Siskiyou County
General Plan Update

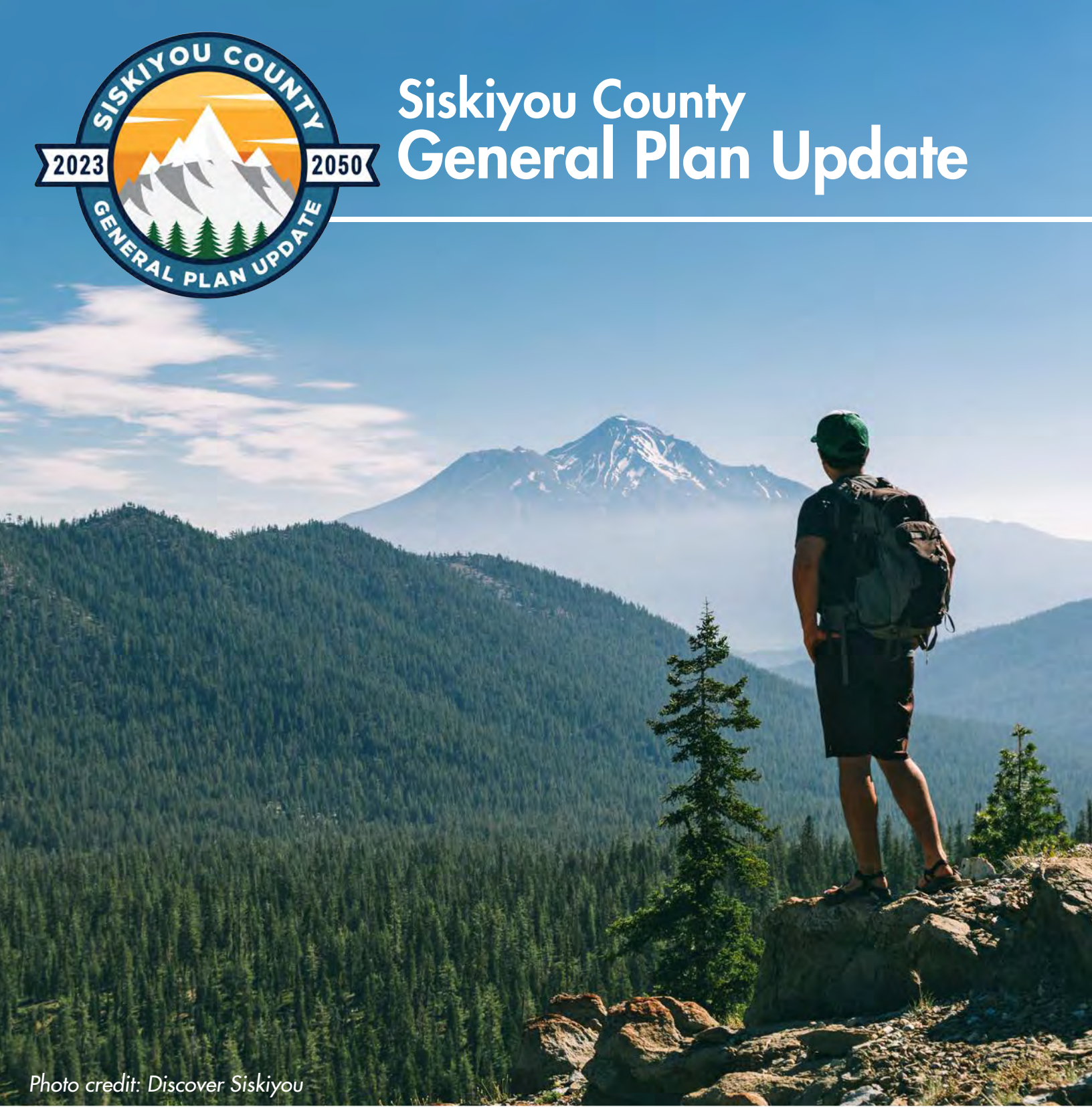


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Background Report

Revised Public Review Draft
October 2024



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1. Introduction

This chapter describes the purpose and organization of the Siskiyou County General Plan, including an overview of the General Plan, why it is prepared, and its importance. This chapter also provides an overview of the purpose, format, and organization of the Siskiyou County General Plan Background Report.



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1.1 Introduction

This chapter describes the purpose and organization of the Siskiyou County General Plan, including an overview of the General Plan, why it is prepared, and its importance to the county. This chapter also provides an overview of the purpose, format, and organization of this Background Report. This chapter is organized into the following sections:

- What is a General Plan?
- Using the General Plan
- Regional Setting
- Purpose of the Background Report
- Format of the Background Report
- Organization of the Background Report

What is a General Plan?

Every city and county in California is required by law to adopt and maintain a general plan, which is the local government's long-term framework or "blueprint" for future growth and development. The general plan represents a city, county, or community's vision of its future, and outlines and expresses community goals and policies. All specific plans, subdivisions, public works projects, and zoning decisions must be consistent with the general plan. The Siskiyou County General Plan includes the goals and policies upon which the Board of Supervisors and Planning Commission base their land use decisions. Typically, the time horizon for general plans ranges from 15 to 25 years. The horizon year for Siskiyou County's General Plan Update is 2050. A general plan has four defining features:

- **General.** A general plan provides general guidance for future land use, transportation, environmental, and resource decisions.
- **Comprehensive.** A general plan addresses a broad range of social, economic, infrastructure, and natural resource topics. These include land use, urban development, housing, transportation, public facilities and services, recreation, agriculture, biological resources, safety, and many other topics. See Section 1.6 for a list of the topics addressed in the Siskiyou County General Plan Background Report.
- **Long-Range.** A general plan provides guidance on achieving a long-range vision for a community's future. To achieve this vision, general plans include goals, policies, and implementation programs that address both near-term and long-term needs.
- **Integrated and Coherent.** A general plan's goals, policies, and implementation programs present a comprehensive, unified program for future development. A general plan implements consistent assumptions and projections to assess future demands for housing, employment, and public services or infrastructure. A general plan has a coherent set of policies and implementation programs that enable a community's citizens to understand the vision of the General Plan, and businesses, landowners, and industry to be more certain about the standards and priorities of Siskiyou County and how they will be implemented.

General plans are the basis for a variety of regulatory measures and administrative procedures. California planning law requires consistency between general plans and their implementing programs, such as zoning, subdivision ordinances, specific plans, area plans, environmental impact assessment procedures, capital improvement programs, and building codes. That said, a general plan should not be confused with zoning.

Although both general plans and zoning ordinances designate how land may be developed, they do so in different ways. General plans have a long-term outlook and identify the types of development that will be allowed, the spatial relationships among land uses, and the general pattern of future development. Zoning ordinances regulate development through specific standards such as lot size, building setback, and allowable uses. The land uses shown on general plan diagrams or maps will, however, typically be reflected in local zoning maps as well, as State law requires that they be consistent with one another. Development must not only meet the specific requirements of a zoning ordinance, but also the broader policies set forth in a general plan.

Over time, the county's population will increase, its goals will evolve, and the physical environment will change. For a general plan to be a useful document, it must be monitored and periodically revised to respond to and reflect changing conditions, needs, and priorities. A general plan should be reviewed annually, with a more comprehensive and thorough review and revision being done every five to ten years to assess whether it needs to be refined to reflect changes in local conditions, new local priorities, or State law. State law permits a general plan to be amended up to four times in any calendar year unless special conditions apply as defined by Government Code Sections 65358(c) and (d). Each amendment may include more than one change to the general plan.

Using the General Plan

The Siskiyou County General Plan is used by the Board of Supervisors, Planning Commission, and County staff to inform decisions on direct or indirect land use implications. Additionally, the General Plan provides a structure for inter-jurisdictional coordination of planning efforts among officials and staff of Federal, State, and local agencies. County residents, property owners, businesses, and industries also use the General Plan for guidance on County policies for particular geographic areas or for particular subjects of interest to them. As part of the Siskiyou County General Plan Update, the County will prepare the following documents:

- **Existing Conditions Background Report.** The Existing Conditions Background Report provides a clear understanding of current trends and conditions in the county. The Report provides a detailed description of a range of topics within the county, such as economic and demographic conditions, housing, land use, natural resources, and public facilities, services, and infrastructure. Unlike the Policy Document, the Existing Conditions Background Report is policy neutral. The Background Report also serves as the "Environmental Setting" section of the Environmental Impact Report (EIR) prepared for the General Plan.
- **Vision and Guiding Principles Report.** The Vision and Guiding Principles Report is designed to reflect what community members value most about their community and the shared aspirations of what they envision their community being in the future. The report is inspirational and sets the key values and aspirations for the General Plan guiding principles.
- **Policy Document.** The Policy Document is the essence of the General Plan. It contains the goals and policies that will guide future decisions within the county. The report also identifies the implementation programs that the County will use to ensure the goals and policies in the General Plan are carried out. Additionally, the Policy Document includes land use designations and a land use diagram (or map) that specify the intended use of land throughout the county.
- **Environmental Impact Report (EIR).** An environmental impact report (EIR) presents detailed information about a proposed project's environmental effects, includes options for minimizing a project's significant environmental impacts, and presents reasonable alternatives that would result in

fewer environmental impacts than the proposed project. The analysis presented in the EIR must comply with the requirements of the California Environmental Quality Act (Sections 15126, 15175, and 15176 of the CEQA Guidelines). The Planning Commission and Board of Supervisors will review the EIR to understand potential environmental implications associated with implementation of the General Plan and to identify feasible mitigation measures.

Regional Setting

Siskiyou County covers approximately 6,347 square miles and is located in the northernmost part of California, along the California-Oregon border. The county is made up of high mountain peaks, heavily forested areas, deep river canyons, and valleys. The county includes numerous mountain ranges including the Klamath Mountains, Cascade Range, and Siskiyou Mountains, and many valleys, including Shasta Valley, Scott Valley, and Butte Valley. The rugged terrain is sparsely populated, with 44,076 people, according to the 2020 Census. A vast majority of the land within the county is Federally or State owned. Siskiyou County has nine incorporated cities, 12 Census Designated Places (CDPs), and 17 unincorporated communities.

Siskiyou County was formed from parts of Shasta and Klamath Counties and was officially established on March 22, 1852. The county got its name from the Siskiyou Mountain range. Siskiyou County includes parts of Shasta-Trinity National Forest, Rogue River-Siskiyou National Forest, Klamath National Forest, and Butte Valley National Grassland. The county is bordered by the State of Oregon to the north, Humbolt, Trinity, and Shasta counties to the south, Modoc County to the east, and Del Norte County to the west.

The basins of northeastern Siskiyou County, including Butte Valley, Lower Klamath and Tulelake basins, have some of the deepest and richest soils in the State, producing alfalfa, potatoes, horseradish, and brewing barley. The Scott River, Shasta River, and Klamath River as well as their tributaries and riparian corridors contain important habitats for a wide range of animal species. Figure 1.1 shows the regional context map of Siskiyou County.

Figure 1.1 Regional Context



Purpose of the Background Report

The Background Report takes a "snapshot" of current trends and conditions in Siskiyou County. It provides a detailed description of a wide range of topics within the county, such as demographic and economic conditions, land use, public facilities, and environmental resource information to support the preparation of the General Plan Update.

Format of the Background Report

Each chapter of the report is organized as follows:

- **Introduction** to the topic area, its planning implications, and why it is important to Siskiyou County.
- **Existing Conditions and Setting** information that describes on-the-ground conditions in and around Siskiyou County by topic area.
- **Key Terms** to be familiar with in the context of planning and the General Plan.
- **Regulatory Setting** outlining key Federal, State, and local regulations and policies that are pertinent to the topic.
- **References** for documents, data, and individual sources.

Organization of the Background Report

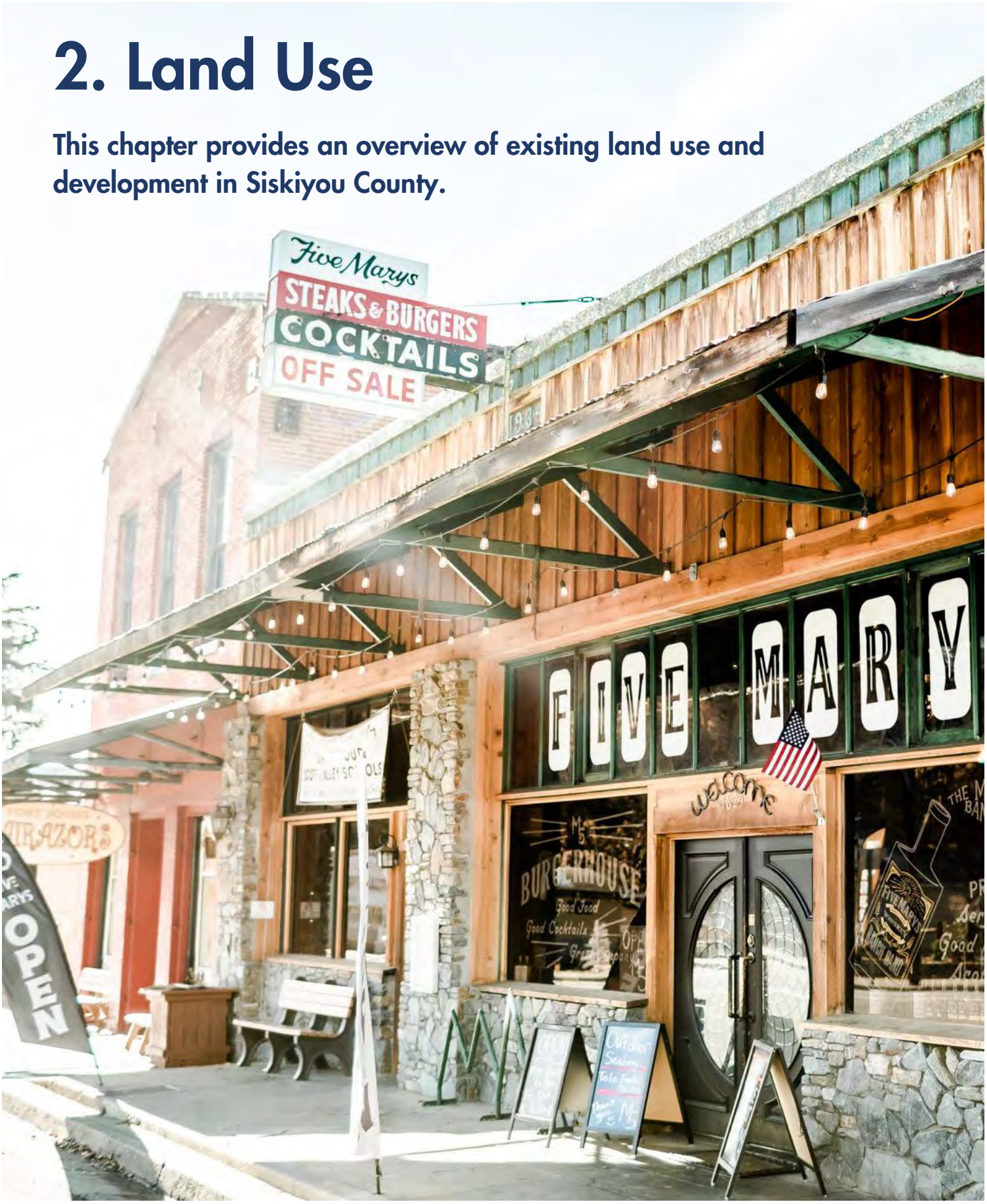
The Background Report is organized into 11 chapters:

- **Chapter 1 – Introduction.** This chapter introduces the Background Report and covers the following topics: what the general plan is and how it is used, Siskiyou County's regional setting and planning boundaries, purpose of the Background Report, format, and organization of the Background Report.
- **Chapter 2 – Land Use.** This chapter describes the individual planning areas of the county, annexation and development trends, General Plan, community plan land use designations, and surrounding county regional plans, existing zoning, development capacity, and disadvantaged unincorporated communities.
- **Chapter 3 – Population, Employment, and Housing.** This chapter describes the demographic characteristics of Siskiyou County, including population, and employment projections, household trends, labor force patterns, and industry trends.
- **Chapter 4 – Economic and Market Analysis.** This chapter provides an economic and market analysis, including regional market trends, business to business transaction patterns, and market demand measures for different land uses.
- **Chapter 5 – Circulation and Transportation.** This chapter describes the transportation resources in Siskiyou County. Included in this chapter is a summary of existing roadway facilities, vehicle miles traveled, transit service, active transportation, rail transportation, movement of goods, aviation transportation facilities, and transportation system management.
- **Chapter 6 – Biological Resources.** This chapter describes the biological resources in Siskiyou County, including agricultural soils, water resources, special status and endangered species, open space, conservation, scenic resources, mineral resources, forestry resources, and recreation.

- **Chapter 7 – Cultural Resources.** This chapter summarizes known cultural resources in Siskiyou County, including the prehistoric setting, ethnographic setting, historic setting, known Tribal and cultural resources, and paleontological resources.
- **Chapter 8 – Public Facilities, Services, and Infrastructure.** This chapter describes public facilities, services, and infrastructure in Siskiyou County, including wastewater collection and treatment, storm drainage and flood protection, solid and hazardous waste disposal and recycling, utilities, law enforcement, fire protection, emergency services, health care, schools and childcare, parks and recreation, and other county services.
- **Chapter 9 – Safety and Hazards.** This chapter describes existing public health and safety issues and concerns relevant to the planning process, such as drought, geologic and seismic hazards, flood hazards, fire hazards, hazardous materials, noise, and air quality.
- **Chapter 10 – Hydrology and Water Quality.** This chapter describes hydrology and water quality in Siskiyou County, including water resources, water reliability, water quality, water supply, water treatment, water delivery, ground water sustainability plans, and water management.
- **Chapter 11 – Glossary.**

2. Land Use

This chapter provides an overview of existing land use and development in Siskiyou County.



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2.1 Introduction

This chapter provides an overview of existing land use and development within Siskiyou County. It is organized into the following sections:

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2.2 Planning Area LU-4
2.3 Census Designated Places and Unincorporated Communities LU-6
2.4 Siskiyou Local Agency Formation Commission LU-22
2.5 Existing Land Use Categories LU-23
2.6 General Plan and Community Plan Land Use Designations LU-26
2.7 Existing Zoning LU-27
2.8 Spheres of Influence LU-36
2.9 Surrounding County General Plans LU-47
2.10 Regional Plans LU-49
2.11 Disadvantaged Unincorporated Communities LU-50
2.12 Regulatory Setting LU-51
2.13 Key Terms LU-53
2.14 References LU-55

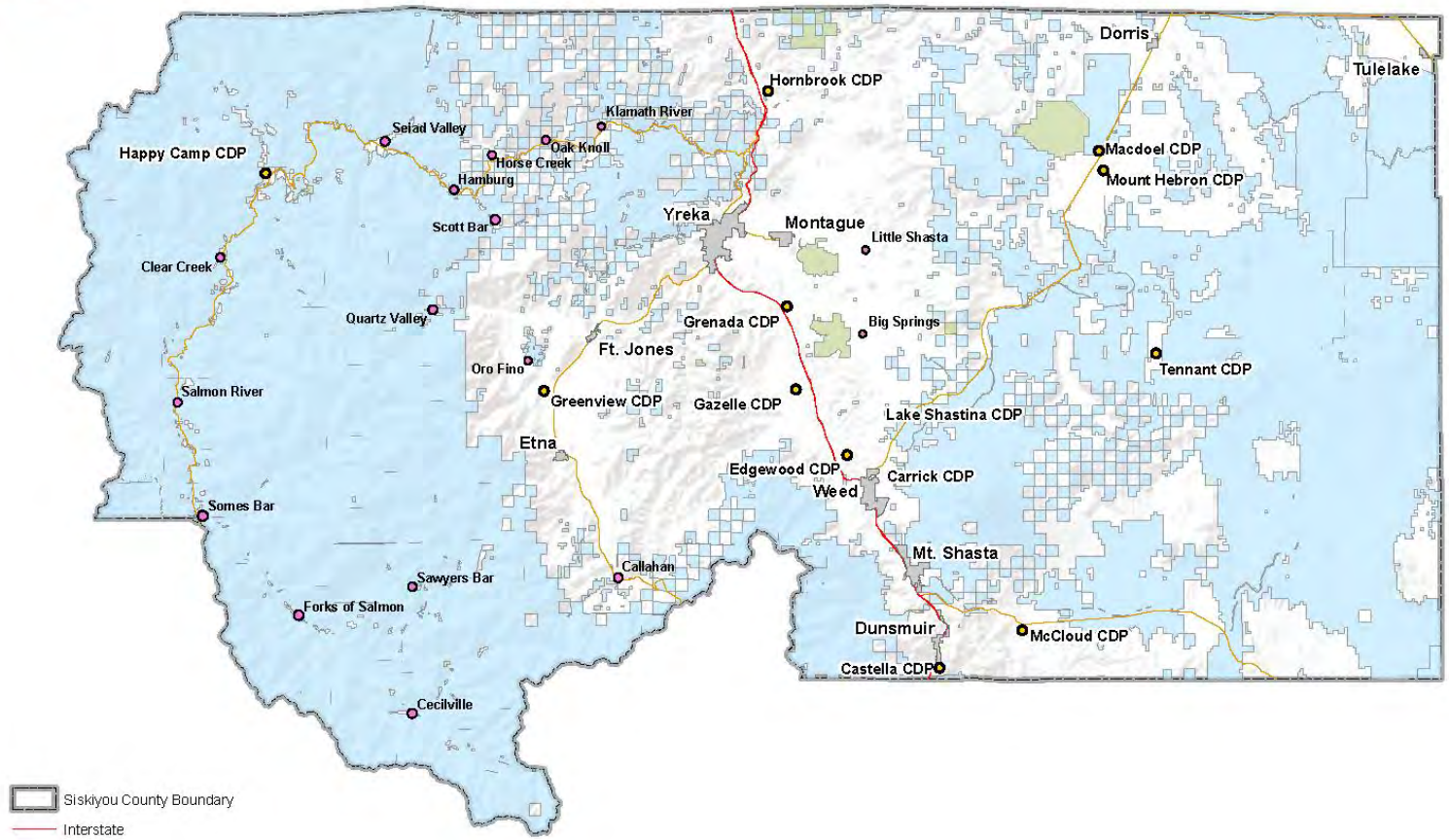
2.2 Planning Area

Siskiyou County covers approximately 6,347 square miles (4,062,446 acres) making it the fifth largest California county. It is bordered by the California-Oregon border to the north, Humboldt County, Trinity County, and Shasta County to the south, Modoc County to the east, and Del Norte County to the west. Located in the northernmost portion of California, Siskiyou County is rugged, mountainous, and consists of heavily forested land with sparse development. A majority of the land in Siskiyou County (over 60 percent) is Federally or State owned and managed, approximately 2,477,868 acres, most of which are forest lands.

Siskiyou County was formed from parts of Shasta and Klamath Counties and was officially established on March 22, 1852. The county got its name from the Siskiyou Mountains. Parts of the county were annexed into Modoc County in 1855. Siskiyou County includes parts of Shasta-Trinity National Forest, Rogue River-Siskiyou National Forest, Klamath National Forest, and Butte Valley National Grassland.

Siskiyou County has nine incorporated cities, 12 Census Designated Places (CDPs), and 17 unincorporated communities. The largest cities by population are Yreka (7,807), Mount Shasta (3,223), and Weed (2,862). Other cities include Dorris, Dunsmuir, Etna, Fort Jones, Montague, and Tulelake. Yreka is the largest incorporated area and includes the county seat. The total population across Siskiyou County was 44,076 according to the 2020 census, making it the 45th most populous county in California.

Figure 2.1: Planning Area



2.3 Census Designated Places and Unincorporated Communities

Development in Siskiyou County includes 12 Census Designated Places (CDPs) and 17 unincorporated communities. CDPs are a statistical geography representing closely settled unincorporated communities that are locally recognized and identified by name. By contrast, unincorporated communities are smaller settlements or areas within the county and are not differentiated from the county by the U.S. Census Bureau.

For the purpose of providing more detailed land use maps for visual clarity in this report, the county has been divided into four subregions: Northeast, Northwest, Southeast, and Southwest. These regions and the communities within them are described in this section.

Please note: The four subregions discussed in this chapter were created solely for the ease of presenting land use maps in this report and are based exclusively on geographic location. No current or future land use planning or zoning is or will be based on these regions.

Census Designated Places

Figure 2.2 shows the four regions of Siskiyou County and the census designated places (CDPs) within each region, including:

Northeast

- Lake Shastina
- Macdoel
- Mount Hebron
- Tennant

Northwest

- Grenada
- Happy Camp
- Hornbrook

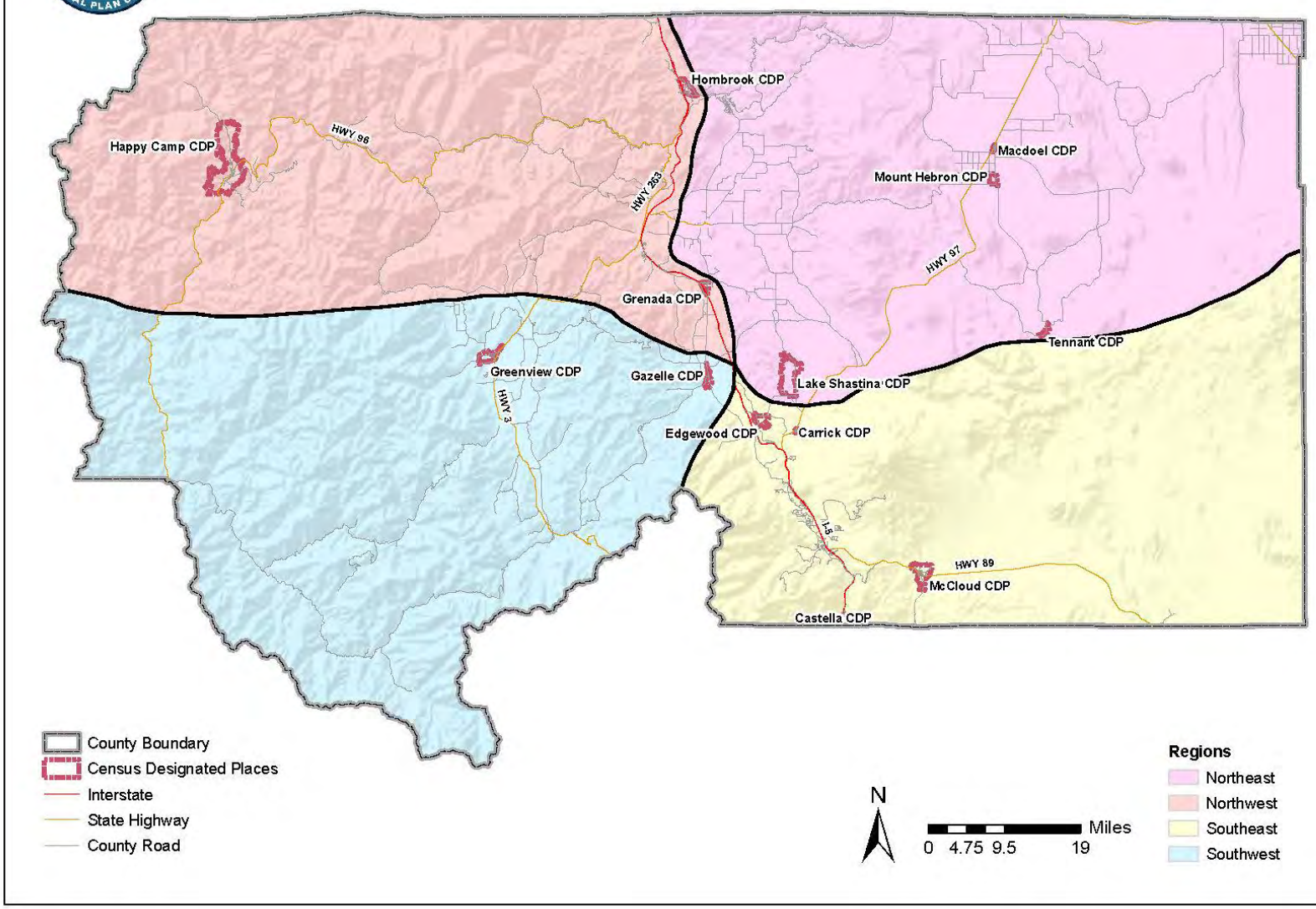
Southeast

- Carrick
- Edgewood
- McCloud

Southwest

- Gazelle
- Greenview

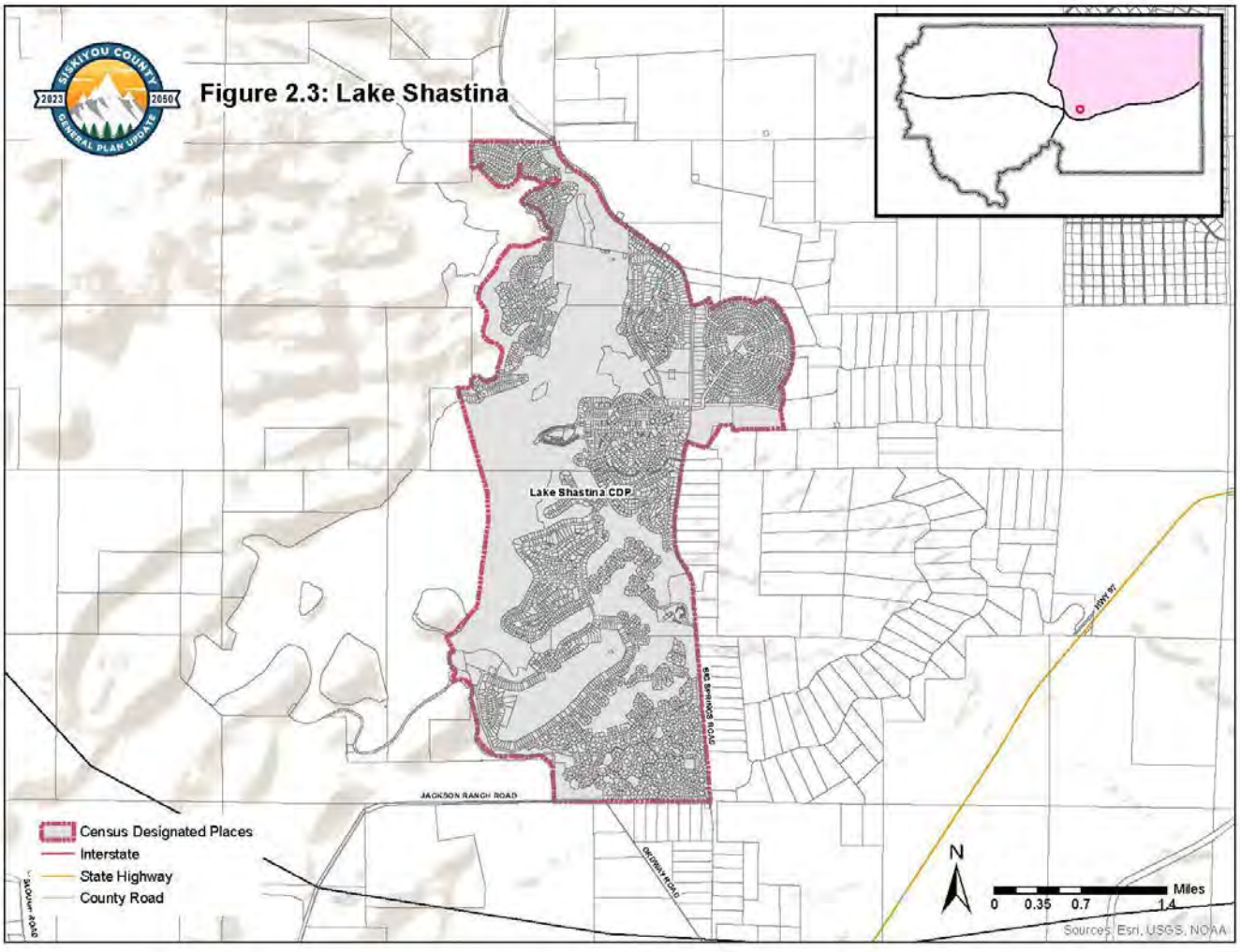
Figure 2.2: Siskiyou County Regions (CDPs)



Northeast Region

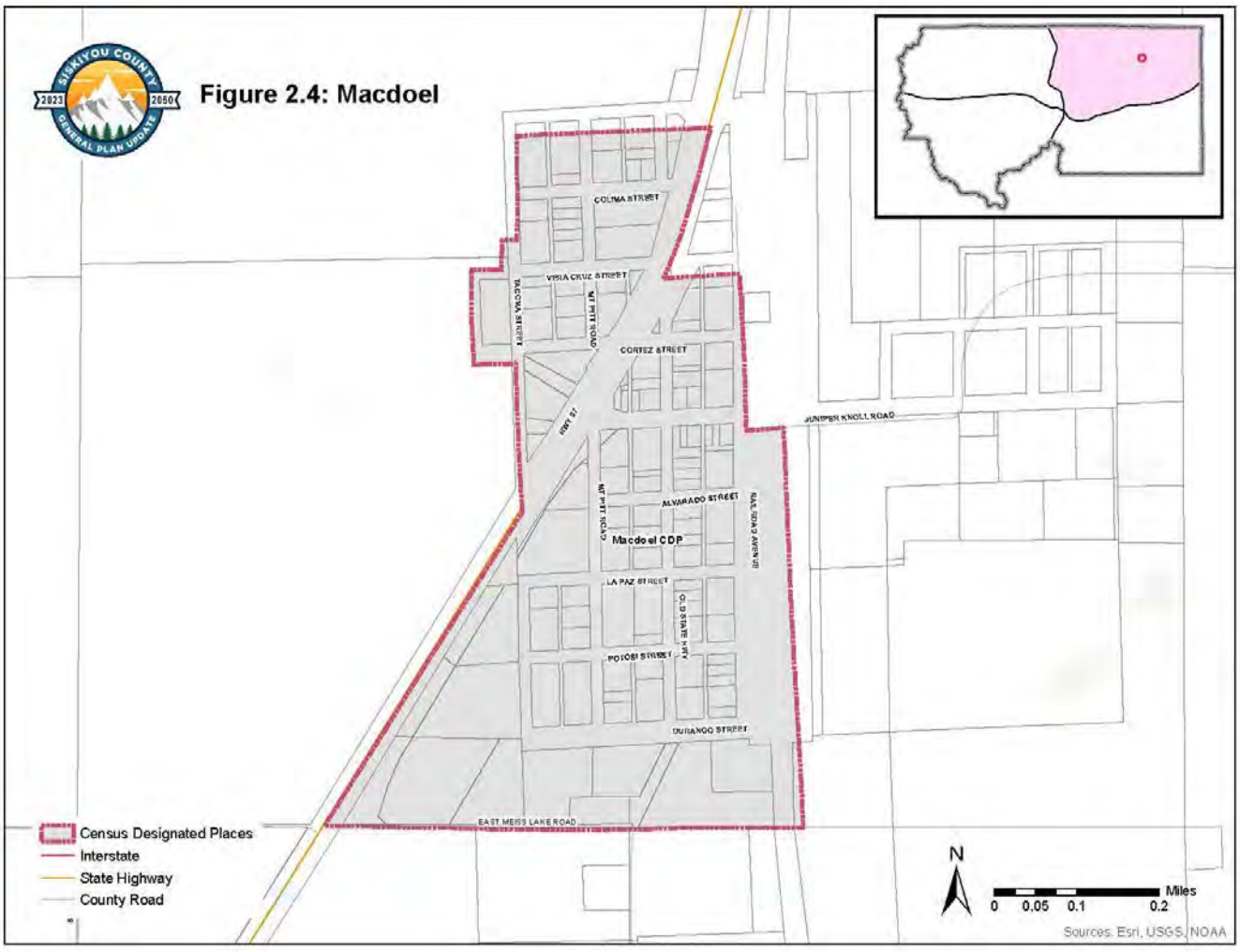
Lake Shastina

Lake Shastina is located about 10 miles north of Weed situated between I-5 to the west and US 97 to the east. Lake Shastina is at an elevation of 2,818 feet and the nearest communities are Edgewood and Gazelle. According to the U.S. Census Bureau, the CDP has a total area of five square miles and a 2020 population of 2,401. Lake Shastina has public services including a police department, a community services district (including a fire department), and a community center. Lake Shastina is primarily zoned for residential and commercial uses.



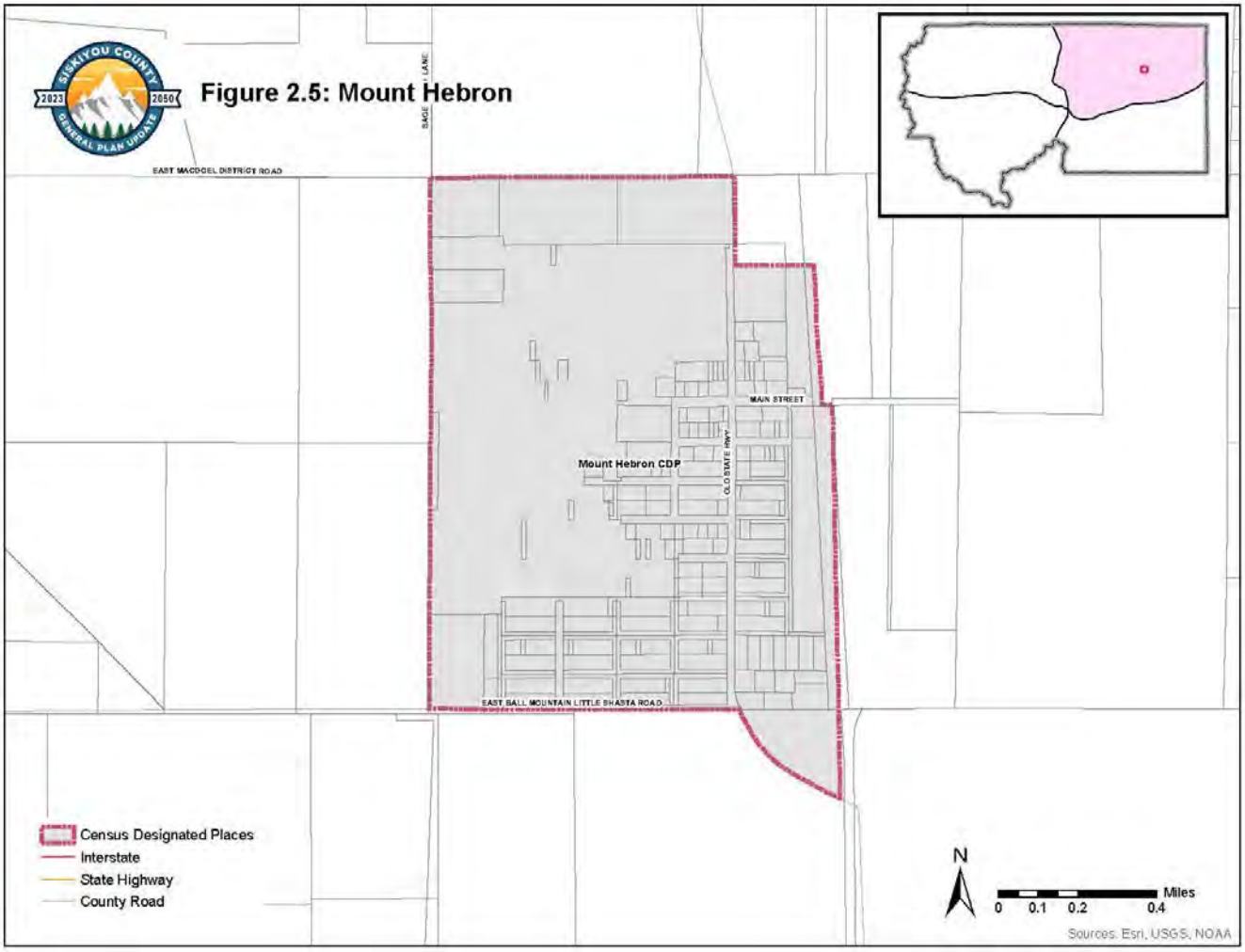
Macdoel

Macdoel is located 11 miles south of Dorris situated along US 97. Macdoel is at an elevation of 4,252 feet and the nearest community is Mount Hebron. According to the U.S. Census Bureau, the CDP has a total area of 0.1 square miles and a 2020 population of 86. The community has minimal services limited to a gas station and fire station. Macdoel is primarily zoned for rural residential and non-prime agriculture uses.



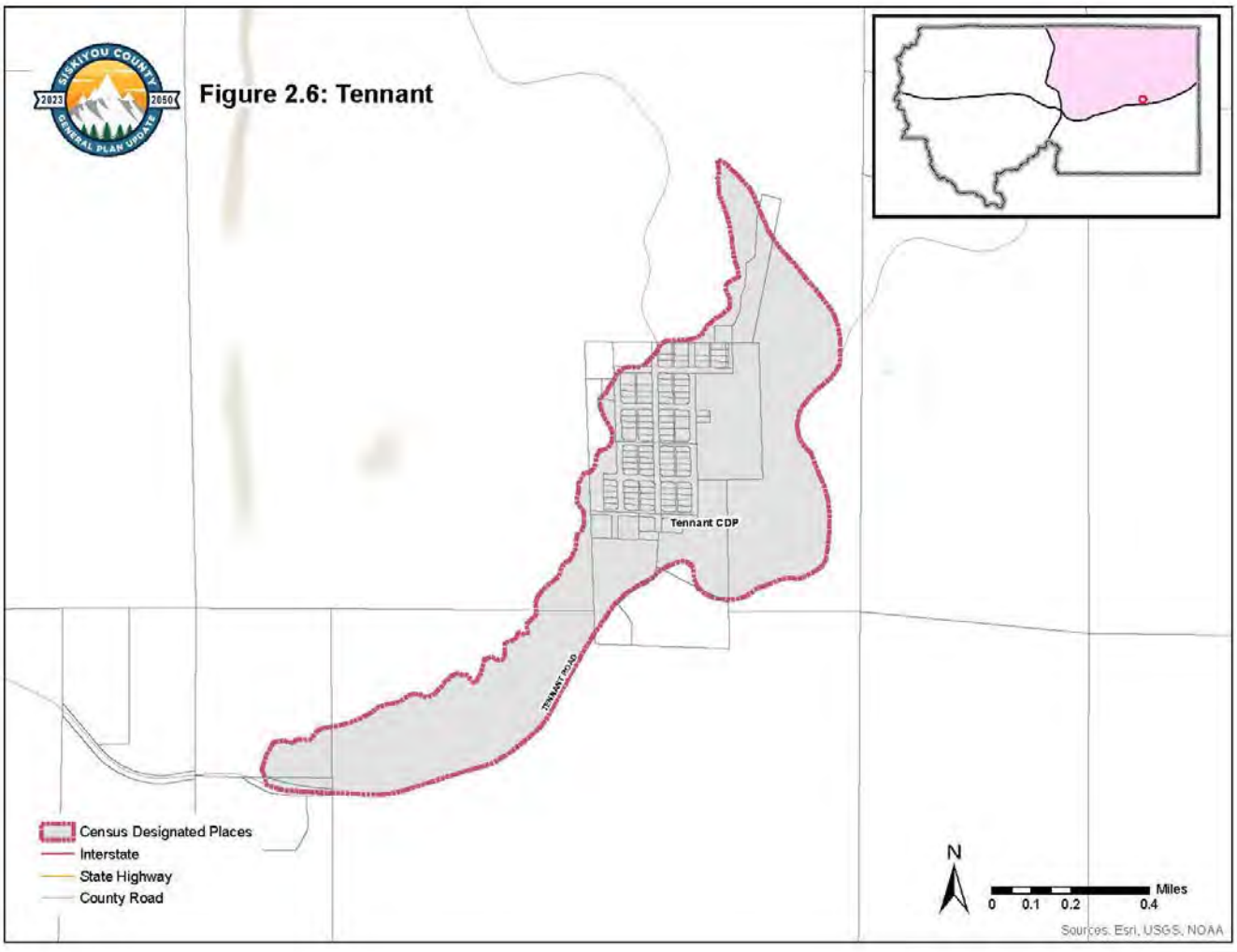
Mount Hebron

Mount Hebron is located three miles south of Macdoel situated east of US 97. The elevation of Mount Hebron is 4,262 feet and the nearest community is Macdoel. According to the U.S. Census Bureau, the CDP has a total area of 0.7 square miles and a 2020 population of 103. The community has minimal services and is mostly undeveloped. Mount Hebron is almost entirely zoned for rural residential uses with some non-prime agricultural uses.



Tennant

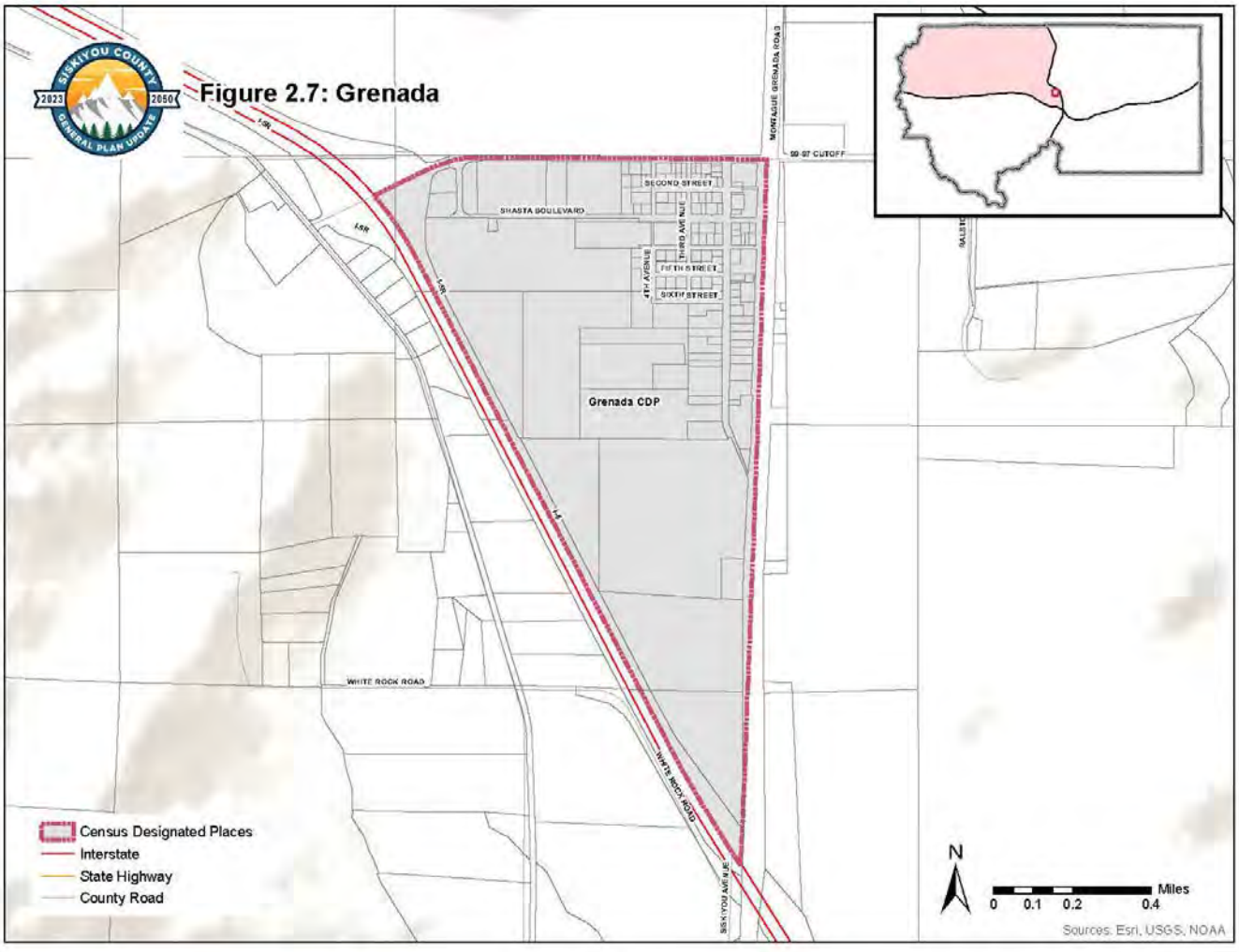
Tennant is located 16 miles south of Mount Hebron along Old State Highway and Tennant-Mount Hebron Road. Tennant is at an elevation of 4,797 feet and the nearest communities are Mount Hebron and Carrick. According to the U.S. Census Bureau, the CDP has a total area of 0.2 square miles and a 2002 population of 63. The Tennant Community Services District provides all services to the community, including solid waste disposal, water, sewer, fire protection, and lighting and lighting maintenance. However, it should be noted that the CSD has not employed firefighters in several years, and that fire protection is instead provided to the community by CAL FIRE. Tennant is primarily zoned for rural residential and timberland production uses.



Northwest Region

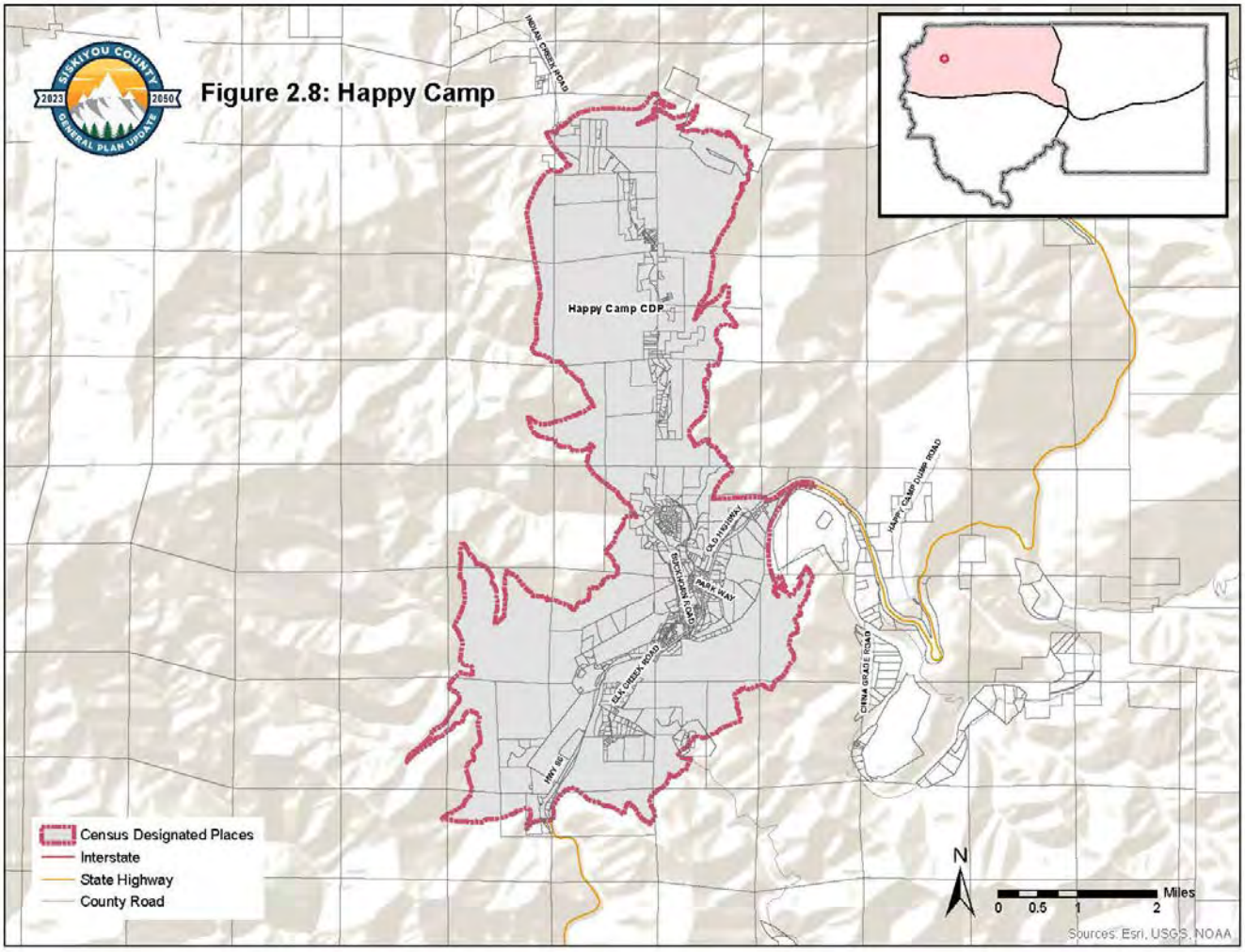
Grenada

Grenada is located about 11 miles southeast of Yreka situated along I-5. Grenada is at an elevation of 2,579 feet and the nearest communities are Montague and Yreka. According to the U.S. Census Bureau, the CDP has a total area of 0.5 square miles and a 2020 population of 314. Grenada has a range of services including a U.S. post office, an elementary school, and a fire station. The Grenada Sanitary District provides water and sewer services to the community. Grenada is primarily zoned for prime agriculture, rural residential, and commercial uses.



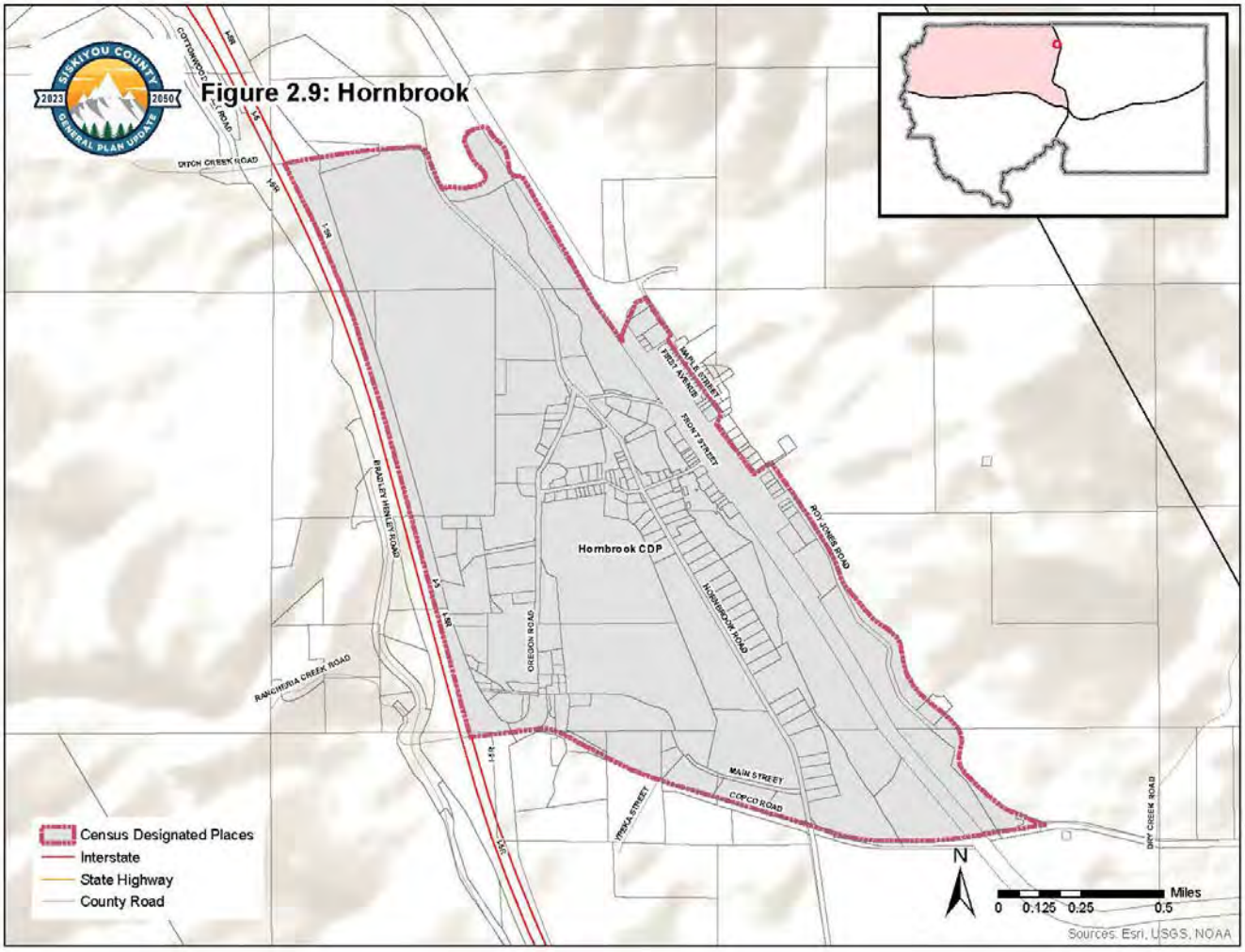
Happy Camp

Happy Camp is located in the far northwest region of Siskiyou County, situated along SR 96. Happy Camp has an elevation of 1,660 feet and the nearest communities are Seiad Valley and Cottage Grove. According to the U.S. Census Bureau, the CDP has a total area of 12.3 square miles and a 2020 population of 905. Happy Camp has a range of services including restaurants, a market, a gas station, an elementary school, a high school, a library, a fire station, a solid waste transfer station, and a community center. The Happy Camp Community Services District provides services to the community, including water, street lighting and lighting maintenance, and community park maintenance. The community is primarily zoned for rural residential and industrial uses.



Hornbrook

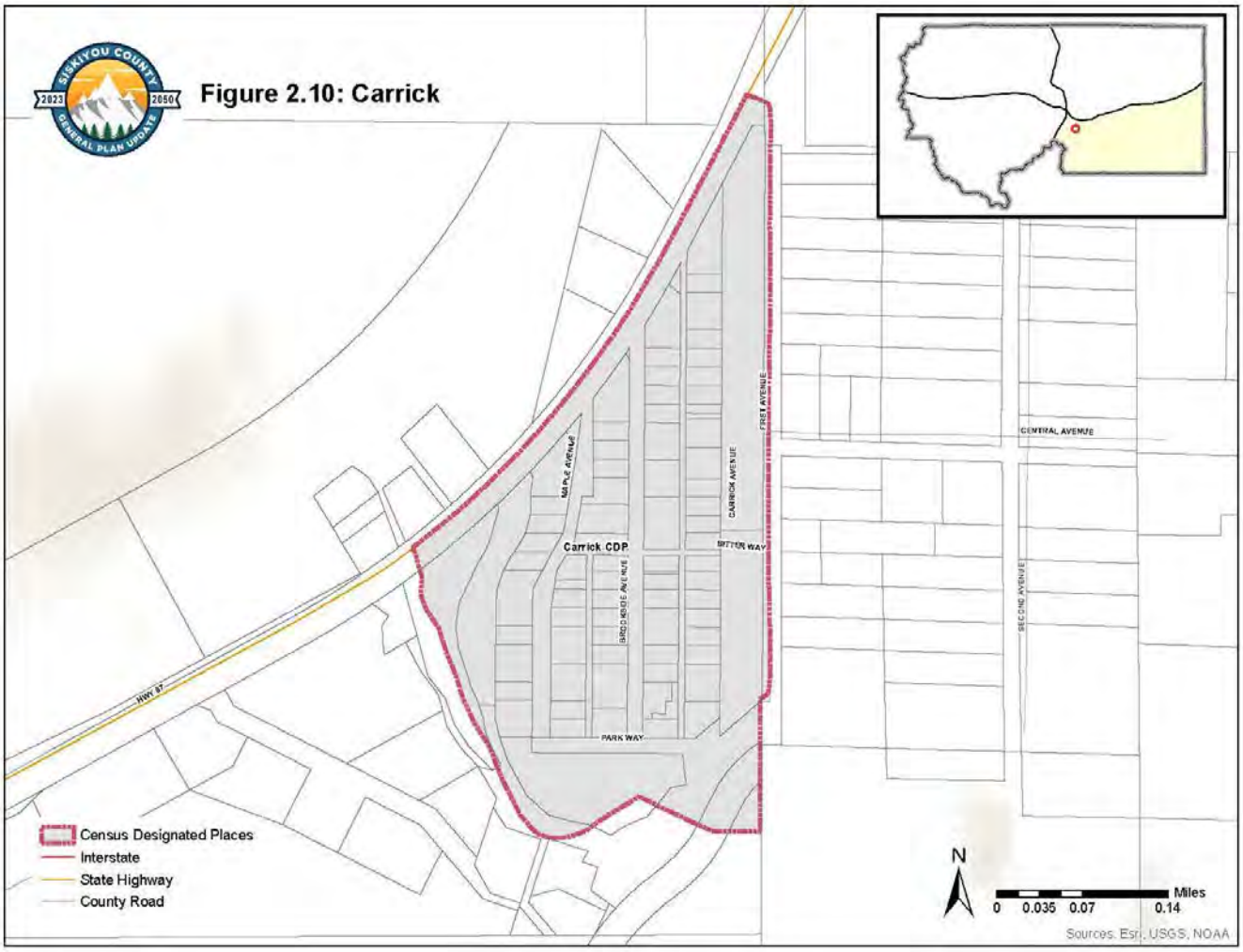
Hornbrook is located 15 miles north of Yreka situated along I-5. Hornbrook is at an elevation of 2,172 feet and the nearest communities are Yreka and Montague. According to the U.S. Census Bureau, the CDP has a total area of 1.2 square miles and a 2020 population of 266. Hornbrook has a range of services including a restaurant, an elementary school, a U.S. post office, a gas station, and a fire station. The Hornbrook Community Services District provides safe drinking water to the community and monitors water quality, supply, and reliability. The community is primarily zoned for rural residential and non-prime agriculture uses.



Southeast Region

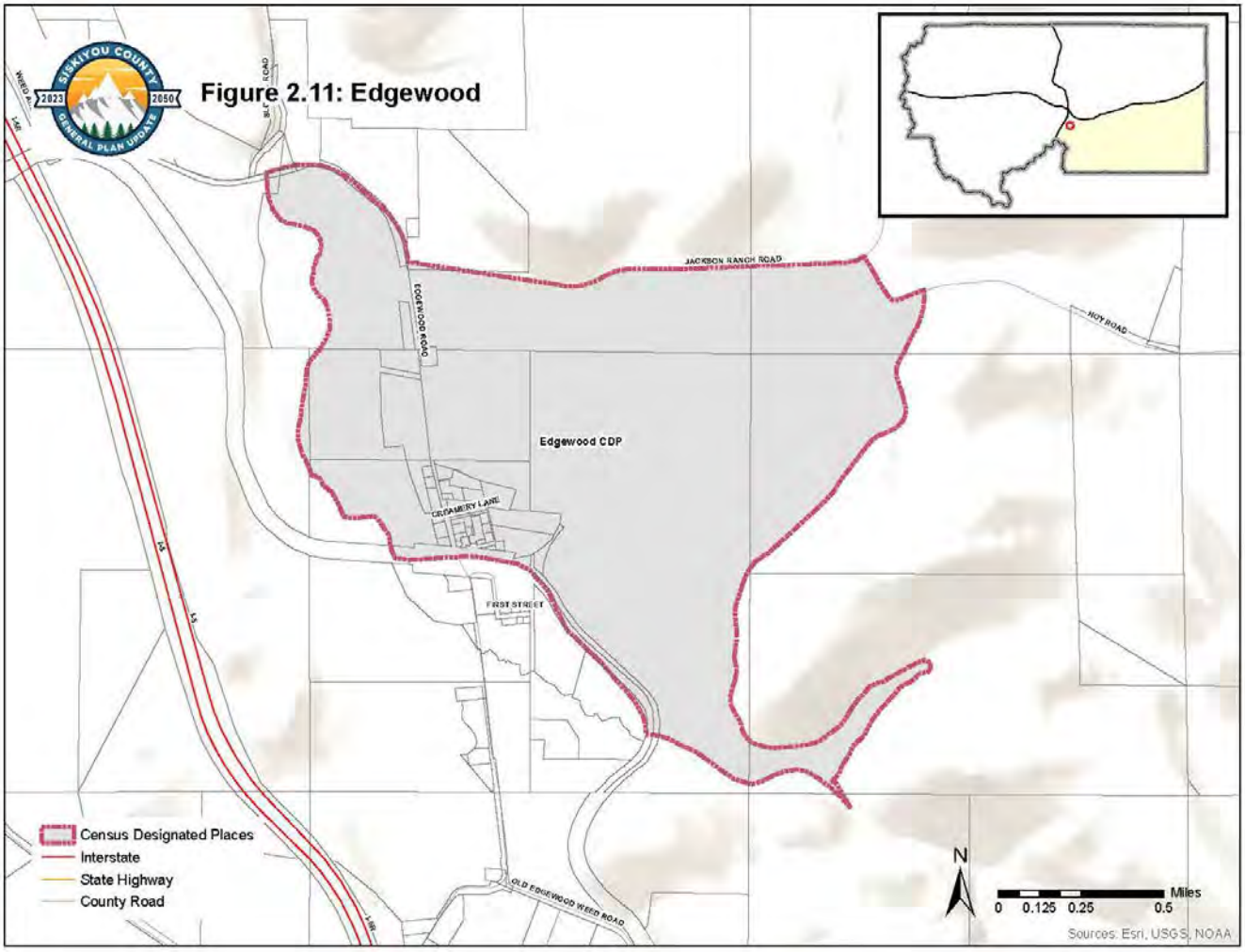
Carrick

Carrick is a community located about three miles outside of Weed situated north along US 97. Carrick is at an elevation of 3,490 feet and the nearest communities are Weed and Edgewood. According to the U.S. Census Bureau, the CDP has a total area of 0.1 square miles and a 2020 population of 143 residents. Carrick lies within Weed's sphere of influence. Due to limited services, residents of Carrick rely on Weed for most resources and services. Carrick is primarily zoned for rural residential and commercial uses.



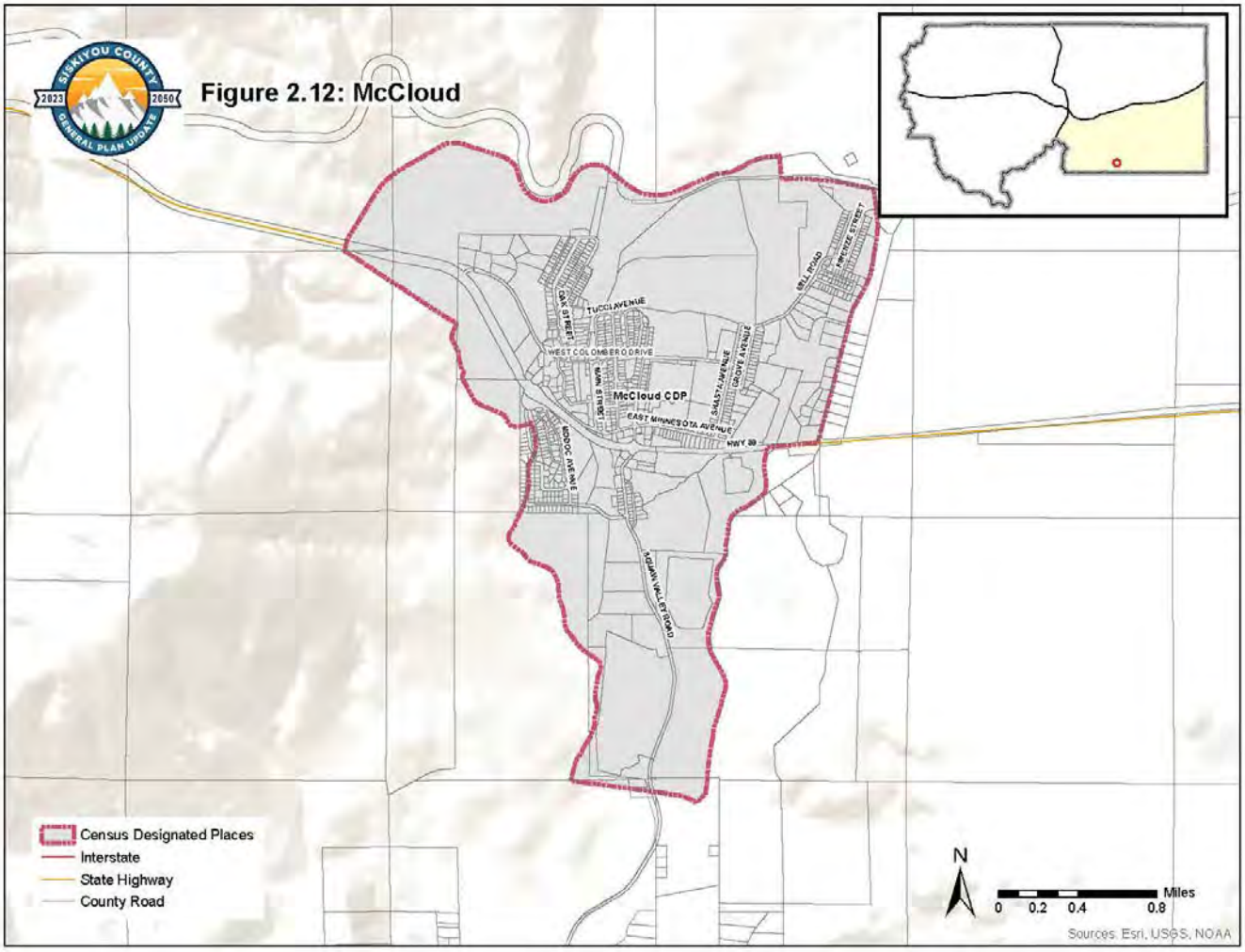
Edgewood

Edgewood is located about five miles outside of Weed situated north off I-5. Edgewood is at an elevation of 2,956 feet and the nearest communities are Weed and Carrick. According to the U.S. Census Bureau, the CDP has a total area of one square mile and a 2020 population of 72 residents. Edgewood sits just north of Weed's sphere of influence, although its limited services require residents to rely on Weed for most resources and services. Edgewood is located about two miles south of the Weed Airport and is primarily zoned as non-prime agriculture.



McCloud

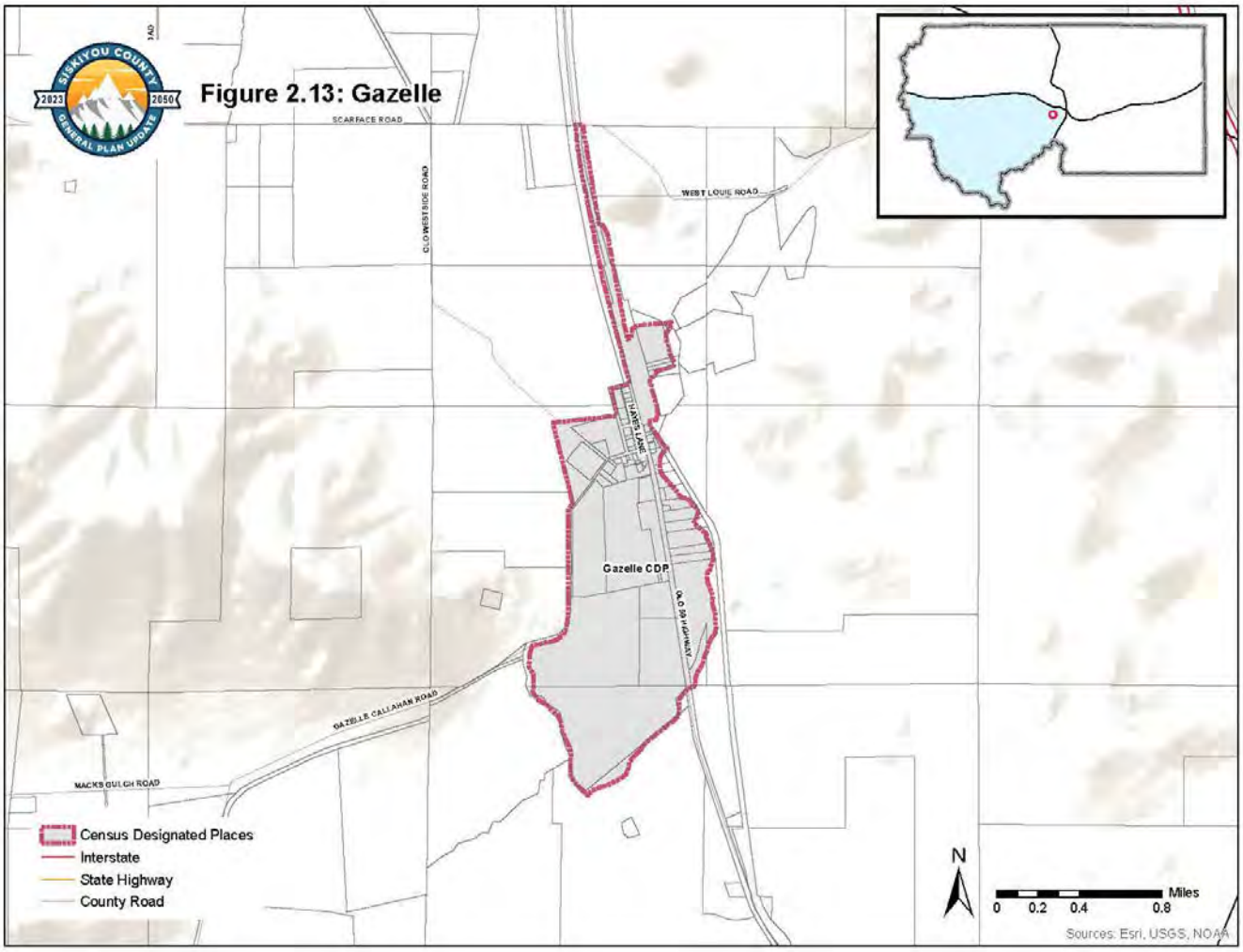
McCloud is located 11 miles south of Mount Shasta situated along SR 89. McCloud is at an elevation of 3,271 feet and the nearest community is Mount Shasta. According to the U.S. Census Bureau, the CDP has a total area of 2.5 square miles and a 2020 population of 945. McCloud has a range of services and is one of the more developed census designated places in the county. The McCloud Community Service District provides services to the community, including water, sewer, alley maintenance, refuse collection, park maintenance, library maintenance, fire protection, and emergency medical response. The community is primarily zoned for residential and industrial uses with some non-prime agricultural land.



Southwest Region

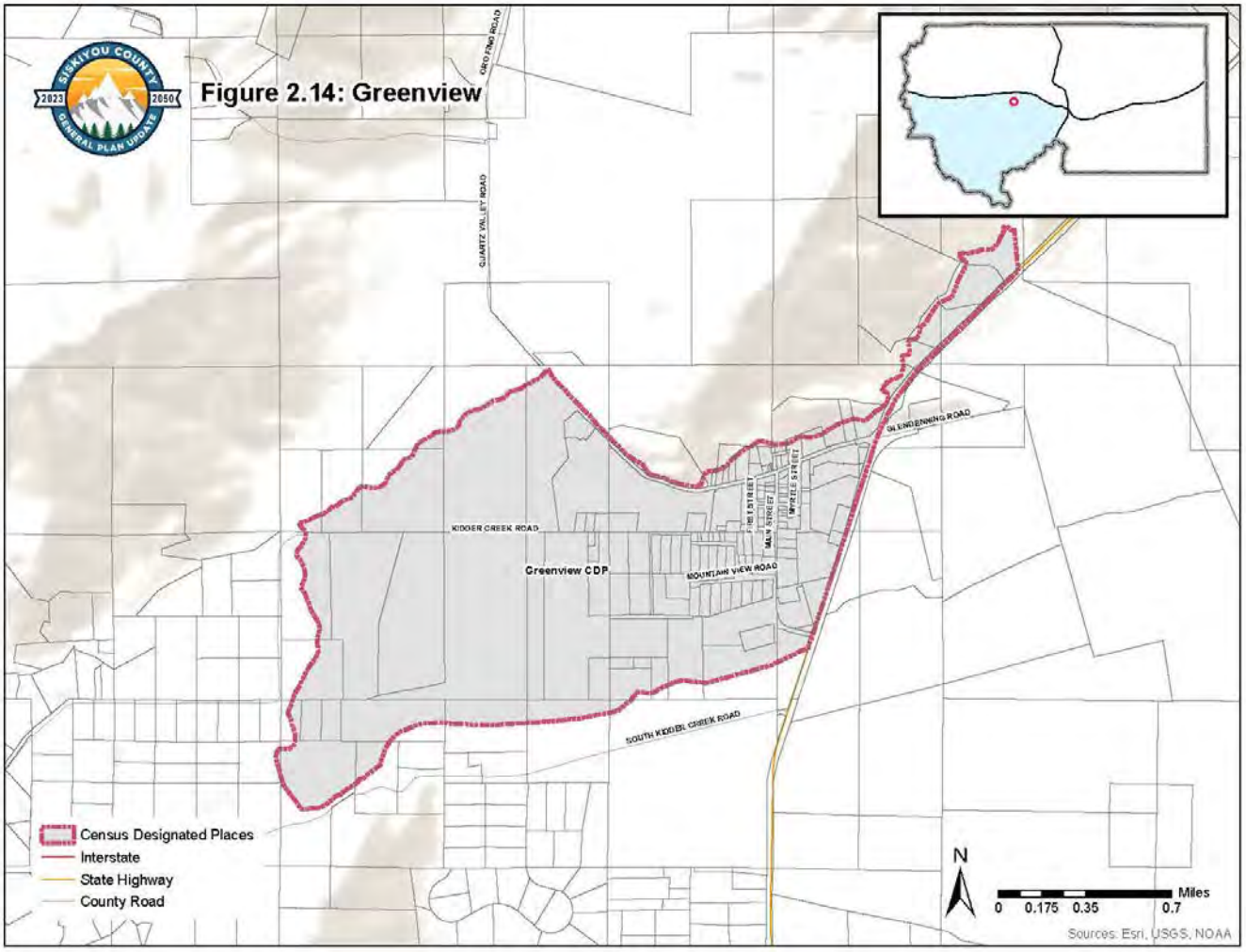
Gazelle

Gazelle is located about eight miles northwest of Edgewood situated to the west of I-5 along Old Highway 99. Gazelle is at an elevation of 2,769 feet and the nearest communities are Edgewood and Grenada. According to the U.S. Census Bureau, the CDP has a total area of 0.6 square miles and a 2020 population of 95. There are minimal services in Gazelle; however, there is a U.S. post office and an elementary school. Gazelle is primarily zoned for prime agriculture, rural residential, and commercial uses.



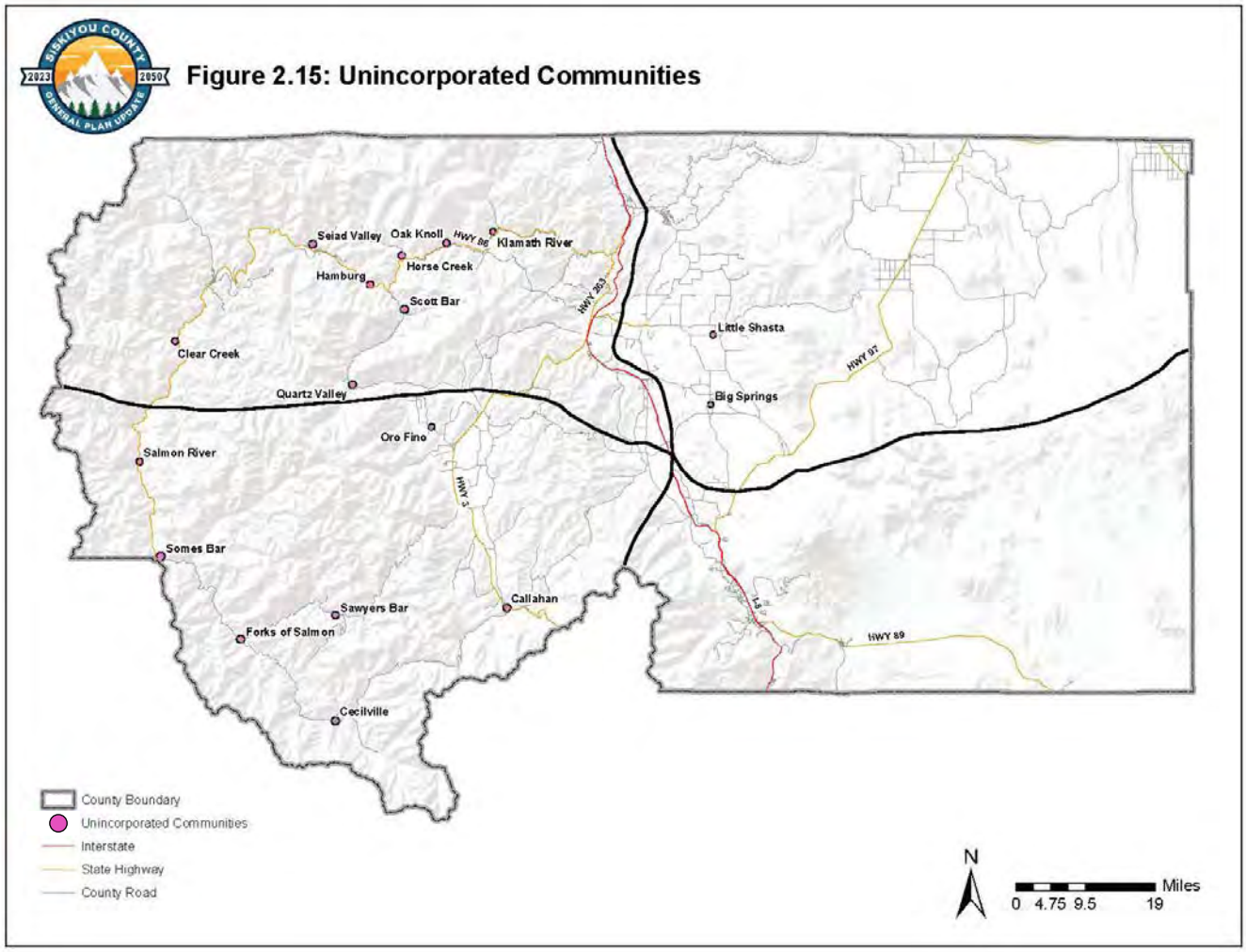
Greenview

Greenview is located about seven miles north of Etna situated along SR 3. Greenview is at an elevation of 2,812 feet and the nearest communities are Etna and Fort Jones. According to the U.S. Census Bureau, the CDP has a total area of 1.4 square miles and a 2020 population of 208. Greenview has some services including a Scott Valley Fire Protection District station and a U.S. post office. Greenview is zoned primarily for rural residential and non-prime agriculture uses.



Unincorporated Communities

Figure 2.15 shows the regions of Siskiyou County and the unincorporated communities within each region. Each of the 17 unincorporated communities in the county is described below. Please note, there are no unincorporated communities located in the southeast region of the county.



Northeast

Big Springs is located between I-5 and US 97 just north of Lake Shastina with an elevation of 2,610 feet. It is 15 miles southeast of Yreka and is situated along East Louie Road.

Little Shasta is located between I-5 and US 97 directly east of the city of Montague and is at an elevation of 2,700 feet. It is located 12 miles east of Yreka and is situated along Lower Little Shasta Road.

Northwest

Hamburg is located along the Klamath River and SR 96 and is at an elevation of 1,600 feet. Yreka is the nearest city, located 42 miles east along SR 96.

Horse Creek is located along SR 96 and is at an elevation of 1,620 feet. Yreka is the nearest city, located 19 miles southeast along SR 96.

Klamath River is located along SR 96 and has a population of 190. In 2022 a devastating forest fire destroyed most of the community. Yreka is the nearest city, located 26 miles southeast along SR 96.

Oak Knoll is located along SR 96 and is at an elevation of 1,080 feet. Yreka is the nearest city, located 29 miles southeast along SR 96.

Quartz Valley is located between SR 96 and SR 3, south of Scott River Road and north of the Quartz Valley Indian Reservation. Fort Jones is the nearest city, located 10 miles east along Scott River Road.

Scott Bar is located south of SR 96 along Scott River Road and has an elevation of 1,729 feet. Fort Jones is the nearest city, located 43 miles south along Scott River Road.

Seiad Valley is located northeast of Happy Camp along SR 96 and is at an elevation of 1,388 feet. Yreka is the nearest city, located 51 miles east along SR 96.

Southwest

Callahan is located west of I-5 along SR 3 and is at an elevation of 3,140 feet. Etna is the nearest city, located 13 miles north along SR 3.

Cecilville is located in the southernmost region of Siskiyou County along the south fork of the Salmon River and is at an elevation of 2,339 feet. Etna is the nearest city, located 43 miles northeast along SR 3.

Forks of Salmon is located at the confluence of the north and south forks of the Salmon River and is at an elevation of 1,224 feet. Etna is the nearest city, located 40 miles northeast along Sawyers Bar Road.

Oro Fino is located west of SR 3 along Oro Fino Road and has an elevation of 2,871 feet. Fort Jones is the nearest city, located 8 miles northeast along SR 3.

Salmon River is located east of SR 96 along Salmon River Road and is at an elevation of 1,180 feet. Etna is the nearest city, located 55 miles northwest along Sawyers Bar Road.

Sawyers Bar is located between SR 96 and SR 3 along Sawyers Bar Road and is at an elevation of 2,247 feet. Etna is the nearest city, located 25 miles northwest along Sawyers Bar Road.

Somes Bar is located west of SR 96 along Salmon River Road and is at an elevation of 1,180. Etna is the nearest city, located 58 miles northwest along Sawyers Bar Road.

2.4 Siskiyou Local Agency Formation Commission

Local Agency Formation Commissions (LAFCOs) are independent, quasi-legislative agencies created by the State with broad statutory responsibility to facilitate planned, orderly, and efficient patterns of urban development and preserve agricultural lands while discouraging urban sprawl. LAFCOs oversee the formation of new local government agencies as well as changes in the organization of existing agencies (e.g., annexations, detachments, dissolutions, consolidations, mergers, and dis-incorporations). LAFCO decisions balance the competing needs for affordable housing, economic opportunities, and the preservation of natural resources. Each of California's 58 counties has a LAFCO that operates according to the following general objectives and authorities:

Objectives

- Encourage the orderly formation and expansion of local government agencies;
- Preserve agricultural land resources; and
- Discourage urban sprawl.

Authorities

- Regulate boundary changes;
- Establish Spheres of Influence (SOIs);
- Conduct Municipal Service Reviews (MSRs);
- Initiate special district consolidations or dissolutions; and
- Act on out-of-agency service agreements between public agencies and between agencies and private parties.

Although LAFCOs deal with issues related to planning and land use, they do not have the authority to regulate land uses, property development, or subdivision design (e.g., roads, sizes of water lines). However, they do have the authority to engage in indirect land use decisions by approving or denying boundary changes to cities and special districts. LAFCO boundary decisions affect access to public facilities and services that may be growth-inducing (e.g., sewer services to an undeveloped area), growth-supporting (e.g., boundary changes that affect already-developed areas), or non-growth-related (e.g., services provided by districts for rural areas).

Siskiyou LAFCO completed a Municipal Services Review and Sphere of Influence Update in April 2021 for each city in the county. These reports consider the growth and population projections, disadvantaged unincorporated communities, present and planned capacity of public facilities and services, the financial ability to provide services, and a review of the sphere of influence for each incorporated city.

2.5 Existing Land Use Categories

This section describes Siskiyou County's existing land uses and their distribution. Understanding the type and distribution of existing development in the county is vital to the formulation of an updated land use diagram and development standards. The existing land uses discussed in this section are based on data from the Siskiyou County Assessor's Office. The existing land uses discussed in this section do not correspond to land use designations identified in the General Plan, which are discussed below under General Plan and Community Plan Land Use Designations.

To appraise land for property tax assessments, the Siskiyou County Assessor's Office classifies all parcels in the county according to a set of 73 unique parcel use codes that indicate how the property is currently being used. Please note that the use of a property may not coincide with General Plan Land Use Designation or Zoning District assigned to the parcel (i.e., a single-family zoned parcel being used strictly for farming activities). These codes fall into the following general categories:

- Single-Family Residential
- Multi-Residential
- Commercial
- Industrial
- Rural
- Agricultural and Livestock
- Timber
- Miscellaneous
- Unclassified

Table 2.1 Existing Land Use

Existing Land Use	Parcels	Acres	Percentage of County
Single-Family Residential	29,923	66,588	1.6%
Multi-Residential	904	582	0.0%
Commercial	2,588	7,061	0.2%
Industrial	489	5,920	0.1%
Rural	3,249	183,287	4.5%
Agricultural and Livestock	4,553	588,305	14.5%
Timber	1,831	588,053	14.5%
Miscellaneous	9,890	2,514,130	61.9%
Federal Landowners	*5,715*	*1,280,509*	*31.5%*
United States Forest Service	*4,729*	*1,081,468*	*26.6%*
National Park Service	*674*	*89,103*	*2.2%*
Bureau of Land Management	*163*	*81,864*	*2.0%*
U.S. Fish and Wildlife Service	*149*	*28,074*	*0.7%*
State Landowners	*710*	*229,644*	*5.7%*
California Department of Transportation	*482*	*173,065*	*4.3%*
California State Lands	*118*	*26,847*	*0.7%*
California Department of Fish and Wildlife	*88*	*21,800*	*0.5%*
CAL FIRE	*9*	*4,233*	*0.1%*
Other State Agency	*13*	*3,698*	*0.1%*
County Agency Landowners	*1,882*	*472,500*	*11.6%*
Siskiyou County	*817*	*252,136*	*6.2%*
Cities	*885*	*154,704*	*3.8%*
Schools	*132*	*44,440*	*1.1%*
Services (Utility Districts, Community Service Districts, etc.)	*48*	*21,220*	*0.5%*
Other: Roads, Churches, Utilities, etc.	*1,583*	*531,477*	*13.1%*
Unclassified	485	108,520	2.7%
Total	**53,912**	**4,062,446**	**100.0%**

Source: Siskiyou County Assessor's Office, 2023.

Single-Family Residential

Currently, 66,588 acres in Siskiyou County are classified as single-family residential, accounting for 1.6 percent of the total land area in Siskiyou County. Single-family residential is the most common of the residential land use type. Single-family residential includes parcels that have single-family homes, mobile homes, manufactured homes, and vacant residential land.

Multi-Residential

Currently, 582 acres in Siskiyou County are classified as multi-residential, accounting for less than 0.1 percent of the total land area in Siskiyou County. Multi-residential includes parcels with multi-family residential building types or planned unit developments. By comparison to the uses presented in Table 2.1, multi-residential comprises the smallest acreage of any classification.

Commercial

Currently, 7,061 acres in Siskiyou County are classified as commercial and account for 0.2 percent of the total land area of Siskiyou County. Commercial uses include parcels with commercial buildings, retail buildings, restaurants, auto shops, gas stations, motels, and offices.

Industrial

Land classified as industrial accounts for 0.1 percent of the total land area of Siskiyou County, at 5,920 acres. Industrial uses include mining, fabrication, manufacturing, food production, and warehousing,.

Rural

Currently, 183,287 acres of land in Siskiyou County are classified rural, accounting for about 4.5 percent of the county. Land classified as rural includes rural property with a commercial use, mobiles homes, rural residential uses, and vacant rural land.

Agricultural and Livestock

There are 588,305 acres of land classified as agricultural and livestock which accounts for 14.5 percent of the total land area of Siskiyou County, making it the second largest land use classification. Agricultural and livestock uses include row crops, field crops, orchards, grazing land, and agricultural preserve properties.

Timber

Currently, 588,053 acres of land in Siskiyou County are classified as timber, accounting for 14.5 percent of the county. Land classified under the timber land use code includes private land for timber production and other timber private property. None of the land included in this land use designation is owned by federal or state agencies.[1] Timber land use makes up the third largest land use classification in Siskiyou County, slightly less than agriculture and livestock.

Miscellaneous

Currently, 2,514,130 acres in Siskiyou County are classified by the Assessor as miscellaneous. The miscellaneous land use classification makes up 61.9 percent of the total county land cover making it the largest land use classification by a large margin. Land classified under the miscellaneous land use code includes roads, churches, utilities, and county, State, and Federal lands. More than 60 percent of Siskiyou County is currently managed by Federal and State agencies. These include the U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service, and California Department of Fish and Wildlife.

Unclassified

There are 108,520 acres of unclassified land in Siskiyou County, making up 2.7 percent of the total land area. A parcel is considered unclassified when there is no available data on how the land is used.

[1] *Based on Assessor parcel data, there are 1,209 parcels in the county that are in the "timber" land use category that are adjacent to publicly-owned land. These parcels account for 436,752 acres of land, or 74.3 percent of parcels with a timber land use.*

2.6 General Plan and Community Plan Land Use Designations

The existing General Plan consists of 10 elements: Circulation, Conservation, Energy, Geothermal, Housing, Land Use [and Circulation], Noise, Open Space, Scenic Highways, and Seismic Safety and Safety. These elements cover the seven required topic areas required under California State law. Siskiyou County has never completed a comprehensive general plan update; however, individual elements have been updated periodically starting in 1972, as shown below in Table 2.2.

Table 2.2 General Plan Element Updates

General Plan Element	Last Update
Circulation	1988
Conservation	1973
Energy	1993
Geothermal	1984
Housing	2023
Land Use [and Circulation]	1980
Noise	1978
Open Space	1972
Scenic Highways	1974
Seismic Safety and Safety	1975

Source: 1980 Siskiyou County General Plan.

General Plan Land Use Designations

The Land Use Element designates the general distribution and location of the uses of land for housing, business, industry, agriculture, open space, public facilities, and other public and private uses. The Land Use Element also identifies goals, policies, and objectives to guide future growth and development in Siskiyou County. Table 2.3 summarizes the land use designations identified in the Land Use Element, including agricultural and urban uses. As shown, 98.7 percent of the land in Siskiyou County is designated for agricultural land uses, while urban land uses account for the remaining 1.3 percent of land within the county.

Agricultural Uses are divided into six land uses, including croplands, pasture, dry grass land, barren and sage, woodlands, and water bodies/marshland. Urban uses are categorized into individual land uses including major settlement areas, major highways, and other settlements. Woodlands make up the largest individual land use category, accounting for 55.3 percent of the total land.

Table 2.3 1980 General Plan Land Use Designations

Land Use	1973		1990	
	Acres	Percent	Acres	Percent
Agriculture				
Croplands	96.8	6.5	109.8	7.3
Pasture	83.2	5.6	83.4	5.6
Dry Grass Land	168.0	11.2	154.0	10.3
Barren and Sage	288.0	19.3	288.0	19.3
Woodlands	827.3	55.3	826.5	55.3
Water Bodies, Marshland	12.0	0.8	12.0	0.8
Urban				
Major Settlement Areas incl. Roads and Industry	11.8	0.8	14.0	0.9
Other Major Highways	3.3	0.2	3.3	0.2
Other Settlements, Roads, and Dispersed Industry	3.9	0.3	3.9	0.3
Total	494.9	100.0	494.9	100.0

Source: 1980 Siskiyou County General Plan

2.7 Existing Zoning

The county Zoning Ordinance implements the policies and programs of the General Plan. The major difference between the General Plan and Zoning Ordinance is that the General Plan provides long-term general guidance on the location, type, and intensity of new growth and development, while the Zoning Ordinance provides detailed development and use standards for each parcel. The Zoning Ordinance divides the county into "zoning districts" and specifies the uses that are allowed by-right, conditionally allowed (i.e., uses that require Planning Commission approval prior to establishment), and prohibited within each zone. Development standards included in the Zoning Ordinance include parcel size limitations, density requirements, parking requirements, setbacks, and height limits. The Zoning Ordinance also describes procedures for discretionary approvals.

