and recovery strategies aimed at reducing risk within the Fresno-Kings Unit. The Plan has goals and strategies that address specific planning for vulnerable populations including those in schools and nursing facilities as well as the older adult population.

Sierra Resource Conservation District's Eastern Fresno County Firesafe & Fuels Reduction Program (Sierra Resource Conservation District 2021)

The Eastern Fresno County Firesafe and Stewardship Fuels Reduction Program was established through a grant from the California Fire Safe Council in February 2019. The program encourages and guides private landowners within and adjacent to the Sierra National Forest to develop defensible space areas on their properties.

Pacific Gas & Electric (PG&E) Community Wildfire Safety Program (PG&E 2022)

PG&E's Community Wildfire Safety Program provides customer support during public safety power shutoffs, implements vegetation management strategies, conducts system resilience improvements, and deploys innovative technologies that reduce wildfire risk. The program provides specific support for non-English speaking individuals, individuals with disabilities, low-income individuals, the older adults, and those with chronic illnesses or health conditions.

Agreement between CAL FIRE and Fresno County (Bernal 202)

Fresno County and CAL FIRE have an agreement that allows CAL FIRE to use certain county parks to be utilized as a base camp for fire personnel and equipment when there is a nearby fire.

Existing and Planned Programs, Plans, and Policies	Objectives
San Joaquin Valley Air Quality Plans (San Joaquin Valley Air Pollution Control District 2018)	San Joaquin jurisdictions classified as nonattainment for CARB criteria air pollutants are required to prepare an air quality management plan (AQMP) that include strategies for achieving attainment. The San Joaquin Valley Air Pollution Control District (SJVAPCD) has approved AQMPs demonstrating how the San Joaquin Valley Basin will reach attainment with the federal air pollutant standards. The San Joaquin Valley Basin AQMBD’s acknowledge the role of climate change on drought, variable precipitation, and their relationship with regional air quality concerns.
Employee Protections (Schabacher 2022) (Flores-Becker 2022) (Cousineau 2022)	Based on asset manager interviews, the Auberry Volunteer Fire Department provides particulate masks to employees. The Fresno County Department of Public Works and Planning provides N95 masks to all employees. The State Center Community College District has a wildfire and smoke prevention program pursuant to California Division of Occupational Safety and Health (Cal OSHA).
Fresno County Department of Public Health Air Quality Measure (Prado 2022)	Fresno County Department of Public Health has an air quality measure that notifies the public of poor air quality events.
Landslide Response Protocols and Trainings (Michaels 2022)	Fresno County Fire has landslide response and mitigation guide as well as training courses for staff.

Multiple Climate Hazards

Table 9 lists programs, plans, and policies that help increase the community’s resilience to multiple climate hazards.

Table 9 Programs, Plans, and Policies to Manage Multiple Climate Hazard Impacts

Existing and Planned Programs, Plans, and Policies	Objectives
Fresno County General Plan (Fresno County 2000)	The Plan is a comprehensive, long-term document that provides guidance on the protection of the County’s agricultural, natural, and cultural resources and development in the County. The General Plan’s Health and Safety Element describes hazards that pose risk to the assets and people in the County and identifies policies and goals that reduce or eliminate risk associated with hazards. Climate hazards planned for in the Health and Safety Element include wildfire, flood, landslide, subsidence, expansive soils, and erosion. The Fresno County General Plan is currently undergoing a comprehensive review and revision.
Integrated Strategies for a Vibrant and Sustainable Fresno County – ClimateWise (ClimateWise 2011)	The Report describes projected climate hazards (changes in temperature, severe storms, wildfires, erosion, drought, invasive species, air quality, and flooding), and related vulnerabilities, within Fresno County. The Report details a suite of strategies aimed at reducing climate impacts in the County. Climate hazards planned for include drought, extreme heat, severe storms, precipitation changes, wildfire, erosion, water quality, groundwater depletion, biodiversity loss, invasive species, air quality, climate change impacts on mental health, flood, chill hours, and climate change impacts on agricultural production.



FRESNO COUNTY GENERAL PLAN

Existing and Planned Programs, Plans, and Policies	Objectives
Pacific Gas & Electric (PG&E) Climate Change Vulnerability Assessment and Resilience Strategies (Pacific Gas & Electric 2016)	The Report addresses the vulnerabilities of populations including older adults, children, outdoor workers, individuals with asthma, low-income individuals, Native Americans, limited or non-English speakers, renters, students, and institutionalized individuals.
Climate Change and Health Profile Report Fresno County (CA Department of Public Health 2017)	The Climate Change Vulnerability Assessment and Resilience Strategies Report evaluates how key climate hazards (i.e., flooding, severe storms, sea level rise, subsidence, drought, wildfires, and extreme temperatures) have the potential to impact PG&E's assets and services, including disadvantaged communities' reliance on the delivery of continuous power, PG&E outlines its approach to engagement, emergency preparedness, and response planning. The Plan acknowledges the need to support disadvantaged communities and preferentially consider disadvantaged communities for grant funding.
Fresno County Multi-Hazard Mitigation Plan (Fresno County 2018)	The California Department of Public Health Office of Health Equity lead the development of the Climate Change and Health Profile Report Fresno County as part of the CalBRACE (Building Resilience Against Climate Effects) project. The Report details climate projections and related climate hazards, climate-related health risks, and the populations in the County that are most vulnerable to climate change impacts. The Report identifies vulnerable populations including individuals living in rural areas, children, older adults, non or limited English speakers, low income, outdoor workers, individuals with chronic health conditions, households with no car, adults educated less than high school, households with no air conditioning, and individuals living in nursing facilities, prisons, and college dorms. Climate hazards planned for include extreme heat, poor air quality/air pollution, wildfire fire, severe weather, extreme rainfall, flood, climate changes impacts on agriculture, drought, and climate change impacts mental and physical health.
Fresno County Master Emergency Services Plan (Fresno County 2018)	The Plan assesses hazards within the County and identifies mitigation strategies that reduce or eliminate long-term risks to people and property from those hazards. Climate hazards planned for include agricultural hazards, dam failure, drought, flood, epidemic/pandemic, West Nile Virus, landslides, expansive soils, land subsidence, extreme temperatures, fog, extreme weather (rain/thunderstorm/hail/lightning/wind), winter storm, and wildfire. The Plan outlines specific vulnerabilities to populations including older adults, children, individuals with chronic health conditions or illness, people experiencing homelessness, outdoor workers, and pregnant individuals.
Fresno County Master Emergency Services Plan (Fresno County 2018)	The County Office of Emergency Services developed the Emergency Service Plan to provide guidance around response procedures in the event of a large-scale emergency or disaster in the unincorporated areas of the County. The Plan provides recommendations on disaster response in jurisdictions both within and outside of the unincorporated areas of Fresno County. Climate hazards planned for include flood, wildfire, extreme weather (strong storms, extreme cold, extreme drought, tule fog, high winds, and extreme heat), epidemics/pandemics,