Siskiyou County's Zoning Ordinance establishes 19 base zones. Of these 19 base zones, there are four agricultural zones, four residential zones, four commercial zones, three industrial zones, and six other zones related to open space, public facilities, and special development. Below is a description of each base zone, their general purpose, and allowed land uses.

Zoning Districts

Agricultural

Prime Agricultural District (AG-1): The AG-1 district classification is intended to be applied to land areas which are used or are suitable for use for intensive agricultural production.

Non-Prime Agricultural District (AG-2): The AG-2 district is intended to provide for areas where general agricultural activities and agriculturally related activities can occur. Because the soil, climatic, and cropping history of the county differs from area to area, minimum parcel sizes for the AG-2 district vary in order to account for such differences.

Timberland Production District (TPZ): The purpose of the TPZ district is to provide a zoning consistent with the requirements of the Z'berg-Warren-Keene-Collier Forest Taxation Reform Act of 1976, to encourage the

production of timber, to protect immature trees so that they may eventually be harvested, and to provide for the restricting of the uses of timber land to the production of timber products. The TPZ district is applied to areas dedicated to the growing, conserving and production of timber in areas of sufficient size to be economically feasible, and works to protect such areas from intrusion by incompatible uses.

Residential

Rural Residential Agricultural District (R-R): The R-R district is intended to provide areas where rural residential uses are compatible with commercial agricultural activities.

Single-Family Residential District (Res-1): The Res-1 district is intended to provide areas for single-family detached housing consistent with achieving low density residential neighborhoods and the uses accessory to the primary residential uses.

Limited Multiple-Family Residential District (Res-2): The Res-2 district is intended to allow single-family dwellings as well as duplex dwellings and other uses compatible with single-family neighborhoods.

Mixed Multiple-Family Residential District (Res-3): The Res-3 district is intended to provide a mixed residential neighborhood, more particularly designed for higher density dwellings, where all uses of a residential character, including single-family homes, duplexes, apartments, mobile home parks, and similar uses, may occur in harmony.

Multiple-Family Residential District (Res-4): The Res-4 district is intended to provide an area of high-density multi-family residential land uses and mobile home parks.

Commercial

Rural Neighborhood Commercial District (C-R): The C-R district is intended to provide areas where less intensive commercial uses can operate and offer goods and services within a close distance to, and be compatible with, residential neighborhoods. Permitted uses in C-R zones include rooming houses and boarding houses, bakeries, food stores, hardware stores, banks, professional offices, and restaurants.

Neighborhood Commercial District (C-U): The C-U district is intended to provide areas where less intensive commercial uses can operate and offer goods and services within a close distance to, and be compatible with, residential neighborhoods. Permitted uses in the C-U district include automobile service stations, car washes, repair garages, multifamily dwellings, and liquor establishments.

Town Center District (C-C): The C-C district is intended to promote and enhance the diversified uses compatible with and necessary for the maintenance and viability of town centers and rural communities. In combination with residential and public uses, such groupings of stores provide daily and weekly convenience shopping and service for the surrounding area. The C-C district also allows social and cultural uses to serve the county's subareas.

Highway Commercial District (C-H): The C-H district is intended for commercial uses to serve the highway traveler. The bulk of highway frontage in the county is not appropriate for commercial uses. Highway commercial uses are located in existing communities or carefully selected points outside communities. For reasons of safety, congestion, traffic control, and minimizing other adverse impacts, the C-H district is limited to parcels sufficiently large enough to provide safe highway access, maneuvering parking, and related activities.

Industrial

Limited Industrial District (M-L): The M-L district is designed to provide an environment for the aggregation of compatible, non-nuisance type industrial uses where activities are conducted and confined within a building or structure. The M-L district is intended to establish areas where industrial activities, laboratories, and clean, quiet operations can function within the context of an industrial park concept. The M-L district is designed to protect such industrial areas from incompatible and nonindustrial uses and provide for safety and health considerations by appropriate fire access, circulation, traffic flow, and other standards. Manufacturing uses involving the primary production of commodities from raw materials are expressly prohibited in the M-L district.

Light Industrial District (M-M): The M-M district is intended to establish areas where light manufacturing and the less abrasive industrial activities may take place, particularly where heavy industry may not be appropriate. To provide for maximum harmony within the community, M-M district uses are designed and constructed to occur within confined areas.

Heavy Industrial District (M-H): The purpose of the M-H district is to permit the normal operations of most industries, subject only to those regulations needed to control congestion; manage traffic circulation; provide fire and natural hazard protection; protect the surrounding areas or adjoining premises; and protect industrial areas from intrusion by nonindustrial activities. Uses requiring use permits have a greater potential for negative impacts to the health, safety, and general welfare of the neighborhood.

Other

Open Space District (O): The Open Space district provides for the long-range preservation of public, quasi-public, and private open space areas in order to provide for the health, safety, and welfare of the public.

Planned Development (P-D): The P-D district is intended to enable and encourage flexibility of design and development of land in such a manner as to:

- promote its most appropriate use;
- allow diversification in the relationship of various uses, structures, and spaces;
- facilitate the adequate and economical provision of streets and utilities;
- to preserve the natural and scenic qualities of open space and offer recreational opportunities close to home;
- enhance the appearance of neighborhoods through the preservation of natural green spaces; and
- counteract the effects of urban congestion and monotony.

Proposed developments are required to be designed to produce an environment of a stable and desirable character and provide standards of open space and permanently reserved areas for off street parking adequate for the occupancy proposed, and at least equivalent to those required elsewhere by the Zoning Ordinance.

Combining Districts (B): The B-combining district is applied to require minimum parcel sizes upon future division of parcels. The B district can be combined with any other zoning district in order to specify a minimum parcel size upon division and is applied to parcels where it is thought to be undesirable to go below a certain parcel size. Requiring a larger parcel size also helps buffer small parcels from large agricultural parcels, particularly when their land uses may be incompatible. When applied, all the requirements of the district with which the B district is combined remain in full force and effect.

Floodplain Combining District (F): The F combining district is applied to areas where inundation is caused by periodic overflow and backwater and where such high water may cause substantial structural damage, erosion, and/or the collapse of stream embankments, as identified by Federal Flood Hazard Boundary Maps or by other detailed information or surveys. The purpose of this district is to provide for the protection of public health, safety, and welfare by preventing the loss of lives, minimize property damage, and minimize the expenditure of public funds. All the requirements of the district with which the F district is combined remain in full force and effect.

Fault-Rupture Zone Overlay District (FRZ): The FRZ overlay district is applied to areas that are in proximity to fault lines and therefore are considered a potential threat to public health, safety, and general welfare. The FRZ overlay district was adopted following the Alquist-Priolo Special Studies Zones Act of 1972 which holds local governments responsible for delineating Fault-Rupture Zones as well as preventing development within these zones. All the requirements of the district with which the FRZ district is combined remain in full force and effect.

Hemp Combining District (H): The H combining district is applied to all Prime Agricultural (AG-1) and Non-Prime Agricultural (AG-2) zoned properties forty (40) acres or larger within the boundaries of the Scott Valley Area Plan. The purpose of the district is to provide for the protection of public health, safety, and welfare of residents in Scott Valley by adding land use and zoning regulations restricting hemp cultivation due to the substantial and intensive air inversion layers unique to this area. All the requirements of the district with which the H district is combined remain in full force and effect.

Distribution by Zoning District

Table 2.4 identifies existing zoning districts by acreage and as a percentage of the total county land area. As shown, the Rural Residential Agricultural district covers the majority of Siskiyou County with 52.8 percent of the total area. This is followed by Non-Prime Agriculture with 24.8 percent, Timberland Production with 14.1 percent, and Prime Agriculture (AG-2. At 23 acres, Limited Multiple-Family Residential is the smallest zoning designation.

Table 2.4 Existing Zoning

Land Use Designation	Acres	Percent of County
Agricultural		
Non-prime Agricultural District (AG-2)	1,006,126	24.8%
Prime Agricultural District (AG-1)	304,233	7.5%
Timberland Production (TPZ)	571,733	14.1%
Residential		
Rural Residential Agricultural (R-R)	2,142,955	52.8
Single-Family Residential (Res-1)	2,322	0.1
Limited Multiple-Family Residential (Res-2)	23	<0.1
Mixed Multiple-Family Residential (Res-3)	270	<0.1
Multiple-Family Residential (Res-4)	866	<0.1
Commercial		
Highway Commercial (C-H)	250	<0.1
Neighborhood Commercial (C-U)	383	<0.1
Rural Neighborhood Commercial (C-R)	190	<0.1
Town Center (C-C)	544	<0.1
Industrial		
Heavy Industrial (M-H)	2,483	0.1
Light Industrial (M-M)	685	<0.1
Limited Industrial (M-L)	25	<0.1
Other		
Open Space (O)	3,553	0.1
Planned Development (PD)	3,434	0.1
No Zoning	22,368	0.6
Total	**4,062,446**	**100.0**

Source: Siskiyou County, 2023.

Figures 2.16 through 2.19 show the existing zoning for each parcel within each of the four regions of Siskiyou County. As stated above, these regions were created solely for the ease of presenting land use maps for the purpose of this report and are based exclusively on geographic location. No current or future land use planning or zoning is or will be based on these regions.

Figure 2.16: Northeast Existing Zoning

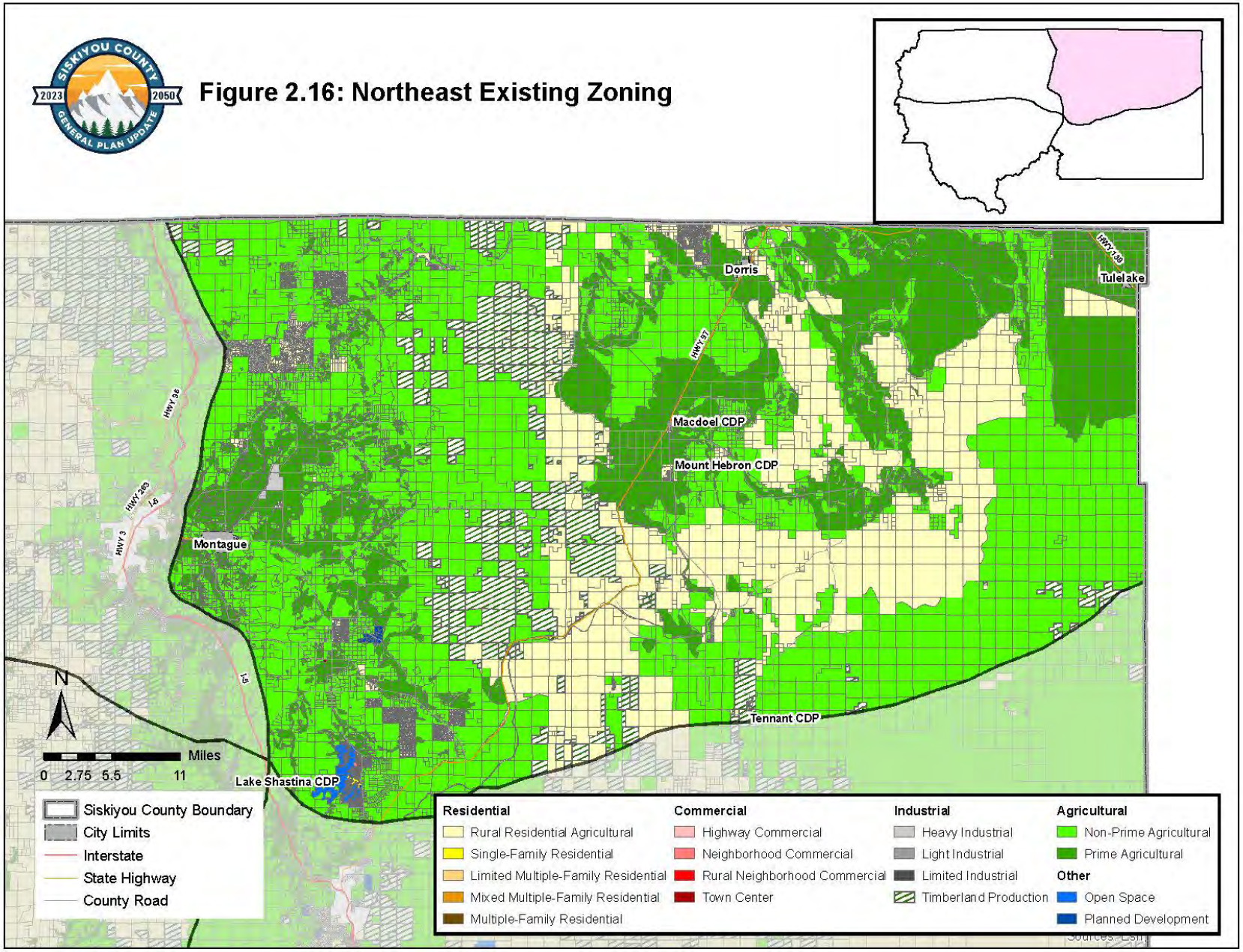
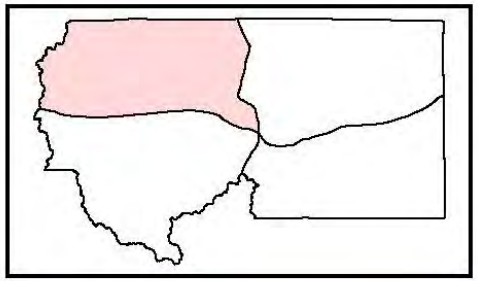
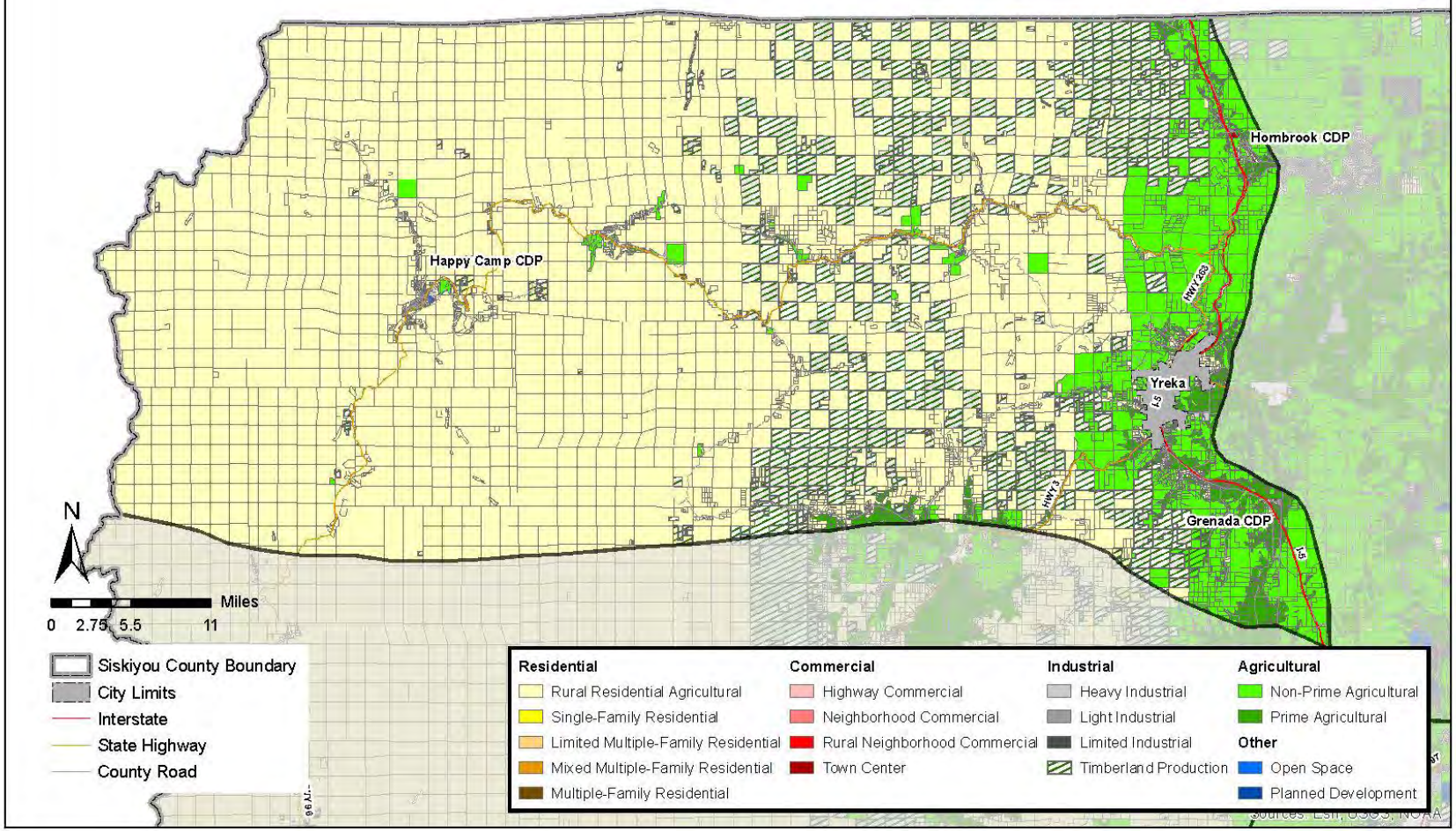
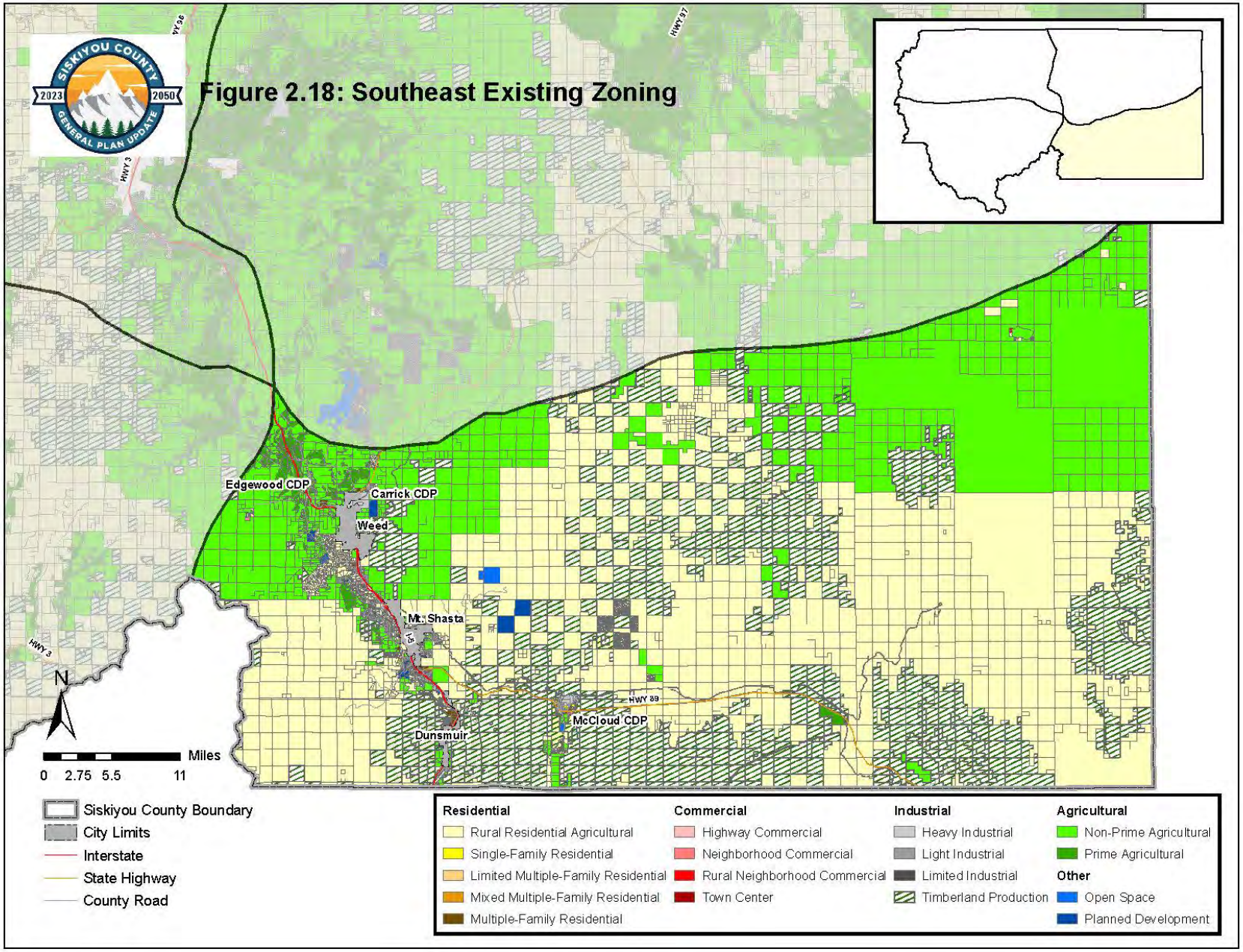
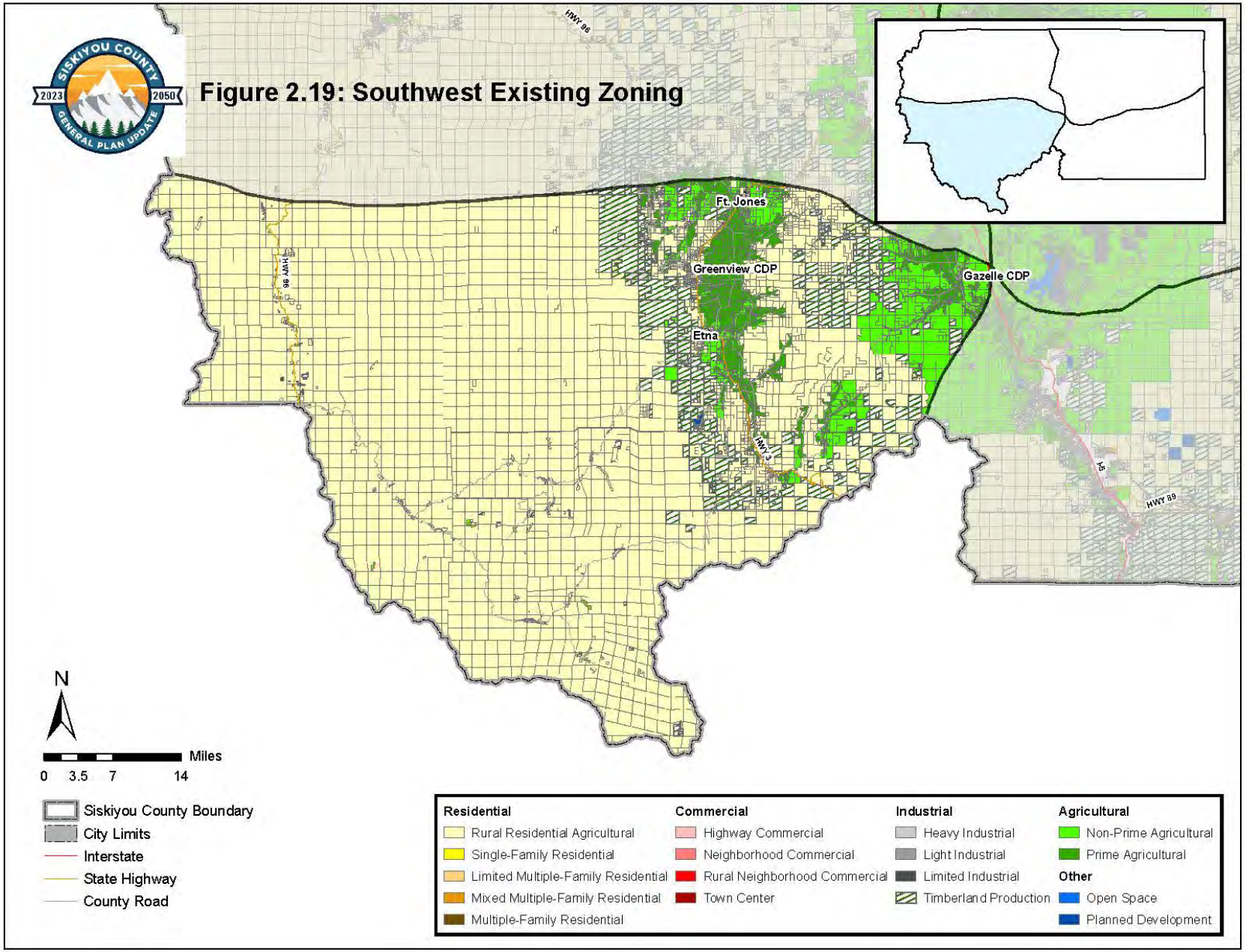


Figure 2.17: Northwest Existing Zoning





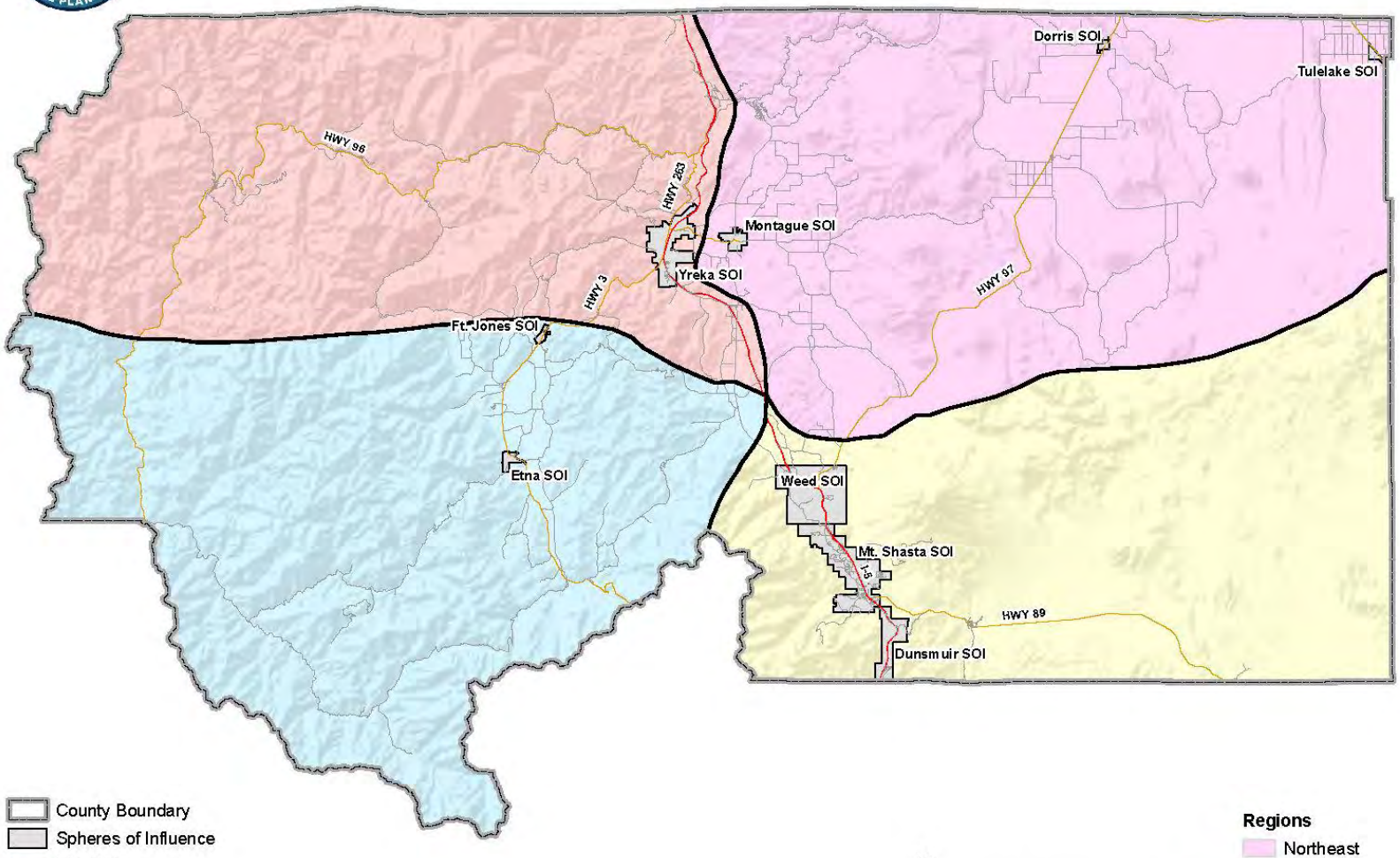

Figure 2.18: Southeast Existing Zoning
SISKIYOU COUNTY
2023
2050
GENERAL PLAN UPDATE
HWY 97
HWY 3
Edgewood CDP
Carrick CDP
Weed
Mt. Shasta
HWY 89
McCloud CDP
Dunsmuir
N
Miles
0 2.75 5.5 11
Siskiyou County Boundary
City Limits
Interstate
State Highway
County Road
Residential
Rural Residential Agricultural
Single-Family Residential
Limited Multiple-Family Residential
Mixed Multiple-Family Residential
Multiple-Family Residential
Commercial
Highway Commercial
Neighborhood Commercial
Rural Neighborhood Commercial
Town Center
Industrial
Heavy Industrial
Light Industrial
Limited Industrial
Timberland Production
Agricultural
Non-Prime Agricultural
Prime Agricultural
Other
Open Space
Planned Development


Figure 2.19: Southwest Existing Zoning
Ft. Jones
Greenview CDP
Gazelle CDP
Etna
HWY 96
HWY 3
I-5
HWY 89
N
Miles
0 3.5 7 14
Siskiyou County Boundary
City Limits
Interstate
State Highway
County Road
Residential
Rural Residential Agricultural
Single-Family Residential
Limited Multiple-Family Residential
Mixed Multiple-Family Residential
Multiple-Family Residential
Commercial
Highway Commercial
Neighborhood Commercial
Rural Neighborhood Commercial
Town Center
Industrial
Heavy Industrial
Light Industrial
Limited Industrial
Timberland Production
Agricultural
Non-Prime Agricultural
Prime Agricultural
Other
Open Space
Planned Development

2.8 Spheres of Influence

This section identifies incorporated cities within the county and each city's sphere of influence (SOI). An SOI is a planning boundary outside of an agency's legal boundary (such as a city limit line) that designates the agency's probable future boundary and service area. For an area to be considered for annexation by a local agency, city, or special district, it must be within their sphere of influence. Figure 2.20 shows incorporated cities and identifies each city's SOI within each geographic region of the county. As discussed previously, these regions were created solely for the ease of presenting land use maps for the purpose of this report and are based exclusively on geographic location.

Figure 2.20: Incorporated Cities Spheres of Influence, Siskiyou County

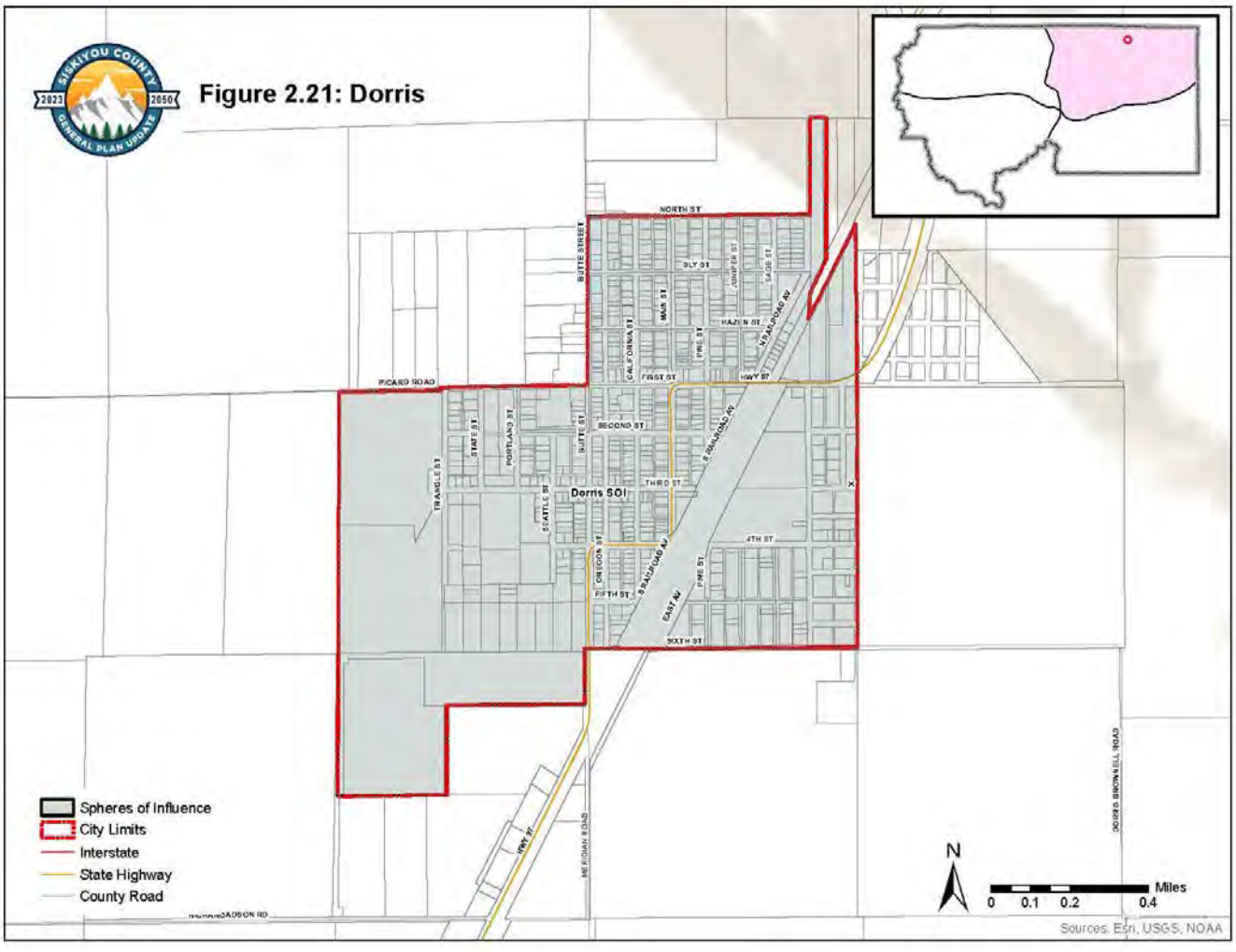


Northeast Region

Dorris

Dorris is an incorporated city located three miles south of the California-Oregon border situated along US 97, making it the first city encountered when traveling south into California on US 97. Dorris is at an elevation of 4,245 feet and was established as a result of the Southern Pacific Railroad coming through the northern part of Butte Valley. The city was incorporated on December 21, 1908. Dorris has a total area of 0.7 square miles (or 448 acres). According to the U.S. Census Bureau, Dorris had a 2020 population of 860.

Dorris is a mostly rural small town with family-oriented qualities. The city is known for having "America's Tallest Flagpole" honoring all veterans. The city is located in the Butte Valley and is surrounded by scenic mountain views, lakes, streams, forests, and a large wildlife population. Dorris is situated in a prime agricultural region in the northeastern part of the Butte Valley producing livestock, alfalfa, grain, onions, and strawberries. Dorris is also home to Dorris Lumber and Moulding Company, a major wood manufacturer. The city's SOI is coterminous with the city limit and does not include any unincorporated parcels.

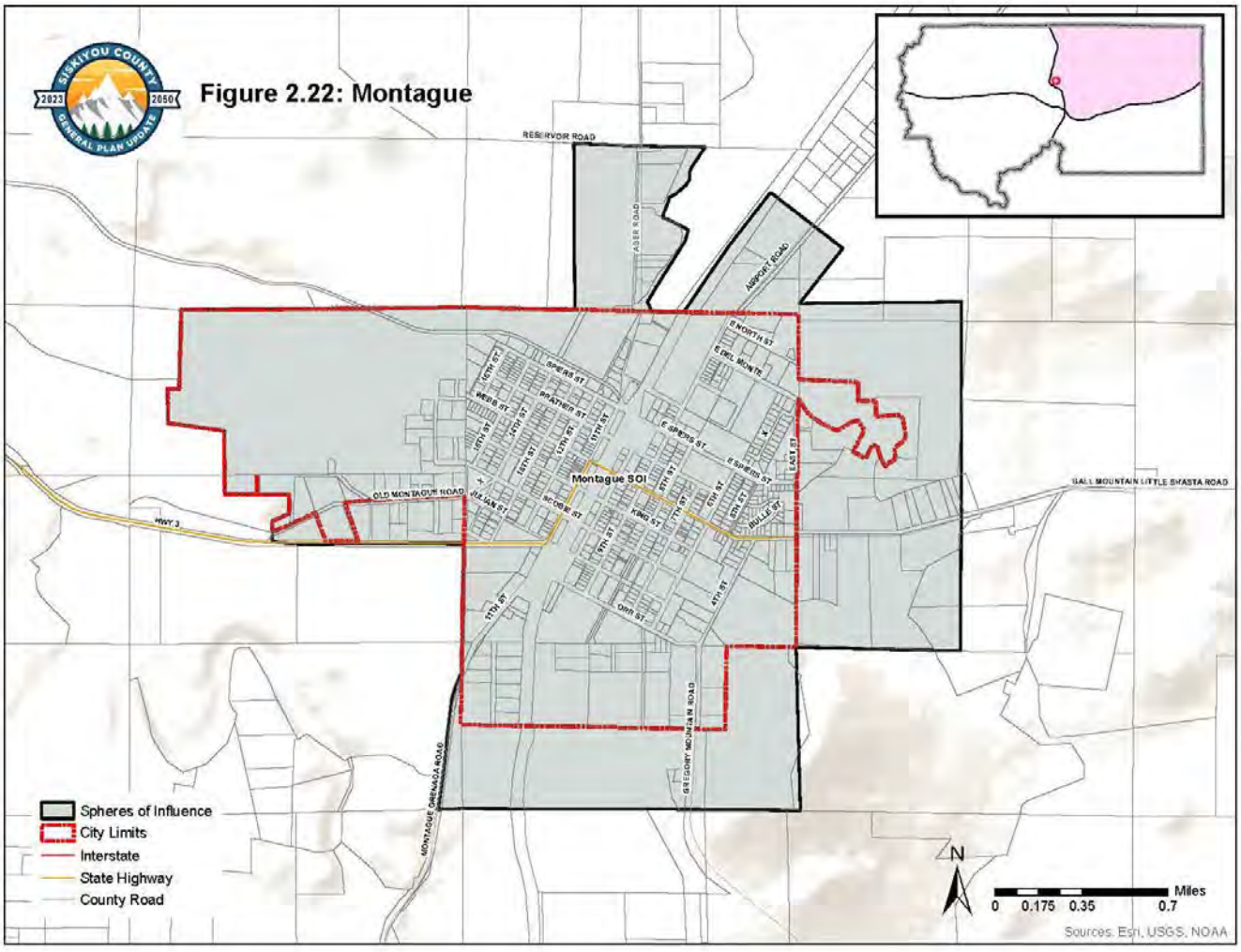


Montague

The city of Montague is located 6.4 miles east of Yreka along SR 3. Montague is at an elevation of 2,539 feet and was incorporated on January 25, 1909. Montague has a total area of 1.8 square miles. According to the U.S. Census Bureau, Montague had a 2020 population of 1,226.

The city was named after Samuel Skerry Montague, Chief Engineer of the Central Pacific Railroad. Following the completion of the Oregon and California Railroad in 1887, Montague developed into a bustling town and thoroughfare. Today, Montague is a small town with a strong sense of community, tradition, and family values. The city has a rich history and small-town atmosphere that makes it great for raising families.

This city's SOI includes 707 acres located outside of the city limits. These areas include parcels located to the north of Oregon Slough Road, south along Gregory Mountain Road, and east of East Street. Existing county zoning for these parcels includes Rural Residential Agricultural, Prime Agricultural, and Non-Prime Agricultural.

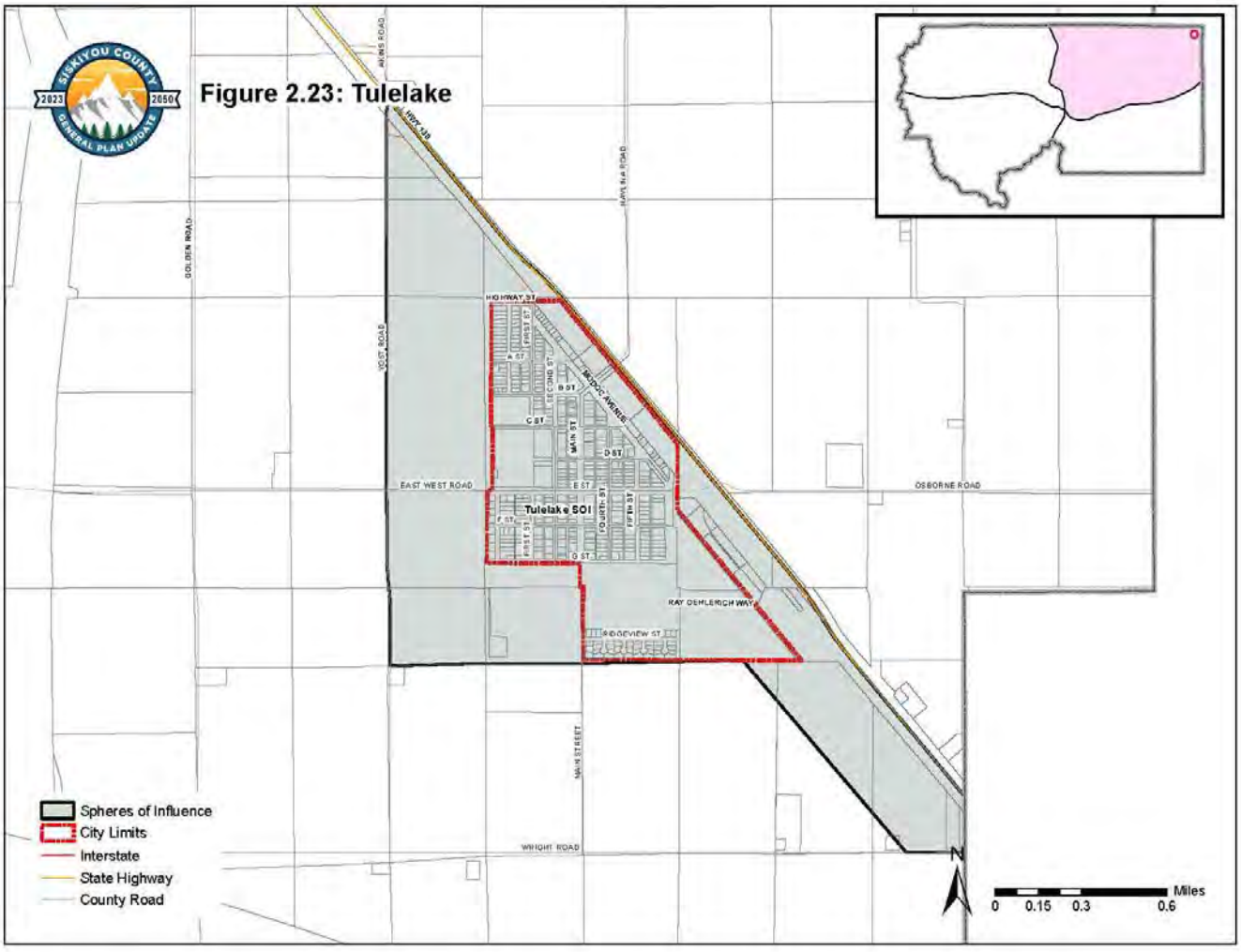


Tulelake

The city of Tulelake is located two miles south of the California-Oregon border along SR 139 in the northeastern corner of Siskiyou County. Tulelake is at an elevation of 4,035 feet and was incorporated on March 1, 1937. Tulelake has a total area of 0.4 square miles. According to the U.S. Census Bureau, Tulelake had a 2020 population of 902.

Tulelake is located on the Modoc Plain of the Modoc-Oregon Lava Plateau, identified by its broad valleys, marshes, and shallow lakes. The city is located on a former lakebed in one of the most agriculturally rich regions of Siskiyou County. The land surrounding Tulelake is designated for prime agricultural and rural residential uses.

This city's SOI includes 410 acres located outside of the city limits. These areas include parcels located to the west along Yost Road, to the northwest between Yost Road and SR 139, and to the southeast along SR 139. Existing county zoning for these parcels includes Heavy Industrial and Non-Prime Agricultural.



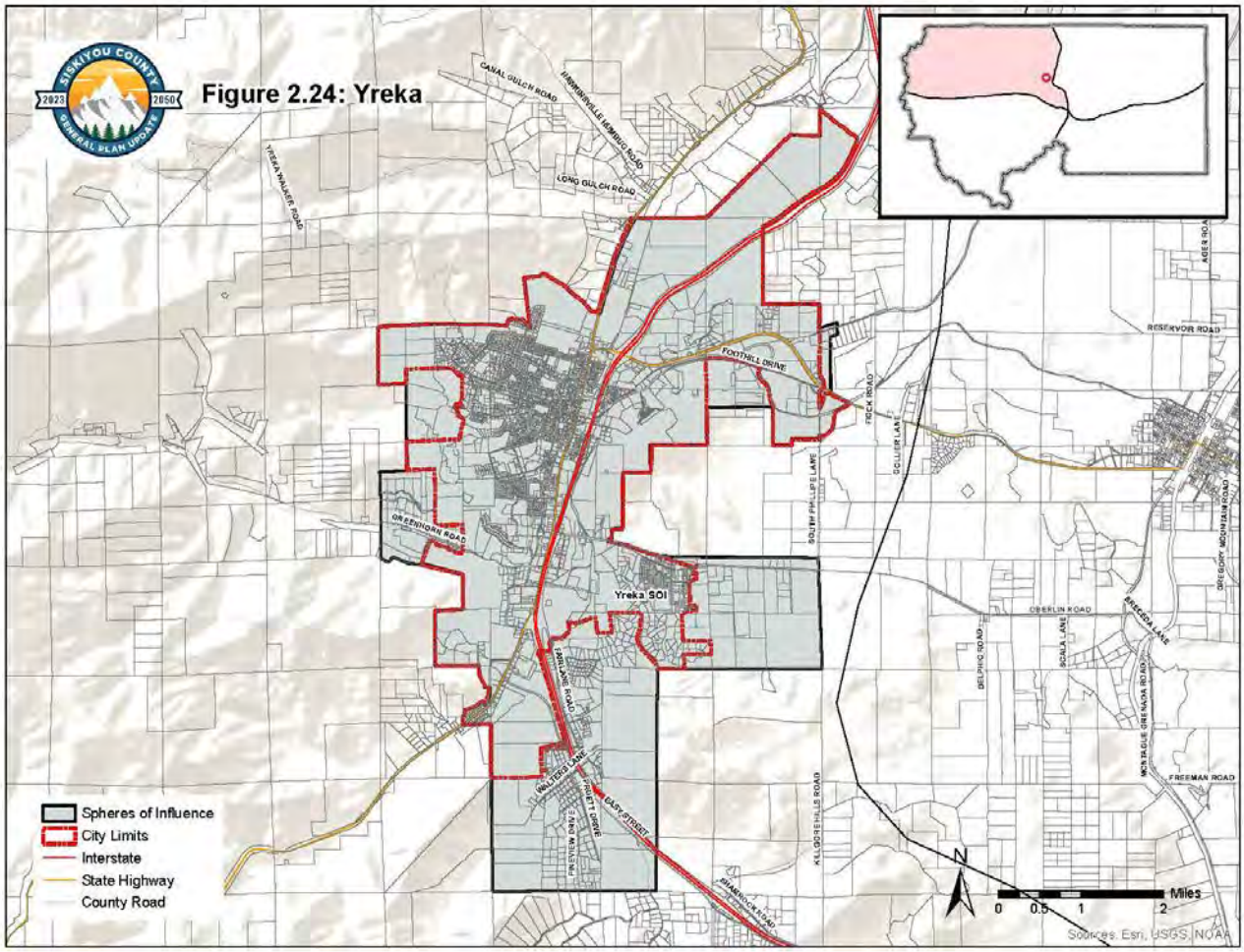
Northwest Region

Yreka

The city of Yreka is located 28 miles north of Weed and 20 miles south of the California-Oregon border along I-5. Yreka is at an elevation of 2,589 feet and was incorporated on April 21, 1857. Yreka covers a total area of 10.1 square miles. According to the U.S. Census Bureau, Yreka had a 2020 population of 7,807. Yreka is the largest incorporated area in Siskiyou County and is the county seat.

Yreka was founded during the gold rush era when prospectors found gold in the roots of plants churned by their pack animals. The city continues to preserve over 70 homes built prior to the turn of the century and identifies as a historically rich community. The land surrounding Yreka is primarily designated for non-prime agricultural, prime agricultural, and rural residential uses.

This city's SOI includes 2,841 acres of land outside of the city limits. These areas include parcels located west along Greenhorn Road, east along Oberlin Road, and south along I-5. Existing county zoning for these parcels includes Rural Residential Agricultural, Multiple-Family Residential, Town Center, Light and Heavy Industrial, and Prime and Non-Prime Agricultural.



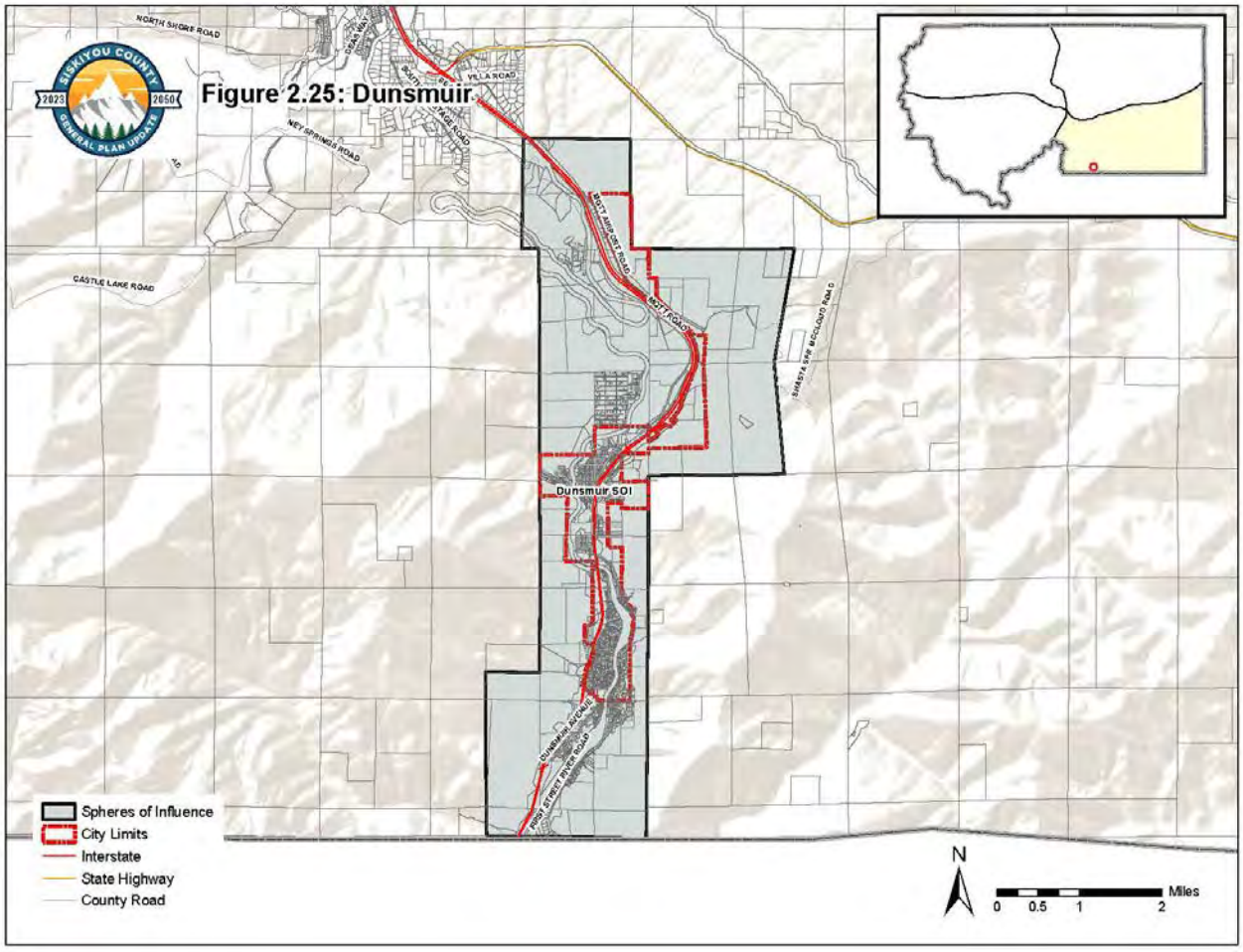
Southeast Region

Dunsmuir

The city of Dunsmuir is located about nine miles south of the city of Mt. Shasta along I-5 at the southern edge of Siskiyou County. Dunsmuir is at an elevation of 2,290 feet and was incorporated on August 7, 1909. Dunsmuir covers a total area of 1.6 square miles. According to the U.S. Census Bureau, Dunsmuir had a 2020 population of 1,707.

Dunsmuir is a small scenic town that prides itself on a strong community and old-fashioned qualities. The completion of the Central Pacific Railroad in 1887 led to the establishment of the city. The city has developed into a Northern California tourism hub for its many natural attractions and historic downtown. Dunsmuir offers access to a wide range of recreational activities including fishing, climbing, skiing, cycling, and hiking. Located along the southern edge of Siskiyou County, Dunsmuir is surrounded by a large area zoned for timberland production.

This city's SOI includes 5,046 acres located outside of the city limits. These areas include parcels to the northwest of the airport, west of Dunsmuir Avenue, to the east of Hedge Creek, and south of Bridge Street down to the county boundary. Existing county zoning for these parcels includes Rural Residential Agricultural, Multiple-Family Residential, Timberland Production, and Non-Prime Agricultural.

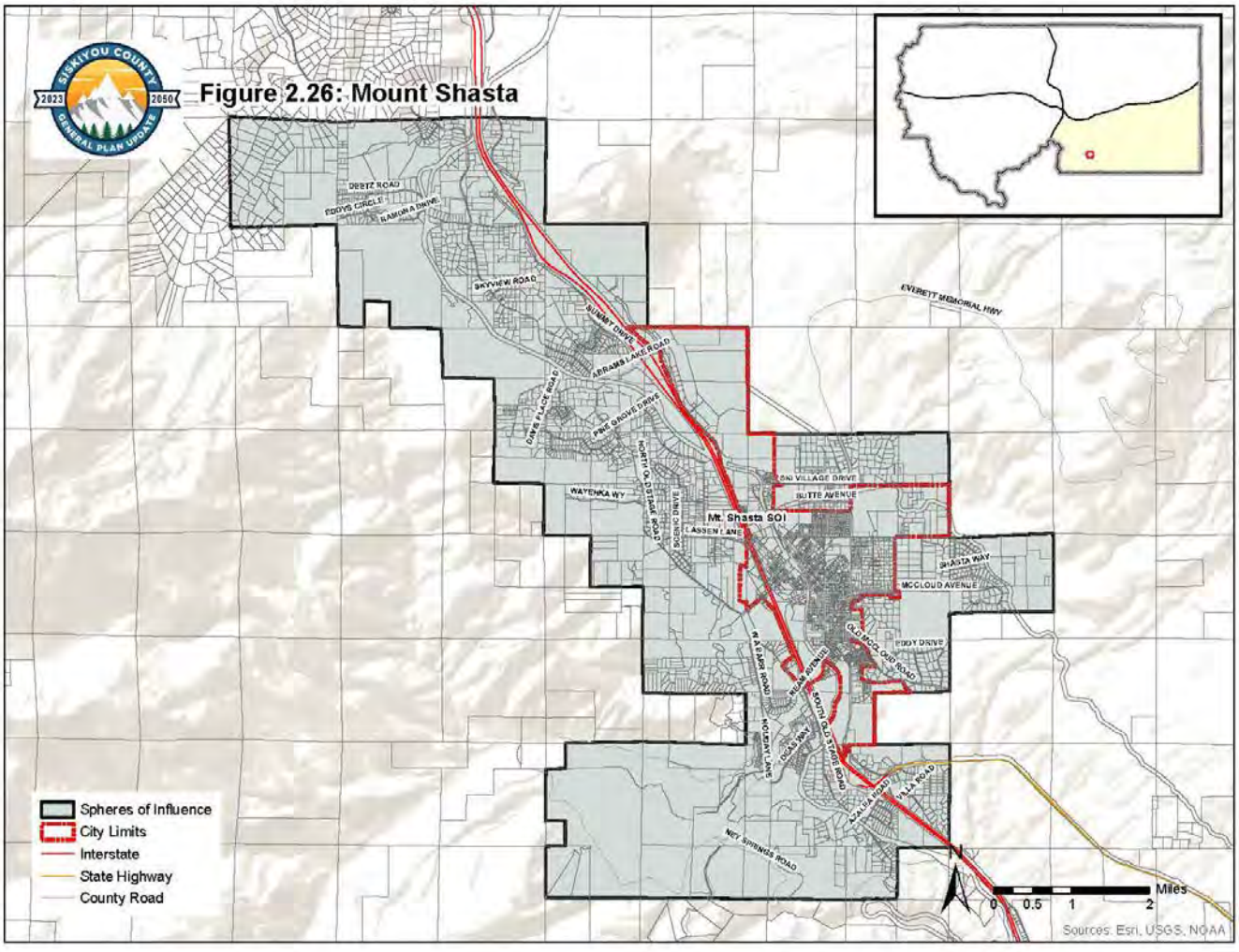


Mount Shasta

The city of Mount Shasta is located 10 miles south of Weed along I-5. Mount Shasta is at an elevation of 3,586 feet and was incorporated on May 31, 1905. Mount Shasta has a total area of 3.8 square miles. According to the U.S. Census Bureau, Mount Shasta had a 2020 population of 3,223.

The development of the Central Pacific Railroad through Strawberry Valley in 1887 led to the establishment of the city of Mount Shasta and its successful timber industry. Today, the city is an outdoor tourist destination located southwest of Mount Shasta and the surrounding wilderness area. The city of Mount Shasta is recognized as one of Northern California's fastest growing locations for destination vacationing.

This city's SOI includes 13,318 acres located outside of the city limits. These areas include parcels to the far northwest along I-5, to the southwest of I-5 from Weed to Dunsmuir, and to the east of Jefferson Drive along McCloud Avenue. Existing county zoning for these parcels includes Rural Residential Agricultural, Single-Family Residential, Multiple-Family Residential, Highway Commercial, Timberland Production, Non-Prime Agricultural, Prime Agricultural, and Open Space.

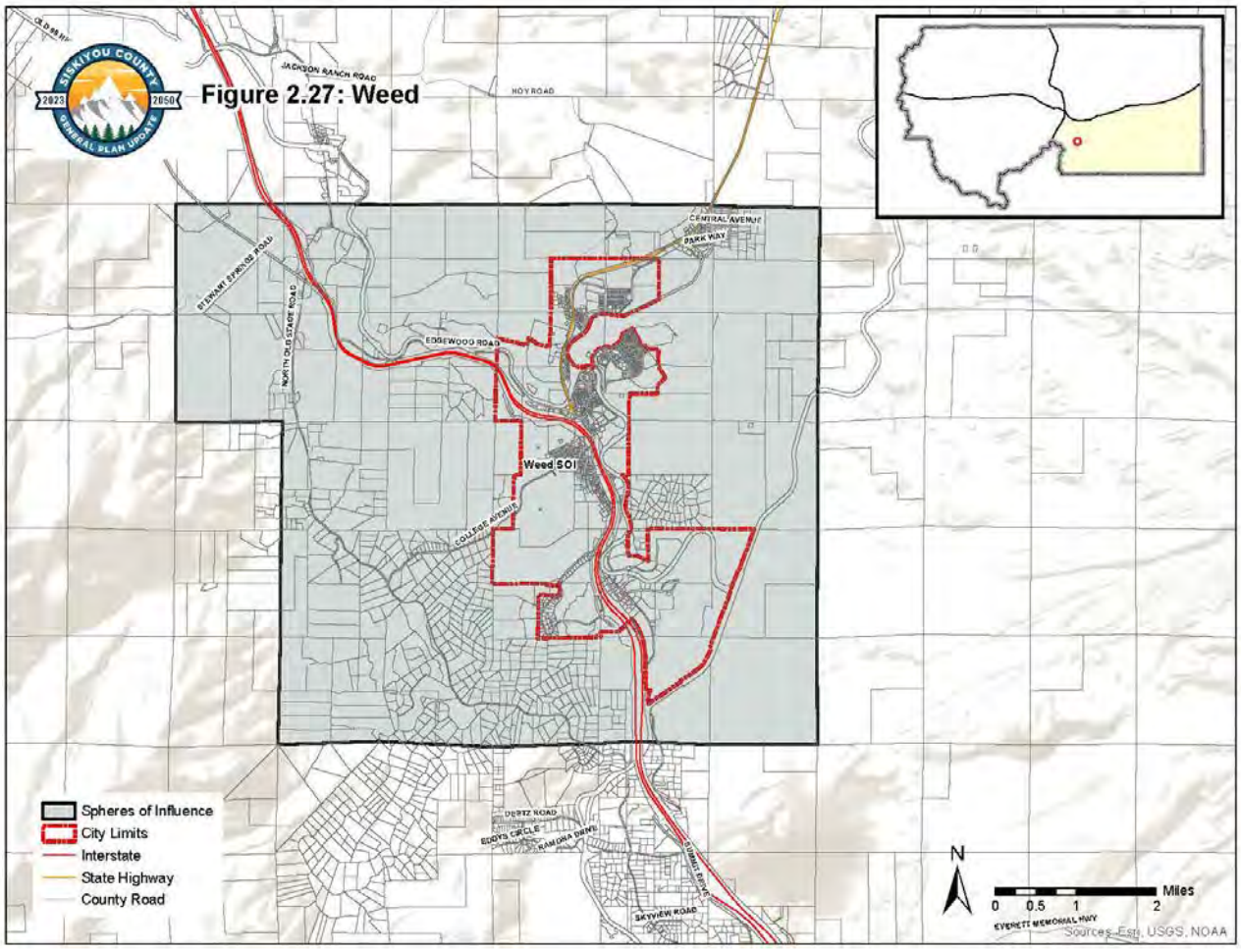


Weed

The city of Weed is located nine miles north of Mount Shasta along I-5. Weed is at an elevation of 3,425 feet and was incorporated on January 25, 1961. Weed has a total area of 4.8 square miles. According to the U. S. Census Bureau, Weed had a 2020 population of 2,862.

The city is named after the founder of a local lumber mill and pioneer, Abner Weed. The region was discovered to have regular strong winds that helped in the process of drying lumber. Weed has been the home of a historic lumber industry, operating the largest lumber mill in the United States in the 1940s. Today, the local economy has grown increasingly reliant on retail, light industry, and tourism as the wood-product-related industries have scaled back in recent years.

This city's SOI includes 14,210 acres located outside of the city limits on county lands. These areas include parcels to the north of US 97 along Hoy Road, south along I-5 toward Truck Village Drive, west beyond North Old Stage Road, and east beyond Beaughton Spring. Existing county zoning for these parcels includes Rural Residential Agricultural, Multiple-Family Residential, Highway Commercial, Heavy Industrial, Light Industrial, Timberland Production, Prime Agricultural, Non-Prime Agricultural, Open Space, and Planned Development.



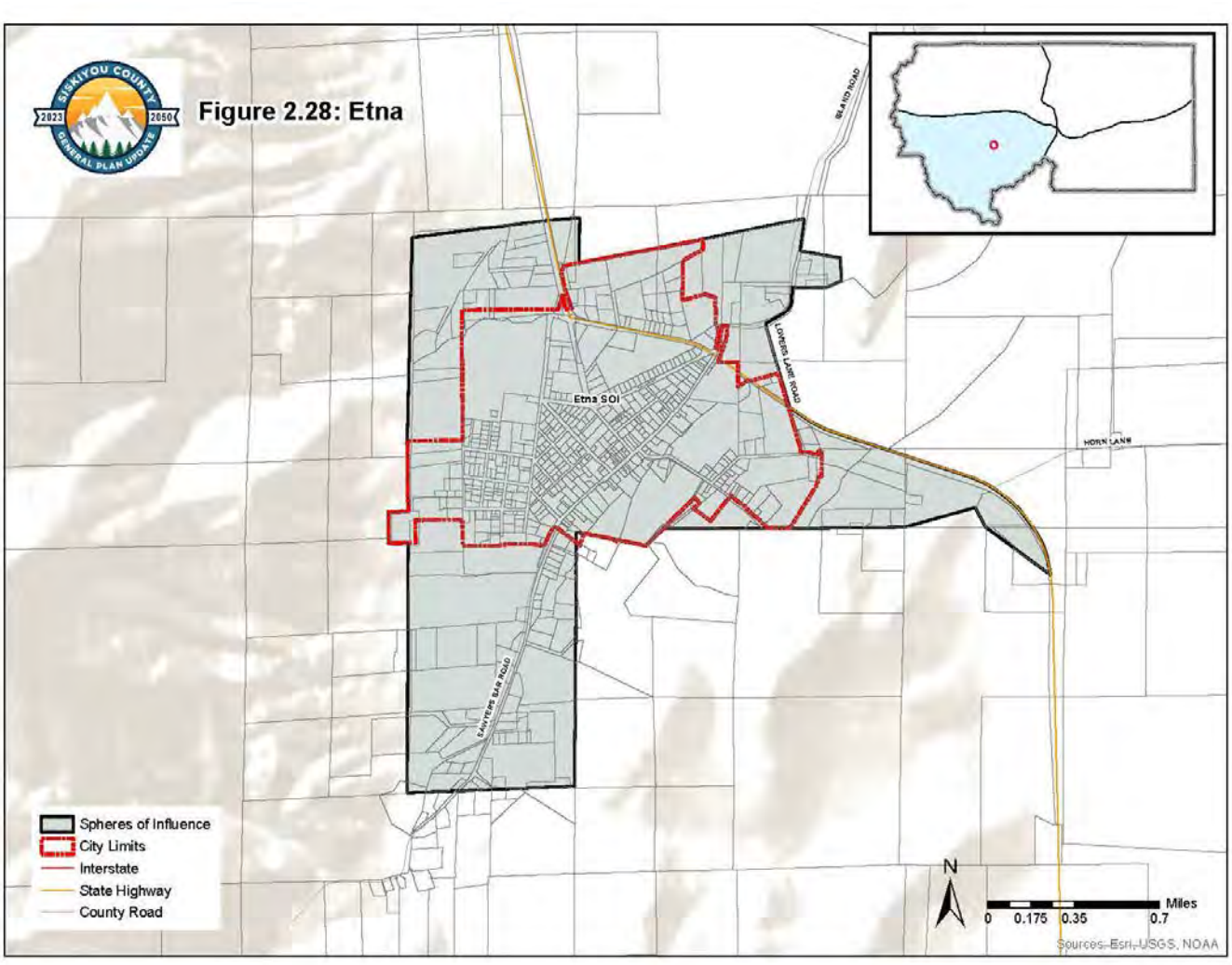
Southwest Region

Etna

The city of Etna is located 12 miles south of the city of Fort Jones along SR 3. Etna is at an elevation of 2,936 feet and was incorporated on March 13, 1887. Etna has a total area of 0.8 square miles. According to the U.S. Census Bureau, Etna had a 2020 population of 678 residents as of the 2020 Census.

Etna is situated at the center of the Scott Valley Watershed, a major agricultural region with timber production, mining, and commercial foods and services as additional economic contributors. Scott Valley is an environmentally unique region with features including the Scott River headwaters and the entrance to the Marble Mountain Wilderness Area.

This city's SOI includes 553 acres located outside of the city limits. These areas include parcels north of Johnson Creek along SR 3, south of Church Street along Sawyers Bar Road, and east of Etna Creek along Horn Lane. Existing county zoning for these parcels includes Rural Residential Agricultural, Rural Neighborhood commercial, Heavy Industrial, Light Industrial, Prime Agricultural, and Non-Prime Agricultural.

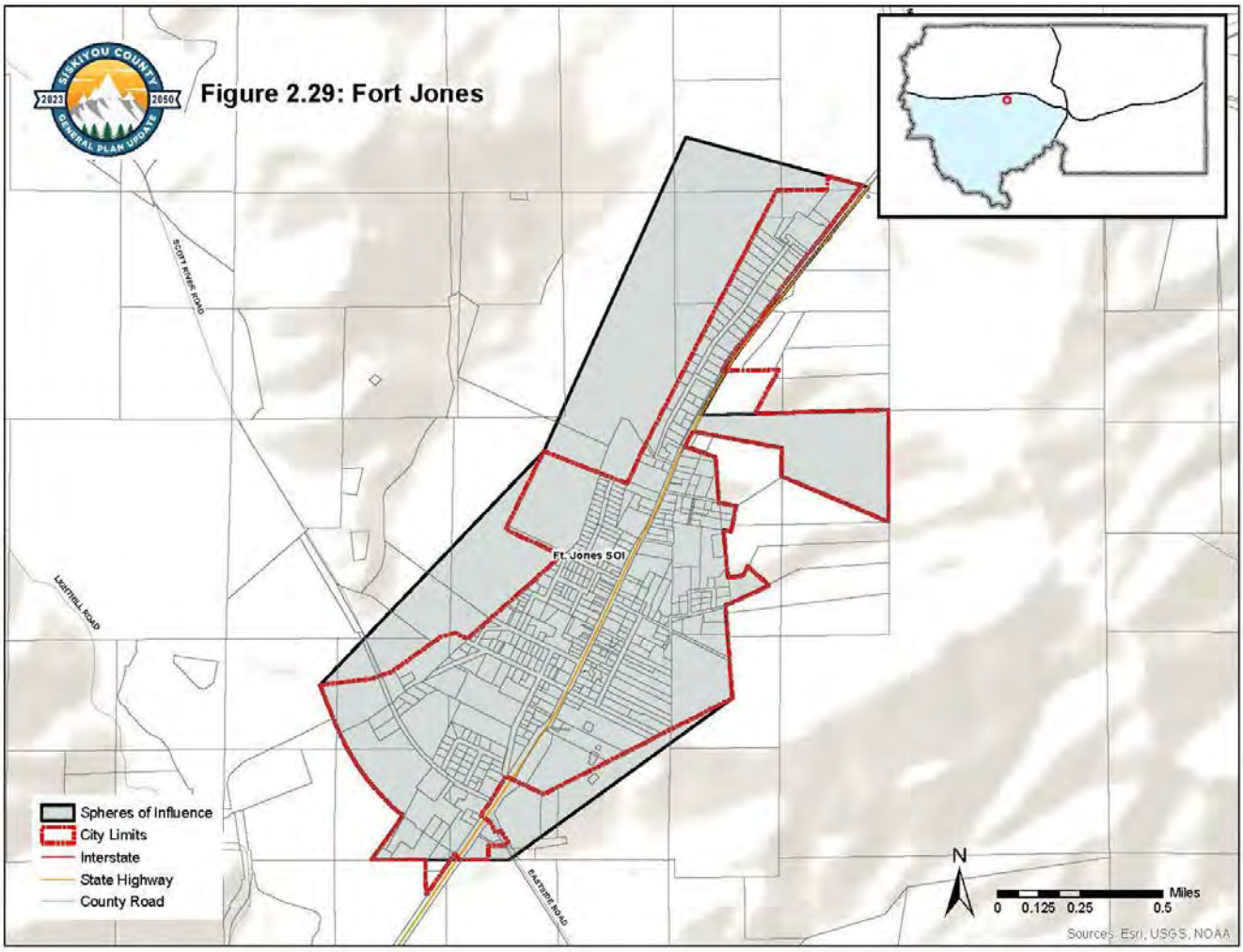


Fort Jones

The city of Fort Jones is located 12 miles north of Etna and 17 miles south of Yreka along SR 3. Fort Jones is at an elevation of 2,759 feet and was incorporated on March 16, 1872. Fort Jones has a total area of 0.6 square miles. According to the U.S. Census Bureau, Fort Jones had a 2020 population of 695 residents as of the 2020 Census.

The city is named after the military outpost that was established on October 18, 1852, by Captain Edward H. Fitzgerald and the 1st Dragoons, who were the first United States calvary regiment founded in 1833. The fort was constructed to protect northern California and southern Oregon from Rogue River Native American raids. The city developed through mining and trapping industries before agriculture and timber production became the primary economic activity.

This city's SOI includes 182 acres located outside of the city limits on county lands. These areas include parcels to the northwest of Marble View Drive and southeast along Eastside Road. Existing county zoning for these parcels is predominately Rural Residential Agricultural.



2.9 Surrounding County General Plans

General Plans set the course for a city or county's land use and development decisions. California Law requires that every city and county adopt a general plan to guide land use decisions within its jurisdiction. In addition to setting land use and development decisions, general plans establish goals and policies that will guide a city or county through the planning period, which is typically 15 to 20 years. This section summarizes the key aspects of general plans adopted by the counties surrounding Siskiyou, including Del Norte, Humboldt, Modoc, Shasta, and Trinity. It describes the geographical area covered by each general plan, local constraints on future development, and the policies in each plan that respond to city growth, annexation, and population related issues.

Del Norte County

Del Norte County is the northernmost county on the California Coast. The county, which covers approximately 1,070 square miles, is bounded on the north by Curry and Josephine Counties in Oregon, on the east by Siskiyou County, on the south by Humboldt County, while the Pacific Ocean lies to the west. Crescent City, the county's only incorporated city lies approximately 350 miles north of San Francisco and 330 miles south of Portland, Oregon. Del Norte County geography ranges from the conifer forests of the Klamath Mountain Province to the sand beaches and dunes of the pacific coastal plain. The Del Norte County General Plan was adopted on January 28, 2003, and was later amended on May 11, 2021. The General Plan has four primary objectives which include the consolidation of the coastal and non-coastal policy documents into a unified document, maintaining the balance between preservation and development, supporting the transition from a resource-based economy to a service-based economy, and addressing future housing needs for a growing population.

Humboldt County

Humboldt County is among California's northernmost counties, serving as a gateway to the vast forests of the Pacific Northwest and alternatively to the legendary California wine country to the south. The county coastline spans approximately 100 miles and includes Cape Mendocino, one of the western most portions of the continental United States. Offshore is an area of intensive ocean upwelling and rich marine productivity. It is also an area where three tectonic plates converge, creating one of the most seismically active areas in the world. The sheltered waters of Humboldt Bay serve as an economic focal point, functioning as the principal port and a center of commerce. It is also a significant natural resource area featuring extensive wetlands, fertile bottomlands, and wildlife habitat, including the Humboldt Bay National Wildlife Area.

Eighty percent of the county's 2.3 million acres are forested. Fifty percent of this acreage is private commercial timberland (the county typically has led the State in timber production), and 35 percent is State or Federal land, including Redwood National and State Parks, Six Rivers National Forest, the King Range National Conservation Area, and Humboldt Redwoods State Park. The current Humboldt County General Plan was adopted on October 23, 2017. The General Plan is committed to ensuring that public policy is reflective of the needs of the community, preserving the diverse character of the county, developing affordable housing to meet community needs, supporting economic development, incentivizing the natural resource economy, and provide a clear statement of land use values and policies.

Modoc County

Modoc County is located in the northeast corner of California, where the northern border is shared with Oregon and the eastern border is shared with Nevada. Siskiyou County is located along the western border, and Shata and Lassen counties are located to the south. Modoc County is the third least populous county in the State. The county seat is Alturas, the only incorporated city in the county. The topography is diverse, consisting of forested mountain ranges, high plateaus, and lava flows around Alturas. The Modoc County General Plan was originally adopted in 1986, updated in1998, and recently amended in 2018. Some of the primary objectives of the General Plan include increasing employment opportunities in the county by encouraging new business, addressing declines in the local agricultural industry by introducing new forms of industry to the county, and maintaining a balance between environmental preservation and economic development.

Shasta County

Shasta County is situated where the Central Valley of California meets the convergence of the Klamath and Coastal Mountain Ranges to the northwest and west, and the Cascade Mountain Range to the northeast and east. The landforms of Shasta County and their underlying geology exert a major influence on its surface and groundwater resources. The Central Valley and its southward flowing Sacramento River provide the drainage for all the major streams in the county.

Based on 2000 U.S. Census, approximately 84 percent of the county population lives in a north-south band of urban and suburban communities that include the cities of Shasta Lake, Redding, and Anderson, and the unincorporated community of Cottonwood. The economy of Shasta County is based on the natural environment and external economic influences and trends. Retail trade, education, health and social services, agriculture, outdoor recreation, and tourism are the major base industries of the county. The Shasta County General Plan was originally adopted in 1984 and later updated in September 2004. The key purpose of the General Plan is to address current and future housing needs, encourage development with consideration of the natural environment, and promote citizen engagement in the planning process.

Trinity County

Trinity County is a mountainous and forested area located in the northwestern region of California. Trinity County borders Siskiyou County to the north, Mendocino County to the south, Shasta and Tehama counties to the east, and Humboldt County to the west. Major geographical features include the Trinity National Forest, the Klamath Mountains, Trinity Lake, and an extensive river and stream system. In recent years, Trinity County has become a popular tourist destination for outdoor sport and recreation. The major employment industries in the county include education, State and local government, and tourism.

Trinity County has a total area of 3,208 square miles, of which 28 square miles is water. Trinity County is one of three California counties with no incorporated cities. There are 12 Census Designated Places (CDPs). Weaverville is the largest CDP with a population of 3,308 in 2020. Trinity County is currently updating its General Plan which will guide development through 2050. Its previous general plan was adopted in April of 1973.

2.10 Regional Plans

Scott Valley Area Plan

Adopted November 13, 1980, the Scott Valley Area Plan is a land use plan prepared by a citizens committee living in the Scott Valley Watershed. The Area Plan is intended to help the County manage growth and preserve the natural resources of the Scott Valley Watershed, which includes the cities of Fort Jones and Etna and the unincorporated communities of Greenview and Callahan. The Area Plan works to permit inevitable growth while also preserving the watershed's natural resources, protecting future populations from natural hazards, and preventing public services from being overburdened.

The citizen's committee was appointed by the Board of Supervisors on December 27, 1978. The committee was responsible for preparing the Scott Valley Area Plan. Twenty-one public meetings were held during the year prior to Plan adoption. The Plan was then put up to an advisory vote of the residents living in the Scott Valley Watershed to determine if the majority of people desired adoption. Scott Valley residents approved the Area Plan by a two-to-one margin.

As reported in the Scott Valley Area Plan, the watershed is comprised of approximately 6,000 residents with 32 percent of the land under public ownership. Approximately 43,000 acres of the privately owned land in the watershed is considered prime agricultural land and another 26,000 acres critical deer wintering areas. The Scott Valley Area Plan also reports on hazards found throughout the area, including 6,100 acres subject to periodic flooding, 1,600 acres subject to landslide, and 115,000 acres containing areas of excessive slope (greater than 30 percent natural slope).

The perimeter of the watershed is surrounded by mountains with almost no development, while the valley floor is nearly flat with the primary land use being agriculture. Most of the development in the area is concentrated in the incorporated cities and census designated places. When the Plan was adopted, agriculture was considered the major economic segment of the watershed with timber products, mining, and commercial foods and services as other major economic contributors. As of 2023, due to restrictions on mining and timber activities imposed by State and Federal law, the economy in Scott Valley has shifted away from resource extraction and timber activities. This area's economy is currently dominated by agricultural production.

Siskiyou County Strategic Plan (2008)

The Siskiyou County Strategic Plan was developed by the Board of Supervisors, department heads, and County staff through a series of facilitated meetings. The purpose of the Strategic Plan is defined by the following goals:

1. Guide growth and land use development;
2. Improve the recruitment and retention of County staff;
3. Develop countywide employment and job training opportunities;
4. Work with local organizations and agencies to address needs throughout the county;
5. Maximize county government efficiency;
6. Support the responsible and productive use of natural resources; and
7. Enhance public safety with an emphasis on preventative measures.

Goals 1 and 6 of the Strategic Plan closely apply to land use development in the county. Implementation strategies for the Goal 1 includes increasing attention towards economic development within the county,

assessing current area plans, reviewing affordable housing programs to identify development opportunities, and working with the Local Transportation Commission to expand transportation services. Goal 6 aims to support the responsible and productive use of natural resources by promoting forest health to prevent catastrophic wildfires, supporting different uses on public lands including logging and mining, developing an overarching water resources policy, and establishing a fish and game management policy.

2.11 Disadvantaged Unincorporated Communities

Counties can have both incorporated and unincorporated land within its boundary. Incorporated land is governed by a city, whereas unincorporated land is under the jurisdiction of a county. Within the unincorporated areas of Siskiyou County there are 17 unincorporated communities and 12 Census Designated Places, as discussed in Section 2.5 above.

Senate Bill (SB) 244

The purpose of Senate Bill (SB) 244 is to address the historical public service and facility deficiencies faced by disadvantaged unincorporated communities (DUCs). SB 244 requires local governments to document the location and characteristics of DUCs, to restrict certain annexation practices that have historically excluded DUCs, and to require local governments to identify DUC infrastructure needs and funding mechanisms to make service extensions to these communities financially feasible. Further, SB 244 requires counties to identify and describe DUCs within the county unincorporated areas that are not located within the sphere of influence of an incorporated city. SB 244 defines a DUC for a county as a place that meets the following criteria:

- Contains 10 or more dwelling units in close proximity to one another; and
- Is located outside a city Sphere of Influence and city limits, and has existed for more than 50 years (Legacy Community); and
- Has a median household income that is 80 percent or less than the statewide median household income.

If an unincorporated community meets all the above requirements, the County must prepare an analysis of access to public services, status of the infrastructure, and whether it is adequately serving the population. The descriptions of each DUC as part of this analysis must include an analysis of water, wastewater, storm drainage and structural fire protection needs or deficiencies and identify potential funding mechanisms that could resolve those deficiencies.

2.12 Regulatory Setting

Federal

Forest and Rangeland Renewable Resources Planning Act (RPA) and National Forest Management Act (NFMA).

The Forest and Rangeland Renewable Resources Planning Act (RPA) established long-range planning and management of the national forests. In 1976 the National Forest Management Act (NFMA) amended the RPA. These laws require comprehensive, long-range forest plans to be prepared for each national forest that includes land use and management. These laws also require regular reports on the status of renewable resource trends.

Federal Emergency Management Agency (FEMA)

FEMA's mission is helping people before, during, and after disasters with core values and goals to instill equity as a foundation of emergency management, lead the whole of communities in climate resilience, and promote and sustain a ready agency and prepared nation. FEMA conducts multiple assistance programs to help local jurisdictions mitigate, prepare for, and recover from disasters. FEMA also develops and maintains national flood maps to help communities identify areas with variable risks of flooding and appropriately mitigate risks to communities and wildlife resources.

State

General Plan Law (California Government Code Section 65300).

California Government Code Section 65300 regulates the substantive and topical requirements of general plans. State law requires each city and county to adopt a general plan "for the physical development of the county or city, and any land outside its boundaries which bears relation to its planning."

Airport Land Use Commission Plans (Public Utilities Code Section 21674.7 (b) and 21675(a)).

The purpose of Airport Land Use Commission Plans (ALUCPs) is to discourage incompatible land uses near existing airports. Before granting permits for the renovation or remodeling of an existing building, structure, or facility, and before the construction of a new building within an area governed by an Airport Land Use Commission Plan, a local agency must consider the height, use, noise, safety, and density criteria established by the ALUCP.

California Government Code Section 65301.

Section 65301 of the California Government Code requires a general plan to address the geographic territory of the local jurisdiction and any other territory outside its boundaries that bears relation to the planning of the jurisdiction. The jurisdiction may exercise its judgment in determining what areas outside of its boundaries to include in the Planning Area.

California Government Code Section 65860.

In counties, general law cities, and charter cities with a population of more than two million, zoning provisions must be consistent with the general plan. Charter cities with a population of under two million are exempt from the zoning consistency requirement unless their charters provide otherwise.

Cortese Knox Hertzberg Local Government Reorganization Act of 2000 (CKH Act).

The Cortese Knox Hertzberg Local Government Reorganization Act established procedures for local agency changes of organization, including city incorporation, annexation to a city or special district, and consolidation of cities or special districts (Section 56000, et seq.) While LAFCO does not have any direct land use authority, the CKH Act assigns LAFCO a significant role in planning issues by requiring them to consider a wide range of land use and growth factors when they consider proposed boundary changes. California Government Code Section 56001 specifically states that "the logical formation and determination of local agency boundaries is an important factor in promoting orderly development and in balancing that development with sometimes competing State interests of discouraging urban sprawl, preserving open space and prime agricultural lands, [and] efficiently extending government services."

Government Code Section 65302.3.

The General Plan and applicable specific plans shall be consistent with the Airport Land Use Commission Plan required under PUC Section 21675.

Z'Berg-Nejedly Forest Practice Act

The Z'Berg-Nejedly Forest Practice Act became effective in 1974. It is administered by the Board of Forestry and regulates timber operations by the use of board-adopted rules for each forest district. Prior to conducting timber operations, a Timber Harvesting Plan must be prepared by a Registered Professional Forester and be approved by the California Department of Forestry after consulting with other state agencies. The Act and its rules provide standards for several harvest and reforestation systems, operations of logging equipment, road and trail construction, erosion control, stream and lake protection, fire hazard abatement, insect and disease control, and fire prevention and control.

Local

Siskiyou County General Plan

The General Plan, adopted August 12th, 1980, includes the Land Use Element which covers land use designations in Siskiyou County.

Siskiyou County Zoning Ordinance

The Zoning Ordinance regulates zoning in Siskiyou County.

2.13 Key Terms

By Right. A by-right approval is granted when a development proposal strictly conforms to zoning and building codes and, thus, qualifies for construction without requiring a conditional use permit, a planned unit development permit, or any other discretionary local-government review or approval that would constitute a "project" as defined in Section 21100 of the Public Resources Code.

Community Plans. Community plans serve as land use plans for specific geographic unincorporated communities. The community plans govern the distribution, general location, and extent of uses of the land for housing, business, industry, open space, agriculture, and public facilities.

Conditional Use Permit (CUP). A discretionary permit required for certain land uses that may need special conditions to address site-specific constraints and/or ensure compatibility with surrounding land uses.

County Seat. A city or town that is the administrative center of its county.

Discretionary Approvals. Any land use entitlement or permit of any type in which the approving entity applies judgment in deciding whether and how to carry out or approve a project including, but not limited to, tentative and parcel maps, rezones, General Plan amendments, use permits, variances, grading permits, land conservation permits, specific or precise plans, design review, view blockage review, conceptual review, and building permits when discretionary.

Incorporated City. A municipality that has been established and recognized by the State of California as either a general law or charter city. It is a self-governing entity with its own city council, mayor, and other local officials.

Land Use Designation. A description of the type and intensity of land uses allowed in a specific area.

Local Agency Formation Commission (LAFCO). A commission within each county that reviews and evaluates all proposals for the formation of special districts, incorporation of cities, annexation to special districts or cities, consolidation of districts, and merger of districts with cities.

Municipal Service Reviews (MSRs). A comprehensive review of public services and facilities provided by a city or special district.

Overlay Zone. Zones are layered over base zoning districts, often covering multiple zoning districts. Overlay zones apply standards and regulations for development on parcels covered by the overlay in addition to the requirements of the existing base zone.

Sphere of Influence. A planning boundary outside of an agency's legal boundary (such as a city limit line) that designates the agency's probable future boundary and service area. In order for an area to be considered for annexation by a city or special district, it must be within their sphere of influence.

Planning Area. The area directly addressed by the general plan. A city or county planning area typically encompasses the agency's boundaries and potentially annexable land within its sphere of influence. In the case of counties, the planning area is the entire county.

Unincorporated Community. An established community that is not an incorporated city and falls under the jurisdiction of its respective county government.

Zoning District. A defined area that includes regulations for allowable land uses, and height, bulk, and space development standards.

Zoning Ordinance. The adopted zoning regulations of a city or county.

Zoning. The division of a city or county into zones, each of which specifies allowable land uses and building and development standards.

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3. Population, Employment, and Housing

This chapter summarizes demographic, employment, and housing characteristics in Siskiyou County and compares the local data with the larger region and state.



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3.1 Introduction

This chapter describes the demographic and housing characteristics of Siskiyou County. Within the context of the General Plan Update, the evaluated demographic information is used to identify trends and changes in the makeup, composition, and ultimately the demands of Siskiyou County's future population. Existing market conditions in Siskiyou County and the surrounding region are summarized, showing the economic strengths and potential areas of growth. Finally, the chapter concludes with an analysis of existing conditions and trends related to housing. This chapter is organized into the following sections:

3.1 Introduction POP-3
3.2 Population, Demographic, and Household Trends POP-4
3.3 Existing Economic and Fiscal Conditions POP-13
3.4 Population and Employment Projections POP-19
3.5 Housing POP-21
3.6 Key Terms POP-22
3.7 Regulatory Setting POP-23
3.8 References POP-24

Since both the existing strength and the future potential of a local economy are significantly influenced by its regional setting, the analysis compares Siskiyou County to the larger North Valley-Northern Mountains Region in which it is located. This 10-county region (as defined by the California Department of Employment Development and U.S. Department of Labor) includes Colusa County, Glenn County, Lassen County, Modoc County, Nevada County, Plumas County, Sierra County, Siskiyou County, Tehama County, and Trinity County. Where appropriate, the analysis also provides comparative data for the cities and unincorporated Census Designated Places (CDP's) within Siskiyou County. Although the General Plan focuses on the unincorporated areas of the county, the incorporated cities are relevant points of reference in that they are likely to account for significant portions of future countywide demand for new development.

3.2 Population, Demographic, and Household Trends

This section summarizes past and current demographic data for Siskiyou County. Analyzing demographic information yields important information relevant to possible shifts in County service demand and to future opportunities for private development investment. This section analyzes U.S. Census and California Department of Finance demographic data to identify those trends and conditions that are of importance to Siskiyou County's future.

Major Findings

Key findings related to demographic trends in Siskiyou County include the following:

- Siskiyou County has experienced consistent, long-term declines in its resident population. Between 2010 and 2013, the county's total household population decreased from 44,426 persons to 41,954 persons (a 3.3 percent decrease). Available forecasts from the California Department of Finance (DOF) indicate that the county's population will continue to consistently decline over the next 35 years.
- Populations age 65 years and older are a considerably higher proportion in the county and region, compared to California.
- For the 10-County North Valley-Northern Mountains Region in which Siskiyou County is located, the overall household population grew modestly (by 0.3 percent) between 2010 and 2023. In contrast, California's population grew by 4.3 percent during this time period. Available DOF forecasts suggest that these trends will generally continue.
- In terms of both Hispanic/Latino Origin and racial categories, the county is less diverse than the region, and the county and region are both much less diverse than California.
- Siskiyou County and the region have similar levels of educational attainment. In California, about 35 percent of the educated population have bachelor's or advanced degrees, compared to 22 percent to 24 percent for the county and region.
- Siskiyou County median and average incomes are noticeably less than the incomes for the North Valley/North Mountains region, which themselves are about 70 percent of the California income levels.
- The county and region are similar in having a much higher proportion of owner-occupied housing than California.

Demographic Characteristics

This section provides benchmark demographic comparisons between Siskiyou County and two larger reference areas:

- The **North Valley-Northern Mountains Region** comprising Colusa, Glenn, Lassen, Modoc, Nevada, Plumas, Sierra, Siskiyou, Tehama, and Trinity counties (hereinafter referred to as "the 10-County Region"); and
- **California** as a whole.

The demographic analysis also provides relevant data for the following subareas within Siskiyou County:

- **Incorporated cities.** Dorris, Dunsmuir, Etna, Fort Jones, Montague, Mount Shasta, Tulelake, Weed, and Yreka.
- **Unincorporated Census Designated Places (CDP's).** Carrick, Edgewood, Gazelle, Greenview, Grenada, Happy Camp, Hornbrook, Lake Shastina, Macdoel, Mount Hebron, and Tennant.

Resident Population

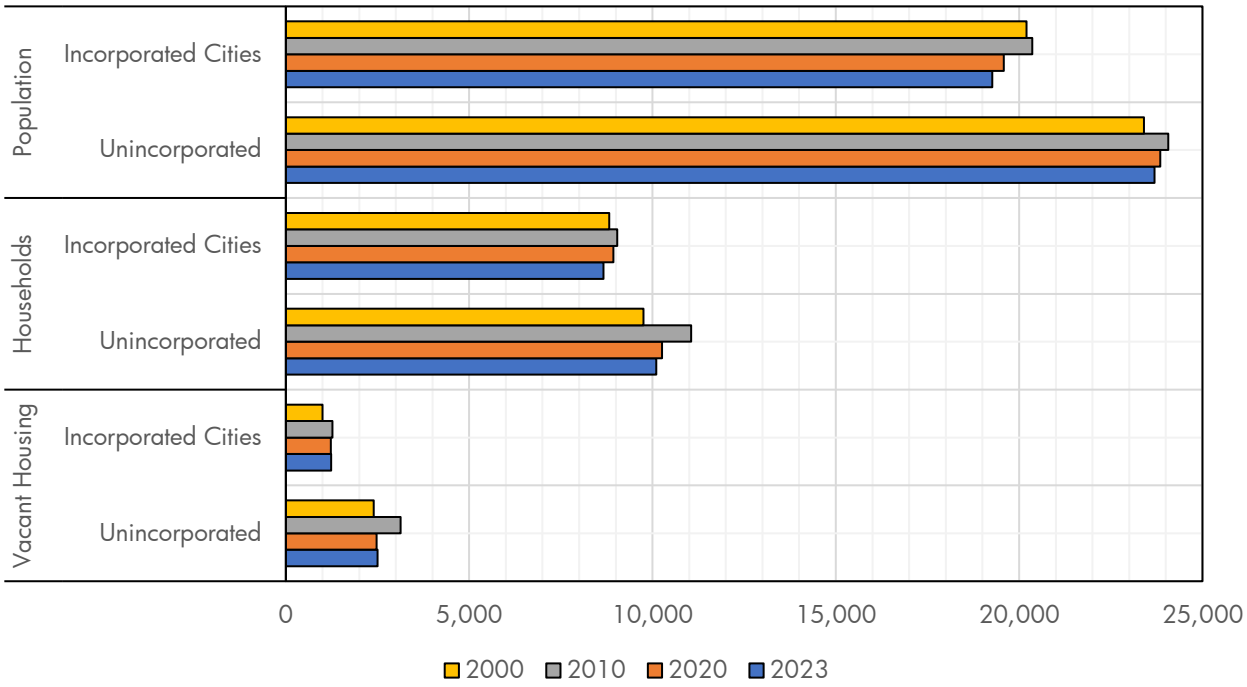
Siskiyou County. According to the California Department of Finance, Siskiyou County's current (2023) population is 43,548 residents, with 42,954 of them living in households, as shown in Table 3.1. Siskiyou County's unincorporated area currently accounts for 55 percent of the countywide household population. Most of Siskiyou County's incorporated cities have experienced population declines over the past 13 years. Collectively, the cities' household population decreased by 578 persons between 2019 and 2023, representing an average annual growth rate of minus 0.8 percent. The population also declined in the unincorporated area during this period, but at a less dramatic rate. Within the unincorporated area, the household population decreased by 377 persons, representing an average annual growth rate of minus 0.4 percent.

Table 3.1 Population Growth Trends, Siskiyou County (2010-2023)

Siskiyou County Household Population[1]	2010	2015	2019	2021	2023	2010-2019 Growth Rate	2019-2023 Growth Rate
Dorris	939	966	994	859	839	0.6%	-4.1%
Dunsmuir	1,650	1,656	1,653	1,704	1,663	0.0%	0.2%
Etna	731	740	738	677	661	0.1%	-2.7%
Fort Jones	710	696	674	694	678	-0.6%	0.1%
Montague	1,425	1,384	1,341	1,211	1,183	-0.7%	-3.1%
Mount Shasta	3,358	3,349	3,371	3,206	3,176	0.0%	-1.5%
Tulelake	1,010	965	911	899	878	-1.1%	-0.9%
Weed	2,820	2,499	2,551	2,690	2,514	-1.1%	-0.4%
Yreka	7,718	7,666	7,651	7,634	7,674	-0.1%	0.1%
Incorporated Cities Subtotal	**20,361**	**19,921**	**19,884**	**19,574**	**19,266**	**-0.3%**	**-0.8%**
Unincorporated Siskiyou County	**24,065**	**24,246**	**24,063**	**23,864**	**23,688**	**0.0%**	**-0.4%**
Siskiyou County Total	**44,426**	**44,167**	**43,947**	**43,438**	**42,954**	**-0.1%**	**-0.6%**

Note: Household population does not include persons living in group quarters. In 2023, Siskiyou County had 594 persons in group quarters and total population of 43,548.
Source: The Natelson Dale Group, Inc. (TNDG); data from California Department of Finance.

Figure 3.1 Population, Households, and Vacant Housing Comparisons Between Incorporated and Unincorporated Siskiyou County



Source: CA DOF, Population and Housing Estimates, Table E-5 and Historical Population and Housing Estimates, Table E-8; U.S. Census Bureau, Decennial 2000 Census, and American Community Survey 5-Year Estimates – 2006-2010, 2016-2020, and 2018-2022.

10-County Region and California. According to the California Department of Finance, the current (2023) population in the North Valley-Northern Mountains Region is 333,766 residents, with 325,409 of them living in households, as shown in Table 3.2.

Within the 10-County Region, five counties experienced population declines over the past 13 years and five counties experienced relatively modest growth. Overall, the region's population grew by just 0.5 percent between 2019 and 2023. In contrast, California's population grew by minus 0.5 percent during this time period.

Table 3.2 Population Growth Trends, North Valley-Northern Mountains Region (10-County Region) and California, 2010-2023

Household Population by County[1]	2010	2015	2019	2021	2023	2010-19 Growth Rate	2019-23 Growth Rate
Colusa County	21,194	21,191	21,691	21,567	21,590	0.3%	-0.1%
Glenn County	27,806	28,031	28,334	28,581	28,423	0.2%	0.1%
Lassen County	25,116	22,629	21,639	24,658	24,111	-1.6%	2.7%
Modoc County	9,329	9,276	9,285	8,397	8,336	-0.1%	-2.7%
Nevada County	97,589	96,920	96,501	99,857	98,868	-0.1%	0.6%
Plumas County	19,730	18,008	17,990	19,366	18,745	-1.0%	1.0%
Sierra County	3,207	3,160	3,176	3,193	3,161	-0.1%	-0.1%
Siskiyou County	44,426	44,167	43,947	43,438	42,954	-0.1%	-0.6%
Tehama County	62,621	62,278	63,684	64,491	63,551	0.2%	-0.1%
Trinity County	13,401	13,288	13,246	15,798	15,670	-0.1%	4.3%
10-County Total	**324,419**	**318,948**	**319,493**	**329,346**	**325,409**	**-0.2%**	**0.5%**
California Total	**36,412,191**	**38,021,937**	**38,754,947**	**38,495,580**	**38,014,307**	**0.7%**	**-0.5%**

Note: Household population does not include persons living in group quarters. In 2023, the 10-County Region had 8,357 persons in group quarters and total population of 333,766.

Source: The Natelson Dale Group, Inc. (TNDG); data from California Department of Finance.

Age

Table 3.3 shows population by age category for the county, 10-County Region, and California. As shown, populations age 65 years and older are a considerably higher proportion in the county (25.6 percent) and region (22.8 percent), compared to California (14.3 percent). Statewide, the proportion of residents aged 15-44 is considerably larger (41.9 percent) than in the county (30.7 percent) and region (33.8 percent).

Table 3.3 Population by Age

	14 years and under	15 - 44 years	45 - 64 years	65 years and over
Siskiyou County	17.0%	30.7%	26.9%	25.6%
10-County Region	16.8%	33.8%	26.5%	22.8%
California	18.9%	41.9%	24.9%	14.3%
Cities				
Dorris	20.3%	34.5%	20.0%	25.1%
Dunsmuir	22.9%	33.6%	24.6%	18.6%
Etna	19.7%	32.3%	21.6%	26.3%
Fort Jones	24.0%	31.5%	25.2%	19.2%
Montague	13.7%	28.7%	34.6%	22.8%
Mount Shasta	11.1%	32.1%	28.1%	28.9%
Tulelake	30.6%	30.1%	20.1%	19.3%
Weed	16.7%	36.4%	28.7%	18.1%
Yreka	22.8%	35.1%	19.4%	22.6%
Census Designated Places				
Carrick CDP	27.1%	18.7%	15.3%	37.3%
Edgewood CDP	9.6%	25.1%	39.3%	26.3%
Gazelle CDP	20.8%	29.8%	28.8%	21.8%
Greenview CDP	20.0%	25.6%	29.8%	25.1%
Grenada CDP	20.7%	29.1%	28.2%	21.9%
Happy Camp CDP	11.8%	26.8%	34.7%	26.6%
Hornbrook CDP	13.9%	32.3%	30.3%	23.5%
Lake Shastina CDP	15.6%	33.2%	25.5%	25.7%
Macdoel CDP	17.2%	43.0%	31.3%	10.9%
McCloud CDP	7.5%	22.8%	28.6%	41.0%
Mount Hebron CDP	14.7%	46.8%	36.6%	3.6%
Tennant CDP	12.3%	21.1%	28.2%	38.6%

Source: ACS Key Population & Household Facts, ACS Population Summary, ACS Housing Summary, 2021 ACS 5-year Estimates; TNDG.

Race and Ethnicity

In terms of both Hispanic/Latino Origin and racial categories, the county is less diverse than the region. Both the county and region are much less diverse than California. Table 3.4 summarizes population by race for the county, region, and state. In Siskiyou County approximately 81.8 percent of the population identify as white alone. This is similar to the 10-County Region (82.7 percent) but considerably more than in California (52.1 percent).

Table 3.4 Population by Race

	White alone	Black or African American alone	American Indian and Alaska Native alone	Asian alone	Native Hawaiian and Other Pacific Islander alone	Some other race alone	Two or more races
Siskiyou County	**81.8%**	**1.7%**	**3.4%**	**1.5%**	**0.4%**	**2.3%**	**8.9%**
10-County Region	82.7%	1.7%	1.7%	1.5%	0.2%	4.7%	7.4%
California	52.1%	5.7%	0.9%	14.9%	0.4%	15.3%	10.7%
Cities							
Dorris	84.1%	0.6%	0.1%	1.8%	0.0%	3.0%	10.3%
Dunsmuir	81.1%	1.5%	1.3%	2.2%	0.0%	3.8%	9.9%
Etna	83.2%	3.9%	4.2%	0.0%	0.0%	0.0%	8.7%
Fort Jones	82.4%	0.0%	3.7%	0.0%	0.9%	0.0%	13.0%
Montague	86.5%	0.0%	3.9%	0.7%	0.0%	2.3%	6.6%
Mount Shasta	93.9%	1.9%	0.0%	0.2%	0.2%	1.6%	2.3%
Tulelake	81.6%	1.3%	0.0%	0.0%	0.0%	5.0%	11.9%
Weed	72.2%	7.5%	1.6%	3.7%	0.0%	10.2%	4.8%
Yreka	76.7%	2.7%	3.8%	0.1%	1.8%	1.5%	13.4%
Census Designated Places							
Carrick CDP	64.4%	0.0%	0.0%	33.9%	0.0%	0.0%	1.7%
Edgewood CDP	94.0%	0.0%	0.0%	0.0%	0.0%	3.6%	1.2%
Gazelle CDP	87.1%	2.0%	3.0%	0.0%	0.0%	0.0%	7.9%
Greenview CDP	72.6%	0.5%	20.9%	0.9%	0.0%	0.9%	4.2%
Grenada CDP	87.1%	1.8%	2.7%	0.0%	0.0%	0.0%	8.4%
Happy Camp CDP	54.8%	1.1%	24.7%	1.5%	0.0%	1.2%	16.8%
Hornbrook CDP	71.0%	0.0%	2.3%	3.1%	0.0%	0.0%	23.6%
Lake Shastina CDP	86.0%	1.9%	1.3%	0.7%	0.1%	1.1%	8.9%
Macdoel CDP	69.9%	3.2%	0.0%	7.5%	0.0%	4.3%	14.0%
McCloud CDP	89.0%	1.3%	1.6%	0.0%	0.5%	0.4%	7.3%
Mount Hebron CDP	64.2%	4.6%	0.0%	10.1%	0.0%	4.6%	15.6%
Tennant CDP	86.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.5%

Source: ACS Key Population & Household Facts, ACS Population Summary, ACS Housing Summary, 2021 ACS 5-year Estimates; TNDG.

Table 3.5 shows population data by ethnicity (Hispanic/Latino origin). Statewide, 39.5 percent of the population identify as Hispanic or Latino of any race. This compares to just 13.3 percent in Siskiyou County and 20.4 percent in the 10-County Region.

Table 3.5 Population by Ethnicity

	Not Hispanic or Latino	Hispanic or Latino							
		Hispanic or Latino Total	White alone	Black or African America n alone	American Indian and Alaska Native alone	Asian alone	Native Hawaiian and Other Pacific Islander alone	Some other race alone	Two or more races
Siskiyou County	**86.7%**	**13.3%**	**6.9%**	**0.1%**	**0.4%**	**0.0%**	**0.0%**	**2.2%**	**3.6%**
10-County Region	79.6%	20.4%	11.7%	0.1%	0.4%	0.0%	0.0%	4.4%	3.7%
California	60.5%	39.5%	16.3%	0.3%	0.6%	0.2%	0.0%	14.9%	7.2%
Cities									
Dorris	74.2%	25.8%	17.7%	0.0%	0.1%	0.0%	0.0%	3.0%	4.8%
Dunsmuir	83.7%	16.3%	5.6%	1.2%	0.2%	0.3%	0.0%	3.8%	5.2%
Etna	96.1%	3.9%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	2.2%
Fort Jones	87.6%	12.4%	5.1%	0.0%	0.0%	0.0%	0.9%	0.0%	6.3%
Montague	90.3%	9.7%	5.3%	0.0%	0.2%	0.0%	0.0%	2.1%	2.1%
Mount Shasta	97.3%	2.7%	0.6%	0.0%	0.0%	0.0%	0.2%	1.6%	0.2%
Tulelake	47.9%	52.0%	35.8%	0.0%	0.0%	0.0%	0.0%	4.7%	11.6%
Weed	74.1%	25.9%	13.1%	0.0%	0.0%	0.0%	0.0%	10.2%	2.7%
Yreka	84.6%	15.4%	5.4%	0.0%	1.4%	0.0%	0.0%	1.4%	7.2%
Census Designated Places									
Carrick CDP	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Edgewood CDP	76.2%	23.8%	19.0%	0.0%	0.0%	0.0%	0.0%	3.6%	1.2%
Gazelle CDP	95.0%	5.0%	1.0%	0.0%	2.0%	0.0%	0.0%	0.0%	2.0%
Greenview CDP	94.9%	4.7%	1.9%	0.0%	1.4%	0.0%	0.0%	0.9%	0.9%
Grenada CDP	95.5%	4.5%	1.2%	0.0%	1.8%	0.0%	0.0%	0.0%	1.5%
Happy Camp CDP	92.0%	8.1%	4.0%	0.0%	0.1%	0.4%	0.0%	1.1%	2.6%
Hornbrook CDP	88.4%	11.6%	5.4%	0.0%	0.0%	0.0%	0.0%	0.0%	6.2%
Lake Shastina CDP	89.4%	10.6%	7.0%	0.0%	0.2%	0.0%	0.0%	0.5%	2.9%
Macdoel CDP	54.8%	45.2%	30.1%	0.0%	0.0%	0.0%	0.0%	4.3%	11.8%
McCloud CDP	93.2%	6.8%	3.3%	1.0%	0.5%	0.0%	0.0%	0.4%	1.8%
Mount Hebron CDP	46.8%	53.2%	33.9%	0.0%	0.0%	0.0%	0.0%	4.6%	14.7%
Tennant CDP	94.7%	5.3%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%

Source: ACS Key Population & Household Facts, ACS Population Summary, ACS Housing Summary 2021 ACS 5-year Estimates; TNDG.

Educational Attainment

The county and the region have similar levels of educational attainment (Table 3.6). In California, about 35 percent of the population has a bachelors, masters, or professional degree, compared to approximately 22 percent in the county and 24 percent for the county and region.

Table 3.6 Educational Attainment

	No Schooling	High School or Less	Some College	Associates degree	Bachelor's degree	Master's degree	Professional or Doctorate degree
Siskiyou County	**1.4%**	**35.8%**	**29.1%**	**12.2%**	**14.3%**	**5.1%**	**2.2%**
10-County Region	1.7%	36.5%	27.4%	10.1%	16.2%	5.5%	2.5%
California	3.1%	33.1%	20.5%	8.0%	21.9%	9.1%	4.2%
Cities							
Dorris	6.5%	54.7%	23.5%	6.5%	5.9%	2.8%	0.3%
Dunsmuir	0.8%	37.9%	25.5%	17.0%	14.4%	3.2%	1.3%
Etna	0.5%	33.1%	29.5%	22.7%	5.4%	5.7%	3.2%
Fort Jones	0.0%	45.6%	36.4%	10.8%	5.9%	1.3%	0.0%
Montague	0.7%	40.9%	33.9%	7.5%	11.5%	3.5%	2.0%
Mount Shasta	1.7%	19.3%	33.0%	17.4%	19.5%	5.2%	3.9%
Tulelake	1.9%	63.3%	19.6%	6.7%	6.2%	2.5%	0.0%
Weed	3.0%	44.5%	29.0%	10.7%	8.3%	1.9%	2.6%
Yreka	0.9%	39.2%	26.1%	13.8%	14.4%	3.4%	2.3%
Census Designated Places							
Carrick CDP	0.0%	52.3%	9.5%	16.7%	21.4%	0.0%	0.0%
Edgewood CDP	0.0%	20.2%	23.2%	15.9%	18.8%	18.8%	1.4%
Gazelle CDP	0.0%	34.9%	34.9%	9.5%	17.5%	3.2%	0.0%
Greenview CDP	0.0%	59.7%	19.5%	8.4%	7.8%	4.5%	0.0%
Grenada CDP	0.0%	34.9%	34.9%	9.1%	18.2%	3.3%	0.0%
Happy Camp CDP	0.2%	49.0%	26.0%	6.0%	14.5%	4.0%	0.3%
Hornbrook CDP	1.2%	34.6%	47.6%	7.3%	5.2%	1.2%	2.4%
Lake Shastina CDP	0.1%	30.0%	27.7%	12.5%	16.5%	11.4%	1.8%
Macdoel CDP	1.6%	57.1%	22.2%	3.2%	12.7%	1.6%	1.6%
McCloud CDP	1.0%	37.0%	30.4%	8.8%	16.3%	4.8%	1.4%
Mount Hebron CDP	0.0%	59.1%	22.5%	1.4%	15.5%	1.4%	1.4%
Tennant CDP	2.4%	34.1%	34.1%	9.8%	9.8%	7.3%	2.4%

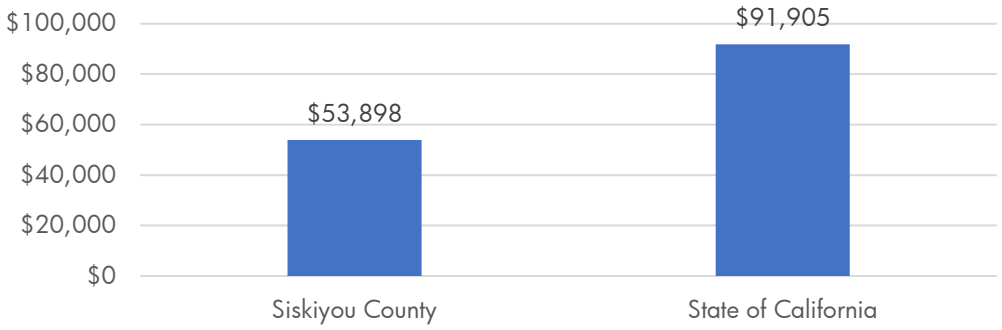
Source: ACS Key Population & Household Facts, ACS Population Summary, ACS Housing Summary, 2021 ACS 5-year Estimates; TNDG.

Household Trends

Income

The median household income (MHI) in Siskiyou County was $53,898 in 2022 (Figure 3.2). This was noticeably lower than the statewide median income of $91,905 in the same year.

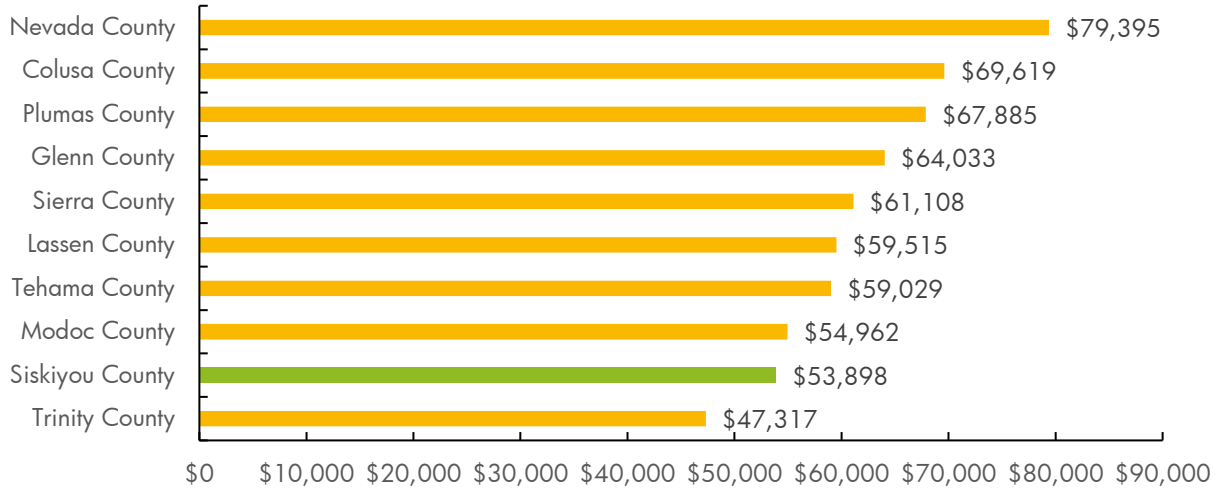
Figure 3.2 Median Household Income, 2022



Source: U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates.

County median incomes are noticeably less than the incomes for the North Valley/North Mountains region, which themselves are about 70 percent of the California income levels. Among the ten counties in the 10-County Region, Siskiyou County has the second lowest median household income (Figure 3.3).

Figure 3.3 Median Household Income, 10-County Region, 2022



Source: U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates.

By comparison to the state, both jobs and median household income grew at slower rates than in California from 2014 to 2022 (Table 3.7). In 2022, there were 16,623 jobs held by residents in the county, up from 16,225 in 2014. Median household income also increased during this time, from $37,495 in 2014 to $53,898 in 2022. Between 2014 and 2023, incomes in Siskiyou County increased at a growth rate of 4.64 percent, which was slightly less than the state's rate of growth (5.15 percent) during the same period.

Table 3.7 Resident Employment and Median Household Income Summary

Description	Employment				Median Household Income (MHI)			
	2014 Jobs	2022 Jobs	2014 to 2022 Job Change	2014 to 2022 Job CAGR	2014 MHI	2022 MHI	2014 to 2022 MHI Change	2014 to 2022 MHI CAGR
Siskiyou County	16,225	16,623	398	0.30%	$37,495	$53,898	$16,403	4.64%
California	16,890,442	18,729,798	1,839,356	1.30%	$61,489	$91,905	$30,416	5.15%

Source: U.S. Census Bureau, 2010-2014 and 2018-2022 American Community Survey 5-Year Estimates.

Tenure

Table 3.8 summarizes data related to owner-occupied and renter-occupied housing units. Both the county and region have a much higher proportion of owner-occupied housing than California. In Siskiyou County, 66.9 percent of units are owner-occupied, and this increases to 69.9 percent in the 10-County Region. By contrast, 55.5 percent of housing units are owner-occupied statewide. Rates of owner-occupancy vary among the CDPs in Siskiyou County from 31.3 percent in Happy Camp to 87.1 percent in Carrick.

Table 3.8 Occupied Housing Units by Tenure

	Owner-occupied	Renter-occupied
Siskiyou County	**66.9%**	**33.1%**
10-County Region	69.9%	30.1%
California	55.5%	44.5%
Cities		
Dorris	76.3%	23.7%
Dunsmuir	55.9%	44.1%
Etna	59.4%	40.6%
Fort Jones	55.2%	44.8%
Montague	75.2%	24.8%
Mount Shasta	50.6%	49.4%
Tulelake	67.5%	32.5%
Weed	41.4%	58.6%
Yreka	76.3%	23.7%
Census Designated Places		
Carrick CDP	87.1%	12.9%
Edgewood CDP	76.2%	23.8%
Gazelle CDP	59.1%	40.9%
Greenview CDP	81.9%	18.1%
Grenada CDP	60.3%	39.7%
Happy Camp CDP	31.3%	68.7%
Hornbrook CDP	70.4%	29.6%
Lake Shastina CDP	84.7%	15.3%
Macdoel CDP	62.1%	37.9%
McCloud CDP	73.4%	26.6%
Mount Hebron CDP	54.5%	45.5%
Tennant CDP	78.1%	21.9%

Source: ACS Key Population & Household Facts, ACS Population Summary, ACS Housing Summary, 2021 ACS 5-year Estimates; TNDG.

3.3 Existing Economic and Fiscal Conditions

This section describes current fiscal and economic development conditions in Siskiyou County, including resident employment and existing jobs, major employers, job growth, income, and tax revenue.

Jobs and Employment

It is important to note the distinction between the terms "employment" and "jobs" as discussed throughout this section. "Employment" is a characteristic of an area's resident workforce; it refers to the residents of an area (i.e., city, county, or other geography) who are currently employed, regardless of the location of their employment (i.e., they may hold jobs in their own community or commute to work outside the community). The term "jobs" relates to the place of work; thus, the reported number of jobs in a county refers to jobs that are based in that county, regardless of where the jobholder lives (i.e., they may be residents of the county or they may be non-residents who commute in from other counties).

Approximately 16,600 civilian residents were in the workforce in 2022, as shown on Table 3.9.

Table 3.9 Jobs Held by Siskiyou County Residents, by Type of Worker, 2022

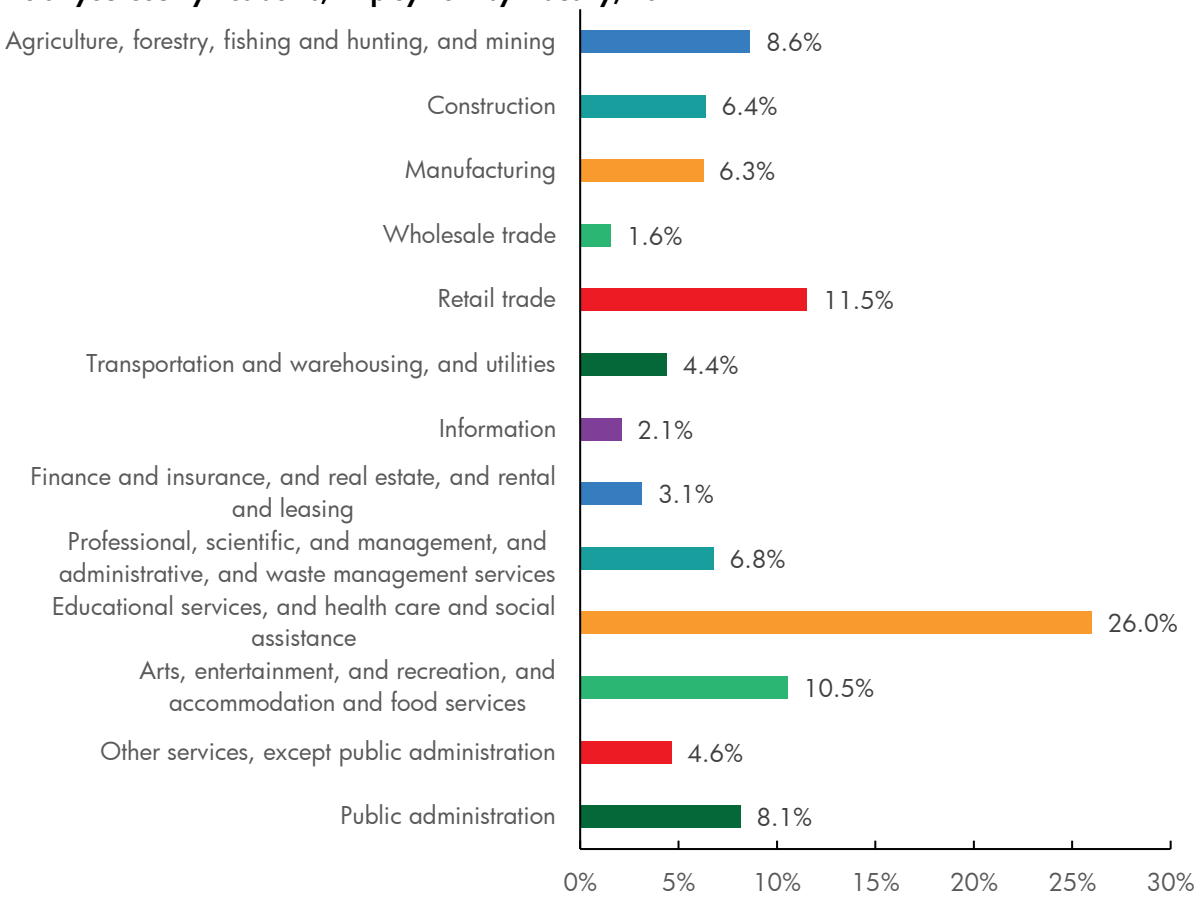
Civilian population 16 years and over	Total
Private for-profit wage and salary workers	9,298
Private not-for-profit wage and salary workers	1,466
Government workers	4,087
Self-employed in own not incorporated business workers	1,665
Unpaid family workers	107
Total Civilian employed population 16 years and over	**16,623**

Source: U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates.

Figure 3.4 provides a breakdown of Siskiyou County's resident workforce by industry. These data are for workers who live in Siskiyou County (some of whom are employed at workplaces outside the county). Residents of Siskiyou County are mostly employed in education and health care, retail trade, or in jobs related to arts, tourism, recreation, and food services or public administration.

Approximately 8.1 percent of the county's residents are employed in public administration, which is considerably higher than the statewide average (4.7 percent of workers countywide are employed in public administration). Furthermore, as shown in Table 3.9, a total of 4,087 (or approximately 25 percent) of the 16,623 jobs held by Siskiyou County residents are in government, which is comprised of public sector jobs across all industries, including public administrators, educators, public health and social workers, and professional and scientific staff.

Figure 3.4 Siskiyou County Residents, Employment by Industry, 2022



Source: U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates.

Table 3.10 compares the number of jobs by industry to the total resident workforce for 2022. As shown, in 2022, there was a total deficit of 1,479 jobs in the county. Although many industries had a surplus of jobs, the construction, retail trade, educational services, accommodation and food services, other services, and public administration industries had more resident workers than jobs. Notably, health care and social assistance industry had a deficit of 2,358 jobs.

Table 3.10 Comparison of Jobs to Resident Workforce, Siskiyou County

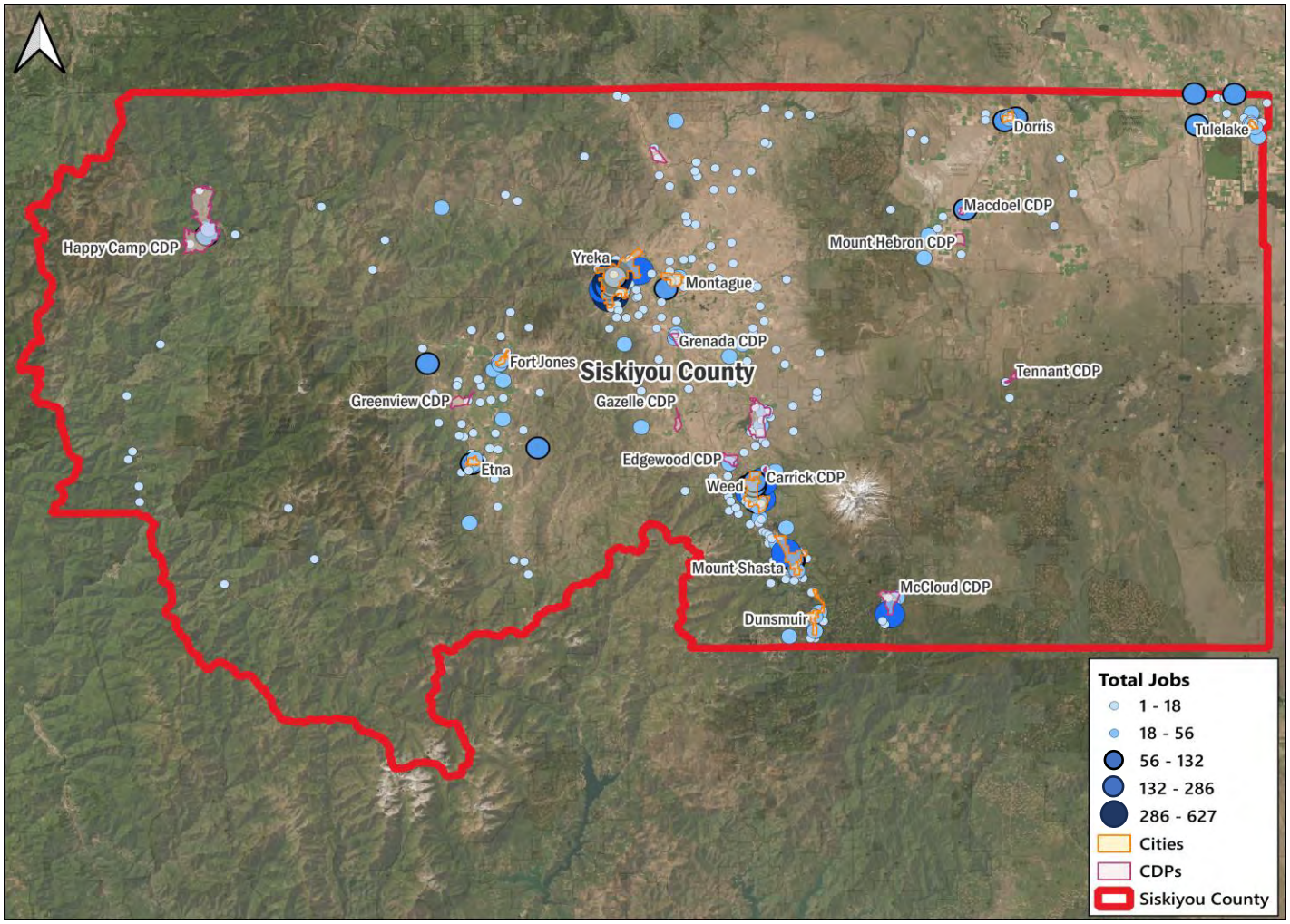
NAICS Code[1]	Description	2022 Jobs	2023 Resident Workers	Job Surplus (Deficit)
11	Agriculture, Forestry, Fishing and Hunting	1,435	957	478
21	Mining, Quarrying, and Oil and Gas Extraction	1,059	16	1,043
22	Utilities	1,039	107	932
23	Construction	258	769	(511)
31	Manufacturing	1,917	992	925
42	Wholesale Trade	730	312	418
44	Retail Trade	347	2,013	(1,666)
48	Transportation and Warehousing	522	343	179
51	Information	1,127	147	980
52	Finance and Insurance	4,316	239	4,077
53	Real Estate and Rental and Leasing	1,751	176	1,575
54	Professional, Scientific, and Technical Services	770	484	286
55	Management of Companies and Enterprises	1,352	79	1,273
56	Administrative and Support and Waste Management and Remediation Services	1,059	489	570
61	Educational Services	1,039	1,666	(627)
62	Health Care and Social Assistance	258	2,616	(2,358)
71	Arts, Entertainment, and Recreation	1,917	414	1,503
72	Accommodation and Food Services	730	1,326	(596)
81	Other Services (except Public Administration)	347	497	(150)
90	Government (Public Administration)	522	1,502	(980)
Total		**16,623**	**15,144**	**(1,479)**

Note: North American Industrial Classification System (NAICS) is the official means of distinguishing different industry types.
Source: The Natelson Dale Group, Inc. (TNDG); U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, table S2405; QCEW Employees – EMSI (4th quarter 2023).

Siskiyou County Job Distribution

While many jobs in the county are located in the cities of Yreka and Weed, job centers are found in smaller cities and rural communities throughout the county. The map below (Figure 3.5) shows the distribution and concentration of jobs by Census Blocks throughout the county.

Figure 3.5 Siskiyou County Job Distribution Map

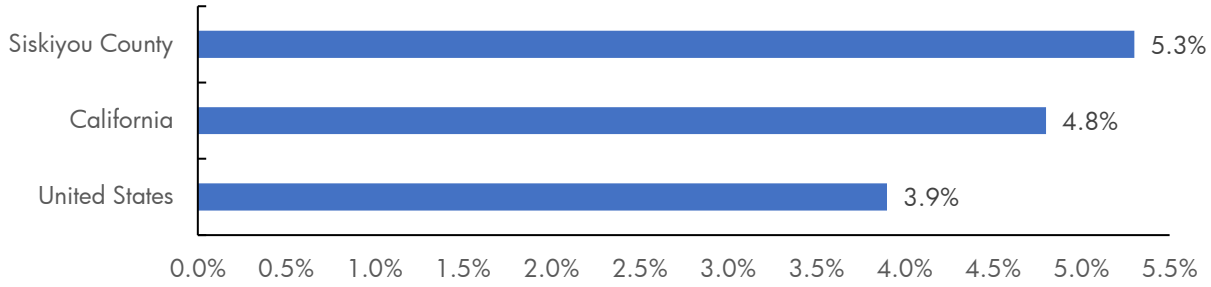


Source: U.S. Census Bureau, Longitudinal Employer-Household Dynamics (LEHD) program. Accessed at https://onthemap.ces.census.gov.

Unemployment

Figure 3.6 shows current (October 2023) unemployment rates for Siskiyou County, the State of California, and the United States. The resident unemployment rate for Siskiyou County is 5.3 percent, noticeably higher than the unemployment rate for the nation (3.9 percent), and slightly higher than the State (4.8 percent).

Figure 3.6 Figure 3-4: Unemployment Rates, October 2023

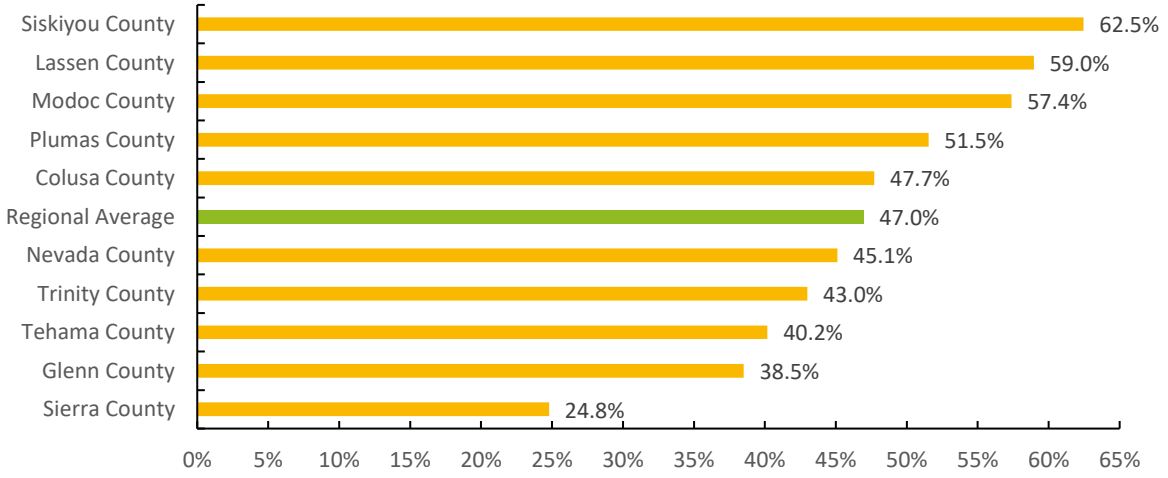


Source: CA EDD, Local Area Unemployment Statistics (LAUS) program; U.S. Department of Labor and Statistics, 2023.

Worker In-Commute/Out-Commute Patterns

Figure 3.7 provides a breakdown of the In-Area Labor Force Efficiency of each county within the 10-County Region in 2021 as defined by the California Department of Employment Development and U.S. Department of Labor Statistics. These data are for resident workers who live within the same county where they work. Within the region, the counties with the highest concentrations of resident workers living and working in the same county were Siskiyou County (62.5 percent), Lassen County (59.0 percent), Modoc County (57.4 percent), Plumas County (51.5 percent), and Colusa County (47.7 percent), which were all above the county average of 47.0 percent. By contrast, Sierra County (24.8 percent) Glenn County (38.5 percent), and Tehama County (40.2 percent) were considerably lower than the regional average of resident workers that both live and work within the same county.

Figure 3.7 In-Area Labor Force Efficiency, Percent Living and Working in County, 2021



Source: U.S. Census Bureau, Longitudinal Employer-Household Dynamics (LEHD) program. Accessed at https://onthemap.ces.census.gov.

Revenue

Table 3.11 shows the summary of revenue sources for the Siskiyou County General Fund for the Fiscal Year (FY) of 2022-23. According to the Adopted County Budget for FY 2022-23, the largest source of revenue for the County's General Fund was aid from other governments, which brought in almost $19.5 million and accounted for 31.4 percent of the annual revenue for the General Fund. Other financing sources, such as internal/interfund transfers, sale of fixed assets, and loan proceeds, were the next largest source at 29.0 percent of the General Fund's annual revenues, followed by taxes (27.6 percent), and then charges for service (8.2 percent).

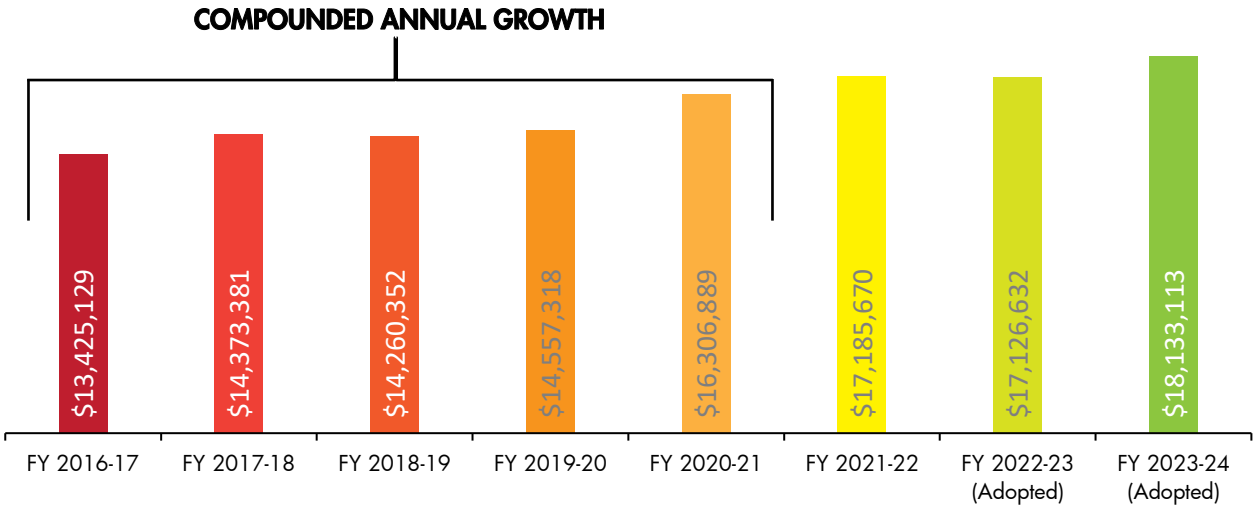
Table 3.11 General Fund Revenue Summary, FY 2022-23

Revenue Source	Revenues	Percent of Total
Taxes	$17,126,632	27.6%
Licenses & Permits	$748,835	1.2%
Fines	$1,263,900	2.0%
Use of Money and Property	$91,243	0.1%
Aid From Other Governments	$19,488,273	31.4%
Charges for Service	$5,066,344	8.2%
Other Revenues	$202,705	0.3%
Other Financing Sources (Sale of Fixed Assets, Loan Proceeds, Transfers In, and Non-Reciprocal Transfers In)	$17,992,448	29.0%

Source: Siskiyou County Budget FY 2022-23.

Figure 3.8 shows County revenues from taxes during FY 2016-17 through FY 2023-2024. The figure shows actual revenues for FY 2016-17 through FY 2021-22, and the adopted budgets for FY 2022-2023 and FY 2023-2024. In FY 2020-21, Siskiyou County received $16,306,889 in revenue from taxes. Between FY 2016-17 and FY 2020-21 the county's General Fund revenue from taxes grew at a compounded annual growth rate of 4.98 percent. Tax revenues have generally risen during the past few years in Siskiyou County, reflecting the relative health of the county's economy. The county's annual recommended adopted budget for FY 2023-2024 notes that the General Fund revenue from taxes will reach $18,133,113 over the next year. Revenue from taxes makes up between 25 to approximately 29 percent of the total General Fund revenue received over time by Siskiyou County.

Figure 3.8 General Fund Revenue from Taxes, FY 2016-17 through 2024-25



3.4 Population and Employment Projections

Table 3.12 shows population projections for the county, region, and State through 2030. This forecast from the California Department of Finance (DOF) indicates that the county's population is expected to decrease by more than two percent by 2030. By contrast, both the region and State are projected to experience an increase in population during this time.

Table 3.12 Population and Housing Projections

	2010	2015	2020	2025	2030	2020-30 Change	% Change
Siskiyou County							
Total Population	44,855	44,540	43,956	43,464	42,924	(1,032)	-2.35%
Household Population	44,381	43,986	43,361	42,886	42,352	(1,009)	-2.33%
Group Quarters	474	554	595	578	572	(23)	-3.87%
Total Households	19,505	19,482	19,631	19,598	19,269	(362)	-1.84%
Persons Per HH	2.28	2.26	2.21	2.19	2.20	-	-
10-County Region							
Total Population	338,000	332,191	335,498	338,143	338,579	3,081	0.92%
Household Population	324,137	319,681	324,397	326,139	326,731	2,334	0.72%
Group Quarters	13,863	12,510	11,101	12,004	11,848	747	6.73%
Total Households	132,319	133,257	134,573	137,025	136,878	2,305	1.71%
Persons Per HH	2.45	2.40	2.41	2.38	2.39	-	-
California							
Total Population	37,367,579	39,055,383	40,129,160	41,176,614	42,263,654	2,134,494	5.32%
Household Population	36,525,814	38,211,788	39,276,278	40,278,547	41,341,395	2,065,117	5.26%
Group Quarters	841,765	843,595	852,882	898,067	922,259	69,377	8.13%
Total Households	12,568,167	12,846,094	13,272,939	13,814,040	14,370,880	1,097,941	8.27%
Persons Per HH	2.91	2.97	2.96	2.92	2.88	-	-

Source: CA DOF, Report P-4 Projected Households, Household Population, Group Quarters and Persons per Household for the Counties and State of California.

According to the California Department of Finance forecasts (Figure 1), the county population is expected to continue to decline through the year 2050. The data shows a projected population decline of approximately 11 percent over the 30-year period. These estimates were made using 2019 baseline data and do not reflect growth seen in the region from 2020 to 2023.

Figure 3.9 Forecasted Population, Siskiyou County, 2020 to 2050

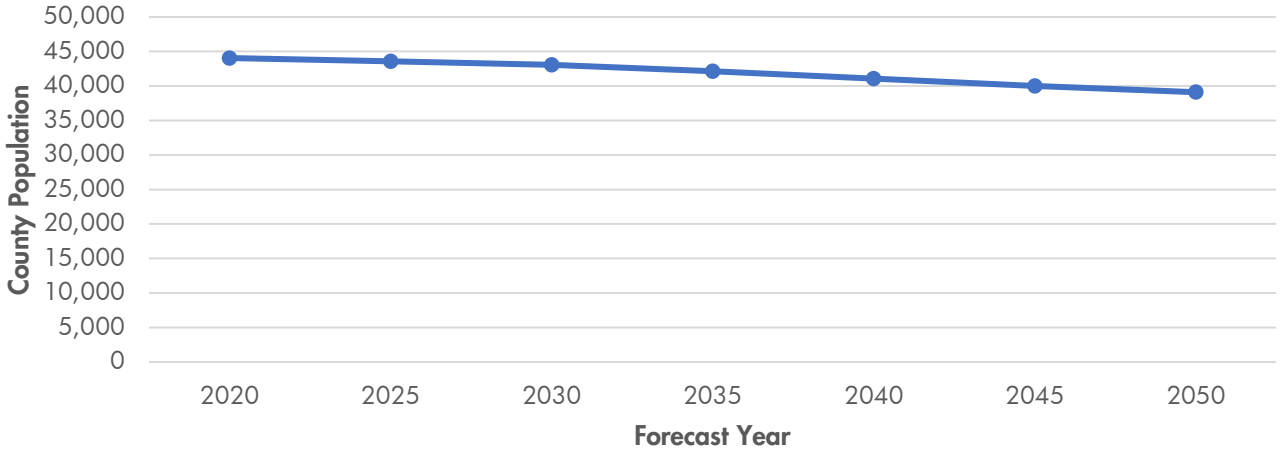


Figure 1. Forecasted Siskiyou County Population 2020-2050. Source: State of California Department of Finance, Population Projections (2019 Baseline).

Recent Resident Employment Growth

Between 2014 and 2022, the number of employed Siskiyou County residents grew by 398 workers, equating to a compounded annual growth rate (CAGR) of 0.3 percent (Table 3.7, above). This growth rate was substantially lower than the resident employment growth experienced across the State during this period (1.3 percent CAGR). The resident workforce in Siskiyou County grew the most in the following industries:

- transportation, warehousing, and utilities (205 workers added);
- arts, tourism, recreation, and food services (141 workers added); and
- agriculture and mining (87 workers added).

The COVID-19 pandemic of 2020 had a pronounced impact on the economy, and as a result, employment in some industries in 2022 still had not recovered to pre-pandemic levels. Industries with the greatest employment losses between 2014 and 2022 were:

- finance, insurance, and real estate (net reduction of 138 workers);
- retail trade (net reduction of 97 jobs workers); and
- wholesale trade (net reduction of 53 workers).

Projected Job Growth

The California Employment Development Department (EDD) provides job growth projections for regions throughout the State. In the 10-County Region, the largest projected growth rates between 2020 and 2030 are in the following major industry sectors:

- leisure and hospitality (25.1 percent);
- other personal services (14.4 percent); and
- educational services (private), health care, and social assistance sectors (13.6 percent).

In terms of absolute job growth regionwide, EDD projects that leisure and hospitality will add 2,460 jobs, other personal services will add 460 jobs, and education (private), health care, and social services will add 1,960 jobs.

3.5 Housing

This section includes a summary of existing housing conditions in Siskiyou County, as reported in the 2022-2030 Housing Element Update. For a detailed analysis of the economy and housing market, please see *Chapter 4: Economic and Market Analysis*.

- **Housing Units.** According to the California Department of Finance, there were 13,189 total housing units in the unincorporated county.
- **Housing Units by Type.** From 2010 to 2022, the total number of housing units in the unincorporated county decreased by 4.2 percent. Single-family units, mobile homes, and multifamily developments with 5 or more units unit types decreased. Notably, there was a 56.8 percent increase in structures with 2-4 units.
- **Tenure.** About three-quarters of occupied units in unincorporated Siskiyou County are owner-occupied. For the State of California as a whole, the proportion of units that are owner-occupied is a much lower share, at 55 percent.
- **Tenure by Age of Householder.** A majority of householders under 35 years old live in renter-occupied units (62.2 percent). A majority of householders above the age of 55 years old are homeowners.
- **Overcrowding.** Overcrowding is an important measure to help determine if there is adequate housing stock for the population. Approximately 2.7 percent of units in the county are overcrowded (more than 1.0 person per room). Overcrowded units are almost evenly divided between owner-occupied and renter-occupied units. Additionally, approximately one percent of units are severely overcrowded housing units (more than 1.5 persons per room).
- **Vacancy Status.** American Community Survey data shows that, of the more than 3,000 vacant units in the county, approximately 70 percent are rental units (including "For rent", "Rented, not occupied", "For seasonal, recreational, or occasional use", and "For migrant workers" categories) and 30 percent are vacant for-sale units (including "For sale only", "Sold, not occupied", and "Other vacant" categories).
- **Housing Conditions.** Just over half of the total units in the unincorporated county were built prior to 1980. Many of these units may have rehabilitation needs and some may have lead-based paint and/or asbestos if they have not been rehabilitated since 1978. Another 46 percent of units were built between 1980 and 2010. Since 2010, residential construction has slowed considerably with just 2.8 percent of all units built in the most recent period.
- **Cost of Rental Housing.** Between 2017 and 2021, average asking rent in the region increased by 16 percent. The 2022 HUD Fair Market Rent for two-bedrooms in Siskiyou County was $922.
- **Home Sales.** The number of homes sold in unincorporated Siskiyou County gradually increased from 2014 through 2021. Sierra North Valley Realtors data indicates that 2,071 homes were sold from 2014 through 2021.

3.6 Key Terms

Cost Burdened Household. A household paying more than 30 percent of gross household income on housing costs.

Employment. The number of persons who hold a job in a given time period. These jobs include both full-time and part-time work. Employment often refers to the labor force that resides in a city or county. The term "job", then, refers to jobs that are located in the city or county.

Household. All persons that occupy a housing unit as their usual place of residence.

Jobs. Work positions available in a particular location in each industry sector, within a specific time period. These positions include both full-time and part-time work.

Median Income. The average income as the midpoint at which 50 percent of households earn more than the median income, and the same proportion earn less. This differs from the mean income, which is a simple average of aggregate income divided by the number of households.

Overpayment. Housing expenses in excess of 30 percent of household income; also known as housing cost burden.

Population. The count of all persons living within a specified geographic area. Household population will only include those persons residing in housing units, and excludes the population count from group quarters and similar accommodations.

Poverty. A household is defined as living in poverty if their annual income falls below a specified threshold. As defined by the Census Bureau (for use in the American Community Survey figures cited in this section), the Federal poverty threshold varies depending on the number of persons living in a household, and the number of dependent children. This figure is adjusted annually. This slightly differs from the poverty guideline used by Health and Human Services in determining eligibility for certain government aid programs.

Race and Ethnicity. Data sources reporting data on racial and ethnic characteristics, such as the U.S. Census, identify these characteristics based on self-reporting. The guidelines used by the Census reporting the following racial categories at a minimum: White; Black or African American; American Indian or Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander. Racial categories also include the option for respondents to self-identify as "Some Other Race."

Room Occupancy. The occupancy rate is one of the commonly used measures to track economic activity for hotels and motels. Within a specific geographic area or market segment, this rate looks at the total number of room-nights available and compares it to the actual number of nights in which the room was occupied.

Severely Cost Burdened Household. A household paying more than 50 percent of gross household income on housing costs.

Vacancy Rate. The amount of vacant building square footage as a percentage the overall building space inventory. The averages described in this section are also differentiated by building type.

3.7 Regulatory Setting

Federal

None.

State

California Government Code 65580. Section 65580 of the California Government Code requires local governments to adopt a Housing Element to plan for the existing and projected housing needs of all economic segments of the population. The adopted Housing Element must provide the following:

- an assessment of the community's housing needs and an inventory of resources and constraints to meet the identified needs of the entire community as calculated by the State Department of Housing and Community Development (HCD);
- a statement of the community's goals, quantified objectives, and policies necessary to meet those needs;
- a program of actions to implement the policies and achieve the goals and objectives of the program;
- to the extent adequate sites are not identified, a plan to rezone sites adequate to meet the need either within three years of the adoption of the Housing Element or such other period as may be specified under certain circumstances.
- An analysis of fair housing issues and contributing factors, and a slate of meaningful program actions that proactively work to overcome identified fair housing issues.

Local

Siskiyou County General Plan. The County's General Plan provides information for land use decisions within the county. The component of the General Plan that relate to population, employment, and housing is the Housing Element. Updated every eight years, the current Housing Element Update plans for housing needs in the county for the eight-year period from November 2022-November 2030. It is intended to provide the Siskiyou County with a comprehensive strategy to promote the production of safe, decent, and affordable housing for all residents.

3.8 References

California Employment Development Department, Local Area Unemployment Statistics (LAUS) program

California Department of Finance, Report P-4 Projected Households, Household Population, Group Quarters and Persons per Household for the Counties and State of California

ESRI Business Analyst Online Demographic Reports, ACS Key Population & Household Facts, ACS Population Summary, ACS Housing Summary

Siskiyou County Finance Department, Siskiyou County Budget FY 2017-18.

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Siskiyou County Finance Department, Siskiyou County Budget FY 2022-23.

Siskiyou County Finance Department, Siskiyou County Recommended Budget FY 2023-24.

U.S. Census Bureau, Longitudinal Employer-Household Dynamics (LEHD) program. Accessed at https://onthemap.ces.census.gov

U.S. Department of Labor and Statistics, United States Unemployment Rate.

4. Economic and Market Analysis

This chapter provides an overview of potential growth industries in Siskiyou County, as well as more specific market studies for retail, office, industrial, and hospitality land uses, an overview of housing market conditions, and ways in which the agricultural sector relates to development opportunities.



Photo Credit: Discover Siskiyou



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4.1 Introduction

This chapter provides an overview of potential growth industries in Siskiyou County, as well as more specific market studies for retail, office, industrial and hospitality land uses. The chapter also includes an overview of housing market conditions and ways in which the agricultural sector relates to development opportunities. The target industry analysis uses regional and local job projections to identify business development and attraction targets that show the greatest potential for Siskiyou County. The real estate market analysis translates future employment projections into potential demand for new office/industrial development in the county. The retail market analysis provides an overview of the recent taxable sales trends for specific retail store sectors, and identifies existing market gaps that could also potentially serve as business development and attraction targets. The tourism analysis includes background information about Siskiyou County's visitor-serving economy, with a focus on recent trends in hotel occupancy and potential opportunities for further expansion of visitor services. The housing analysis examines existing conditions, including the high levels of seasonal/second-home use in the county, and the challenges associated with expanding housing opportunities, in concert with other growth prospects.

This chapter is organized under the following headings:

4.1 Introduction ECON-3
4.2 Housing Market ECON-5
4.3 Industry Growth Trends ECON-12
4.4 Projected Growth Industries ECON-14
4.5 Commercial/Industrial/Hospitality Land Use Demand Forecasts ECON-16
4.6 Key Terms ECON-30
4.7 Regulatory Setting ECON-32
4.8 References ECON-34

For all land uses, the analysis takes a "top-down" approach that begins with countywide demand forecasts for each use category and then estimates the portion of countywide demand that could potentially be captured within the unincorporated area that is the focus of the General Plan. In support of the General Plan Update process, this section estimates potential long-range demand for the following land use categories:

- Retail/restaurant space
- Office/industrial space
- Hotel facilities

Given that this analysis is part of a long-term planning process, the study methodology is somewhat different from the approach when analyzing the near-term feasibility of a specific development project. Whereas the success of an individual development project is largely dependent on market conditions as they exist at the time the project is developed, a strategic planning process is explicitly about changing existing conditions such that future market performance will surpass "baseline" trends. Thus, within the context of a planning process, it is appropriate to consider relatively aggressive (but still reasonable) assumptions. In this regard, the numbers provided in this report should be interpreted as "aspirational potentials" (i.e.,

what could happen based on proactive implementation of countywide economic development programming) rather than definitive "forecasts" (i.e., what is expected to happen based primarily on market considerations).

Table 4.1 summarizes demand projections for the 20-year forecast horizon. A more detailed description of the methodologies used to derive these projections is provided later in the chapter.

Table 4.1 Projected Countywide Demand for New Commercial, Industrial and Hotel Development

	Retail	Office	Industrial	Hotel
Existing (2023) development countywide	1.6 million (square feet)	400,000 (square feet)	1.3 million (square feet)	1,500 (rooms)
Projected incremental demand through 2043	290,000 (square feet)	130,000 (square feet)	550,000 (square feet)	242-519 (rooms)
Percent assumed to be captured in unincorporated areas of county	15%	15%	30%	10%
Total potential demand for new development in unincorporated area	43,500 (square feet)	19,500 (square feet)	165,000 (square feet)	24-52 (rooms)
Comments on factors influencing projections	Indicated future demand is premised on re-capture of a portion of existing demand leakage; demand growth related to future population/tourism growth (if any) is not included in projections.	At countywide level, office demand will depend on positioning Siskiyou County as a viable location for shared office facilities tied to "hybrid" (semi-remote) workers, entrepreneurial startups, etc.	Demand projections are based on long-term forecasts of employment growth in sectors that typically utilize industrial space.	Having both Baseline and Robust Scenarios recognizes that tourism activity in general as well as throughout CA can be highly variable, but has had a long-term trajectory of growth, is projected to increase, and also tends to be unconstrained by other local economic conditions.

Source: TNDG; existing development estimated based on Costar and STR data.

4.2 Housing Market

This section provides supplemental information about how housing development relates to the development of other land uses, each of which have a direct economic influence on Siskiyou County and are addressed in the framework of a market analysis. Issues affecting the context through which the housing market can influence other development in Siskiyou County include, but are not necessarily limited to, the following:

- Population projections from the California Department of Finance show that population in Siskiyou County is expected to decline through the projection period of 2030, and the 10-County Region will have only a minimal increase; however, *employment* projections by the California Employment Development Department indicate that jobs in the 10-County Region are expected to increase substantially, including in Siskiyou County. If availability of jobs does increase in the county (which could also be a direct result of efforts by the County to expand the economy), this would presumably contribute to a demand for additional housing.
- Siskiyou County has limited housing production capacity, based at least in part on its history of low home-production levels, so the question of how additional housing could be produced economically has a direct bearing on how efficiently potential new workers could be housed in the county.
- Compared to California in general, Siskiyou County has a high percentage of homes that are used part-time, for seasonal or recreational use, which additionally constrains the supply of housing for working families.

Rates of homeownership are considerably higher in Siskiyou County than the state, as shown in Table 3.8 in the preceding chapter. Homeownership rates vary considerably among the CDPs but are generally also high. Normally, high rates of homeownership are an indication of economic strength in an area; but in the case of Siskiyou County, it may also have something to do with limitations in housing supply and the nature of the existing housing stock.

The value of owner-occupied homes in Siskiyou County, by value interval, is shown on Table 4.2. The data show that about 60 percent of homes in the county have values less than $300,000, for the unincorporated area as well as the county overall. Over 85 percent of the homes have values below $500,000 (over 90 percent for the combined CDPs). The numbers for the county contrast sharply with those of California as a whole, in which only 14 percent of homes have values below $300,000 and 34 percent have values below $500,000.

Table 4.2 Home Value Intervals for Owner-Occupied Housing

Place	Less than $50,000	$50,000 - $99,999	$100,000 - $149,999	$150,000 - $199,999	$200,000 - $299,999	$300,000 - $499,999	$500,000 - $999,999	$1,000,000 or more
Dorris city	11.8%	14.2%	43.9%	12.7%	4.7%	11.8%	0.9%	0.0%
Dunsmuir city	2.0%	0.8%	15.3%	9.2%	47.3%	18.1%	7.4%	0.0%
Etna city	0.0%	8.7%	6.4%	20.2%	40.5%	24.3%	0.0%	0.0%
Fort Jones city	0.0%	9.9%	3.3%	32.2%	37.5%	12.5%	0.0%	4.6%
Montague city	5.3%	14.0%	16.8%	34.4%	27.4%	1.4%	0.8%	0.0%
Mount Shasta city	0.0%	0.0%	4.9%	22.1%	31.2%	30.2%	10.2%	1.4%
Tulelake city	3.3%	32.5%	34.4%	15.9%	13.9%	0.0%	0.0%	0.0%
Weed city	7.6%	4.8%	18.1%	20.2%	40.3%	9.0%	0.0%	0.0%
Yreka city	10.8%	3.5%	11.5%	20.4%	30.2%	20.1%	2.5%	1.0%
Incorporated Cities Total	**6.5%**	**5.3%**	**13.5%**	**20.7%**	**31.7%**	**17.9%**	**3.5%**	**0.8%**
Carrick CDP	0.0%	83.6%	0.0%	0.0%	16.4%	0.0%	0.0%	0.0%
Edgewood CDP	0.0%	0.0%	25.0%	0.0%	75.0%	0.0%	0.0%	0.0%
Gazelle CDP	3.0%	0.0%	24.2%	18.2%	30.3%	6.1%	0.0%	18.2%
Greenview CDP	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grenada CDP	0.0%	12.9%	11.4%	28.6%	12.9%	34.3%	0.0%	0.0%
Happy Camp CDP	2.2%	31.5%	6.2%	23.6%	27.5%	7.3%	1.7%	0.0%
Hornbrook CDP	28.6%	36.4%	2.6%	1.3%	10.4%	6.5%	0.0%	14.3%
Lake Shastina CDP	1.6%	0.5%	1.8%	6.4%	42.3%	43.3%	4.1%	0.0%
Macdoel CDP	0.0%	82.4%	17.6%	0.0%	0.0%	0.0%	0.0%	0.0%
McCloud CDP	10.4%	1.6%	3.6%	6.5%	30.2%	34.4%	10.7%	2.6%
Mount Hebron CDP	0.0%	0.0%	66.7%	0.0%	0.0%	0.0%	33.3%	0.0%
Tennant CDP	0.0%	90.9%	0.0%	0.0%	0.0%	9.1%	0.0%	0.0%
CDP Total (Unincorp.)	**4.2%**	**10.8%**	**4.0%**	**8.5%**	**34.1%**	**32.6%**	**4.5%**	**1.4%**
Other Unincorporated	6.8%	4.6%	9.9%	13.0%	25.6%	26.5%	12.0%	1.6%
Siskiyou County	**6.4%**	**5.5%**	**9.0%**	**12.4%**	**26.8%**	**27.3%**	**11.0%**	**1.5%**
California	**2.5%**	**1.7%**	**1.6%**	**1.9%**	**6.5%**	**20.1%**	**41.1%**	**24.6%**

Source: U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates.

Table 4.3 shows the housing rent levels paid by Siskiyou County renters. Most are paying less than $1000 monthly, while in California overall, less than 15 percent have this rental price. The CDPs tend to have lower rents than the cities or other unincorporated areas of the county. Similar to the distribution of home values, rent levels vary considerably among places throughout the county.

Table 4.3 Gross Rent by Interval

Place	Less than $500	$500 - $999	$1,000 - $1,499	$1,500 - $1,999	$2,000 - $2,499	$2,500 - $2,999	$3,000 or more	No rent paid
Dorris city	0.0%	92.0%	8.0%	0.0%	0.0%	0.0%	0.0%	21
Dunsmuir city	0.6%	52.9%	44.0%	2.4%	0.0%	0.0%	0.0%	14
Etna city	3.7%	45.8%	50.5%	0.0%	0.0%	0.0%	0.0%	0
Fort Jones city	0.0%	37.2%	62.8%	0.0%	0.0%	0.0%	0.0%	0
Montague city	7.0%	51.3%	41.8%	0.0%	0.0%	0.0%	0.0%	10
Mount Shasta city	9.4%	17.2%	41.4%	19.1%	4.0%	9.0%	0.0%	7
Tulelake city	10.8%	55.4%	33.8%	0.0%	0.0%	0.0%	0.0%	15
Weed city	25.2%	50.8%	21.4%	2.0%	0.0%	0.0%	0.6%	17
Yreka city	10.3%	50.5%	36.5%	2.7%	0.0%	0.0%	0.0%	22
Incorporated Cities Total	**10.9%**	**42.8%**	**36.5%**	**6.3%**	**1.0%**	**2.3%**	**0.1%**	**106**
Carrick CDP	-	-	-	-	-	-	-	0
Edgewood CDP	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0
Gazelle CDP	0.0%	62.5%	12.5%	25.0%	0.0%	0.0%	0.0%	0
Greenview CDP	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	21
Grenada CDP	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
Happy Camp CDP	23.8%	61.9%	14.3%	0.0%	0.0%	0.0%	0.0%	36
Hornbrook CDP	0.0%	49.2%	50.8%	0.0%	0.0%	0.0%	0.0%	3
Lake Shastina CDP	0.0%	25.1%	24.6%	32.0%	18.3%	0.0%	0.0%	0
Macdoel CDP	0.0%	32.3%	0.0%	67.7%	0.0%	0.0%	0.0%	3
McCloud CDP	19.7%	20.5%	38.5%	21.3%	0.0%	0.0%	0.0%	0
Mount Hebron CDP	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
Tennant CDP	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
CDP Total (Unincorp.)	**8.5%**	**46.7%**	**22.4%**	**16.8%**	**5.6%**	**0.0%**	**0.0%**	**63**
Other Unincorporated	11.1%	40.4%	36.2%	8.3%	1.0%	1.7%	1.3%	373
Siskiyou County	**10.8%**	**41.1%**	**34.6%**	**9.2%**	**1.6%**	**1.5%**	**1.1%**	**436**
California	**3.9%**	**9.2%**	**20.3%**	**23.2%**	**18.4%**	**10.5%**	**14.4%**	**189,217**

Source: U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates.

Table 4.4 and Table 4.5 show housing costs for owners and renters, respectively, as a percentage of household income, by percentage interval. The tables give a sense of how "burdened" owners and renters are in Siskiyou County using the typical standard that a housing cost burden applies when households are spending more than 35 percent of their income for housing. (For homeowners, costs of housing include components such as utilities, property taxes, and insurance, as well as mortgage payments.) For owners with a mortgage, 29 percent of occupants within CDPs, other unincorporated areas, and the county as a whole are paying 35 percent or more in housing costs – a figure nearly identical to California as a whole.

While the prospect of an expanded housing supply in Siskiyou County is appealing from a number of standpoints, the potential for newly developed housing to be priced similarly to much of the existing housing stock is comparatively remote. The inevitably higher-priced new housing may best fit households that accompany relatively well-paying jobs, either new to the area or created from within.

Table 4.4 Monthly Owner Costs as a Percentage of Household Income

Percentage of Household Income Spent on Housing	CDP Total (Unincorp.)		Other Unincorporated		Siskiyou County		California	
	Units	Percent	Units	Percent	Units	Percent	Units	Percent
HOUSING UNITS WITH A MORTGAGE								
Less than 20.0%	348	41.2%	1,867	37.1%	2,215	37.7%	1,792,040	35.6%
20.0 – 24.9%	154	18.2%	889	17.6%	1,043	17.7%	766,062	15.2%
25.0 – 29.9%	53	6.3%	499	9.9%	552	9.4%	586,564	11.6%
30.0 – 34.9%	47	5.6%	343	6.8%	390	6.6%	424,588	8.4%
35.0% or more	242	28.7%	1,439	28.6%	1,681	28.6%	1,470,300	29.2%
Not computed	4	-	22	-	26	-	27,619	-
HOUSING UNIT WITHOUT A MORTGAGE								
Less than 10.0%	326	34.6%	2,257	39.1%	2,583	38.5%	1,069,673	46.4%
10.0 – 14.9%	210	22.3%	1,120	19.4%	1,330	19.8%	403,774	17.5%
15.0 – 19.9%	139	14.8%	818	14.2%	957	14.2%	225,979	9.8%
20.0 – 24.9%	66	7.0%	282	4.9%	348	5.2%	141,234	6.1%
25.0 – 29.9%	60	6.4%	363	6.3%	423	6.3%	96,900	4.2%
30.0 – 34.9%	56	6.0%	205	3.5%	261	3.9%	68,112	3.0%
35.0% or more	84	8.9%	730	12.6%	814	12.1%	299,366	13.0%
Not computed	11	-	110	-	121	-	35,150	-

Source: U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates.

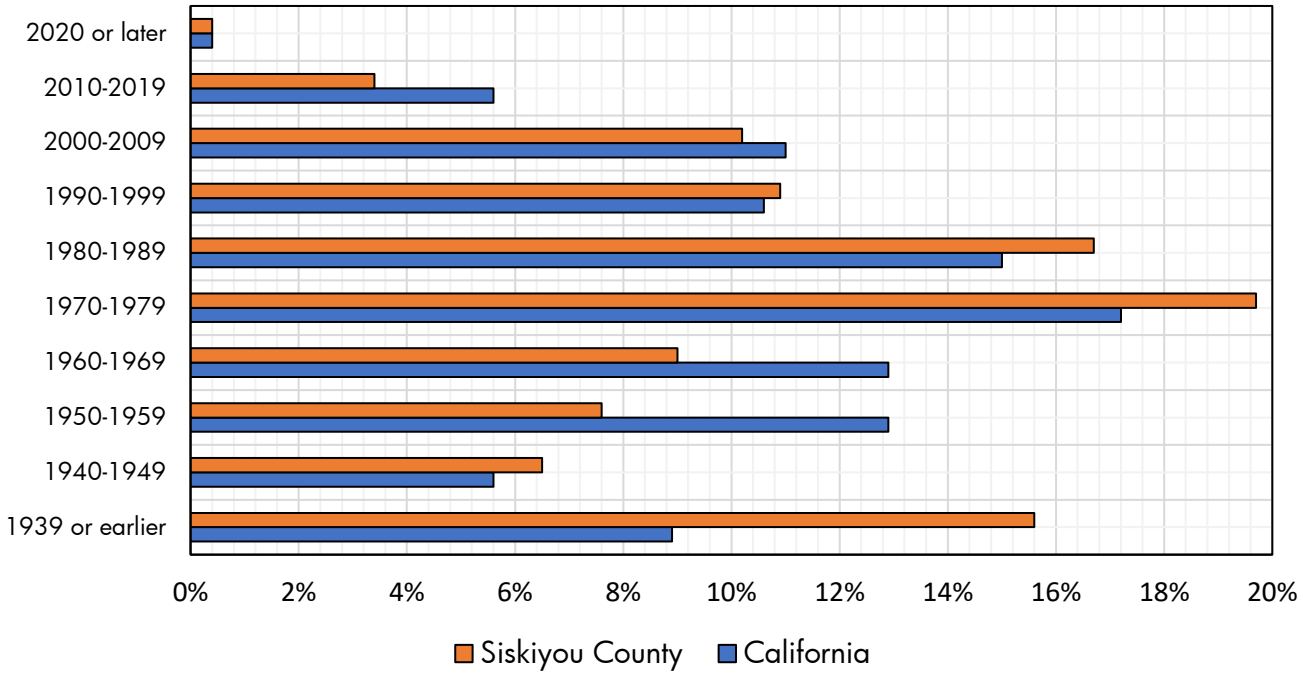
Table 4.5 Gross Rent as a Percentage of Household Income

Percentage of Household Income Spent on Housing	CDP Total (Unincorp.)		Other Unincorporated		Siskiyou County		California	
	Units	Percent	Units	Percent	Units	Percent	Units	Percent
Less than 15.0%	75	12.2%	869	18.0%	944	17.4%	602,975	10.7%
15.0 – 19.9%	87	14.1%	308	6.4%	395	7.3%	633,078	11.3%
20.0 – 24.9%	83	13.5%	556	11.5%	639	11.8%	686,744	12.2%
25.0 – 29.9%	84	13.7%	403	8.4%	487	9.0%	636,664	11.3%
30.0 – 34.9%	129	21.0%	343	7.1%	472	8.7%	524,424	9.3%
35.0% or more	157	25.5%	2,338	48.5%	2,495	45.9%	2,525,965	45.0%
Not computed	86	-	506	-	592	-	298,611	-

Source: U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates.

Compared to California as a whole, Siskiyou County has a much higher percentage of housing built before 1940, and a lower percentage built after 2000 (Figure 4.1). This is a reflection, at least in part, of limited housing production capacity in the county. The need to replace these older homes will add to the challenge of providing adequate numbers of housing units for Siskiyou county residents, especially if jobs in the county continue to increase, as projected and as may result from efforts to further develop the county.

Figure 4.1 Percent of Housing by Year Built, Siskiyou County and California



Source: U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates.

Table 4-6 shows the high levels at which housing throughout Siskiyou County is dedicated to seasonal, recreational, or occasional use (terminology as taken from Census housing data). Seasonal housing represents almost 11 percent of total housing units in the county, compared to 2.5 percent for California overall. For the unincorporated county areas, the percentages are higher: 12.6 percent (within CDPs) to 15.5 percent. For the city of Dunsmuir and the CDP of McCloud, seasonal housing approaches 25 percent of total units.

In studies of housing conditions in other California cities, high housing vacancies, a substantial component of which is due to homes held by their owners for "seasonal, recreational, or occasional use," has emerged as an issue. Problems associated with high numbers of units in this category include an additional constraint on housing supply and negative fiscal impacts of "missing" populations while homes are unoccupied.

This category is also related to the sometimes-contentious issue of short-term rentals made available by individual property owners. Visitor data from Visit California do not distinguish hotel/motel activity from that of short-term vacation rentals (STVR), although one would conclude that many seasonal units are devoted to STVR use. The Visit California data do confirm that visitor occupancy of others' private homes and second homes represents a substantial level of visitor activity in the county.

Table 4.6 Housing by Vacancy Status

	Total Housing (Occupied & Vacant)	Occupied Housing	All Other Vacant Uses, besides Seasonal, etc.	For Seasonal, Recreational, or Occasional Use		
				# of units	As % of vacant	As % of total housing
Dorris city	357	321	20	16	44.4%	4.5%
Dunsmuir city	1,094	734	89	271	75.3%	24.8%
Etna city	313	280	6	9	27.3%	2.9%
Fort Jones city	309	273	20	5	13.9%	1.6%
Montague city	588	526	47	0	0.0%	0.0%
Mount Shasta city	2,190	1,811	83	31	24.6%	1.4%
Tulelake city	366	240	57	0	0.0%	0.0%
Weed city	1,377	1,252	159	22	8.5%	1.6%
Yreka city	3,490	3,230	161	218	57.5%	6.2%
Incorporated cities total	**10,084**	**8,667**	**642**	**572**	**47.1%**	**5.7%**
Carrick CDP	61	61	-	-	-	-
Edgewood CDP	16	16	-	-	-	-
Gazelle CDP	59	49	1	9	90.0%	15.3%
Greenview CDP	45	45	-	-	-	-
Grenada CDP	167	121	17	0	0.0%	0.0%
Happy Camp CDP	493	340	90	42	27.5%	8.5%
Hornbrook CDP	147	145	0	2	100.0%	1.4%
Lake Shastina CDP	1,387	1,179	48	140	67.3%	10.1%
Macdoel CDP	67	51	16	0	0.0%	0.0%
McCloud CDP	640	430	47	152	72.4%	23.8%
Mount Hebron CDP	28	21	7	0	0.0%	0.0%
Tennant CDP	102	43	0	59	100.0%	57.8%
CDP Total (Unincorp.)	**3,212**	**2,501**	**226**	**404**	**56.8%**	**12.6%**
Other Unincorporated	9,717	7,600	498	1,507	75.2%	15.5%
Siskiyou County	**23,013**	**18,768**	**1,366**	**2,483**	**58.5%**	**10.8%**
California	**14,424,442**	**13,315,822**	**423,632**	**364,195**	**32.9%**	**2.5%**

Source: U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates.

Housing Affordability

Housing in Siskiyou County is less expensive than in most other California counties and in relation to average housing costs across the state. This difference is partly a function of the size, age, quality, and other characteristics of the homes themselves, and partly a function of land value differentials. Housing cost differences can also reflect differences in the overall cost of living among places (while acknowledging that housing costs are themselves a major component of those living costs). To add perspective to the question of living cost differences, this section analyzes family budget estimates by county (across the US) prepared by the Economic Policy Institute (EPI)[1]. EPI's Family Budget Calculator "measures the income a family needs [in any particular county] in order to attain a modest yet adequate standard of living."

[1] *Economic Policy Institute. https://www.epi.org/resources/budget/*

Figures comparing the average budget values for seven budget categories, including housing, for the average of all California counties and Siskiyou County, are shown in Table 4.7. Even with housing costs in Siskiyou County at 60 percent of the average for all California counties, household total budgets in the county would still have to be 84 percent of the all-counties average to afford average budget expenditures countywide. This result tells us that home prices in Siskiyou County are "unnaturally" low, in the context of all of the budget items shown - within which some budget items are less expensive in the county and some are similar or greater, with respect to the California counties average.

Table 4.7 Average Budget Values by Budget Category

	Housing	Food	Transportation	Healthcare	Other Necessities	Childcare	Taxes	Total
All California counties budget averages	$18,396	$10,798	$16,141	$17,065	$10,578	$13,934	$11,904	$98,815
As % of budget	18.6%	10.9%	16.3%	17.3%	10.7%	14.1%	12.0%	100.0%
Budget #s for Siskiyou County	$10,968	$10,434	$16,386	$19,047	$7,755	$11,116	$7,633	$83,339
As % of budget	13.2%	12.5%	19.7%	22.9%	9.3%	13.3%	9.2%	100.0%
As % of California average.	59.6%							84.3%

Source: Economic Policy Institute, https://www.epi.org/resources/budget/

Population Trends and Projections and Influence on Housing

According to the tables and figures in Section 4.3:

- **From 2010 to 2020.** In the county as well as the region, total population declined (although the in-household population increased slightly in the region) while the number of households increased. Household size decreased in both areas, at a higher rate in the county.
- **Between 2020 and (projected) 2030.** Household size in the region and county, as well as California, decreased slightly in recent years. In the county, both households and population show declines are expected through 2030. In the region, population growth projections are minimal (less than 1%) while the household growth rate is higher. Additionally, six of the 10 counties, including Siskiyou, show declines in population and households.

Issue of Un-insurability

As insurance companies become more sensitized to various hazards, including flooding and, in Siskiyou County especially, wildfires and high risk fuel hazards, insurability of homes will affect the potential to develop new housing, throughout California. An interactive map posted on an NBC News website[2] states that 10,826 Siskiyou County properties out of 53,543 are at risk of being uninsurable, (note that this number refers to properties, not homes, which total a little over 23,000 in the County), or 20.2 percent of properties. Other counties in the 10-County

[2] *NBC News website: Posted Sept. 20, 2023, 11:15 AM MST By Jasmine Cui. Accessed January 15, 2024. "Map: The unexpected places where extreme weather threatens homeowners' pocketbooks." https://www.nbcnews.com/data-graphics/map-new-data-climate-change-homeowners-insurance-rcna105632*

The interactive map cites its source as: NBC News analysis of First Street Foundation data.

Region also have high levels of un-insurability, according to this data source. For example, in Tehama County, 62.5 percent of properties are deemed uninsurable, and in Trinity County, 15.4% percent.

4.3 Industry Growth Trends

The number of jobs in Siskiyou County is estimated for 2022 at 13,913. This total represents an increase of 1,333 jobs over the 10-year period between 2012 and 2022. The 2012 and 2022 job totals by major industry group are shown on Table 4.8.

Table 4.8 Trends by Major Industry, Siskiyou County (2012-2022)

NAICS Code[1]	Description	2012 Jobs	2022 Jobs	Change
11	Agriculture, Forestry, Fishing and Hunting	877	1,146	269
21	Mining, Quarrying, and Oil and Gas Extraction	16	17	1
22	Utilities	87	53	(34)
23	Construction	317	565	248
31	Manufacturing	642	852	210
42	Wholesale Trade	241	195	(46)
44	Retail Trade	1,526	1,668	142
48	Transportation and Warehousing	148	195	47
51	Information	154	117	(37)
52	Finance and Insurance	235	175	(59)
53	Real Estate and Rental and Leasing	112	115	2
54	Professional, Scientific, and Technical Services	256	276	20
55	Management of Companies and Enterprises	60	14	(46)
56	Administrative and Support and Waste Management and Remediation Services	431	278	(153)
61	Educational Services	93	65	(27)
62	Health Care and Social Assistance	1,563	2,112	549
71	Arts, Entertainment, and Recreation	187	198	11
72	Accommodation and Food Services	1,334	1,489	156
81	Other Services (except Public Administration)	497	407	(91)
90	Government	3,804	3,975	170
Total		**12,580**	**13,913**	**1,333**

Note: North American Industrial Classification System (NAICS) is the official means of distinguishing different industry types.

Source: The Natelson Dale Group, Inc. (TNDG); ACS 2022 5-year estimates.

Table 4.9 summarizes 2032 employment projections from EMSI Corporation. EMSI analyzes some 90 different databases, including employment trend data from the California Department of Employment Development, to prepare projections by zip code and by county. As shown, industries related to retail trades, health care and social assistance, and government are expected to add the most jobs by 2030. Additionally, the construction, manufacturing, and accommodation/food services are each expected to add at least 100 jobs by 2030.

Table 4.9 Employment Projections by Major Industry Group (2022-2032)

Description	2022 Jobs	2032 Jobs	Change	Percent Change
INDUSTRIAL				
Utilities	53	79	26	49.2%
Construction	565	731	166	29.4%
Manufacturing	852	974	121	14.2%
Wholesale Trade	195	293	98	49.9%
Transportation and Warehousing	195	220	25	12.8%
COMMERCIAL				
Retail Trade	1,668	1,949	281	16.8%
Finance and Insurance	175	189	14	8.0%
Real Estate and Rental and Leasing	115	126	11	10.0%
Other Services (except Public Administration)	407	500	94	23.1%
Information	117	165	48	40.7%
Professional, Scientific, and Technical Services	276	325	49	17.7%
Management of Companies and Enterprises	14	<10	N/A	N/A
Administrative and Support and Waste Mgmt.	278	200	(79)	-28.3%
Institutional				
EDUCATIONAL SERVICES (PRIVATE)	65	74	8	12.8%
Health Care and Social Assistance	2,112	2,751	639	30.2%
Government (incl. public health and education)	3,975	4,226	251	6.3%
Visitor Serving				
Arts, Entertainment, and Recreation	198	236	38	18.9%
Accommodation and Food Services	1,489	1,636	146	9.8%
OTHER				
Agriculture, Forestry, Fishing and Hunting	1,146	1,365	219	19.1%
Mining, Quarrying, and Oil and Gas Extraction	17	29	12	73.4%
Total	**13,913**	**16,066**	**2,153**	**15.5%**

Source: QCEW Employees – EMSI (4th quarter 2023).

4.4 Projected Growth Industries

Table 4.10 identifies selected industries in Siskiyou County that are projected by EMSI to grow over the next ten years. The types of industries are generally limited to those that would occupy industrial or office space. Forecasts related to commercial and retail uses are presented in Section 4.7 below.

According to the data presented in the tables below, specialty trade contractors, beverage and tobacco manufacturing (only the beverage segment of this category is relevant to Siskiyou County), and merchant wholesalers are expected to see the largest growth of all industrial-space oriented sectors. Among office-space oriented sectors, hospitals and social assistance are forecasted to see the largest increases in employment.

Table 4.10 Employment Projections for Selected Growth Industries (Industrial-Space Oriented Sectors) Siskiyou County (2022-2032)

NAICS Code	Description	2022 Jobs	2032 Jobs	Change	2022 Earnings	2022 State Earnings
CONSTRUCTION						
236	Construction of Buildings	139	150	12	$55,172	$103,199
237	Heavy and Civil Engineering Construction	111	164	53	$103,054	$132,205
238	Specialty Trade Contractors	315	417	101	$68,506	$90,309
MANUFACTURING						
311	Food Manufacturing	14	24	11	$27,586	$71,627
312	Beverage and Tobacco Product Manufacturing (only the Beverage category is relevant to Siskiyou County)	156	283	127	$63,709	$84,960
323	Printing and Related Support Activities	91	183	92	$71,058	$70,554
327	Nonmetallic Mineral Product Manufacturing	35	45	11	$69,046	$92,118
339	Miscellaneous Manufacturing	33	66	32	$78,036	$126,965
WHOLESALE TRADE						
423	Merchant Wholesalers, Durable Goods	44	67	23	$58,341	$119,713
424	Merchant Wholesalers, Nondurable Goods	150	225	75	$57,958	$98,883
TRANSPORTATION AND WAREHOUSING						
485	Transit and Ground Passenger Transportation	36	50	14	$45,556	$118,189
493	Warehousing and Storage	22	36	15	$56,642	$64,295

Source: EMSI.

Table 4.11 Employment Projections for Selected Growth Industries (Office-Space Oriented Sectors) Siskiyou County (2022-2032)

NAICS Code	Description	2022 Jobs	2032 Jobs	Change	2022 Earnings	2022 State Earnings
INFORMATION						
517	Telecommunications	87	126	39	$116,137	$159,766
519	Web Search Portals, Libraries, Archives, and Other Information Services	12	22	9	$27,667	$425,198
FINANCE, INSURANCE AND REAL ESTATE						
522	Credit Intermediation and Related Activities	113	127	15	$57,030	$155,519
531	Real Estate	105	118	13	$40,572	$101,288
PROFESSIONAL, TECHNICAL AND BUSINESS SERVICES						
541	Professional, Scientific, and Technical Services	276	325	49	$57,872	$166,517
562	Waste Management and Remediation Services	74	91	17	$54,556	$92,509
HEALTH CARE						
621	Ambulatory Health Care Services	428	521	93	$78,654	$100,063
622	Hospitals	941	1,224	283	$91,327	$120,219
624	Social Assistance	740	1,005	265	$23,011	$33,048

Source: EMSI.

4.5 Commercial/Industrial/Hospitality Land Use Demand Forecasts

Retail

Table 4-12 shows the taxable retail sales for Siskiyou County, the 10-County Region, and the State of California ("State") in 2022. Gas stations make up the largest share of taxable sales in both the county and region. Statewide, the Other Retail Group category accounts for the largest percentage of retail taxable sales.

Table 4.12 Taxable Retail Sales ($000s), Siskiyou County, 10-County Region, and California. 2022.

Category	Siskiyou County	10-County Region	CA
Building Material and Garden Equipment and Supplies Dealers	54,136	558,736	51,775,096
Clothing and Clothing Accessories Stores	6,296	93,860	49,393,086
Food and Beverage Stores	50,881	326,542	34,725,455
Food Services and Drinking Places	56,327	447,635	102,862,887
Gasoline Stations	204,817	1,024,383	71,264,403
General Merchandise Stores	44,181	249,699	69,575,648
Home Furnishings and Appliance Stores	11,076	113,958	34,837,830
Motor Vehicle and Parts Dealers	46,797	561,833	108,863,945
Other Retail Group	111,339	816,004	119,691,838
Total Retail and Food Services	**585,850**	**4,192,650**	**642,990,188**

Source: California Department of Tax and Fee Administration (CDTFA), Taxable Sales in California.

Table 4.13 shows the taxable sales per $1,000 in aggregate household income for all three geographies. As shown, in both the county and 10-County Region, gas stations and other retail bring in the most taxable sales per $1,000 in household income. Statewide, the motor vehicle and parts dealers as well as other retail account for the largest percentage of taxable sales.

Table 4.13 Taxable Sales per $1000 in Household Income, Siskiyou County, 10-County Region, and California. 2022.

Category	Taxable Sales per $1000 in HH Income		
	Siskiyou County	North Valley-Northern Mountain Region	CA
Building Material and Garden Equipment and Supplies Dealers	$37.77	$47.74	$29.75
Clothing and Clothing Accessories Stores	$4.39	$8.02	$28.38
Food and Beverage Stores	$35.50	$27.90	$19.95
Food Services and Drinking Places	$39.30	$38.25	$59.10
Gasoline Stations	$142.90	$87.53	$40.94
General Merchandise Stores	$30.82	$21.34	$39.97
Home Furnishings and Appliance Stores	$7.73	$9.74	$20.01
Motor Vehicle and Parts Dealers	$32.65	$48.01	$62.54
Other Retail Group	$77.68	$69.73	$68.76
Total Retail and Food Services	**$408.73**	**$358.25**	**$369.40**

Source: TNDG, 2024.

Table 4.14 shows the potential capture of demand by category for the county and the 10-County Region, based on the State benchmark shown in Table 4.13. The data indicates that demand is not being captured in the county or region in the categories of clothing, food services, general merchandise, home furnishings, and motor vehicle and parts dealers. This indicates some growth potential under these categories to capture current demand.

Table 4.14 Potential Capture of Demand by Category, Siskiyou County, 10-County Region.

Category	Potential Capture of Demand by Category (based on CA benchmark)	
	Siskiyou County	10-County Region
Building Material and Garden Equipment and Supplies Dealers	100.0%	100.0%
Clothing and Clothing Accessories Stores	15.5%	28.3%
Food and Beverage Stores	100.0%	100.0%
Food Services and Drinking Places	66.5%	64.7%
Gasoline Stations	100.0%	100.0%
General Merchandise Stores	77.1%	53.4%
Home Furnishings and Appliance Stores	38.6%	48.7%
Motor Vehicle and Parts Dealers	52.2%	76.8%
Other Retail Group	100.0%	100.0%
Total Retail and Food Services	**100.0%**	**97.0%**

Source: TNDG, 2024.

Table 4.15 shows the supportable new retail sales by category for the county and the 10-County Region, based on the percentage factors shown in Table 4.14. As shown, the county can potentially capture approximately $136 million in retail sales currently spent outside the county. This equates to more than half the new retail sales potential for the 10-County Region (approximately $235 million).

Table 4.15 Supportable New Retail Sales by Category, Siskiyou County and 10-County Region

Category	Supportable New Retail by Category (based on CA benchmark)	
	Siskiyou County	10-County Region
Building Material and Garden Equipment and Supplies Dealers	$0	$0
Clothing and Clothing Accessories Stores	$34,377,925	$52,294,963
Food and Beverage Stores	$0	$0
Food Services and Drinking Places	$28,376,724	$40,215,297
Gasoline Stations	$0	$0
General Merchandise Stores	$13,112,474	$57,890,433
Home Furnishings and Appliance Stores	$17,611,928	$18,410,353
Motor Vehicle and Parts Dealers	$42,848,988	$66,885,633
Other Retail Group	$0	$0
Total Retail and Food Services	**$136,328,039**	**$235,696,679**

Source: TNDG, 2024.

As shown on Table 4.16 below, projected sales volume per square foot of retail space are derived from typical sales per square foot data from representative stores in each retail category.

Table 4.16 Sales per Square Foot by Retail Category, Siskiyou County

Category	Taxable Sales / Sq. Ft.
Building Material and Garden Equipment and Supplies Dealers	$375
Clothing and Clothing Accessories Stores	$325
Food and Beverage Stores*	$175
Food Services and Drinking Places	$500
General Merchandise Stores	$300
Home Furnishings and Appliance Stores	$500
Auto Parts	$250
Other Retail Group	$450

**Taxable sales per square foot based on ratio of total sales to taxable sales in typical grocery store formats.*

Source: BizMiner; TNDG, 2024.

Table 4.17 applies the sales per square foot standards from Table 4.16 to the net demand numbers for each relevant retail category shown in Table 4.15. This calculation essentially converts potential sales volumes to supportable square feet of new retail space. Of all retail categories, clothing, other retail, and food services and drinking places have the forecasted potential to support the largest increases in retail square footage.

Table 4.17 Supportable Square Feet of New Retail Space by Category, Siskiyou County and 10-County Region.

Category	Supportable Square Feet	
	Siskiyou County	10-County Region
Building Material and Garden Equipment and Supplies Dealers	0	0
Clothing and Clothing Accessories Stores	105,778	160,908
Food and Beverage Stores	0	0
Food Services and Drinking Places	56,753	80,431
General Merchandise Stores	0	0
Home Furnishings and Appliance Stores	26,225	115,781
Auto Parts[1]	6,340	6,628
Other Retail Group	95,220	148,635
Total Retail and Food Services	**290,317**	**512,382**

[1]Assumes that automotive parts stores account for 9 percent of sales in the overall Auto group category (based on statewide average as reported by the CDTFA).

Source: TNDG; CDTFA.

Table 4.18 provides projections of the capture of supportable demand by category for the county and 10-County Region. This calculation accounts for the fact that the county would likely always experience some retail sales leakage in various retail categories. As shown, Siskiyou County has the potential to capture 100 percent of retail demand related to auto parts, 75 percent of demand in the food services and drinking places category, and 50 percent of demand related to clothing and accessories, home furnishing and appliances, and other retail. The lower capture rates for "comparison shopping" categories are in part based on Siskiyou's close proximity to the California/Oregon state line; given that Oregon has no retail sales tax, it is likely that Siskiyou will always experience a significant degree of resident demand "leakage" to major shopping facilities in Oregon.

Table 4.18 Projected Capture Rates of Supportable Demand by Category, Siskiyou County and 10-County Region.