Existing and Planned Programs, Plans, and Policies	Objectives
	<p>agricultural hazards, and dam failure. The Plan acknowledges that emergency planning must consider individuals with disabilities, chronic health conditions, illnesses, limited or non-English speaking proficiencies, older adults, children, low income, those experiencing homelessness, transit dependent, pregnant, and those living in institutionalized settings.</p>
<p>Service Continuity Policies (County Fire) Public Health (Michaels 2022) (Prado 2022)</p>	<p>According to the asset manager survey results, Fresno County Fire and the County’s Department of Public Works and Planning have service continuity plans and policies. The Fresno County Department of Public Health has back-up generators at some facilities.</p>
<p>California State Hazard Mitigation Plan (Cal OES 2018)</p>	<p>The Plan includes a statewide hazard risk assessment, disaster history, recent mitigation progress, best practices, state hazard mitigation goals, and climate adaptation strategies. Climate hazards planned for include landslide, flood, sea-level rise, coastal erosion, tsunami, levee failure, dam failure, wildfire, agricultural pests and diseases, air pollution, invasive species, droughts, epidemic/pandemic/vector borne disease, extreme heat, freeze, severe weather and storms, and tree mortality. The Plan addresses the vulnerabilities of population including disabled individuals, individuals with chronic health conditions, limited or non-English speakers, older adults, children, pregnant individuals, institutionalized individuals, low-income individuals, people experiencing homelessness, transportation disadvantaged individuals, and non-white individuals.</p>
<p>Fresno County 2020-2021 Annual Water Conservation Report (Fresno Irrigation District 2022)</p>	<p>Fresno County develops an Annual Water Conservation Report that includes relevant conservation and consumption data and recommendations for water conservation stages for each District within the County for the relevant water year. The report considers the water demand and capacity for uses including human consumption, sanitation, and fire protection. The Report does not specifically mention climate change but does discuss approaches to manage for future drought conditions.</p>
<p>Fresno County Public Health Emergency Preparedness (PHEP) (Fresno County 2022)</p>	<p>The County’s Public Health Emergency Preparedness program coordinates with the Fresno County Office of Emergency Services, the Fresno County Emergency Medical Services Department, medical centers, and other county agencies to lead response and recovery planning in the event of a large-scale public health threat in Fresno County, including extreme heat, wildfire, severe weather, and natural disaster events. The program’s webpage provides links to resources for vulnerable populations including individuals with access and functional needs, children, the older adults, pregnant individuals, individuals with chronic diseases, individuals experiencing homelessness and tribal communities.</p>
<p>United States Department of Agriculture’s (USDA) Disaster Assistance Programs</p>	<p>The USDA offers several programs that provide coverage for agricultural producers to help them manage risk and protect their operations from climate hazards and disasters. Assistance programs include the Agricultural Risk Coverage (ARC) and Price Loss Coverage (PLC) programs, Dairy Margin Coverage (DMC) program, Noninsured Crop Disaster Assistance Program, the Crop Insurance Program, Emergency Loan Program, and Disaster Set-</p>



FRESNO COUNTY GENERAL PLAN

Existing and Planned Programs, Plans, and Policies Objectives

Aside Program. The USDA programs help farmers protect and recover from drought, wildfire, and winter storms.

References

- Bernal, Chris. 2022. *Department of Public Works and Planning*. Personal Communication via Fresno County Asset Manager Survey. Rincon Consultants, Inc. June 10, 2022
- California Department of Public Health (CDPH). 2020. Climate Change and Health Vulnerability Indicators for California. <https://www.cdph.ca.gov/Programs/OHE/Pages/CC-Health-Vulnerability-Indicators.aspx>
- _____. 2017. Climate Change and Health Profile Report Fresno County. https://www.cdph.ca.gov/Programs/OHE/CDPH%20Document%20Library/CHPRs/CHPR019Fresno_County2-23-17.pdf
- California Office of Emergency Services (Cal OES). 2018. California State Hazard Mitigation Plan. <https://www.caloes.ca.gov/cal-oes-divisions/hazard-mitigation/hazard-mitigation-planning/state-hazard-mitigation-plan>
- ClimateWise. 2011. Integrated Strategies for a Vibrant and Sustainable Fresno County. http://uccrnn.org/wp-content/uploads/2017/06/80_Fresno_2011_Integrated-Strategies-for-a-Vibrant-and-Sustainable-Fresno-County.pdf
- Cousineau, Darren. 2022. *State Center Community College District*. Personal Communication via Fresno County Asset Manager Survey. Rincon Consultants, Inc. June 10, 2022
- The County of Fresno (Fresno County). Fresno County Multi-Jurisdictional Hazard Mitigation Plan. 2018. <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2020/12/FresnoCountyHMPFinal.pdf>
- Flores-Becker, Amina. 2022. *Fresno County Department of Public Works and Planning*. Personal Communication via Fresno County Asset Manager Survey. Rincon Consultants, Inc. June 10, 2022
- Fresno County. 2022. Affordable Housing Programs Drought Water Shortage and Drought Assistance. <https://www.co.fresno.ca.us/home/showpublisheddocument/59207/637680096519600000>. Accessed April 2022
- _____. 2021. Annual Water Conservation Report. <https://www.co.fresno.ca.us/home/showpublisheddocument/49310/637360292660200000>. Accessed April 2022
- _____. 2022. Code of Ordinances. https://library.municode.com/ca/fresno_county. Accessed April 2022
- _____. 2018. Fresno County Heat Emergency Contingency Plan. Accessed April 2022
- _____. 2022. Extreme Heat. <https://www.co.fresno.ca.us/departments/public-health/office-of-emergency-services-oes/about-fresno-county-office-of-emergency-services/extreme-heat>. Accessed April 2022

- _____. 2000. Fresno County General Plan.
<https://www.co.fresno.ca.us/home/showpublisheddocument/18117/636753797422170000>
Accessed April 2022
- _____. 2016. Heat Illness Prevention Program. Accessed April 2022
- _____. 2018. Fresno County Multi-Hazard Mitigation Plan. <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2020/12/FresnoCountyHMPFinal.pdf>. Accessed April 2022
- _____. 2018. Master Emergency Services Plan.
<https://www.co.fresno.ca.us/home/showpublisheddocument/30146/636712189481700000>
- _____. 2022. Public Health Emergency Preparedness (PHEP).
<https://www.co.fresno.ca.us/departments/public-health/community-health/public-health-emergency-preparedness-phep>
- _____. 2022. Sustainable Groundwater Management Act (SGMA).
<https://www.co.fresno.ca.us/departments/public-works-planning/divisions-of-public-works-and-planning/admin-division/sustainable-groundwater-management-act>
- _____. 2022. Fresno County Sheriff's Office Evacuation Guidelines.
<https://www.fresnosheriff.org/community/fire-season-information/fresno-county-sheriff-s-office-evacuation-guidelines.html>
- _____. 2014. Fresno County Water Conservation Ordinance.
<https://www.co.fresno.ca.us/home/showpublisheddocument/5467/636377993524730000>
- Fresno County Fire Protection District. 2022. Fresno County SRA Fire Safe Regulations.
<https://www.fresnocountyfire.org/stations-and-functions/fire-prevention/planning-engineering/protection-and-planning/fresno-county-sra-fire-safe-regulations/>
- Fresno Irrigation District. 2020. Annual Report. <https://www.fresnoirrigation.com/annual-report>
- Fresno Irrigation District et al. 2006. Fresno Area Regional Groundwater Management Plan.
<http://www.fresnofloodcontrol.org/wp-content/uploads/2019/10/Fresno-Area-Regional-GWMP-Final.pdf>
- Fresno Metropolitan Flood Control District. 2022. Flood Control Program.
<http://www.fresnofloodcontrol.org/wp-content/uploads/2016/06/Flood-Control-Program.pdf>
- Fresno Metropolitan Flood Control District Rural Streams Program. 2022.
<https://www.fresnofloodcontrol.org/urban-basins-sandbags-dams-streams/>
- Highway 168 Fire Safe Council. 2022. Projects. <https://www.highway168firesafecouncil.org/projects>
- Oak to Timberline Fire Safe Council. 2022. <https://www.oaktotimberline.org/>.
- Pacific Gas & Electric (PG&E). 2016. Climate Change Vulnerability Assessment and Resilience Strategies.
https://www.pgecurrents.com/wp-content/uploads/2016/12/PGE_climate_resilience_report.pdf
- _____. 2022. Outage notification.
https://www.pge.com/en_US/residential/outages/alerts/alerts.page?WT.mc_id=Vanity_outage_alerts