Category	Capture Rate of Supportable Square Feet	
	Siskiyou County	10-County Region
Building Material and Garden Equipment and Supplies Dealers	N/A	N/A
Clothing and Clothing Accessories Stores	50.0%	50.0%
Food and Beverage Stores	N/A	N/A
Food Services and Drinking Places	75.0%	50.0%
General Merchandise Stores	N/A	N/A
Home Furnishings and Appliance Stores	50.0%	50.0%
Auto Parts	100.0%	50.0%
Other Retail Group	50.0%	50.0%

Source: TNDG.

Based on the capture rates shown above, Table 4.19 projects the potential resident market area demand in the two regions for each retail category. As shown, the net supportable retail space in the county includes 105,778 square feet for clothing and accessories, 95,220 square feet for other retail, 56,753 square feet for food services, 26,225 square feet for home furnishings and appliances, and just 6,340 square feet for auto parts retailers. Based on this analysis, the county cannot support additional square feet for retailers of building materials, food and beverage stores, or general merchandise.

Table 4.19 Net Supportable Retail Space by Category, Siskiyou County and 10-County Region.

Category	Net Supportable Square Feet	
	Siskiyou County	10-County Region
Building Material and Garden Equipment and Supplies Dealers	0	0
Clothing and Clothing Accessories Stores	105,778	160,908
Food and Beverage Stores	0	0
Food Services and Drinking Places	56,753	80,431
General Merchandise Stores	0	0
Home Furnishings and Appliance Stores	26,225	115,781
Auto Parts	6,340	6,628
Other Retail Group	95,220	148,635
Total Retail and Food Services	**290,317**	**512,382**

Source: TNDG.

Office/Industrial

Table 4.20 shows projected employment growth for Siskiyou County by major industry through 2043 based on EMSI/Lightcast data. Industries with the largest projected employment increases by 2043 include, mining and resource extraction (148 percent growth), wholesale trades (104 percent growth), and utilities (102 percent growth). Notably, projected employment levels are expected to decrease in industries related to administrative and support and waste management (47 percent decrease) and management of companies (29 percent decrease).

Table 4.20 Projected Employment by Major Industry Group, Siskiyou County

Major Industry Group	2023	2028	2032	2043	% Change 2023-2043
Agriculture, Forestry, Fishing and Hunting	1,180	1,294	1,365	1,631	38%
Mining, Quarrying, and Oil and Gas Extraction	19	26	29	47	148%
Utilities	58	71	79	116	102%
Construction	596	686	731	939	57%
Manufacturing	882	952	974	1,098	25%
Wholesale Trade	213	264	293	433	104%
Retail Trade	1,717	1,867	1,949	2,275	32%
Transportation and Warehousing	200	214	220	246	23%
Information	124	148	165	234	89%
Finance and Insurance	178	185	189	205	15%
Real Estate and Rental and Leasing	117	123	126	139	19%
Professional, Scientific, and Technical Services	285	311	325	381	34%
Management of Companies and Enterprises	12	10	10	8	-29%
Administrative and Support and Waste Management and Remediation Services	265	222	200	141	-47%
Educational Services	68	73	74	82	21%
Health Care and Social Assistance	2,210	2,544	2,751	3,595	63%
Arts, Entertainment, and Recreation	205	225	236	279	36%
Accommodation and Food Services	1,522	1,605	1,636	1,786	17%
Other Services (except Public Administration)	422	470	500	617	46%
Government	3,992	4,115	4,226	4,530	13%
Total/Overall	**14,263**	**15,404**	**16,076**	**18,783**	**32%**

Source: EMSI; TNDG.

Table 4.21 compares employment growth rates (for the period 2023-2032) for Siskiyou County, the 10-County Region, and California. In the county, the mining and resource extraction, utilities, wholesale trades, and information industries have the largest projected employment growth by 2032. The information and educational services industries represent the largest projected employment growth in the 10-County Region, while health care and social services and transportation and warehousing represent the largest employment growth industries statewide.

Table 4.21 Projected Employment by Major Industry Group, Siskiyou County, 10-County Region, and California

Major Industry Group	Percentage Change in Employment 2023-2032		
	Siskiyou Co.	10-County	California
Agriculture, Forestry, Fishing and Hunting	16%	9%	10%
Mining, Quarrying, and Oil and Gas Extraction	50%	23%	2%
Utilities	37%	5%	5%
Construction	23%	16%	10%
Manufacturing	10%	22%	2%
Wholesale Trade	38%	18%	-2%
Retail Trade	13%	12%	5%
Transportation and Warehousing	10%	19%	17%
Information	33%	29%	14%
Finance and Insurance	7%	4%	5%
Real Estate and Rental and Leasing	8%	18%	10%
Professional, Scientific, and Technical Services	14%	17%	14%
Management of Companies and Enterprises	-14%	-12%	9%
Administrative and Support and Waste Management and Remediation Services	-25%	19%	10%
Educational Services	9%	32%	10%
Health Care and Social Assistance	24%	24%	23%
Arts, Entertainment, and Recreation	15%	9%	14%
Accommodation and Food Services	7%	11%	13%
Other Services (except Public Administration)	19%	21%	10%
Government	6%	8%	10%
Total/Overall	**13%**	**14%**	**11%**

Source: TNDG (calibrated based on EMSI and CoStar data)

In order to project demand for new industrial and office buildings, it is necessary to translate the industry-level employment projections into projections of the numbers of jobs associated with each land use category. In particular, the industry data are grouped in terms of the three land use categories relevant to this study:

- Office-based jobs
- Logistics related jobs
- Other jobs based in industrial buildings

Table 4.22 shows the correspondence between each major industry group and the relevant land use categories). These percentages have been calibrated to current conditions in Siskiyou County based on EMSI employment data and CoStar real estate data. As an example of how these percentages are applied in the analysis: there are currently approximately 880 manufacturing jobs in Siskiyou County. The analysis estimates that 25 percent of these jobs (or 220 workers) are based in office buildings and 75 percent (or 660) are based in industrial buildings (specifically in the "other"/non-logistics sub-category of industrial space).

Table 4.22 Land Use – Industry Correspondence Matrix

Major Industry Group	Office	Logistics	Other Industrial[1]	Other Land Uses[2]	Total
Agriculture, Forestry, Fishing and Hunting	0%	0%	0%	100%	100%
Mining, Quarrying, Oil & Gas Extraction	0%	0%	0%	100%	100%
Utilities	5%	0%	5%	90%	100%
Construction	5%	0%	5%	90%	100%
Manufacturing	25%	0%	75%	0%	100%
Wholesale Trade	20%	35%	30%	15%	100%
Retail Trade	5%	5%	0%	90%	100%
Transportation and Warehousing	0%	75%	0%	25%	100%
Information	80%	0%	0%	20%	100%
Finance and Insurance	80%	0%	0%	20%	100%
Real Estate and Rental and Leasing	80%	0%	0%	20%	100%
Professional, Scientific and Technical Services	50%	0%	20%	30%	100%
Management of Companies and Enterprises	80%	0%	0%	20%	100%
Administrative and Support and Waste Management	50%	0%	5%	45%	100%
Educational Services	5%	0%	0%	95%	100%
Health Care and Social Assistance	15%	0%	0%	85%	100%
Arts, Entertainment and Recreation	10%	0%	0%	90%	100%
Accommodation and Food Services	0%	0%	0%	100%	100%
Other Services	25%	0%	15%	60%	100%
Public Administration	0%	0%	0%	100%	100%

Includes manufacturing, flex space and specialized industrial space such as self-storage facilities.

Includes retail, hospitality, recreational, and institutional land uses; also includes employment not associated with specific commercial/industrial buildings (e.g., construction workers on job sites, farmworkers, work-from-home employees, etc.).

Source: TNDG (calibrated based on EMSI and CoStar data).

Table 4.23 summarizes the projected employment growth rates by land use category. The baseline forecasts (derived from EMSI data) are shown for the following geographic areas: Siskiyou County, 10-County Region, and California. Countywide employment is expected to increase by a total of 14 percent among industrial land uses, which is lower than in the 10-County Region (20 percent) but considerably higher than in California (7 percent).

Table 4.23 Projected Employment Growth by Land Use Category, 2023-2032, Siskiyou County, 10-County Region, And California

Geographic Area	Office	Logistics	Other Industrial	Total Industrial
Siskiyou County	14%	17%	13%	14%
10-County Region	18%	18%	21%	20%
California	11%	11%	4%	7%

Source: TNDG (calibrated based on EMSI and CoStar data)

Table 4.24 provides forecasts of industrial and office building demand for Siskiyou County for the period 2023-2043. These projections have been derived by applying the following demand-per-employee factors to each land use category:

- Office – 250 square feet per employee
- Logistics – 2,500 square feet per employee
- Other industrial (manufacturing, etc.) – 700 square feet per employee

Table 4.24 Projected Demand for New Office and Industrial Development, Siskiyou County, 2023-2043

Time Period	Office	Logistics	Other Industrial	Total Industrial
2023-2032	49,625	135,822	81,920	217,741
2033-2043	80,992	213,122	121,604	334,725
20-Year Total	**130,617**	**348,943**	**203,523**	**552,467**

Source: TNDG (calibrated based on EMSI and CoStar data)

It should be acknowledged that these factors are likely to be "generous" compared to current market trends. In the office category, especially, the increase in remote work (related to the Covid-19 pandemic) has had a dramatic (negative) impact on demand for office space in many major markets. As such, the factor of 250 square feet per employee is likely to be unrealistic in the coming years in most office markets. However, it is possible that future office development trends will favor remote markets such as Siskiyou County as these locations become more feasible for remote workers (needing some office space outside their homes), entrepreneurial startups, etc. As such, these projections are provided as somewhat "aspirational" targets for purposes of a long-range planning effort.

Hospitality

Siskiyou County has a strong position within the California tourism industry. Data from Visit California showing tourism-related taxes per household by California County[3] show that Siskiyou County ranks 13th among 29 counties in terms of the amount of tax receipts per household, as of 2022. At $898 per household, Siskiyou is just slightly below the California average of $906.

Increasing hospitality assets in the county include current expansion of the existing Karuk Tribe's Rain Rock Casino in Yreka, with 80 hotel rooms and suites, and added gaming and event center/meeting space. A project of this type both responds to existing visitation demand and generates its own demand by virtue of being a destination in itself.

Past trends in hotel occupancy and revenues show, statewide, an ongoing, steady recovery in room demand from the downturn related to the pandemic (conditions within the Shasta Cascade region, specifically, have more variation from year to year). Projections of future tourism growth in California indicate a growth rate of three percent or more for key hotel demand variables from 2024 to 2025,[4] with some variability in the Shasta Cascade region. While the Shasta Cascade region tends to show a greater year-by-year variation in percent change than California, for both average daily rate (ADR) and revenues, overall changes for

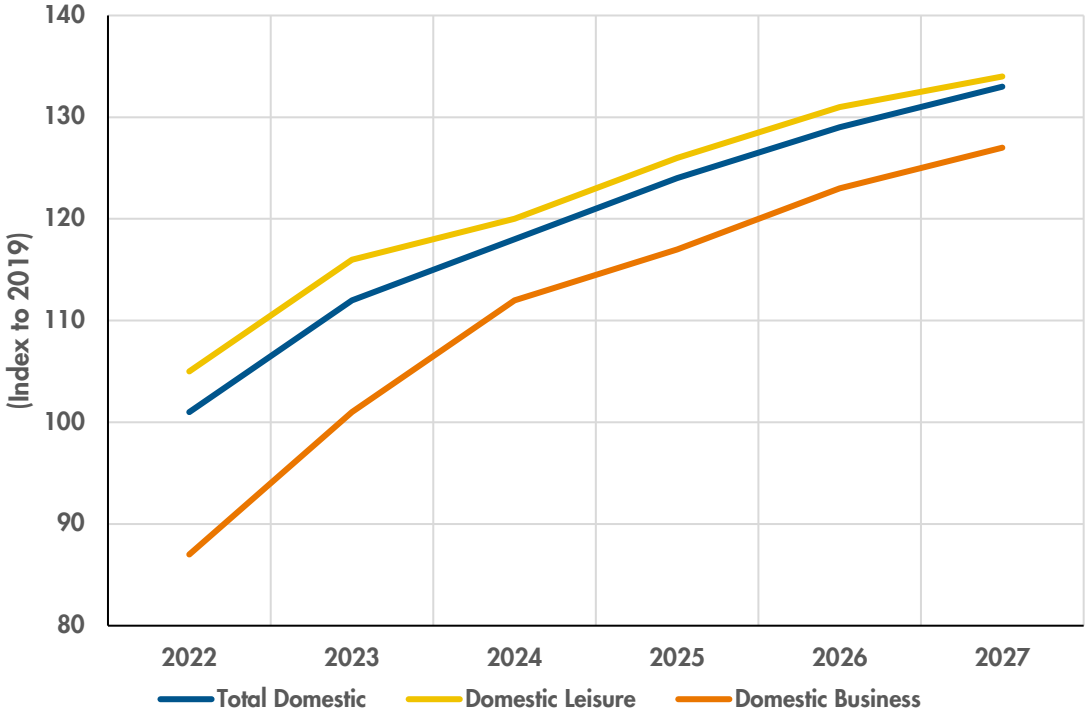
[3] *Visit California. The Economic Impact of Travel in California, 2022p. Prepared by Dean Runyan Associates.*
[4] *Source: Visit California, citing STR and Tourism Economics.*

both areas since 2019, through the projection year of 2025, are similar on a percentage basis for both measures.

Tourism-related employment is expected to increase over the next 10 years in Siskiyou County, according to Table 4.9 (preceding section, data from EMSI), including in the sector of Arts, Entertainment, and Recreation (projected 18.9 percent increase), and Accommodation and Food Services (projected 9.8 percent increase). The two sectors together will total 1,872 workers by 2032, according to the projections.

Tourism growth forecasts published by Visit California anticipate strong increases in domestic spending of 18.8 percent from 2023 to 2027.[5] Of the two domestic segments of business and leisure, the leisure segment represents the largest increment. Figure 4-2 shows domestic spending forecasts through 2027.

Figure 4.2 Domestic Spending Forecast by Segment, California, 2023 Forecast



Source: Visit California, citing Tourism Economics (September 2023).

Given these indicators, a reasonable assumption of the range of future growth in tourism activity in Siskiyou County would be two percent to three percent annually, which would result in an estimated demand for new hotel rooms as described below.

Table 4.25 shows the projected demand for new hotel rooms within the Shasta Cascade region and Siskiyou County through 2040. The projection model assumes an equilibrium occupancy rate of 75 percent, and because current occupancy rates are relatively low, future demand for hotel rooms begins in 2030 under the robust scenario, and 2032 for the baseline scenario. By 2040, for the Shasta Cascade region, just over 4,000 rooms would be in demand under the robust scenario, compared to almost 1,900 under the baseline scenario.

[5] *Visit California. Monthly Travel Indicators Summary, October 2023, dated December 6, 2023.*

The corresponding estimated Siskiyou County shares (estimated at 12.8 percent of Shasta Cascade) would be approximately 520 rooms for the robust scenario and 240 with the baseline scenario. As noted previously, the hotel at the expanded Rain Rock Casino will to some extent drive its own demand and consequently could be expected to perform somewhat independently of the projected growth described on the table.

Table 4.25 Projected Demand for New Hotel Rooms, Shasta Cascade Region and Siskiyou County

Scenario	2024	2026	2028	2030	2032	2034	2036	2038	2040
Baseline Scenario									
Existing Room Supply (room-nights)	3,527,563	3,557,893	3,527,563	3,527,563	3,527,563	3,527,563	3,527,563	3,527,563	3,527,563
Annual Room Demand[1] (room-nights)	2,339,812	2,395,942	2,492,738	2,593,445	2,698,220	2,807,228	2,920,640	3,038,634	3,161,394
Room Occupancy Rate[2]	66.3%	67.3%	70.7%	73.5%	76.5%	79.6%	82.8%	86.1%	89.6%
Cumulative Supported New Room-Nights at 75% Occupancy	0	0	0	0	70,063	215,407	366,623	523,948	687,629
Cumulative Supported New Rooms	**0**	**0**	**0**	**0**	**192**	**590**	**1,004**	**1,435**	**1,884**
Siskiyou County Estimated Share	**0**	**0**	**0**	**0**	**25**	**76**	**129**	**184**	**242**
Robust Scenario									
Existing Room Supply	3,527,563	3,527,563	3,527,563	3,527,563	3,527,563	3,527,563	3,527,563	3,527,563	3,527,563
Annual Room Demand[1]	2,339,812	2,482,306	2,633,479	2,793,857	2,964,003	3,144,511	3,336,012	3,539,175	3,754,711
Room Occupancy Rate[2]	66.3%	70.4%	74.7%	79.2%	84.0%	89.1%	94.6%	100.0%	100.0%
Cumulative Supported New Room Nights at 75% Occupancy	0	0	0	197,580	424,441	665,118	920,452	1,191,337	1,478,718
Cumulative Supported New Rooms	**0**	**0**	**0**	**541**	**1,163**	**1,822**	**2,522**	**3,264**	**4,051**
Siskiyou County Estimated Share	**0**	**0**	**0**	**69**	**149**	**234**	**323**	**418**	**519**

Notes:
1. Low Scenario assumes an annual growth rate of 2.0%
2. High Scenario assumes an annual growth rate of 3.0%
Occupancy rate constrained at 100%.
Source: TNDG; Visit California, STR

There is another important qualifying factor related to the hotel room projections. Both the County and, occasionally, the Karuk Tribe, house individuals with various social needs in county hotels, for limited periods of time. This use varies from year to year, and in 2022 and 2023 averaged an estimated 14,500 room-nights per year, according to the Project Team's interpretations of data supplied by the County.[6] This represents approximately 4.5% of annual hotel room demand in the county. From the standpoint of the hotel-room demand projections shown above, this "non-visitor" use is assumed to be part of the baseline and therefore does not affect the demand-projection numbers. However, note that annual visitor spending will be reduced by some amount due to this practice (instead of being directly proportional to hotel room-night activity), roughly represented by this estimated average percentage.

[6] These estimates do not include hotel use by the Karuk Tribe, because the Tribal use in recent years (related to their Emergency Rental Assistance Program) was a response to the Covid pandemic.

The tourism industry is generally associated with relatively low wage levels for the workers involved. However, growth in the industry also supports other industries that have the potential for higher wages, including, for example: construction, business services, and travel.

Services to visitors represented by tourism-related development also function as amenities that are attractive to employers and their workers within virtually any industry. By promoting facilities and a region's other assets, and bringing clientele to the location, the tourism industry exposes people to an area with which they might otherwise remain unfamiliar. As such, tourism development can leverage other growth just by its presence.

Agriculture

This section is intended to add context to the development environment within Siskiyou County. Agriculture is an important industry in the county and a major user of land. It is also an evolving industry that will continue to have an expanded relationship with technology, as farming continues to become more mechanized and technology driven.

Land in farms in Siskiyou County constitutes 28.6 percent of the county's total land area. An additional 2.5 million acres, or 62.5 percent, including some forested areas, are devoted to rangeland.

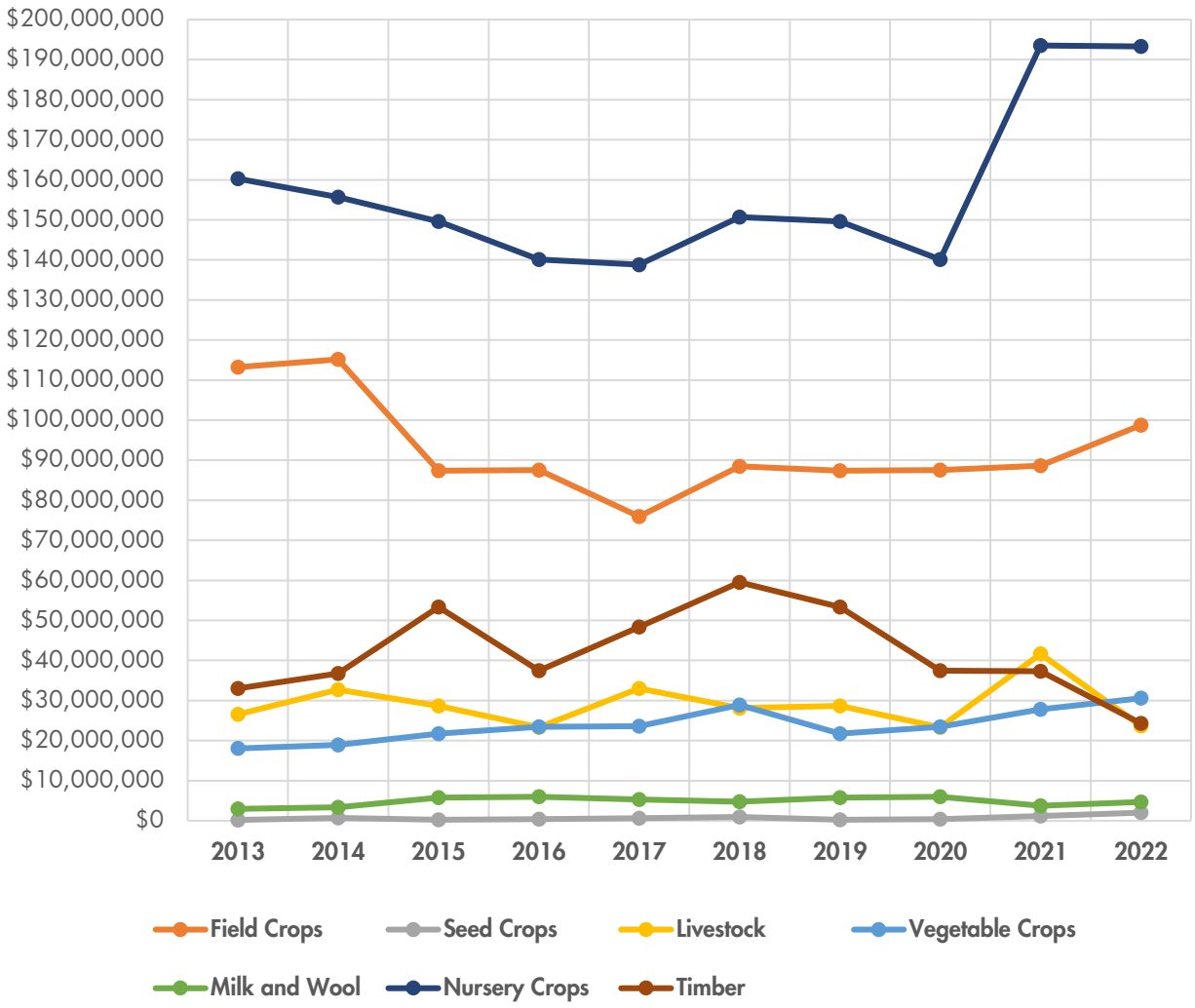
Figure 4.3 displays data for agricultural products receipts by agricultural product type. Currently in Siskiyou County, nursery crops have the highest receipts, followed by field crops, and vegetable crops. Notably, timber receipts have been steadily decreasing since 2018, with 2023 receipts equaling less than half the receipts in 2018. Milk and wool, as well as seed crops, make up the smallest proportions of agricultural receipts in the county.

Variations in receipts from agricultural activity over the years, are due to a combination of influences:

- Drought, both natural and due to state water restrictions, which has affected the county in different ways in prior years, but has generally been an ongoing issue depressing production;
- Fluctuations in crop-commodity prices;
- Changing practices among farm operators, which most noticeably for Siskiyou County has involved an upturn in certain nursery crops, specifically strawberry plants for export;[7]
- Changes to the labor market, which has been negatively impacted by the elimination of overtime allowances;
- California Air Resources Board regulations, which have led to increased costs for new vehicles and equipment; and
- New regulations on herbicides and pesticides, which directly influence which crops are being grown; and
- Reduction in mill capacity due to the closure of several mills in recent years.

[7] *Source: Siskiyou County 2022 Annual Crop and Livestock Report.*

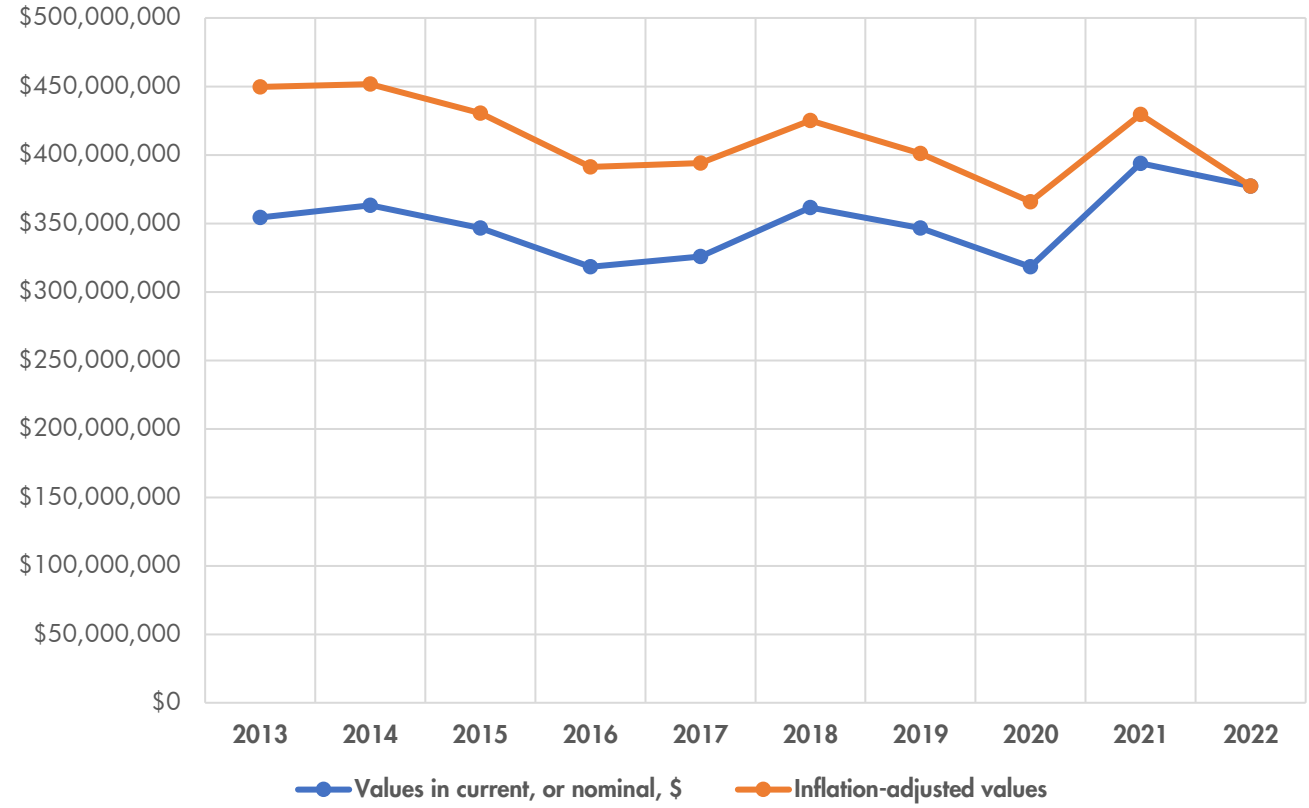
Figure 4.3 **Figure 4-3: Agricultural Products Receipts Comparative Summary (Current Dollars), 2013-2022**



Source: Siskiyou County Agricultural Commissioner's Office, Crop and Livestock Report 2014-2022.

To add perspective to the time-series data on the preceding figure, Figure 4.4 shows the sum of the individual crop values charted along with a line representing gross inflation-adjustment factors consisting of the national Consumer Price Index for the various years shown. This representation should be understood as an approximation because the analysis has not attempted to account for all the (non-inflationary) price fluctuations, annually, that could have occurred among the product categories. According to the data, agricultural products in the county were valued at more than $375 million in 2022, which was a slight decrease from $400 million in 2021 but a significant increase from $318 million in 2020. Inflation-adjusted data points illustrate that the value of agricultural products have decreased from nearly $450 million in 2013 to $377 million in 2023.

Figure 4.4 Total Value of Agricultural Products Over Time (generalized)



Source: Siskiyou County Agricultural Commissioner's Office, Crop and Livestock Report 2014-2022.

4.6 Key Terms

Employment. The number of persons who hold a job in a given time period. These jobs include both full-time and part-time work. Employment often refers to the labor force that resides in a city or county. The term "job", then, refers to jobs that are located in the city or county.

Household. All persons who occupy a housing unit as their usual place of residence.

Jobs. Work positions available in a particular location in each industry sector, within a specific time period. These positions include both full-time and part-time work.

Median Income. The average income as the midpoint at which 50 percent of households earn more than the median income, and the same proportion earn less. This differs from the mean income, which is a simple average of aggregate income divided by the number of households.

NAICS. North American Industry of Classification System; a standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.

Occupation. The type of work that a person does on a job. Occupational employment statistics classify these jobs based on categorical descriptions of their primary activities and duties.

Population. The count of all persons living within a specified geographic area. Household population will only include those persons residing in housing units, and excludes the population count from group quarters and similar accommodations.

Poverty. A household is defined as living in poverty if their annual income falls below a specified threshold. As defined by the Census Bureau (for use in the American Community Survey figures cited in this section), the Federal poverty threshold varies depending on the number of persons living in a household, and the number of dependent children. This figure is adjusted annually. This slightly differs from the poverty guideline used by Health and Human Services in determining eligibility for certain government aid programs.

Race and Ethnicity. Data sources reporting data on racial and ethnic characteristics, such as the U.S. Census, identify these characteristics based on self-reporting. The guidelines used by the Census reporting the following racial categories at a minimum: White; Black or African American; American Indian or Alaska Native; and Asian and Native Hawaiian or Other Pacific Islander. Racial categories also include the option for respondents to self-identify as "Some Other Race."

Retail Demand. Households create demand for a broad range of different goods and services. Retail demand focuses on those goods that are typically provided by retail businesses. This demand is expressed in terms of potential dollars spent on goods or dollars spent with specific types of retail businesses.

Retail Leakage. The extent to which existing household demand for specific retail store types is not met by local stores in that category, and those shoppers go to stores located outside of their local market area instead. This unmet demand serves as a measure by which to evaluate potential retail store attraction or expansion options.

Room Occupancy. The occupancy rate is one of the commonly used measures to track economic activity for hotels and motels. Within a specific geographic area or market segment, this rate looks at the total number of room-nights available and compares it to the actual number of nights in which the room was occupied.

Shasta Cascade Region. A region of California located in the northeastern and north-central sections of the state bordering Oregon and Nevada, including the counties of Butte, Lassen, Modoc, Plumas, Shasta, Siskiyou, Tehama and Trinity.

Unemployment Rate. The number of persons who participate in the labor force, but do not hold a job in a given time period. Labor force participation is defined as persons who either work or are looking for work.

Vacancy Rate. The amount of vacant building square footage as a percentage the overall building space inventory. The averages described in this section are also differentiated by building type.

Visitor Spending. Travelers passing through and coming to Siskiyou County do so for business, leisure, family, shopping, and other purposes. While in Siskiyou County, they spend money on goods, services, accommodations, and transportation. This spending is expressed in terms of dollars spent in specific categories.

4.7 Regulatory Setting

Federal

None.

State

Accessory Dwelling Units. Since 2016, a large number of bills in California have added requirements for local governments related to Accessory Dwelling Unit (ADU) ordinances that aim to make it easier to build housing of this type, both from a financial and permitting perspective. These bills have impacted the development of ADUs in the following ways:

- Increasing the allowed size of ADUs,
- Permitting ADUs by right in at least some areas of a jurisdiction,
- Clarifying parking requirements related to ADUs,
- Reducing the time to review and approve ADU applications to 60 days,
- Removing lot size and parking space requirements for ADUs,
- Requiring local jurisdictions to permit junior ADUs,
- Allowing both an ADU and a junior ADU to be built on a single-family lot if certain conditions are met,
- Creating a tiered fee structure that charges ADUs based on their size and location,
- Prohibiting fees on units of less than 750 square feet,
- Permitting ADUs at existing multi-family developments,
- Requiring that all Housing Elements include plans to incentivize and encourage affordable ADU rentals,
- Prohibiting local agencies from imposing an owner-occupancy requirement on any ADU,
- Allowing ADUs to be sold separately from the primary residence as a condominium, and
- Developing a program for the preapproval of ADU plans.

California Solar Mandate. The California Solar Mandate, sometimes called the California solar panel law, requires all new residential buildings up to three stories and new commercial properties to install solar photovoltaic systems. This law aims to promote renewable energy, reduce greenhouse gas emissions, and increase energy independence by ensuring new constructions harness California's abundant solar resources. The law, however, applies generally throughout the State, regardless of potential solar capture, and imposes additional costs that the constrain construction.

Electric Vehicle Charging Stations. AB 1236 (2015) and AB 970 (2021), codified in Government Code Sections 65850.7 and 65850.71, require cities and counties to adopt streamlined permitting procedures for electric vehicle charging stations (EVCS), including a streamlining ordinance and checklist (examples below). City and county streamlining status is reflected on

the EVCS Streamlining Map and jurisdictions are graded based on the Permitting Electric Vehicle Charging Stations Scorecard. In addition, the 2022 Energy Code requires that all single-family buildings with one or two dwelling units must be energy storage (battery storage) system ready. While AB 1236 and AB 970 work to incentivize the installation of EV charging stations, the regulations of the 2022 Energy Code impose additional costs on projects that can be a constraint to construction.

California Air Resources Board (CARB) Requirements. California State and local government fleets, including city, county, special district, and State agency fleets, would be required to ensure 50 percent of vehicle purchases are zero-emissions beginning in 2024 and 100 percent of vehicle purchases are zero-emissions by 2027. Additionally, CARB regulates large trucks and agricultural equipment to ensure emissions control equipment is operating properly and meets CARBs emissions standards. However, standards have generally necessitated the replacement of equipment at considerable costs of private farms. These requirements increase costs to local governments and farmers and can constrain production and economic growth.

4.8 References

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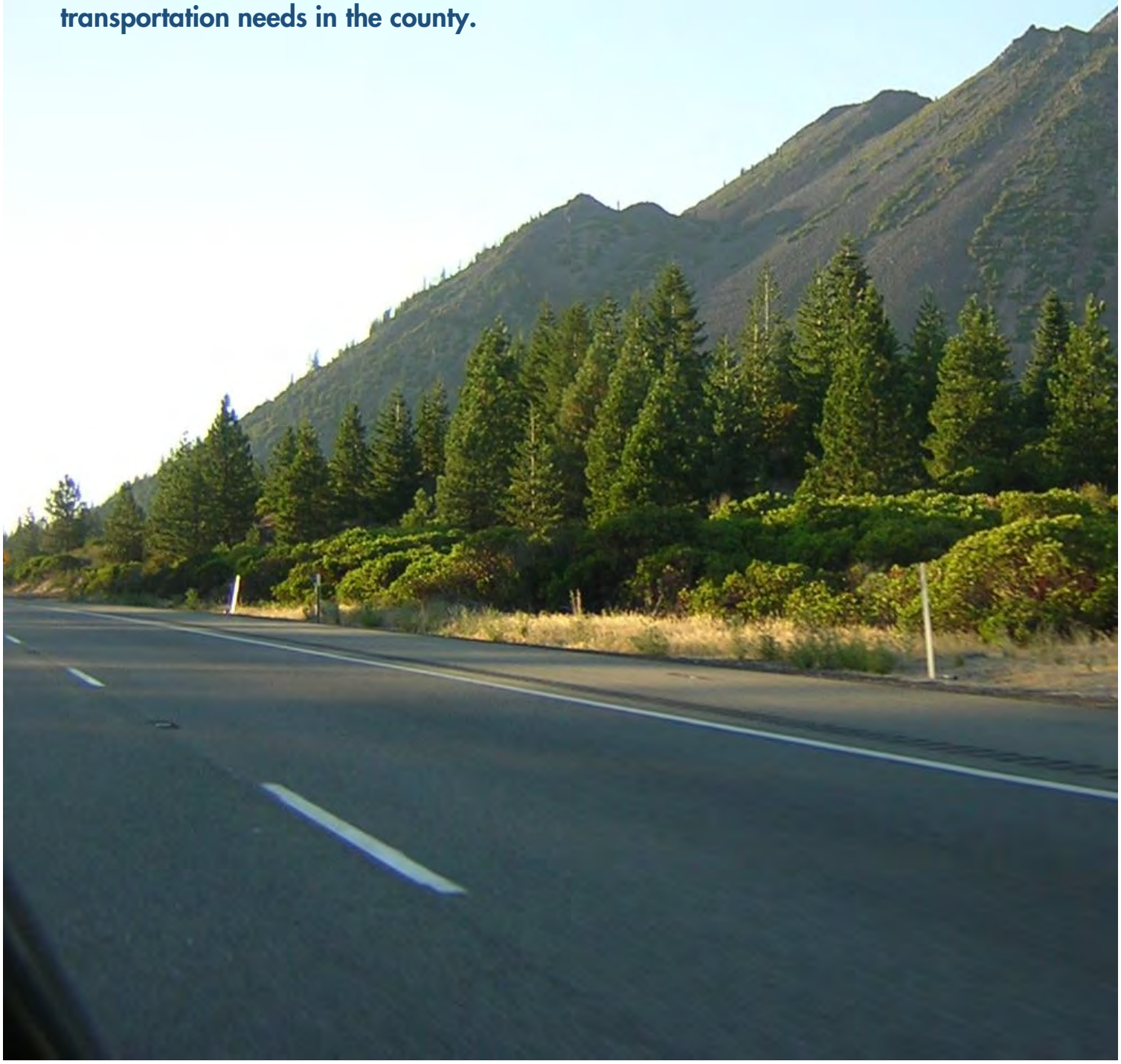
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5. Circulation and Transportation

This chapter summarizes the transportation and mobility trends in Siskiyou County. Understanding how the transportation system is used and how infrastructure has changed provides a necessary framework for identifying the existing and future transportation needs in the county.



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5.1 Introduction

This chapter describes existing conditions as they relate to transportation and mobility in Siskiyou County. It is organized into the following sections:

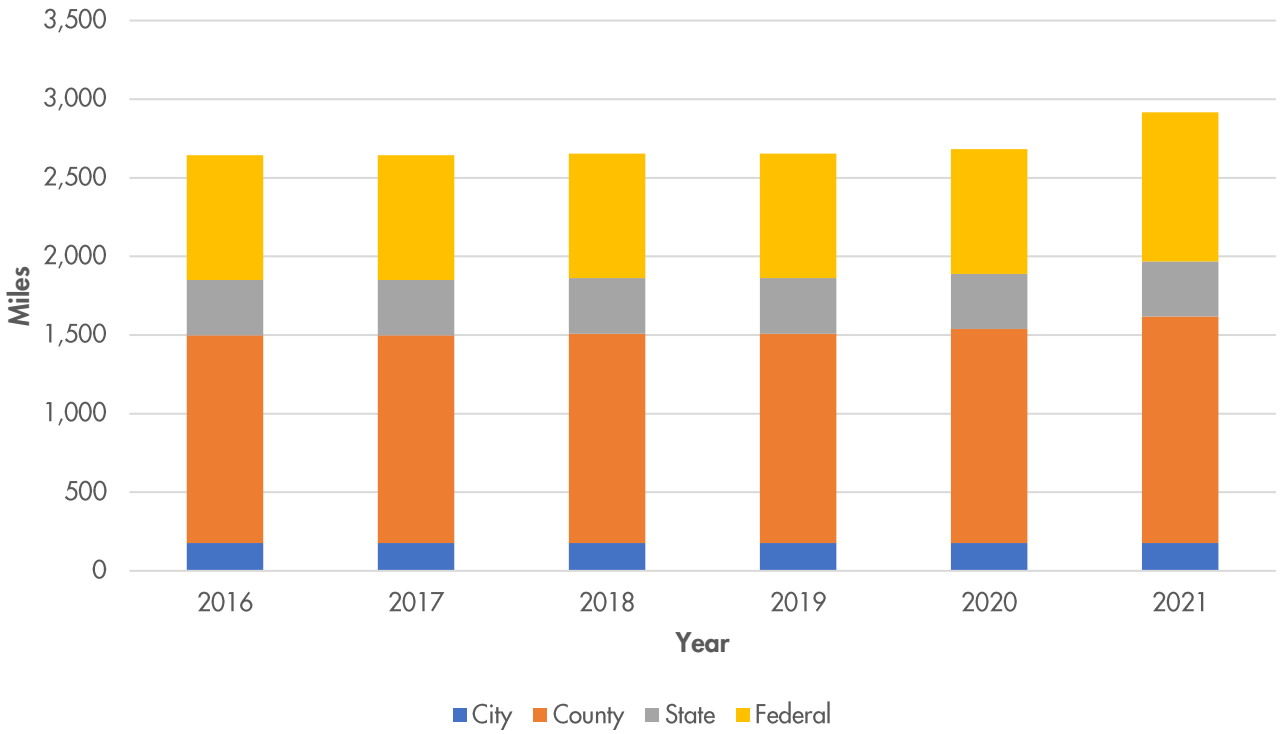
5.1 Introduction CIR-3
5.2 Roadways and Functional Classifications CIR-4
5.3 Vehicle Miles Traveled (VMT) Trends CIR-8
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5.5 Rail Transportation and Goods Movement CIR-20
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5.2 Roadways and Functional Classifications

Existing Road System

As of 2021, Siskiyou County contains 2,918.1 miles of maintained public roads. Responsibility for them is shared between the governments of cities, the county, the State, Federal agencies, and other State agencies. Since 2016, maintained miles of public roads have increased by 10 percent in Siskiyou County.

Figure 5.1 Mileage of Maintained Public Roads, Siskiyou County

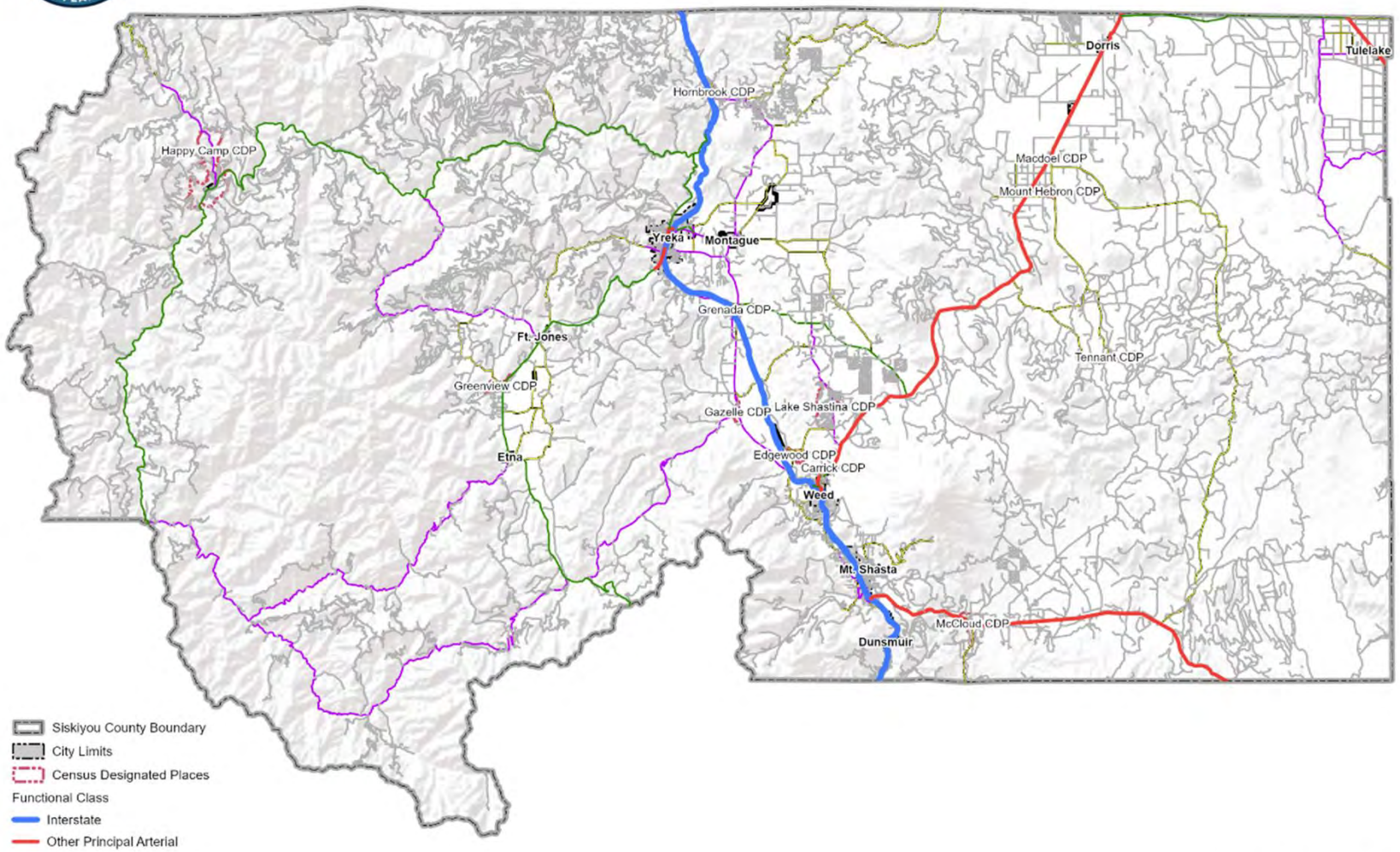


Source: California Highway Performance Monitoring System (HPMS), Public Road Data (PRD), 2022.

The majority of public roads within the county are maintained by Siskiyou County and Federal agencies. These roads account for 49.4 percent and 32.6 percent respectively, of the total road network within the county as of 2021.

Caltrans applies one of seven functional classification designations to all roads within Siskiyou. A map showing the extent of roadways in Siskiyou County by functional classification is given on Figure 5.2.

Figure 5.2: Siskiyou Roadways by Functional Class



Source: Caltrans Office of Highway System Information and Performance

The classification centerline miles and definitions are as follows:

Table 5.1 Functional Classification by Centerline Miles, Siskiyou County

Classification	Centerline Miles
Interstate	166.33
Other Principal Arterial	195.64
Minor Arterial	383.58
Major Collector	307.35
Minor Collector	339.45
Local Road	7,041.28

Source: Caltrans, Highway Performance Monitoring System, California Public Road Data, 2022.

Interstate. An interstate is a federally designated roadway within the Dwight D. Eisenhower National System of Interstate and Defense Highways and is considered a type of principal arterial. The only interstate in Siskiyou County is I-5.

Other Freeways or Expressways. These roadways generally do not serve land directly abutting them and are designed to service mobility needs by facilitating long-distance travel. There are no roads under this classification in Siskiyou County.

Other Principal Arterials. These roadways may directly serve adjoining business or residential areas but continue to be major thoroughfares serving high volumes of traffic flow. Siskiyou County has three roadways that meet this definition, SR 89, SR 139, and US 97. US 97 traverses the eastern portion of the county from north to south through Weed and Dorris. SR 89 is along the southern portion of the county from east to west through Mt. Shasta and McCloud. SR 139 is located in the northeastern corner of the county and travels southwest to northwest through Hatfield and Tulelake.

Minor Arterial. Minor arterials serve trips of medium length and offer connectivity to the larger arterial and freeway network. Examples of minor arterials in Siskiyou County include SR 3 which connects Yreka, Fort Jones, and Etna and SR 96 which traverses the western portion of the county along the Klamath River.

Major Collector. Collectors provide local access to the overall roadway network, channeling traffic from local roadways into the arterial network. Major collectors tend to be longer, have higher speed limits, and serve fewer driveways. Examples of major collectors include Old Highway 99 south of Yreka and Sawyer's Bar Rd which extends southwest from Etna.[1]

Minor Collector. Collectors provide local access to the overall roadway network, channeling traffic from local roadways into the arterial network. Minor collectors tend to provide access to local networks, serve short trips, and have lower speed limits. An example of a minor collector is McAdams Creek Road which provides access between the local Yreka and Fort Jones road networks.

Local. Local roads tend to serve residential and business driveways at high density, have low speed limits, and carry no through traffic movement. In Siskiyou County, they also include forest service and limited access roads to trail heads and wilderness areas. Examples of local roads include Miner Street which is the main

[1] *Please note: Caltrans data identifies collectors as minor or major. Although the Caltrans Functional Classification Map that shows Sawyer Rd as a major collector, the County classifies Sawyer Road as a collector, neither minor nor major.*

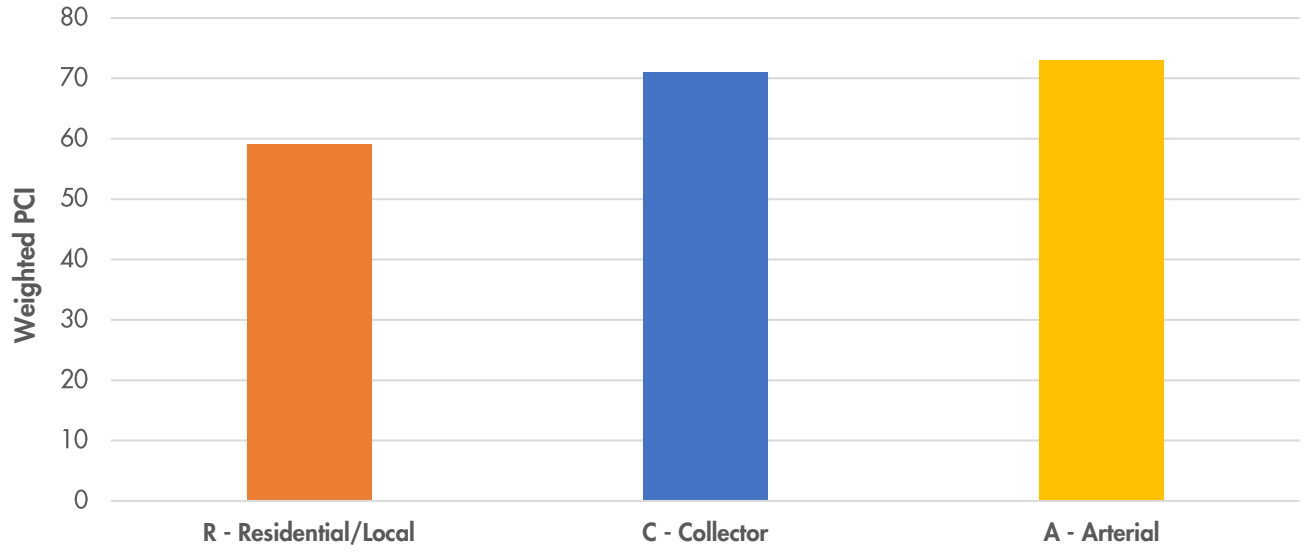
thoroughfare in Yreka and the farthest reach of the Everett Memorial Highway which ends at the base of Mount Shasta.

Pavement Condition Index

The Pavement Condition Index (PCI) is a numerical scale between 0-100 to determine the existing condition of a pavement segment. On the PCI scale, a score of 0 indicates extremely poor pavement health and a score of 100 indicates new or healthy pavement. PCI is affected by several factors including maintenance, traffic, age, and climate.

In Siskiyou County, arterial and collector roads have weighted PCI scores above 70 and are considered in good condition. Residential and Local roadways in Siskiyou County have a low weighted PCI score of 58.65 and are considered higher risk (Figure 5.3).

Figure 5.3 Weighted Pavement Index, Siskiyou County.



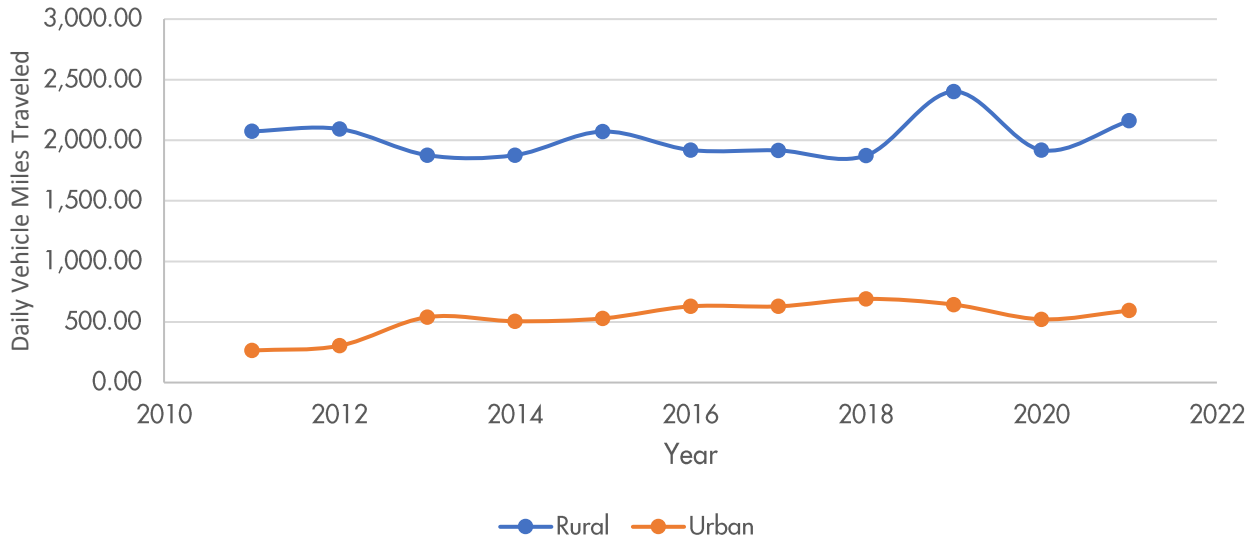
Source: StreetSaver, 2023.

5.3 Vehicle Miles Traveled (VMT) Trends

This section will examine trends in commuting, vehicle, and roadway use in Siskiyou County. One measure of travel demand is vehicle miles traveled (VMT). SB 743 (2013) has phased out level of service (LOS) in favor of using VMT for identifying transportation impacts under CEQA. VMT is typically calculated by adding up all the miles driven by all the cars and trucks on all the roadways in a region. This refocuses roadway analysis from the delay-based level of service assessments to the amount roads are used and impacts associated with the number of road users.

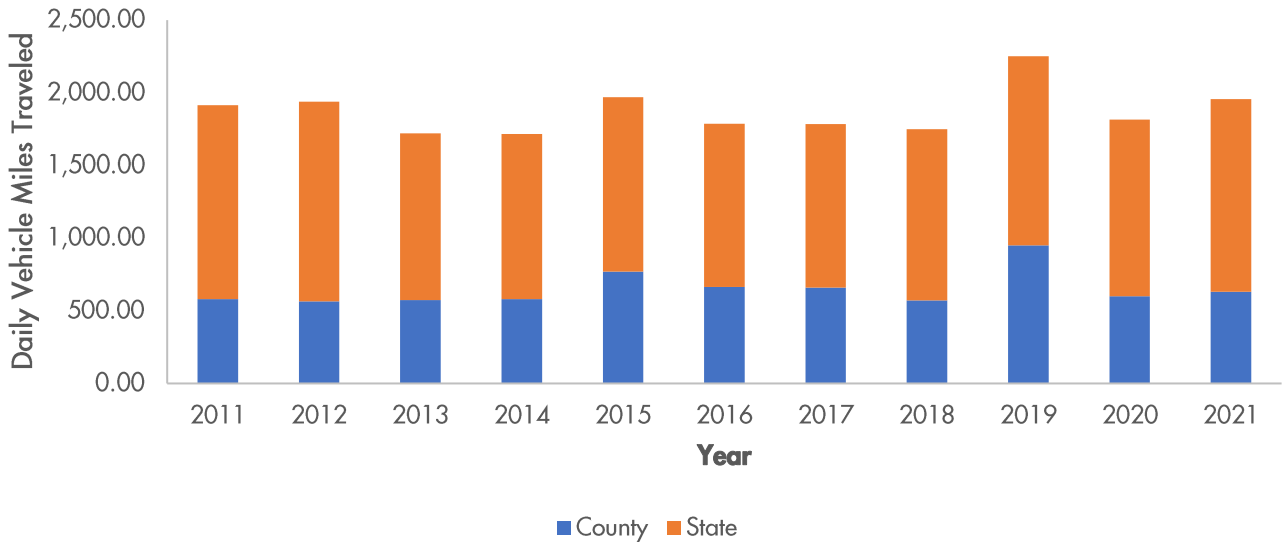
Figure 5.4 depicts the rural and urban road VMT in Siskiyou County. VMT was estimated using Daily VMT sourced from the Highway Performance Monitoring System (HPMS) for public roads. As a sparsely populated county, most of the daily vehicle miles traveled in Siskiyou are on rural roads. Most of the rural roads in Siskiyou are maintained by the county, however by volume, State facilities are used the most. Figure 5.5 illustrates the daily vehicle miles traveled by county and State-maintained roads. Since 2011, State facilities have experienced more than double the volume of county roads. Additionally, the county has experienced a 15 percent increase in VMT per capita from 2011 to 2021.

Figure 5.4 Daily Vehicle Miles Traveled



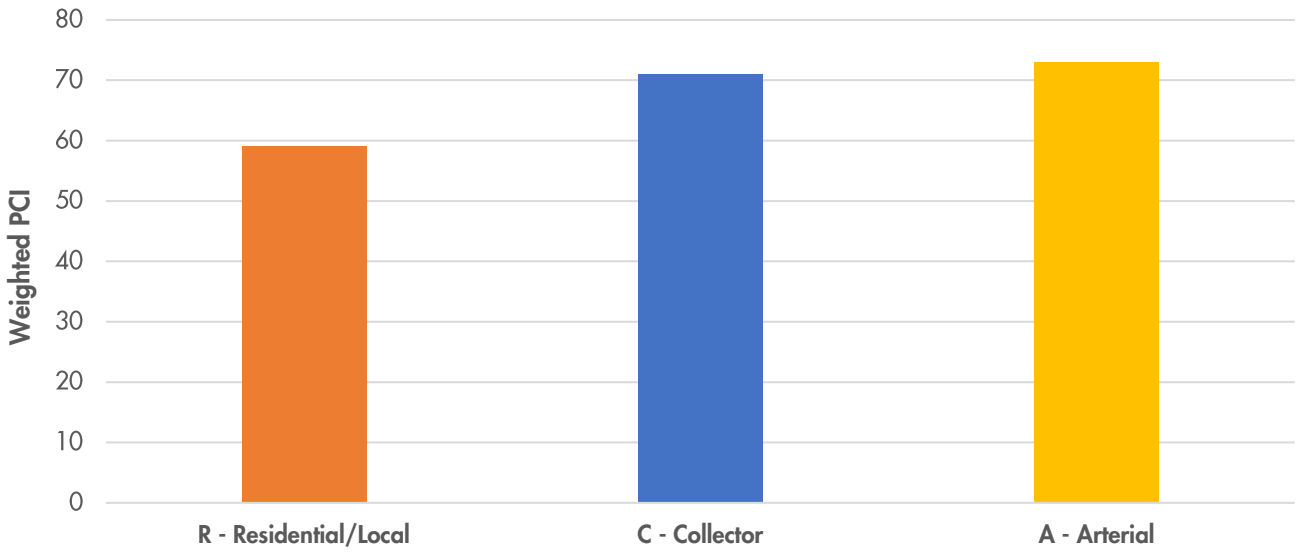
Source: California Highway Performance Monitoring System (HPMS), Public Road Data (PRD), 2022.

Figure 5.5 Daily Vehicle Miles Traveled – Local Roadway vs. State Highways



Source: California Highway Performance Monitoring System (HPMS), Public Road Data (PRD), 2022.

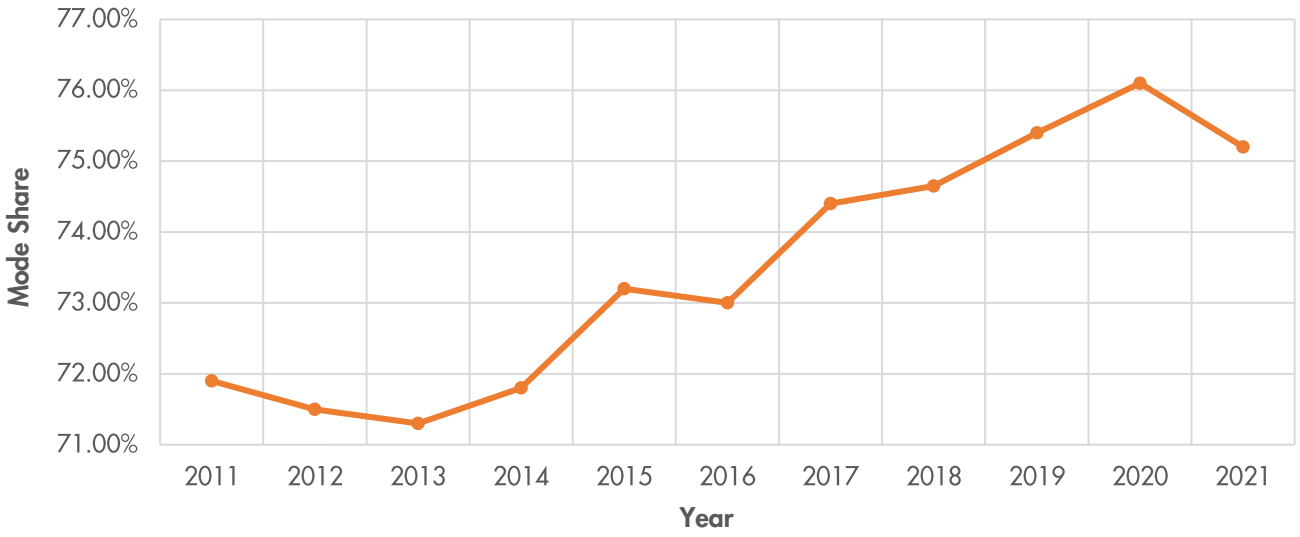
Figure 5.6 Siskiyou County VMT Per Capita



Source: California Highway Performance Monitoring System (HPMS), Public Road Data (PRD), 2022.

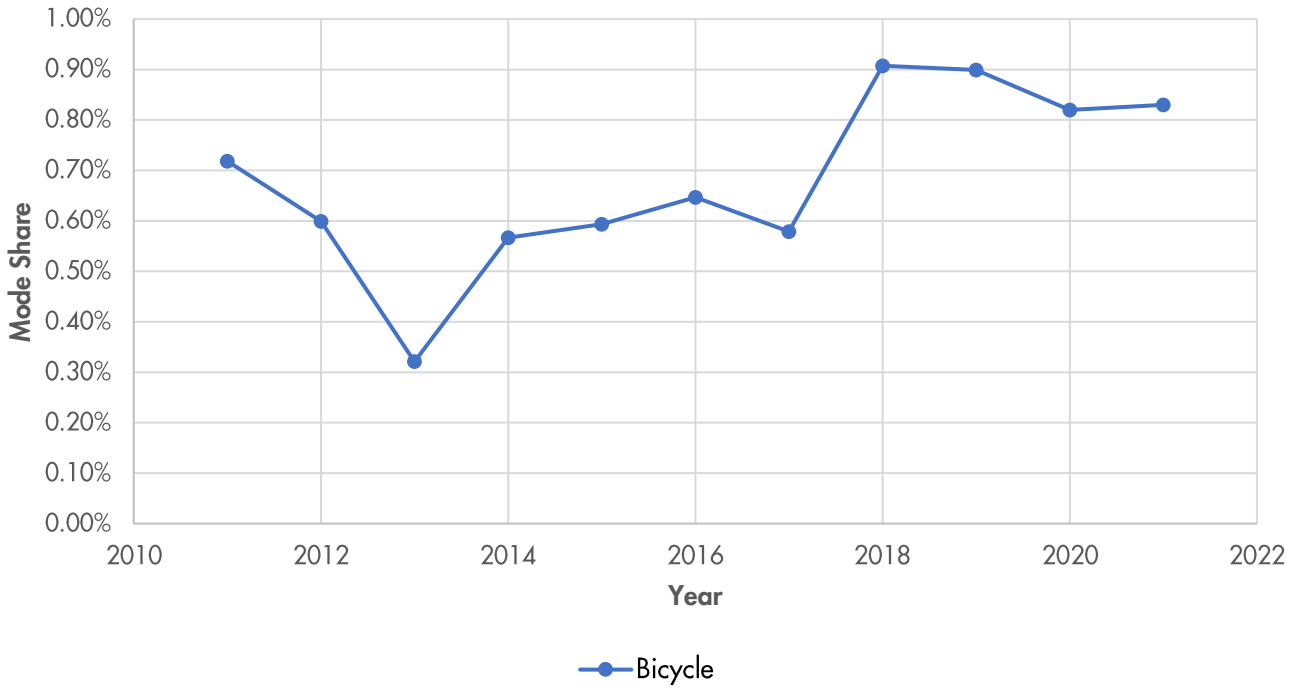
Peak travel periods and road usage are often defined by the commute to work. In Siskiyou County, the dominant work commute mode of travel is driving alone in a private vehicle. Driving alone to work has been slowly increasing in the county from 2011 to 2021, starting at 72 percent in 2011 and peaking at 76 percent at the onset of the COVID-19 pandemic in 2020. Other commute modes such as walking, biking, working from home have been steady in the last 10 years (2011-2021). However, public transit ridership has decreased since 2017.

Figure 5.7 Commute to Work Mode Share, Drove Alone



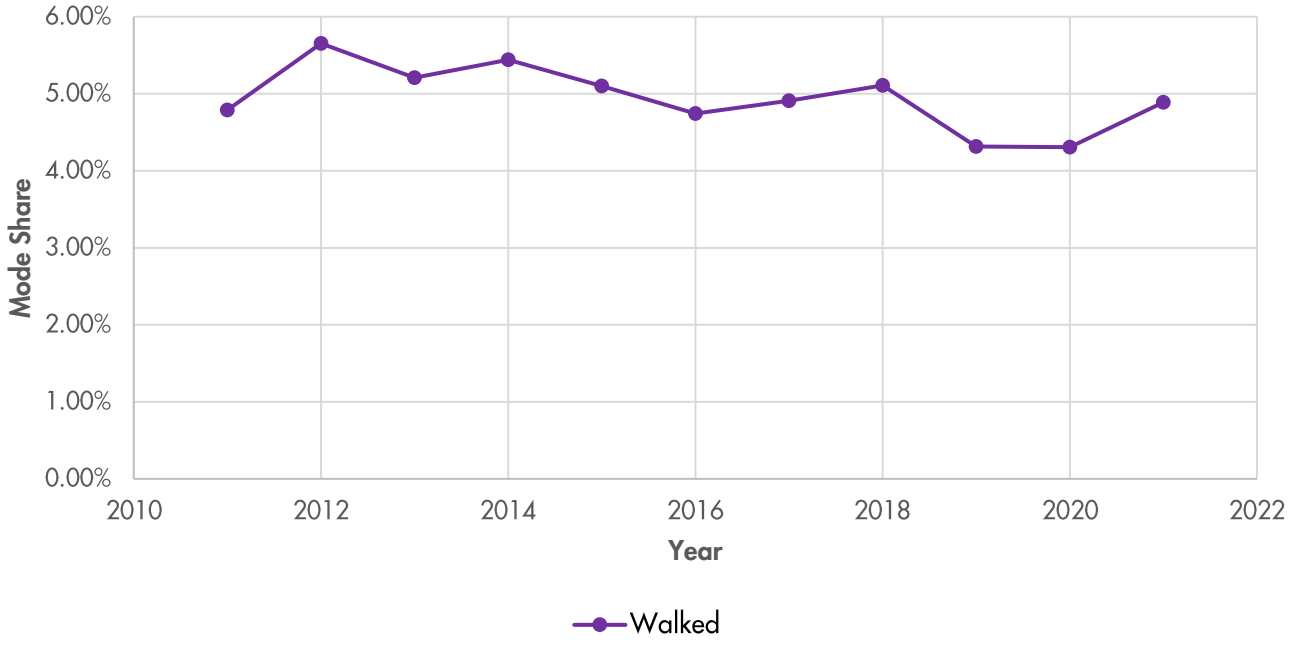
Source: American Community Survey (ACS) Table B08006, 2021 (5-year estimates).

Figure 5.8 Commute to Work Mode Share: Bicycle



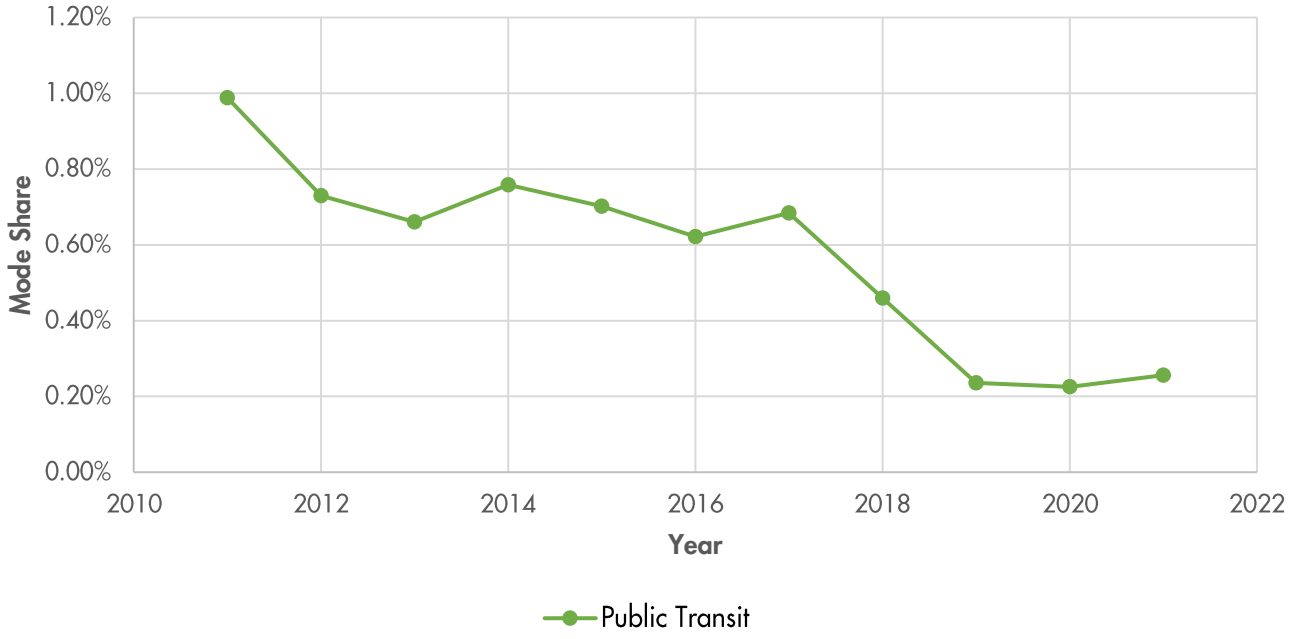
Source: American Community Survey (ACS) Table B08006, 2021 (5-year estimates).

Figure 5.9 Commute to Work Mode Share: Walked



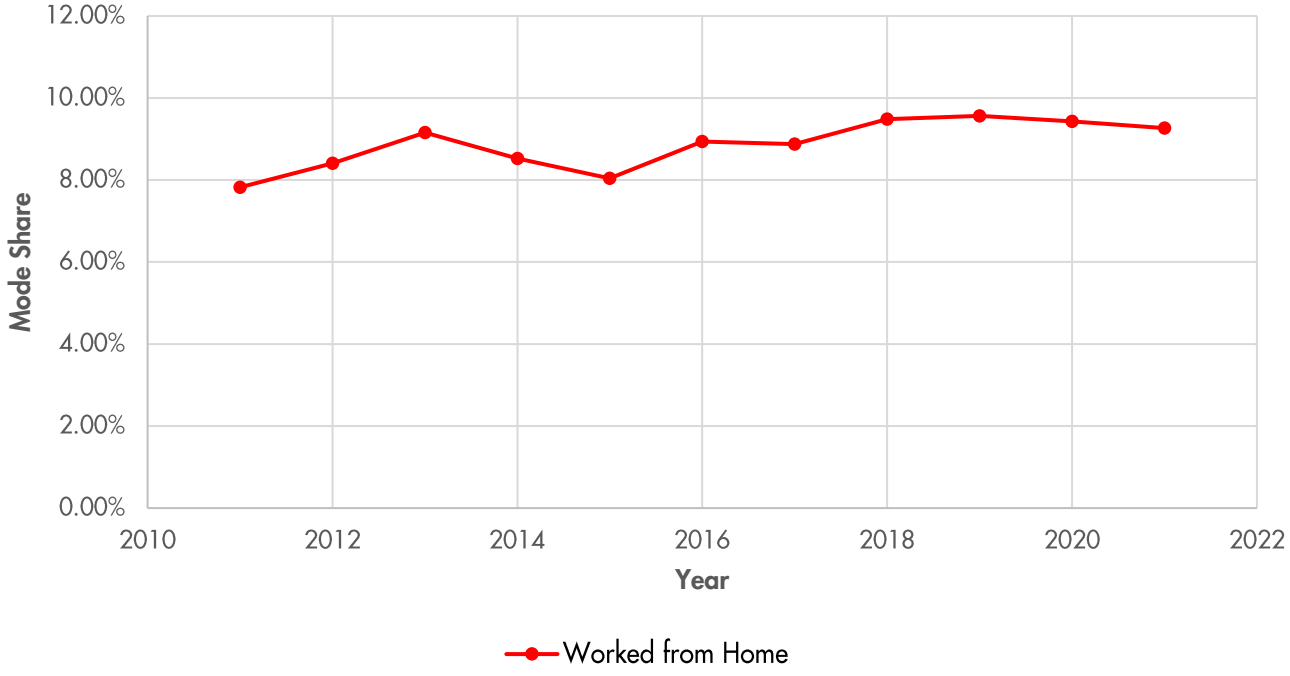
Source: American Community Survey (ACS) Table B08006, 2021 (5-year estimates).

Figure 5.10 Commute to Work Mode Share: Public Transit



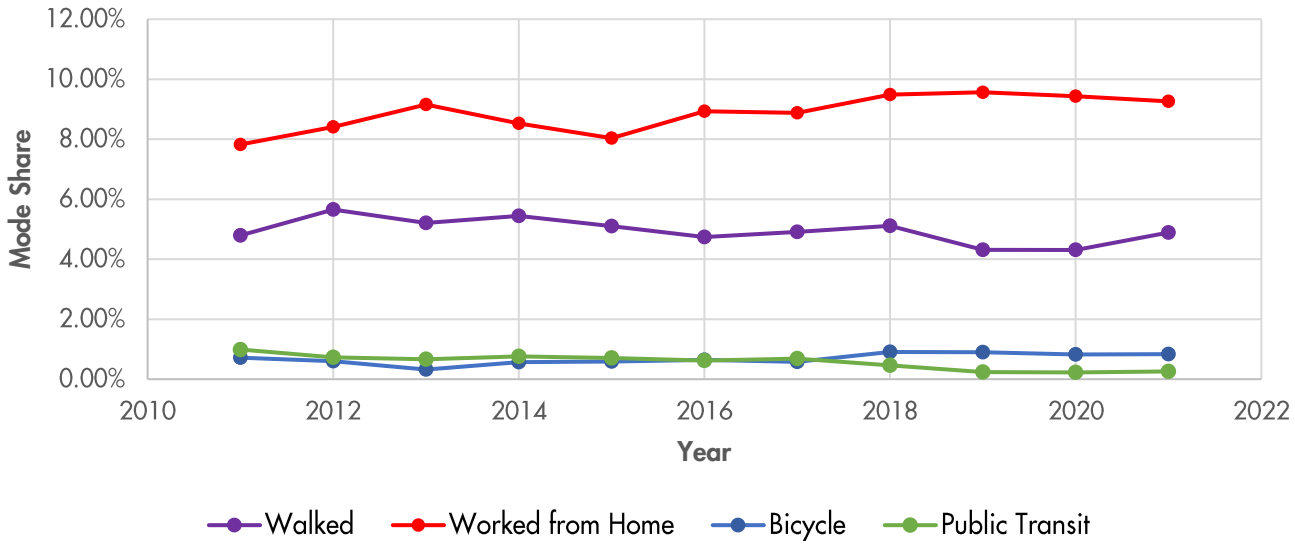
Source: American Community Survey (ACS) Table B08006, 2021 (5-year estimates).

Figure 5.11 Commute to Work Mode Share: Worked from Home



Source: American Community Survey (ACS) Table B08006, 2021 (5-year estimates).

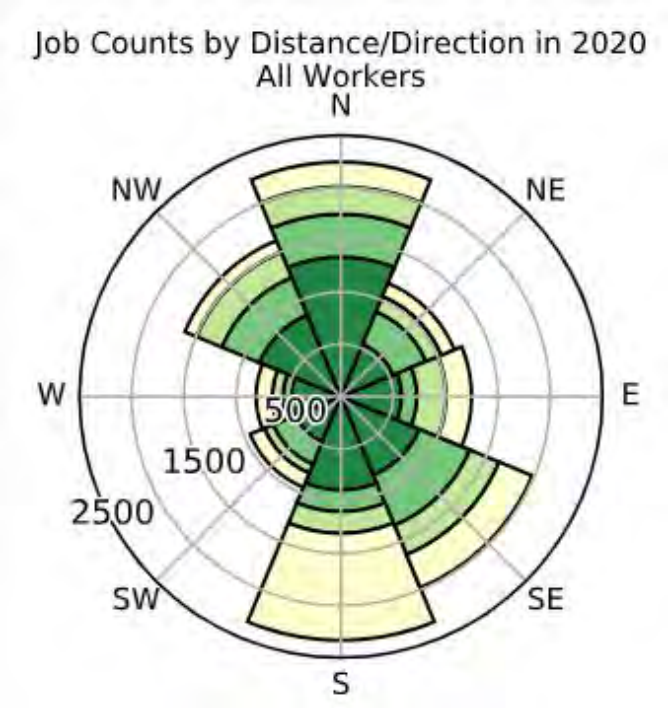
Figure 5.12 Commute to Work Mode Share



Source: American Community Survey (ACS) Table B08006, 2021 (5-year estimates).

In 2020 nearly half of all jobs in Siskiyou County were less than 10 miles from the employee's home. This represents a huge opportunity for commute to work modes to shift from private vehicles to transit and active transportation.

Figure 5.13 Jobs by distance/direction in Siskiyou County

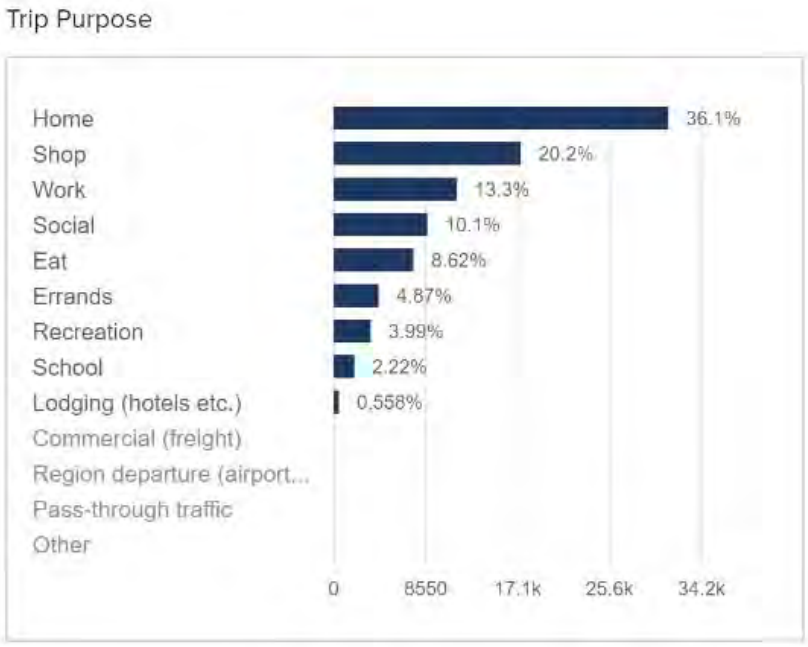


Jobs by Distance - Work Census Block to Home Census Block

	2020 Count	2020 Share
Total All Jobs	12,341	100.0%
Less than 10 miles	5,952	48.2%
10 to 24 miles	2,322	18.8%
25 to 50 miles	1,666	13.5%
Greater than 50 miles	2,401	19.5%

Source: United States Census Bureau, LEHD, 2020.

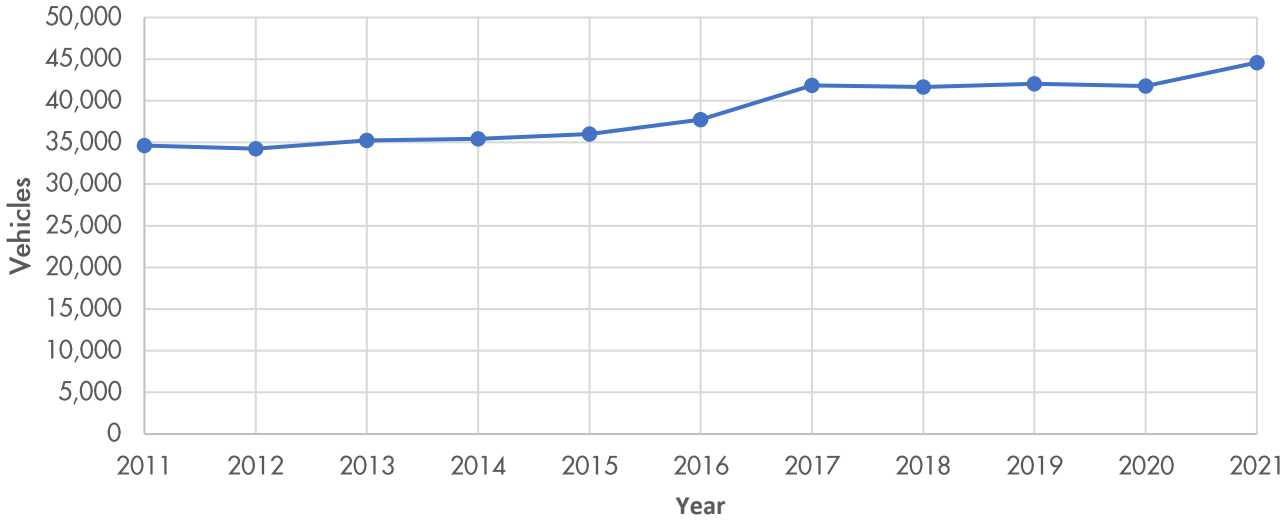
Figure 5.14 Private Auto Trip Purpose, Average Fall 2022 Weekday



Source: Replicahq.com, 2022, accessible at https://studio.replicahq.com/places/studies/hs43o0i/map.

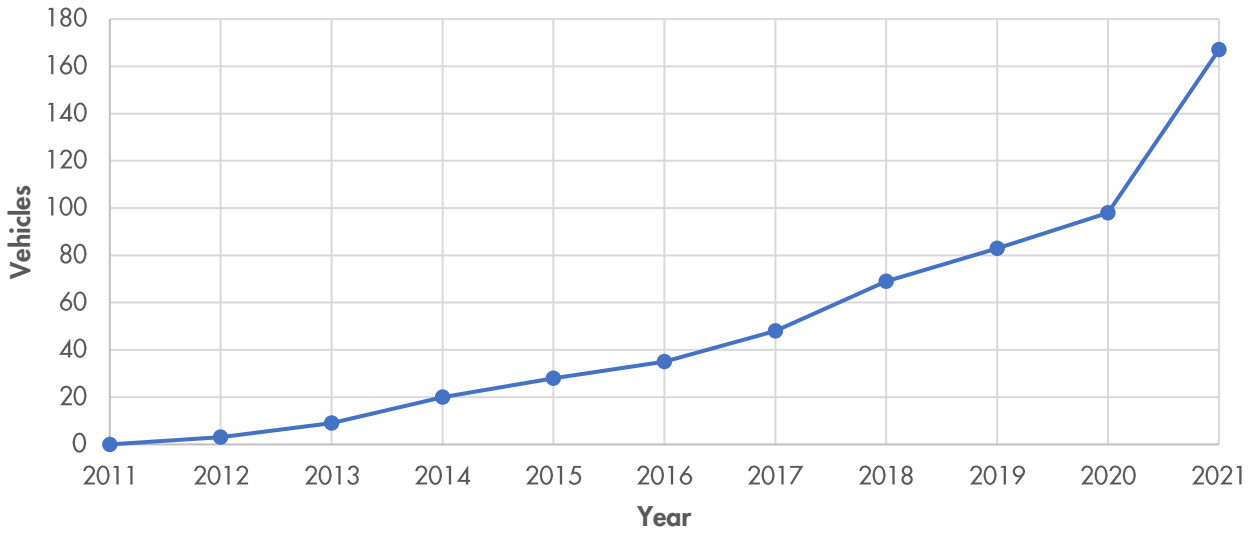
As the primary commute to work mode of travel, private vehicles are abundant in Siskiyou County, with 1.02 light-duty vehicles per capita. This tops the statewide average of 0.75. Since 2011, nearly 10,000 new non-zero-emission light-duty vehicles have taken to the road and a small but rapidly growing number of light-duty zero-emissions vehicles (ZEV) have been registered. Beginning at zero registered light-duty ZEVs in 2011, there are now nearly 200 as of 2021.

Figure 5.15 Total Light-duty Non-Zero-Emissions Vehicles, 2021



Source: California Energy Commission, Light-Duty population in California, 2023, accessible at: https://www.energy.ca.gov/data-reports/energy-almanac/zero-emission-vehicle-and-infrastructure-statistics/light-duty-vehicle

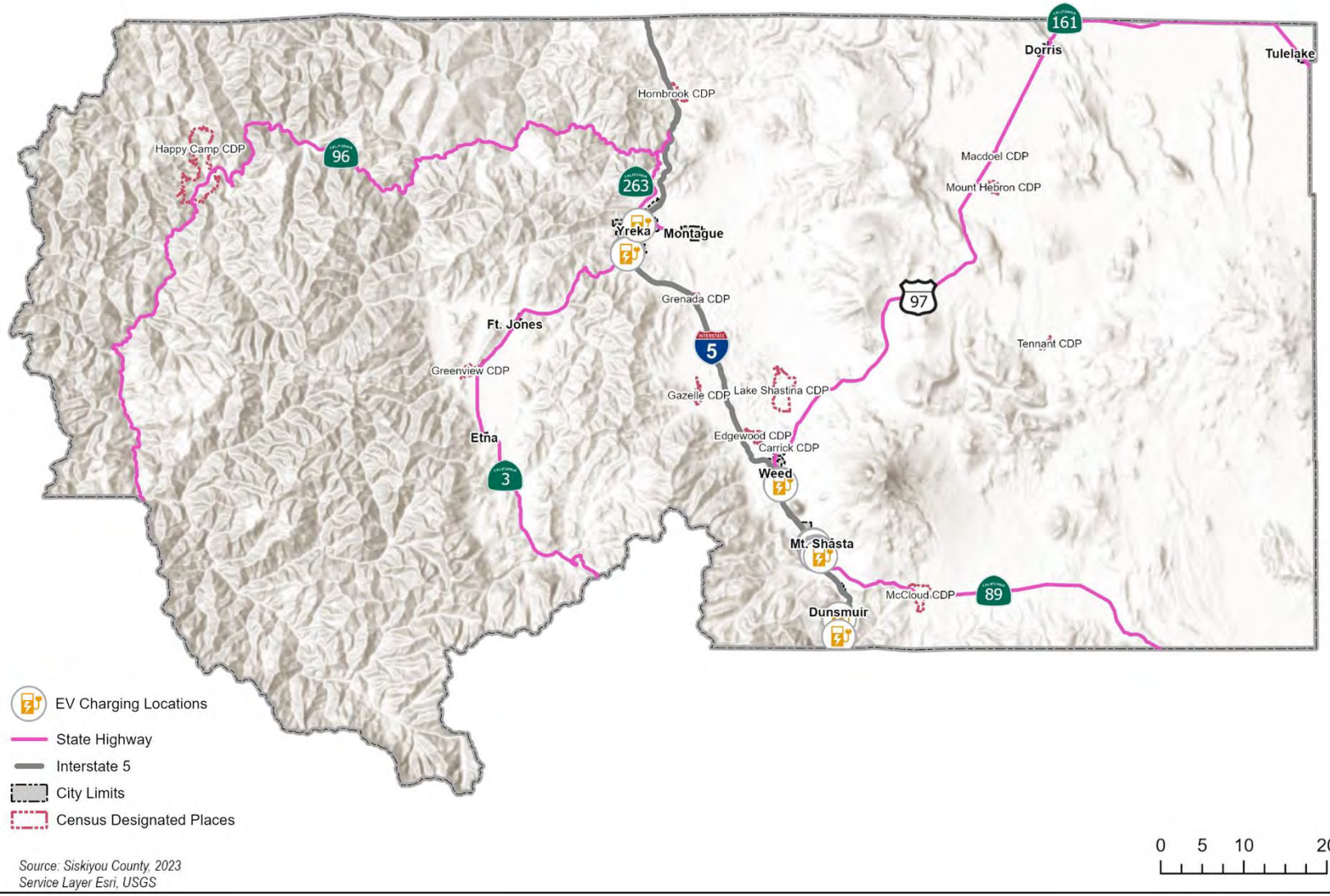
Figure 5.16 Total Light-Duty Zero-Emissions Vehicles



Source: California Energy Commission, Light-Duty Population in California, 2023, accessible at: https://www.energy.ca.gov/data-reports/energy-almanac/zero-emission-vehicle-and-infrastructure-statistics/light-duty-vehicle

Charging infrastructure in Siskiyou County is currently sparse and centered around the high-volume I-5 corridor (Figure 5.17).

Figure 5.17: Electric Vehicle Charging Locations, Siskiyou County



5.4 Transit Service

The Siskiyou County Local Transportation Commission (SCLTC) is the designated Regional Transportation Planning Agency (RTPA) for the county and is responsible for the Regional Transportation Plan (RTP), which focuses on developing coordinated and balanced multi-modal transportation. The SCLTC guides transit development in the region through the RTP and appointing council members to the Social Services Transportation Advisory Council (SSTAC), which represents seniors, folks with disabilities, and transit dependent populations. The Transportation Division of Siskiyou County's General Services is responsible for operating the county's public transit system (The Siskiyou County Transit and General Express). The County and SCLTC are currently in the process of drafting a joint powers authority agreement that will move the Siskiyou Transit and General Express (STAGE) under the control of the Siskiyou Transportation Authority. The target implementation date for this change is July 1, 2024.

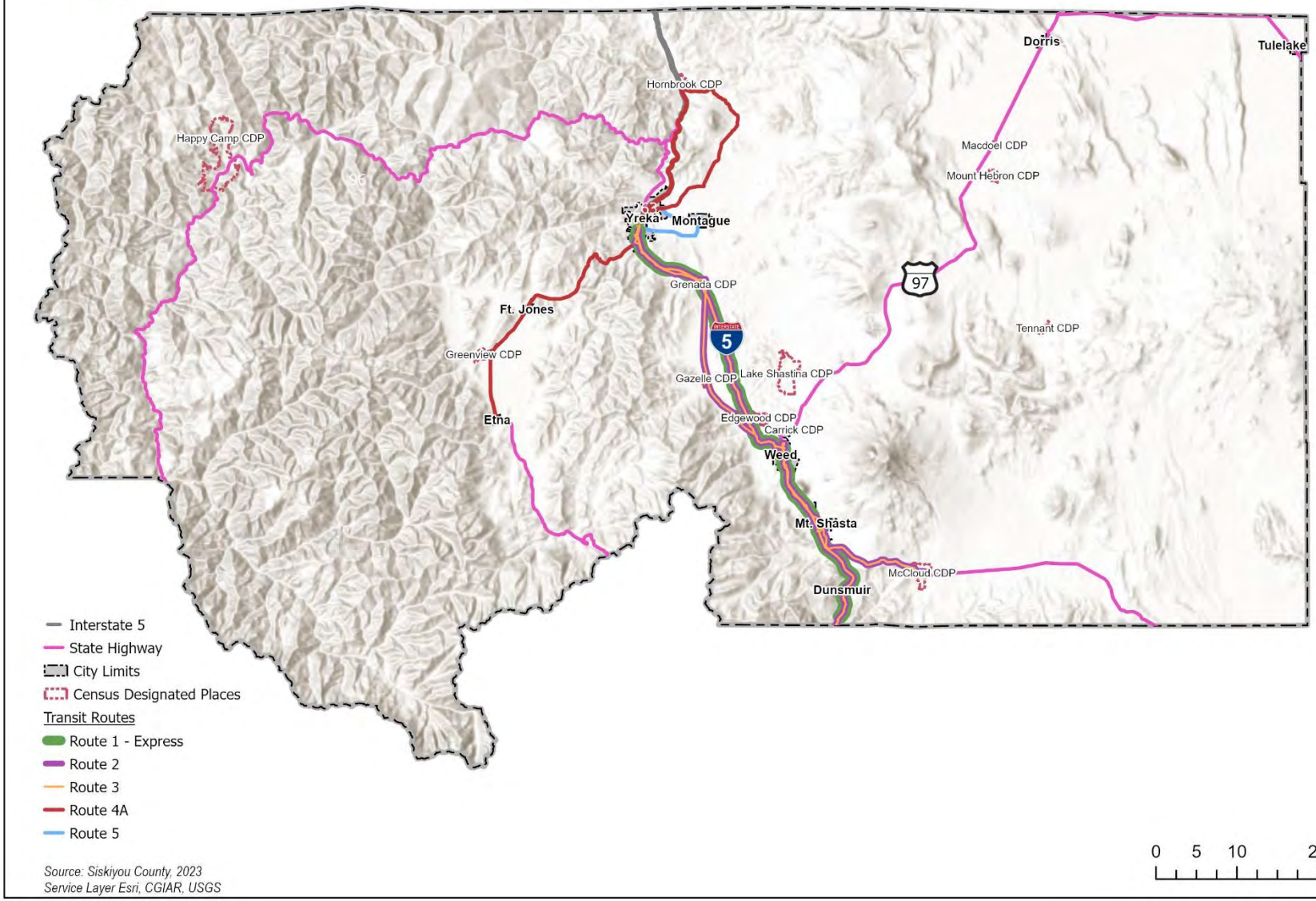
STAGE services local routes throughout the county. The service consists of one express route and four regular routes, as shown in Table 5.2.

Table 5.2 Siskiyou County Transit and General Express (STAGE) Routes, 2023

Route	Destinations
1 – Express	Yreka, Weed, Mt. Shasta, Dunsmuir
2	Yreka, Weed, Mt. Shasta, Dunsmuir, McCloud
3	Yreka, Weed, Mt. Shasta, Dunsmuir, McCloud
4A	Etna, Ft, Jones, Yreka, Hornbrook
5	Yreka, Montague

These fixed routes include on-call stops and run on limited schedules typically running from 6:05 am to 8:55 pm Monday to Friday. There is no weekend or holiday service provided by STAGE. Fares range from $1.25 for discounted "In Town" trips to $6.50 for "Base Next Town" trips. The current routes offered are show in Figure 5.18.

Figure 5.18: Siskiyou County Public Transit Routes



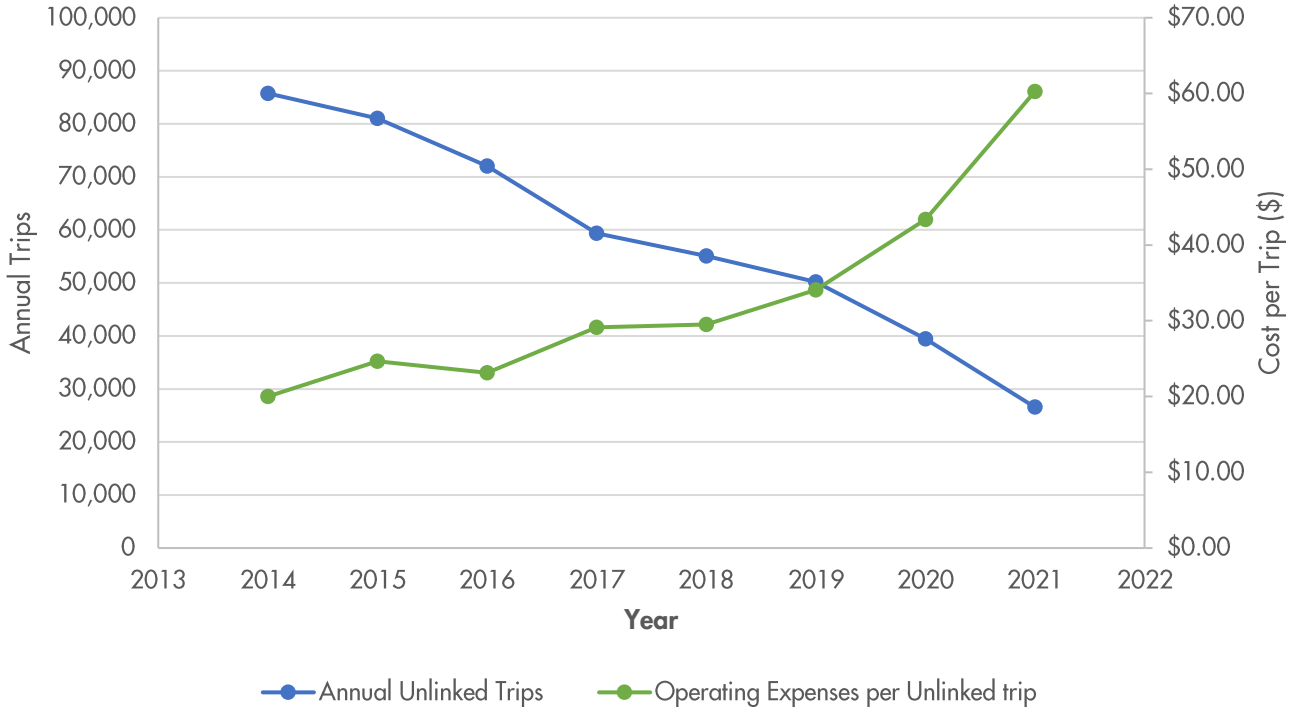
Source: Siskiyou County, 2023
Service Layer Esri, CGIAR, USGS

Trends

Since 2014, transit ridership in Siskiyou County has been in decline. From 2014 to 2021, passenger trips decreased 69 percent from 85,561 to 25,561. The COVID-19 pandemic likely contributed to this major reduction in ridership, however transit usage had been contracting year to year prior to 2020. Until 2019, STAGE was losing 5,925 passenger trips per year on average. Between 2019 and 2021, STAGE lost an average of 7,880 passenger trips a year.

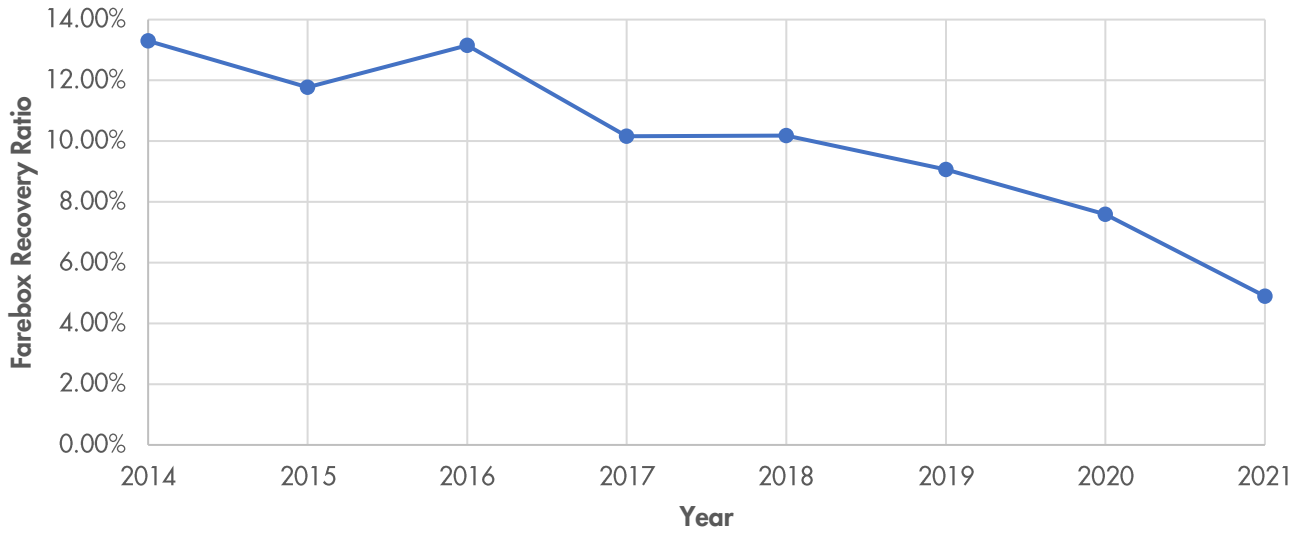
Figure 5.19 shows the year-over-year trend in transit trips and the effect on costs per trip. Many transit agencies have experienced waning ridership due to favorable economic conditions, ride-hailing apps such as Uber and Lyft, and the passage of AB 60 in 2013 which removed restrictions on undocumented Californian residents obtaining drivers licenses. These factors, coupled with the loss in ridership from the COVID-19 pandemic has affected STAGE's ability to meet the TDA farebox recovery ratio targets. For non-urban areas this target is 10 percent, which STAGE has not met since 2019. Failing to meet this requirement can result in reduced State funding for services, however STAGE has not experienced a major reduction in State funding since 2014 and most operating expenses are funded locally.

Figure 5.19 Annual Transit Trips Vs Operating Cost



Source: Federal Transit Administration, County of Siskiyou Agency Profiles, 2022, accessible at: https://www.transit.dot.gov/ntd/transit-agency-profiles/county-siskiyou

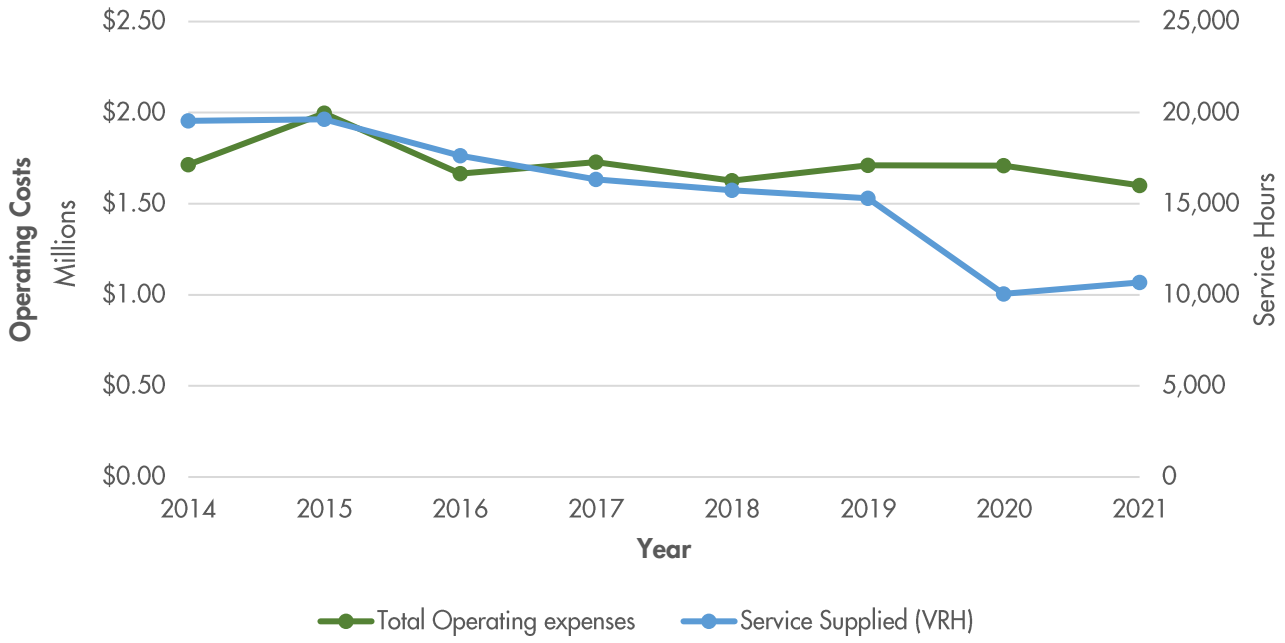
Figure 5.20 Farebox Recovery Ratio, STAGE



Source: Federal Transit Administration, County of Siskiyou Agency Profiles, 2022, accessible at: https://www.transit.dot.gov/ntd/transit-agency-profiles/county-siskiyou

The declining transit ridership and service supplied by STAGE has not resulted in similar decreases in total operating expenses, driving up operating costs per trip. Comparing transit service supplied by STAGE in 2014 to 2021, the total operating hours have been nearly halved, falling from 19,542 to 10,688 hours. The farebox recovery ratio of STAGE has fallen from 13.3 percent in 2014 to 4.9 percent in 2021(as shown on Figure 5.21) and the operating expenses per trip have tripled since 2014 from $20 to 60.27 in 2021.

Figure 5.21 Total Transit Service Hours vs. Total Operating Costs



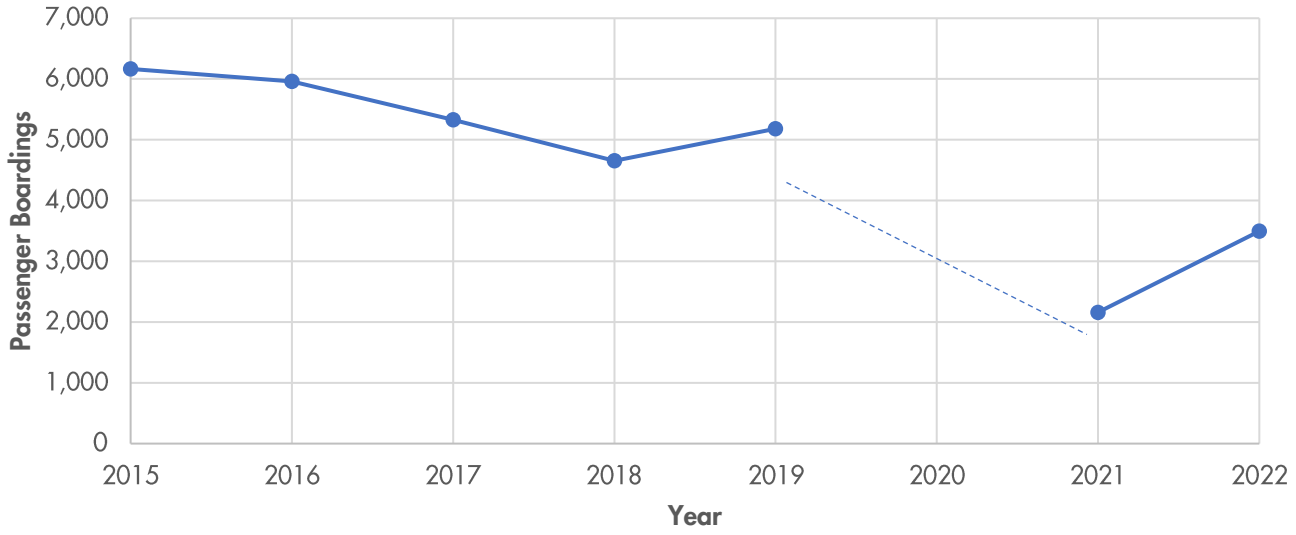
Source: Federal Transit Administration, County of Siskiyou Agency Profiles, 2022, accessible at: https://www.transit.dot.gov/ntd/transit-agency-profiles/county-siskiyou

5.5 Rail Transportation and Goods Movement

Rail Transportation

Amtrak currently operates in Siskiyou County with a station in Dunsmuir. The Amtrak Coast Starlight (Seatle – Portland – Sacramento – Los Angeles) stops twice daily at 12:45 am going southbound and 4:58 am going northbound. As of 2022, 3,496 passengers are served through this stop every year. Since 2015, this station has had a 43 percent decrease in passenger boardings.

Figure 5.22 Amtrak Passenger Boardings, Dunsmuir Station



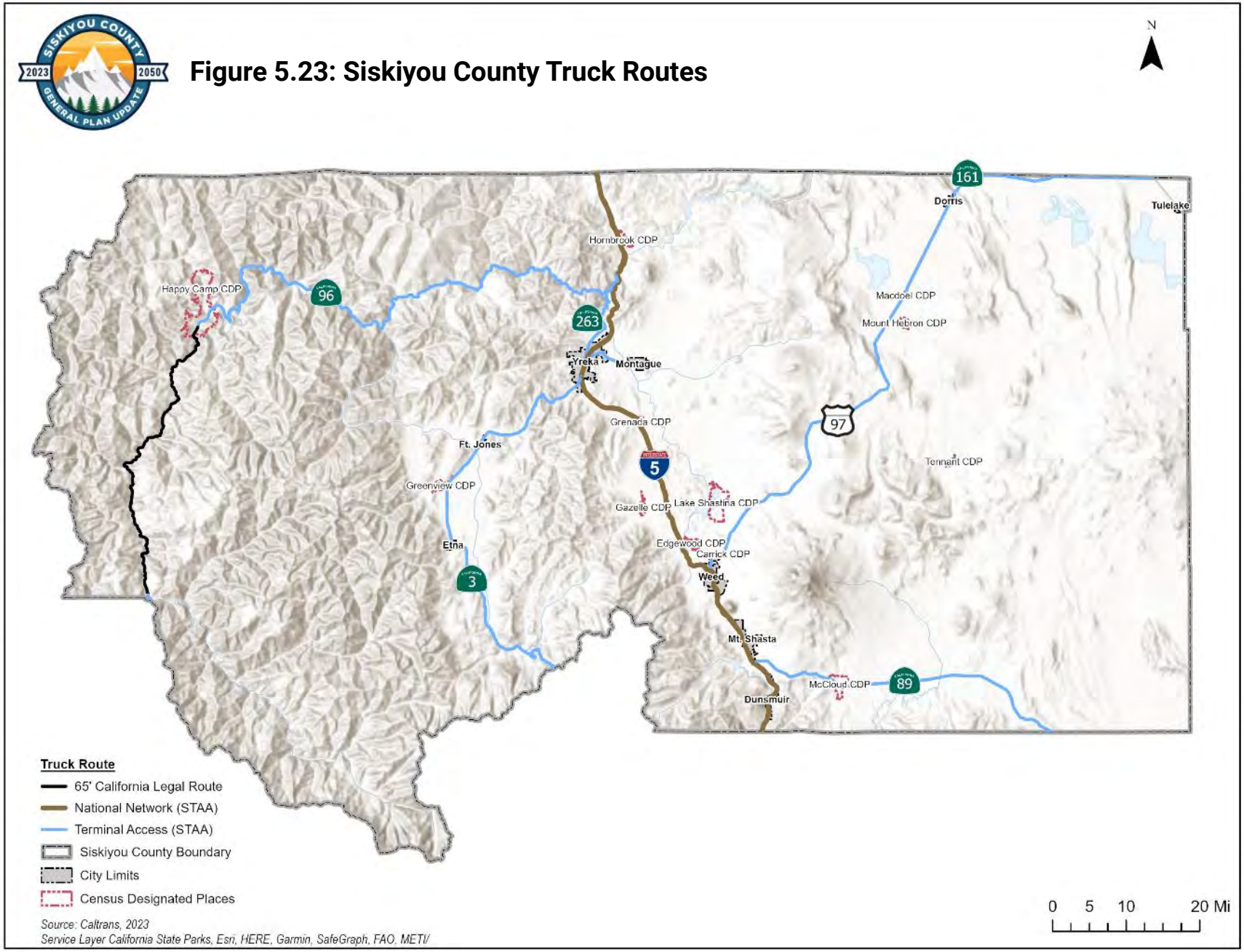
Source: Amtrak Fact sheet, 2015-2022.

Goods Movement

Goods movement in Siskiyou County was examined with data from the Caltrans Traffic Census Program from 2013-2021. The county's truck network consists of national and terminal access truck routes designated by Caltrans in compliance with Surface Transportation Assistance Act (STAA) standards. Figure 5.23 shows the STAA truck routes in Siskiyou County in further detail.

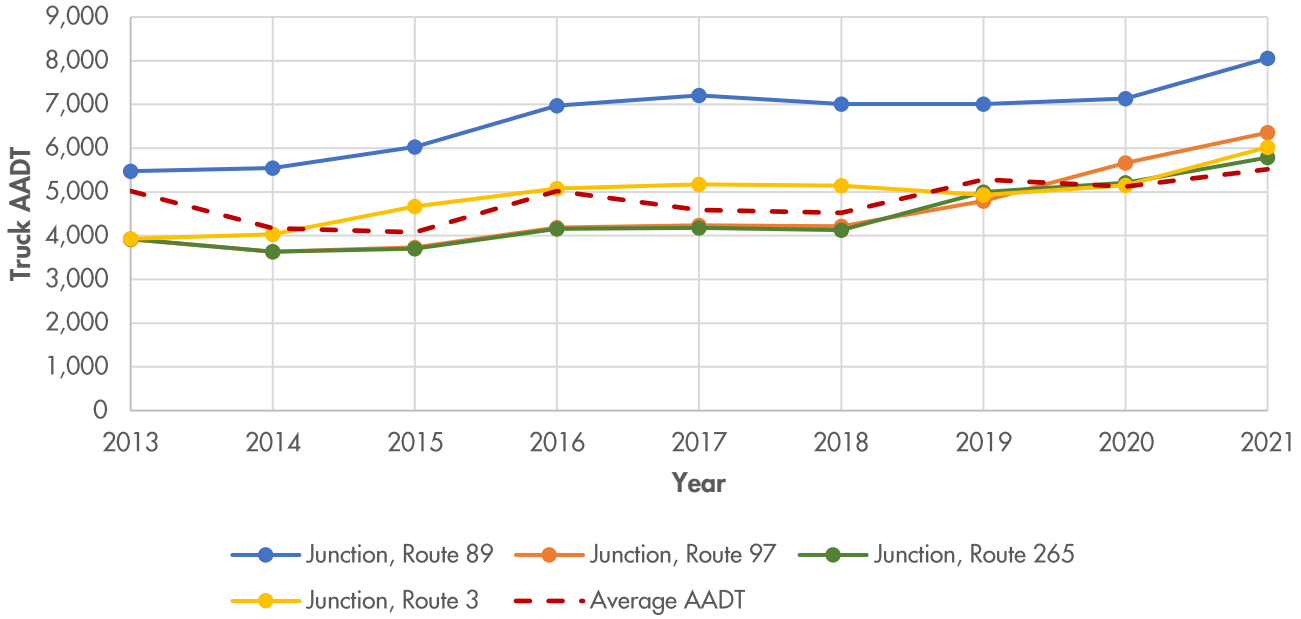
The most critical truck route in Siskiyou County is Interstate 5 (I-5), serving as both the gateway to and major corridor through the county. I-5 is the sole National Network designated route and connects to the Terminal Access routes which provide access to the rest of the county. On average it facilitates travel for upwards of 6,500 trucks (2021 data) through Siskiyou County.

Figure 5.23: Siskiyou County Truck Routes



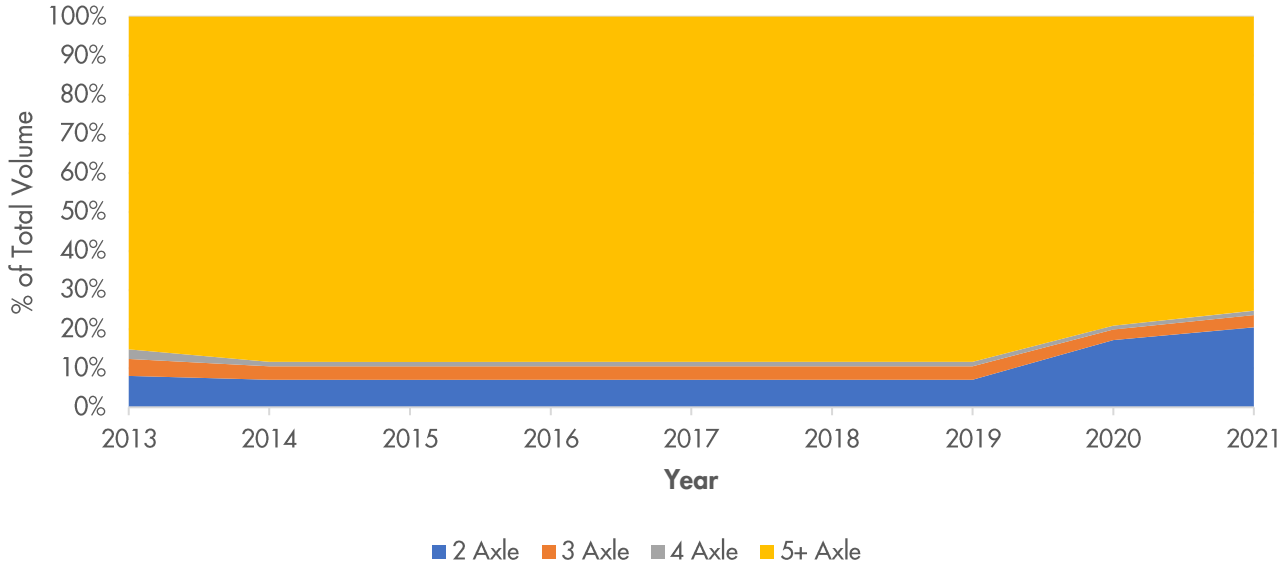
From 2013 to 2021, truck volumes along I-5 increased 34 percent on average. Figure 5.24 displays trends in average annual daily traffic (AADT) for trucks at four National and Terminal Access route junctions. The count locations are shown in Figure 5.26. The majority of truck traffic in Siskiyou is from larger 5+ axle trucks. Figure 5.25 shows a breakdown of the percentage of truck volume by axle count. Most notably, 5+ axle truck volume has decreased slightly and volume from trucks with two axles has increased since 2019.

Figure 5.24 Interstate-5 Truck Volumes, Siskiyou County



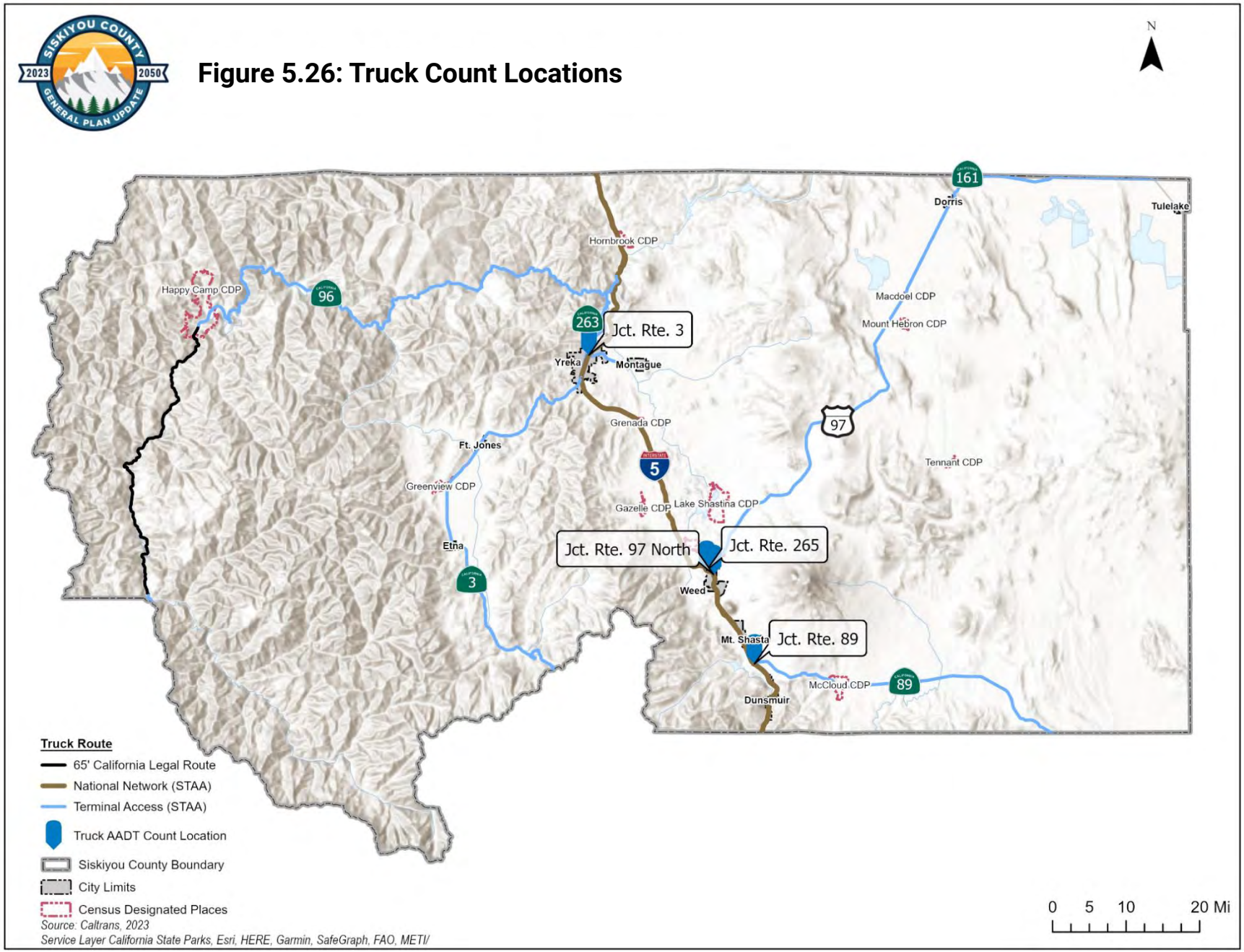
Source: Caltrans Traffic Census, 2013-2021.

Figure 5.25 Truck Traffic By Number Of Axles



Source: Caltrans Traffic Census, 2013-2021.

Figure 5.26: Truck Count Locations



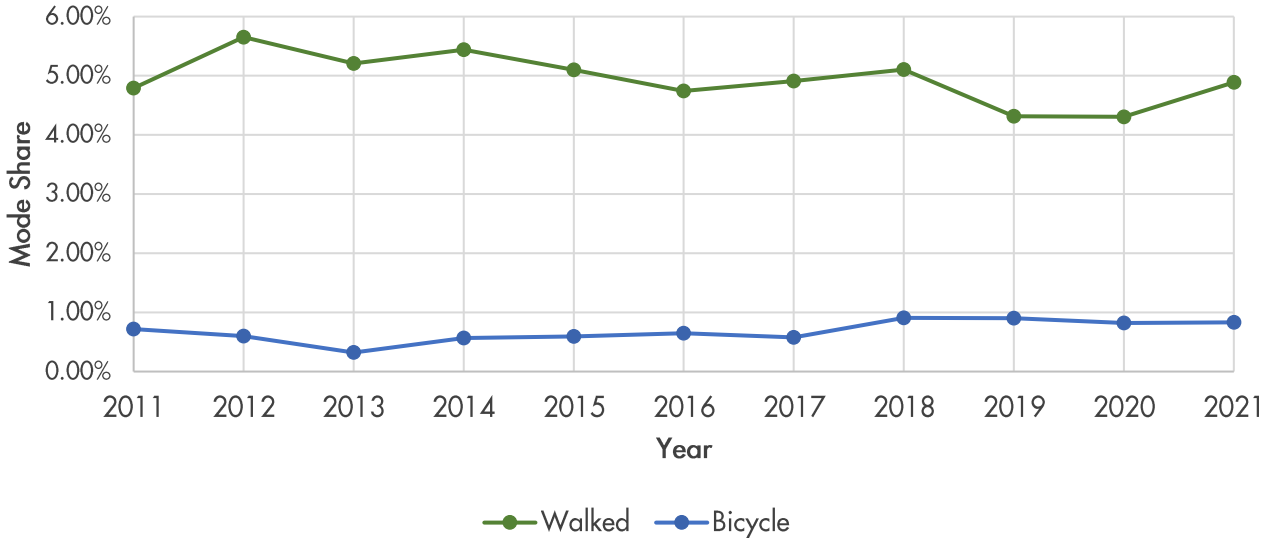
5.6 Active Transportation Facilities and Services

Siskiyou County boasts many opportunities for active recreation. The county is crisscrossed with many recreational trails for off-road biking and hiking making active accessibility to nature abundant. Active transportation for commuting and utilitarian trips remains less popular. Road safety and accessibility are a challenge on the county's roadways due to the long distances between destinations, poor network connectivity, and lack of maintenance. Policy to promote active transportation in the county is largely in development or in need of an update. The City of Yreka has an adopted Bicycle and Pedestrian Master Plan (2007), Mt. Shasta has completed a mobility plan called *Walk Bike Ride Mt. Shasta*, the City of Dunsmuir has adopted a 2024 Active Transportation Plan (ATP), and Siskiyou County has been awarded funding to develop a countywide ATP. The creation and update of these plans will be important milestones as active transportation is important to residents of the county.

Countywide, 86.2 percent of the respondents to the community survey that was circulated as part of the Regional Transportation Plan (RTP) update ride a bicycle at least sometimes for recreational or transportation purposes and 65.5 percent ride a bicycle at least a few times a month. All respondents to the survey walk for recreational or transportation trips and 86.2 percent walk 1-2 times per week. Most respondents would like more bike lanes (60.7 percent), bicycle and pedestrian paths (64.3 percent), and a more connected bicycle and pedestrian network (53.6 percent). Respondents ranked investing in active transportation infrastructure as the second highest transportation priority after road maintenance with 17.2 percent ranking it as the highest priority in the region. Areas with the greatest need for active transportation facilities were identified by survey respondents; in order they are: McCloud, the entire county, Mt. Shasta, intercity connections, and intracity connections between residential areas, services, and downtown areas.

Active transportation is clearly valued in Siskiyou County. Through supporting the needs and filling the gaps identified in the 2021 RTP, biking and walking can become more regularly used modes of transportation. Since 2011, active modes of transportation have had fairly stagnant pieces of the commute to work mode share hovering around one percent for bicycling and five percent for walking.

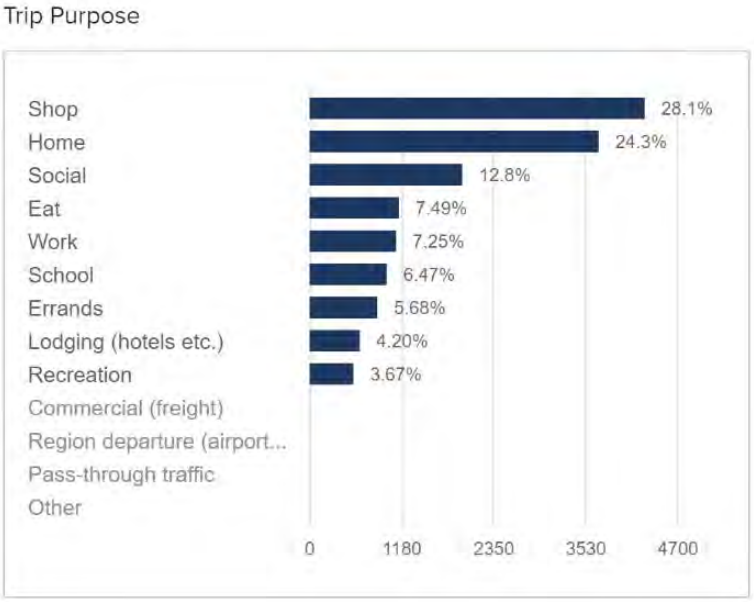
Figure 5.27 Commute to Work Mode Share



Source: ACS 2021 5-year Estimates.

Walking trips in Siskiyou County are predominantly for shopping, to home, to social occasions, and to dine out. Figure 5.28 shows the top walking trip purposes within Siskiyou County. These trips are on average under a mile in distance and shorter than 20 minutes in duration.

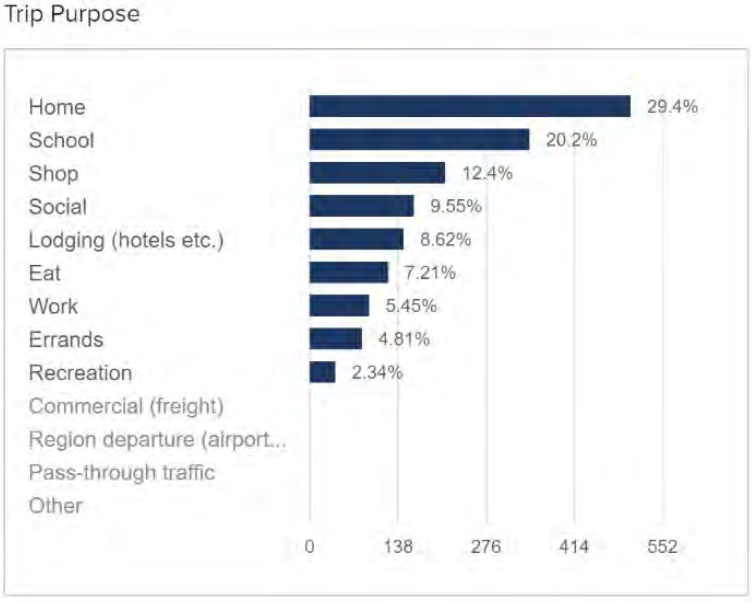
Figure 5.28 Walking Trip Purpose, Average Fall 2022 Weekday



Source: Replicahq.com, 2022, accessible at https://studio.replicahq.com/places/studies/hs43o0i/map.

Figure 5.29 shows the top biking trip purposes in the county. Biking trips are mostly made to home, to school, and for shopping over longer distances. Over 75 percent of trips made by bicycle are between 2 and 16 miles long with the average length and duration at 5.1 miles and 27.7 minutes.

Figure 5.29 Bicycle Trip Purpose, Average Fall 2022 Weekday



Source: Replicahq.com, 2022, accessible at https://studio.replicahq.com/places/studies/hs43o0i/map.

5.7 Aviation Transportation Facilities and Service

Within unincorporated Siskiyou County there are four public-use general aviation airports in operation and one airport operated by the U.S National Forest Service. Of the four public-use airports, fixed-base operators (FBO) function at three. An FBO is a company that has the authority to operate aeronautical services, such as fueling and maintenance, at an airport. Figure 5.30 shows the location of each airport listed and described below:

General Aviation:

- Butte Valley Airport
- Scott Valley Airport (FBO)
- Siskiyou County Airport (FBO)
- Weed Airport (FBO)

U.S National Forest Service:

- Happy Camp Airport

Butte Valley Airport is located six miles south of the city of Dorris and was activated in 1950. The airport does not provide any services and operates solely as a runway. On average, 22 aircraft operate out of the airport daily.

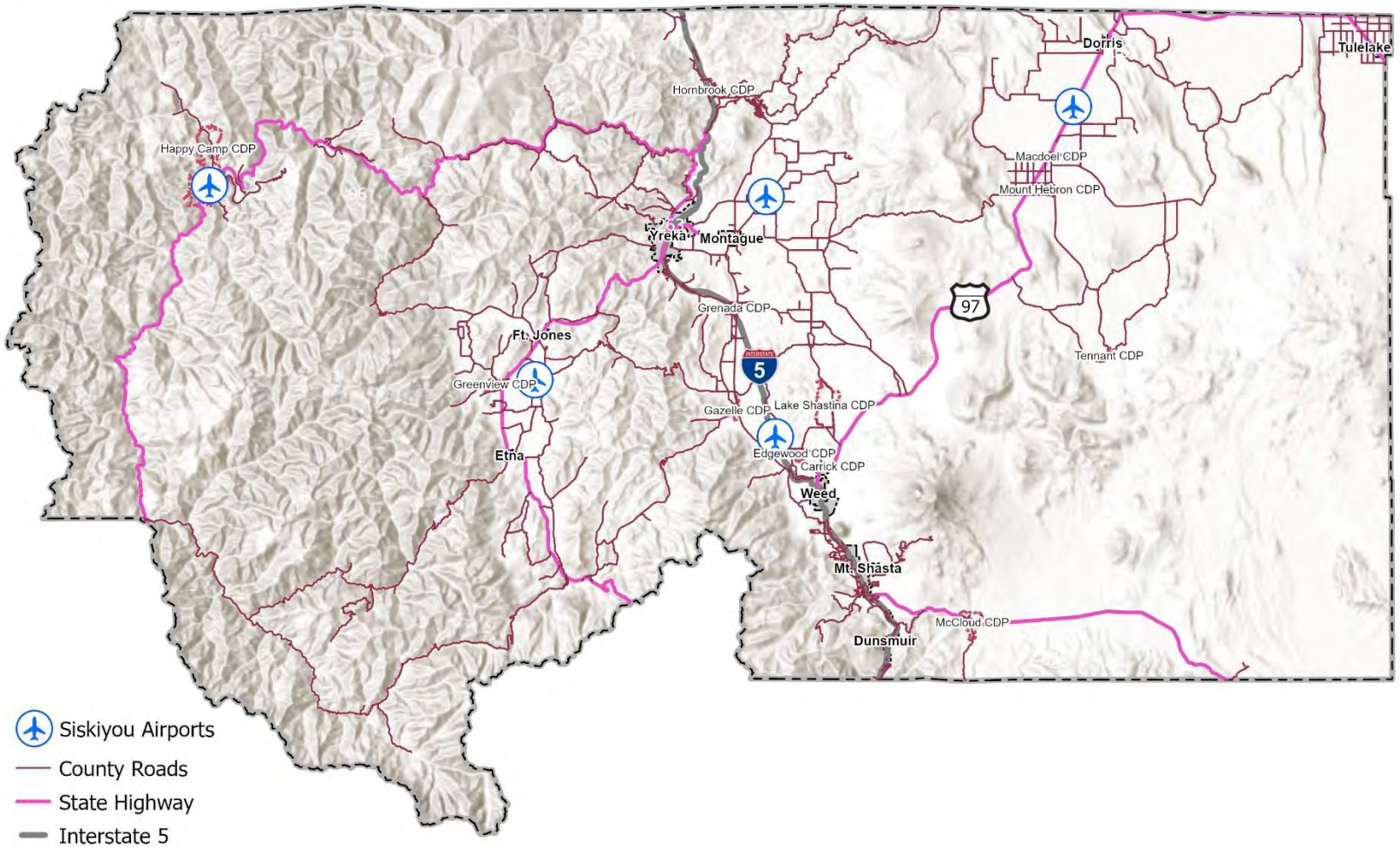
Scott Valley Airport is located approximately five miles south of the Town of Fort Jones and eight miles north of the city of Etna. The airport was activated in 1949 and houses a helitack base that operates between June and October. On average, 22 aircraft operate out of the airport daily, although this can vary widely depending on fires in the area.

Siskiyou County Airport (KSIY/SIY) is the primary airport in unincorporated Siskiyou County, located three miles north of the city of Montague and eleven miles east of the city of Yreka. It has been in operation since 1942 and consists of one airstrip with lighting provisions. It is primarily used for general aviation and on average 38 aircraft operate out of the airport daily.

Weed Airport is a smaller general aviation facility located five miles north of the city of Weed. It began operation in 1958 and consists of one airstrip today. On average, 28 aircraft operate out of the airport daily.

Happy Camp Airport is located within the community of Happy Camp and is closed to the public. The airport opened in 1951 and is operated by the U.S. National Forest Service. On average, 150 aircraft operate out of the airport each year. This can vary during wildfire season depending on the severity and frequency of fires in the surrounding area.

Figure 5.30: Siskiyou County Airports



Source: Siskiyou County, 2023
Service Layer Esri, CGIAR, USGS

5.8 Transportation System Management

Park and Ride Lots

Park and Ride lots are Caltrans owned and managed parking lots. Park and Ride lots provide commuters with free convenient daily parking to use ride share options such as carpool or vanpool.

Siskiyou County currently has one park and ride lot, located south of Mt. Shasta along the Volcanic Legacy Scenic Byway (SR 89). The park and ride lot consists of 20 parking spaces with one accessible space. The lot does not offer bike lockers or electric vehicle charging.

Figure 5.31 Siskiyou County Park & Ride Lot



Source: Google Earth.

Intelligent Transportation Systems (ITS) Deployment

Intelligent Transportation Systems (ITS) is the use of technology and information to improve transportation systems efficiency and safety. ITS deployment is considered a priority for the U.S. Department of Transportation to meet the unique transportation needs of rural areas.

Since 1991, Siskiyou County has been an active ITS participant through Caltrans in the California Oregon Advanced Transportation System (COATS) program. COATS was formed to address ITS challenges in rural areas. COATS projects in Siskiyou County include the following activities:

- Identifying transportation and information needs within the project area;
- Determining ITS solutions that are beneficial, cost-effective, and implementable;
- Designing, demonstrating and evaluating initial, small-scale projects/systems to test rural ITS feasibility on a multi-year basis;
- Developing a Strategic ITS Deployment Plan that outlines a strategic approach for implementation of rural ITS strategies.

Under COATS, Siskiyou County has participated in the planning and deployment of several projects including the Siskiyou Pass Traveler Information & Incident Management. The Siskiyou Pass Traveler Information & Incident Management Evaluation project includes the following components:

- Road and weather information systems
- Closed-circuit television surveillance
- Changeable message signs
- Information kiosks
- Regional incident management plan.

Additionally, COATS planned deployments of the following components within the region:

- Spot warning system, visibility warning system
- Highway advisory radio
- Motorist safety systems
- Transit and mobility systems, park and ride lot surveillance, and parking management systems
- Commercial vehicle systems.

As of November 2023, COATS has rebranded under the Western States Rural Transportation Consortium (WSRTC) and will be expanding its ITS deployment efforts to the western region of the United States. The WSRTC will be comprised of committee members from California, Oregon, Washington, Nevada, and Utah.

Recognition of ITS and its unique challenges is important to improving the safety of rural transportation networks as vehicle technology advances and an increasing number of autonomous vehicles are in use. Caltrans is preparing for future transportation needs through a pilot technology program, Connected and Automated Vehicles (CAV). CAV technology will aim to improve roadway safety and efficiency through the following approaches:

- Decrease crashes attributed to human error
- Transforming future mobility of people and goods including pedestrians, bicyclists, and transit users
- Greater access to transportation, jobs, education, and other services through shared mobility
- Improving rideshare and reducing VMT, GHG, and climate change impacts
- Integrating CAV technology at signalized intersections to reduce crashes and improve non-motorized user safety

Connected and Automated Vehicles (CAV) are derived from Connected Vehicles (CV) and Automated Vehicles (AV) that can communicate with nearby vehicles and surrounding infrastructure to provide improved vehicle autonomy. Implementation of improved infrastructure such as increased roadway striping width or crosswalk signals will improve roadway and pedestrian safety through greater vehicle autonomy recognition. The following figures outline CV and AV communication and classification in further detail.

Figure 5.32 Connected Vehicles (CV) Information Relay

Connected Vehicles (CV) are "connected" to receive and send alerts by communicating in the following ways:

Vehicle-to-Vehicle (V2V)	Information on speed, location, and heading.
Vehicle-to-Infrastructure (V2I)	Information on signal timing, work zones, crashes, congestion, and weather conditions.
Vehicle-to-Pedestrian (V2P)	Information between vehicles and non-motorized crosswalks and bicyclists.
Vehicle-to-Everything (V2N to V2E)	Data is transmitted to the Transportation Management Center (TMC) for analysis, including demand management, travel times, and incident response.



Source: Caltrans, Connected and Automated Vehicles (CAV), 2023, accessible at https://dot.ca.gov/programs/traffic-operations/cav

Figure 5.33 Automated Vehicles Automation Level Classification

Automated Vehicles (AV) are driverless or self-driving vehicles that are artificial intelligence or computer-driven and do not require a human to operate the vehicle safely. Most newer cars today have some automation, usually Level 1 - Driver Assistance or Level 2 - Partial Driver Automation. The below table describes the definition of six levels of driving automation by the Society of Automotive Engineers (SAE) J3016 Standards.

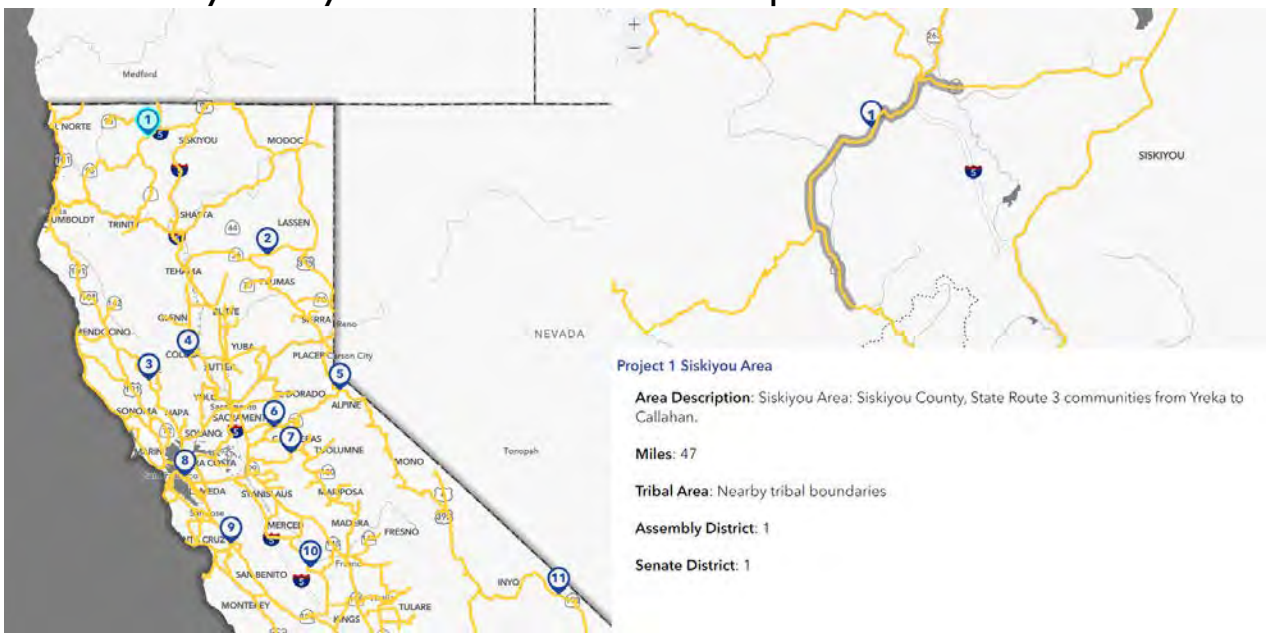
0	1	2	3	4	5
No Driving Automation Zero Autonomy. The driver performs all driving tasks.	**Driver Assistance** The driver controls the vehicle, but some driver-assist features may be included in the vehicle design.	**Partial Driving Automation** The vehicle has combined automated functions, like acceleration and steering, but the driver must always remain engaged with the driving task and monitor the environment.	**Conditional Driver Automation** A driver is a necessity but is not required to monitor the environment. The driver must always be ready to take control of the vehicle with notice.	**High Driving Automation** The vehicle is capable of performing all driving functions under certain conditions. The driver may have the option to control the vehicle.	**Full Driving Automation** The vehicle is capable of performing all driving functions under all conditions. The driver may have the option to control the vehicle.

Source: Caltrans, Connected and Automated Vehicles (CAV), 2023, accessible at https://dot.ca.gov/programs/traffic-operations/cav

Broadband Expansion

In 2021, the State of California approved the Middle Mile Broadband Initiative (SB 156) which allocates funding to build infrastructure to provide residents, businesses, and schools with internet access. The initiative was a product of the COVID-19 pandemic and uncovered internet accessibility gaps in the State and rural areas such as Siskiyou County. Bridging internet connectivity gaps are important for disadvantaged and rural communities to provide access to services such as tele-health and remote employment opportunities via broadband. Siskiyou County was identified as one of eighteen initial projects for the Middle-Mile Broadband initiative to provide broadband access to underserved communities in the State. Caltrans has constructed at least 47 miles of broadband infrastructure in Siskiyou County.

Figure 5.34 Siskiyou County Middle-Mile Broadband Initiative Project



Source: California Department of Technology, 2023.

The California Public Utilities Commission has developed the Northeastern California Connect Consortia, which is a group comprised of members from Siskiyou, Butte, Lassen, Modoc, Plumas, and Tehama counties to advocate and improve broadband connectivity in rural communities. Additionally, residents and businesses are encouraged by both the Siskiyou Economic Development Council and CalSPEED to share broadband speed and connectivity data with the California Public Utilities Commission. This effort aims to better understand internet quality and access throughout the county.

5.9 Key Terms

Active Transportation. Transportation modes that are not motorized such as personal vehicles, public transit, or rail. Active transportation typically encompasses pedestrians and bicyclists.

Annual Average Daily Traffic (AADT). A measure of traffic volume on a public roadway over an annual period. AADT is typically utilized to identify trends in travel demand.

Automated Vehicles. Also referred to as Autonomous Vehicles, automated vehicles are vehicles that provide various levels of driver assistance technologies. Automated vehicles are equipped with artificial intelligence or other technology that allow the vehicle to operate safely either without a driver or with a driver present to maintain control of the vehicle if necessary.

Broadband. The broadcasting of data over a high-speed internet connection. Broadband provides internet access through various technologies including fiber optic, wireless, cable or satellite.

Connected Vehicles. Vehicle equipment, applications, or systems with technology that allows the vehicle to "communicate" with nearby vehicles and infrastructure. Communication between connected vehicles are used to improve safety, network efficiency, mobility and identify potential hazards. Typically, vehicle information is shared and obtained through radio signals that provide 360 degrees of information coverage.

Disadvantaged Communities. Areas in the State that experience a combination of burdens such as economic, health, environmental and transportation. Burdens are typically caused by factors such as poverty, unemployment, air quality and pollution, and accessibility.

Highway Performance Monitoring System (HPMS). Developed in 1978, the Highway Performance Monitoring System is a national highway information system that provides data on the nation's highways such as extent, condition, performance, and operations. Each State is required to submit highway and public road data annually to the Federal Highway Administration to be included in the annual Highway Performance Monitoring system report. The report is a tool for the FHWA to appropriately apportion Federal funding to individual States for transportation needs.

Intelligent Transportation Systems (ITS). A system comprised of wireless and wired communication and technologies that are aimed at improving safety and mobility of transportation networks. ITS supports the integration of technology to facilitate communication between infrastructure and vehicles.

Pavement Conditions Index. The numerical scale to determine the health of a roadway's pavement. The PCI is a scale from 0 to 100, with 100 being a newly surfaced street and zero a failed street. A PCI score of 70 to 100 is considered "Excellent/ Good," 50 to 69 is "Fair," 25 to 49 is "Poor," and 0 to 24 is "Very Poor." If a roadway receives a low PCI score, it is considered at high risk for rapid deterioration.

Regional Transportation Planning Agency. A State-created planning agency that typically serves individual counties or multiple counties. RTPAs are usually referred to as transportation commissions, councils, or associations of governments.

Vehicle Miles Traveled (VMT). The measure of annual vehicle miles traveled within a specific area. To determine VMT, Annual Average Daily Traffic (AADT) is multiplied by the length of a road segment and combining all roads in the specific area. In 2020, Senate Bill 743 was passed and requires all local agencies to use VMT as the preferred metric for assessing transportation impacts, replacing the previous metric, Level of Service (LOS).

5.10 Regulatory Setting

Federal

Infrastructure Investment and Jobs Act

The Infrastructure Investment and Jobs Act (IIJA) was signed into law in November 2021 to replace the expired FAST Act (Public Law 117-58). The IIJA authorized $973 billion for Fiscal Year 2022 for investments for all modes of transportation and water, power, energy, environmental remediation, public lands, broadband, and resilience. The IIJA distributes funds through the national Association of Counties through three avenues:

- Federal Highway Trust Fund for highway and transit programs;
- Appropriations from the General Fund of the U.S. treasury, subject to annual appropriations process;
- Advance appropriations over a five-year period, separate from the regular appropriations process.

From the $973 billion, $550 billion is allocated for new investments, through a surface transportation authorization law. Of the $550 billion for new investments, $284 billion will be distributed to the U.S. Department of Transportation (DOT) in order to provide improvements for all modes of transportation. The funds are reserved as follows:

- Roads & Bridges - $110 billion
- Transit - $39 billion
- Rail - $66 billion
- Safety - $11 billion
- Airports - $25 billion
- Ports & Waterways - $17 billion
- Electric Vehicle Chargers - $7.5 billion
- Electric Buses – $7.5 billion
- Reconnecting Communities – $1 billion

Counties and Regional Transportation Planning Agencies (RTPAs) can obtain funds competitively through Federal grant programs lead by State departments of transportation, such as Caltrans, and RTPAs through suballocations based on population from State transportation departments and Federal formulas. The IIJA establishes a new and long-term surface transportation reauthorization and increases competitive grant opportunities through supplemental appropriations to the DOT.

California is expected to receive approximately $29.5 billion over five years in Federal highway formula funding for State highway and bridge projects. The IIJA will aid in the reparation and rebuilding of roads and bridges through the lens of climate change mitigation, resilience, equity, and bicycle and pedestrian safety. Additionally, the IIJA will promote and improve sustainable transportation options for millions of Americans. California is expected to receive approximately $10.3 billion over five years to improve public transportation options throughout the State. The IIJA is also expected to expand passenger rail in California, improve freight rail efficiency, and safety.

Federal Aviation Administration. The Federal Aviation Administration regulates civil aviation and national commercial space transportation, maintains and operates air traffic control and navigation systems for both civil and military aircrafts, and develops and administers aviation safety programs and the National Airspace System.

State

California Transportation Plan

The California Transportation Plan is prepared by the California State Transportation Agency every five years to provide a long-range policy framework to meet the State's future mobility needs and reduce greenhouse gas (GHG) emissions meet the goals set forth by the California Global Warming Solutions Act of 2006 (Assembly Bill [AB 32]. The most recent California Transportation Plan was adopted in 2021. The California Transportation Plan outlines goals, performance-based policies, and strategies to achieve the State's vision for a statewide, integrated, multimodal transportation system by envisioning a sustainable system that improves mobility and quality of life. Through constant engagement, the California Transportation Plan is intended to provide goals and visions to support an integrated, multimodal, sustainable transportation system that improves quality of life, economy, human and environmental health, and social equity.

California Transportation Commission Regional Transportation Plan Guidelines

The California Transportation Commission (CTC) publishes and periodically updates guidelines for the development of long-range transportation plans, such the Siskiyou County 2021 Regional Transportation Plan. Required by State law, Government Code Section 65080(d), each regional transportation planning agency (RTPA) is required to adopt and submit an updated RTP to CTC and Caltrans every four years. The Siskiyou County Local Transportation Commission (SCLTC) is the designated RTPA for Siskiyou County.

Under Government Code Section 14522, the CTC is authorized to prepare guidelines to assist in the preparation of RTPs. The most recent update to the RTP guidelines was published in 2017 and includes separate guidance for RTPAs and MPOs and new checklists for RTP content. The CTC adopted the 2024 RTP Guidelines Update in January 2024.

Climate Action Plan for Transportation Infrastructure

The Climate Action Plan for Transportation Infrastructure (CAPTI) was adopted in 2021. The CAPTI describes State recommendations to invest billions of discretionary transportation dollars annually to aggressively tackle and adapt to climate change while improving public health, safety, and equity. The CAPTI builds on executive orders signed by California Governor Gavin Newsom in 2019 and 2020 aimed at reducing GHG emissions in transportation.

Senate Bill 743

SB 743 (2013) altered the way that public agencies evaluate the transportation impacts of projects under CEQA. Under SB 743, the Governor's Office of Planning and Research (OPR) established VMT as the preferred metric for measuring transportation impacts of most projects in place of vehicle level of service (LOS) or related measures of congestion as the primary metric. The use of VMT for determining significance of transportation impacts has become commonplace since the certification of this provision and the release of OPR's *Technical Advisory on Evaluating Transportation Impacts* in CEQA in December 2018 and, as of July 1, 2020, is the required metric statewide (OPR 2018).

State CEQA Guidelines Section 15064.3 and OPR Technical Advisory

State CEQA Guidelines Section 15064.3 implements SB 743 and establishes VMT as the most appropriate measure of transportation impacts. The primary components of Section 15064.3 include:

- Identifies VMT as the most appropriate measure of transportation impacts.

- Declares that a project's effect on automobile delay shall not constitute a significant environmental impact (except for projects increasing roadway capacity).
- Creates a presumption of no significant transportation impacts for (a) land use projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor, (b) land use projects that reduce VMT below existing conditions, and (c) transportation projects that reduce or have no impact on VMT.
- Allows a lead agency to qualitatively evaluate VMT if existing models are not available.
- Gives lead agencies discretion to select a methodology to evaluate a project's VMT but requires lead agencies to document that methodology in the environmental document prepared for the project.

CEQA lead agencies were required to comply with the State Guideline Section 15064.3 no later than July 1, 2020. The OPR provided guidance regarding VMT use in its *Technical Advisory on Evaluating Transportation Impacts* in CEQA (OPR 2018). Specifically, a threshold of 15 percent less VMT per capita than existing average VMT for the area is relevant for analyzing impacts.

Senate Bill 747

This bill, upon the next revision of a local hazard mitigation plan on or after January 1, 2022, or beginning on or before January 1, 2022, if a local jurisdiction has not adopted a local hazard mitigation plan, would require the General Plan safety element to be reviewed and updated as necessary to identify evacuation routes and their capacity, safety, and viability under a range of emergency scenarios. The bill would authorize a city or county that has adopted a local hazard mitigation plan, emergency operations plan, or other document that fulfills commensurate goals and objectives to use that information in the safety element to comply with this requirement by summarizing and incorporating by reference that other plan or document in the safety element.

Assembly Bill 1358

AB 1358, also known as the Complete Streets Act of 2008, amended California Government Code Section 65302 to require that any substantive revisions to a city or county's Circulation Element include provisions for accommodations of all roadway users, including bicyclists and pedestrians. In 2021 Caltrans established the Directors Policy on Complete Streets (DP-37) that requires all Caltrans projects to provide comfortable, convenient, and connected complete street facilities for people walking, biking, and taking transit or passenger rail, unless an exception is documented and approved.

California Active Transportation Plan Guidance

On September 26, 2013, Governor Brown signed legislation creating the Active Transportation Program (ATP) in the Department of Transportation (Senate Bill 99, Chapter 359 and Assembly Bill 101, Chapter 354). The ATP consolidates existing Federal and State transportation programs, including the Transportation Alternatives Program (TAP), Bicycle Transportation Account (BTA), and State Safe Routes to School (SRTS), into a single program with a focus to make California a national leader in active transportation. The ATP is administered by the Division of Local Assistance, Office of State Programs.

Siskiyou County and SCLTC do not have any existing bicycle or other modal plans. The SCLTC is currently developing a countywide Active Transportation Plan.

Regional

Regional Transportation Planning Agency Transportation Plans

Under Federal regulations (23 CFR 450.322(c)) and State law (Government Code 65080(d)), the SCLTC is required to prepare a long-range (at least 20-year) transportation planning document, known as the RTP. The RTP must be updated every four years and must be consistent with the California Transportation Plan. The 2021 Regional Transportation Plan (RTP) was the most recent regional transportation plan adopted by the SCLTC.

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6. Biological Resources

This section summarizes agricultural resources, biological resources, open space resources, scenic resources and recreation, mineral resources, and forestry resources in Siskiyou County.





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6.1 Introduction

This section summarizes agricultural resources, biological resources, open space resources, scenic resources and recreation, mineral resources, and forestry resources in Siskiyou County. This chapter is organized into the following sections:

6.1 Introduction BR-3
6.2 Agricultural Soils and Water BR-4
6.3 Biological Resources BR-10
6.4 Special Status and Endangered Species BR-15
6.5 Open Space and Conservation BR-26
6.6 Scenic Resources and Recreation BR-28
6.7 Mineral Resources BR-30
6.8 Forestry Resources BR-32
6.9 Key Terms BR-35
6.10 Regulatory Setting BR-37
6.11 References BR-43

6.2 Agricultural Soils and Water

Siskiyou County's diverse landscape provides abundant opportunities for agricultural production throughout the county, which is one of the most ecologically diverse regions in the world, with numerous mountain ranges, including the Klamath Mountains, Cascade Range, and Siskiyou Mountains. The basins of northeastern Siskiyou County, including Butte Valley, Lower Klamath and Tulelake basins, have some of the deepest and richest soils in the State, producing alfalfa, potatoes, horseradish, and brewing barley. Butte Valley nurseries are the leading source of premium strawberry plants in North America. In addition, the county is a state leader in the timber nursery tree crop industry, with countywide nurseries producing between 30 million and 60 million timber seedlings annually. The primary agricultural regions in the county are the Butte, Scott River, and Shasta Valleys, which combined consist of 97,235 acres of crop production and generating $231 million direct gross revenues. Williamson Act

The California Land Conservation Act of 1965, commonly known as the Williamson Act, authorizes local governments to preserve specific agricultural and open space lands by entering into a contractual agreement with private landowners. Landowners entering into such agreements receive tax relief on designated agricultural and open space property. Agricultural preserves must be a minimum of 100 acres and have agricultural zoning. Land under contract must be principally used for commercial agricultural production. The majority of land under Williamson Act contracts in Siskiyou County is generally located in the Butte, Scott, and Shasta Valleys. This land primarily consists of non-prime agricultural land and lands that are a mix of prime and non-prime agricultural land.

Agricultural Soils

Prime Farmland

The California Department of Conservation (DOC) provides data through the Farmland Mapping and Monitoring Program (FMMP) to analyze impacts on California's agricultural resources. FMMP provides Important Farmland Maps, which analyze the quality of soils and irrigation capabilities to determine Prime Farmland or Farmland of Statewide Importance (NRCS, 2019). Determinations must meet physical and chemical soil criteria, determined by soil surveys provided by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), such as:

- Available water capacity and developed irrigation water supply
- Soil temperature range
- Acid-alkali balance
- Water table
- Soil sodium content
- Permeability rate
- Rock fragment content
- Soil rooting depth

According to the FMMP, Siskiyou County has a small amount of Prime Farmland and Farmland of Statewide Importance. Prime Farmland is primarily located in Shasta Valley, Scott Valley,

Butte Valley, and Tule Lake Basin area (California Department of Conservation 2023). Figure 6.1 shows the distribution of Prime Farmland and Farmland of Statewide Importance throughout Siskiyou County. Large portions of the county are not mapped by the FMMP since the agency maps important farmland based on NRCS soil surveys which do not cover National Forests or other governmental lands.

FMMP Farmland Types

This section includes definitions of each of the FMMP farmland types shown on Figure 6.1.

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

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

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

Farmland of Local Importance. Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee. In some counties, Confined Animal Agriculture (PDF) facilities are part of Farmland of Local Importance (PDF), but they are shown separately.

Grazing Land. Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities.

Urban and Built-up Land. Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

Other Land. Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

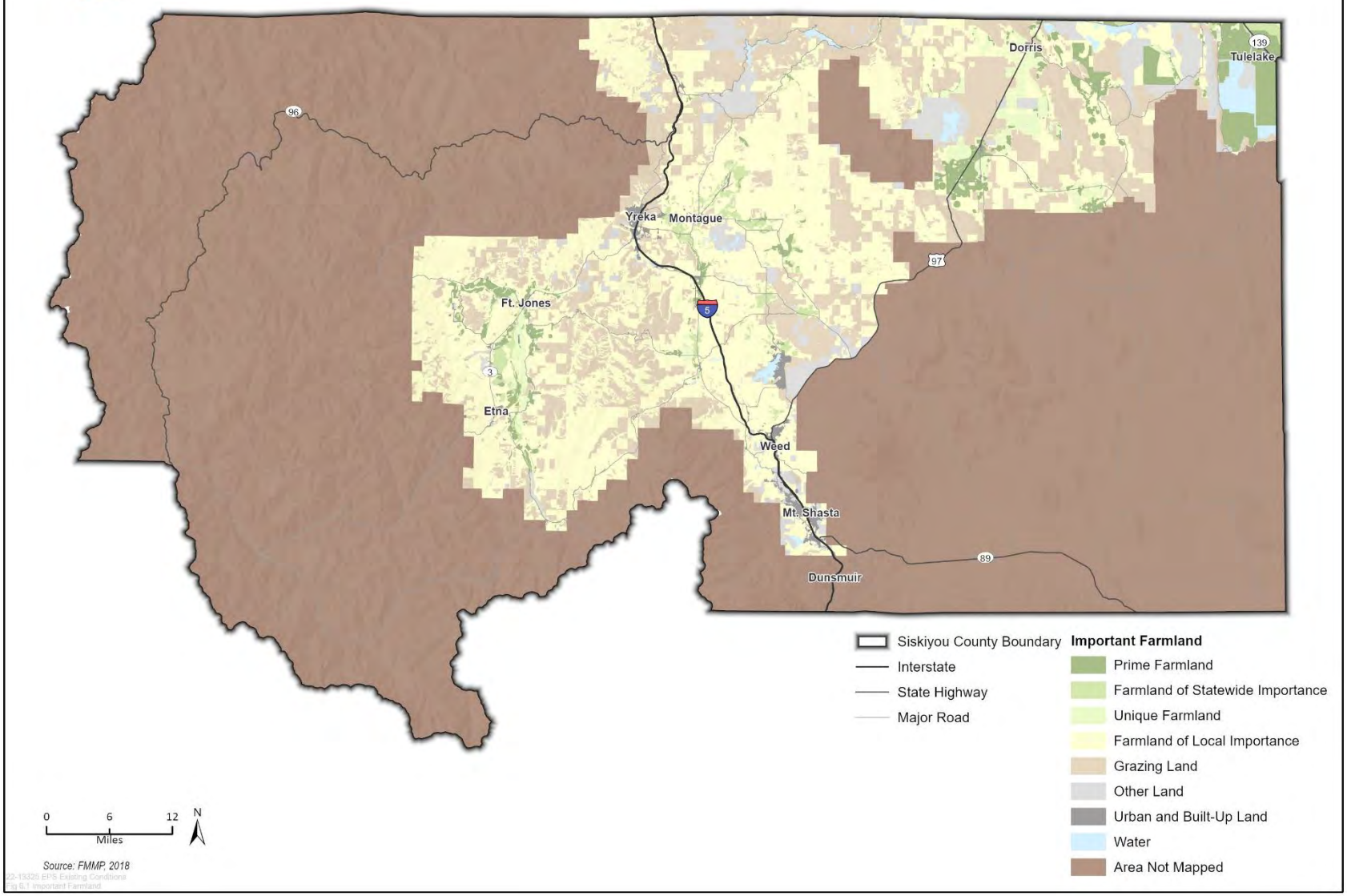
The Rural Land Mapping Project provides more detail on the distribution of various land uses within the Other Land category in eight FMMP counties, encompassing all the San Joaquin Valley counties. The Rural Land categories include:

- Rural Residential Land (R)
- Semi-Agricultural and Rural Commercial Land (sAC)
- Vacant or Disturbed Land (V)
- Nonagricultural or Natural Vegetation (nv)

Water. Perennial water bodies with an extent of at least 40 acres.

Area Not Mapped. Area which falls outside of the NRCS soil survey. Not mapped by the FMMP.

Figure 6.1: Important Farmland



Soil Types

Soils in Shasta Valley and Scott Valley consist of Settlemeyer-Diyou, Gazelle, Salisbury-Louie, Stoner-Dotta, and Delaney-Plutos soil. These soils are moderately deep to very deep with surface layers ranging from sand to silt loam that includes cobbles and stones in some areas. These soils are primarily used for hay and pasture (Soil Conservation Service 1994).

The Tule Lake Basin area and Butte Valley primarily consist of mesic soils, which have loamy or sandy surface layers and are mainly used for cultivating crops, irrigated hay and pasture, rangeland, and wildlife habitat. These areas have no natural drainage outlets; however, a series of canals and pumping stations transport water from the Tule Lake Basin area into the Klamath River for this purpose (Soil Conservation Service 1983).

Soils in Siskiyou County include high percentages of sand, which allows for good water drainage and high permeability. Clay will influence the fertility of the soil and the ability for the soil to absorb and retain moisture. High percentages of sand and low percentages of clay are not ideal for agricultural use, however, these sandy soils are suitable for tree growth and forests and woodlands that support livestock grazing. Table 6.1 shows the map unit name and the percentage of sand, silt, and clay found soils in Siskiyou County. Soil Map Units 112, 113, 114, 118, 141, 148, 150, and 184 were included out of over 900 map units, as they represent the highest percentage of the survey area. Soil Map Units 102, 185, and 140 were included as they represent the highest percentage of soils that meet the criteria for Prime Farmland and or Farmland of Statewide Importance (California Department of Conservation 2021).

Table 6.1 Agricultural Soil Type Properties

		Representation			
Soil Map Unit	Map Unit Name	Sand	Silt	Clay	Acreage
112	Clallam, deep-Deadwood families association, 50 to 90 percent slopes.	35.0%	37.3%	27.7%	174,245
118	Deadwood-Clallam, deep families association, 50 to 90 percent slopes.	42.1%	37.9%	20.0%	134,246
148	Duzel-Jilson-Facey complex, 15 to 50 percent slopes	40.2%	37.5%	22.2%	103,640
184	Marpa-Kinkel-Boomer, cool complex, 15 to 50 percent slopes	38.6%	35.6%	25.8%	85,431
150	Jayar-Woodseye families association, 30 to 70 percent slopes.	43.8%	40.2%	16.0%	68,191
114	Clallam, deep-Goldridge, gravelly families association, 30 to 90 percent slopes.	35.0%	37.3%	27.7%	64,400
113	Clallam, deep-Holland families association, 30 to 70 percent slopes.	35.0%	37.3%	27.7%	63,863
141	Holland-Clallam, deep-Coboc families associations, 15 to 70 percent slopes.	36.3%	34.2%	29.6%	59,106
Soil Map Units Meeting Criteria for Prime Farmland and or Farmland of Statewide Importance					
102	Capjac silt loam, 0 to 1 percent slopes	19.7%	48.4%	31.9%	31,911
185	Tulebasin mucky silty clay loam	14.4%	45.3%	40.3%	17,759
140	Lamath silt loam, 0 to 1 percent slopes	65.0%	22.1%	13.0%	12,499

Source: Natural Resource Conservation Service, Web Soil Survey, 2023.

Water

Surface water and groundwater are highly interconnected, as water flows between the two. As such, activities such as surface water diversion, groundwater pumping, and irrigation runoff as well as precipitation levels influence the volume of water in rivers and lakes and groundwater storage. Groundwater levels are recharged through precipitation, which varies year to year. Years with low precipitation generally lead to a smaller snowpack and less runoff, which can lead to greater groundwater pumping throughout the summer and fall and a decrease in groundwater levels.

Physical Conditions

Runoff from rainfall and snowfall in the Cascade, Siskiyou, Trinity, and Klamath Mountains and groundwater are the main source of water for Siskiyou County. In particular, the north-face of the Trinity Mountains supplies water in the form of runoff to the Scott Valley. The Shasta and Scott Rivers, tributaries to the Klamath River, provide most of the surface water used for agriculture. The Shasta and Scott Rivers act as natural drainages for Shasta Valley and Scott Valley, draining from south to north and eventually draining into the Klamath River (Soil Conservation Service 1994).

Agricultural Water Usage and Groundwater Conditions

The most significant land uses in the Butte, Scott, and Shasta Valley Basins are agriculture, with primary crops of alfalfa, grain, hay, pasture, and strawberry. Siskiyou County contains 138,000 acres of irrigated agricultural land. Total agricultural water use throughout the Butte, Scott, and Shasta Valleys (the three primary agricultural regions within Siskiyou County) equals approximately 217,121 acre feet. Irrigated land is supplied by water from surface waters and groundwater throughout the Butte, Scott, and Shasta Valley Basins. During the past 50 years, precipitation levels have generally decreased and in turn water stored in the Butte Valley groundwater basin has decreased. In contrast, groundwater levels in the Shasta Valley and Scott Valley Basins fluctuate on a short-term scale but have remained consistent over the past few decades (Siskiyou County Flood Control & Water Conservation District 2021a, 2021b, 2021c). Continued decreases in surface water and groundwater could lead to challenges in meeting water demands of agricultural uses in Siskiyou County.

6.3 Biological Resources

This section describes the existing conditions and regulatory framework related to biological resources within Siskiyou County. The information includes vegetation communities, special status species, and critical habitats. Protecting and enhancing biodiversity in these communities can enhance air quality, provide scenic beauty in rural and natural landscapes, and provide agricultural benefits such as pollinators for crops.

Environmental Setting

Siskiyou County is geographically diverse. From towering Mount Shasta (elev. 14,163 feet) in the south-central part of the county to lakes and dense forests, as well as high desert, chaparral, and steep river canyons. Several major rivers cross the county, including the Klamath, McCloud, and Salmon Rivers, as well as the headwaters to the Sacramento River. Pastoral Scott Valley in the western part of the county has many wide, tree-lined meadows, supporting cattle ranches. Siskiyou County contains a number of mountain ranges, including the Klamath and Trinity Mountains as well as the Cascade Range. The Klamath Mountains are known for their serpentine soils which are derived from a rock called serpentinite, and the serpentine endemic plants that are prevalent in the region. Much of the county is densely forested with pine, fir, Douglas-fir, incense-cedar, oak, and madrone. The county's natural resources are most often used these days for outdoor recreation (Siskiyou County 2018).

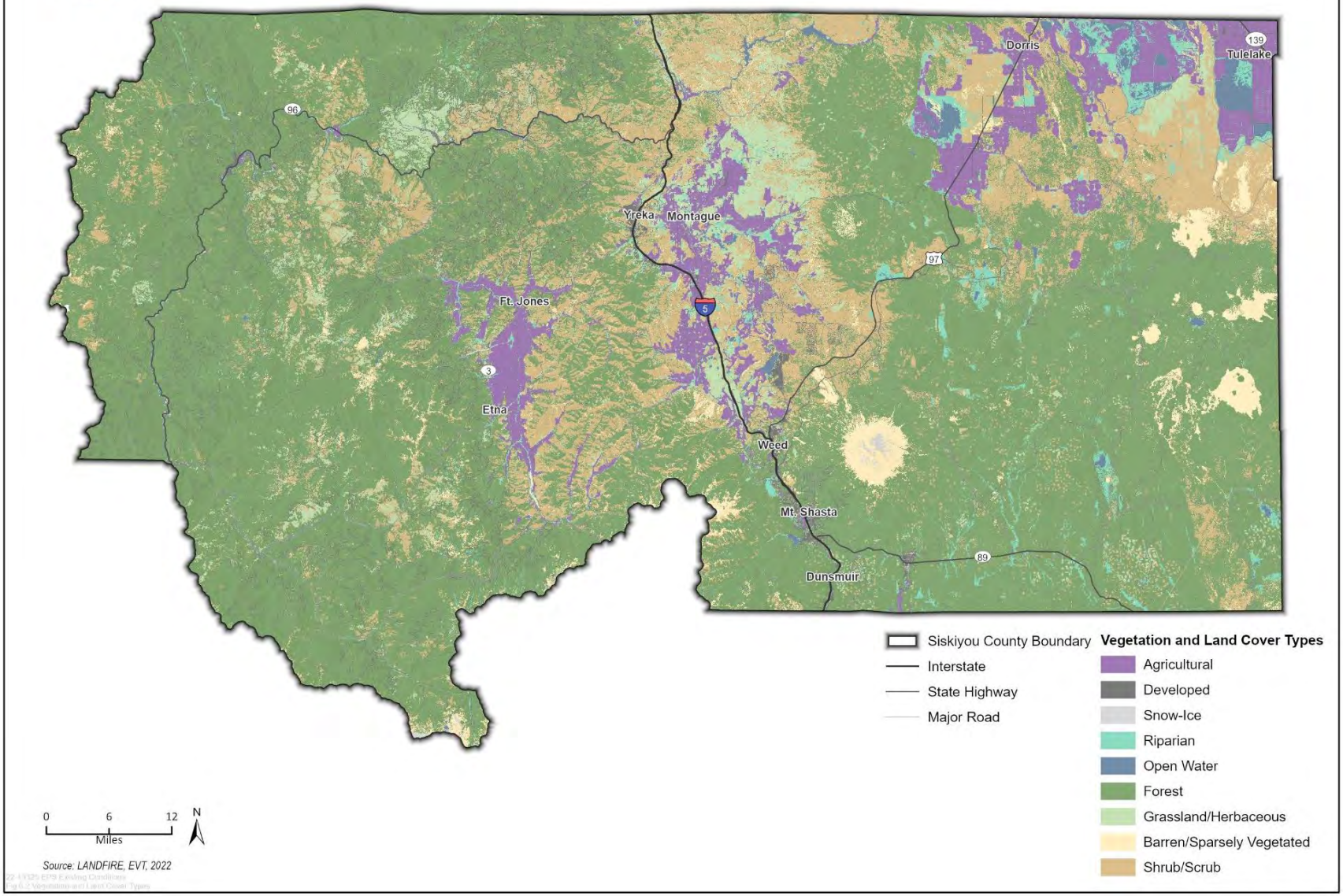
Vegetation Communities and Land Cover Types

Most of the county consists of forest, with significant areas of agricultural land and shrub/scrub throughout the northeast and central part of the county. Because of the scale of vegetation data at the county level, the vegetation communities and land covers presented in Figure 6.2 depict a broad illustration of the distribution of CHWR categories (e.g., tree, shrub, herbaceous) found in Siskiyou County.

River Habitat

The Scott River, Shasta River, and Klamath River as well as their tributaries and riparian corridors contain important habitat for coho salmon, bank swallow, and shortnose sucker, which have been listed as threatened species under the CESA and FESA. Key threats to the coho salmon population include insufficient flows for fish passage and high stream temperatures during critical life stages and key threats to bank swallow include loss of breeding and foraging habitat and pesticide use. Key threats to shortnose suckers include habitat degradation due to alterations of natural hydrology. Another species which lives in the county's river habitats includes the Klamath largescale sucker, which is listed as near threatened. Four other species of concern under the CESA are the chinook salmon, steelhead trout, Pacific lamprey, and Klamath River lamprey. These species have similar life cycles and similar habitats. Threats to these species include lack of suitable habitat, low summer and fall flows leading to delayed/restricted fish passage and high stream temperatures, increased sediment in the stream (Siskiyou County Flood Control & Water Conservation District 2021b).

Figure 6.2: Vegetation and Land Cover Types



Habitat and Wildlife Corridors

Wildland connectivity is integral to supporting California's diverse natural communities. Animals depend on mobility through areas to seek food, shelter, water, and breeding opportunities, while plant species rely on animals to disperse seed across habitats to continue their chance at survival.

In a statewide effort to connect habitat in California, CDFW and California Department of Transportation (Caltrans) collaborated with a team of Federal, State, local, Tribal, and non-governmental organizations to identify existing habitat and model linkages between them. Siskiyou County contains numerous areas identified as essential connectivity areas, including designated irreplaceable and essential corridors which are areas surrounded by barriers that funnel or concentrate animal movement. These areas may represent the last available connection between two areas, making them a high priority for conservation (California Department of Fish and Wildlife 2019). As shown in Figure 6.3, these areas are concentrated in the northern and northeastern parts of the county.

Wild and Scenic Rivers

National wild and scenic rivers are designated by the United States Congress or the Secretary of the Interior with the goal of preserving rivers with outstanding natural, cultural, and recreational values. In Siskiyou County, designated wild and scenic rivers include the Klamath River as well as some of its tributaries. Figure 6.4 shows wild and scenic rivers in Siskiyou County.

The Klamath River is the second largest and second longest river in California, at 263 miles. The headwaters of the river originate in Oregon and flow through the Cascade Mountain Range to the Pacific Ocean in California. Tributaries flow from Mount Shasta, Marble Mountain, and the Siskiyou and Trinity Alps Wilderness Areas to the Klamath River. The upper 127 miles of the river are managed by the U.S. Forest Service and Bureau of Land Management. The rest of the river is managed by the State with support from the National Park Service and Native American Tribes. The Klamath River hosts an abundant array of fish, including several species of anadromous fish during most of their in-river life stages, including chinook salmon, coho salmon, steelhead trout coastal cutthroat trout, green and white sturgeon, and Pacific lamprey. Much of the river is open to recreational activities, which includes camping, fishing, scenic driving, boating, and rafting (National Wild and Scenic Rivers System 2023, National Oceanic and Atmospheric Administration 2023, United States Forest Service 2023).

Siskiyou Resource Conservation District

The Siskiyou Resource Conservation District was established in accordance with Division 9 of the Public Resources Code of the State of California. Under Division 9, the district is permitted to research, develop and implement actions to address the conservation and management of natural resources including soil, water, and other related assets such as habitat. The district covers 1,176,160 acres of privately (294,160 acres) and publicly (882,000 acres) owned lands in the Scott River watershed, Salmon River watershed, and portions of the Klamath River. (Siskiyou Resource Conservation District 2023).

Figure 6.3: Habitat Connectivity

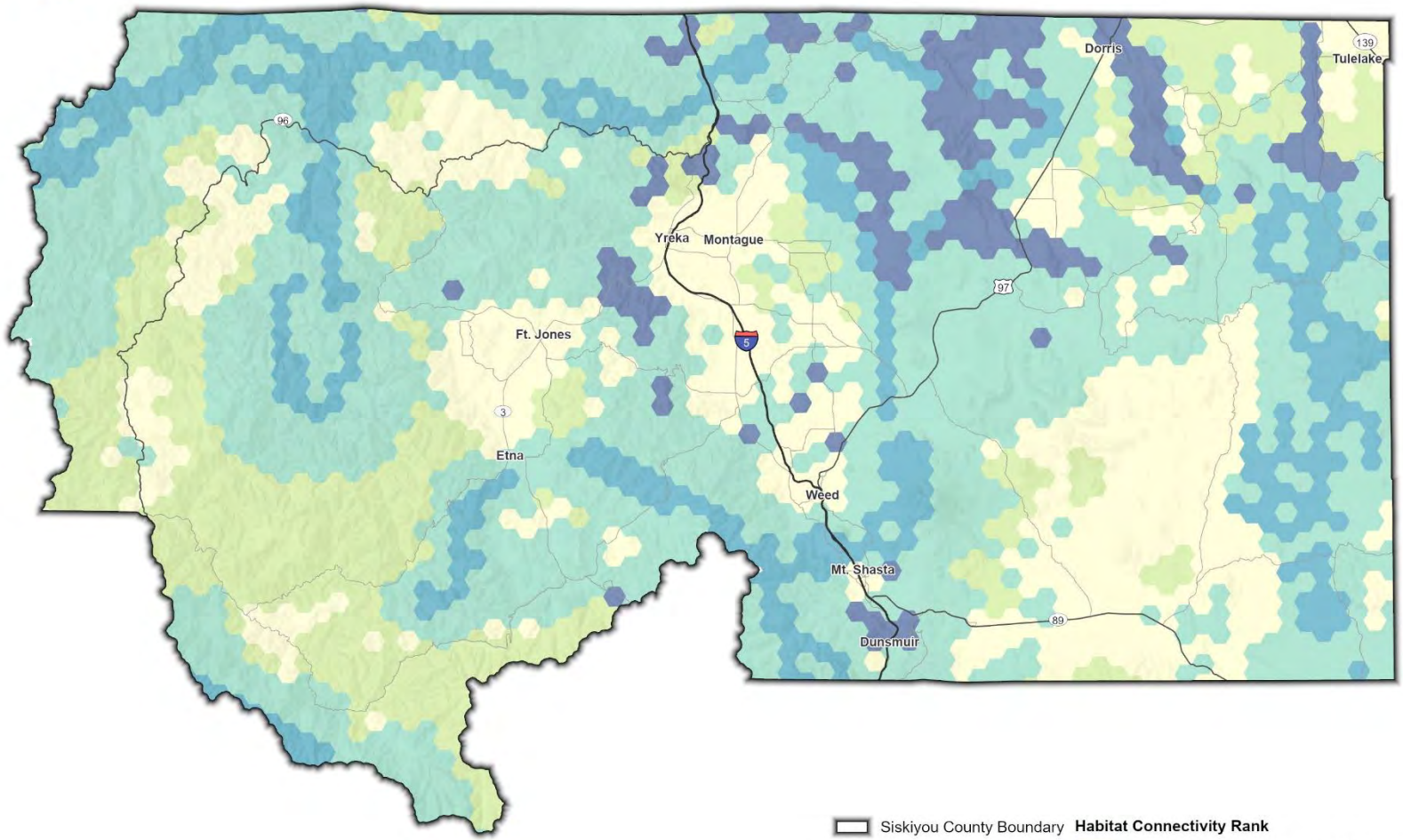
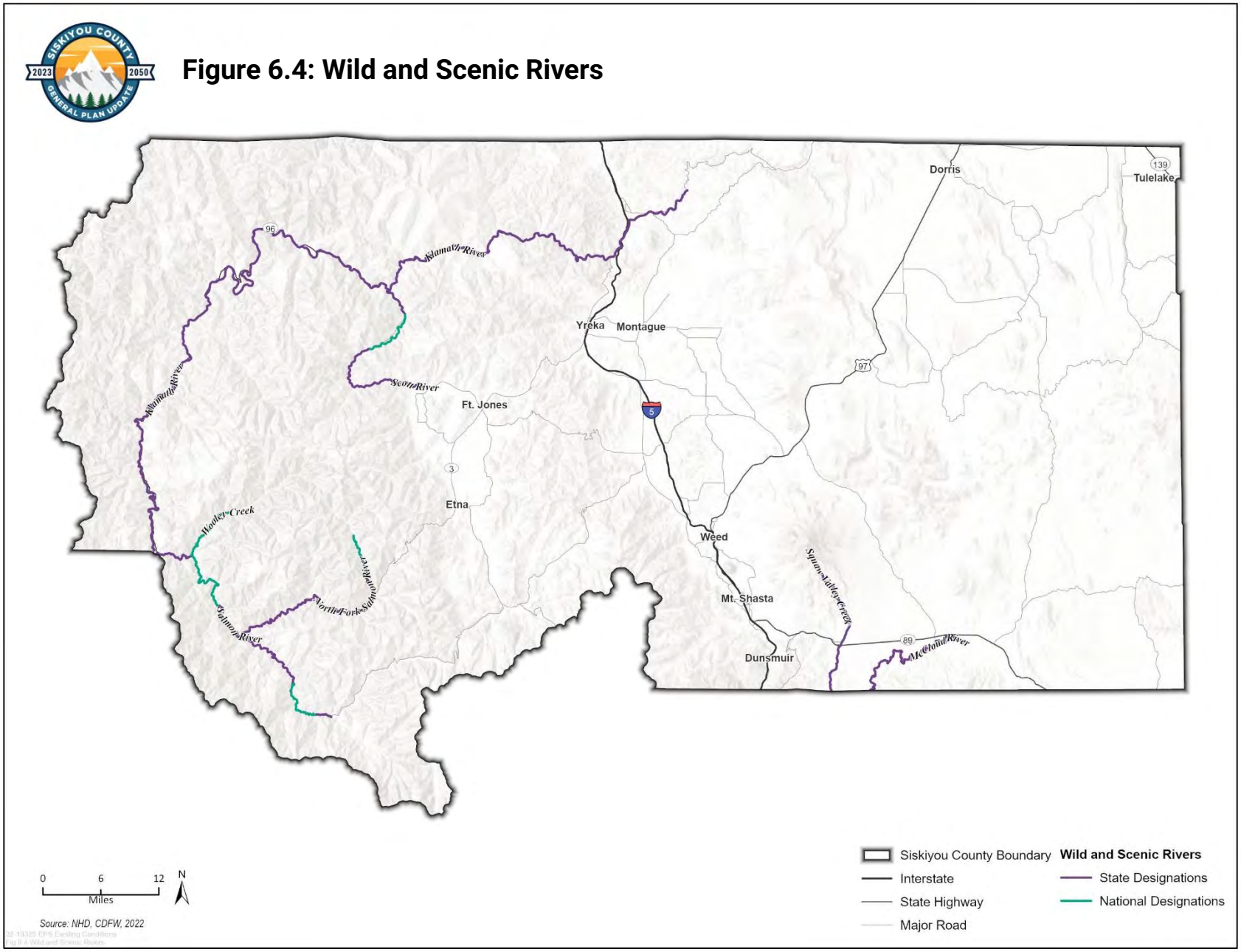


Figure 6.4: Wild and Scenic Rivers



6.4 Special Status and Endangered Species

Special status species in Siskiyou County are plants and animals that are legally protected under the FESA or CESA. Table 6.2 lists special status species that have been identified in Siskiyou County and is organized by their Federal, State, and CNPS status. This list is comprehensive and includes all species from existing State lists, although some species may have very low distribution or abundance or may no longer exist within the region.