FRESNO COUNTY GENERAL PLAN

- _____. 2021. Community Wildfire Safety Program. https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/CWSP-Fact-Sheet.pdf
- _____. 2021. Medical Baseline Program. https://www.pge.com/en_US/residential/save-energy-money/help-paying-your-bill/longer-term-assistance/medical-condition-related/medical-baseline-allowance/medical-baseline-allowance.page
- _____. 2021. Self-Generation Incentive Program. https://www.pge.com/en_US/residential/save-energy-money/savings-solutions-and-rebates/understand-the-solar-process.page
- Prado, Joe. 2022. *County of Fresno Department of Public Health*. Personal Communication via Fresno County Asset Manager Survey. Rincon Consultants, Inc. June 10, 2022
- Schacher Jr, Richard. 2022. *Auberry Volunteer Fire Department*. Personal Communication via Fresno County Asset Manager Survey. Rincon Consultants, Inc. June 10, 2022
- Sierra Resource Conservation District. 2021. Eastern Fresno County Firesafe & Fuels Reduction Program. <https://sierrarcid.com/eastern-fresno-country-firesafe-and-fuels-reduction-program/>
- Southern California Edison (SCE). 2021. Critical Care Backup Battery Program. <https://www.vencolibrary.org/sites/default/files/Critical%20Care%20Backup%20Battery%20Program%2C%207-15-20.pdf>
- _____. 2022. Medical Baseline Program. <https://www.sce.com/residential/assistance/medical-baseline>
- _____. 2022 Public Safety Power Shutoff. <https://www.sce.com/wildfire/psps>
- State of California (CA). San Joaquin Valley Region Report, California Fourth Climate Change Assessment. 2022. https://www.energy.ca.gov/sites/default/files/2022-01/CA4_CCA_SJ_Region_Eng_ada.pdf
- United States Department of Agriculture (USDA). 2022. Protect and Recover. <https://www.farmers.gov/protection-recovery>

CLIMATE CHANGE VULNERABILITY ASSESSMENT APPENDIX B

Asset Manager Survey Results

Fresno County Questionnaire for Climate Change Vulnerability Assessment

12

Responses

22:54

Average time to complete

Closed

Status

1. Please provide your first and last name as well as the agency/County Department you represent.

12
Responses

Latest Responses

"Chris Bernal - Department of Public Works and Planning"

"Amina Flores-Becker County of Fresno - Public Works and Pla..."

"Joe Prado, County of Fresno - Public Health"

3 respondents (27%) answered **Fresno COunty** for this question.



2. Recent wildfire events in August 2016 and July of 2017 burned a total of over 61,000 acres in Fresno County. Were assets or facilities (i.e., transportation routes, utility services, emergency responders, commercial buildings) you manage impacted by wildfires?

● Yes	5
● No	5
● I don't know	2



3. Please explain how the assets or facilities (i.e., transportation routes, utility services, emergency responders, commercial buildings) you manage impacted by wildfires.

5
Responses

Latest Responses

4 respondents (80%) answered **fires** for this question.

water and wastewater

creek fire

wildland fires

suppression and mitigation

fires

fire watch

water

narrow roads

wate

4. Were workers you manage or the community impacted by wildfires?

● Yes	7
● No	2
● I don't know	3



5. Please explain how the workers you manage or the community impacted by wildfires.

7 Responses

Latest Responses

"Displacement and housing issues in local wildfire area. County..."

2 respondents (29%) answered **homes** for this question.



6. Are there existing programs and policies in place that helped to minimize impacts from wildfires?

● Yes	5
● No	5
● I don't know	2



7. Please explain existing programs and policies in place that helped to minimize impacts from wildfires.

5
Responses

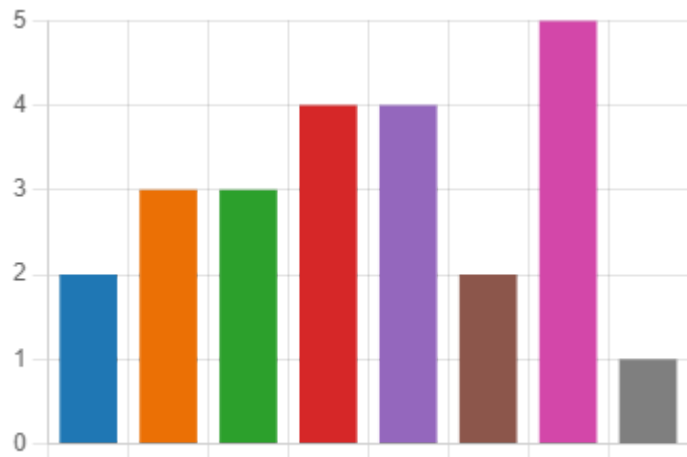
Latest Responses

"There is an agreement between the County of Fresno and Cal...

"Air Quality measure that notifies the public of bad air days an...

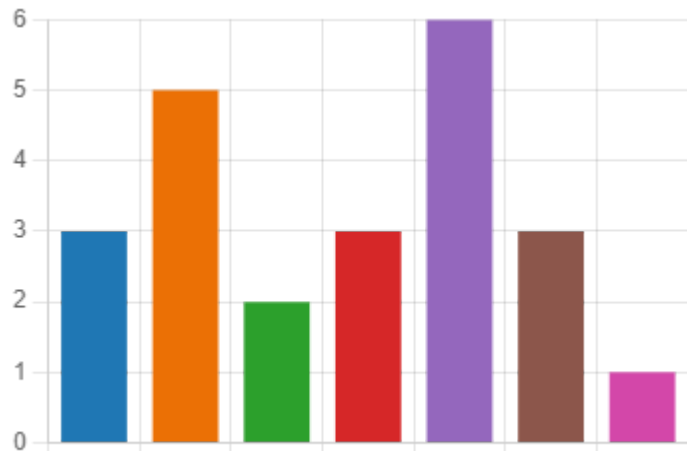
8. What programs or policies should have been in place that would have helped to further minimize impacts?