Table 6.2 Special Status Species

Special Status Species	Scientific Name	Status	Habitat
Pacific silver fir	Abies amabilis	2B.3	Perennial evergreen tree, upper montane coniferous forest
Subalpine fir	*Abies lasiocarpa* var. *lasiocarpa*	2B.3	Perennial evergreen tree, meadows and seeps, subalpine coniferous forest, upper montane coniferous forest
Grass alisma	Alisma gramineum	2B.2	Perennial rhitomatous herb, marshes and swamps, freshwater marsh
Slender-stemmed androsace	Androsace filiformis	2B.3	Annual herb, meadows and seeps, upper montane coniferous forest
Cut-leaf anemone	Anemone multifida var. multifida	2B.2	Perennial herb, lower montane coniferous forest, subalpine coniferous forest, upper montane coniferous forest
Vanilla-grass	Anthoxanthum nitens ssp. nitens	2B.3	Perennial rhizomatous herb
Waldo rockcress	Arabis aculeolata	2B.2	Perennial herb, broadleafed upland forest, lower montane coniferous forest, upper montane coniferous forest
Mcdonald's rockcress	Arabis mcdonaldiana	FE, SE 1B.3	Perennial herb, lower montane coniferous forest, upper montane coniferous forest
Trinity Mountains rockcress	Arabis rigidissima var. rigidissima	1B.3	Perennial herb, upper montane coniferous forest, open, rocky places
Klamath manzanita	Arctostaphylos klamathensis	1B.2	Perennial evergreen shrub, chaparral, lower montane coniferous forest, subalpine coniferous forest, upper montane coniferous forest
Marbled wild-ginger	Asarum marmoratum	2B.3	Perennial rhizomatous herb
Woolly balsamroot	Balsamorhiza lanata	1B.2	Perennial herb, csmontane woodland, rocky, volcanic
Silky balsamroot	Balsamorhiza sericea	1B.3	Perennial herb, lower montane coniferous forest
Dwarf resin birch	Betula glandulosa	2B.2	Perennial deciduous shrub, bogs and fens, lower montane coniferous forest, marshes and swamps, meadows and seeps, subalpine coniferous forest
Koehler's stipitate rockcress	Boechera koehleri	1B.3	Perennial herb, chaparral, lower montane coniferous forest
Rolle's rockcress	Boechera rollei	1B.1	Perennial herb, upper montane coniferous forest, peridotite rocks on sparsely vegetated, forested slopes
Scalloped moonwort	Botrychium crenulatum	2B.2	Perennial rhizomatous herb, bogs and fens, lower coniferous forest, marshes and swamps, meadows and swamps, upper montane coniferous forest
Western goblin	Botrychium montanum	2B.1	Perennial rhizomatous herb, lower montane coniferous forest, meadows and seeps, upper montane coniferous forest
Northwestern moonwort	Botrychium pinnatum	2B.3	Perennial rhizomatous herb, lower montane coniferous forest, meadows and seeps, upper montane coniferous forest

Special Status Species	Scientific Name	Status	Habitat
Pumice moonwort	Botrychium pumicola	2B.2	Perennial rhizomatous herb, alpine boulder and rock field, subalpine coniferous forest, volcanic
Rattlesnake fern	Botrypus virginianus	2B.2	Perennial herb, bogs and fens, lower montane coniferous forest, meadows and seeps, riparian forest, streambanks
Watershield	Brasenia schreberi	2B.3	Perennial rhizomatous herb (aquatic), marshes and swamps
Green shield-moss	Buxbaumia viridis	2B.2	Moss, lower montane coniferous forest, subalpine coniferous forest, upper montane coniferous forest
Greene's mariposa-lily	Calochortus greenei	1B.2	Perennial bulbiferous herb, cismontane woodland, meadows and seeps, pinyon and juniper woodland, upper montane coniferous forest, volcanic
Long-haired star-tulip	Calochortus longebarbatus var. longebarbatus	1B.2	Perennial bulbiferous herb, great basin scrub, lower montane coniferous forest, meadows and seeps, vernal pools
Single-flowered mariposa-lily	Calochortus monanthus	1A	Perennial bulbiferous herb, lower montane coniferous forest, north coast coniferous forest, acidic, rocky
Siskiyou mariposa-lily	Calochortus persistens	SR	Perennial bulbiferous herb, lower montane coniferous forest, north coast coniferous forest, acidic, rocky
Castle Crags harebell	Campanula shetleri	1B.3	Perennial rhizomatous herb, lower montane coniferous forest
Wheat sedge	Carex atherodes	2B.2	Perennial rhizomatous herb, meadows and seeps, pinyon and juniper woodland
Oregon sedge	Carex halliana	2B.3	Perennial rhizomatous herb, meadows and seeps, subalpine coniferous forest, upper montane coniferous forest
Porcupine sedge	Carex hystericina	2B.1	Perennial rhizomatous herb, marshes and swamps
Klamath sedge	Carex klamathensis	1B.2	Perennial rhizomatous herb, chaparral, cismontane woodland, meadows and seeps
Mud sedge	Carex limosa	2B.2	Perennial rhizomatous herb, bogs and fens, lower montane coniferous forest, marshes and swamps, meadows and seeps, upper montane coniferous forest
Nard sedge	Carex nardina	2B.2	Perennial herb, subalpine coniferous forest, carbonate, rocky
Northern meadow sedge	Carex praticola	2B.2	Perennial herb, meadows and seeps, moist to wet meadows
Green yellow sedge	Carex viridula ssp. viridula	2B.3	Perennial herb, bogs and fens, marshes and swamps, north coast coniferous forest
Siskiyou paintbrush	Castilleja elata	2B.2	Perennial herb (hemiparasitic), bogs and fens, lower montane coniferous forest
Split-hair paintbrush	Castilleja schizotricha	1B.3	Perennial herb, upper montane coniferous forest
Water whorlgrass	Catabrosa aquatica	2B.1	Perennial stoloniferous herb, meadows and streams, streambanks
Shasta chaenactis	Chaenactis suffrutescens	1B.3	Perennial herb, lower montane coniferous forest, upper montane coniferous forest
Ashland thistle	Cirsium ciliolatum	2B.1	Perennial herb, cismontane woodland, valley and foothill grassland
Tree climacium moss	Climacium dendroides	2B.1	Moss, bogs and ferns, north coast coniferous forest
Talus collomia	Collomia larsenii	2B.2	Perennial rhizomatous herb, alpine boulder and rock field, closed-cone coniferous forest, subalpine coniferous forest, upper montane coniferous forest
Pallid bird's-beak	Cordylanthus tenuis ssp. pallescens	1B.2	Annual herb (hemiparasitic), lower montane coniferous forest

Special Status Species	Scientific Name	Status	Habitat
Bunchberry	Cornus unalaschkensis	2B.2	North coast coniferous forest, bogs and ferns, meadows and seeps
Serpentine cryptantha	Cryptantha dissita	1B.2	Annual herb, chaparral, serpentine outcrops
Jepson's dodder	Cuscuta jepsonii	1B.2	Annual vine (parasitic), North coast coniferous forest
Silverskin lichen	Dermatocarpon meiophyllizum	2B.3	Coastal prairie, lower montane coniferous forest, north coast coniferous forest, subalpine coniferous forest, upper montane coniferous forest
Doublet	Dimeresia howellii	2B.3	Annual herb, lower montane coniferous forest, pinyon and juniper woodland
Golden alpine draba	Draba aureola	1B.3	Perennial herb, alpine boulder and rock field, subalpine coniferous forest
Mt. Eddy draba	Draba carnosula	1B.3	Perennial herb, subalpine coniferous forest, upper montane coniferous forest
English sundew	Drosera anglica	2B.3	Perennial herb (carnivorous), bogs and fens, meadows and seeps
Blandow's bog moss	Elodium blandowii	2B.3	Moss, meadows and seeps, subalpine coniferous forest
Yellow willowherb	Epilobium luteum	2B.3	Perennial stoloniferous herb, lower montane coniferous forest, meadows and seeps
Oregon fireweed	Epilobium oreganum	1B.2	Perennial herb, bogs and fens, lower montane coniferous forest, meadows and seeps, upper montane coniferous forest
Siskiyou fireweed	Epilobium siskiyouense	1B.3	Perennial herb, alpine boulder and rock field, subalpine coniferous forest, upper montane coniferous forest
Waldo daisy	Erigeron bloomeri var. nudatus	2B.3	Perennial herb, lower montane coniferous forest, upper montane coniferous forest
Snow fleabane daisy	Erigeron nivalis	2B.3	Perennial herb, alpine boulder and rock field, meadows and seeps, subalpine coniferous forest
Trinity buckwheat	Eriogonum alpinum	1B.2	Perennial rhizomatous herb, alpine boulder and rock field, subalpine coniferous forest, upper montane coniferous forest
Jaynes Canyon buckwheat	Eriogonum diclinum	2B.3	Perennial herb, upper montane coniferous forest
Klamath Mountain buckwheat	Eriogonum hirtellum	1B.3	Perennial rhizomatous herb, chaparral, lower montane coniferous forest, upper montane coniferous forest
Pyrola-leaved buckwheat	Eriogonum pyrolifolium var. pyrolifolium	2B.3	Perennial herb, alpine boulder and rock field
Warner Mountains buckwheat	Eriogonum umbellatum var. glaberrimum	1B.3	Perennial herb, great basin scrub, lower montane coniferous forest, upper montane coniferous forest
Scott Valley buckwheat	Eriogonum umbellatum var. lautum	1B.1	Perennial herb, cismontane woodland, lower montane coniferous forest
Blushing wild buckwheat	Eriogonum ursinum var. erubescens	1B.3	Perennial herb, chaparral, lower montane coniferous forest
Ephemeral monkeyflower	Erythranthe inflatula	1B.2	Annual herb, great basin scrub, lower montane coniferous forest, pinyon and juniper woodland
Pink-margined monkeyflower	Erythranthe trinitiensis	1B.3	Annual herb, cismontane woodland, lower montane coniferous forest, meadows and seeps, upper montane coniferous forest
Henderson's fawn lily	Erythronium hendersonii	2B.3	Perennial bulbiferous herb, lower montane coniferous forest
Howell's fawn lily	Erythronium howellii	1B.3	Perennial bulbiferous herb, lower montane coniferous forest, north coast coniferous forest

Special Status Species	Scientific Name	Status	Habitat
Klamath fawn lily	Erythronium klamathense	2B.2	Perennial herb, meadows and seeps, upper montane coniferous forest
Giant fawn lily	Erythronium oregonum	2B.2	Perennial herb, cismontane woodland, meadows and seeps
Coast fawn lily	Erythronium revolutum	2B.2	Perennious bulbiferous herb, bogs and fens, broadleafed upland forest, north coast coniferous forest
Subalpine aster	Eurybia merita	2B.3	Perennial herb, upper montane coniferous forest
Brook pocket moss	Fissidens aphelotaxifolius	2B.2	Moss, lower montane coniferous forest, upper montane coniferous forest
Modoc green-gentian	Frasera albicaulis var. modocensis	2B.3	Perennial herb, great basin grassland, upper montane coniferous forest
Gentner's fritillary	Fritillaria gentneri	1B.1	Perennial bulbiferous herb, chaparral, cismontane woodland, lower montane coniferous forest
Scott Mountain bedstraw	Galium serpenticum ssp. scotticum	1B.2	Perennial herb, lower montane coniferous forest
Klamath gentian	Gentiana plurisetosa	1B.3	Perennial herb, lower montane coniferous forest, meadows and seeps, upper montane coniferous forest
Aleppo avens	Geum aleppicum	2B.2	Perennial herb, great basin scrub, lower montane coniferous forest, meadows and seeps
Boggs Lake hedge-hyssop	Gratiola heterosepala	1B.2	Annual herb, marshes and swamps, vernal pools
Buttercup-leaf hemieva	Hemieva ranunculifolia	2B.2	Perennial herb, meadows and seeps, upper montane coniferous forest
Henderson's horkelia	Horkelia hendersonii	1B.1	Perennial herb, upper montane coniferous forest
Little hulsea	Hulsea nana	2B.3	Perennial herb, alpine boulder and rock field, subalpine coniferous forest
Alkali hymenoxys	Hymenoxys lemmonii	2B.2	Perennial herb, great basin scrub, lower montane coniferous forest, meadows and seeps
Pickering's ivesia	Ivesia pickeringii	1B.2	Perennial herb, lower montane coniferous forest, meadows and seeps
Dudley's rush	Juncus dudleyi	2B.3	Perennial herb, lower montane coniferous forest, meadows and seeps
Regel's rush	Juncus regelii	2B.3	Perennial rhizomatous herb, meadows and seeps, upper montane coniferous forest
Holzinger's bristle moss	Lewinskya holzingeri	1B.3	Cismontane woodland, lower montane coniferous forest, upper montane coniferous forest, pinyon and juniper woodland
Heckner's lewisia	Lewisia cotyledon var. heckneri	1B.2	Perennial herb, lower montane coniferous forest
Henderson's lomatium	Lomatium hendersonii	2B.3	Perennial herb, great basin scrub, lower montane coniferous forest, pinyon and juniper woodland
Coast Range lomatium	Lomatium martindalei	2B.3	Perennial herb, coastal bluff scrub, lower montane coniferous forest, meadows and seeps
Peck's lomatium	Lomatium peckianum	2B.2	Perennial herb, chaparral, cismontane woodland, lower montane coniferous forest, pinyon and juniper woodland
Long seta hump moss	Meesia longiseta	2B.3	Moss, bogs and fens, meadows and seeps, upper montane coniferous forest
Broad-nerved hump moss	Meesia uliginosa	2B.2	Moss, bogs and fens, meadows and seeps, subalpine coniferous forest, upper montane coniferous forest
Oregon bluebells	Mertensia bella	2B.2	Perennial herb, meadows and seeps, upper montane coniferous forest

Special Status Species	Scientific Name	Status	Habitat
Detling's silverpuffs	Microseris laciniata ssp. detlingii	2B.2	Perennial herb, cismontane woodland
Mielichhofer's copper moss	Mielichhoferia mielichhoferiana	2B.3	Moss, subalpine coniferous forest
Woodnymph	Moneses uniflora	2B.2	Perennial rhizomatous herb, broadleafed upland forest, north coast coniferous forest
Ghost-pipe	Monotropa uniflora	2B.2	Perennial herb (achlorophyllous), broadleafed upland forest, north coast coniferous forest
Northern adder's-tongue	Ophioglossum pusillum	2B.2	Perennial rhizomatous herb, marshes and swamps, meadows and seeps
Brittle prickly-pear	Opuntia fragilis	2B.1	Perennial stem, pinyon and juniper woodland, volcanic soils
Slender Orcutt grass	Orcuttia tenuis	FT/SE	Annual herb, vernal pools
Cocks-comb cat's-eye	Oreocarya glomerata	2B.3	Pinyon and juniper woodland
Rosy orthocarpus	Orthocarpus bracteosus	2B.1	Annual herb, meadows and seeps
Shasta orthocarpus	Orthocarpus pachystachyus	1B.1	Annual herb, great basin scrub, meadows and seeps, valley and foothill grassland
Blunt-fruited sweet-cicely	Osmorhiza depauperata	2B.3	Perennial herb, lower montane coniferous forest
Cascade grass-of-Parnassus	Parnassia cirrata var. intermedia	2B.2	Perennial herb, bogs and fens, meadows and seeps, rocky serpentine soil
Tracy's beardtongue	Penstemon tracyi	1B.3	Perennial herb, upper montane coniferous forest
Cooke's phacelia	Phacelia cookei	1B.1	Annual herb, great basin scrub, lower montane coniferous forest
Scott Valley phacelia	Phacelia greenei	1B.2	Annual herb, great basin scrub, lower montane coniferous forest
Playa phacelia	Phacelia inundata	1B.3	Annual herb, great basin scrub, lower montane coniferous forest
Siskiyou phacelia	Phacelia leonis	1B.3	Annual herb, meadows and seeps, uppr montane coniferous forest
Blue alpine phacelia	Phacelia sericea var. ciliosa	2B.2	Perennial herb, great basin scrub, upper montane coniferous forest
Yreka phlox	Phlox hirsuta	FE/SE	Perennial herb, lower montane coniferous forest, upper montane coniferous forest
Squarestem phlox	Phlox muscoides	2B.3	Erennial herb, alpine boulder and rock field, great basin scrub, subalpine coniferous forest
Engelmann spruce	Picea engelmannii	2B.2	Perennial evergreen tree, upper montane coniferous forest, slopes and hillsides
Horned butterwort	Pinguicula macroceras	2B.2	Perennial herb (carnivorous) bogs and fens
White-flowered rein orchid	Piperia candida	1B.2	Perennial herb, broadleafed upland forest, lower montane coniferous forest, north coast coniferous forest
Tundra thread moss	Pohlia tundrae	2B.3	Moss, alpine boulder and rock field
Oregon polemonium	Polemonium carneum	2B.2	Perennial herb, coastal prairie, coastal scrub, lower montane coniferous forest
Mt. Eddy sky pilot	Polemonium eddyense	1B.2	Perennial herb, alpine boulder and rock field
Mt. Shasta sky pilot	Polemonium pulcherrimum var. shastense	1B.2	Perennial herb, alpine boulder and rock field, subalpine coniferous forest, upper montane coniferous forest
Robbins' pondweed	Potamogeton robbinsii	2B.3	Perennial rhizomatous herb (aquatic), marshes and swamps
Crested potentilla	Potentilla cristae	1B.3	Perennial hebr, alpine boulder and rock field, pools
Newberry's cinquefoil	Potentilla newberryi	2B.3	Perennial herb, marshes and swamps, vernal pools

Special Status Species	Scientific Name	Status	Habitat
Showy raillardella	Raillardella pringlei	1B.2	Perennial rhitomatous herb, bogs and fens, meadows and seeps, upper montane coniferous forest
Western black currant	Ribes hudsonianum var. petiolare	2B.3	Perennial deciduous shrub, riparian scrub
Columbia yellow cress	Rorippa columbiae	1B.2	Perennial rhizomatous herb, lower montane coniferous forest, meadows and seeps, playas, vernal pools
Gasquet rose	Rosa gymnocarpa var. serpentina	1B.3	Perennial rhizomatous shrub, chaparral, cismontane woodland
Snow dwarf bramble	Rubus nivalis	2B.3	Perennial evergreen vine, north coast coniferous forest
Howell's sandwort	Sabulina howellii	1B.3	Perennial herb, chaparral, lower montane coniferous forest
Scott Mountain sandwort	Sabulina stolonifera	1B.3	Perennial stoloniferous herb, lower montane coniferous forest
Bebb's willow	Salix bebbiana	2B.3	Perennial deciduous tree, marshes and swamps, riparian scrub
American saw-wort	Saussurea americana	2B.2	Perennial herb, lower montane coniferous forest, meadows and seeps
Tufted saxifrage	Saxifraga cespitosa	2B.3	Perennial herb, meadows and seeps
Water bulrush	Schoenoplectus subterminalis	2B.3	Perennial rhizomatous herb (aquatic), bogs and fens, marshes and swamps
Pendulous bulrush	Scirpus pendulus	2B.2	Perennial rhizomatous herb, marshes and swamps, meadows and seeps
Marsh skullcap	Scutellaria galericulata	2B.2	Perennial rhzomatous herb, lower montane coniferous forest, marshes and swamps, meadows and seeps
Cascade stonecrop	Sedum divergens	2B.3	Perennial herb, alpine boulder and rock field
Marble Mountains stonecrop	Sedum marmorense	1B.2	Perennial herb, subalpine coniferous forest, upper montane coniferous forest
Applegate stonecrop	Sedum oblanceolatum	1B.1	Perennial herb, upper montane coniferous forest
Rocky Mountain spike-moss	Selaginella scopulorum	2B.3	Perennial rhizomatous herb, north coast coniferous forest, subalpine coniferous forest, upper montane coniferous forest
Canadian buffalo-berry	Shepherdia canadensis	2B.1	Perennial shrub, upper montane coniferous forest
Coast checkerbloom	Sidalcea oregana ssp. Eximia	1B.2	Perennial herb, lower montane coniferous forest, meadows and seeps, north coast coniferous forest
Hooker's catchfly	Silene hookeri	2B.2	Perennial herb, chaparral, cismontane woodland, lower montane coniferous forest
Marble Mountain campion	Silene marmorensis	1B.2	Perennial herb, broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest
Cascade alpine campion	Silene suksdorfii	2B.3	Perennial herb, alpine boulder and rock field, subalpine coniferous forest, upper montane coniferous forest
Wilkin's harebell	Smithiastrum wilkinsianum	1B.2	Meadows and seeps, upper montane coniferous forest, subalpine coniferous forest
Hairy marsh hedge-nettle	Stachys pilosa	2B.3	Perennial rhizomatous herb, great basin scrub, meadows and seeps
Little ricegrass	Stipa exigua	2B.3	Perennial herb, great basin scrub
Northern slender pondweed	Stuckenia filiformis ssp. alpina	2B.2	Perennial rhizomatous herb (aquatic), marshes and swamps, shallow, clear water of lakes and drainage channels
Western seablite	Suaeda occidentalis	2B.3	Annual herb, great basin scrub, alkaline soils
Howell's tauschia	Tauschia howellii	1B.3	Perennial herb, subalpine coniferous forest, upper montane coniferous forest

Special Status Species	Scientific Name	Status	Habitat
Robust false lupine	Thermopsis robusta	1B.2	Perennial rhizomatous herb, broadleafed upland forest, north coast coniferous forest
Cylindrical trichodon	Trichodon cylindricus	2B.2	Moss, broadleafed upland forest, meadows and seeps, upper montane coniferous forest
Siskiyou clover	Trifolium siskiyouense	1B.1	Perennial herb, meadows and seeps, mesic sites
Large-flowered triteleia	Triteleia grandiflora	2B.1	Perennial bulbiferous herb, great basin scrub, pinyon and juniper woodland
Henderson's triteleia	Triteleia hendersonii	2B.2	Perennial bulbiferous herb, cismontane woodland, open slopes and road banks
Little-leaved huckleberry	Vaccinium scoparium	2B.2	Perennial deciduous shrub, subalpine coniferous forest, rocky, subalpine woods
Howell's violet	Viola howellii	2B.2	Perennial herb. North coast coniferous forest
Crotch bumble bee	Bombus crotchii	SCE	Coastal California east to the Sierra Cascade crest and south into Mexico
Franklin's bumble bee	Bombus franklini	FE/SCE	Southern Oregon/northern California between the coast and Sierra-Cascade ranges
Western bumble bee	Bombus occidentalis	SCE	Central California to southern Baja California
Suckley's cuckoo bumble bee	Bombus suckleyi	SCE	Pacific coast from Alaska to far northern California
Klamath largescale sucker	Catostomus snyderi	SSC	Klamath River and Lost River-Clear Lake systems of Oregon and California
Shortnose sucker	Chasmistes brevirostris	FE/SE	Klamath and Lost River systems in California and Oregon
Lower Klamath marbled sculpin	Cottus klamathensis polyporus	SSC	
Lost River sucker	Deltistes luxatus	FE/SE	Lost River system in California and Oregon
Northern California brook lamprey	Entosphenus folletti	SSC	Fall Creek, small, cool tributary streams
Pit-Klamath brook lamprey	Entosphenus lethophagus	SSC	Pit River system
Klamath River lamprey	Entosphenus similis	SSC	Upper Klamath River and upper Klamath Lake
Blue chub	Gila coerulea	SSC	Lakes, small streams, rivers, shallow reservoirs, deep lakes
Mccloud River redband trout	Oncorhynchus mykiss ssp. 2	SSC	Small, spring-fed tributaries of McCloud River
Chinook salmon - upper Klamath and Trinity Rivers ESU	Oncorhynchus tshawytscha pop. 30	FC/ST	Spring-run chinook in the Trinity River and Klamath River
Bull trout	Salvelinus confluentus	FT/SE	Deep pools in cold waters
Southern long-toed salamander	Ambystoma macrodactylum sigillatum	SSC	High elevation meadows and lakes in Sierra Nevada and Klamath mountains
Pacific tailed frog	Ascaphus truei	SSC	Montane hardwood-conifer, redwood, Douglas-fir and ponderosa pine habitats
Scott Bar salamander	Plethodon asupak	ST	Scott River
Del Norte salamander	Plethodon elongatus	WL	Mixed conifer/hardwood ancient forest ecosystem
Siskiyou Mountains salamander	Plethodon stormi	ST	Mixed conifer habitat of dense, pole-to-mature size, trees
Foothill yellow-legged frog - north coast DPS	Rana boylii pop. 1	SSC	Northern Coast Ranges north of San Francisco Bay Estuary, Klamath mountains, and Cascade Range
Cascades frog	Rana cascadae	SCE/SSC	Montane aquatic habitats such as mountain lakes, small streams, ponds in meadows

Special Status Species	Scientific Name	Status	Habitat
Oregon spotted frog	Rana pretiosa	FT/SSC	Low swampy areas in mountainous woodlands and wet meadows, springs, small cold streams and lakes in northeastern California
Southern torrent salamander	Rhyacotriton variegatus	SSC	Coastal redwood, Douglas-fir, mixed conifer, montane riparian, montane hardwood-conifer habitats
Western pond turtle	Emys marmorata	SSC	Ponds, marshes, rivers, streams, irrigation ditches
Cooper's hawk	Accipiter cooperii	WL	Woodland, riparian growths of deciduous trees
Northern goshawk	Accipiter gentilis	SSC	Coniferous forest, old nests
Tricolored blackbird	Agelaius tricolor	ST, SSC	Open water in the Central Valley
Greater sandhill crane	Antigone canadensis tabida	ST/FP	Wetland habitats in northeastern California
Golden eagle	Aquila chrysaetos	FP/WL	Rolling foothills, mountain areas, sage-juniper flats, desert
Ferruginous hawk	Buteo regalis	WL	Open grasslands, sagebrush flats, desert scrub, low foothills, fringes of pinyon and juniper habitats
Swainson's hawk	Buteo swainsoni	ST	Grasslands with scattered trees, juniper sage flats, riparian areas, savannahs, agricultural or ranch lands
Western snowy plover	Charadrius nivosus nivosus	FT/SSC	Sandy beaches, salt pond levees and shores of large alkali lakes
Western yellow-billed cuckoo	Coccyzus americanus occidentalis	FT/SE	Riparian forest, lower flood-bottoms of larger river systems
Yellow rail	Coturnicops noveboracensis	SSC	Eastern Sierra Nevada in Mono County, freshwater marshes
Black swift	Cypseloides niger	SSC	Cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs
Willow flycatcher	Empidonax traillii	SE	Low, dense willows on edge of wet meadows, ponds, or backwaters
Prairie falcon	Falco mexicanus	WL	Dry, open terrain
American peregrine falcon	Falco peregrinus anatum	FD/SD	Wetlands, lakes, rivers, other water, cliffs, banks, dunes, mounds
Bald eagle	Haliaeetus leucocephalus	FD/SE	Ocean shore, lake margins, rivers
California gull	Larus californicus	WL	Littoral waters, sandy beaches, waters and shorelines of bays, tidal mud-flats, marshes, lakes
Osprey	Pandion haliaetus	WL	Ocean shore, bays, freshwater lakes, larger streams
American white pelican	Pelecanus erythrorhynchos	SSC	Large interior lakes
White-faced ibis	Plegadis chihi	WL	Shallow, freshwater marsh
Bank swallow	Riparia riparia	ST	Riparian and other lowland habitats west of the desert
Great gray owl	Strix nebulosa	SE	Mixed conifer or red fir forest habitat, in or on edge of meadows
Northern spotted owl	Strix occidentalis caurina	FT/ST	Old-growth forests or mixed stands of old-growth and mature trees
Pallid bat	Antrozous pallidus	SSC	Deserts, grasslands, shrublands, woodlands, forests
Sierra Nevada mountain beaver	Aplodontia rufa californica	SSC	Small deciduous trees and shrubs, wet soil
Townsend's big-eared bat	Corynorhinus townsendii	SSC	Mesic sites, typically coniferous or deciduous forests
Western mastiff bat	Eumops perotis californicus	SSC	Open, semi-arid to arid habitats, including coniferous and deciduous woodlands, coastal scrub, grasslands, and chaparral
Wolverine	Gulo gulo	FPT/ST	North coast mountains

Special Status Species	Scientific Name	Status	Habitat
Oregon snowshoe hare	Lepus americanus klamathensis	SSC	Above the yellow pine zone in Canadian and Hudsonian provinces in Northern California
Humboldt marten	Martes caurina humboldtensis	FT/SE	Coastal Redwood zone from the Oregon border south to Sonoma County
Fisher	Pekania pennanti	SSC	Large-tree stages of coniferous forests and deciduous-riparian areas
American badger	Taxidea taxus	SSC	Drier open stages of most shrub forest, and herbaceous habitats with friable soils
Sierra Nevada red fox - southern Cascades DPS	Vulpes vulpes necator pop. 1	ST	Alpine an subalpine zones

Status (Federal/State)

FE = Federal Endangered
FT = Federal Threatened
FPT = Federal Proposed Threatened
FD = Federal Delisted
FC = Federal Candidate
SE = State Endangered
ST = State Threatened
SCE = State Candidate Endangered
SR = State Rare
SD = State Delisted
SSC = CDFW Species of Special Concern
FP = CDFW Fully Protected
WL = CDFW Watch List

CRPR (CNPS California Rare Plant Rank)

1A = Presumed extirpated in California, and rare or extinct elsewhere
1B = Rare, Threatened, or Endangered in California and elsewhere
2B= Rare, Threatened, or Endangered in California, but more common elsewhere

CRPR Threat Code Extension

.1 = Seriously endangered in California (>80% of occurrences threatened/high degree and immediacy of threat)
.2 = Moderately threatened in California (20-80% of occurrences threatened/moderate degree and immediacy of threat)
.3 = Not very endangered in California (<20% of occurrences threatened/low degree and immediacy of threat)

Source: California Department of Fish and Wildlife California Natural Diversity Database 2023; California Native Plant Society, 2023.

Critical Habitat

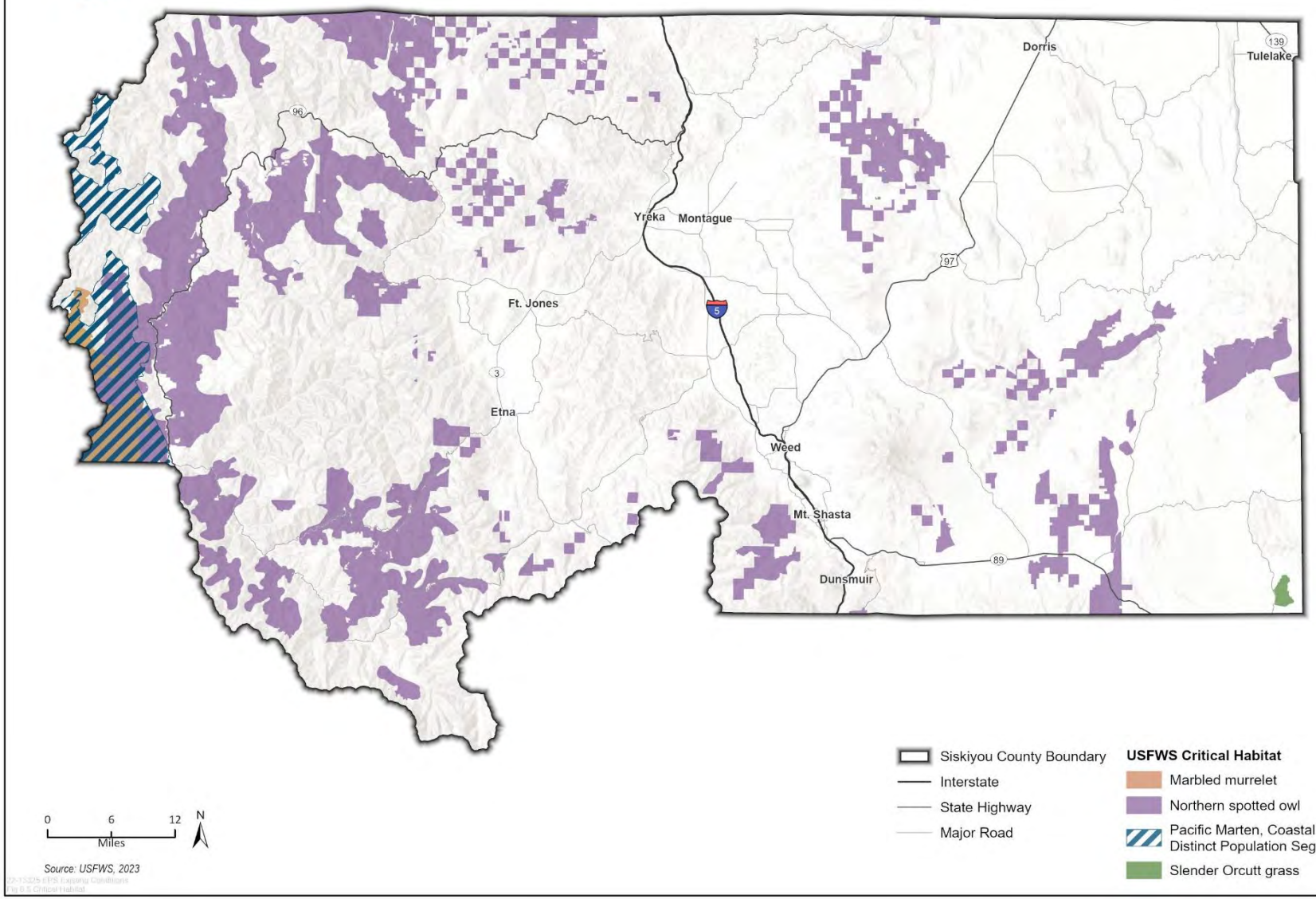
Critical habitat is a designation made by USFWS or by the National Marine Fisheries Services (NMFS) pursuant to the FESA. Critical habitat areas are specific geographic areas that may or may not be occupied by listed species but are nonetheless determined to be essential for the conservation and management of listed species. These have been formally described and designated in the Federal Register. Critical habitat is defined as:

- Specific areas within the geographical area occupied by the species at the time of listing, on which are found those physical or biological features that are essential to the conservation of the listed species and that may require special management considerations or protection.
- Specific areas outside the geographical area occupied by the species at the time of listing that are essential for the conservation of a listed species Critical habitat designations are used by the Federal government as a tool for managing species recovery. Any Federal agency must first consult with USFWS before issuing a permit for a project in critical habitat.

Critical habitat designation limitations only apply when Federal funding, permits, or projects are involved. Critical habitat requirements do not apply to individuals engaged in activities on private land without involvement of a Federal agency. Figure 6.5 shows critical habitat in the county. Critical habitat for the northern spotted owl is scattered throughout the county.

Critical habitat for the Pacific Marten and Marbled murrelet is located along the western edge of the county and critical habitat for the Slender Orcutt grass is located in the southeastern corner of the county.

Figure 6.5: Critical Habitat



6.5 Open Space and Conservation

This section describes the existing conditions of open space and conservation in Siskiyou County, as well as the regulatory setting in which these land uses exist. Siskiyou County is known for its stunning natural beauty, including its forests, mountains, rivers, and lakes. When possible, opening these natural resources to the public enhances outdoor opportunities for locals and visitors alike. Conversely, conservation can play a key role in restoring or keeping pristine land as a local habitat for flora and fauna.

Land Ownership

Federal

Four National Forests, one National Grassland, two National Monuments, and two National Wildlife Refuges are found within Siskiyou County. These public, outdoor resources are owned and managed by a variety of Federal entities, including the USDA, the BLM, the USFWS, and the National Park Service. Many resources and activities are available to visitors of these lands, including hiking, boating, mountain biking, white water rafting, fishing, bird watching, swimming, horse riding, snowmobiling, and camping.

State

Four Wildlife Areas are found within Siskiyou County. These areas are managed by the CDFW. Many amenities are available to visitors of these lands, including camping, hiking, fishing, hunting, and wildlife viewing, although three of the Wildlife Areas require a CDFW Lands Pass and/or a Hunting Pass to access all of these amenities within the Wildlife Areas' boundaries.

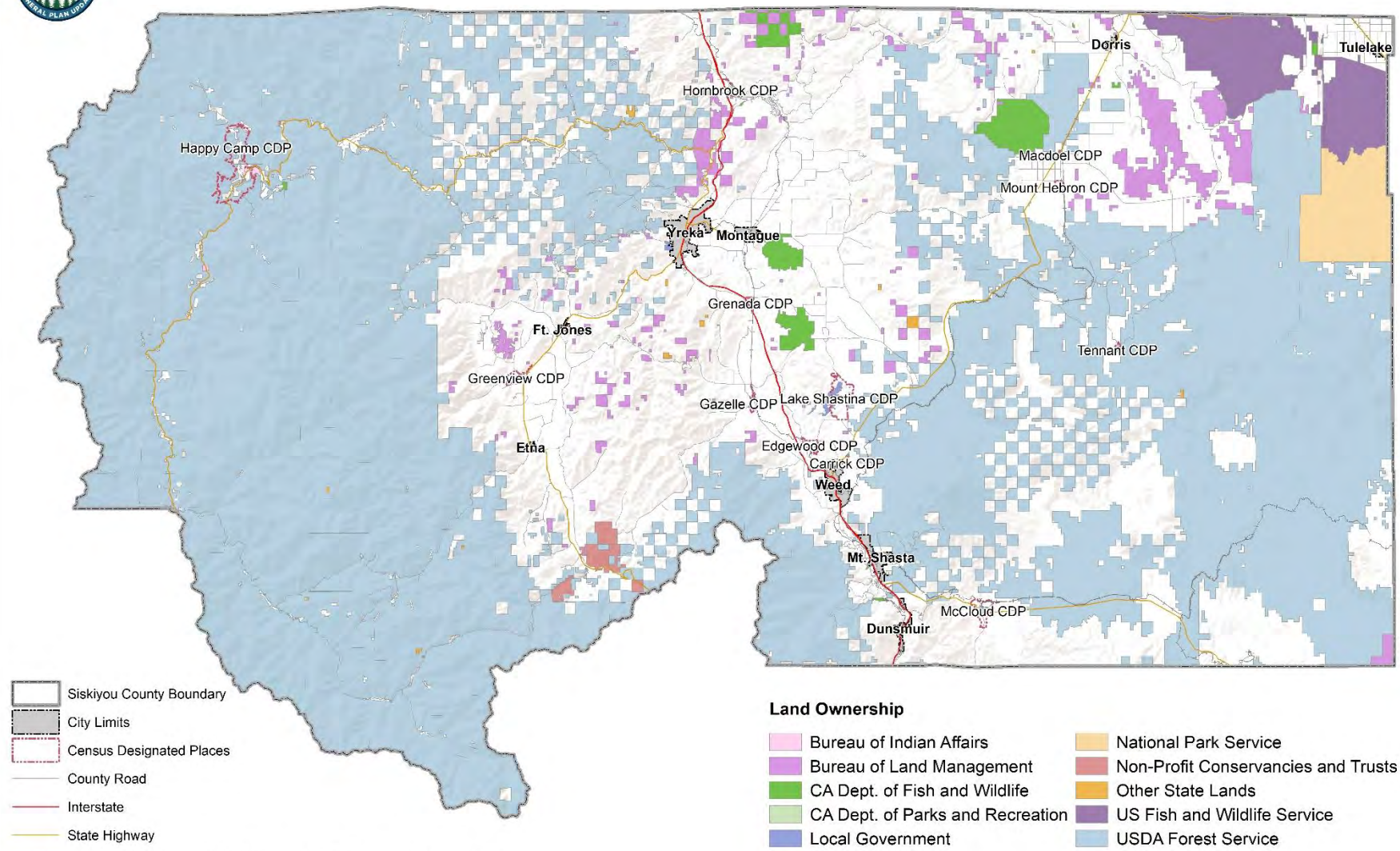
Local

The only park owned by Siskiyou County is Hoy Park, located along Lakeside Drive in the Lake Shastina community. The park is managed by the Lake Shastina Community Services District. Facilities available to local residents at Hoy Park include a large field for sports, a play structure, picnic tables, and barbeques.

Non-Profit

Three nonprofit organizations own and manage land that is available for visitation by the public within Siskiyou County, including The Wildlands Conservancy, The Nature Conservancy, and Shasta Land Trust. These lands include the Beaver Valley Headwaters Reserve (located in Scott Valley), the Kerry Landreth Preserve (located along the McCloud River), and Sisson Meadow (located in the city of Mount Shasta). Amenities of these areas include hiking, bird watching, picnicking, and permitted fishing.

Figure 6.6: Land Ownership



Source: California Department of Forestry and Fire Protection, August 2023.

6.6 Scenic Resources and Recreation

This section describes the visual quality of natural resources and their importance to both locals and visitors in Siskiyou County. Scenic resources within Siskiyou County include several scenic resource areas and scenic vistas that showcase the county's numerous mountains, lakes, and other visually important areas. Federal and local regulations can help ensure that scenic resources are preserved.

Lakes

Siskiyou County is home to a number of lakes that provide scenic and recreational opportunities to residents and visitors. Prominent lakes in the county include Lake Siskiyou, Lake Shastina, Grass Lake, Meiss Lake, Tule Lake, and Trout Lake. These lakes offer a variety of features, including fishing, boating, hiking, and beaches. Additionally, Copco Lake is an artificial lake that was created due to the presence of Copco Dam 1, which is set to be removed by the end of 2023. Once this dam is fully removed, Copco Lake will return to its original river state as a part of the Klamath River and this lake will cease to be a scenic resource in the form of a lake.

Scenic Vistas

Scenic vistas are areas that offer high quality visual and aesthetic qualities to the community and visitors. Mount Shasta has an elevation of 14,163 feet and is the tallest point in the county, making it easily visible from many lower elevation areas. The wide variety of terrain elevations, including the forested mountainous areas in the western portion of the county and the more varied plains and mountains in the central and eastern portions of the county, offer sweeping views of local natural resources. A variety of official viewpoints of Mount Shata exist within the county, although scenic viewpoints of mountains are found extensively throughout the county.

Scenic Highways and Byways

Scenic Byways are roads deemed by the United States Department of Transportation to be of high archeological, cultural, historic, natural, recreational, and/or scenic quality. Their intent is to protect scenic roads in order to drive tourism and economic development in lesser travelled areas. Siskiyou County is home to five scenic byways, including the following.

- The **Volcanic Legacy Scenic Byway** is along portions of SR 89 (near McCloud) and US 97 (towards Dorris), and spans 500 miles. The route connects Lassen Volcanic National Park, Lava Beds National Monument, Tule Lake National Monument, Crater Lake National Park, and a number of other State parks, wildlife refuges, national forests, and mountain communities along the route. Due to its significance and quality as a scenic byway, it is one of 42 designated all-American roads, which means that it meets the criteria for at least two of the scenic byway qualities.
- The **Bigfoot Scenic Byway** is along a portion of SR 96 between Willow Creek and Happy Camp and spans 89 miles. The route travels through and passes near several wilderness areas, two national recreation areas, and Redwood National Park. It also passes through the region that is known for having the highest number of bigfoot sightings in the United States.

- The **State of Jefferson Scenic Byway** follows portions of SR 96 between Hornbrook and Happy Camp, as well as along Indian Creek Road and Grayback Road between Happy Camp and O'Brien, Oregon. It spans 108 miles, although the Grayback Road portion is closed during winter months. The name references the 1904s movement to create a 49th State, the State of Jefferson, which had gathered the interest of some locals in Siskiyou County and adjacent counties, although the movement lost momentum after the start of World War II. A variety of natural, historic, and recreational areas can be found along the byway, including an overlook of the Marble Mountains.
- The **Trinity Heritage Scenic Byway** begins in the historic mining town of Weaverville in Trinity County and ends in Gazelle. The Byway travels north along SR 3 before turning onto Gazelle Callahan Road and ends at the junction of Gazelle Callahan Road and Old Highway 99. A majority of the route follows the path of 19th century gold miners and settlers and offers scenic views of mountainsides, jagged cliffs, and dramatic vistas, including views of Mount Shasta.
- The **Modoc Volcanic Scenic Byway** is along portions of SR 89 out of McCloud and USDA Forest Service Road 49 northeast of Medicine Lake. The route goes through a number of geological and historical sites, including the Medicine Lake Highlands Volcanic Area, which consists of a giant lava flow, cinder cones, and volcanic craters. Medicine Lake Highlands is the largest identified volcano (in total area) within California and is one of the most unique geologic features in North America.

6.7 Mineral Resources

Minerals can mean any naturally occurring element or compound, and typically includes coal, peat, and rock. Minerals pertinent to regulation in Siskiyou County are extractable minerals with commercial value.

The California Department of Conservation, Division of Mines and Geology uses Mineral Resource Zones to classify areas that contain regionally significant mineral resources (CDC, 2019). Mineral Resource Zones (MRZ) are defined as follows:

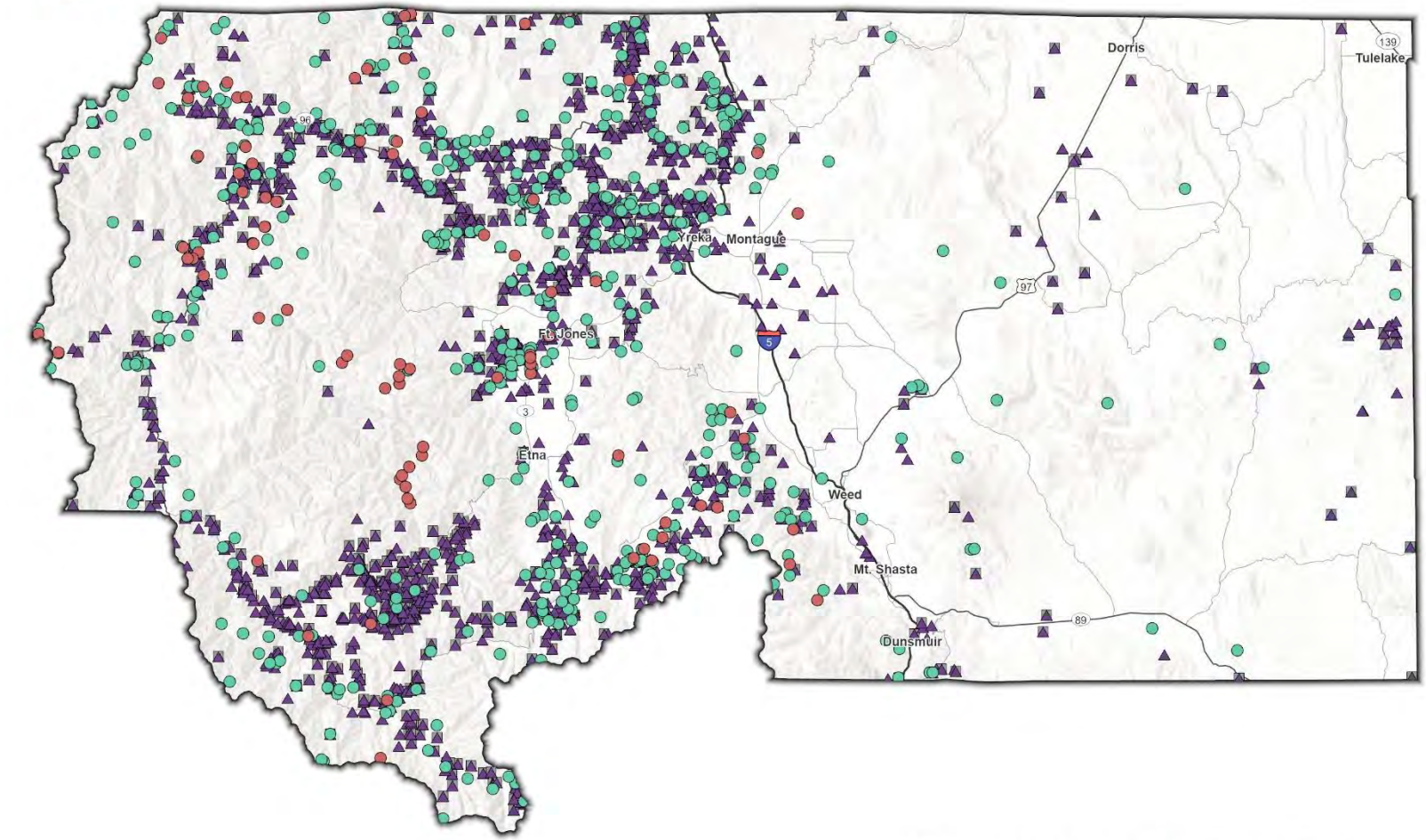
- MRZ-1: An area where adequate information indicates there are no significant mineral deposits present, or where there is little likelihood for mineral deposit presence.
- MRZ-2: An area with adequate information indicating significant mineral deposits are present and or a high likelihood for mineral deposit presence.
- MRZ-3: An area of undetermined mineral resource significance based on available data which may suggest or infer mineral occurrence.
- MRZ-4: An area of unknown mineral resource significance or no known mineral occurrence.

Currently, mineral resource data for Siskiyou County is limited and no such maps are available from the Department of Conservation. As such, location and inventory of mineral resources cannot be defined nor identified.

The Surface Mining and Reclamation Act of 1975 (SMARA) mandates mineral land classifications to help identify and protect mineral resources from urban expansion or other irreversible land uses. Based on the 2000 SMARA special reports, no reports were available for classification of mineral resources in Siskiyou County. Resources mined in Siskiyou County include sand and gravel, rocks, cinders, bituminous rock, pumice, dimension stone and gold (placer and lode). The county has about 43 mines within its jurisdiction, of which 34 are currently active (California State Mining and Geology Board 2009).

Many mineral resources have been found in Siskiyou County, including gold, platinum, silver, lead, chrome, copper, and coal. Gold sourced from mountain ranges throughout northern California and southern Oregon has been distributed throughout the county by the Klamath River and its tributaries. Historically, miners mined for gold by means of gold dredging and hydraulic mining of gravel deposits along the Scott River and Indian Creek with great success (Averill 1915).

Figure 6.7: Mineral Resources



6.8 Forestry Resources

This section describes the existing conditions of forestry resources and the regulatory framework that works to ensure future use of these resources. Siskiyou County is one of the top timber producers in California. According to the 2016 report, *California's Forest Productions Industry and Timber Harvest*, Siskiyou County accounted for approximately 11 percent of the total timber harvest (170.8 million board feet) in California. The abundant forest and woodlands throughout the county, both publicly and privately owned, provide a large supply of timber that can be harvested.

Existing Conditions

Forestry

Agricultural forestry is a valuable resource in Siskiyou County. In 2023, Siskiyou County produced 182.8 million board feet of timber, with a total value of $31,640,396. (California Department of Tax and Fee Administration, 2023). Timber harvest throughout California has decreased over the past 50 years, including in Siskiyou County. In 1976 Siskiyou County produced 337.1 million board feet of timber which had declined to 170.8 million board feet in 2016. This decrease can be attributed to Federal restrictions on timber harvesting on public lands and cost barriers for smaller landowners. In turn, this decreased output can lead to an overabundance of trees in certain areas, causing stress on regional forests and making them susceptible to additional issues such as pest outbreaks, windthrow, and drought.

Federal Forests

Approximately 63 percent of land in Siskiyou County is under Federal or State ownership, including portions of the Klamath National Forest, Shasta-Trinity National Forest, Six Rivers National Forest, Modoc National Forest, and Rogue-Siskiyou National Forest. Siskiyou County has more than 2.5 million acres of forest land and woodland. Figure 6.8 shows the vast area of land comprised of Federal forests. Approximately 27 percent of timber harvested in Siskiyou County is derived from Federal and State managed forest lands (Forest Industry Research Program, University of Montana, 2022).

Klamath National Forest alone makes up 42 percent of land within the county and is comprised of seven major forest types: Douglas-fir, Westside mixed conifer, Eastside mixed conifer, True fir, Ponderosa pine, Lodgepole pine, and Hardwood. As of 2009, the Forest included 381,100 acres allocated to wilderness, 396,600 acres allocated to late-successional reserves for the northern spotted owl and old growth species, and 458,000 acres allocated to riparian reserves for species such as salmon. Another 161,500 acres were designated as Adaptive Management Areas, and 300,000 acres (approximately 17.6 percent of the Forest's lands) are general forest where timber harvest may be conducted (House of Representatives Committee on Agriculture 2009). While these totals have been adjusted since 2009, no official reports with updated acreage totals have been published in recent years.

Forest Soils

Trees grown in these forests are commonly used for timber production including pine, fir, Douglas-fir, and incense-cedar. Timber producing areas are located in areas with appropriate soil and elevation for tree growth, as shown in Table 6.3.

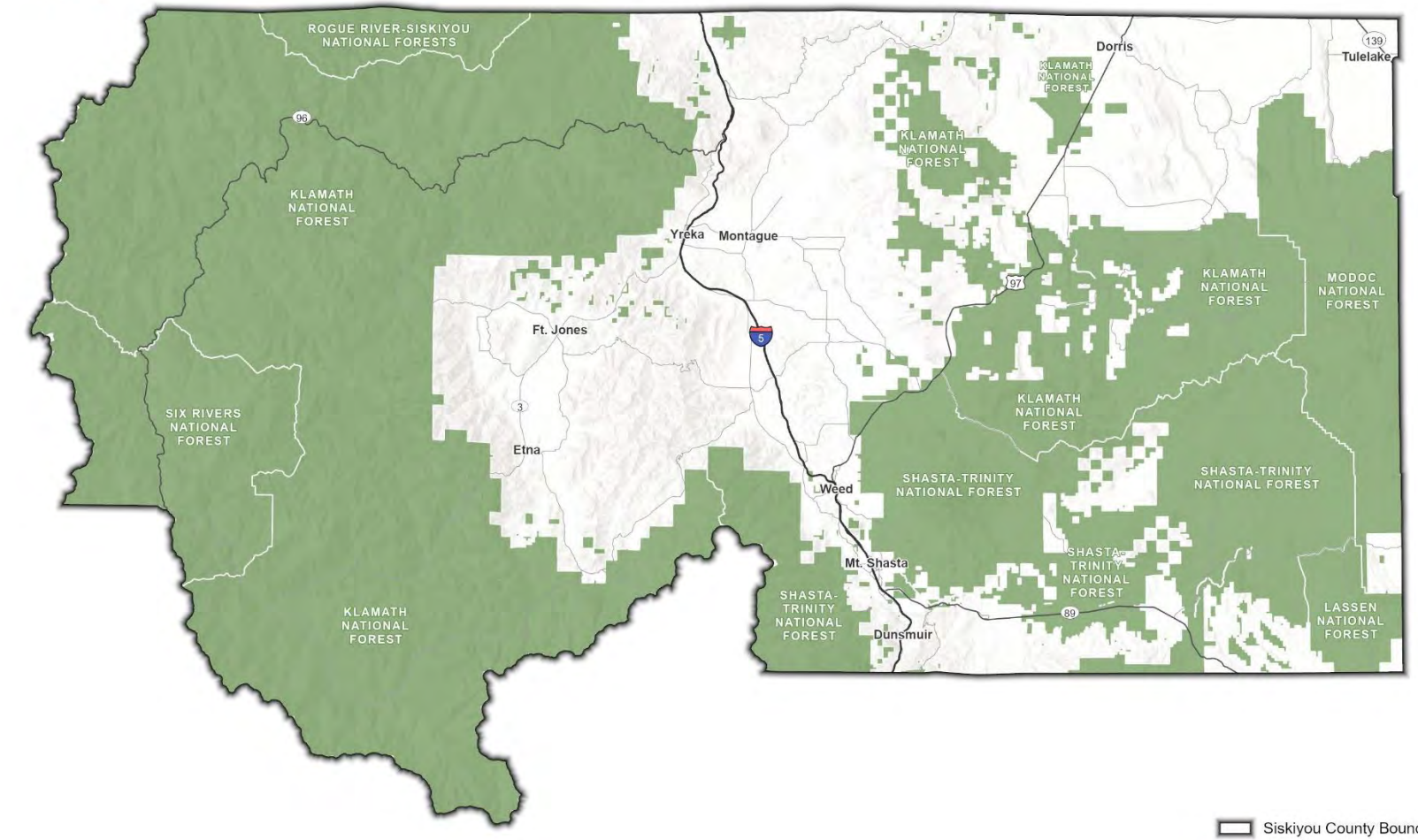
Soil surveys provided by the United States Department of Agriculture (USDA) Natural Resource Conservation Services (NRCS) determine that parent soils in Siskiyou County, or the underlying bedrock that the soils come from, are mostly coarse-textured and well-draining, as shown in Table 6.3. They are comprised of volcanic, igneous, serpentinite, sedimentary and metamorphic rock. These parent soils are suitable for conifers, trees commonly used for timber harvesting, by providing fast water drainage and high mineral content.

Table 6.3 Timber Tree Soil Requirements

Common Name	Scientific Name	Soil Preference	Elevation	Habitat
Ponderosa Pine	Pinus ponderosa	Coarse-textured soils, Igneous, metamorphic, sedimentary	500'-3,500'	Mixed conifer
Sugar Pine	Pinus lam	Granitic, sedimentary, well drained, medium textures (sandy loam to clay loam), frigid soils	1,100'-7,500'	Mixed conifer
Jeffrey Pine	Pinus jeffreyi	Serpentine soils, well drained, granitic, shallow	850'-7,000'	Mixed conifer
Douglas-Fir	Pseudotsuga menziesii	Frigid soils, well draining, fine textured	2,000'-6,000'	Mixed conifer
White Fir	Abies concolor	Coarse textured soils, granitic, serpentine	3,900'-6,900'	Mixed conifer
Red Fir	Abies magnifica	Coarse textured soils, frigid	6,600'-7,200'	Mixed conifer
Incense-cedar	Calocedrus decurrens	Pumice, sandstone, limestone, metamorphic. Ranges from coarse sands to fine clays, well drained and granitic	165'-6,600'	Mixed conifer

Source: Southern Research Station, US Forest Service, 2023.

Figure 6.8: National Forests



6.9 Key Terms

Anadromous Fish. Fish born in freshwater that spend most of their lives in saltwater and return to freshwater to spawn, such as salmon and some species of sturgeon.

California Protected Areas Database (CPAD). Database that provides data on national, state, and regional parks, forests, preserves, and wildlife areas, urban parks, land trust preserves, and special district open space lands such as watersheds.

Candidate Species. Species for which the United States Fish and Wildlife Service (USFWS) has sufficient information on their biological status and threats to propose them as endangered or threatened under the Endangered Species Act but for which development of a proposed listing regulation is precluded by other higher priority listing activities.

Critical Habitat. Areas designated by USFWS as essential to the conservation of a federally listed species, which may require special management considerations or protection.

Endangered Species. A species whose survival and reproduction in the wild is in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, predation, competition, disease, or other factors.

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

Groundwater. Water located beneath the land surface, specifically within pore spaces of saturated soil, sediment, or rock formations.

Groundwater Basin. A distinct underground body of water overlain by contiguous land having substantially the same geological and hydrological characteristics and yield capabilities. The area boundaries of a basin can be determined by political boundaries, geological, hydrological, or other physical boundaries.

Mineral Resource Zones. A classification of State lands into four geographic zones: 1) areas of no mineral resource significance (MRZ-1); 2) areas of identified mineral resources significance (MRZ2); 3) areas of undetermined mineral resource significance (MRZ-3); and areas of unknown mineral resources potential (MRZ-4).

Precipitation. Water released from clouds in the form of rain, freezing rain, sleet, snow, or hail. Precipitation is the main way atmospheric water returns to the surface of the Earth.

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

Rare. A plant species that, although not presently threatened with extinction, is present in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens.

Riparian. Of, on, or pertaining to the bank of a natural water course. For example, riparian vegetation is composed of plant species normally found near streams, lakes, and other

freshwater bodies, such as lakes, ponds, and reservoirs. Riparian areas are affected by surface or subsurface waters and are typically transitional between wetlands and upland areas.

River. A large natural stream of water flowing in a channel to the ocean, a lake, or another such water body.

Runoff. Precipitation that is not used by plants, evaporated, or infiltrated to soils, and is transported across land surfaces to streams or other surface water bodies.

Special Status Species. Rare, threatened, or endangered plant or animal species protected by Federal, State, or other agencies in accordance with any of the following:

- Species listed as threatened or endangered under the Federal Endangered Species Act (FESA); including those proposed and candidates for listing;
- Species listed as candidate, threatened, or endangered under CESA;
- Species designated as Fully Protected by the California Fish and Game Code (CFGC), and Species of Special Concern or Watch List by the California Department of Fish and Wildlife (CDFW);
- Plant species listed as rare under the Native Plant Protection Act (NPPA);
- Plant species recognized on the California Rare Plant Rank (CRPR) lists 1A, 1B, 2A and 2B by the California Native Plant Society (CNPS) and CDFW; and
- Species designated as locally important by the local agency [i.e., lead California Environmental Quality Act (CEQA) agency] and/or otherwise protected through ordinance, local policy, and/or Habitat Conservation Plans (HCPs) or Natural Community Conservation Plans (NCCPs).

Surface water. Water on the surface of land such as wetlands, streams, rivers, lakes, and reservoirs. Surface water is naturally replenished by precipitation and naturally lost through evaporation and subsurface seepage into the ground.

Take. As defined under the Endangered Species Act, "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" against a special status wildlife species.

Threatened. A species that is abundant in parts of its range but declining in overall numbers and likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

6.10 Regulatory Setting

Federal

Army Corps of Engineers. The Army Corps of Engineers provides public engineering services in peace and war to strengthen national security, energize the economy, and reduce risks from disasters. Their Civil Works unit administers the permit program under Section 404 of the Clean Water Act. It also oversees the construction, operation, and maintenance of dams, canals, and other flood protection infrastructure.

Clean Water Act. Areas meeting the regulatory definition of waters of the U.S. are subject to the jurisdiction of the United States Army Corps of Engineers (USACE) under provisions of Section 404 of the 1972 Clean Water Act. Waters of the U.S. include waters, such as intrastate lakes, rivers, streams, mudflats, natural ponds, territorial seas, and wetlands (33 Code of Federal Regulations, Part 328). Construction activities that directly impact waters of the U.S., such as grading and fill placement, require a Section 404 permit from the USACE.

Farmland Protection Policy Act. The Farmland Protection Policy Act regulates Federal actions with the potential to convert farmland to non-agricultural uses. Prime Farmland, Farmland of Statewide of Local Importance, and Unique Farmlands are subject to the Farmland Protection Act.

Federal Endangered Species Act (FESA). USFWS and the National Marine Fisheries Service (NMFS) administer the FESA. The FESA requires each agency to maintain lists of imperiled native species and affords substantial protections to these "listed" species. The USFWS and NMFS may "list" a species if it is endangered or threatened (likely to become endangered within the foreseeable future).

Migratory Bird Treaty Act. The Migratory Bird Treaty Act of 1918, as amended (MBTA), implements various treaties and conventions between the U.S. and Canada, Japan, Mexico, and the former Soviet Union for the protection of certain migratory birds. Under the MBTA, taking, killing, or possessing protected migratory birds is unlawful, as is taking of any parts, nests, or eggs of such birds (16 U.S. Government Code [USC]703). Take as defined under the FESA means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

National Historic Preservation Act. The National Historic Preservation Act of 1966 aims to preserve historic and archaeological sites. It does so through the National Register of Historic Places, the list of National Historic Landmarks, and the State Historic Preservation Offices.

National Oceanic and Atmospheric Administration (NOAA). NOAA provides daily weather forecasts, severe storm warnings, climate monitoring to fisheries management, coastal restoration, and supports marine commerce.

National Wild and Scenic Rivers Act. Act passed in 1968 to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. It encourages river management and promotes public participation in developing goals for river protection.

United States Department of Agriculture Forest Service. The National Forest Service is guided by law, regulation, and agency policy to sell timber products through a variety of permits. Forest management objectives have evolved to meet the needs of sustainable markets faced with climate change, and wildfire risk.

State

California Endangered Species Act (CESA). CESA and California Fish and Game Code (CFGC) (Section 2050 et seq.) prohibits the take of State-listed threatened and endangered species without a CDFW incidental take permit. A "take" under the CESA is defined as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" and is therefore restricted to direct harm of a listed species. Take under the CESA does not prohibit indirect harm by way of habitat modification (CFGC Section 86).

California Department of Pesticide Regulation. The California Department of Pesticide Regulation aims to protect human health and the environment by regulating pesticide sales and use, and by fostering reduced-risk pest management. The Department evaluates pesticide products, evaluates health impacts of pesticides, and conducts environmental monitoring of air, water, and soil as it relates to pesticide use.

California Department of Water Resources (DWR). The DWR manages California's water resources, systems, and infrastructure, including the State Water Project. Their responsibilities and duties include: preventing and responding to floods, droughts, and catastrophic events; informing and educating the public on water issues; developing scientific solutions; restoring habitats; planning for future water needs, climate change impacts, and flood protection; constructing and maintaining facilities; generating power; ensuring public safety; and providing recreational opportunities.

California Environmental Quality Act (CEQA). CEQA requires government agencies in California to consider the environmental consequences of their actions before approving plans and policies or committing to a course of action on a project. This law is intended to do the following:

- Inform government decision makers and the public about the potential environmental effects of proposed activities;
- Identify the ways that environmental effects can be avoided or significantly reduced;
- Prevent significant, avoidable environmental effects by requiring changes in projects, either by the adoption of alternatives or imposition of mitigation measures;
- Disclose to the public why a project was approved if that project has significant environmental impacts that cannot be mitigated to a less than significant level

California Fire Code. The California Fire Code is a set of regulations that addresses fire safety and fire prevention in buildings and structures throughout the state. The Code contains regulations consistent with nationally recognized and accepted practices for safeguarding life and property from the hazards of fire and explosion; dangerous conditions arising from the storage, handling, and use of hazardous materials and devices; and hazardous conditions in the use or occupancy of buildings or premises. The California Fire Code 2022 is based on the International Fire Code 2021, with some amendments and additions.

California Fish and Game Code (CFGC). CFGC sections 3503, 3503.5, and 3513 describe unlawful take, possession, or destruction of native birds, nests, and eggs. Section 3503.5 of the Code protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs. Section 3513 makes it a state-level offense to take any bird in violation of the Federal Migratory Bird Treaty Act.

California Forest Practice Act. The California Forest Practice Act requires any harvesting of logs offered for sale, barter, exchange, or trade to prepare Timber Harvest Plans (THP), nonindustrial timber management plans (NTMP), Sustained Yield Plans (SYPs), exemptions, emergencies, or conversions by a registered professional forester (RPF) licensed by the State. A THP is prepared for single commercial harvest and a NTMP is applied to an entire property in perpetuity. Both plans analyze existing conditions, proposed activities, impacts to environmental resources, and mitigation for anticipated impacts. SYPs assure that the continuous growing and harvesting of commercial forests maintain and protect soil, air, fish, wildlife, and water resources. Section 1038 of the Act provides a list of exemptions to the Act. The State Board of Forestry implements the Act through a series of regulations called the California Forest Practice Rules. CAL FIRE is the enforcement arm of the Act.

California Public Trust Doctrine. The State's Public Trust Doctrine establishes that some waters, tidelands and wildlife resources of the State are held in trust for all of the people, and the State acts as the trustee of these resources to protect them for present and future generations. In California, this Doctrine has been recognized to extend to the protection of navigable surface waters, to non-navigable tributaries of those waters, to aquatic resources, and to birds and other wildlife.

California Water Code. The California Water Code regulates Waters of the State of California, including any surface or groundwater (including saline waters) within the boundaries of the State, various wetlands, and all waters considered to be Waters of the United States. This Act regulates dams and reservoirs, wells, flood control, conservation, water quality, various types of water districts, water security, and more.

Central Valley Regional Water Quality Control Board (RWQCB). The Central Valley RWQCB has jurisdiction over the southeastern corner of the county, extending from the town of Dunsmuir to the Modoc County border. The Central Valley RWQCB adopted a basin plan, which includes the Water Quality Control Plan for the Sacramento River, whose headwaters are in Siskiyou County.

Native Plant Protection Act (NPPA). The CDFW has authority to administer the NPPA (CFGC Section 1900 et seq.). The NPPA requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare. Under NPPA Section 1913(c), the owner of land where a rare or endangered native plant is growing is required to notify the CDFW at least 10 days in advance of changing the land use of a property to allow for salvage of the plant(s).

North Coast Region Regional Water Quality Control Board (RWQCB). The North Coast RWQCB is one of two Regional Water Boards that regulate Siskiyou County's watershed resources. The North Coast RWQCB has jurisdiction for the western and northern portions of the county extending as far east as the Mt. Shasta community in the south of the county and as far east as Tule Lake in the north of the county. The SWRCB works to protect surface water resources across the state and provide safe drinking water to communities across the state. The North Coast RWQCB

adopted a Basin Plan, which controls the discharge of waste and other controllable factors affecting the quality of waters of the state within the boundaries of the North Coast Region. The North Coast RWQCB developed the Klamath Watershed Management Area to manage the water quality of this watershed.

Porter-Cologne Water Quality Control Act. The Porter-Cologne Water Quality Control Act grants the California Water Resources Control Board and the Regional Water Quality Control Boards the power to adopt plans and policies that regulate discharges to surface water and groundwater, regulate waste disposal sites, and require cleanup of discharges of hazards materials and other pollutants. The Regional Water Quality Control Boards are involved in the permitting process for forest management activities, including herbicide application and enforcing erosion control in watersheds.

Sustainable Groundwater Management Act (SGMA). SGMA provides a framework for long-term sustainable groundwater management across California. Local and regional authorities in medium and high priority groundwater basins, designated by the California Department of Water Resources, have formed Groundwater Sustainability Agencies that oversee the preparation and implementation of a local Groundwater Sustainability Plan.

State Scenic Highways Program. The State has adopted legislation (Division 1, Chapter 2, Article 2.5 of the Streets and Highways Code) governing the application of the designation "State Scenic Highway." In order to receive that designation, the local jurisdiction must follow the process described below.

- The highway transects areas of extraordinary scenic value.
- The highway offers typical views that represent the variation in scenic factors available within the jurisdiction.
- If possible, all principal landscape and topographical type areas should be represented in the system.
- Routes of historic significance which connect places of interest should be considered even though the route is of marginal scenic value.
- The number of times a route has been suggested as a scenic highway in other plans and studies.
- The degree to which a route can be integrated into a system of "loops" or continuous scenic drives. Whether a route connects the scenic highway systems of adjoining jurisdictions.
- The general attractiveness of the route, including the variety and diversity of its viewscape.
- The extent to which the route supports other General Plan elements or plans, such as the open space, conservation, recreation, circulation, bicycle, and parks plans.

County Scenic Highways can achieve State recognition by following the same process, save for appearing on the Master Plan of State Highways Eligible for Official Scenic Highway Designation. This program is administered by the California Department of Transportation (Caltrans).

Williamson Act (Government Code Sections 51200-51297.4). Formally known as the California Land Conservation Act of 1965, this voluntary program combines tax incentives and regulation. In return for reduced property taxes, based on the value of agricultural use rather than open

land market prices, farmland owners agree to maintain their land in agricultural production for a minimum period of time. Landowners contract with a county or city for 10-year rolling terms that are automatically renewed every year unless terminated. A newer version of this arrangement, the Farmland Security Zone program, provides for 20-year renewable contracts and greater tax reductions. Enrollment in either version is voluntary for both parties (landowners and local governments).

Local

Groundwater Sustainability Agencies (GSA). GSAs are local agencies tasked with implementing the Sustainable Groundwater Management Act at the local level. GSAs are required to form in the State's high- and medium-priority basins and subbasins. There are three GSAs in Siskiyou County, including the Siskiyou County Flood Control and Water Conservation District GSA, County of Siskiyou GSA, and the Tulelake Irrigation District GSA.

Groundwater Sustainability Plans (GSP). The Sustainable Groundwater Management Act requires Groundwater Sustainability Agencies (GSA) in the State's high- and medium-priority basins to develop and implement GSPs, which are roadmaps for how groundwater basins will reach long-term sustainability in the 20 years following adoption of the plan. GSAs are required to begin implementing their GSPs upon their submittal to the California Department of Water Resources.

Siskiyou County Municipal Code. The Siskiyou County Municipal Code Title 10, Planning and Zoning, designates how and where land can be developed. Title 10 Chapter 6, Zoning, specifically regulates the use of land, and structures by setting specific standards, such as lot size, building setbacks, height limits, and allowable uses. Title 10 Chapter 6 establishes zoning districts, which are designated areas for which prescribed land use requirements and development standards are consistent across areas with the same zoning district designation.

Siskiyou County Department of Agriculture. The Siskiyou County Department of Agriculture serves to protect the environment of the county through environmental and natural resource protection, consumer and industry protection, and animal control programs. The Department oversees agriculture programs throughout the county, including regulating the apiary program, weed control/herbicide use, pest detection, pesticide use, air quality, plant, and nursery inspections, as well as various voluntary programs. The Department is also the local enforcement and compliance agency for the California Organic Program, assisting applicants with the registration and inspection process.

Scott Valley and Shasta Valley Watermaster District. The Scott Valley and Shasta Valley Watermaster District (SSWD) is appointed by the Siskiyou County Superior Court to be the Watermaster for the Scott Valley, Shasta Valley, and Willow Creek services areas. SSWD was created through AB1580 and became a special district in February 2012. The District is responsible for ensuring decreed water rights are managed so they do not conflict with or cause harm to the supply of water for another party.

Siskiyou County Open Space Element (1972). The Siskiyou County General Plan Open Space Element addresses the use of any land for public recreation, the enjoyment of scenic beauty, and the conservation or use of natural resources. The open space action program laid out in this Element ensures the establishment of land use regulations that ensure proper use and conservation of open space lands.

Siskiyou County Scenic Highways Element (1974). Adopted in 1974, the Scenic Highways Element of the Siskiyou County General Plan serves as a method of coordinating with the State Division of Highways in the development of a countywide system of scenic routes, as well as a guide for local jurisdictions on the development of scenic route plans. The Element works to ensure the preservation of scenic highways for the enjoyment of the general public and to provide safe and economical transportation of people and goods in a way that encourages economic development and tourism. The plans and programs covered in this Element intend to protect and enhance the scenic values along these scenic routes.

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7. Cultural Resources

Cultural resources encompass all the physical evidence of past human activity. They are non-renewable resources that are important to the region's history as they tell the story of human past and interaction with the natural environment. This section summarizes the cultural and paleontological setting and known resources in Siskiyou County.





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7.1 Introduction

This chapter summarizes known cultural resources in Siskiyou County using readily available records on file with the California Office of Historic Preservation. It is organized into the following sections:

7.1 Introduction CR-3
7.2 Prehistoric Setting CR-4
7.3 Ethnographic Setting CR-6
7.4 Historic Setting CR-13
7.5 Known Tribal Resources CR-15
7.6 Known Cultural Resources CR-15
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7.8 Known Paleontological Resources CR-20
7.9 Key Terms CR-21
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7.2 Prehistoric Setting

The following discussion is based on a chronology of the Northwest Coastal Subregion as defined by archaeologist David Fredrickson (Moratto 1984). Siskiyou County is in the inland portion of this archaeological subregion, with a human occupation spanning from the Paleoindian Period to the present. Generally, the prehistoric cultural chronology of the Northwest Coastal Subregion can be divided into five periods: the Paleoindian Period (10,000-6000 BCE), the Lower Archaic Period (6000 – 3000 BCE), the Middle Archaic (3000 – 1000 BCE), the Upper Archaic (1000 BCE – 500 CE), and the Emergent Period (500 CE – contact). BCE refers to the number of years "before current era", and CE refers to the number of years since the beginning of the "current era", where the current era began at year 1 of the modern Gregorian calendar.

Paleoindian Period (10,000-6000 BCE)

Artifacts dating from the Paleoindian Period are the earliest evidence of human occupation in the Northwest Coastal Subregion. Fluted projectile points and chipped stone crescents have been identified in this area of California and provide proof of the long-standing human occupation of the region. However, these types of artifacts have been found mainly in isolated contexts lacking association with other, well-dated artifact assemblages. Due to the sparse number of artifacts from this period, little is known about the inhabitants of the Northwest Coastal Subregion during this period of time (Far Western 2016).

Lower Archaic Period (6000-3000 BCE)

Much more is known about the Lower Archaic Period in this region, owing to a number of archaeological sites that have been identified north of the Clear Lake Basin. Named Borax Lake Pattern sites, artifact assemblages associated with these sites include fluted projectile points but also include serrated bifaces, ovoid flake tools, handstones, millingslabs, and edge-flaked spalls. Archaeological sites from this period are found in a wide range of environmental contexts including ridgetops at 4,500 to 6,000 feet above mean sea level, in upland areas, and along terraces adjacent to the Trinity River. The archaeological information points to a "forager" lifestyle, following seasonal foraging opportunities across the landscape. Data collected from both upland and lowland settings indicate that the Borax Lake Pattern may have persisted until roughly 3000 BCE, though these dates are based on obsidian hydration analyses that are less reliable in this region of California. (Far Western 2016).

Middle Archaic Period (3000-1000 BCE)

The Middle Archaic Period in this region is characterized by the Mendocino Pattern of artifacts. Common artifacts from this period include side-notched, corner-notched, and concave-base dart points, handstones and millingslabs, various types of flake tools and cobble tools, and, in some cases, a limited number of cobble mortars and pestles. Most of the Mendocino Pattern evidence involves specialized hunting camps in the uplands and residential sites in the lowlands; significantly different from the earlier Borax Lake Pattern where upland areas were dominated by residential sites. Several archaeological studies have also provided support for greater residential stability during the Middle Archaic Period. This stability was perhaps made

possible by a greater dependence on acorn storage, and a heavy dependence on salmon storage which appeared somewhat later around 2500 BCE (Far Western 2016).

Upper Archaic Period (1000 BCE -500 CE)

The Upper Archaic Period in this region is characterized by the Berkeley Pattern of artifacts. Likely originating near Clear Lake, archaeological sites of this pattern extend into Mendocino County. Artifact assemblages are quite elaborate and include leaf-shaped and stemmed projectile points, a highly developed bone tool industry, many fishing-related implements (spears, harpoons, hooks, net sinkers), and a relatively high frequency of mortars and pestles. Most researchers attribute the expansion of the Berkeley Pattern as a reflection of the out-migration of Pomoan populations from their Clear Lake homeland, likely replacing earlier Yukian speaking peoples who occupied outlying areas (Far Western 2016).

Emergent Period (500 CE- Contact)

The Emergent Period marks a time of potential population increases in the region, as archaeological site frequencies increase dramatically, and evidence of permanent village sites is more available. Characterized by the Tuluwat (formerly Gunther) Pattern of artifacts, items that are specialized for woodworking and used in the construction of plank houses and canoes appear in archaeological deposits (Far Western 2016). The interior counties of northern California lacked large scale archaeological excavations, and less is known about interior sites from this period. One interior archaeological site within Redwood National Park (CA-HUM-439) has yielded projectile points similar to those of the Tuluwat Pattern coastal sites; however, the CA-HUM-439 site contained a higher amount of obsidian than at coastal sites (Moratto 1984). Other small-scale excavations along the Smith River (CA-DNO-26) have found small amounts of salmon, sea mammal, and marine shellfish, indicating connections to coastal groups during the Emergent Period (Hildebrandt 2007).

7.3 Ethnographic Setting

Native American groups living in northwest California have long been associated with the larger Northwest Coast Culture Area, differing significantly from other groups in California. The Northwest Coast Culture Area extends from Canada and Alaska (including groups like the Tlingit and Kwakiutl) south to Cape Mendocino. Areas within Siskiyou County include the traditional territories of the Achomawi, Karuk, Modoc, Shasta, and Wintu groups. These groups are described in further detail below.

Achomawi

The Achomawi (also spelled Achumawi) ethnographic area primarily encompasses portions of Shasta, Lassen, and Modoc counties in the northeastern part of California (Dixon 1908). The Achomawi occupied the drainage area of Pit River a few miles below Round Mountain up into the south end of Goose Lake valley, except for Hat Creek and Dixie valleys, about twenty miles north of Alturas. This territory is about one hundred and twenty-five miles in length, measuring on a straight line. The neighbors of the Achomawi were the Modoc and Klamath to the north, the Shasta to the northwest, the Wintun westward, the Yana to the southwest, the Maidu to the south, and the Paiute eastward (Curtis 1924).

Achomawi villages were organized into autonomous tribelets with one central village and multiple satellite villages (Waldman 2006). In summertime, tribal members lived in cone-shaped dwellings with tule-mat coverings (Waldman 2006). Their larger winter houses were built partly underground, with wooden frames supporting a combination of tule, bark, and grass coverings (Waldman 2023). Achomawi settlements were established in the immediate vicinity of streams (Dixon 1908), and the Achomawi lived by hunting and fishing, especially for deer, wildfowl, salmon, bass, trout, pike, and catfish, as well as by gathering wild plant foods, eggs, insects, and larvae (Waldman 2006). The Achomawi hunted as far west as the head of the McCloud River and Mount Shasta, north to Medicine Lake, and south as far as Lassen Butte (Dixon 1908).

The Achomawi were skillful in manufacturing weapons, utensils, and ornaments of stone, wood, bone, shell, and vegetal and animal fiber. The Achomawi created arrows from serviceberry or reed and flint or obsidian (Curtis 1924). A perforated flat stone and grooved pieces of pumice were used to straighten and smooth the arrow shaft. Arrows were carried in the uncut skin of a raccoon, mink, coyote, or other small animal. Knives were created from a flake of flint or obsidian. The pestle, a cylindrical and round-headed stone, was used for pulverizing acorns and seeds. A basketry hopper made of willow warp and pine-root twining was used to prevent the loss of food fragments during pulverizing (Curtis 1924). Spoons were made from oak, and fire was kindled with a drill, dried pine, and a spindle of ash. The Achomawi also built rafts from driftwood to ferry their children and goods across deep streams (Curtis 1924). Materials for Achomawi clothing included deerskin and shredded juniper bark (Waldman 2006). Tobacco was smoked in tubular stone pipes. The only musical instrument was a flute of elder (Curtis 1924).

The Achomawi primarily traded furs and bows for items including dentalia from the Shasta and Modoc and clamshell wapum beads from the Maidu and Wintun (Curtis 1924). Additionally,

the Modoc and the Warm Springs group from Oregon would come down with droves of horses to exchange with the Achomawi for clam shell beads (Curtis 1924). This trade ceased around the year 1910, when European traders began to sell shell beads to the Oregon tribes that were purchased from the Pomo bands of Lake and Mendocino counties, where the manufacture of wampum became almost a commercial industry (Curtis 1924).

In 1828, American fur trappers and traders reached Achomawi territory, but it was not until the late 1840s and the California gold rush that outsiders began arriving in great numbers and appropriating lands and disrupting traditional tribal life (Waldman 2006). The Rogue River War of 1855-56 involving the Takelma and Tututni of southern Oregon brought a greater U.S. military presence to the Achomawi region (Waldman 2006). In 1921, a smallpox epidemic severely depleted Achomawi members (Waldman 2006).

The Achomawi are represented by the Pit River Tribe, which is comprised of eleven autonomous bands including Achomawi, Atsugewi, Atwamsini, Ilmawi, Astarawi, Hammawi, Hewisedawi, Itsatawi, Aporige, Kosalektawi, and Madesi. The Pit River Tribe received official federal designation in 1987. Today, around 1,800 tribal members live on several rancherias and the Pit River, Round Valley, and X-L Ranch reservations (US Forest Service 1972). The tribe operates several programs and services to support its members, including health care, education, housing, and social services. The tribe also strongly commits to environmental stewardship and sustainable resource management and works closely with federal and state agencies to protect the natural resources of their ancestral lands.

Karuk

The Karuk (also spelled Karok) ethnographic area includes most of Siskiyou County and the northeastern portion of Humboldt County in Northern California (Alliance For California Traditional Arts 2023). The Karuk inhabited the banks of the Klamath river from a few miles above Happy Camp in Siskiyou County down to the Redcap Creek in Humboldt County, and from Salmon River up to the Forks of Salmon (Curtis 1924). The name Karuk is derived from the native word for "up-stream" (Curtis 1924; Waldman 2006). The Karuk formerly called themselves "Arra-arra" for "the people" (Waldman 2006). The Karuk are also known as áama (salmon) and acorn people, and they were hunter gatherers who primarily depended on these resources that are a staple of Karuk culture, diet, and economy (Waldman 2006; Sawyer 2023).

The Karuk people effectively managed land, river, and forest using a combination of sustainable harvesting, prescribed burning, and native horticultural practices (Alliance For California Traditional Arts 2023). The resulting abundance allowed for the development of great artistry including renowned basketry and the development of world renewal ceremonies known as Pikiawish (Alliance For California Traditional Arts 2023). Along with the Yurok and Hupa, the Karuk practiced annual World Renewal ceremonies, serving to "remake the world" or "firm the earth" (Waldman 2006).

The Karuk social organization revolved around permanent villages along the Klamath River (Alliance For California Traditional Arts 2023). The villages were situated in three main clusters (Waldman 2006). These smaller communities were interconnected through marriage, seasonal gatherings, and ceremonies (Alliance For California Traditional Arts 2023). Karuk plank houses

resembled those of tribes to their north. Karuk women and children slept in the larger family houses, while Karuk men slept in smaller sweathouses where only they were allowed (Waldman 2006). The Karuk were part of an extensive trade network with neighboring tribes. Rather than crafting their own boats, the Karuk purchased them from the Yurok (Waldman 2006).

American traders were the first non-Indians to reach Karuk territory. The Karuk remained relatively isolated until the mid-19th century and the arrival of miners following the California gold rush of 1849 (Waldman 2006). In 1851, U.S. Indian Agent Redick McKee negotiated eighteen treaties throughout California (Karuk Tribe Official Website 2023). None of those treaties were ratified, and the associated Indian Reservations were never created. On May 6, 1905, under the authority of the 1891 Forest Reserve Act, President Theodore Roosevelt set aside the Klamath Forest Reserve thereby claiming the entire 1.04-million-acre Karuk Aboriginal Territory as public land (Karuk Tribe Official Website 2023). This action effectively left the Karuk without recognized title to their land, including 117 recognized villages and associated hunting, gathering, and fishing areas along the middle portion of the Klamath River (Karuk Tribe Official Website 2023). Many of the traditional villages were homesteaded by non-Karuks or claimed for mining and later patented (Karuk Tribe Official Website 2023)

The Karuk tribe earned federal recognition in 1979, and the tribe was officially designated as self-governing in 1994 (Paddock 1996). The Karuk Tribe is now one of the largest and most geographically dispersed indigenous groups in California (Waldman 2006). There are currently more than 3,500 enrolled members, and 2,860 more identified Karuk descendants (Alliance For California Traditional Arts 2023).

Modoc

The Modoc ethnographic area includes over 5,000 square miles along the southern Oregon and northern California border, in the vicinity of Modoc Lake, Little Klamath Lake, Clear Lake, Goose Lake, Tule Lake, and Lost River (Waldman 2006; Modoc Nation 2023). The Modoc were located just south of the Klamath, who referred to them as *Mo-adok* for "southerners" (Waldman 2006). The Modoc were originally an offshoot of the Klamaths, who occupied hunting grounds further west (Brown 1945).

The Modoc village included summer and winter dwellings and sweathouses. The summer dwelling is an elliptical or rectangular small brush hut, while the winter dwelling is a semi-subterranean earth lodge with a pit that measured three to four feet in depth. The winter dwelling had a conical roof that was covered with mats, brush, and a thick layer of earth. The Modoc sweathouse is a very small dome-shaped structure covered with tule mats, and these structures usually ranged from four to eight feet in diameter and from three to four feet in height (Barrett 1910).

The lakes in this region brought great numbers of water birds including swans, geese, ducks, and wading birds, the majority of which were used by the Modoc as food. The skins of swans, geese, and other birds with especially fine down, were made into feather blankets and swaddling clothes. Fish were abundant in the lakes, salmon and salmon trout being especially esteemed by the Modoc. The large supply of water birds and fish resulted in the development of certain specialized implements for their capture. The Modoc used a ring pointed arrow and a special net to capture waterbirds. A large triangular dip-net and a dug-out fir log canoe

were used for fishing. The Modoc also hunted game such as deer, elk, and antelope for food. Coyotes, gray wolves, foxes, badgers, wildcats, rabbits, and various furbearing animals were hunted for making blankets and clothing. Vegetable foods consumed by the Modoc included tubers and bulbs, notably camass and ipos (Barrett 1910).

Modoc people possess a specialized culture largely due to the extensive use of tule in the making of houses, basketry, and various utensils. Finer baskets used the quills of the porcupine that were dyed yellow by means of a yellow moss. The only baskets made of a harder material are conical burden baskets, triangular sifters, and fish baskets. Twining is the only technique used, with all coiled baskets coming from this region (Barrett 1910).

The Modoc implements of war included the bow, arrow, and a short javelin. The war bow had a sinew back and sharply upcurved ends. The arrow was made with light wood or cane shaft, hard wood foreshaft, and a moderately large obsidian or flint point. The javelin or spear was fairly short and made of heavy wood and fixed with a projectile point usually made of obsidian and varied from two to six inches in length (Barrett 1910). The Modoc occasionally formed war parties to drive out unwelcome visitors or to raid neighboring tribes (Modoc Nation 2023).

The arrival of the white European Americans in the early 19th century directly affected the Modoc (Modoc Nation 2023). The intrusion of exploring fur traders and Euro-American settlers into the Pacific Northwest had a variety of social and economic effects on the Modoc (Brown 1945; Modoc Nation 2023). These settlers traveled west by way of the Oregon Trail, which passed directly through traditional Modoc territory. The Modoc bartered with fur traders for guns and horses, which became necessary to remain competitive with neighboring tribes. The presence of traders and prospectors eventually gave way to farmers and ranchers, who focused on seizing land for profit and had little regard for the Native inhabitants (Modoc Nation 2023).

The origins of the Modoc War, one of the few Indian wars to occur within the boundaries of the state of California, date back to 1864. The previous U.S. government policy of moving tribes west of the national boundary no longer applied. Beginning in the 1860s, the government began moving Native Americans onto reservations (Oakland Museum of California 2023). At that time, the Modoc and Klamath were forced to sign away most of their territory and move to the Klamath Reservation in Oregon, northeast of Upper Klamath Lake (Waldman 2006; Oakland Museum of California 2023). However, the Modoc never felt content among the Klamath as there was not enough food for both tribes and disease became prevalent (Waldman 2006). Tensions mounted among respective tribal members over petty issues, and the Modoc longed for a separate home and asked for their own reservation across the California border, along the Lost River north of Tule Lake. However, the Federal and California governments turned down the tribe's request (Waldman 2006).

In the spring of 1870, a group of approximately 175 Modoc, including fifty to sixty warriors under Kientpoos (referred to as Captain Jack by the local miners), left the reservation and returned to their homeland. In 1872, U.S. Army commanders were ordered to return the Modoc to the Klamath reservation. On January 17, 1873, a force of 400 cavalry and infantry attacked the fifty Modoc defending their stronghold within an area of rugged lava beds, ledges, and

cliffs south of Tule Lake. About forty U.S. soldiers were killed or wounded while the rest were forced to retreat (Oakland Museum of California 2023).

On April 15, 1873, 600 soldiers moved against the Modoc. The Modoc were forced to abandon the lava beds and flee to the southeast after a two-day battle. During the retreat, the Modoc began to break up into small groups. One of these Modoc bands was captured and ordered to track down Captain Jack. Captain Jack and the remaining Modoc were located and forced to surrender on June 1, 1873. On October 1, 1873, Captain Jack and six other Modocs were hanged for murder. The surviving Modoc were sent to reservations in Oklahoma. In 1909, those who were still alive were allowed to return to the Klamath reservation in California (Oakland Museum of California 2023).

Today, approximately 200 Modoc live in Oklahoma, while about 700 live on the Klamath reservation . For the Modoc, the war resulted in the loss of their ancestral homeland and their traditional way of life (Oakland Museum of California 2023). As a way to maintain their identity as a people, annual gatherings have recently been held at the lava beds of Tule Lake. These gatherings give Modoc descendants a chance to reconnect with the memory of their ancestors.

Shasta

The Shasta ethnographic area includes a large part of Siskiyou County in California and a portion of Jackson and Klamath in Oregon (Curtis 1924). This area is located near the Klamath, Scott, and Shasta Rivers in present-day northern California and on the Stewart River and Little Butte Creek in present-day southern Oregon (Curtis 1924; Waldman 2006). Except for the Shasta and Scott Valleys and small valleys where tributaries cut into the canyon of the Klamath, this entire area is mountainous, much of it being well wooded and all abundantly watered (Curtis 1924). The name Shasta is thought to be derived from a village or chief name (Waldman 2006). The western neighbors of the Shasta in California included the Karuk on the Klamath River, the Takelma in Oregon, and various Athapascan bands on Applegate creek and Rogue River. East of the Shasta were the Achomawi, the Klamath, and the Modoc. The Wintun territory is located south of the Shasta (Curtis 1924).

Permanent villages provided the primary sociopolitical structure for the Shasta (Waldman 2006). The major structures of a Shasta village included the family dwelling house (umma), a "big house" (okwa-umma), the sweat house (wukwu), and the menstrual hut (wapsahuumma) (North Mountain Park Nature Center 2011); Shasta Indian Nation 2023). The Shasta family dwelling house was conical in shape, framed by a series of tall pine poles. The outside of the family dwelling house was covered with bark shingles, and the interior was insulated with strips of tule or pine needles. The inside was excavated down to a depth of three feet which helped to insulate it and give it more height, and a fire pit was located in the center (North Mountain Park Nature Center 2011).

Main sources of vegetal food included nuts, berries, roots, and acorns, while deer, antelope, elk, bears, and small game provided the Shasta with sources of meat (Curtis 1924; Waldman 2006). Salmon was also a principal food source for the Shasta, and the Shasta fished using traps, spears, weirs, nets, hooks, lines, and drives (Curtis 1924; North Mountain Park Nature

Center 2011). Shasta families had rights to certain hunting and fishing places that were inherited patrilineally (Waldman 2006).

The Shasta used wood to create bows, spoons, pipes, and mush-paddles. Bone and antler were used to make scrapers, awls, wedges, arrow-flakers, and salmon-gigs. The Shasta also created implements of stone including knives, arrow points, scrapers, pipe-tips, pestles, and soapstone vessels. Shell was primarily used for ornament and as currency in the form of beads (Dixon 1907). The Shasta regularly traded with their southern Karuk neighbors, providing obsidian for arrow points, deerskins, and sugar-pine nuts in exchange for dentalia, baskets, salt, seaweed, and other goods (Waldman 2006).

The Shasta likely had contact with American traders and trappers in the early 1820s (Dixon 1907; Waldman 2006). With increasing mining and settlement, especially during the California gold rush in 1849, the Shasta were victims of random violence (Waldman 2006). In 1851, at a treaty signing at Fort Jones in northern California, a number of Shasta were poisoned by settlers (Waldman 2006). Some Shasta participated with the Takelma and Tututini in the Rogue River War of 1855–56, after which they were forced to settle on the Grande Ronde and Siletz Reservations far from their homeland in northwestern Oregon (Dixon 1907; Waldman 2006). Others merged with the Achomawi. To cope with reservation life, the Shasta became involved in a number of religious revitalization movements, such as the Ghost Dance of 1870, founded among the Paiute (Waldman 2006). Many of the Shasta descendants who remained in California are today members of the federally recognized Quartz Valley Indian Reservation in Fort Jones, California (North Mountain Park Nature Center 2011).

Wintu

The Wintu ethnographic area encompasses the Sacramento Valley within parts of Trinity, Shasta, Siskiyou, and Tehama counties (LaPena 1978). Native American groups living in northwest California have long been associated with the larger Northwest Coast Culture Area, differing significantly from other groups in California (Far Western 2016). Within this region there are nine known major groups of Wintu identified by their locations: *nomtipom* (upper Sacramento valley); *wenem-em* or *wenememem* (McCloud); *dawpom* (Stillwater); *elpom* (Keswick); *λ'abal-pom* (French Gulch); *nomsu's* (Upper Trinity Valley); *dawnom* (Bald Hills); *norelmaq* (Hayfork); and *waymaq* (upper McCloud River valley) (Du Bois 1935; King et al 2016; LaPena 1978).

Wintu is a member of the Wintuan group of languages used by the Wintu in the north, Nomlaki in the central areas, and Patwin to the south (Du Bois 1935; LaPena 1978). Analysis of historical linguistics indicates that proto-Wintun split apart between about 3,000 and 2,500 years ago in Oregon, while Wintu/Nomlaki became a discrete branch about 500 years later. The Patwin most likely migrated down the Sacramento Valley first, and ultimately pushed up against Miwok territory in the Suisun/Carquinez area by about 1,500 years ago. The Wintu/Nomlaki moved south out of Oregon next, settled in the northern valley, divided into two distinct languages, and then spread up the various tributaries of the Sacramento and upper Trinity Rivers (King et al 2016).

The Wintu lived in relatively high densities and occupied permanent coastal and interior riverine settlements. Major villages were located in strategic foraging areas such as estuaries

and lagoons, protected river mouths, and high-quality fishing areas along interior streams (King et al 2016, 96). These settlements were villages of four to several dozen bark houses of biological families, with populations ranging from 20 to 150 people (Du Bois 1935; LaPena 1978). A larger village may have a circular, semisubterranean earth lodge, 15 to 20 feet in diameter, used for the gathering of men as a sweat lodge, for shaman's initiations, and a sleeping place for single men. Temporary camps were established in the hills during food-gathering seasons. The Wintu hunted deer, elk, and small game; fished for salmon and steelhead; and harvested berries, seeds, and other plants (Du Bois 1935; King et al 2016; LaPena 1978). Many of the settlements were supported by the storage of acorns, and the use of large communal fish weirs.

The Wintu were known for basketry that was both beautiful and useful, and traded with various native groups and families living in coastal and valley areas of California, primarily between women (Du Bois 1925; LaPena 1978). Strings of clamshell disc money, or "water-bone" and dentalia were used as currency, as well as Magnesite cylinders (DuBois 1925; LaPena 1978). Trade and exchange were also conducted with food if there was a surplus of supplies, as well as animal hides, bow and arrows, and other goods. The Wintu prized obsidian, which was either acquired through trade from the Shasta tribes to the north or gathered from Glass Mountain, and rarely given away (Du Bois 1935; LaPena 1978).

The Wintu way of life was forever changed with the incursion of trappers and settlers ready to exploit this resource-rich area (King et al 2016). By the early 1800s nearly three-quarters of the Wintu people had been decimated by diseases to which they had no immunity. The Gold Rush brought even greater changes for the native people, most notably the loss of their traditional lands and culture (National Park Service 2022). By the early 1900s, "Indian land allotments" from the Federal government were granted to a few Wintu families. The Redding Rancheria was established in 1922 and it was here that the displaced members of the Wintu, Yana, and Pit River tribes were required to settle (National Park Service 2022; Redding Rancheria 2023).

Today there are five federally recognized Wintu-affiliated tribes in California, including the Grindstone Indian Rancheria of Wintun-Wailaki in Elk Creek, the Nor-Rel-Muk Nation in Weaverville, Redding Rancheria in Redding, Winnemem Wintu Tribe in Redding, and the Wintu Tribe of Northern California in Shasta Lake (NAHC 2023). According to the United States (U.S.) Census Bureau, the total population of Wintu people is estimated at 1,447 in 2021 (US Census 2023).

7.4 Historic Setting

Post-European contact history for the State of California is generally divided into three periods: The Spanish Period (1769-1822), the Mexican Period (1822-1848), and the American Period (1848-Present).

Spanish Period (1769-1822)

Direct and sustained contact between Native and non-native peoples in far northwestern California came relatively late, when compared to the southern and central parts of the state. Despite this later contact, non-native influences were felt early-on, with the arrival of European trade goods and diseases like cholera, smallpox, and measles, which spread between tribal groups. The most common and readily identified archaeological markers of this period are glass trade beads. Glass beads were introduced by the first European mariners, were distributed widely by the Spanish mission system, were used by the Russian-American Fur Company to purchase land for a colony (Fort Ross), and continued to be traded to native people in California by fur trappers, gold miners, settlers, and merchants well into the 1800s (Far Western 2016).

Mexican Period (1822-1848)

The Mexican Period commenced when news of the success of the Mexican Revolution (1810-1821) against the Spanish crown reached California in 1822. This period was an era of extensive interior land grant development and exploration by American fur trappers west of the Sierra Nevada Mountains. Beginning in 1833, mission lands were conferred as rancho grants. Governor Pío Pico and his predecessors made more than 600 rancho grants between 1833 and 1846, putting most of the state's lands into private ownership for the first time. The Mexican Period saw an increased importance of sea trade and an influx of American settlers which motivated the U.S.to expand their territory into California. The U.S. supported a small group of insurgents from Sonoma during the Bear Flag Revolt. The Bear Flaggers captured Sonoma in June of 1846. In July, Commodore John Drake Sloat landed in Monterey and proceeded to take Yerba Buena, Sutter's Fort, Bodega Bay, and Sonoma. That same month, Captain Thomas Fallon entered San Jose and raised the U.S. flag over the town hall. Fighting between American and Mexican forces continued until Mexico surrendered in 1847 (Rolle 2003).

American Period (1848-Present)

The American Period began with the signing of the Treaty of Guadalupe Hidalgo in 1848, which marked the end of the U.S.'s war with Mexico. The discovery of gold in northern California in 1848 led to the California Gold Rush. The U.S. agreed to pay Mexico $15 million for the conquered territory, including California, Nevada, Utah, and parts of Colorado, Arizona, New Mexico, and Wyoming. The existing Mexican land grants were expected to be recognized, but over time, as settlement increased throughout the state, disputes arose between rancheros and settlers. Rancho owners expended much money and effort attempting to defend their land holdings. Rancheros struggled with this loss of income, debt,

and costs incurred from legally defending their land under the new American law. As a result, many of the rancho lands were sold or lost. Most were subdivided into agricultural parcels or towns. In 1850, California was ratified as a state in the U.S. and by 1853, the population of California exceeded 300,000. Thousands of settlers and immigrants continued to move into the state, particularly after the completion of the transcontinental railroad in 1869 (Rolle 2003).

Siskiyou County

Siskiyou County is the site of the central section of the Siskiyou Trail, which runs between California's Central Valley and the Pacific Northwest. In 1851, the discovery of an important gold strike near Yreka resulted in thousands of prospectors flooding the area (Wells 1881; College of the Siskiyous 2023). The construction of the Central Pacific Railroad along the path of the Siskiyou Trail in the mid-1880s led to a wave of tourism as visitors came to "take the waters" at the county's many summer resorts and to enjoy the hunting, fishing, and other outdoor recreation activities (College of the Siskiyous 2023). In the early 1940s, Siskiyou County was home to the State of Jefferson movement, which sought to create a new state from several counties of northern California and several counties of southern Oregon (College of the Siskiyous 2023). Siskiyou County was established on March 22, 1852, and named after the high range of mountains at its northern slope (Wells 1881; California State Association of Counties 2023). While the exact origin of the word Siskiyou is not known, theories exist that it is the Chinook jargon word for "bob-tailed horse" (College of the Siskiyous 2023; California State Association of Counties 2023). Another theory that was expressed during an argument before the State Senate in 1852 states that it is the French name Six Cailloux, meaning "six stones," because six large stones or rocks lay in the river where they crossed. (College of the Siskiyous 2023; California State Association of Counties 2023). Siskiyou County is the fifth largest county by area and the population as of 2010 was 44,962 which is roughly an 11,000 population increase since 1970 (Siskiyou County 2023; California State Association of Counties 2023).

7.5 Known Tribal Resources

Siskiyou County consists of the traditional territories of the Achomawi, Karuk, Modoc, Shasta, and Wintu tribes with a rich history of ties to the land within the county. Therefore, tribal resources are likely present throughout Siskiyou County and will be determined through consultation with the tribes throughout the General Plan update process.

7.6 Known Cultural Resources

Historic Districts

There are two historic districts found in unincorporated Siskiyou County: Dunsmuir Historic Commercial District and West Miner Street Historic District. These are described in detail below.

Dunsmuir Historic Commercial District

The Dunsmuir Historic Commercial District covers 97 acres and is located in the commercial center of the city of Dunsmuir. It was added to the National Register of Historic Places under National Register #82000993 in 1982 for its significance from 1900 to 1924 and from 1925 to 1949 as it relates to local politics, late Victorian architecture, transportation, and commerce. In the late 1800s, Dunsmuir's strategic location midway between Portland and Sacramento made the town an ideal choice as a railroad headquarters along the Shasta Route. Additional historically important architectural styles found within the Dunsmuir Historic Commercial District include Renaissance Revival, Mission Revival, Richardsonian Romanesque, and Art Moderne styles. The district includes thirty-two contributing buildings and three contributing structures. Today, these contributing buildings and structures are used as residences, hotels, banks, and shops, as well as the Dunsmuir City Hall and fire department station.

Table 7.1 Historic Contributing Buildings and Structures, Dunsmuir Historic Commercial District

Building Name	Year Built	Address
Williams/Clark House	1890	5711-5717 Dunsmuir Avenue
	1903	5832, 5832A Dunsmuir Avenue
I.R. Wells Building	1903	5859 Sacramento Avenue
Red Cross Drug Store	1903	5825 Sacramento Avenue
Rostel Building	1903	5743 Sacramento Avenue
Thompson Building and White and O'Neil Building	1903	5749 Sacramento Avenue
Van Fossen Building	1903	5841 Sacramento Avenue
Wagoner Building	1903	5827-5831 Sacramento Avenue
Hotel Weed/Hotel Dunsmuir	1904	5744 Dunsmuir Avenue and 5751 Sacramento Avenue
Leach/Van Fossen Apartment House	1904	5844, 5866 Dunsmuir Avenue
State Bank of Dunsmuir	1910	5800 Dunsmuir Avenue
	1912	5838, 5840 Dunsmuir Avenue
Josephine Lee House	1915	5721 Dunsmuir Avenue
	1916	5836 Dunsmuir Avenue
Hutaff Building/Travelers Hotel	1917	5810, 5815 Dunsmuir Avenue and 4208, 4212 Pine Street
	1920	5731-5737 Dunsmuir Avenue
Warner Building	1921	4300 Pine Street
Koenig Building	1923	5814, 5816 Dunsmuir Avenue
Pontier Building	1924	5911 Sacramento Avenue
Talmage	1924	5817, 5821 Dunsmuir Avenue
City Hall and Fire Department Station	1925	5902 Dunsmuir Avenue
Dunsmuir Masonic Temple	1925	5739, 5741 Dunsmuir Avenue
Eachus Building	1925	5833, 5835 Dunsmuir Avenue
Jones Building	1925	5732, 5736 Dunsmuir Avenue
Rochford Building	1925	5824, 5826 Dunsmuir Avenue
	1926	5901 Sacramento Avenue
Levy Building	1926	5804 Dunsmuir Avenue
Tallarico Building	1926	5726, 5728 Dunsmuir Avenue
Petty Building	1927	5911, 5915 Dunsmuir Avenue
Manfredi Bakery Building	1928	5751, 5759 Dunsmuir Avenue and 4213, 4215 Pine Street

West Miner Street Historic District

The West Miner Street Historic District covers 164 acres in Yreka and is primarily located along West Miner and Third Streets. In the 1850s, Yreka became a commercial and transportation hub for the surrounding communities and mining camps after the discovery of gold nearby, which led to the birth of its commercial area. The district was added to the National Register of Historic Places under the National Register #72000258 in 1972 for its significance from 1850 to 1899 and 1900 to 1924, as it relates to Italianate and Gothic architecture and commerce. The district also became California Historical Landmark #901 in 1977. The West Miner Street Historic district has seven contributing buildings.

Table 7.2 Historic Contributing Buildings and Structures, West Miner Street Historic District

Building Name	Year Built	Address
Chamberlain-Stimmel Building	1856	400-402 West Miner
Charles Fry Home	1899	216 Third Street
Franco American Hotel	1855	306-316 West Miner
Guilbert Building	1900	216 West Miner
Judge Rosborough Home	1861	301 Third Street
Peters & DeWitt Building	1897	330-332 West Miner
Robert Nixon, Jr. Home	1867	325 Third Street

Other Historic Resources

According to the Office of Historic Preservation and as shown in Table 7.33, there are 50 additional known historical resources within Siskiyou County are listed as National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), and/or a California Historical Landmark. In addition, there are Point of Interests, which may qualify as historical resources pending further analysis.

Table 7.3 Historical Resources

Resource Name	Designation
Edgewood Store	National Register- No. N2230
William Harlow Cabin	National Register- No. N1699
Henley-Hornbrook Cemetery	CA Point of Interest - No. P730
Hotel Macdoel	"National Register - Number not listed
McCloud Hotel	CA Point of Interest - No. P555"
McCloud Historic District	CA Point of Interest - No. P545
St. John's Episcopal Church	National Register - N1629
McCloud Community Presbytarian Church	Contributor to the NR McCloud Historic District
St. John's Catholic Church	Contributor to the NR McCloud Historic District
St. Joseph's Rectory	Contributor to the NR McCloud Historic District
Park Motor Hotel	Contributor to the NR McCloud Historic District
McCloud River Lumber Company Offices	Contributor to the NR McCloud Historic District
Company Manager's Home	Contributor to the NR McCloud Historic District
Hogan House	Contributor to the NR McCloud Historic District
McCloud River Mercantile Company	Contributor to the NR McCloud Historic District
Piazza	Contributor to the NR McCloud Historic District
McCloud Post Office	Contributor to the NR McCloud Historic District
Milky Way Restaurant	Contributor to the NR McCloud Historic District
McCloud Heritage Junction Museum	Contributor to the NR McCloud Historic District
McCloud River Railroad Depot	Contributor to the NR McCloud Historic District
McCloud Hotel	Contributor to the NR McCloud Historic District
McCloud Cookhouse	Contributor to the NR McCloud Historic District
Shoemaker's House and Workshop	Contributor to the NR McCloud Historic District
Sawyers Bar Catholic Church	Contributor to the NR McCloud Historic District
Tacitus Ryland Arbuckle Grave Site	National Register - No. 641
White's Gulch Arrastra	CA Point of Interest - No. P635
Upper Klamath River Stateline Archaeological District	National Register - No. 732
Schwartz Property Residence	National Register - Number not Listed
Schwartz Property Oil Change Pit	Status Code 2D2

Schwartz Property Hot House	Status Code 2D2
Schwartz Property Workshop	Status Code 2D2
Schwartz Property Garage	Status Code 2D2
Schwartz Property Dam	Status Code 2D2
Kelsey Creek Guard Historic District	Status Code 2D2
Kelsey Creek Grd Stn Hist Dist KNF Bldg 4952003	Status Code 2D2
Kelsey Creek Grd Stn Hist Dist KNF Bldg 4952004	Status Code 2D2
Kelsey Creek Grd Stn Hist Dist KNF Bldg 4952005	Status Code 2D2
Kelsey Creek Grd Stn Hist Dist KNF Bldg 4952001	Status Code 2D2
Kelsey Creek Grd Stn Hist Dist KNF Bldg 4952002	Status Code 2D2
Collins Baldy Fire Lookout	Status Code 2D2
Bridge #2C-85 / Griffen Lane Bridge	Status Code 2S2
Marble Valley Guard Station	Status Code 2S
Grouse Creek Archaeological District	Status Code 3S
Mount Baldy Lookout	Status Code 2S2
Blue Ridge Lookout	Status Code 2S2
Herd Peak Lookout	Status Code 2S2
Lake Mountain Lookout	Status Code 2S2
Scott Bar Mountain Lookout	Status Code 2S2
Ball Mountain Lookout	Status Code 2S2
Buckhorn Bally Lookout	Status Code 2S2
North Fork Cummings Recreation Resience Tract	Status Code 2S2
Bridge #2C-41 / Ash Creek Bridge	Status Code 2S2
Bridge House	Status Code 2S

Designation Codes

NR National Register
CR California Register

2D2: Contributor to a district determined eligible for NR by consensus through Section 106 process. Listed in the CR.
2S2: Individual property determined eligible for NR by a consensus through Section 106 process. Listed in the CR.
2S: Individual property determined eligible for NR by the Keeper. Listed in the CR.
3S: Appears eligible for NR as an individual property through survey evaluation.

Source: Office of Historic Preservation 2023, National Register of Historic Places 2023, Siskiyou County 1973.

7.7 Paleontological Setting

Siskiyou County crosses three of California's eleven geomorphic provinces: the Klamath Mountains, the Cascade Range, and the Modoc Plateau (California Geological Survey 2002). The Klamath Mountains are found in northwest California and extend from the Oregon border to southern Trinity County. The Klamath Mountains consist of many peaks and ridges ranging up to 8,000 feet above sea level that consist of a variety of Paleozoic- to Jurassic-aged sedimentary, igneous, and metamorphic rocks. The Cascade Range extends from the Oregon border south to Lassen Peak and is comprised of a series of Cenozoic-aged volcanoes, some of which, including Mount Shasta, remain active. The Modoc Plateau is found in northeastern California and extends into Oregon and Nevada. It ranges from approximately 4,000 to 6,000 feet above sea level and is comprised of a series of Cenozoic-aged lava flows and ash beds that originate from numerous small volcanoes.

Paleontological resources, or fossils, are the evidence of once-living organisms preserved in the rock record. They include both the fossilized remains of ancient plants and animals and the traces thereof (e.g., trackways, imprints, burrows, etc.). Fossils are considered to be greater than 5,000 years old (i.e., older than middle Holocene in age) and are typically preserved in sedimentary rocks. Although rare, fossils can also be preserved in volcanic rocks and low-grade metamorphic rocks under certain conditions (Society of Vertebrate Paleontology [SVP] 2010). Intrusive igneous (i.e., plutonic) rocks, high-grade metasedimentary, and metavolcanic rocks, due to the high temperatures and/or pressures required for their formation, are incapable of preserving paleontological resources.

7.8 Known Paleontological Resources

Numerous sedimentary, low-grade metasedimentary, and ash bed geologic units, are found within Siskiyou County, all of which are capable of preserving paleontological resources (Gay and Aune 1958; Wagner and Saucedo 1987). Pleistocene-aged alluvial sediments, found along river terraces and in elevated portions of valley areas, have produced ground sloth (*Paramylodon*), mastodon (*Mammut*), and camel (*Camelops*) fossils in Siskiyou County (Jefferson 2010; University of California Museum of Paleontology [UCMP] 2023). Several Cenozoic fossil plant-bearing fossil localities are known from Siskiyou County as well (UCMP 2023). Numerous Mesozoic and Paleozoic invertebrate (e.g., bivalve, ammonite, coral, brachiopod, trilobite) fossil localities are known from marine sedimentary rocks in central Siskiyou County (Paleobiology Database 2023; UCMP 2023). An Ediacaran (i.e., pre-Cambrian) fossil locality is also known in Siskiyou County, which is notable for its rare preservation of soft-bodied animal fossils (Lindsley-Griffin et al. 2008).

The Society of Vertebrate Paleontology (SVP) has developed a system for assessing paleontological sensitivity and describes sedimentary rock units as having high, low, undetermined, or no potential for containing scientifically significant nonrenewable paleontological resources (SVP 2010). This criterion is based on rock units within which vertebrate or significant invertebrate fossils have been determined by previous studies to be present or likely to be present. Based on these guidelines, pre-Cambrian, Paleozoic, Mesozoic, and Pleistocene sedimentary and metasedimentary deposits in Siskiyou County have a high potential to yield paleontological resources.

7.9 Key Terms

California Historical Landmarks. Buildings, sites, features, or events of statewide historical significance.

California Points of Historical Interest. Sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific, technical, religious, experimental, or other value.

California Register of Historical Resources (CRHR). A list of cultural resources determined by the State Historical Resources Commission to be of architectural, historical, archaeological, or cultural significance at the state level.

Cultural Resources. Observable evidence of past human activities that is at least 45 years old, including prehistoric or historic archaeological sites, historic built-environment resources, traditional cultural properties and landscapes, and paleontological resources.

Geomorphic Province. Naturally defined geologic regions that display a distinct landscape or landform. Each province displays unique, defining features based on geology, faults, topographic relief, and climate.

Historic District. A group of buildings, properties, or sites recognized as historically or architecturally significant. These may be designated at the federal level, managed by the National Park Service, at the state or local levels. Federally designated historic districts are listed on the NRHP. In some counties or jurisdictions, historic districts receive legal protection from certain types of development considered to be inappropriate.

Historic Property. Any cultural resource listed in or eligible for listing in the NRHP.

Historical Resource. Any resource listed in, or determined eligible for listing in, the CRHR, a resource included in a local register of historical resources or identified in a historical resources survey pursuant to PRC Section 5024.1(g), or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant.

National Register of Historic Places (NRHP). A list of cultural resources determined by the National Park Service to be of historic, cultural, architectural, archaeological, or engineering significance at the national level.

Paleontological Resources. Any fossilized remains, traces, or imprints of once living organisms preserved in rock or sediment.

Preservation. According to the National Historic Preservation Act (NHPA), the term "preservation" or "historic preservation", includes identification, evaluation, recordation, documentation, curation, acquisition, protection, management, rehabilitation, restoration, stabilization, maintenance, research interpretation, conservation, and education; the act or process of applying measures necessary to sustain the existing form, integrity, and materials of a historic property.

Tribal Cultural Resources. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe that are listed, or determined to be eligible for listing, in the national or state register of historical resources, or listed in a local register of historic resources.

7.10 Regulatory Setting

Federal

Code of Federal Regulations (CFR). The definition of a federal undertaking in 36 Code of CFR 800.16(y) includes projects requiring a Federal permit, license or approval. Cultural resources are considered during Federal undertakings chiefly under Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended) through one of its implementing regulations, 36 CFR 800 (Protection of Historic Properties), as well as the NEPA. Properties of traditional religious and cultural importance to Native Americans are considered under Section 101(d)(6)(A) of the NHPA, and Section 106 36 CFR 800.3–800.10. Other Federal laws include the Archaeological Data Preservation Act of 1974, the American Indian Religious Freedom Act of 1978, the Archaeological Resources Protection Act of 1979, and the Native American Graves Protection and Repatriation Act of 1989, the Paleontological Resources Preservation Act of 2009, among others.

National Environmental Policy Act (NEPA). NEPA (United States Code, section 4321 et seq.; 40 CFR, section 1502.25), as amended, directs federal agencies to "Preserve important historic, cultural, and natural aspects of our national heritage" (Section 101(b) (4)). The current interpretation of this language has included scientifically important paleontological resources among those resources that may require preservation.

National Historic Preservation Act (NHPA). NHPA established a partnership between the Federal government and state, tribal, and local governments with the goal of preserving historic and cultural resources. The NHPA created the NRHP, a comprehensive list of sites and structures that are significant to American history, architecture, archaeology, and culture.

United States (U.S.) Code 470f, Section 106 of the NHPA. The U.S. Code requires Federal agencies to take into account the effects of their undertakings on any district, site, building, structure, or object that is included in or eligible for inclusion in the NRHP and to afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings (36 CFR 800.1). Under Section 106, the significance of any adversely affected historic property is assessed and mitigation measures are proposed to reduce any impacts to an acceptable level. Historic properties are those significant cultural resources that are listed in or are eligible for listing in the NRHP (36 CFR 60.4).

State

Assembly Bill 52 (AB 52). As of July 1, 2015, AB 52 was enacted and expands the California Environmental Quality Act (CEQA) by defining a new resource category, "tribal cultural resources." AB 52 establishes that "A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (Public Resources Code (PRC) Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3). PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as "sites, features, places,

cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and meets either of the following criteria:

- Listed or eligible for listing in the California Register of Historical Resources (CRHP), or in a local register of historical resources as defined in PRC section 5020.1(k), or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

California Environmental Quality Act (CEQA). CEQA is a California law that was passed in 1970 and signed into law by Governor Ronald Reagan, shortly after the Federal government passed NEPA, that institutes statewide policies and requirements for environmental protection. The act requires all proposed programs and projects within the state to conduct an analysis of any significant environmental impacts imposed by the project, including for cultural resources defined as buildings, sites, structures, or objects, each of which may have historic, architectural, archaeological, cultural, or scientific importance. Any environmental impacts found to have significant impact to cultural resources require mitigation, which may include monitoring during construction and protocols in the event cultural resources are identified on the project site.

California Public Resources Code Section 5097.5 (PRC Section 5097.5). PRC Section 5097.5 states: No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

Here "public lands" means those owned by, or under the jurisdiction of, the State or any city, county, district, authority, or public corporation, or any agency thereof. Consequently, public agencies are required to comply with PRC 5097.5 for their own activities, including construction and maintenance, and for permit actions (e.g., encroachment permits) undertaken by others.

Senate Bill 18 (SB 18). California Government Code Section 65352.3 (adopted pursuant to the requirements of SB 18) requires local governments to contact, refer plans to, and consult with tribal organizations prior to making a decision to adopt or amend a general or specific plan. The tribal organizations eligible to consult have traditional lands in a local government's jurisdiction, and are identified, upon request, by the Native American Heritage Commission. As noted in the Office of Planning and Research's Tribal Consultation Guidelines (2005), "The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places."

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8. Public Facilities, Services, and Infrastructure



The public facilities, services, and infrastructure of a county are key factors that heavily influence the quality of life, health, and safety of residents. Understanding the current state, as well as the history, of services that protect the well-being of residents helps in anticipating the future needs of their communities and updating the General Plan. This chapter provides an overview of Siskiyou County's public facilities, services, and infrastructure.

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8.1 Introduction

This chapter describes the current conditions and capacities of the public facilities, utilities, and services in Siskiyou County. The following sections will be covered in detail within this chapter:

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8.2 Wastewater Collection and Treatment PFSI-4
8.3 Storm Drainage and Flood Protection PFSI-10
8.4 Solid and Hazardous Waste Disposal and Recycling PFSI-15
8.5 Utilities PFSI-21
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8.2 Wastewater Collection and Treatment

Introduction

This section describes existing information regarding wastewater collection systems, treatment, and disposal facilities in Siskiyou County. This section provides an overview of current wastewater disposal systems and processes, as well as the general conditions of the infrastructure that serve unincorporated communities in Siskiyou County.

Existing Wastewater Systems

Wastewater is water that has been affected by human use, including household, commercial, industrial, and agricultural activities. In areas with a wastewater system treatment plant, wastewater travels through the system may contain physical, chemical, and/or biological pollutants prior to treatment. Sanitary districts then provide wastewater collection and treatment services, maintain wastewater treatment plants, regulate wastewater treatment and disposal, and protect water quality. Fourteen wastewater systems exist in Siskiyou County, including those in Dunsmuir, Tulelake, Fort Jones, Etna, Mt. Shasta, Weed, Montague, Dorris, and Yreka, as well as those serviced by the Grenada Sanitary District, Lake Shastina Community Services District, McCloud Community Services District, Happy Camp Sanitary District, and Tennant Community Service District.

The City of **Dunsmuir** owns and operates its sewer system, which consists of a collection system with lift stations, treatment plant, and effluent disposal facilities. Dunsmuir's collection system is primarily a gravity system, apart from the north Dunsmuir area (located north of the I-5 bridge over the Sacramento River), which drains to the I-5 lift station. The I-5 lift station pumps raw sewage to the gravity sewer in Dunsmuir Avenue on the south side of the river. Another smaller lift station serves the Shasta Retreat area in north Dunsmuir, which pumps up to the gravity sewer in Dunsmuir Avenue. The collection system, located south of the I-5 bridge over the Sacramento River, flows by gravity to the wastewater treatment plant, located at 800 South First Street in Dunsmuir. The plant consists of a headworks, oxidation ditch activated sludge treatment, a secondary clarifier, travelling bridge filters, chlorination and dechlorination, and a river outfall/diffuser. Waste sludge is stabilized in an aerobic digester and transported to drying beds for dewatering and disposal. Treated effluent is transported to the Sacramento River in accordance with requirements set forth in Dunsmuir's National Pollutant Discharge Elimination System (NPDES) permit issued by the Central Valley Regional Water Quality Control Board (CVRWQCB). The sewer system is operated by the City as an independent enterprise through a Sewer Enterprise Fund. Expansion and upgrading of the sewer system are funded primarily through connection fees but also through user fees. The Dunsmuir sewer primarily serves Dunsmuir residents, which accounts for approximately four percent of all residents countywide; however, the City also serves county residents who live between the City limits and the treatment facility.

The Town of **Fort Jones** owns and operates its sewer system, which includes the collection and disposal of wastewater with minimal treatment. There is no wastewater treatment as part of the disposal process; rather, there is an above ground tank with two chambers that reduces

the amount of material and converts to effluent before it is directed into one of the evaporation ponds adjacent to the Scott River. The sewage collection system is strictly for sanitary sewer flow and no storm water flow is conveyed into the system. The collection system consists of approximately 27,000 linear feet of sewer and main lines, as well as four main sewage pump stations. One privately-owned sewage pump station serves the supermarket, and 15 small individual residential pump systems serve 15 homes. The Fort Jones sewer system serves Fort Jones residents, which accounts for approximately two percent of all residents countywide.

The City of **Etna** operates its wastewater collection and treatment infrastructure, which was installed in 1970. The City's treatment plant is located outside the City, on Island Road to the north of the City limits. Wastewater treatment is provided in an aerated lagoon system; the City does not discharge to any watercourse. The plant is designed for a dry weather flow of 0.325 million gallons per day, with an average dry weather flow of 0.11 million gallons per day. Recent improvements to the system have included the installation of aerators in the 1980s and a complete update of the collection and treatment facilities in 2002 and 2003. The current condition of the wastewater treatment plant is sufficient provide for a population up to 1,100. At the current population projections for the city of Etna, the plant will provide adequate service for at least several decades. The Etna sewer system serves Etna residents, which accounts for approximately two percent of all residents countywide.

The City of **Mount Shasta** operates its wastewater collection and treatment infrastructure. The City's wastewater treatment plant was designed with an average dry weather flow of 0.70 million gallons per day and a peak wet weather flow of 2.1 million gallons per day. The City's wastewater infrastructure system consists of approximately 30 miles of collection pipelines, a treatment plant and discharge facilities. The Mt. Shasta wastewater treatment plant was constructed in 1976 and includes headworks, four oxidation and stabilization ponds, ballast lagoon dosing basin, dissolved air flotation system, intermittent backwash filter, chlorine contact chamber, dechlorination system and discharge line. Treated wastewater is discharged to the Sacramento River during the non-recreation season (November through April), a leach field located adjacent to SR 89 during recreation season, or to the Mt. Shasta Resort Golf Course to be used for irrigation. The Mount Shasta sewer system serves Mount Shasta residents and approximately 843 acres outside of the City, including the campground and marina on Lake Siskiyou, Mt. Shasta Resort and Golf Course, and Siskiyou Lake Highlands Subdivision, all of which accounts for approximately eight percent of all residents countywide.

The City of **Weed** maintains two wastewater treatment facilities and a collection system to provide sewer services to residents and businesses within the City. Users generate about 0.45 million gallons of sewage per day during dry periods and almost a million gallons per day during wet weather periods. The City's wastewater infrastructure system consists of approximately 23 miles of 6-inch through 12-inch gravity sewer mains. The Weed sewer system serves Weed residents, which accounts for approximately six percent of all residents countywide.

The City of **Montague** provides wastewater collection and treatment services to residents. The City's wastewater collection and treatment infrastructure was completed in 1976 and consists of an aerated lagoon system located at the northwestern edge of the City. The wastewater

treatment plant was designed with a capacity of 0.225 million gallons per day, which is significantly higher than the current estimated average dry weather flow of 0.09 million gallons per day. While this would suggest substantial capacity in the system during dry weather conditions, peak wet weather flows at the wastewater treatment plant can reach an estimated 0.20 million gallons per day. The Montague sewer system serves Montague residents, which accounts for approximately three percent of all residents countywide.

The City of **Dorris** owns and operates facilities for the collection, treatment and disposal of municipal wastewater from residents. These facilities consist of a gravity sewer, a collection system, two lift stations and treatment and disposal in three oxidation ponds west of town. The wastewater treatment facility (Facility) was originally constructed in 1963, with minimal improvements made over the last 60 years. The City's wastewater system has a design average daily dry weather flow of 0.120 million gallons per day. Current dry weather flows (June through October) average approximately 0.076 million gallons per day. The Montague sewer system serves Montague residents, which accounts for approximately two percent of all residents countywide.

The City of **Tulelake** wastewater treatment plant is located along Ray Oehlerich Way in southern Tulelake, across the street from the Tulelake Volunteer Fire Department located at 1 Ray Oehlerich Way. Tulelake's sewer system was upgraded in November 2016 to generate and store Title 22 quality water that could be used to irrigate local farmland during the growing season. The treatment plant upgrade included improvements to the existing headworks and influent pump station, the construction of a new 2.1 million gallon aerated treatment lagoon, re-grading of an existing one acre treatment lagoon, lining and aeration of lagoons, lagoon piping and control structures, biosolid drying beds, and access roads. The new effluent reuse system included the installation of an effluent pump station, sewer line, two effluent storage ponds, irrigation mainline, agricultural irrigation system, access roads, and other related improvements. The sewer system serves residents of Tulelake, which accounts for approximately two percent of all residents countywide.

The City of **Yreka** wastewater treatment facility is located between SR 263/North Main Street and Yreka Creek, approximately 600 feet north of the intersection of Montague Road/SR 3 and SR 263. The facility is designed to accommodate up to 1.3 million gallons per day of average dry weather flow. Typical average dry weather flow is between 0.7 and 0.9 million gallons per day. The primary responsibility of the Wastewater Treatment Plant is to operate, maintain and protect the system that collects, treats, and disposes of the domestic and industrial sewage that is generated within its boundaries. Post-treatment, wastewater is released into the Yreka Creek. The sewer only serves Yreka residents, which accounts for approximately 18 percent of all residents countywide.

The **Grenada Sanitary District** wastewater system was constructed in 1917 and consists of a septic tank that discharges treated wastewater to percolation ponds as well as sewer lines throughout the community. The current wastewater treatment plant average dry weather flow is approximately 0.021 million gallons per day, and the peak wet weather flow is approximately 0.071 million gallons per day. As of 2024, the District has a moratorium on new service connections until the aging wastewater treatment plant's failing infrastructure is updated. The

District serves approximately 75 connections within Grenada, a census designated place, which account for less than one percent of all residents countywide.

The **Lake Shastina Community Services District** (CSD) operates its sewer system, which consists of a wastewater treatment facility (WWTF), sewer pipelines, 20 pump stations, and a lift station. The Lake Shastina CSD's collection system is primarily a gravity system. The WWTF is located north of Lake Shastina, along the northern portion of Seldom Seen Ranch Road. Several modernization projects have been completed for the WWTF and the overall sewer system since 2018. Seventeen out of twenty pump stations have been upgraded to replace the pumps and liners, as well as to allow the use of portable generators. The District is evaluating possible opportunities for the installation of a telemetry system for these upgraded pump stations. In addition, the District is currently planning for upgrades to the WWTF sludge drying bed and the construction of a secondary tank. These upgrades will improve the operational efficiency, increase the life expectancy of the facility, and improve the treatment process. If the population of Lake Shastina grows significantly in the future, additional upgrades and modifications to the system will be required, such as the Lake Shore Drive Bypass project, the Tony Lema Drive Diversion project, and a liner for Pond 5 at the WWTF. However, actual community growth has been approximately a third of the District's anticipated growth over time, and these projects will likely not be needed for many years or decades. The District was formed in 1978 and serves 1,252 active residential connections and 12 active commercial connections. The Lake Shastina CSD serves residents within and adjacent to the Lake Shastina Census Designated Place boundary, which accounts for approximately five percent of all residents countywide.

The **McCloud Community Services District** (CSD) operates its sewer system, which consists of a WWTF and sewer pipelines. The WWTF includes a series of ponds which are located approximately one-half mile south of McCloud and east of Squaw Valley Road. The sewer collection system was fully replaced in a three phased project from 2002 through 2006, including relining the sewer ponds at the WWTF. Current sewer system priorities include reducing system impacts to groundwater sources, improving the facility's supervisory control and data acquisition system (including monitoring equipment for dissolved oxygen and temperature), bringing electrical power to the WWTF, installing security lighting and closed-circuit television (CCTV), and installing fencing at the wastewater ponds to prevent unauthorized access to the facility. The McCloud CSD was formed in 1965 and provides services to residents within the McCloud Census Designated Place, which accounts for approximately two percent of all residents countywide.

The **Happy Camp Sanitary District** provides wastewater services to the Happy Camp Census Designated Place. The WWTF is a lagoon system which consists of three ponds and is located approximately two miles southwest of Happy Camp along SR 96 (Klamath River Highway). The system includes the WWTF and sewer pipelines which were built in the 1970s to bring a wastewater system to residents of Happy Camp. Improvements to the system are made on an as-needed basis, contingent on funding for such projects. As of January 2024, the District is working on installing a pipeline across the Elk Creek Road bridge in the southern portion of Happy Camp. The District provides wastewater services to over 400 connections which are located in central Happy Camp. Services are not currently available for residents along Indian Creek, which is located approximately one mile north of Happy Camp, or residents of Happy

Camp who live southeast of the Klamath River. Residents who live within the existing service area but are not connected to the wastewater system may pay a fee for the Happy Camp Sanitary District to connect their parcel to the system.

The **Tennant Community Services District** (CSD) operates its sewer system, which consists of a large scale septic system and sewer pipelines. The entire system was installed by the Long Bell Lumber Company in 1921 and no major systemwide replacements have occurred since. As a result, many of the sewer pipelines do not meet modern-day standards, with most sewer main lines running through private properties. Long-term sewer system improvements would require working around these complications to continue providing wastewater services to the community. Tennant CSD provides wastewater services to 99 parcels within the Tennant Census Designated Place, which accounts for less than one percent of all residents countywide.

Onsite Wastewater Systems

In areas that do not have access to a wastewater treatment system due to a lack of connection to a sewer system, such as in rural areas, septic tanks are commonly used. Septic tanks collect wastewater underground, where the solids are separated out from the water. The separated water is discharged into a series of pipes called a leach field, where the water is slowly released into the soil over time. The solids decompose in the tank and must periodically be removed with a vacuum tank truck. Residents of the unincorporated portions of Siskiyou County that do not live within a district that offers sewer services primarily use septic tanks as their wastewater system. This makes up approximately 70 percent of all residents countywide.

The north county area (Montague, Copco Lake, Klamath River Country Estates) mainly consists of heavy clay soils with high evapotranspiration. The percolation rate in this area is around 120 minutes per inch. Groundwater is generally 80 feet deep or more. The south county area (McCloud, Lake Shastina, Hammond Ranch, Mount Shasta) mainly has faster percolating volcanic ash soils, with higher groundwater concerns in some areas. Shallow ground water areas are serviced by alternative systems including mounds, sand-filters, pressure dosing septic systems, and approved small, manufactured treatment systems. In the eastern and western portions of the county, there is a wide variety of soil and groundwater elevation conditions that require different onsite wastewater treatment systems, depending on site specifics. The typical life span of septic systems used within the county is 24 years per system.

Siskiyou County Code of Ordinances, Title 5, Chapter 2 covers requirements for all private sewage disposal. A permit be obtained from the Environmental Health Division of the Community Development Department prior to installation, repair, or alteration of an individual sewage disposal system. Site conditions that are researched prior to approval or disapproval of the permit include the legality of the parcel, zoning, existing easements, location of 100-year flood plains, soils, percolation tests, ground water level, drainage conditions, maximum sewage load, slope, and other factors required by the Siskiyou County Ordinance, the Environmental Health Division, and State Water Quality Control Board regulations. Generally, an area of 50 feet by 100 feet per onsite wastewater system is required.

Onsite Wastewater Local Agency Management Program

A draft Onsite Wastewater Local Agency Management Program was prepared in 2018 for Siskiyou County in accordance with the requirements of the State Water Resources Control Board (SWRCB) Water Quality Control Policy for the siting, design, operation, and maintenance of onsite wastewater treatment systems (AB 885). This Siskiyou County Local Agency Management Program was prepared to obtain approval for Onsite Wastewater Treatment Systems (OWTS) management under Tier 2 of the OWTS policy. It is intended to allow the county to provide local oversight of OWTS by implementing practices that are suited to the conditions in Siskiyou County, meet or exceed the environmental protection of the default siting and design requirements for OWTS identified in Tier 1 of the SWRCB policy, and ensure the best opportunity for comprehensive management of OWTS, public health and water quality in Siskiyou County. As of September 2023, this document is in a draft status and has not yet been approved by the SWRCB. As such, the county is currently implementing Tier 1 standards of the OWTS policy but aims to implement its Onsite Wastewater Local Agency Management Program in the future.

All unincorporated areas of the county, as well as residents of incorporated cities other than Dunsmuir and Yreka, are served by on-site sewage disposal systems under permits issued by the Siskiyou County Public Health Department. Approval of this plan would impact a majority of county residents.

Countywide Upgrades to Individual Septic Systems

There are approximately 11,700 septic systems in use in the county. As a result of statewide implementation of AB 885, permitted septic systems that are in a state of failure must be upgraded consistent with State requirements. Functioning, existing onsite wastewater treatment systems are automatically covered by Tier 0 and may receive a waiver of waste discharge requirements, so long as they meet certain standards, such as continuing to comply with previously imposed permit conditions and not requiring any corrective actions. Siskiyou County's draft Onsite Wastewater Local Agency Management Program sets standards for the county that fit within Tier 2 of AB 885 requirements, which, when approved, will allow the County to provide local oversight of onsite wastewater treatment systems consistent with conditions in Siskiyou County while meeting or exceeding the environmental protection requirements identified in Tier 1 of the statute. Implementation of Tier 1 standards has the potential to limit development in many areas of the county and could increase the costs of onsite wastewater treatment systems to residents, compared to adopting Tier 2 standards. Tier 1 standards are currently implemented in Siskiyou County.

8.3 Storm Drainage and Flood Protection

Introduction

This section describes existing information regarding storm drainage and flood protection in Siskiyou County. This section provides an overview of the existing and future state of dams and potential flooding conditions in the county.

Dams

Currently, there are four hydroelectric dams and 18 nonpowered dams in Siskiyou County. The following dams have the largest storage capacity of all dams in the county, all of which are hydroelectric: Box Canyon, Copco 1, Iron Gate, and Lakin, with Copco 2 having been removed in 2023.

Box Canyon Dam is a concrete gravity dam along northern Sacramento River impounding Lake Siskiyou Reservoir. It is owned and operated by Siskiyou County's Flood Control & Water Conservation District and Siskiyou Power Authority and was completed in 1965 to provide flood control. In 1965, a powerhouse was installed to provide hydroelectric power. The Box Canyon Dam has a 90 MW powerhouse capacity and has an average annual hydropower generation of 430,745.9 MWh. After 2024, Box Canyon Dam will be the last remaining dam with hydroelectric generation facilities in Siskiyou County.

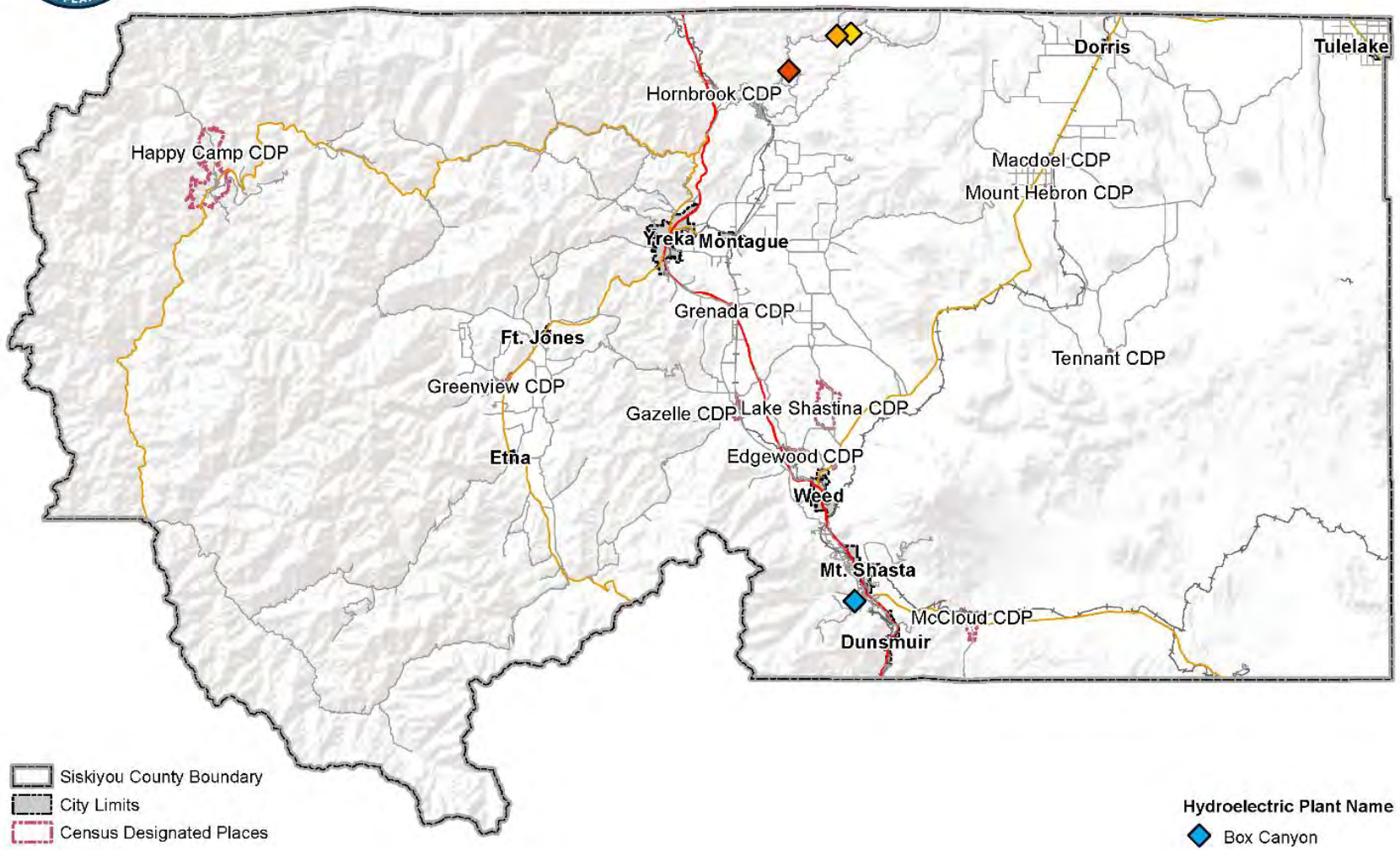
Copco 1, Copco 2, and Iron Gate Dam were a part of the Klamath River Hydroelectric Project, which was originally constructed by the California Oregon Power Company (today known as PacifiCorp) between 1903 and 1962. Two additional dams on the Klamath River are north of Siskiyou County in Klamath County, Oregon: the Link River and J.C. Boyle dams. While these dams generated up to 169 MW of electricity, PacifiCorp ultimately decided to transfer the license for Copco 1 and 2, Iron Gate, and the John C. Boyle dams to the Klamath River Renewal Corporation in order to carry out removal of the dams. Copco 2 was demolished and removed in November 2023 and Copco 1 and Iron Gate Dam are set to be removed by the end of 2024. As these dams are removed, their reservoirs were drawn down at a rate of about five feet per day to avoid unsafe dam conditions. Drawdowns took place in the wintertime and continued through April 2024.

Lakin Dam was built in 1925 by the McCloud River Lumber Company to supply the people of McCloud with a reliable water source, as well as to provide water for the mill's boilers, which ran the mill. In addition to providing water for the town of McCloud, Lakin dam created the slow-moving waters where the native Redband Trout live. Today, the dam is no longer a water source for McCloud and is instead a day use area and popular site for wildlife viewing and fishing.

While there is no specific evidence that a dam failure might occur in Siskiyou County, dam failure is still a potential risk to Siskiyou County. Although the hydroelectric dams along the Klamath River in Siskiyou County are set to be removed by the end of 2024, Box Canyon dam, Lakin dam, and 18 other non-hydroelectric dams will remain and could still be a potential hazard. Dam failure can be caused by flood conditions leading to overtopping, mechanical

failure, earthquake, or any combination of these factors. Internal erosion, improper design and maintenance, negligent operation, or failure of upstream dams can also cause dam failure. The severity of such failures can vary depending on the amount of water stored at the time of the failure and the density, type, and value of the development and infrastructure below the dam. Given the catastrophic nature of dam failures, it is important that dams are properly maintained and inspected to prevent a disaster that could pose massive damage to Siskiyou County.

Figure 8-1: Hydroelectric Dams



Source: California Energy Commission, August 2023.

Flooding

According to the Siskiyou County Multi-Jurisdictional Hazard Mitigation Plan, Siskiyou County experiences episodes of river and small stream flooding nearly every winter. Flooding in Siskiyou County is typically caused by high-intensity, short-duration (one to three hours) storms concentrated on streams with already saturated soils, or in areas that were recently impacted by wildfires. Flash floods can occur suddenly after a brief but intense downpour. They move rapidly, end suddenly, and can occur in areas not generally associated with flooding (such as subdivisions not adjacent to a water body and areas serviced by underground drainage systems). Although the duration of these events is usually brief, the damage they cause can be severe. Flash floods cannot be predicted accurately and happen whenever there are heavy storms. Riverine floods are described in terms of their extent (including the horizontal area affected and the vertical depth of floodwater) and the related probability of occurrence (expressed as the percentage chance that a flood of a specific extent will occur in any given year).

Siskiyou County is located almost entirely within the mountainous Siskiyou drainage area that flows through river canyons with narrow floodplains. Large amounts of water move through these river canyons, so riverine flooding is common. Additionally, some natural or manmade levees separate channels from floodplains and cause independent overland flow paths. Rain-on-snow flooding, which develops when warm rains falls on snow on saturated ground and causes snow to melt and run off in conjunction with the rain, is also common. Rain-on-snow induced floods typically occur in late winter or early spring and are generally widespread.

It is estimated that 3,602 countywide residents (8.3 percent of the total county population) currently live within the 100-year floodplain. Of this total, around 2,725 residents (6.2 percent) live in unincorporated areas. In addition, an estimated 5,292 residents countywide (12.1 percent of the total county population) live within the 500-year floodplain. Of this total, around 3,256 residents (7.5 percent) live in unincorporated areas. Major roadways in Siskiyou County that are in 100-year floodplains and are exposed to flooding include: I-5, US 97, SR 139, SR 161, SR 263, SR 89, SR 96, and SR 3. Some of these roads are built above the flood level, and others function as levees to prevent flooding. In severe flood events, these roads can be blocked or damaged, preventing access to adjacent areas.

Storm Water Pollution Prevention Plans

Two Storm Water Pollution Prevention Plans (SWPPP) exist for Siskiyou County operated facilities. One is for the Yreka Oberlin Road Solid Waste/Recycling Facility and the other is for the Happy Camp Transfer Station. These SWPPPs are intended to identify and evaluate sources of pollutants that could affect the quality of storm water and non-storm water discharges from the facilities, as well as to identify and implement best management practices (BMPs) to reduce or eliminate the pollutants in discharges. Both facilities handle municipal, nonhazardous solid waste, used motor oil, automobile and household batteries, paper, carboard, glass, aluminum, tires, household hazardous waste, electronic wastes, mercury switches, and fluorescent light bulbs. In addition, the Yreka facility handles inert waste (concrete and clean soil), contact water from the transfer station, and diesel for fueling

equipment. The Happy Camp facility also handles white goods/appliances, metals, and green waste.

Flood Control and Water Conservation District

The Siskiyou County Flood Control and Water Conservation District includes Box Canyon Dam, Lake Siskiyou, and Lake Shastina. The district is managed by the County Public Works Department. The roles of the Flood Control District include providing flood control, quality recreational experiences, and tourism. Flood control services take the form of winter drawdowns at Lake Siskiyou. Other services include special event application processing and permitting at Lake Siskiyou, enforcement of overnight camping prohibition at Lake Shastina, and seasonal installation of delta bridges along the Lake Siskiyou Trail.

8.4 Solid and Hazardous Waste Disposal and Recycling

Introduction

This section describes existing solid and hazardous waste disposal and recycling facilities in Siskiyou County, including an overview of the transfer stations, allowed disposal types, and the County's Waste Management Plan.

Transfer Stations

There are a total of five transfer stations within Siskiyou County. While more densely populated areas of the county have solid waste pickup, more rural areas generally rely on residents to bring their solid waste, recycling, and other waste to their nearest transfer station. After solid waste, recycling, and other waste is brought to a transfer station, it is transferred to either the Dry Creek Landfill in White City, Oregon or to the Anderson Landfill in Anderson, California. Previously, a Solid Waste Landfill operated in Yreka, although the landfill is inactive as of September 2023 and is set to be closed permanently.

Black Butte Transfer Station

The Black Butte Transfer Station is located at 3710 Spring Hill Road in Mount Shasta. The station accepts bagged solid waste, ash, recyclables, and green waste. This Transfer Station is operated by Siskiyou County General Services.

Happy Camp Transfer Station

The Happy Camp Transfer Station is located at 65600 SR 96 in Happy Camp, one mile southwest of Happy Camp along SR 96/Klamath River Highway. The station accepts tires, metal, household waste, universal waste, electronic waste, and oil collection. The Happy Camp Transfer Station is a limited volume transfer facility and is operated by Siskiyou County General Services.

Salmon River Area Transfer Station

The Salmon River Area Transfer Station operates from three different drop off locations every Wednesday. Waste drop-off rotates between the Sawyers Bar Road Department at 25123 Sawyers Bar Road in Sawyers Bar , the Forks of Salmon Road Department at 14620 Salmon River Road in Forks of Salmon, and at the Cecilville Community Center at 29504 Cecilville Road in Cecilville. The station accepts residential and commercial waste. Hazardous waste, tires, liquids, and large appliances are not accepted. The Salmon River Area Transfer Station is operated by Scott Valley Disposal.

Tulelake Transfer Station

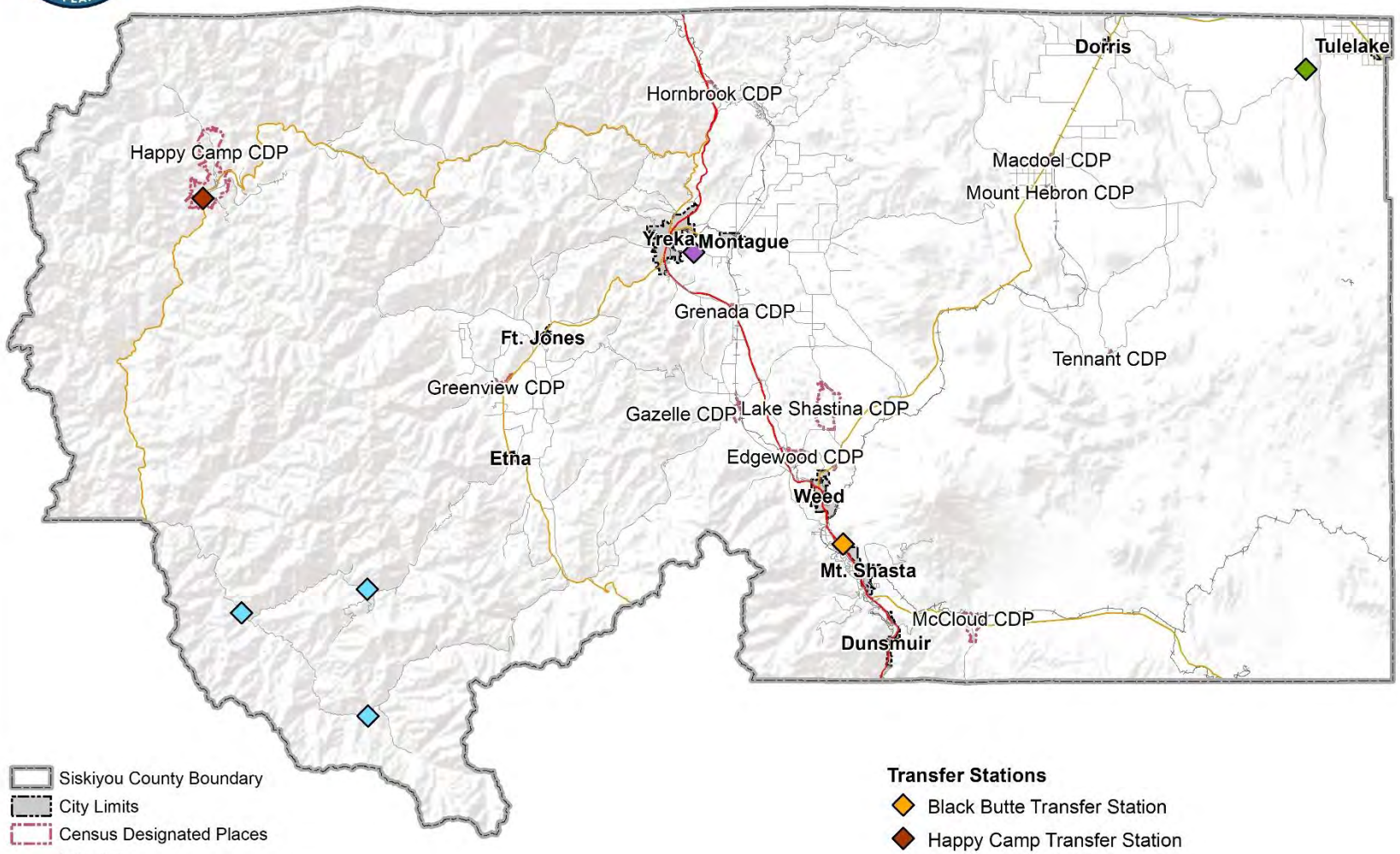
The Tulelake Transfer Station is located at County Road 95001 in Tulelake, south of Stateline Road and west of Sheepy Ridge. The station accepts household waste, recyclable waste, and

has recycling programs for household batteries, rechargeable batteries, cell phones, used eyeglasses, and hearing aids. The Tulelake Transfer Station is operated by the city of Tulelake, which also provides garbage pick-up services for residents of Tulelake.

Oberlin Road Transfer Station

The Oberlin Road Transfer Station is located at 2420 Oberlin Road in Yreka. The station accepts metal, wood, tires, electronic appliances, oil, and green waste. The Oberlin Road Transfer Station is a medium volume transfer and processing facility and is operated by Siskiyou County General Services.

Figure 8-2: Transfer Stations



Source: Siskiyou County General Services, 2024.

Allowed Disposals

Hazardous Waste Disposal

Chemicals and hazardous liquids are not accepted at any transfer station in Siskiyou County. Typical allowed disposal types across all transfer stations are household waste, tires, construction and demolition debris, green and wood waste, appliances, mattresses and box springs, furniture, electronic waste, universal waste, used oil, paint, and scrap metal. The closest transfer station that accepts chemicals and hazardous liquids is the city of Redding Transfer Station, which is a 65-mile drive south of Mount Shasta.

Recycling

State law now requires all businesses and public agencies that generate four or more cubic yards of waste per week, as well as all apartment communities and multi-family housing with five or more units, to provide recycling services. The Siskiyou County Recycling program is part of the Sanitation Division in its General Services Department. The program is guided by California State recycling programs. The Siskiyou County Recycling program informs residents of recycling opportunities and special events in an effort to increase recycling within the county. Types of recycling waste accepted at various locations throughout the county include aluminum, glass, plastic, cardboard, carpet and mattresses, household batteries, rechargeable batteries, cell phones, used eyeglasses, and hearing aids. The Siskiyou County Public Health department has installed three safe sharps disposal kiosks throughout the county, all of which are available 24 hours a day. They are located in front of the Siskiyou County Public Health Building, Dunsmuir City Hall, and the Siskiyou County Behavioral Health building.

Table 8.5 Recycling Center Locations

Recycling Center	Address	CRV Redemption Center
Cortwright's Market & Deli	250 E Webb St, Montague, CA 96064	
Dunsmuir City Hall	5915 Dunsmuir Ave, Dunsmuir, CA 96025	
Dunsmuir Community Center	4841 Dunsmuir Ave, Dunsmuir, CA 96025	
Etna Library	115 Collier Way, Etna, CA 96027	
Happy Camp Transfer Station	65600 Hwy 96, Happy Camp, CA 96039 (one mile southwest of Happy Camp along Highway 96/Klamath River Highway)	
Kingfisher Market	143 Davis Rd, Happy Camp, CA 96039	
McCloud Community Services District	220 W Minnesota Ave, McCloud, CA 96057	
Oberlin Road Transfer Station	2420 E Oberlin Rd, Yreka, CA 96097	
Quigley's General Store	17736 CA-96, Klamath River, CA 96050	
Ray's Food Place	11307 Main St, Fort Jones, CA 96032	
Seiad Fire Department	44601 CA-96, Seiad Valley, CA 96086	
Siskiyou Opportunity Center and CRV Redemption Center	1516 S Mt Shasta Blvd, Mt Shasta, CA 96067	YES
Tulelake City Yard Waste Disposal Site	Ray Oehlerich Way, Tulelake, CA 96134 (across from the Tulelake Volunteer Fire Department at 1 Ray Oehlerich Way)	
Tulelake Transfer Station	County Road 95001, Tulelake, CA 96134 (south of Stateline Road and west of Sheepy Ridge)	
Yreka Transfer Recycling Center	231 Ranch Ln, Yreka, CA 96097	YES

Source: Siskiyou County Recycling Program, 2023.

Solid Waste Management Plan

A Solid Waste Management Plan for Siskiyou County was initially written in 1989. An updated Siskiyou County Solid Waste Management Plan and Rate Adjustment Plan was started in 2020 and is still in progress as of October 2023.

Disposal Rate

Siskiyou County generated 41,882 tons of solid waste in 2021. According to CalRecycles's 2021 Diversion and Disposal Progress Report, Siskiyou County did not meet its target disposal amount in pounds per person per day (ppd). Target disposal rates refer to the ideal amount of solid waste a specific jurisdiction is expected to create. The target rate is separated by the residential disposal rate (population) as well as the non-residential disposal rate (employment). The calculation of these rates assumes that each jurisdiction is creating and implementing programs that reduce and divert green waste and recyclables from the solid waste stream, which is then compared to the actual disposal rate per person per day to evaluate if a jurisdiction is meeting their target disposal rates.

While the county's actual population disposal amount is not significantly beyond acceptable solid waste volumes for the region, the employment disposal amount is higher than what is acceptable in the region according to CalRecycle. See Table 8.6.

Table 8.6 Disposal Rate

Jurisdiction	Disposal Amount (tons)	Population, Disposal (ppd)		Employment Disposal (ppd)	
		Target	Actual	Target	Actual
Siskiyou County Integrate Solid Waste Management Regional Agency	41,882.28	4.1	5.2	13.3	17.5

Legend: ppd = pounds per person per day

Source: CalRecycle "Countywide, Regionwide, and Statewide Jurisdiction Diversion/Disposal Progress Report," 2021.

8.5 Utilities

Introduction

This section describes existing electric services, natural gas, and telecommunications utilities in Siskiyou County.

Electrical Services

Siskiyou County's only electrical provider is Pacific Power (PacifiCorp). Pacific Power is the largest grid operator in the western United States and primarily serves customers in Oregon and Washington, although it also has a small service area in northern California. This northern California service region includes Siskiyou County, Del Norte County, the northwestern portion of Shasta County, and the northern portion of Modoc County.

Most of Pacific Power's electrical consumption in California is by residents and businesses in Siskiyou County. In both 2020 and 2021, 68 percent of Pacific Power's electrical consumption in California was used in Siskiyou County. Figure 8-3 below shows the service area for the electrical provider in Siskiyou County.

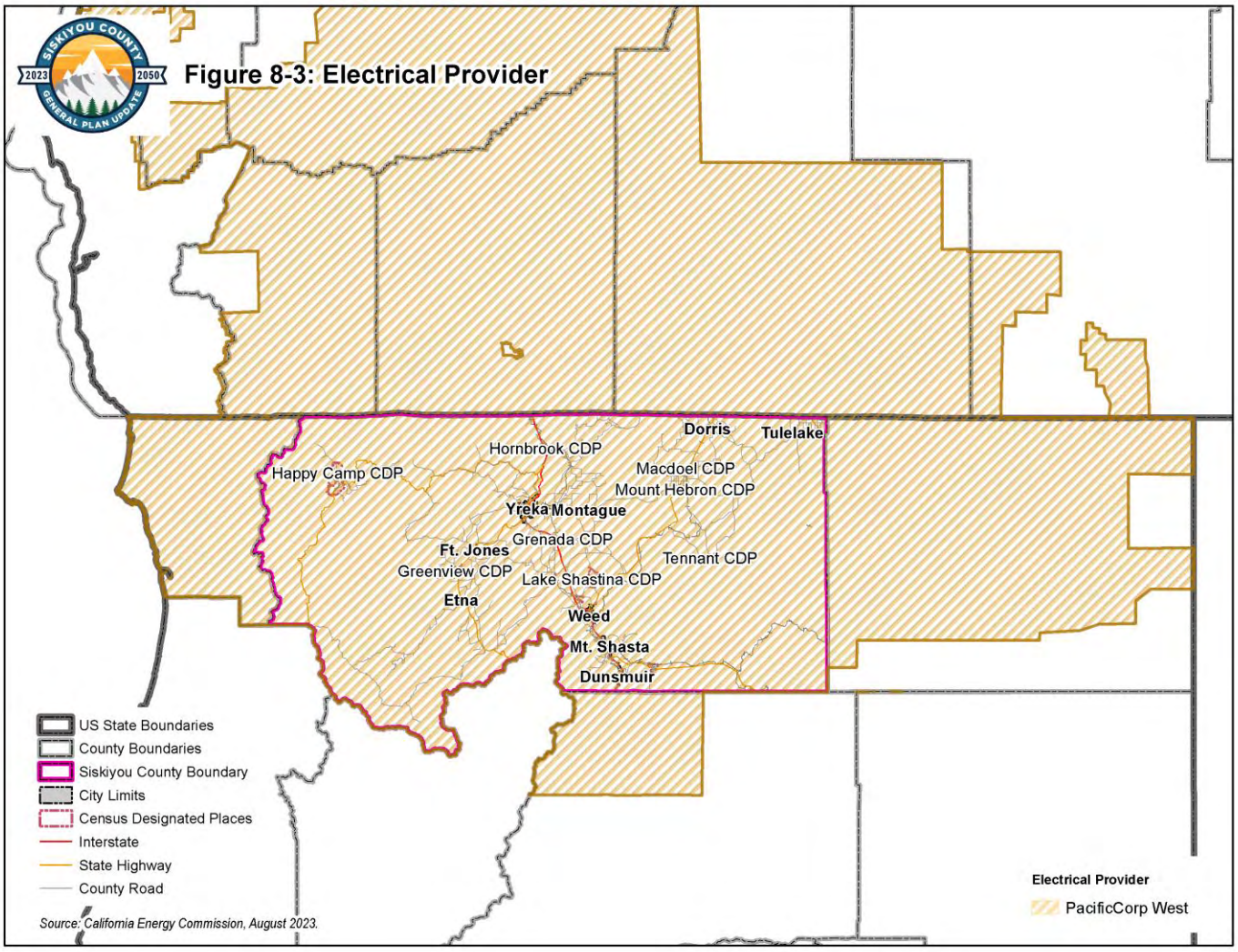


Table 8.7 Electrical Consumption

	2020 (kWh)	2020 (Percentage)	2021 (kWh)	2021 (Percentage)	Percent Change from 2020 to 2021 (Percentage)
Non-Residential	285.1	*54.8%*	292.3	*54.3%*	*2.5*
Residential	235.5	*45.2%*	245.6	*45.7%*	*4.3*
Total	**520.6**	***100.0%***	**537.9**	***100.0%***	***3.3***

Source: California Energy Commission Electricity Consumption by County, 2020-2021

Electric Production

All of the electrical energy generated in Siskiyou County is renewable energy. In 2022, 266 GWh of renewable energy was generated in the county, which is 0.13 percent of the total energy generated in California. Of this total renewable energy generated in 2022, 233 GWh (88 percent of total) was generated by four small hydropower facilities; 33 GWh (12 percent of total) was generated using one biomass facility. These four small hydropower facilities consist of Copco 1, Copco 2, Iron Gate, and Box Canyon dams. The County's single biomass energy production facility is located in Weed, CA.

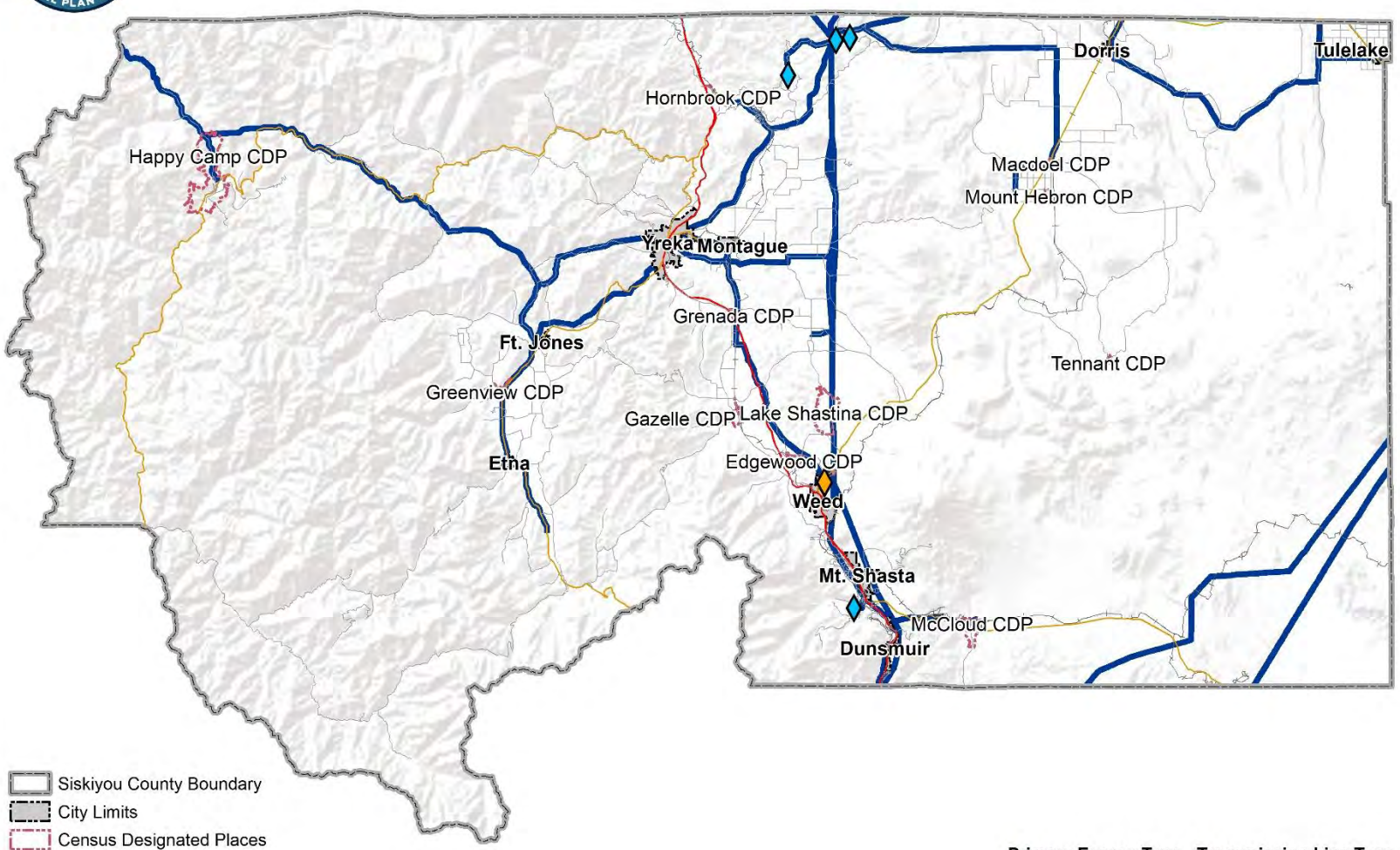
Capco 1, **Copco 2**, and **Iron Gate** are operated by PacifiCorp and will be in use until 2023 to 2024; however, after that date all three dams will be decommissioned (see "Closure of Facilities" section below for more information). After 2024, **Box Canyon** will be the last remaining hydroelectric dam as well as the only remaining electrical energy generation facility in Siskiyou County. Box Canyon dam is jointly operated by the Siskiyou County Flood Control and Water Conservation District and the Siskiyou Power Authority. See Table 8.8 below.

Table 8.8 Hydroelectric Generation Facilities

Generation Facility	Powerhouse Capacity (MW)	Hydropower Generation (MWh)	Status
Copco 1 *(Klamath River Hydroelectric Project)*	20	85,276.1	To be removed by the end of 2024
Copco 2 *(Klamath River Hydroelectric Project)*	27	108,147.0	Removed in November 2023
Iron Gate Dam *(Klamath River Hydroelectric Project)*	18	103,588.4	To be removed by the end of 2024
Box Canyon Dam	90	430,745.9	Active license

Source: Hydropower Reform Coalition, 2023.

Figure 8-4: Electrical Transmission Lines and Electrical Production Locations



Source: California Energy Commission, August 2023.

Closure of Facilities

While Siskiyou County has historically been a hub for hydroelectric, biomass, and geothermal energy production, many of these facilities have shut down in recent decades or are set to be shut down between 2023 and 2024. This section will cover these past and future energy production facility closures.

The **Klamath River Hydroelectric Project** spans southern Oregon and northern California, including Siskiyou County, and consists of seven hydroelectric dams and one non-generating dam. Of these dams, Copco 1, Copco 2, and Iron Gate (all of which are hydroelectric dams) are within Siskiyou County. These three dams were originally constructed by the California Oregon Power Company (today known as PacifiCorp) between 1903 and 1962. These three dams, as well as the Link River Dam and J.C. Boyle Dam in Oregon along the Klamath River, are set to be removed between 2023 and 2024 to allow for expanded passage of salmon along the river. The decommissioning of the hydroelectric dams within Siskiyou County will remove 65-megawatts of powerhouse capacity and will reduce the average annual hydropower generation in the county by 297,011 MWh, which accounts for 41 percent of the total 727,757 MWh currently generated by hydropower facilities in the county. After 2024, Box Canyon Dam, which is not a part of the Klamath River Hydroelectric Project, will be the last remaining hydroelectric dam in Siskiyou County.

The potential of geothermal energy resources was explored and defined in the Siskiyou County 1984 Geothermal Element of its General Plan. In 1984, Siskiyou County was one of 20 California counties with significant geothermal energy resources, but only five counties continue to produce geothermal energy in 2022. Commonly cited reasons for a lack of continued development of geothermal energy facilities are the higher costs associated with building and maintaining geothermal facilities compared to similarly sized renewable energy facilities like solar or wind farms. As of 2023, there are no geothermal energy facilities in use in Siskiyou County.

Natural Gas

Siskiyou County does not have any natural gas utility service capacity or generation as of 2022. This is similar to many adjacent counties, including Del Norte, Trinity, and Modoc Counties. Residents and businesses that require the use of natural gas must purchase propane from a local gas supplier.

Telecommunications

Telephone Service

AT&T, T-Mobile, US Cellular, and Verizon all provide LTE data and voice services to Siskiyou County. Many areas of the county are within LTE data and voice service zones of at least one carrier, particularly along major roadways including I-5, US 97, SR 3, SR 89, and SR 139. In addition, the Cal-Ore Telephone Company and the Siskiyou Telephone Company provide wired telephone services to residential and business accounts. However, some rural and unincorporated areas have little to no service coverage by any provider. This is particularly an issue in parts of Seiad Valley, Scott Bar, Klamath River, Somes Bar, Forks of Salmon, areas east

of Callahan, and wide swathes of rural, sparsely inhabited land in the western portion of Siskiyou County, posing a possible safety risk for persons in need of emergency services within these portions of the county.

Figure 8.5 AT&T LTE Data Coverage, Siskiyou County

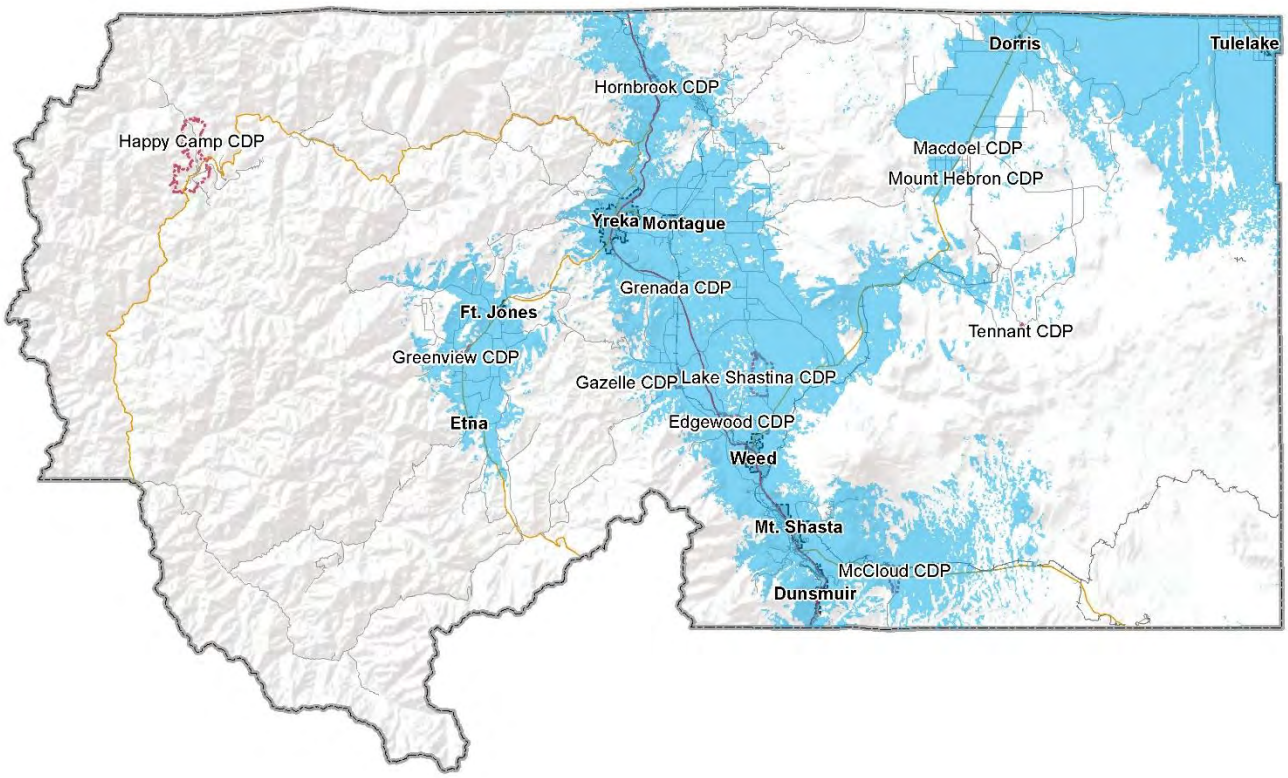


Figure 8.6 T-Mobile Data Coverage, Siskiyou County

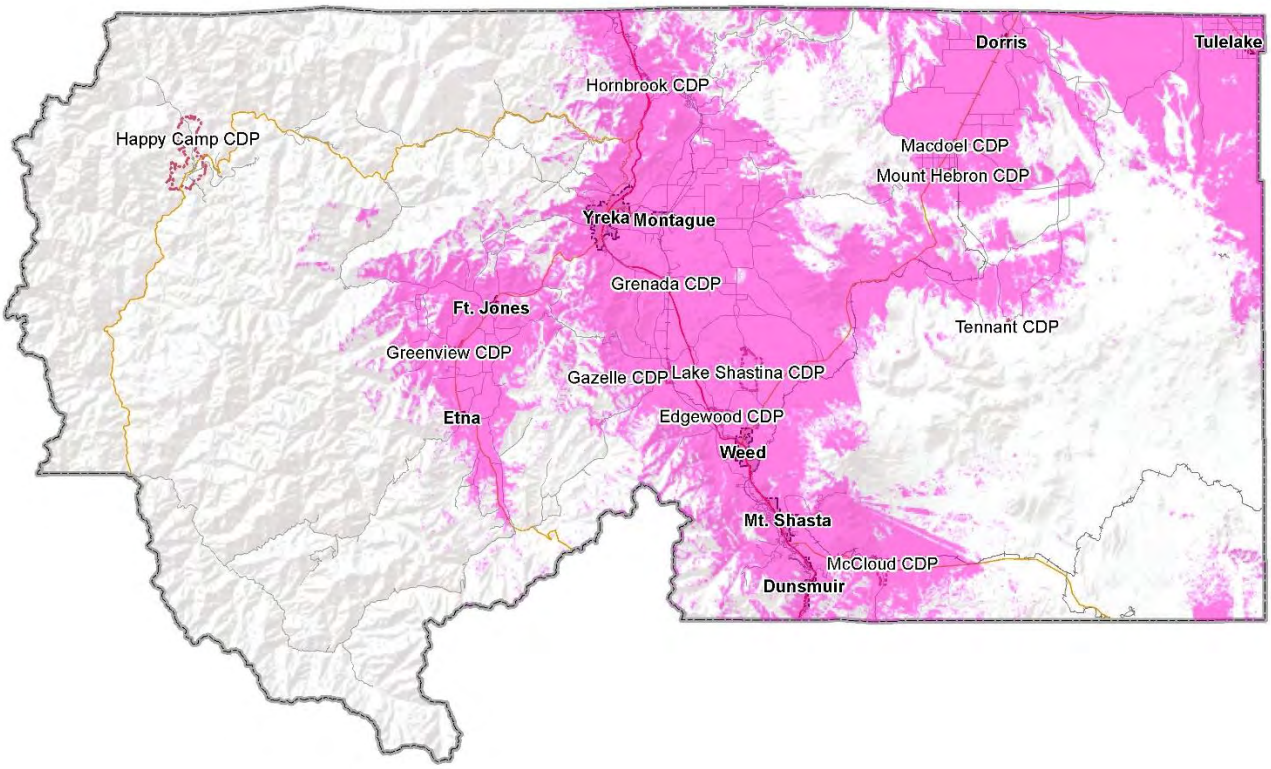


Figure 8.7 Verizon Data Coverage, Siskiyou County

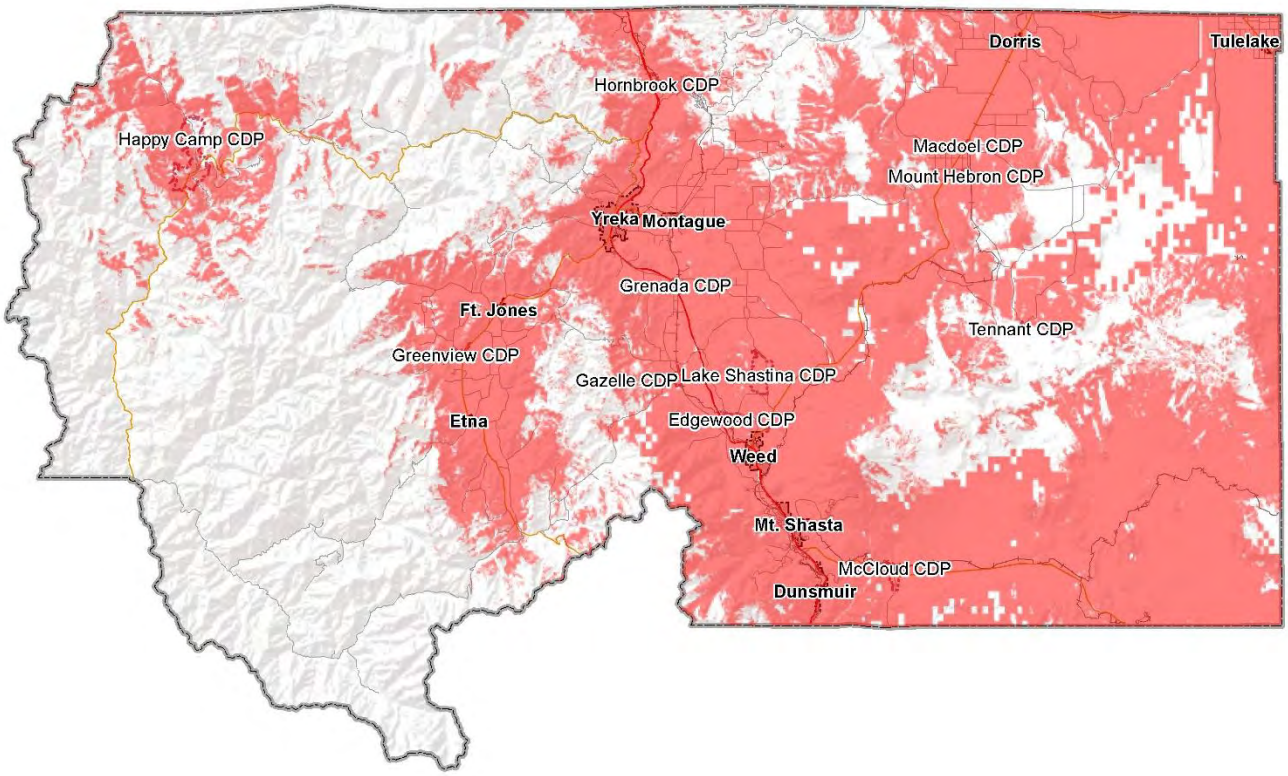
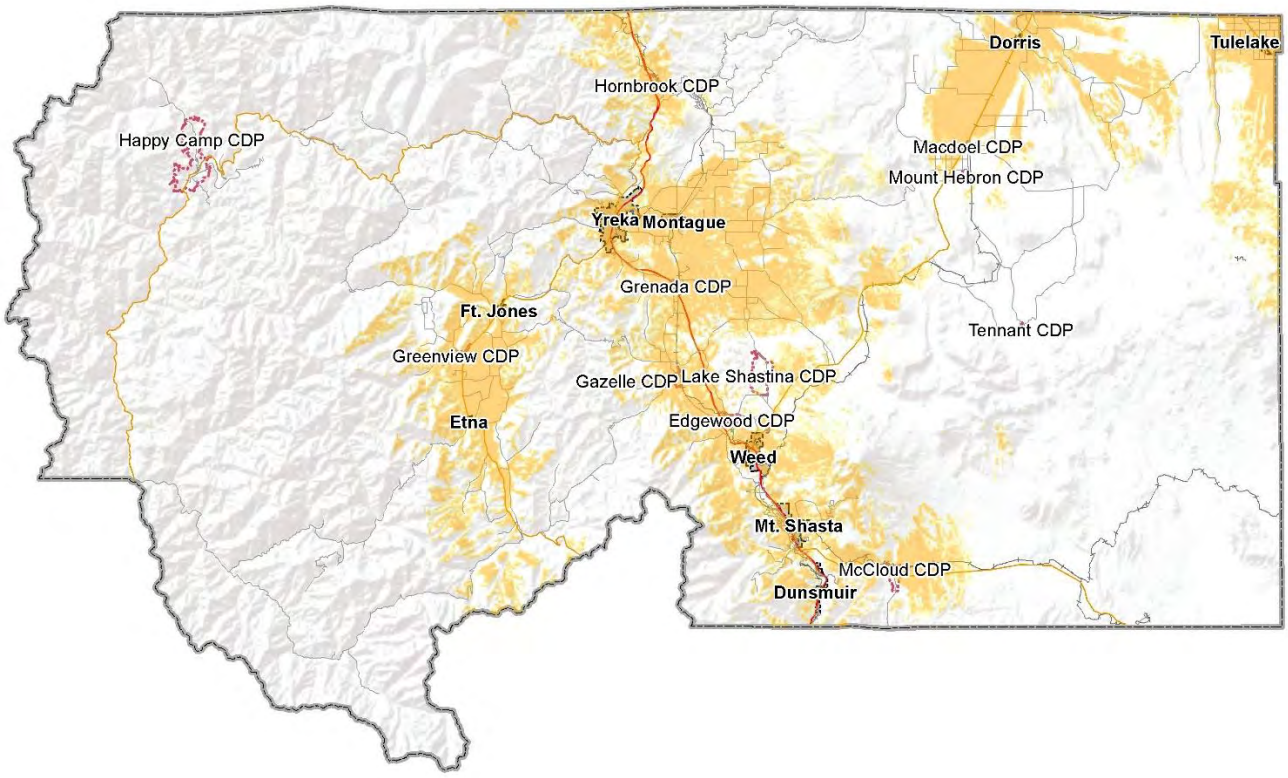


Figure 8.8 US Cellular Data Coverage, Siskiyou County



Internet Service

Wired internet service is provided to residents of Siskiyou County through AT&T, T-Mobile, EarthLink, HughesNet, FirstNet, Cal-Ore Telephone Company, Siskiyou Telephone Company, and Vyve Broadband. Depending on the address, DSL or fiber is available. A majority of Siskiyou County residents living in incorporated cities and unincorporated communities have access to at least one internet provider, however internet speeds are not consistent throughout the county. Some residents, particularly those in incorporated cities, have internet speeds equal to or exceeding 25 Mbps down and 3 Mbps up, however many other residents have slow or very slow speeds, with many having internet speeds less than 25 Mbps down and 3 Mbps up and some having internet speeds less than 10 Mbps down and 1 Mbps up.

Satellite internet services are also available to residents who would otherwise have slow internet speeds if connected to a wired internet service as well as rural residents who have no access to wired internet services. Satellite internet services are available throughout the county through Viasat Satellite Internet, Starlink Satellite Internet, Dish Satellite Internet, and DirectTV Satellite Internet.

Television Service

Frontier, Vyve Broadband, Dish Satellite TV, DIRECTV Satellite TV, and the Siskiyou Telephone Company provide subscription television services to residents of Siskiyou County. Over-the-air digital TV service in southern Siskiyou County mainly originates from Redding's broadcasting networks, including the KIXE-TV PBS station. Northern Siskiyou County receives the KTVL 10 CBS,

KOTI NBC, KFTS PBS, and KDKF ABC stations over-the-air, which originate from Medford and Klamath Falls in Oregon. Portions of western Siskiyou County, including the Callahan, Etna, Happy Camp, and Somes Bar communities, have no access or very weak access to digital TV.

8.6 Law Enforcement

Introduction

This section discusses the existing law enforcement facilities and services provided in Siskiyou County, including the services provided by the Siskiyou County Sheriff's Office, the Siskiyou County District Attorney's Office, and California Highway Patrol.

Siskiyou County Sheriff's Office

The Siskiyou County Sheriff's Office mission statement is as follows:

"We, the members of the Siskiyou County Sheriff's Office, are committed to providing competent, effective, and responsive public safety services to the citizens and guests of Siskiyou County; recognizing our responsibility to maintain order while affording dignity and respect to all persons, and holding ourselves to the highest standards of professional and ethical conduct."

All 58 counties in California have a Sheriff's Department and 48 of those counties also provide for the Sheriff to assume the duties of the Coroner. The Sheriff in Siskiyou County also assumes the duties of the coroner. The Sheriff is a constitutionally elected official.

The department provides radio dispatch and call receipt for four other police departments, including park police for the National Park Service at the Lava Beds National Monument, CAL FIRE Law Enforcement Officers, and the United States Forest Service Law Enforcement Officers for Klamath National Forest and Shasta-Trinity National Forest in Siskiyou County, which gives Siskiyou County's rural communities an effective way to increase their law enforcement coverage while lowering their operation costs.

In Siskiyou County, the Sheriff's Office includes three divisions: Civil, Custody, and Enforcement.

The **Civil Division** serves process and legal documents in all cities in Siskiyou County in addition to the unincorporated areas of the county. This includes documents and processes for eviction procedures and Sheriff's services and fees.

The **Custody Division** operates the Siskiyou County Jail, which holds pre-trial felons and convicted misdemeanor and felony violators.

The **Enforcement Division** includes patrol functions, detective functions, civil functions, search and rescue and administrative functions. This includes management of the local bomb squad as well as the Siskiyou Interagency Marijuana Investigation Team (SIMIT) and North State Marijuana Investigation Team (NSMIT).

Facilities

The Sheriff's Department is based at 305 Butte Street in Yreka, adjacent to the Siskiyou County Superior Court, the Siskiyou County Jail, and the old Siskiyou County Court House. The Civil and Enforcement Division are based at this location, but the Custody Division is based at the Siskiyou County Jail, located at 315 South Oregon Street in Yreka, 0.1 miles northwest of the Sheriff's main office.

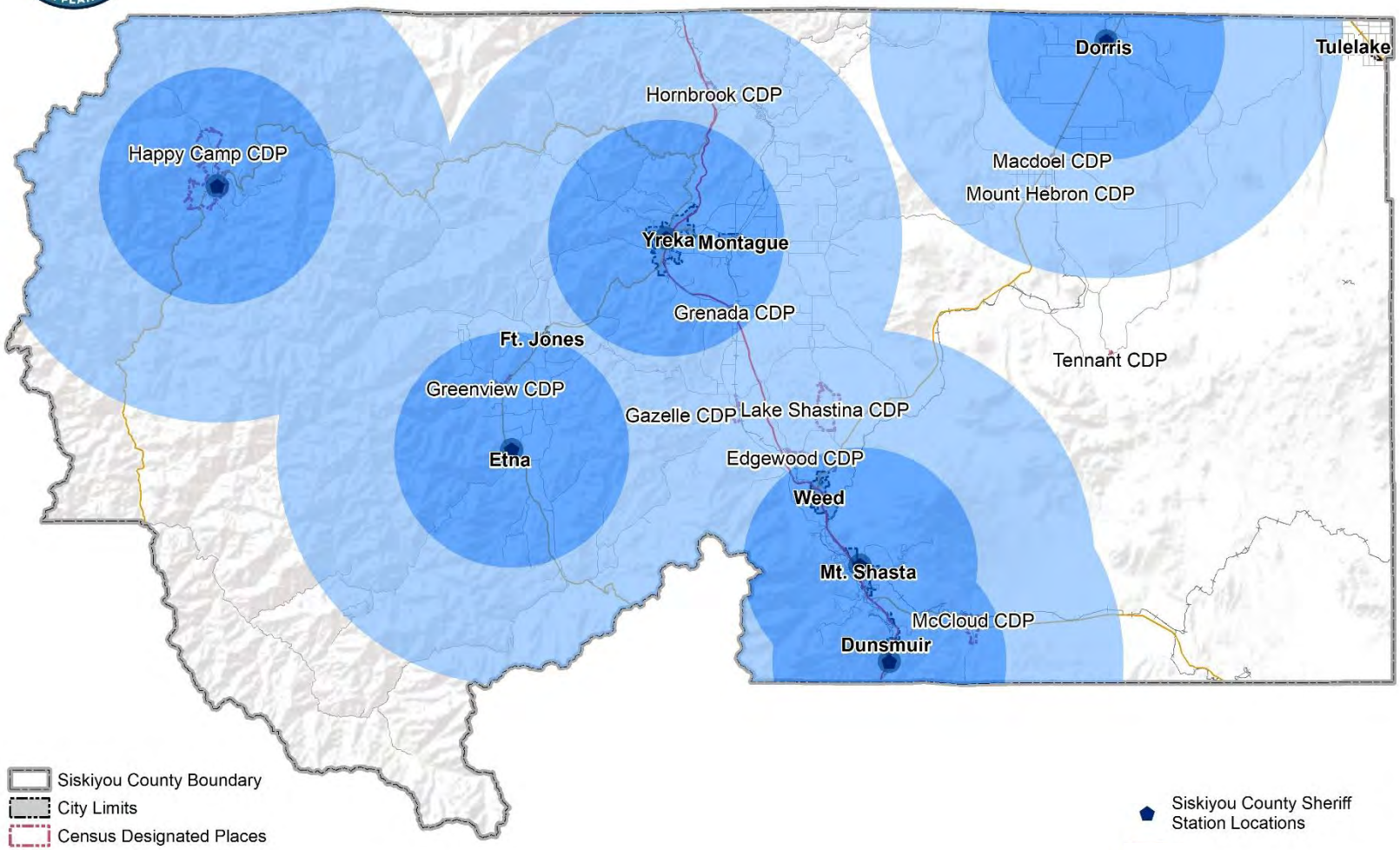
The department has four patrol stations. The Sheriff's main office at 305 Butte Street in Yreka serves as one of the four patrol stations. The Dorris station is located at 324 N Pine Street in the northeast portion of the county. The Mount Shasta station is located at 241 Ski Village Drive adjacent to the Mount Shasta Siskiyou County Health Department location. The Dunsmuir station is located at 5902 Dunsmuir Avenue, across the street from Dunsmuir City Hall and the Dunsmuir Community Resource Center.

The Siskiyou County Jail, located at 315 South Oregon Street in Yreka, has a capacity of 104 inmates. The jail's daily average population is approximately 101 inmates. This facility is used for the detention of pre-trial felons, as well as sentenced misdemeanor and felony violators. The jail is a fully self-contained facility with on-site food and medical services. The jail was opened in 1988 with a 68 inmate capacity, which has since been expanded to its present-day capacity. The Custody Division also offers rehabilitation programs and alternative sentencing for people sentenced to non-prison eligible crimes. These rehabilitation programs and services include drug and alcohol groups, anger management classes, parenting classes, job readiness seminars, individual therapy, high school diploma/GED preparation, gardening, chicken care and upkeep, rabbit care and upkeep, and woodworking.