● Evacuation Procedures	2
● Business/Service Continuity Plans	3
● Mutal Aid Agreements	3
● Hazard Notification/Communica...	4
● Financial Assistance Programs	4
● Education Programs	2
● Outreach Programs	5
● Other	1

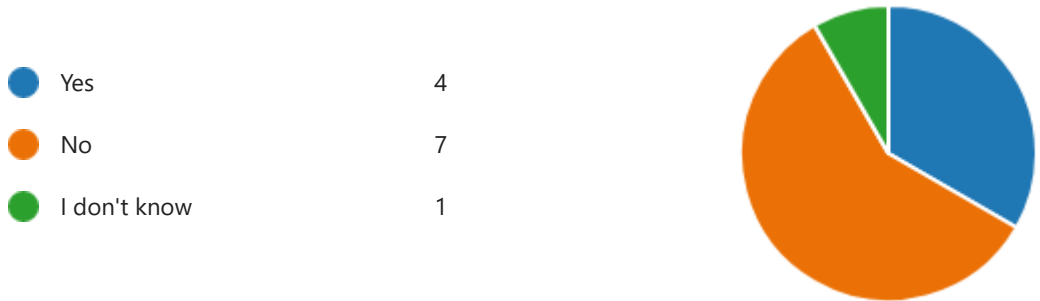


9. Please identify any of the following obstacles you experienced when managing the impacts of wildfires.

● Attitudes and Motivations	3
● Lack of Funding and Resources	5
● Conflicting or Alternate Priority ...	2
● Expertise and Technology	3
● Staffing	6
● Lack of Knowledge	3
● Other	1



10. In Fall 2020, Fresno County experienced several consecutive days of poor air quality due to a regional wildfire. Were essential services or facilities you manage impacted by poor air quality (i.e., agricultural workers, park and recreation programs, emergency responders)?



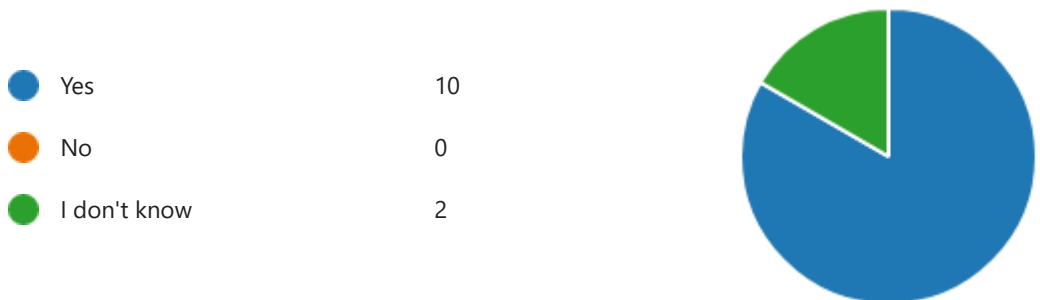
11. Please explain how the assets or facilities (i.e., agricultural workers, park and recreation programs, emergency responders) you manage were impacted by poor air quality.

4
Responses

Latest Responses

*"Due to poor air quality, Park/Campground attendance was ne...
"Adjusted field visitation as appropriate when possible"*

12. Were workers you manage or the community impacted by bad air quality?



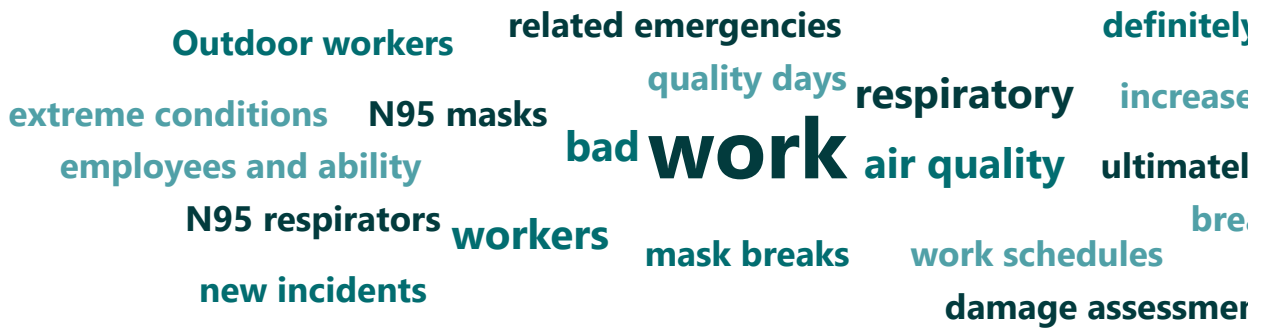
13. Please explain how the people you manage or community were impacted by poor air quality?

10
Responses

Latest Responses

"Staff was required to continue regular work in the areas of po...
"Workers were directed to wear N95 masks when working out i...
"respiratory complaints"

4 respondents (44%) answered **work** for this question.



14. Are there existing programs and policies in place that helped to minimize impacts from poor air quality?

- Yes 6
- No 2
- I don't know 4



15. Please explain existing programs and policies that helped to minimize impacts from poor air quality.

6
Responses

Latest Responses

"The Department of Public Works and Planning made N95 ma...

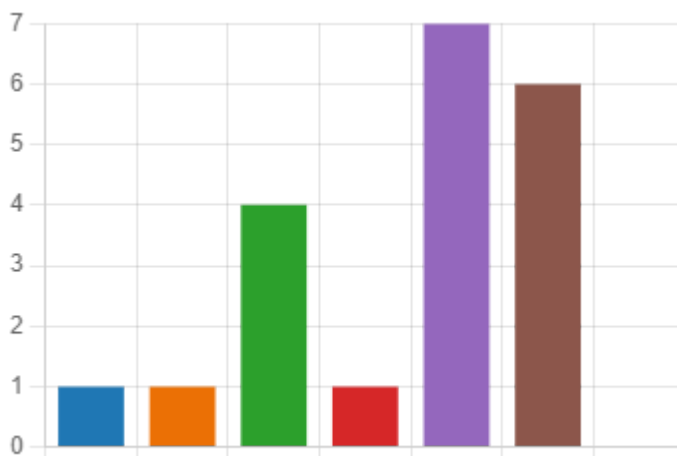
"Air Quality index and notification procedures"

2 respondents (33%) answered **Air Quality** for this question.

smoke rules Cal-OSHA available
 masks **Air Quality** smok
 program pursuant Air alerts smoke preventic

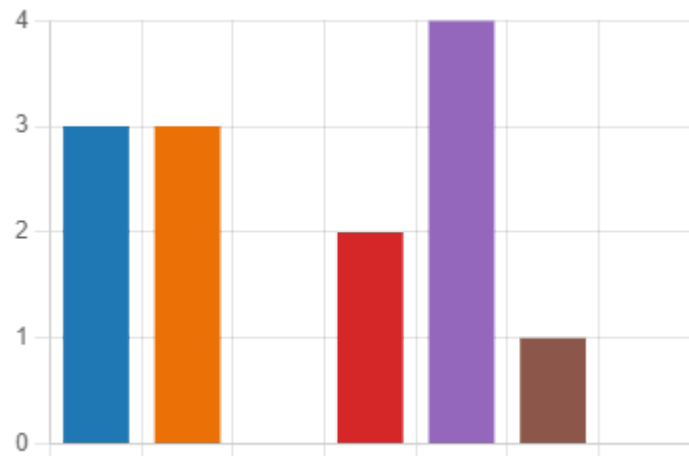
16. What programs or policies should have been in place to further minimize impacts from poor air quality?

- Business/Service Continuity Plans 1
- Mutual Aid Agreements 1
- Hazard Notification/Communica... 4
- Financial Assistance Programs 1
- Education Programs 7
- Outreach Programs 6
- Other 0



17. Please identify any of the following obstacles you experienced when managing the impacts of poor air quality.

● Attitudes and Motivations	3
● Lack of Funding and Resources	3
● Conflicting or Alternate Priority ...	0
● Expertise and Technology	2
● Staffing	4
● Lack of Knowledge	1
● Other	0



18. During the summer of 2017, Fresno County experienced three historic level extreme heat events. Were assets or facilities (i.e., livestock, utility services, parks and recreation programs) you manage impacted by extreme heat?

● Yes	2
● No	6
● I don't know	4



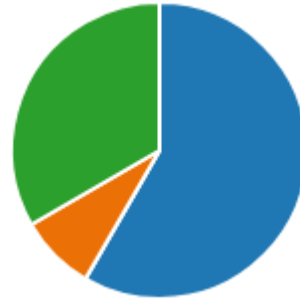
19. Please explain how assets or facilities (i.e., livestock, utility services, parks and recreation programs) you manage impacted by extreme heat.

2
Responses

Latest Responses

20. Were workers you manage or the community impacted by extreme heat?

● Yes	7
● No	1
● I don't know	4



21. Please explain how people you manage or the community were impacted by extreme heat.

7
Responses

Latest Responses

"During extreme heat days staff are asked to take more breaks...."

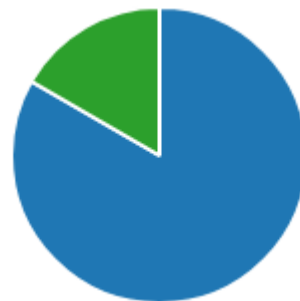
"Increased heat related illnesses arriving in the hospital emerge..."

6 respondents (86%) answered **heat** for this question.

work hours **heat** High

22. Are there existing programs and policies in place that helped to minimize impacts of extreme heat?

● Yes	10
● No	0
● I don't know	2



23. Please explain existing programs and policies in place that helped to minimize impacts of extreme heat.

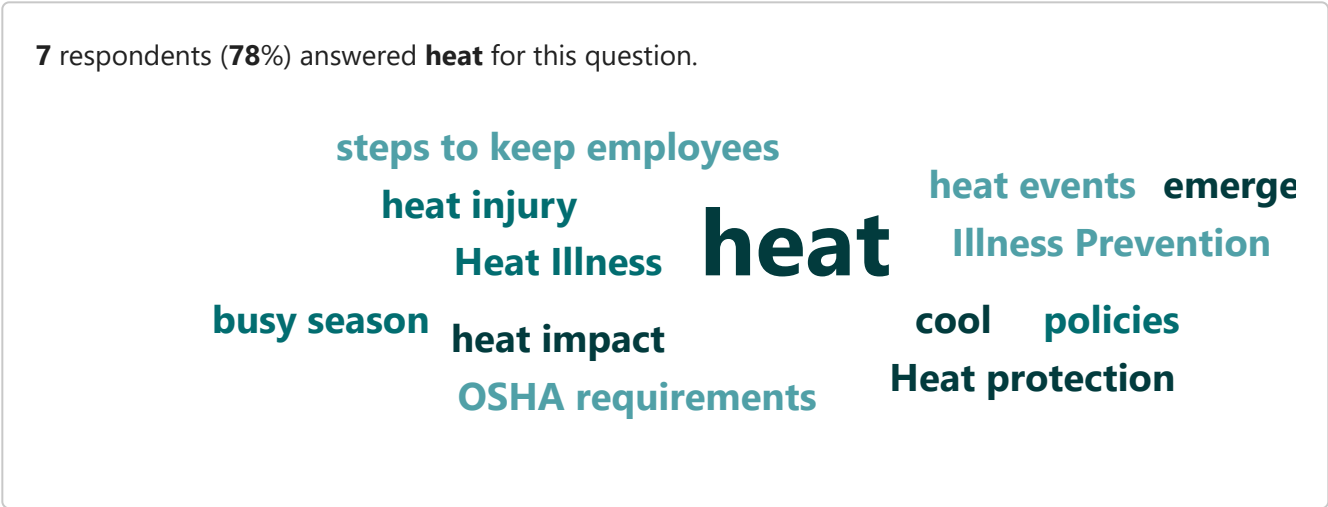
10
Responses

Latest Responses

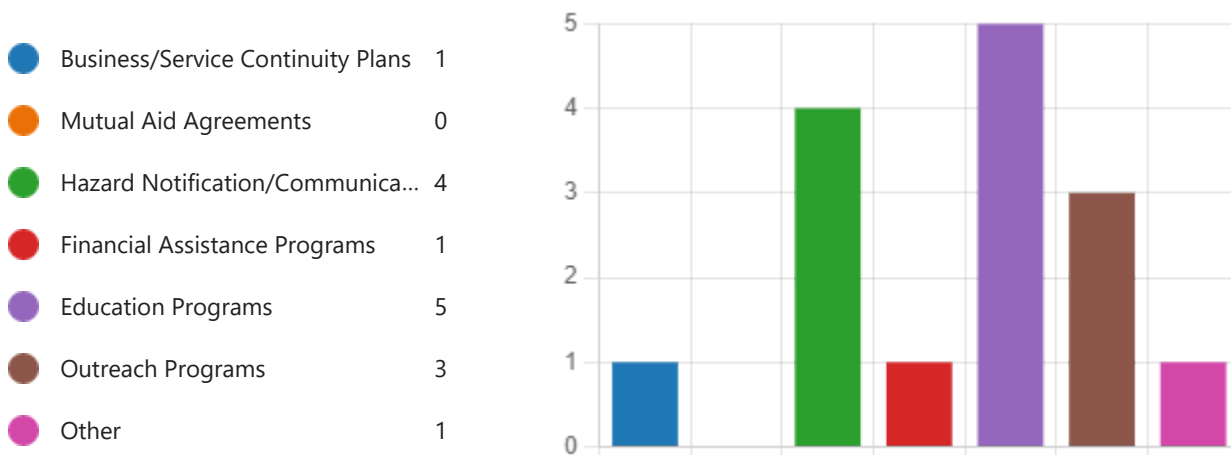
"Annual Heat Illness Prevention Training for staff is conducted ...

"Staff are trained on heat illness prevention and provided with ...

"Cooling Centers"



24. What programs or policies should have been in place that would have helped to further minimize impacts of extreme heat?



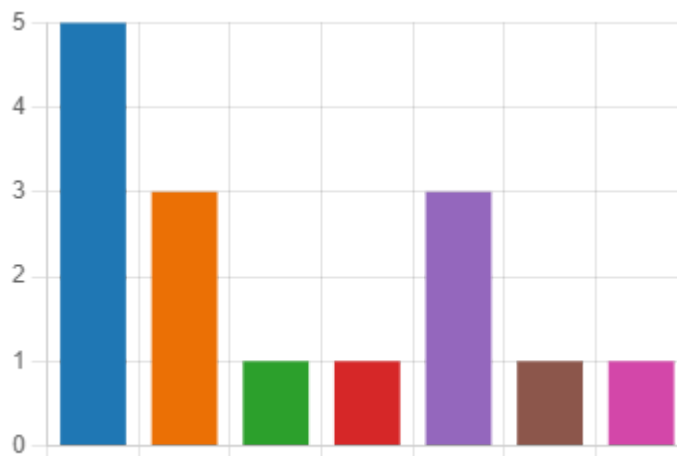
25. Are there obstacles in managing the impacts that extreme heat has on the assets/facilities/people you oversee?

- Yes 6
- No 4
- I don't know 2



26. Please identify any of the following obstacles you experienced when managing the impacts of extreme heat events.

- Attitudes and Motivations 5
- Lack of Funding and Resources 3
- Conflicting or Alternate Priority ... 1
- Expertise and Technology 1
- Staffing 3
- Lack of Knowledge 1
- Other 1



27. Fresno County experienced USDA disaster declared droughts in 2009, 2012-2016, and 2018 to present. Were assets or facilities (i.e., agricultural operations, critical habitats, water utility services) you manage impacted by drought?

- Yes 6
- No 3
- I don't know 3



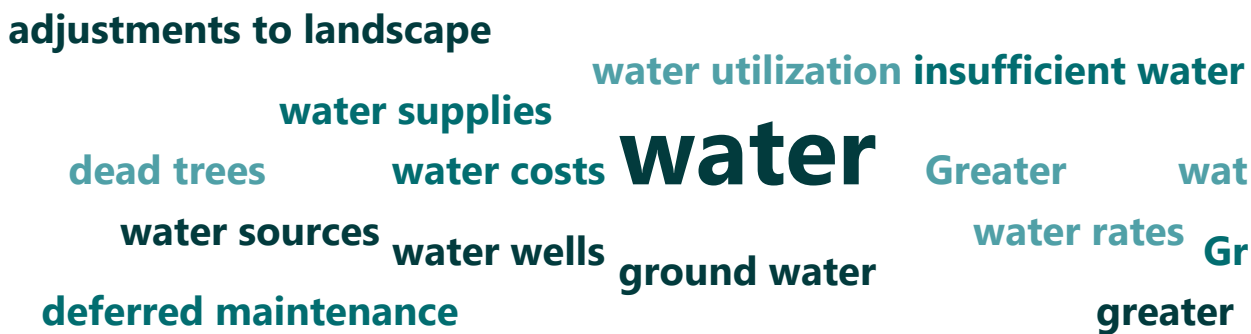
28. Please explain how assets or facilities (i.e., agricultural operations, critical habitats, water utility services) you manage impacted by drought.

6
Responses

Latest Responses

"Higher water rates, water utilization limits, dead trees or plan..."

5 respondents (83%) answered **water** for this question.



29. Were workers you manage or the community impacted by drought?

- Yes 8
- No 1
- I don't know 3



32. Please explain existing programs and policies in place that helped to minimize impacts from drought.

5
Responses

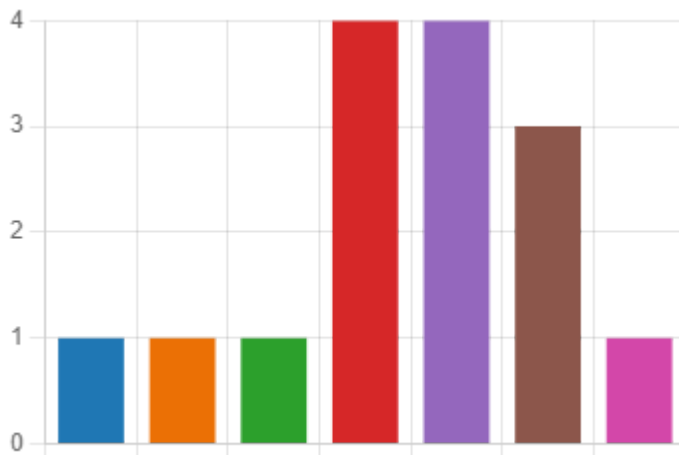
Latest Responses
 "County water conservation ordinance. "
 "Conservation policies"

2 respondents (40%) answered **Conservation Ordinance** for this question.

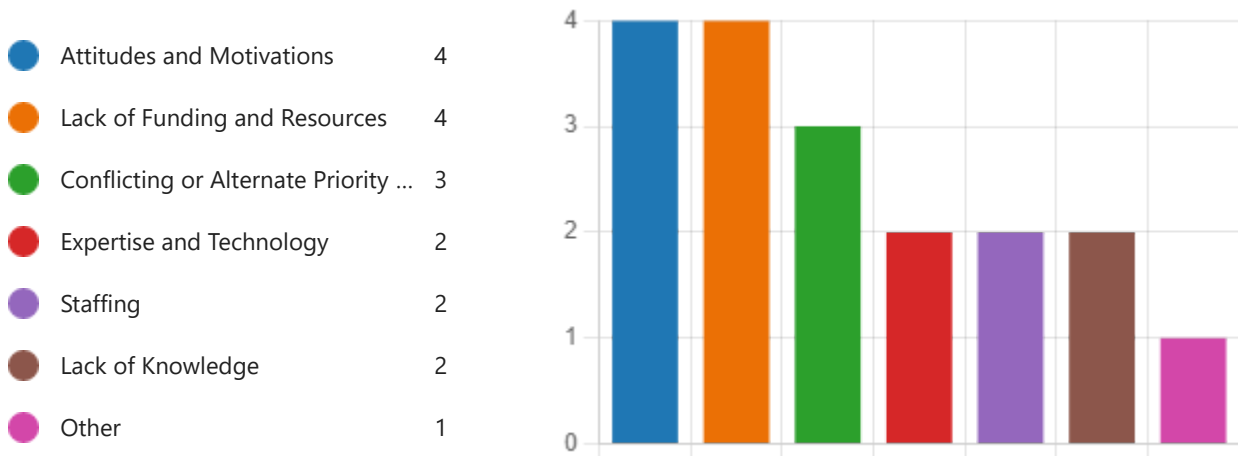
drought
 Conservation policies
Conservation Ordinance
County's Water **Water Conserve**

33. What programs or policies should have been in place that would have helped to further minimize impacts?

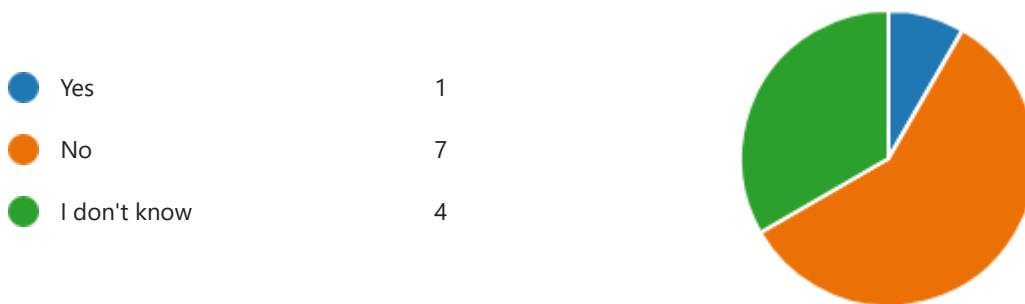
- Business/Service Continuity Plans 1
- Mutual Aid Agreements 1
- Hazard Notification/Communica... 1
- Financial Assistance Programs 4
- Education Programs 4
- Outreach Programs 3
- Other 1



34. Please identify any of the following obstacles you experienced when managing the impacts of drought.



35. In November 2011, areas of and around Highway 168 experienced landslides. Were assets or facilities (i.e., transportation infrastructure, emergency responders) you manage impacted by the landslides?



36. Please explain how the assets or facilities (i.e., transportation infrastructure, emergency responders) you manage impacted by landslides.

1
Responses

Latest Responses

37. Were workers you manage or the community impacted by landslides?

● Yes	0
● No	8
● I don't know	4



38. Please explain how the workers you manage or the community impacted by landslides.

0
Responses

Latest Responses

39. Are there existing programs and policies in place that helped to minimize impacts from landslides?

● Yes	2
● No	3
● I don't know	7



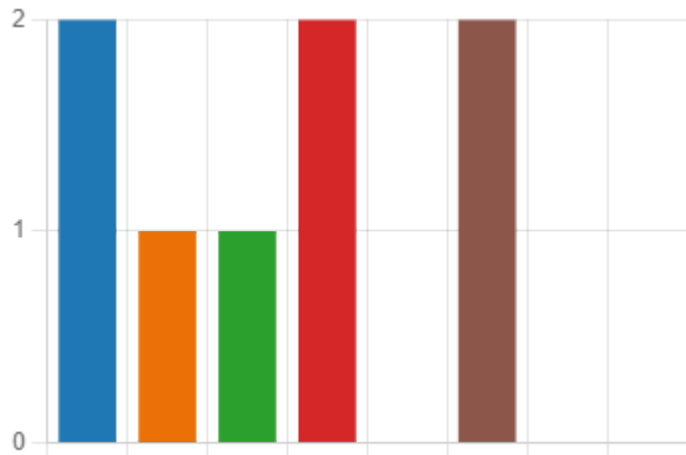
40. Please explain existing programs and policies in place that helped to minimize impacts from landslides.

2
Responses

Latest Responses

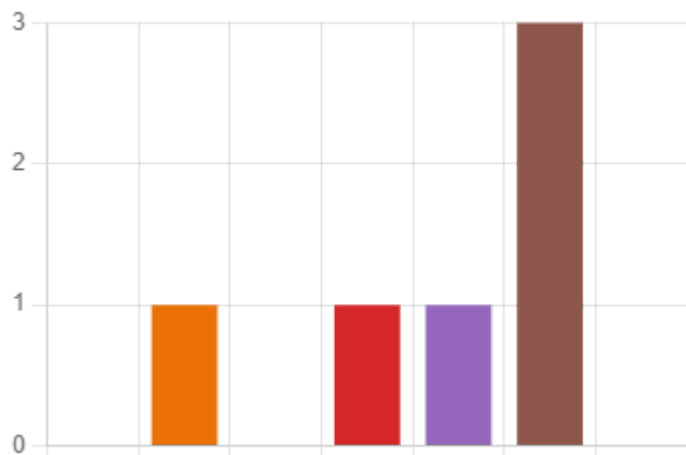
41. What programs or policies should have been in place that would have helped to further minimize impacts of landslides?

- Evacuation Procedures 2
- Business/Service Continuity Plans 1
- Mutual Aid Agreements 1
- Hazard Notification/Communica... 2
- Financial Assistance Programs 0
- Education Programs 2
- Outreach Programs 0
- Other 0



42. Please identify any of the following obstacles you experienced when managing the impacts of landslides.

- Attitudes and Motivations 0
- Lack of Funding and Resources 1
- Conflicting or Alternate Priority ... 0
- Expertise and Technology 1
- Staffing 1
- Lack of Knowledge 3
- Other 0



43. In October and December of 2007, roadways, and properties across Fresno County experienced extreme flooding. Were assets or facilities (i.e., agricultural operations, utility services, emergency responders, transportation infrastructure) you manage impacted by floods?

● Yes	1
● No	7
● I don't know	4



44. Please explain how the assets or facilities (i.e., agricultural operations, utility services, emergency responders, transportation infrastructure) you manage impacted by floods.

1
Responses

Latest Responses

45. Were workers you manage or the community impacted by floods?

● Yes	3
● No	5
● I don't know	4



46. Please explain how the workers you manage or the community impacted by floods.

3
Responses

Latest Responses
"Displacement"

47. Are there existing programs and policies in place that helped to minimize impacts from floods?

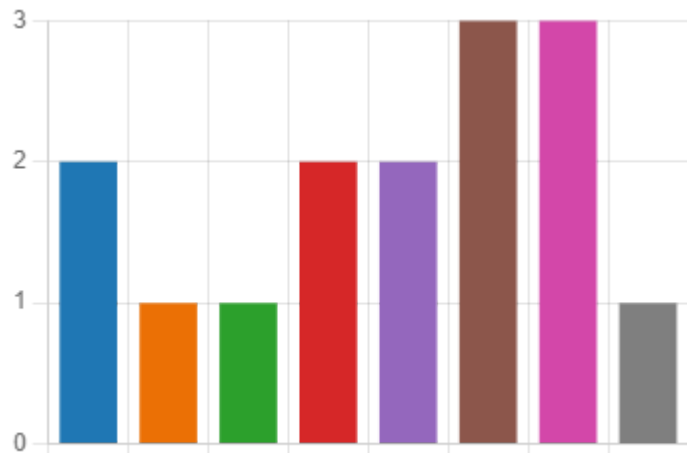
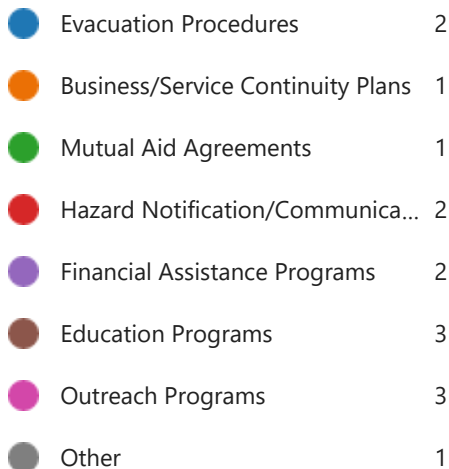


48. Please explain existing programs and policies in place that helped to minimize impacts from floods.

3
Responses

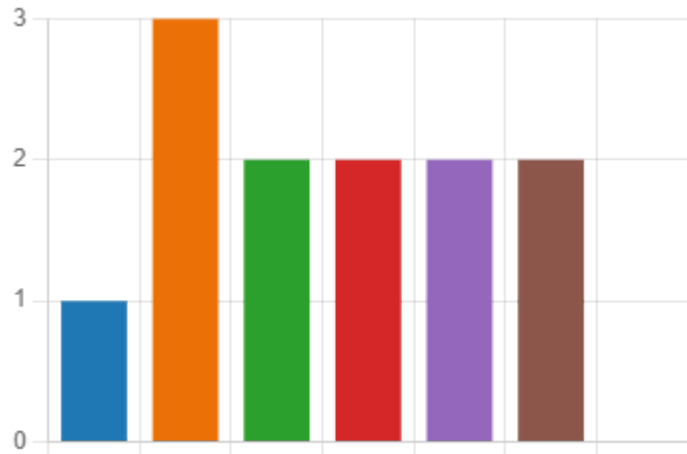
Latest Responses
"Flood control district "

49. What programs or policies should have been in place that would have helped to further minimize impacts of floods?



50. Please identify any of the following obstacles you experienced when managing the impacts of flooding.

● Attitudes and Motivations	1
● Lack of Funding and Resources	3
● Conflicting or Alternate Priority ...	2
● Expertise and Technology	2
● Staffing	2
● Lack of Knowledge	2
● Other	0



51. Have areas of unincorporated Fresno County experienced power outages during or before a wildfire or extreme heat event?

● Yes	8
● No	2
● I don't know	2



52. Please explain how the assets or facilities (i.e., transportation routes, utility services, emergency responders, commercial buildings) you manage impacted by power outages during or before a wildfire or extreme heat event.

7
Responses

Latest Responses

"No power within the park to run our well pumps, irrigation co..."
 "Plants have lost power and we have had to utilize emergency ..."

6 respondents (100%) answered **Power** for this question.

Power Power of
power tran

53. Were workers you manage or the community impacted by power outages during or before a wildfire or extreme heat event?

- Yes 7
- No 3
- I don't know 2



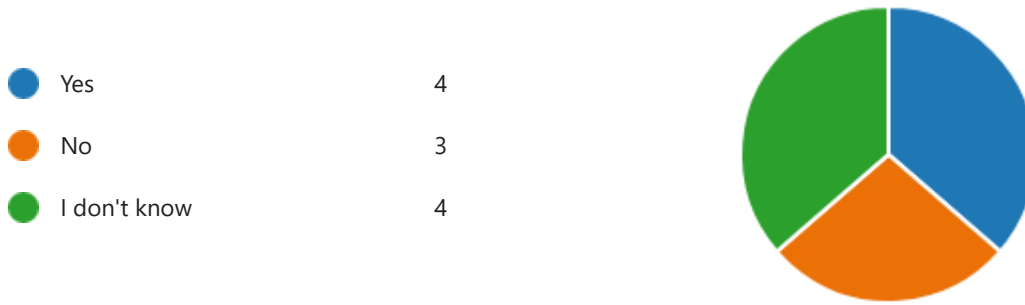
54. Please explain how the workers you manage or the community impacted by power outages during or before a wildfire or extreme heat event.

5
Responses

Latest Responses

"Staff and park functions were diminished due to lack of power."
 "They have had to coordinate fueling of the back up generators. "

55. Are there existing programs and policies in place that helped to minimize impacts from power outages during or before a wildfire or extreme heat event?

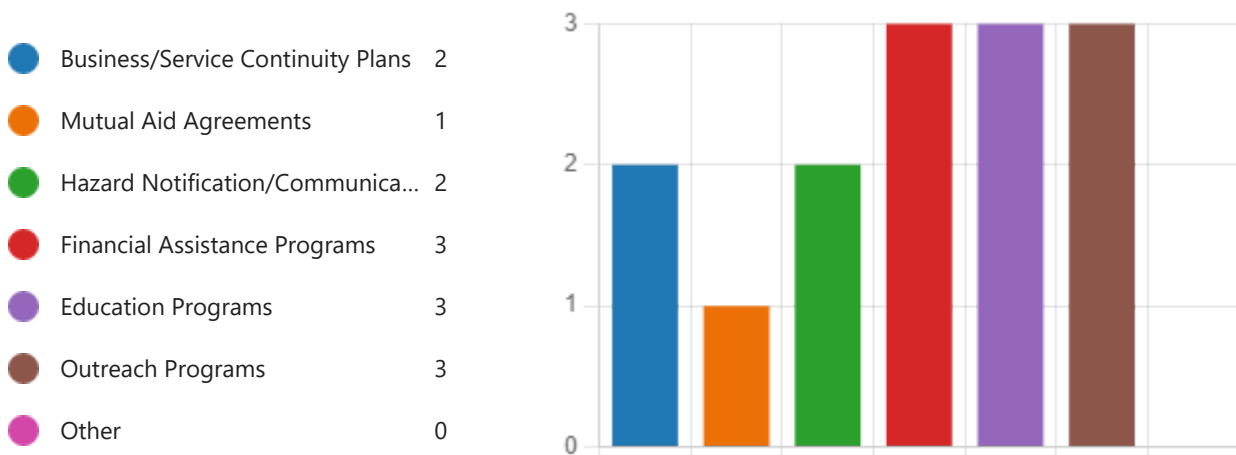


56. Please explain existing programs and policies in place that helped to minimize impacts from power outages during or before a wildfire or extreme heat event.

5
Responses

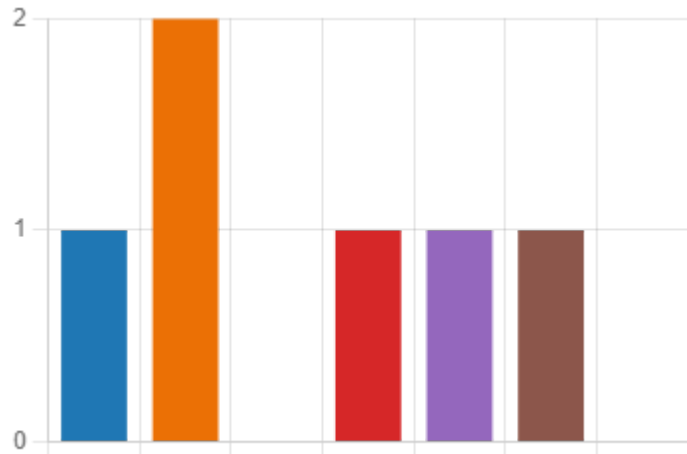
Latest Responses
"PG&E notification services"
"There is a generator servicing schedule and all generators are ..."
"Contingency plans in place for continuity of operations"

57. What programs or policies should have been in place that would have helped to further minimize impacts of power outages during or before a wildfire or extreme heat event?



58. Please identify any of the following obstacles you experienced when managing the impacts of power outages.

- Attitudes and Motivation 1
- Lack of Funding and Resources 2
- Conflicting or Alternate Priority ... 0
- Expertise and Technology 1
- Staffing 1
- Lack of Knowledge 1
- Other 0



59. Please identify which group you are associated with?

- Transportation and Critical Infra... 3
- Emergency Services and Respon... 3
- Agriculture and Open Space 3



60. In 2014, the USDA declared a Chill Hours disaster. Did the agricultural community experience impacts?

- Yes 3
- No 1
- I don't know 2



61. Please explain how the agricultural community impacts of chill hours.

2
Responses

Latest Responses
"Ag impact"

62. Were agricultural workers impacted by chill hours?

● Yes	2
● No	0
● I don't know	4



63. Please explain how the workers you manage or the community impacted by chill hours.

1
Responses

Latest Responses

64. Are there existing programs and policies in place that helped to minimize impacts of chill hours?

● Yes	0
● No	1
● I don't know	4



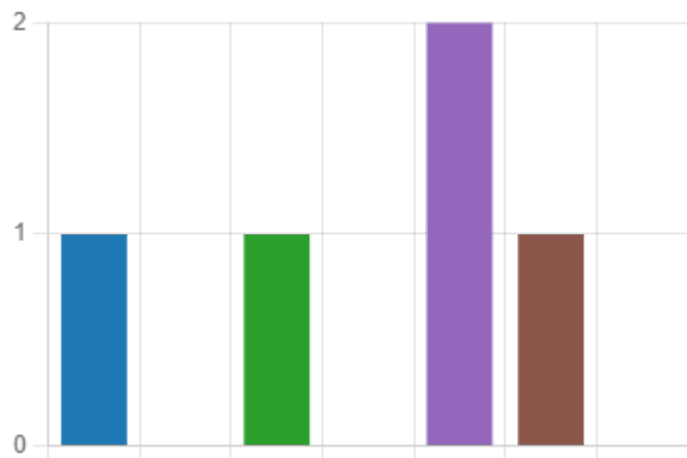
65. Please explain existing programs and policies in place that helped to minimize impacts from chill hours.

0
Responses

Latest Responses

66. What programs or policies should have been in place that would have helped to further minimize impacts of chill hours?

- Business/Service Continuity Plans 1
- Mutual Aid Agreements 0
- Hazard Notification/Communica... 1
- Financial Assistance Programs 0
- Education Programs 2
- Outreach Programs 1
- Other 0



67. Please identify any of the following obstacles you experienced when managing the impacts of chill hours.

- Attitudes and Motivation 0
- Lack of Funding and Resources 0
- Conflicting or Alternate Priority ... 0
- Expertise and Technology 0
- Staffing 1
- Lack of Knowledge 1
- Other 0