Response Times

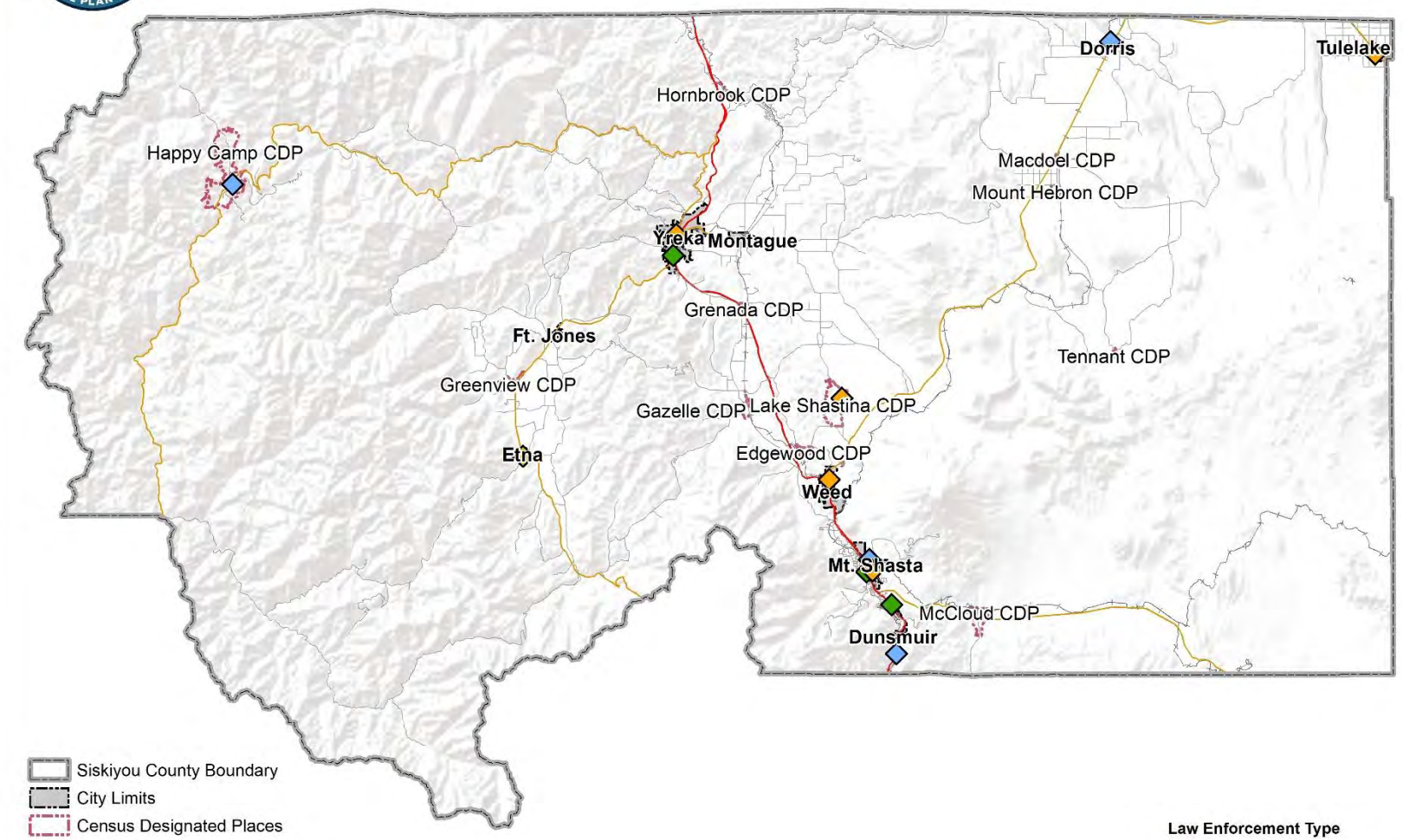
Law enforcement response times are not available for the Sheriff's Office, but based on typical travel distances from Sheriff patrol station locations, Figure 8-9 below shows nearby response areas for Sheriff stations within Siskiyou County.

Figure 8-9: Siskiyou County Law Enforcement Locations



Source: California Governor's Office of Emergency Services, July 2019.

Figure 8-10: Law Enforcement Locations



Source: California Governor's Office of Emergency Services, July 2019.

Siskiyou County District Attorney's Office

The Siskiyou County District Attorney's Office is located on the second floor of the old Siskiyou County Court House. The office includes the District Attorney, other prosecuting attorneys, Victim Services branches, and the Bureau of Investigation. Their mission is as follows:

"The mission of the Siskiyou County District Attorney's Office is to promote justice and protect the people of the County of Siskiyou and the State of California by aggressively, honorably, and fairly prosecuting those who violate the law."

The District Attorney serves as the public prosecutor and the chief law enforcement officer of Siskiyou County. They are charged with the duty to investigate and prosecute criminal activity and offenses within the jurisdiction of the county. The Bureau of Investigation is under the umbrella of the District Attorney's Office but is a stand-alone law enforcement agency led by a Bureau Chief. The Siskiyou County Victim Services branch is committed to the rights of crime victims and their families and employs trained and experienced victim advocates to work with victims and their families throughout the criminal justice process. The District Attorney's Office employs seven prosecutors, including various levels of district attorneys, five Bureau of Investigation employees, seven professional support staff employees, and four victim services division employees.

California Highway Patrol

The California Highway Patrol (CHP) provides consistent traffic law enforcement throughout the state to ensure the safe, convenient, and efficient transportation of people and goods along state highways. The CHP operates two stations within Siskiyou County. The Yreka Station is located at 1739 South Main Street, Yreka, CA 96097 and patrols SR 3, SR 96, S R 139, S R 161, SR 263, and SR 265, as well as the remote communities of Happy Camp, Tulelake, and Dorris and all the unincorporates county roadways in between. The Mount Shasta Station is located at 618 West Jessie Street, Mount Shasta, CA 96067 and patrols Interstate 5, SR 89, and US 97. In addition, this station serves residents of southern Siskiyou County which consists of the cities and unincorporated communities of Weed, Mount Shasta, McCloud and Dunsmuir and a small portion of northern Shasta County which consists of the unincorporated community of Castella, as well as all the unincorporates county roadways in between.

8.7 Fire Protection

Introduction

This section discusses the existing fire protection services within Siskiyou County. Given the rural and sparsely inhabited nature of large portions of Siskiyou County and its forests, many of the fire departments and fire districts are operated by volunteer firefighting teams. Many of these fire departments and districts are funded entirely through community fundraising, which they rely upon for acquiring equipment and services needed for typical operations.

Fire Safe Council of Siskiyou County

The Fire Safe Council of Siskiyou County is a coalition of public and private sector organizations, including the California Department of Forestry, CAL FIRE, the U.S. Forest Service, the Bureau of Land Management, local governments, Resource Conservation Districts, and the public, all of whom share a common interest in wildfire prevention and loss mitigation. They have worked in the county since 2002. Their mission statement reads as follows:

"The mission of the Fire Safe Council of Siskiyou County is to protect natural and man-made resources from the threat of wildfire. Through education and coordination, we support local Fire Safe Councils and local communities throughout Siskiyou County."

The Fire Safe Council works on special needs assistance, free chipper, and defensible space inspection and education programs, as well as on the creation of fuel breaks and community wildfire protection plans.

NorCal Fire Cooperative

The NorCal Fire Cooperative is a group of private timber landowners in Siskiyou and Shasta Counties that hire their own battalion chief in times of fire emergencies. The Cooperative manages fire risks to their lands with the chief to avoid damages to roads, gates, and other critical infrastructure from wildfires. Landowners in the cooperative fight fires, direct fire crews, open gates, and manage other components of firefighting on their lands. This cooperative has successfully managed to lessen the severity of many wildfires that threatened their lands and other adjacent properties.

State: CAL FIRE

The CAL FIRE Siskiyou Unit encompasses 1.4 million acres of ecologically diverse State Responsibility Area wildlands. The Klamath National Forest, Shasta-Trinity National Forest and the Bureau of Land Management are the largest public land ownerships adjacent to the Unit. Other public lands include the Shasta Valley, Horseshoe Ranch, Butte Valley, Lower Klamath, and Tulelake Wildlife Refuge Areas.

During fire seasons, the Siskiyou Unit staffs approximately 70 career personnel and 120 seasonal personnel. The Siskiyou Unit is geographically divided into four fire battalions, which combined include seven fire stations, one conservation camp, and a headquarters facility. Two of these stations are staffed year-round with one engine each that are state funded. During summer

months, an additional thirteen schedule "B" engines, two dozers, up to four inmate fire crews, and up to three fire lookouts are staffed. Within the Siskiyou Unit, CAL FIRE reciprocates emergency services of local fire departments, communities, and fire districts using mutual aid and automatic aid agreements.

The Siskiyou Unit has an Emergency Command Center (YICC) that is located at the Siskiyou Unit Headquarters in Yreka. This command center is a collaboration of CAL FIRE, United States Forest Service (USFS) and Siskiyou County staff. The YICC provides dispatching services for CAL FIRE, USFS, 30 local government departments, and 5 ambulance companies, and is responsible for emergency call taking, dispatching, and tracking of resources.

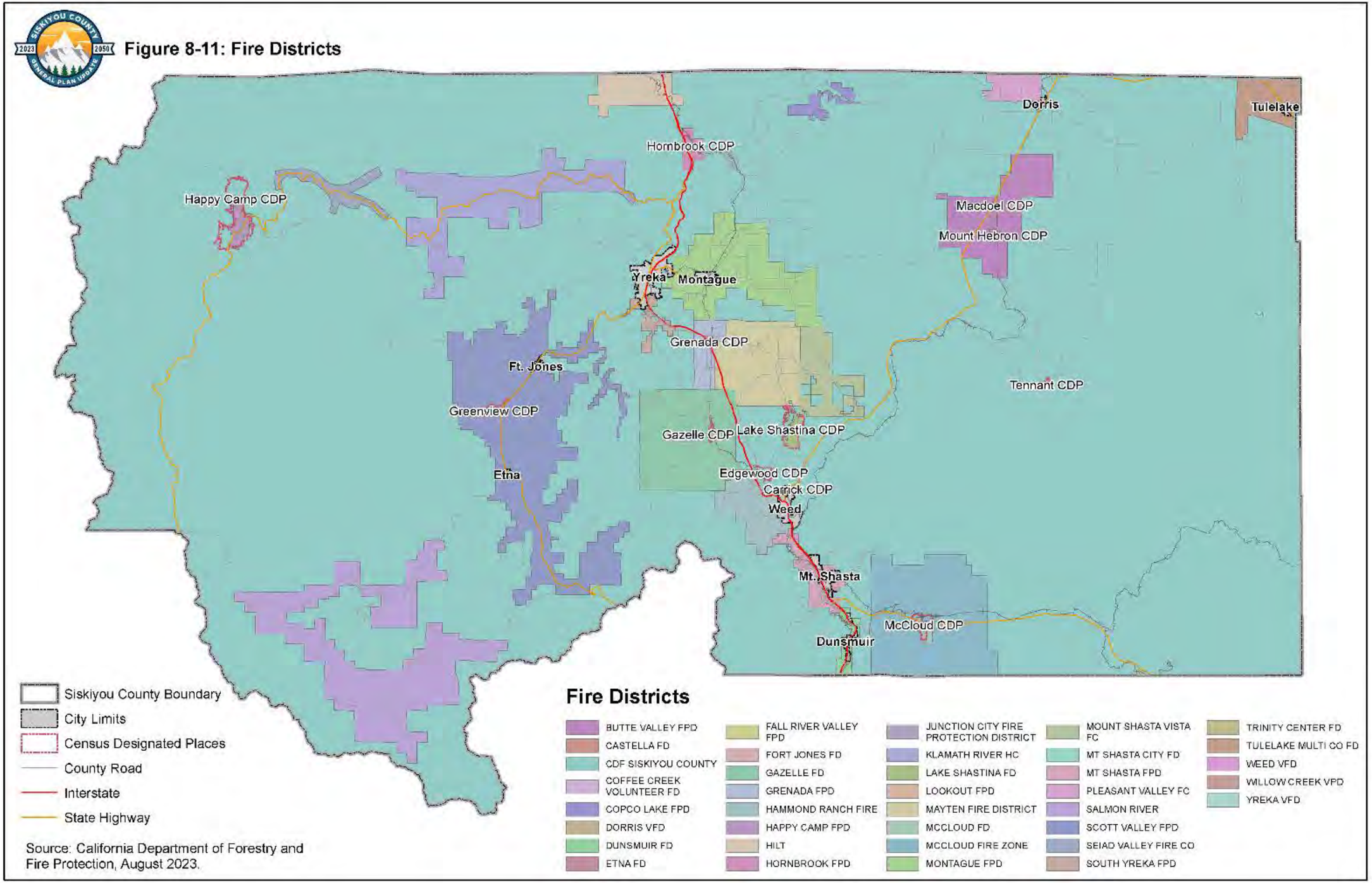
CAL FIRE has seven fire stations within Siskiyou County. The Fort Jones Station houses three Type III fire engines and one Type II fire dozer. The Yreka Station, which also acts as the CAL FIRE Siskiyou County headquarters, houses three Type III fire engines and one Type II dozer. The Hornbrook Station houses two Type III fire engines. The Weed City Station houses two Type III fire engines. The Macdoel Station houses one Type III engine. The McCloud Station houses two Type III fire engines. The Pondosa Station is located within Shasta County but is staffed and administered by the Siskiyou Unit and houses two Type III fire engines.

Mutual Aid and Automatic Aid Agreements

All fire departments and fire protection districts within Siskiyou County are a part of a mutual aid agreement and often lend assistance to other nearby fire departments across jurisdictional boundaries when requested. This may occur during times of emergency response that require additional local resources. In addition to mutual aid, there are also automatic aid agreements between various fire departments and fire protection districts. Automatic aid refers to assistance that is dispatched automatically between multiple fire departments, communities, or fire districts. The Siskiyou County Emergency Command Center, also known as the Yreka Interagency Communications Center (YICC) is located at the CAL FIRE Siskiyou Unit Headquarters in Yreka and provides dispatching services for CAL FIRE, USFS, 30 local government departments, and five ambulance companies. The YICC is responsible for emergency call taking, dispatching, and tracking of resources.

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Figure 8-11: Fire Districts



Source: California Department of Forestry and Fire Protection, August 2023.

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Northern Siskiyou County

Butte Valley Fire Protection District

The Butte Valley Fire Protection District (BVFPD) consists of a single station, located at 12320 Old State Highway in Macdoel. Established in 1965, the District covers a 33 square mile service area bordered by Meiss Lake, Mahogany Mountain, the Jerome Butte, and the area north of the Butte Valley airport. As part of their service, they have an automatic mutual aid agreement with the CAL FIRE District 1 and Dorris Volunteer Fire Department. The District responds to approximately 50-60 incidents in the valley annually. Around 90 percent of those calls include medical assistance. The BVFPD has six firefighters, all of which are volunteers. Two firefighters have EMT training. Four of the firefighters are also members of Butte Valley Ambulance Services, a private nonprofit 501(c)3 organization. The District has two engines, one water tender, one brush vehicle, and one ambulance, which is kept in the engine bay.

Copco Fire Protection District

The Copco Fire Protection District (CFPD) consists of two fire stations within the communities adjacent to Copco Lake, one of which is located at 27805 Copco Road and another which is located at 16490 Patricia Avenue. The District covers an eight square mile service area, including the communities which live along the southern portion of the lake as well as the portion of the community which is situated along the northeastern area of the lake. CFPD is entirely volunteer-run, with one fire chief and five firefighters.

City of Dorris Fire Department

The city of Dorris Fire Department (DFD) consists of a single station, located at 307 S Main Street in Dorris. The Department is fully volunteer run, including a fire chief, an assistant chief, and 5 firefighters, one of which is also an EMT. While the Department is associated with the city of Dorris, it will aid nearby fire protection districts and fire departments in times of fire emergency. The DFD has no automatic aid agreements. The Fire Department was formed in 1937 and responds to around 140 calls annually.

As of October 2023, the DVFD also operates the Pleasant Valley Fire Zone. The Pleasant Valley Fire Zone (CSA-4) consists of a single unstaffed station located at 2543 Durham Road in Dorris.

Happy Camp Fire Protection District

The Happy Camp Fire Protection District (HCFPD) consists of a single station, located at 26 Fourth Avenue in Happy Camp. The HCFPD is the governing Board of Directors of the Happy Camp Volunteer Fire Department. The HCFPD is located in the far northwest region of Siskiyou County along the Klamath River, adjacent to the community of Happy Camp and is made up entirely of volunteers, including a fire chief, an assistant chief, a board secretary, and 18 firefighters. The HCFPD was formed in 1949 and responds to around 230 calls annually.

Hilt Fire Hose Company

Before the 1990s, the Colestin Rural Fire District, located out of Jackson County in Oregon, served the community of Hilt within Siskiyou County. However, this fire district was only legally

responsible for and authorized to respond to areas on the Oregon side of the border, which led to the development of a mutual aid agreement between the California Department of Forestry and the Colestin Rural Fire District to create a new fire protection district in the Hilt area to respond to local fires. While technically a legally separate and standalone organization, the Colestin Rural Fire District, and the Hilt Fire Hose Company (HFHC) function as a single unit to respond to fires and other emergencies along the California-Oregon border west of Interstate 5 at the confluence of the Siskiyou and Cascade Mountain ranges.

The Hilt Fire Station is located at 212 Hilt Road in Hilt. The Hose Company is entirely volunteer run, including a chief and 3 firefighters, although the Colestin Rural Fire District's 9 volunteers are also available to respond to fires in the Hilt area. While the HFHC does not have a typical fire station, it houses its equipment in the building that previously housed the Hilt Elementary School. This equipment includes a wildland engine and a rescue vehicle, although the Colestin Rural Fire District's equipment, which includes two heavy duty engines, two lighter quick-attack wildland engines, a rescue unit, and a pickup truck, is available for use in the Hilt area as well. HVFPD responds to around 30 calls annually.

Hornbrook Fire Protection District

Hornbrook Fire Protection District (HFPD) consists of a single station, located at 16100 Front Street in Hornbrook. Established in 1963, the station primarily serves the community of Hornbrook. Their coverage area spans from Ager Beswick Road to Iron Gate, north to the Oregon State line, and from the top of Anderson Grade to SR 96 at Lumgrey Creek Road. The District's team consists of a chief and five volunteer firefighters who attend weekly training sessions to keep up to date on current techniques and technologies in firefighting. The HFPD also employs a volunteer medical team, including two licensed EMTs and a licensed EMR. Their apparatus includes a 2000-gallon Water Tender (1989), a Type-1 Engine (1986), a Type-6 Engine (2000), and a Type-3 Engine (2003). HFPD responds to around 300 calls annually.

Klamath River Hose Company

The Klamath River Hose Company (KRHC) is a fully volunteer run fire department consisting of a single station, located at 30330 Walker Road in Klamath River. The Company was founded in 1984 to provide professional medical and fire emergency services to the residents of Klamath River, Horse Creek, Scott Bar and Hamburg as well as those in outlying areas, such as Beaver Creek and points east to the junction of SR 96 and SR 263. All of the Fire Company staff, which includes a chief, a captain, eight firefighters, and two firefighters/EMTs, are volunteers and spend a significant amount of personal time to train, protect and serve their communities. The Board of Directors and auxiliary are also valuable volunteer members who provide financial guidance and fundraising support to the department. The KRVFC is a 501(c)(3), donation run Fire Company with funds also being raised through events, merchandise sales, and work contracts, such as the fair parking at the Siskiyou Golden Fairgrounds contract. In addition to donations, several grants from the Volunteer Fire Assistance program (USFS) help the Company purchase firefighter and vehicle equipment. KRVFC responds to around 80 calls annually.

City of Montague and Montague Fire Protection District

The city of Montague Fire Department (MFD) consists of a single station, located at 121 South 10th Street in Montague. The Department was formed in 1935 and serves as an all-risk agency. As such, the Department responds to a wide range of emergencies, including incidents involving fire hazards, medical aid, hazardous material spills, and search and rescue missions. The MFD serves the incorporated city of Montague, which includes a one square mile service area, and is also the contract fire protection service provider for the Montague Fire Protection District (MFPD), which includes 89 square miles surrounding the city. All of the MFD staff are volunteers and includes a fire chief, an assistant chief, 3 captains, 1 engineer, and 26 volunteer firefighters, some of whom are EMTs. The city of Montague Fire Chief is also the Fire Chief for the Grenada Fire Protection District. Around 600 calls are answered annually, and typical response times are around two to three minutes. The Department has 10 vehicles in service, including two pickup trucks, three type-3 engines, two type-1 engines, one rescue truck, and two water tenders. The Department helps raise awareness on burn permits required for all outdoor residential burning within the city of Montague limits.

Seiad Valley Hose Company

The Seiad Valley Hose Company (SVHC), which is also known as the Seiad Valley Fire Department, has a single station located at 44601 US 96 in Seiad Valley. The Hose Company serves areas along the Klamath River, the westernmost section of the Seiad Creek, and the northernmost section of the Grider Creek. The SVHC is entirely volunteer run and has 6 firefighters. The Hose Company has one fire engine, one water tender, and one emergency response vehicle. SVHC responds to around 50 calls annually.

South Yreka Fire Protection District

South Yreka Fire Protection District (SYFPD) is a fully volunteer fire District consisting of a single station, located at 3420 Easy Street in Yreka. The District was formed in 1973 and currently serves a seven square mile area, although it responds to calls in adjacent areas automatically, including calls originating from within Grenada, Montague, and Mayten Fire Districts. Its staff includes a fire chief and 3 volunteer firefighters. In addition to the District's emergency fire protection services, South Yreka's firefighters conduct community outreach to raise awareness on fire safety methods and help with inspections of local care facilities. The SYFPD is funded through Siskiyou County Measure C funds, which allocates the district $90,000 over a four year period, as well as community fundraising, both of which allow the District to purchase needed equipment for the department. The District has three type 1, two type 2, and one type 6 fire engines, as well as two water tenders and a rescue vehicle. SYFPD responds to around 210 calls annually.

Tulelake Multi-County Fire District

The Tulelake Multi-County Fire District (TMCFD) was formed in 1937 to provide fire protection services, in part, to the far northeastern corner of Siskiyou County. The District's fire station is located at 1 Ray Oehlerich Way in Tulelake, where it also contractually provides fire protection services to the city. Twenty volunteer firefighters, one paid fire chief, and one paid assistant chief work for the TMCFD. The District includes the area north of Tulelake as well as the

northwest portion of neighboring Modoc County, including Newell CDP. TMCFD is active within the community and raises awareness on various programs that residents can take part in to improve their fire emergency safety, such as the District's reflective address marker program which makes it easier for street address signs to be identified in times of emergency. The District also provides important updates on active fire emergencies, including affected areas that are likely to experience loss of phone service, power outages, and/or loss of internet. TMCFD responds to around 200 calls annually.

Yreka Fire Department

The Yreka Fire Department (YFD) consists of a single station, located at 401 West Miner Street in Yreka. The YFD began as the Siskiyou Hook and Ladder Company Number 1 in 1856. In 1924, the Siskiyou Hook and Ladder Company was officially reorganized as the Yreka Volunteer Fire Department. Today, the YFD consists of both paid and volunteer staff and includes a paid Fire Chief and Assistant Chief, and 22 volunteer firefighters. The Department responds to upwards of 2,000 calls per year, including incidents involving hazardous materials, medical aid requests to structure fires, public assists, rescue and missing persons search, vegetation fires, and vehicle accidents. The Department currently operates one 70-foot Quint, one Type 1 pumper, one Type 3 Wildland engine, one Type 6 rescue/pumper and two utility vehicles for responding to medical aids. In 2006, the City of Yreka passed a special property-based assessment known as Measure H (Fire Tax), which has enabled the District to purchase capital equipment, including a four-wheel-drive Intruder Pumper Truck, a Quint Aerial Ladder Truck, and other needed hoses and supplies to outfit the engines. Although the Department is a department within the city of Yreka, they will aid nearby fire protection districts and fire departments in times of fire emergency.

Southern Siskiyou County

Dunsmuir-Castella Fire Department

The Dunsmuir Volunteer Fire Department was originally established in 1897. Today it is known as the Dunsmuir-Castella Fire Department (DCFD) is comprised of three different governmental agencies, including the city of Dunsmuir, the Dunsmuir Fire Protection District, and the Castella Fire Protection District (in adjacent Shasta County). This combined group responds to over 500 fire and medical calls in the city and service area annually. The Department operates out of four fire stations. Dunsmuir (Station 1) is located at 5915 Dunsmuir Avenue in the Dunsmuir Public Works Department and employs a fire chief, an assistant chief, and 22 volunteer firefighters. Castella (Station 2) is located at 29372 Main Street in Castella, Shasta County and employs a fire chief, an assistant chief, and 22 volunteer firefighters. Isgrigg (Station 3) is located at 4212 Isgrigg Street in Dunsmuir. Crag View (Station 4) is located at 30816 Crag View Drive in Dunsmuir. The DCFD has a response area of over 30 square miles. Responders go as far North as Mott Road, on Interstate 5, and as far South as Slate Creek on Interstate 5. As part of the Fire Department's service, they have an auto mutual aid agreement with the Mount Shasta City Fire Department. Additionally, the city of Dunsmuir has an outdoor public warning system with sirens located throughout the city that is designed to alert residents and visitors of Dunsmuir about possible danger. The DCFD has prepared a Dunsmuir Community Wildfire Protection Plan to identify and prioritize areas for hazardous fuel reduction treatments. The

plan recommends the types and methods of treatment that will protect the community of Dunsmuir as well as measures to reduce the ignitability of structures throughout the area addressed by the plan.

Etna Fire Department

The Etna Fire Department has two stations, one of which is located at 1604 CA-3 in Etna and another located at 400 Main Street in Etna. It was formed in 1899. The Department has three full-time paid employees, including one fire chief, an assistant fire chief, and a secretary, as well as nine volunteer firefighters. This station mainly serves the incorporated area of the city of Etna but is in a mutual aid agreement with adjacent fire districts. In times of fire emergency, the Department serves residents outside of its main service area. The Fire Department responds to around 140 calls annually.

Fort Jones Fire Department

The Fort Jones Fire Department (FJFD) station is located at 31 Newton Street in Fort Jones. Founded in 1877, the FJFD serves the town of Fort Jones as well as all of Scott Valley in times of fire emergencies. The Department is staffed by a full-time paid chief, two lieutenants, and a team of 12 volunteer firefighters. During fire season, the FJFD employs two additional firefighters. While the District primarily serves the town of Fort Jones, its secondary response area includes portions of the unincorporated county. The District responds to over 400 calls for services ranging from medical, search and rescue, hazardous materials, technical rope rescue, water rescue, structure fires, vehicle fires, wildland fires, and vehicle accidents. The FJFD houses a fleet of two Type I engines, two Type III engines, and a rescue, along with two chief officer vehicles.

Gazelle Fire Protection District

The Gazelle Fire Protection District consists of a single station located at 18338 Old Highway 99 South in Gazelle, which does not have running water. It was formed in 1985 and consists of a fire chief and five volunteer firefighters. The District responds to around 45 calls annually.

Grenada Fire Protection District

The Grenada Fire Protection District (GFPD) consists of a single station, located at 6035 Fourth Avenue in Grenada. Formed in the 1984, the District serves as an all-risk fire department. As such, the District responds to a wide range of emergencies, including incidents involving fire hazards, medical aid, hazardous material spills, and search and rescue missions. The area of responsibility is 16 square miles surrounding the community of Grenada. The GFPD is run entirely by seven volunteer firefighters, including one fire chief. Around 160 to 170 calls are answered annually, and typical response times are around five to ten minutes. GFPD houses one type-1 engine, one type-2 engine, and one rescue truck.

Hammond Ranch Fire Zone

The Hammond Ranch Fire Zone (HRFZ) consists of a single station located at 8800 N Old Stage Road in Weed. They respond to fire prevention, fire suppression, and emergency medical calls and work under the authority of the Siskiyou County Fire Warden and in cooperation with the

Hammond Landowners Association. The HRFZ, formed in 1989, is funded by taxpayers who live within the fire protection zone. The HRFZ staff consists of a fire chief, para-career firefighters, some of whom live at the station, and three citizen volunteer firefighters. The HRFZ responds to around 80 calls annually.

Lake Shastina Fire Department

The Lake Shastina Fire Department (LSFD) is a department within the Lake Shastina Community Services District and consists of a single station, located at 16309 Everhart Drive in Weed. The LSFD is volunteer run, except for a full-time chief and one firefighter position, and serves the community of Lake Shastina and its surrounding areas. The team consists of a chief, a captain, and 21 trained volunteers. Founded in 1971, LSFD now serves around 2,500 people inside the community services district, as well as another 5,000 in automatic aid agreements. Approximately 460 calls are responded to annually. LSFD houses two Type 1 engines and two Type 3 engines, and hosts one Type 3 engine from the California Office of Emergency Services (OES). LSFD has assisted in major fires, including the Boles Fire (2014), Beaver Fire (2014), Mendocino Complex Fire (2018), Carr Fire (2018), Camp Fire (2018), Red Banks Fire (2019), Kincade Fire (2019), North Complex (2020), August Complex (2020), LNU Lightening Complex (2020), the Zogg Fire (2020), and the Mill Fire (2022), which directly impacted a large portion of the Lake Shastina Community. Due to geological diversity and extreme weather patterns, the District responds to a wide variety of emergency calls including but not limited to structure fires, wildland fires, medical emergencies, traffic collisions, hazardous condition calls, and public assists. The LSFD also hosts a green burn site located at 14302 Big Springs Road in Weed. Apart from during the fire season, the burn site is open every 1st and 3rd Saturday of the month and provides a place for Lake Shastina property owners to dispose of brush, limbs, and pine needles.

Mayten Fire Protection District

The Mayten Fire Protection District (MFPD) was established in 1990 and consists of a single station, located at 7427 County Highway A-12 in Montague. In addition to this station, the District houses some equipment in an extra building located across the street on the Big Springs Union Elementary School property at 7405 County Highway A-12 in Montague. The MFPD has automatic aid agreements with Mount Shasta Vista Fire Zone, Lake Shastina Fire District (for structure fires), Grenada Fire Protection District (for structure fires), Gazelle Fire District, and CAL FIRE (for wildfires). The MFPD's equipment includes one type 2 structure truck, one type 3 four wheel drive engine, one 1-ton rescue squad truck, one type 6 engine, a pickup with response equipment, and a water tender. The District has one of the only water tenders in the valley, and as a result, many of the calls that they receive from outside of their district are for emergencies that require the use of a water tender. The District consists entirely of volunteers, including a fire chief and four firefighters who respond to around 160 calls annually, of which around 120 are within Mayten and 40 of which originate from adjacent districts. In addition to emergency fire services, volunteers from the MFPD conducts community outreach at local schools and community spaces during Fire Prevention Week, which occurs annually during the week in which October 9th falls.

McCloud Fire Department and McCloud Fire Zone

The McCloud Fire Department (MCFD) is a branch of the McCloud Community Services District, which provides a number of services to the McCloud community, including water, sewer, trash, fire/ambulance, parks and recreation, and a library facility. The MCFD is served by a part-time paid fire chief and a group of dedicated volunteers, including one assistant chief, one EMS chief, one training chief, two battalion chiefs, 22 firefighters, four of which are also EMTs, and five auxiliary/drivers. The Department operates out of one fire station, located at 409 Tucci Ave in McCloud, and provides fire protection, rescue, and advanced life support transport services to the community of McCloud and the surrounding area. The MCFD houses a 2012 Type II ambulance, a 2006 Type I engine, a 2005 squad truck, a 2001 Type I engine, a 2000 Type III engine, a 1976 Type I engine, and a Type II 1946 Federal fire engine. Much of the apparatus in use by the Department today was custom built for the specific needs of the MCFD. Their first responders are trained to deal with fires, rescues, motor vehicle incidents, and more. The MCFD is contracted to provide fire services to the McCloud Fire Zone, which surrounds the McCloud community. The MCFD also holds community-wide awareness programs to promote proper fire prevention and good safety habits. It responds to around 230 calls annually.

Mount Shasta Fire

Mount Shasta Fire (MSF) is made up by a collaboration of two fire departments: Mount Shasta City Fire Department and Mount Shasta Fire Protection District. The two departments came together in 2016 to provide enhanced emergency services to the city and its surrounding communities. MSF proudly serves over 7,000 people living in an area of approximately 60 square miles. They operate out of three stations that protect both residential areas and wildland urban areas. The Mount Shasta City Fire Department is located at 305 N. Mount Shasta Boulevard in Mount Shasta, as well as on the corner of Pine and Lake Street. The Mount Shasta Fire Protection District consists of a single station, located at 600 Michelle Drive in Mount Shasta. MSF employs two full time chiefs, one of which works for the city and one for the District. They additionally employ five paid staff members and approximately 15 volunteers. The fire stations house a total of five engines, a rescue unit, and two water tenders. The Department responds to about 1,400 fire and medical emergency calls per year. The Department partners with other fire protection agencies in Siskiyou County via mutual aid agreements and works cooperatively with the US Forest Service, CAL FIRE, and other fire agencies to reduce fire threats to the community from adjacent forest and wildland areas. MSF assists the city and local landowners with fuel reduction projects throughout the year, free fire inspections for homeowners, and school fire prevention programs.

Mount Shasta Vista Fire Zone

The Mount Shasta Vista Fire Zone (MSVFZ) is a volunteer fire department consisting of two stations, one of which is located at 11306 Juniper Drive in Montague, and another located at 13502 Roland Drive in Montague. The MSVFZ started its operations in the 1980s and contracts with Siskiyou County to provide assistance within a 36-square-mile service area around Juniper Valley. In 2018, the MSVFZ had five volunteer firefighters and responded to around 30 calls annually. As of September 2023, the MSVFZ has no volunteer firefighters but is in contract with

Lake Shastina Fire District for emergency fire services. In addition, the fire chief for Lake Shastina FD serves as the fire chief for Mount Shasta Vista Fire Zone.

Salmon River Volunteer Fire and Rescue Company

The Salmon River Volunteer Fire and Rescue Company is also known as the CSA-4 Salmon River Fire Zone. The Company's two stations are located at the Forks of Salmon and in Cecilville. The Cecilville station does not have plumbing and neither station has heating available. It is a nonprofit organization that is entirely volunteer run, including a fire chief, assistant fire chief, and four firefighters. It was founded in 1986 and covers the far southwest portion of the county along the Salmon River Road, Cecilville Road, and Caribou Road. The Company responds to around 15 calls annually.

Scott Valley Fire Protection District

The Scott Valley Fire Protection District (SVFPD) consists of four volunteer operated stations, which are located at 317 Maple Street in Greenview, 333 W Moffett Creek Road in Fort Jones, along French Creek Road just west of SR 3, and in Callahan. The SVFPD employs one paid fire chief, two assistant chiefs, and 20 volunteer firefighters and responds to around 290 calls annually. It was formed in 1979. The SVFPD fights fires, responds to vehicle accidents, and provides emergency assistance. The District is funded by Siskiyou County, as well as through fundraising by volunteers. SVFPD is in mutual aid and automatic aid agreements with Fort Jones Fire Department, Etna Fire Department, the U.S. Forest Service, and CAL FIRE.

Weed Fire Department

The Weed Fire Department (WFD) has a single fire station, which is owned by the Roseburg Forest Products mill, located at 128 Roseburg Parkway in Weed. The WFD is responsible for the prevention and suppression of land, vehicle and structural fires, and the response to requests for emergency medical aid and accidents. The Department is headed by a full-time fire chief, a full-time assistant fire chief, twelve volunteer company officers and firefighters, and supplemented by temporary firefighters participating in the College of the Siskiyous Emergency Response Technology Program. They respond to approximately 740 calls annually. This Department mainly serves the incorporated area of the city of Weed but is in a mutual aid agreement with adjacent fire districts. In times of fire emergency, this Department serves residents outside of its main service area.

8.8 Emergency Services

Introduction

This section discusses the emergency services available to residents living in unincorporated areas of Siskiyou County. The following summary will include a comprehensive description of county programs and other organizations and agencies that provide emergency services to residents of the unincorporated county.

Emergency Coordination

911 Dispatching

911 dispatching is primarily handled by the Siskiyou County Sheriff's Office at 305 Butte St, Yreka, CA 96097. In the incorporated cities of Yreka, Weed, and Mount Shasta, each city's respective Police Department handles 911 dispatching. The County Sheriff's Office and other local police departments coordinate with the Siskiyou County Office of Emergency Services and local fire departments in cases of emergency.

Emergency Operations and Preparedness

Siskiyou County does not have an Emergency Operations Plan; however, the county offers a detailed Emergency Preparedness Guide website page created by its Public Health Department to prepare local residents in the event of an emergency. Topics of interest covered on this website include the following: evacuation planning, family emergency planning, "be set for two weeks of survival", evacuation process, public health emergencies, prepare for wildfires, air quality - preparing for smoke, water treatment, earthquake, volcanic eruption, flood hazards, power outages, get involved, and family contact information. The Emergency Preparedness Guide section of the county's website states that "agencies in Siskiyou County work closely together to help prepare for, respond to, and recover from these emergencies; however, there is no substitute for personal preparedness. In a hazardous emergency situation, emergency service agencies may not be able to get to you for several hours or even days."

In addition to the Emergency Preparedness Guide, the Siskiyou County Office of Emergency Services has eleven dedicated heating and cooling center locations for use by residents during times of extreme heat or cold weather. These centers are designed to offer a safe and comfortable environment for individuals who may not have access to air conditioning or who are at a higher risk of heat-related illnesses. Heating and cooling centers are generally located in community resource centers, senior centers, and libraries. The county recently changed their alert notification provider from CodeRED Emergency Alert system to ReadySiskiyou-Alerts. With ReadySiskiyou-Alerts, residents can easily sign up to receive notifications in their preferred language via text, phone call, and email in the case of local fires, chemical spills, evacuations, lock downs, downed power lines, lost individuals, natural disasters, abductions, water system problems, bomb threats, or other emergencies.

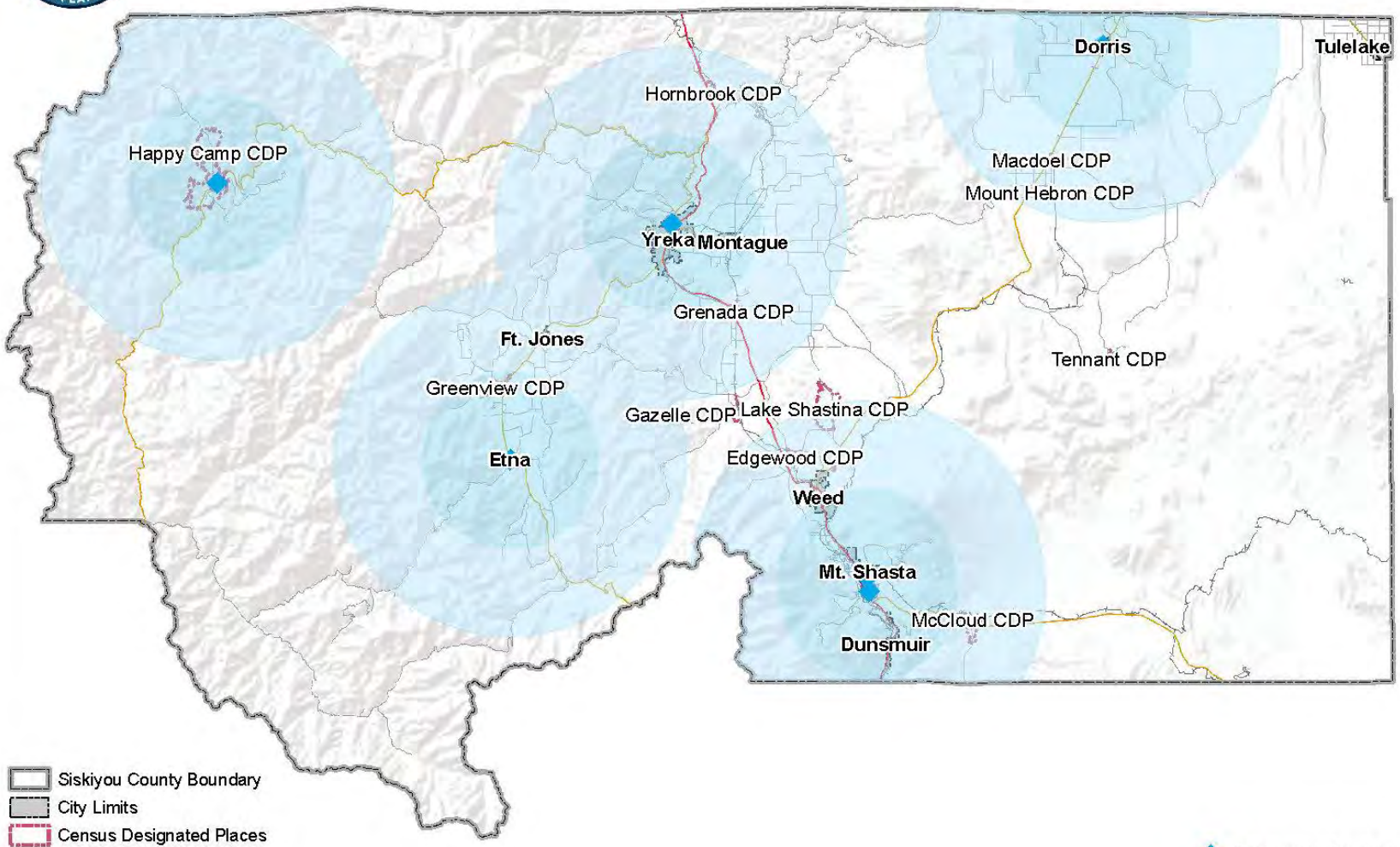
Trauma Care Accessibility

Siskiyou County has two trauma centers. Its Level III trauma center, Mercy Medical Center Mount Shasta, is located in central south Siskiyou County, within Mount Shasta city. Its Level IV trauma center, Fairchild Medical Center, is located in central Siskiyou County, within Yreka city.

Emergency Medical Transportation Services

Ambulance service groups and fire departments within Siskiyou County carry the responsibility of serving the county's residents in times of medical emergencies. The Siskiyou County Emergency Command Center (YICC) provides dispatching services for CAL FIRE, USFS, 30 local government departments, and the four ambulance companies listed in this section. The YICC is responsible for emergency call taking, dispatching, and tracking of resources and is located at the CAL FIRE Siskiyou Unit Headquarters in Yreka. The cooperation between these entities as well as mutual agreements between fire districts and volunteer fire departments are crucial to serving rural areas of the county with emergency services.

Figure 8-12: Emergency Medical Transport Services



Sources: Mount Shasta Ambulance Services, 2023; Butte Valley Ambulance Services, 2023; Mountain Medics, 2023; Etna Ambulance Service, 2023.

Mount Shasta Ambulance Services

Mount Shasta Ambulance Services is a private emergency medical service located within Mount Shasta city; however, it has a substation north of Yreka and offers care to all of Siskiyou County. Mount Shasta Ambulance Services is the only full time, paid ambulance service in the county. While its main service area is Mount Shasta and surrounding communities, Mount Shasta Ambulance Services will respond to any calls throughout the county to which other ambulance services cannot respond. The company responds to around 6,000 calls annually. Mount Shasta Ambulance Services operates 24 hours a day, 7 days a week. The main focus of services is on pre-hospital interventions and safe transport to the nearest and most appropriate medical facility, as well as interfacility transfers, basic life support transport, wheelchair transportation.

Butte Valley Ambulance Services

Butte Valley Ambulance Service is a private nonprofit 501(c)3 organization that provides emergency care and transportation to the Butte Valley area. Its service area encompasses northeastern Siskiyou County, including all types of terrain from the valley floor at 4,300 feet in elevation to the Klamath and Modoc National Forests at 8,000 feet in elevation. Butte Valley Ambulance Service also serves approximately 40 miles of US 97 and railroad transportation routes running through the valley. The service area is approximately 1,200 square miles in size with a permanent population of around 2,500. The most recent data available indicates that the crew consists entirely of volunteers and includes five emergency medical technicians, one first responder/driver, and one first responder.

Etna Ambulance Service

The city of Etna Ambulance Service is a public emergency medical service that primarily serves the city of Etna and the Scott Valley Community. The Etna Ambulance Service responds to 911 emergency calls and provides scheduled interfacility transfers in Siskiyou County. The Ambulance Department employs an ambulance services director, a paramedic and EMT, as well as many paid call volunteers. Most volunteers live and work in the community. In addition to its regular medical services, the Etna Ambulance Service is a certified training center for continuing education with the Sierra-Sacramento Valley Regional Emergency Medical Services Agency (S-SV EMS Agency), the National Registry of Emergency Medical Technicians (NREMT), the National Association of Emergency Medical Technicians (NAEMT), and the American Safety and Health Institute (ASHI).

Happy Camp Volunteer Ambulance

The Happy Camp Volunteer Ambulance (HCVA) is a is a 501 (c) 3 non-profit Emergency Medical Service that was established in 1960. They provide 24/7 ambulance services to residents and visitors of Happy Camp, Horse Creek, Scott Bar, Hamburg, Seiad Valley, and Somes Bar, as well as other areas along the Klamath River on SR 96 from Horse Creek to the Humboldt county line. HCVA operates two Advanced Life Support ambulances and One Basic Life Support Ambulance, including an ambulance that is equipped with 4 wheel drive and chains to service rugged mountainous areas. In addition to their regular emergency

medical services, HCVA offers CPR classes for the community. They are located at 38 Park Way in Happy Camp. In 2021, HCVA responded to 277 calls.

Mountain Medics

Mountain Medics is a private emergency medical service based in Mount Shasta city and provides critical care 4x4 ambulance services with wilderness medicine qualified trained paramedics, registered nurses, physician assistants and doctors. Mountain Medics operates 24 hours a day, 7 days a week. Specific skills and equipment offered by Mountain Medics includes rapid extraction, swift water rescue, and other backcountry medical support. Utility Task Vehicles (UTVs) are kept on hand to help medics quickly respond to a variety of outdoor medical situations. Mountain Medics also aids in disaster response nationwide, including responding to wildfires, flooding, and winter storms. A majority of their work is in New Mexico, Wyoming, and other western states; however, their operations are based in Siskiyou County. Mountain Medics is not under contract to be a 911 provider, unlike the other three ambulance services within Siskiyou County. Within Siskiyou County, Mountain Medics most often works with CAL FIRE and the Forest Service to provide aid during local disasters. Other services include mobile field clinics that can be stationed throughout the county to provide additional access to medical services for Siskiyou County residents.

8.9 Health Care

Introduction

This section discusses the existing health care services available to residents living in unincorporated areas of Siskiyou County. The following summary will include a comprehensive description of county agencies and programs, as well as other organizations that provide health and medical services to residents of the unincorporated county.

Siskiyou County Health and Human Services Agency

The Siskiyou County Health and Human Services Agency offers a variety of social services, mental health services, alcohol and drug treatment services, public health services, emergency preparedness and income assistance. The Agency was formed in 2013 in response to the Siskiyou County Board of Supervisors' vision to integrate and deliver comprehensive health services to residents of Siskiyou County. The Agency is responsible for providing health care services for low-income families, children, pregnant women, seniors, and persons with disabilities. It has three divisions: Public Health, Social Services, and Behavioral Health Services.

Siskiyou County Public Health Department

The mission of the Siskiyou County Public Health Department is to promote and improve the health and wellness of the people of Siskiyou County through community empowerment and meaningful partnerships. This is done through a variety of programs within the Department, including the Community Wellness Program, which promotes oral and mental health programs, as well as CalFresh Healthy Living, the Communicable Disease Program, which offers vaccines and collects data on diseases and outbreaks, the Emergency Preparedness Program, which plans for public health emergencies, and Maternal and Child Health Programs, which promote the health and well-being of mothers, infants, children, and adolescents through educational and healthcare programs.

Siskiyou County Social Services Department

The Siskiyou Social Services Department provides services that address some of the core social issues that affect the well-being of Siskiyou County residents. Social Services currently administers all of the County's basic public assistance programs, which include Medi-Cal, CalFresh, CalWORKs, General Assistance, the Child Protective Services program, the In-Home Supportive Services program, the Adult Protective Services program, and the Public Guardian/Public Conservator program. The General Assistance Program is a County program which provides temporary cash aid and employment services to needy individuals. Social workers in Adult and Child Protective Services manage reports of alleged abuse or neglect children, dependent adults, and the elderly, first through prioritizing the preservation of family units or living situations of the individual experiencing abuse when possible, or through finding alternative living arrangements for the individual experiencing abuse.

Siskiyou County Behavioral Health Services Department

The Siskiyou County Behavioral Health Services Department provides a broad range of mental health and substance use disorder services. Within the Behavioral Health Services Department, Adult System of Care services provide services to adult individuals suffering from severe and persistent mental health problems, including crisis intervention, psychiatric assessments, individual and group therapy, medication service, and case management. Behavioral Health serves seriously mentally ill adults and emotionally disturbed children, people of any age in a major crisis, and those whose lives are impacted by the use of drugs and/or alcohol. Individuals who are eligible for Medi-Cal under a managed care plan called the Mental Health Plan (MHP) are eligible for services at Behavioral Health.

Siskiyou County Sheriff-Coroner

The Sheriff of Siskiyou County serves as the County coroner as well. The coroner investigates the circumstances, manner, and cause of all sudden, violent, or unexpected deaths. The coroner also investigates when a decedent has not been seen by a physician within 20 days prior to death, or when a death occurs within 24 hours of the decedent entering the hospital. The Sheriff-Coroner initiates autopsies as applicable.

Siskiyou County Health Care Facilities and Services

Hospitals

Siskiyou County has two hospitals within the county boundary. Fairchild Medical Center is located in Yreka and has a capacity of 48 beds. Mercy Medical Center Mount Shasta is located in Mount Shasta and has a capacity of 33 beds. Other nearby hospitals outside of the county are Trinity Hospital in Weaverville, which is approximately 55 miles south of Siskiyou County, Mayers Memorial Hospital District in Fall River Mills, which is approximately 24 miles southeast of Siskiyou County, and Modoc Medical Center in Alturas, which is approximately 67 miles east of Siskiyou County. Residents of northern Siskiyou County also visit hospitals in southern Oregon. These hospitals include the Asante Ashland Community Hospital, which is 23 miles north of the county in Ashland, the Asante Rogue Regional Medical Center, which is 30 miles north of the county in Medford, and the Sky Lakes Medical Center, which is 22 miles northeast of the county in Klamath Falls.

Clinics

Siskiyou County has 18 clinics within the county boundary. Two of these clinics are operated by Karuk Tribal Health and Human Services, including one clinic in Yreka and one in Happy Camp. Throughout the county, available services include primary care, preventative health, immunization, women's health, behavioral health, counseling, and sports medicine. Six clinics also host dental services. Of the 18 clinics, six provide urgent care services. Most of the clinics are in cities located in central Siskiyou County and are generally found along Interstate 5. However, five clinics, including the Butte Valley Health Center in Dorris, the McCloud Healthcare Clinic in McCloud, the Scott Valley Rural Health Clinic in Etna, the Karuk Tribe Happy Camp Medical and Dental Clinic, and the Tulelake Health Center in Tulelake offer medical services to residents living outside of central Siskiyou County.

Table 8.9 Siskiyou County Hospitals and Medical Clinics

Facility	Location	Urgent Care Provided	Services Provided
HOSPITALS			
Fairchild Medical Center	444 Bruce St, Yreka, CA 96097		Medical, surgical, orthopedic, emergency, obstetrical, pediatric care, and other specialties available through telemedicine *Capacity: 48 beds*
Mercy Medical Center Mount Shasta	914 Pine St, Mount Shasta, CA 96067		Medical, emergency, cancer care, family birth center, hospice, respiratory care, therapy services, heart care, imaging, wound care, emergency, lab services, surgery services *Capacity: 33 beds*
CLINICS			
Butte Valley Health Center	610 W 3rd St, Dorris, CA 96023		Primary care, preventative health, immunizations, dental services, behavioral health services
Dignity Health Mount Shasta Community Clinic	912 Pine St, Mount Shasta, CA 96067		Women's health services, chronic disease management, and comprehensive treatment, behavioral health, counseling, preventative care
Dignity Health Pine Street Clinic	408 Pine St, Mount Shasta, CA 96067		Women's health services, chronic disease management, comprehensive treatment, behavioral health, counseling, preventative care
Dunsmuir Community Health Center	4309 Stagecoach Rd, Dunsmuir, CA 96025		Primary care, behavioral health, chiropractic care, massage therapy, diabetes treatment, and referrals for specialist care
Fairchild Medical Clinic	475 Bruce St, Yreka, CA 96097	Yes	Women's health services, primary care, urgent care, behavioral health, dental clinic, general surgery, orthopedic clinic, pediatric clinic, rehabilitation services
Karuk Tribe Happy Camp Medical and Dental Clinic	64109 Hillside Rd, Happy Camp, CA 96039	Yes	Primary care, urgent care, dental care
Karuk Tribe Yreka Medical and Dental Clinic	1519 S Oregon St, Yreka, CA 96097	Yes	Primary care, urgent care, dental care
McCloud Healthcare Clinic	116 W Minnesota Ave, McCloud, CA 96057		Primary care, behavioral health, chiropractic care, massage therapy, podiatry, diabetes treatment, referrals for specialist care, dental center
Mercy Lake Shastina Community Clinic	16337 Everhart Dr, Weed, CA 96094		Women's health services, chronic disease management, comprehensive treatment, behavioral health, counseling, preventative care
Mercy Mount Shasta Community Clinic	912 Pine St, Mount Shasta, CA 96067		Women's health services, chronic disease management, and comprehensive treatment, behavioral health, counseling, preventative care
Mount Shasta Health Center	101 Old McCloud Rd, Mount Shasta, CA 96067	Yes	Primary care, urgent care, preventative health, immunizations, dental services, behavioral health services
Scott Valley Rural Health Clinic	8 Commercial St, Etna, CA 96027		Primary care, preventative care, and nutrition, food, and dietary care

Facility	Location	Urgent Care Provided	Services Provided
Shasta Family Care	725 Pine St, Mount Shasta, CA 96067		Cardiovascular disease, emergency medicine, family medicine, internal medicine
Shasta Valley Community Health Center	824 Pine St, Mount Shasta, CA 96067		Primary care, behavioral health, chiropractic care, massage therapy, diabetes treatment, and referrals for specialist care
Tulelake Health Center	498 Main St, Tulelake, CA 96134	Yes	Primary and urgent care, preventative health, immunizations, dental services, behavioral health services
Weed Health Center	50 Alamo Ave, Weed, CA 96094	Yes	Primary care, urgent care, preventative health, immunizations, dental services, behavioral health services
Yreka Immediate Care Clinic	534 N Main St, Yreka, CA 96097	Yes	Urgent care, sports medicine, pediatricians
Yreka Rural Health Clinic	101 E Oberlin Rd, Yreka, CA 96097		Primary care, audiology, and speech conditions

8.10 Schools and Childcare

Introduction

This section discusses the existing educational services and facilities available to residents living in Siskiyou County. The following summary will include a comprehensive description of County agencies and school districts that, together, provide educational services to the county.

Educational Facilities

Siskiyou County is home to 25 school districts, 38 public schools, two charter schools, and two miscellaneous schools serving over 5,865 students from kindergarten to 12th grade. As of the 2021-2022 school year, Siskiyou County has 3,550 primary and middle public school students (K-8), 1,633 public high school students (9-12), 598 charter school students (K-12), and 84 other students (nonpublic, nonsectarian schools and county special education). All elementary schools provide education to 7th and 8th grade students, apart from Scott Valley Junior High.

Table 8.10 Public School Enrollment, 2021-2022 School Year

School District	Elementary School	Enrollment	High School	Enrollment
Big Springs Elementary	Big Springs Elementary	162	-	-
Bogus Elementary	Bogus Elementary	15	-	-
Butte Valley Unified	Butte Valley Elementary	202	Butte Valley High	79
Butteville Union Elementary	Butteville Elementary	164	-	-
Delphic Elementary	Delphic Elementary	59	-	-
Dunsmuir Elementary	Dunsmuir Elementary	86	-	-
Dunsmuir Joint High	-	-	Dunsmuir High	61
Gazelle Union Elementary	Gazelle Elementary	38	-	-
Grenada Elementary	Grenada Elementary	206	-	-
Happy Camp Union Elementary	Happy Camp Elementary	102	-	-
Hornbrook Elementary	Hornbrook Elementary	40	-	-
Junction Elementary	Junction Elementary	16	-	-
	Forks of Salmon Elementary	8	-	-
Klamath River Union Elementary	Klamath River Elementary	3	-	-
Little Shasta Elementary	Little Shasta Elementary	15	-	-
McCloud Union Elementary	McCloud Elementary	65	-	-

School District	Elementary School	Enrollment	High School	Enrollment
Montague Elementary	Montague Elementary	164	-	-
Mount Shasta Union Elementary	Mount Shasta Elementary	185	-	-
	Sisson Elementary	273		
Scott Valley Unified	Fort Jones Elementary	128	Etna High	190
	Etna Elementary	128		
	Scott Valley Junior High	153	Scott River High	16
Seiad Elementary	Seiad Elementary	11	-	-
Siskiyou Union High	-	-	Happy Camp High	55
			McCloud High	11
			Mount Shasta High	267
			Weed High	195
Tulelake Basin Joint Unified	Tulelake Basin Elementary	237	Tulelake High	174
Weed Union Elementary	Weed Elementary	337	-	-
Willow Creek Elementary	Willow Creek Elementary	39	-	-
Yreka Union Elementary	Jackson Street Elementary	487	-	-
	Evergreen Lane Elementary	459		
	Yreka Community Day	5		
Yreka Union High	-	-	Yreka High School	694
			Discovery High School	54
			Community Day	11

Source: Siskiyou County School Enrollment Data, 2023. Modoc County School Enrollment Data, California Department of Education, 2023.

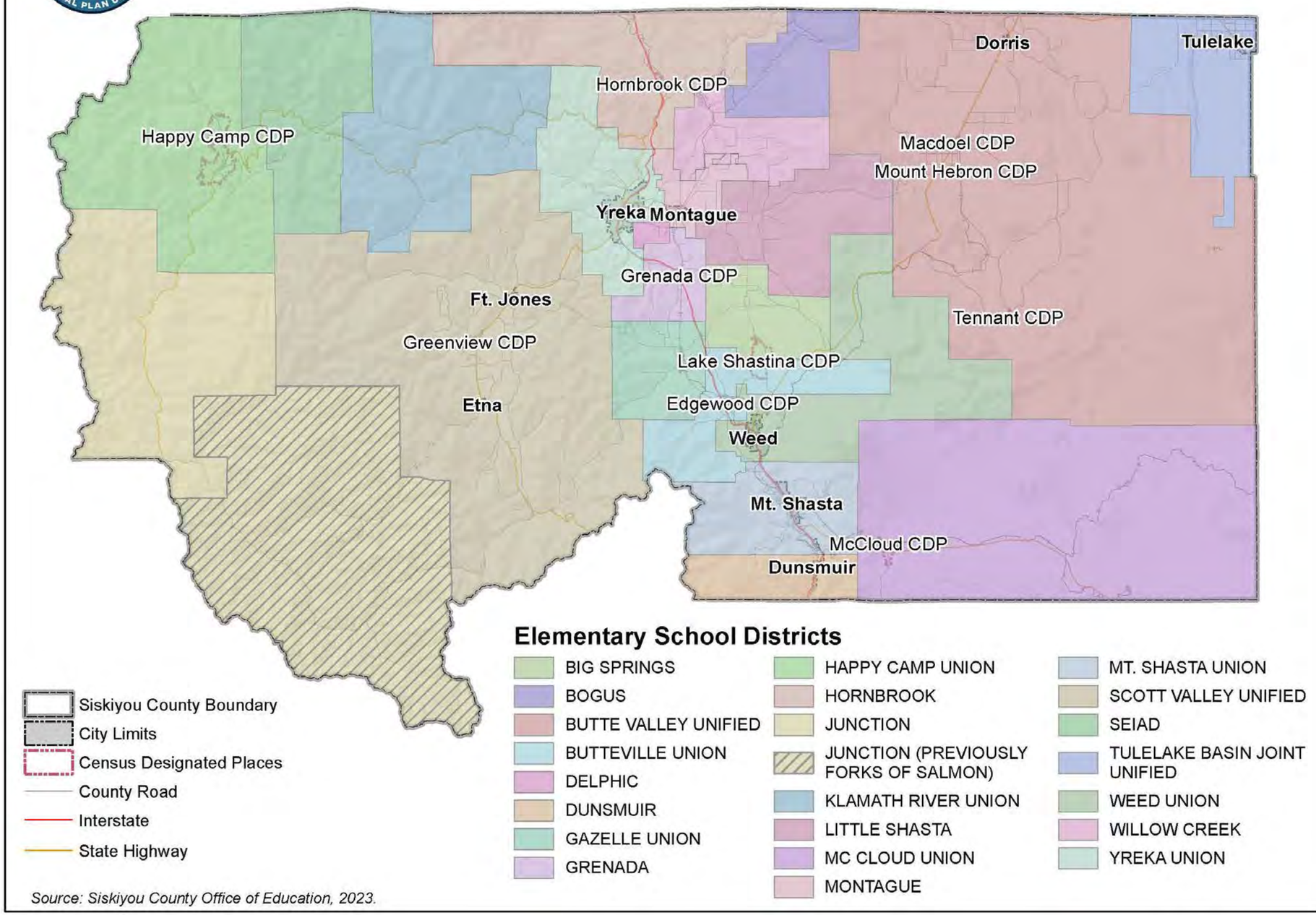
Table 8.11 Siskiyou County Office of Education Services Enrollment

School District	School (K-12)	Charter School Enrollment	Non-Charter School Enrollment
Siskiyou County Office of Education	Golden Eagle Charter	478	-
	Northern United – Siskiyou Charter	120	-
	Nonpublic, Nonsectarian Schools	-	1
	Siskiyou County Special Education	-	83

Source: Siskiyou County School Enrollment Data, 2023.

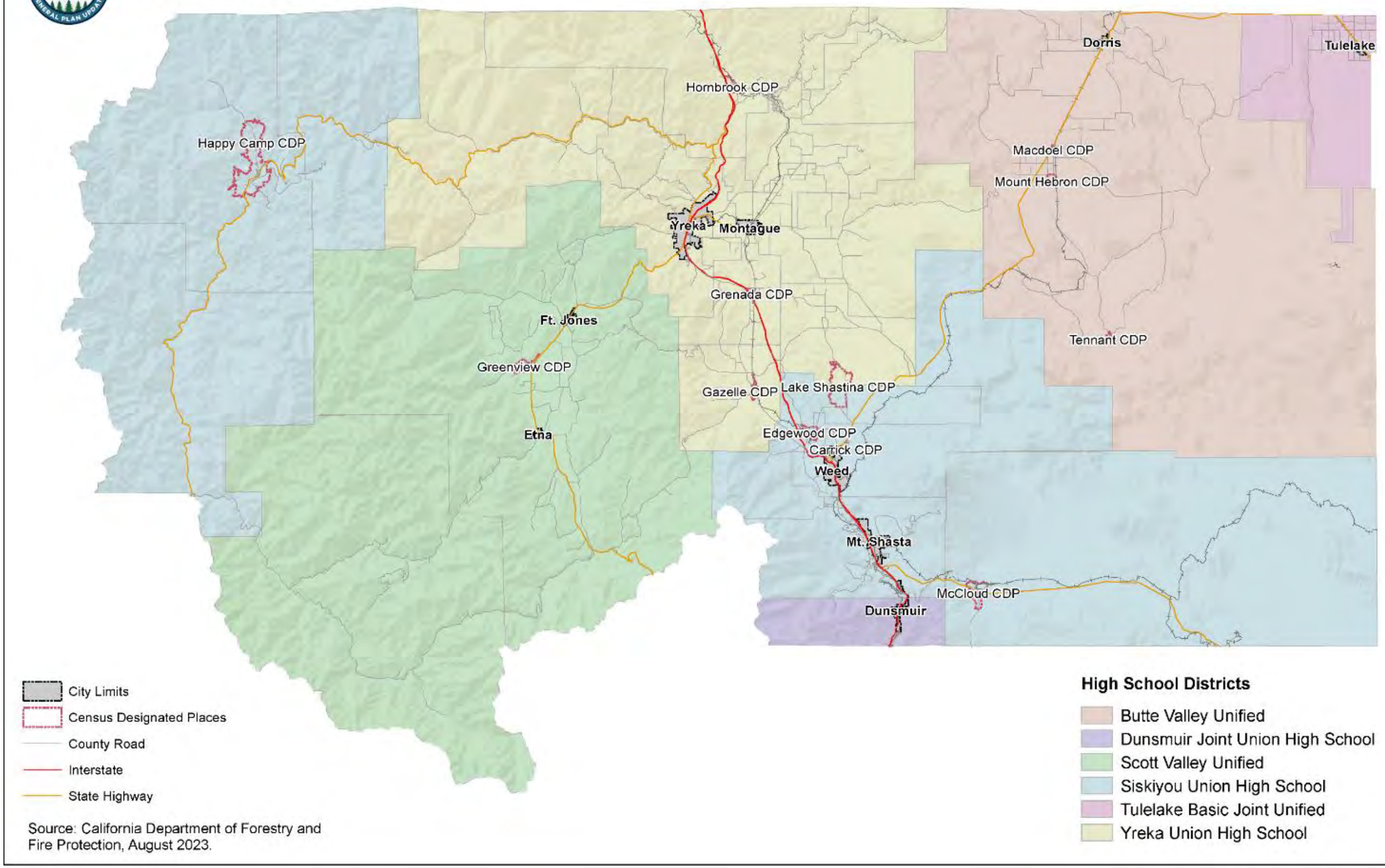
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Figure 8-13: Elementary School Districts



Source: Siskiyou County Office of Education, 2023.

Figure 8-14: High School Districts



Source: California Department of Forestry and Fire Protection, August 2023.

Siskiyou Office of Education

The Siskiyou County Office of Education is located at 609 South Gold Street in Yreka. The Siskiyou County Office of Education provides a variety of services, including essential student programs, specialized resources to schools, and financial oversight for school district budgets on a countywide basis. Direct educational programs are provided to students through the Office as well. The Office works in partnership with other educational, governmental, and community based agencies to bring needed grants and other resources to the students in the county. The Siskiyou Office of Education authorizes two charter schools within the county.

Siskiyou Afterschool for Everyone (SAFE) Program

The Siskiyou Afterschool for Everyone (SAFE) is a consortium of 20 school sites and the Siskiyou County Office of Education. SAFE is operated within the guidelines set by the After School Education and Safety (ASES) Program of the California Department of Education (CDE)'s Expanded Learning Programs Division (EXLD). Sites are operated from the end of each regular school day until 6 p.m. and offer a nutritious snack, homework assistance, academic enrichment, and physical activities to students. The mission statement of the program is:

"*Siskiyou After School for Everyone (SAFE) Program offers academic support, quality expanded learning opportunities, and fitness promotion to Siskiyou County students in a positive and safe environment.*"

Golden Eagle Charter School

Golden Eagle Charter School (GECS) is a personalized learning public charter school. The mission of Golden Eagle Charter School is to serve students in grades K through 12 in Siskiyou County and Castella by providing a personalized learning program and supporting parental choice in education within the context of a California Standards-Based education. There are several programs to choose from at GECS that vary from complete homeschooling, a hybrid of homeschooling and GECS classes, or attending all classes at GECS. Students may also attend classes at the College of the Siskiyous or with other community partners. As of the 2022-2023 school year, the charter school has a total enrollment of 478 students across all students in grades K through 12.

Northern United-Siskiyou Charter School

The Northern United-Siskiyou Charter School (NUSCS) program is based on an educational philosophy that provides for individually designed curricula, which include home-based independent study, learning center programs and classes, apprenticeships, community-based educational programs, distance learning utilizing current technology, and other supplemental projects. NUSCS will admit all students who wish to attend the school. No test or assessment is administered to students prior to acceptance and enrollment into the school. Northern United-Siskiyou Charter School has learning centers in Yreka and Mount Shasta and serves students in grades K through 12. As of the 2022-2023 school year, the charter school has a total enrollment of 120 students.

Siskiyou County Special Education

The Siskiyou County Special Schools and Services Department is operated through the Office of Education and provides special education services to children from birth to 22 years of age throughout Siskiyou County. The Department's goal is "to provide a free and appropriate education to all children in the least restrictive environments." The Special Schools and Services Department provides a continuum of services to students with disabilities through other local education agencies, including public schools and charter schools. If individuals cannot be served in their local education agency of residence, the Special Schools and Services Department will cooperate with other local education agencies to ensure a range of program options throughout the county. The J. Everett Barr School is a part of the Special Schools and Services Department and provides educational services to incarcerated youth at the Charlie Byrd Youth Corrections Center located at 269 Sharps Road in Yreka. The school mainly serves sixth through twelfth grades. As of the 2022-2023 school year, the Siskiyou County Special Education department has 83 enrolled students.

Siskiyou County School Districts

Each of the Siskiyou County school districts and facilities are described below.

Big Springs Elementary School District

Big Springs Elementary School District is a school district composed solely of Big Springs Elementary School located at 7405 County Highway A12 in Montague. The District has an attendance zone of approximately 157 square miles, including the community of Lake Shastina. As of the 2022-2023 school year, the School has a total enrollment of 162 students. The District employs 11 full-time certificated teachers, which includes teachers, homeroom teachers, a reading intervention teacher, a preschool director, and an after school program coordinator. A school secretary, a district secretary, and a superintendent/principal support the instructional program. Big Springs also supports an after-school program (SAFE) that offers a variety of enrichment activities including art, sports, hands-on science for primary students, crafts, and technology proficiency. The program serves approximately 99 percent of enrolled students.

Bogus Elementary School District

Bogus Elementary School District is composed solely of Bogus Elementary School located at 13735 Ager-Beswick Road in Montague. The District has an attendance zone of approximately 160 square miles, located in the central northern portion of the county. As of the 2022-2023 school year, the School has a total enrollment of 15 students. The District employs one full-time paraprofessional as well as one full-time certified teacher who also acts as the principal. Bogus Elementary School offers an after-school program (SAFE) that operates from 1:00pm until 6:00pm with no cost to participate. During the after-school program, students are offered a healthy snack, time to work on their homework, as well as physical activity and other enrichment activities.

Butte Valley Unified School District

Butte Valley Unified School District has two schools - Butte Valley Elementary School and Butte Valley High School - both of which are located at 615 W 3rd Street in Dorris. The District has an attendance zone of approximately 2,150 square miles, encompassing the easternmost portion of the county, including the communities of Macdoel, Mount Hebron, Tennant, and Dorris. As of the 2022-2023 school year, the school has a total enrollment of 281 students, of which 202 are elementary students and 79 are high school students. The District employs a superintendent-principal, an assistant-principal, three district secretaries, a high school secretary, an elementary school secretary, two custodians, three cooks, and two bus drivers/grounds/maintenance employees. The high school has eight teachers, a resource specialist program teacher, and a GEAR UP program advisor. The elementary school has nine teachers, a resource specialist program teacher, three paraprofessionals, two special education paraprofessionals, and an after school program director. The GEAR UP program helps sixth or seventh grade students at high-poverty middle and high schools strengthen their knowledge about college level courses by providing academic advising, mentoring, and hands-on experience with college professors, all with the aim of increasing the number of these students who enroll in public universities.

Butteville Union Elementary School District

Butteville Union Elementary School District is composed solely of Butteville Elementary School, located at 24512 Edgewood Road, northwest of Weed. The District has an attendance zone of approximately 217 square miles, including the community of Edgewood and part of Lake Shastina. As of the 2022-2023 school year, the school has a total enrollment of 164 students. The District employs a principal/superintendent, a business manager, a secretary an administrative assistant, eleven teachers, a librarian, two cafeteria staff members, seven aids, two custodians, a maintenance staff member, and an IT staff member.

Delphic Elementary School District

Delphic Elementary School District is composed solely of Delphic Elementary School, located at 1420 Delphic Road in Montague. The District has an attendance zone of approximately 14 square miles, located just southeast of Yreka. As of the 2022-2023 school year, the school has a total enrollment of 59 students. The District employs a superintendent and four teachers. The school offers an after-school program (SAFE) that runs until 6:00pm and is free to all students.

Dunsmuir Elementary School District

Dunsmuir Elementary School District is composed solely of Dunsmuir Elementary School located at 4760 Siskiyou Avenue in Dunsmuir. The District has an attendance zone of approximately 127 square miles, encompassing the southernmost portion of the county, including Dunsmuir. As of the 2022-2023 school year, the school has a total enrollment of 86 students. The District employs a superintendent/principal, a business manager, an administrative assistant, two maintenance staff members, two SAFE coordinators, a librarian, two cafeteria staff members, eight teachers, six paraprofessionals, and two childcare staff members. The school offers an after-school program (SAFE) that runs until 6:00pm and is free to all students.

Dunsmuir Joint High School District

Dunsmuir Joint High School District is composed solely of Dunsmuir High School located at 5805 High School Way in Dunsmuir. The District has an attendance zone of approximately 127 square miles, encompassing the southernmost portion of the county, including Dunsmuir. As of the 2022-2023 school year, the school has a total enrollment of 61 students. The District employs a superintendent/principal, an administrative assistant, two custodian/maintenance staff members, seven teachers, a librarian, a student support staff member, and a Resource Specialist Program (RSP) teacher. In addition to the high school, the district offers an Adult Education Program for adults looking to complete and receive a high school diploma or receive a General Education Development (GED) diploma.

Gazelle Union Elementary School District

Gazelle Union Elementary School District is composed solely of Gazelle Elementary School located at 25305 Gazelle Callahan Road in Gazelle. The District has an attendance zone of approximately 150.4 square miles, including Gazelle. As of the 2022-2023 school year, the school has a total enrollment of 38 students. The school district employs an administrator, an office manager, two teachers, and three classroom aids, one of which is also a SAFE coordinator and one of which is a bus driver. Gazelle Union Elementary SD offers an after-school program (SAFE) that runs until 6:00pm and is free to all students.

Grenada Elementary School District

Grenada Elementary School District is composed solely of Grenada Elementary School located at 516 Shasta Boulevard in Grenada. The District has an attendance zone of approximately 150 square miles, including Grenada. As of the 2022-2023 school year, the school has a total enrollment of 206 students. The District employs a superintendent/principal, a business officer, an administrative assistant, 14 teachers, a school counselor, two cafeteria staff members, two bus drivers/maintenance employees, an IT staff member, two SAFE coordinators, and five aids. The school offers an after-school program (SAFE) that runs until 6:00pm and is free to all students.

Happy Camp Union Elementary School District

Happy Camp Union Elementary School District is composed solely of Happy Camp Elementary School located at 114 Park Way in Happy Camp. The District has an attendance zone of approximately 644 square miles, including Happy Camp. As of the 2022-2023 school year, the school has a total enrollment of 102 students. The District employs a superintendent/principal, a business manager, an administrative assistant, six teachers, two SAFE coordinators, three paraprofessionals, three aids, a kitchen supervisor, and two maintenance custodians. The school offers an after-school program (SAFE) that runs until 6:00pm and is free to all students.

Hornbrook Elementary School District

Hornbrook Elementary School District is composed solely of Hornbrook Elementary School located at 15430 Oregon Road in Hornbrook. The District has an attendance zone of approximately 430 square miles, including Hornbrook. As of the 2022-2023 school year, the

school has a total enrollment of 40 students. The District employs a site administrator, a superintendent, a secretary, two teachers, two paraprofessionals, one of which is the SAFE coordinator, two maintenance custodians, and a cafeteria manager/cook. The school offers an after-school program (SAFE) that runs until 6:00pm and is free to all students.

Junction Elementary School District

Junction Elementary School District is composed of Junction Elementary School located at 98821 SR 96 in Somes Bar and the Forks of Salmon Elementary located at 15616 Salmon River Road in Forks of Salmon. Previously, the Forks of Salmon Elementary School was a part of the Forks of Salmon Elementary School District, however this school district was recently incorporated into Junction Elementary School District. The District has an attendance zone of approximately 180 square miles, including Somes Bar and Forks of Salmon. As of the 2022-2023 school year, Junction Elementary School has a total enrollment of 16 students and Forks of Salmon Elementary has a total enrollment of 8 students. The District employs a principal/superintendent, three teachers, and two paraprofessionals, and is supported by the school district's board members, including a president and a clerk.

Klamath River Union Elementary School District

Klamath River Union Elementary School District is composed solely of Klamath River Elementary School located at 30438 Walker Road in Horse Creek. The District has an attendance zone of approximately 187 square miles, including Scott Bar, Hamburg, and Horse Creek. As of the 2022-2023 school year, the school has a total enrollment of 3 students. The District employs a district superintendent, a teacher, a custodian/groundskeeper, an administrative assistant/cook, a math and reading specialist, and an aide.

Little Shasta Elementary School District

Little Shasta Elementary School District is composed solely of Little Shasta Elementary School located at 8409 Lower Little Shasta Road in Montague. The District has an attendance zone of approximately 289 square miles, including the central portion of the county, located east of Montague. As of the 2022-2023 school year, the school has a total enrollment of 15 students. The District employs a superintendent, two teachers, one aide, a cafeteria server/SAFE program coordinator, and two maintenance custodians. Little Shasta Elementary SD offers an after-school program (SAFE) that runs until 5:30pm and is free to all students as well as a summer program that runs for approximately six to eight weeks in the summer and is free to all students. The District incorporates agricultural education into the school's curriculum to cater to the local agricultural community's needs.

McCloud Union Elementary School District

McCloud Union Elementary School District is composed solely of McCloud Elementary School located at 332 Hamilton Way in McCloud. The District has an attendance zone of approximately 1,179 square miles, including McCloud and the southeasternmost portion of the county. As of the 2022-2023 school year, the school has a total enrollment of 65 students. The District employs a superintendent/principal, an administrative secretary, three teachers, a math specialist, a preschool director, three aides, a SAFE coordinator, a cafeteria manager, a

school nurse, and a maintenance staff member. McCloud Union Elementary offers an after-school program (SAFE) that runs until 6:00pm and is free to all students.

Montague Elementary School District

Montague Elementary School District is composed solely of Montague Elementary School located at 430 E Prather Street in Montague. The District has an attendance zone of approximately 68.7 square miles, including Montague. As of the 2022-2023 school year, the school has a total enrollment of 164 students. The school district employs a superintendent/principal, and eleven teachers.

Mount Shasta Union School District

Mount Shasta Union School District is composed of Mount Shasta Elementary School, located at 501 Cedar Street in Mount Shasta, and Sission Elementary School, located at 601 E Alma Street in Mount Shasta. The District has an attendance zone of approximately 243.5 square miles, including Mount Shasta. As of the 2022-2023 school year, the District has a total enrollment of 458 students, of which 185 attend Mount Shasta Elementary School and 273 attend Sission Elementary School. The school district employs a superintendent, a chief business official, a personnel services technician, and a district secretary. Mount Shasta Elementary School employs a principal, two counselors, one health clerk, one secretary, 12 teachers, 15 paraprofessionals, a bus driver, a school nurse, and a maintenance custodian. Sission Elementary School employs a principal, a secretary, a health clerk, a counselor, 16 teachers, two maintenance custodians, a cafeteria manager, and a librarian.

Scott Valley Unified School District

Scott Valley Unified School District is composed of five schools: Fort Jones Elementary School located at 11501 Mathews Street in Fort Jones; Etna Elementary School, located at 220 Collier Way in Etna; Scott Valley Jr. High, located at 237 Butte Street in Fort Jones; Etna High School, located at 400 Howell Ave in Etna; and Scott River High School, located at 450 Campus Way in Etna. The District has an attendance zone of approximately 1,525 square miles, encompassing the southwest portion of the county, including the community of Greenview as well as Etna and Fort Jones. As of the 2022-2023 school year, the District has a total enrollment of 615 students, of which 128 attend Fort Jones Elementary School, 128 attend Etna Elementary School, 153 attend Scott Valley Jr. High, 190 attend Etna High School and 16 attend Scott Valley High School. The school district employs a superintendent, a director of education services, a chief business officer, and two human resources staff members. Fort Jones Elementary School employs a principal, a secretary, 11 teachers, eight paraprofessionals, a librarian/media technician, three cafeteria staff members, an after school coordinator, and a maintenance custodian. Etna Elementary School employs a principal, a school secretary, four teachers, six paraprofessionals, three maintenance custodians, two after school assistants, an after school coordinator, and two cooks. Scott Valley Jr. High employs a principal, a secretary, five teachers, a special education (SDC) paraprofessional, a counselor, an aid, a library media technician, and a maintenance custodian. Etna High School employs a principal, an assistant principal/athletic director, a secretary, 13 teachers, a counselor, a special education (SDC) paraprofessional, and a librarian. Scott Valley High School employs one teacher and one paraprofessional. Etna Elementary School, Scott Valley Jr. High, and Fort Jones Elementary

School offer an after-school program (SAFE) that runs until 5:30pm and is free to all students. the District also offers an independent study educational model to students who require a unique educational plan and an adult education program receive a high school diploma and learn to speak English.

Seiad Elementary School District

Seiad Elementary School District is composed solely of Seiad Elementary School located at 44539 Highway 96 in Seiad Valley. The District has an attendance zone of approximately 368 square miles, including Seiad Valley. As of the 2022-2023 school year, the school has a total enrollment of 11 students. The school district employs one teacher, two aides, a chief business officer, a cook, and a maintenance custodian.

Siskiyou Union High School District

Siskiyou Union High School District is composed of four high schools: Happy Camp High School, located at 234 Indian Creek Road in Happy Camp; McCloud High School, located at 133 Campus Way in McCloud; Mount Shasta High School, located at 710 Everitt Memorial Highway in Mount Shasta; and Weed High School, located at 909 Hillside Drive in Weed. The District has an attendance zone of approximately 3,805 square miles, encompassing the northwestern and southeastern portions of the county, including the communities of Happy Camp, McCloud, Mount Shasta, and Weed. As of the 2022-2023 school year, the District has a total enrollment of 528 students, of which 55 attend Happy Camp High School, 11 attend McCloud High School, 267 attend Mount Shasta High School, and 195 attend Weed High School. The school district employs a superintendent, a chief business official, a food services director, and a maintenance custodian. Happy Camp High School employs a principal/athletic director, a secretary, four teachers, three aides, one of which is an after school coordinator, and two maintenance custodians. McCloud High School employs a principal, a secretary, three teachers, and a maintenance custodian. Mount Shasta High School employs a principal, a secretary, a school nurse, a librarian, 15 teachers, a Career Technical Education (CTE) advisor, and three maintenance custodians. Weed High School employs a principal, a secretary, 10 teachers, two alternative education teachers, a nurse, and a mental health counselor. The District also offers an adult education program.

Tulelake Basin Joint Unified School District

Tulelake Basin Joint Unified School District is a school district composed of Tulelake Basin Elementary School located at 461 2nd Street in Tulelake, Tulelake Basin High School located at 850 Main Street in Tulelake, and Tulelake Continuation High School, located at 800 Main Street in Tulelake. The District has an attendance zone of approximately 178 square miles, including the City of Tulelake and the surrounding area. As of the 2022-2023 school year, the District has a total enrollment of 411 students, 237 of which attend Tulelake Basin Elementary School and 174 of which are enrolled in the District's high schools. The District employs a superintendent, an administrative assistant, a cook, two bus drivers, a business manager, and a web technician. The Elementary School employs 14 full-time teachers, 14 instructional aides, two custodians, a speech therapist, a librarian, and a principal. The High Schools employ 14 teachers, an athletic director, a special education paraprofessional, a career specialist, a

counselor, a librarian, two custodians, a secretary, an administrative manager, an office clerk, and a principal. This district serves students in both Siskiyou County and Modoc County.

Weed Union Elementary School District

Weed Union Elementary School District is composed solely of Weed Elementary School, located at 575 White Avenue in Weed. The District has an attendance zone of approximately 473 square miles, including Weed. As of the 2022-2023 school year, the school has a total enrollment of 337 students. The school district employs a superintendent/principal, an assistant principal, a business officer, two administrative assistants, 16 teachers, a food service manager, a SAFE coordinator, and a maintenance director. the District offers an after-school program (SAFE) that runs until 6:00pm and is free to all students.

Willow Creek Elementary School District

Willow Creek Elementary School District is composed solely of Willow Creek Elementary School, located at 5321 York Road in Montague. The District has an attendance zone of approximately 162 square miles. As of the 2022-2023 school year, the school has a total enrollment of 39 students. The school district employs five teachers, one of which is the principal, an administrative assistant, a cafeteria manager, a custodian/paraeducator, and a SAFE coordinator. The District offers an after-school program (SAFE) that runs until 6:00pm and is free to all students.

Yreka Union Elementary School District

Yreka Union Elementary School District is composed of three schools: Jackson Street Elementary School, Evergreen Elementary School, and Yreka Community Day School. The District has an attendance zone of approximately 288 square miles, including Yreka. As of the 2022-2023 school year, the District has a total enrollment of 951 students, of which 487 attend Jackson Street Elementary School, 459 attend Evergreen Elementary School, and 5 attend Yreka Community Day School. The school district employs a superintendent, a director of educational services, an executive assistant, an athletic director, a supervisor of health services, an intervention specialist, a clerk, and a secretary. Jackson Street Elementary School employs a principal, a vice principal, 24 teachers, a special education teacher, a cafeteria supervisor, a SAFE coordinator, a librarian, a health aide, and a counselor. Evergreen Elementary School employs a principal, a secretary, 19 teachers, 19 paraprofessionals, a SAFE coordinator, and a health aide. Yreka Community Day School employs 1 teacher. Jackson Street Elementary School and Evergreen Elementary School offer an after-school program (SAFE) that runs until 6:00pm and is free to all students.

Yreka Union High School District

Yreka Union High School District composed of Yreka High School, Discovery High School, Community Day School, and Yreka Adult School. The District has an attendance zone of approximately 2,353 square miles, encompassing the central portion of the county and including the communities of Gazelle, Lake Shastina, Grenada, and Hornbrook, as well as Yreka and Montague. As of the 2022-2023 school year, the school has a total enrollment of 667 students. The school district employs a superintendent, chief business officer, four

administrative assistants, a principal, six counselors, four cafeteria staff members, seven maintenance staff members, four instructional aides, one librarian, 40 teachers, two alternative education teachers, and six adult education teachers.

Colleges and Universities

Siskiyou County has one community college, the College of the Siskiyous, which offers associate degrees and certificate programs across various majors and skills. The College's primary campus is in Weed and is home to its arts, athletics, humanities, sciences, mathematics departments, as well as career and technical programs in business, computer science, EMS-Paramedic, fire, and welding. Its secondary campus is in Yreka which is the site of the Rural Health Sciences Institute (RHSI) and the Technology Training Center. A variety of transfer, general education, vocational, continuing education, and distance education classes are available at the Yreka campus as well. The Fire and Emergency Response Technology Program is approved as an accredited regional academy for the State Fire Marshal's Office and works in conjunction with the Weed Volunteer Fire Department. There are no other vocational or trade schools in Siskiyou County.

There are no four-year universities in Siskiyou County. The closest four-year university is Simpson University, a private university that is 60 miles south of Mount Shasta city, in Redding, California. The closest four-year public universities are: Southern Oregon University in Ashland, Oregon (15 miles); Oregon Institute of Technology in Klamath Falls, Oregon (20 miles); Cal Poly Humboldt in Arcata, CA (83 miles); Chico State in Chico, CA (120 miles).

Childcare

There are five childcare facilities that are licensed by the California Department of Social Services:

- Big Springs Child Care Center – Infant
- Chrysalis Infant Center
- Little Campers Child Care Center
- Siskiyou (SCOE) Infant
- Siskiyou Infant and Toddler Center

Combined, these five licensed childcare facilities have a capacity for 63 infants and young children.

8.11 Other County Services

Introduction

This section describes existing information regarding existing library facilities in Siskiyou County.

Siskiyou County Library Services

Siskiyou County operates the Siskiyou County Library system, which manages 12 library branches. The library system is based in Yreka at 719 4th Street. The library system offers physical and digital books, DVDs, audiobooks, magazines and newspapers, streaming videos, online comics, public computers and Wi-Fi access, paid printing and photocopying, online legal databases, and microfilm archives of local papers (in Yreka and Butte Valley only). Throughout its twelve branches, the Siskiyou County Library System has a collection of 81,643 books, 13,375 videos, 4,479 audiobooks, and 2,031 magazines, and circulates an average of 10,877 items per month. Its collection can be accessed from an online catalog. The County Library system also hosts a literacy program that offers free one-on-one tutoring for adults who need assistance in passing the GED, reading, literacy, math, writing, English as a second language, driver's license testing, and computer literacy. Library branches are open between six to 28 hours a week, depending on the location.

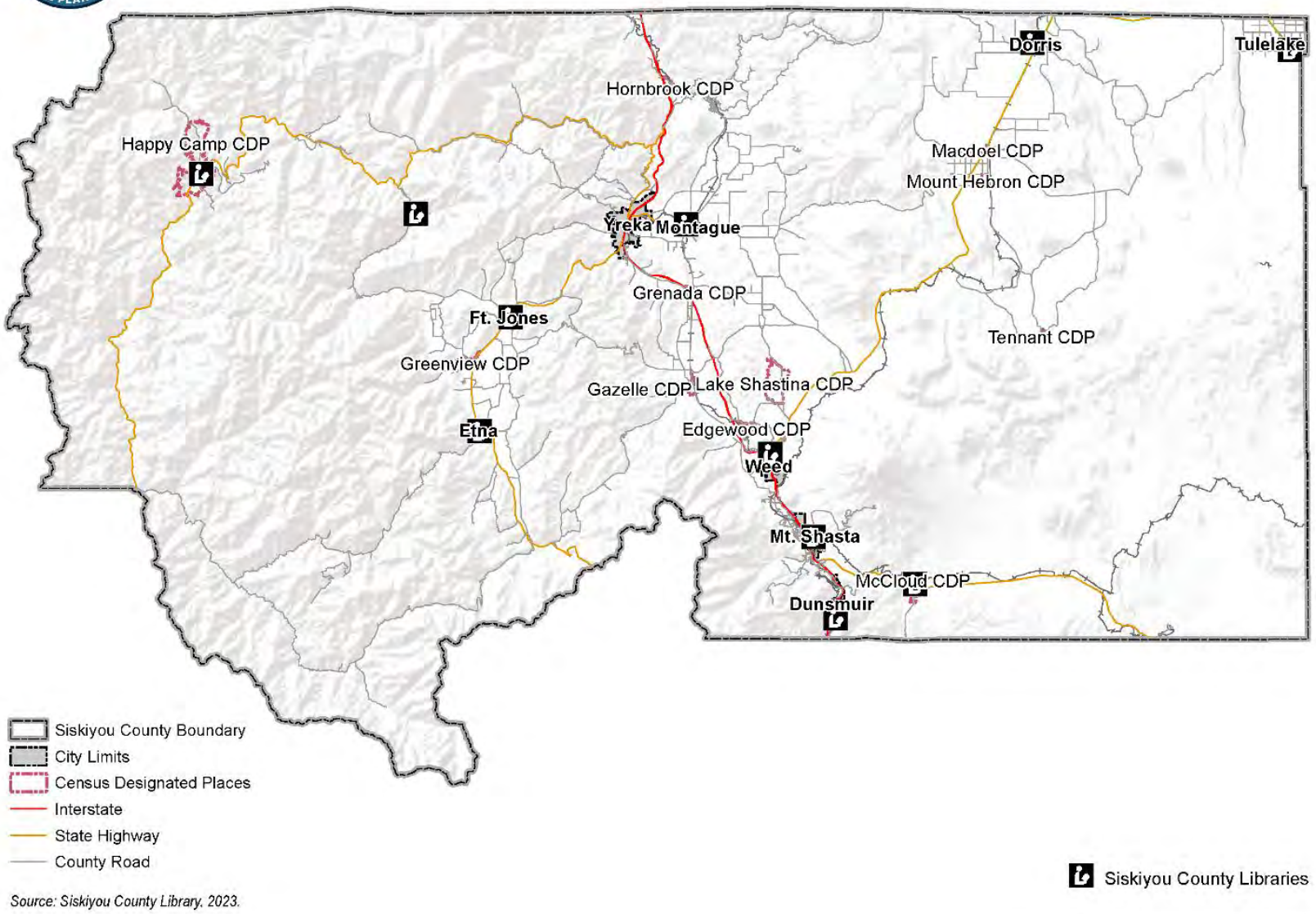
Table 8.12 Siskiyou County Library Branches

Facility	Address	Hours Open Per Week
Butte Valley	800 West Third Street, Dorris, CA 96023	9
Dunsmuir	5714 Dunsmuir Avenue, Dunsmuir, CA 96025	20
Etna	115 Collier Way, Etna, CA 96027	26
Fort Jones	11960 East Street, Fort Jones, CA 96032	25
Happy Camp	143 Buckhorn Road, Happy Camp, CA 96039	6
McCloud	300 East Columbero Drive, McCloud, CA 96057	12
Montague	230 South 13th Street, Montague, CA 96064	19
Mount Shasta	515 East Alma Street, Mount Shasta, CA 96067	25
Scott Bar	27233 Scott River Road, Scott Bar, CA 96085	12
Tulelake	451 Main Street, Tulelake, CA 96134	15
Weed	150 Alamo Avenue, Weed, CA 96094	25
Yreka	719 Fourth Street, Yreka, CA 96097	28

Funding

The Siskiyou County Library system is partially funded through the County General Fund, which is obtained through tax revenue, fines, fees, and licenses. In addition to the General Fund, funding is obtained through the Vestal Foundation, which was established in 1997 to enhance the library services across Siskiyou County. Today, the Vestal Foundation is a tax-exempt nonprofit corporation governed by a volunteer Board of Directors that uses the income generated from its endowments to enhance library services for all 12 branches, such as buying computers, furniture, or shelves.

Figure 8-15: Library Branch Locations



Source: Siskiyou County Library, 2023.

8.12 Parks and Recreation

Introduction

This section describes existing information regarding parks and recreation facilities and opportunities in Siskiyou County. The following summary includes a comprehensive description of Federal, State, and County agencies and programs that serve recreation purposes, as well as other organizations that prioritize parks and recreation opportunities to visitors and residents of the unincorporated county.

Existing Conditions

Siskiyou County is one of the most ecologically diverse regions in the world. It is home to several western mountain ranges, many different habitat types, and has enormous variations in elevation and hydrological and soil conditions. Portions of the county are heavily influenced by volcanic forces. Today, its outdoor recreation amenities, including trails, mountains, forests, rivers, lakes, and other landscapes are highly valued by locals and visitors alike. The agencies who own and are responsible for the maintenance of parks and recreation lands within Siskiyou County are listed below.

Federal and State Park and Wildlife Agencies

Federal and State park and recreation agencies manage more than 60 percent of land within the county. Most of this land is Federally owned, with some land owned by the State.

United States Forest Service

The United States Forest Service is the largest public landowner in Siskiyou County. The Forest Service owns and manages most of the land in both the eastern and western portions of the county, as well as various land parcels throughout the remainder of the county. The following national forests, national grasslands, and wilderness areas are administered by the Forest Service.

The **Klamath National Forest** is a 1,737,774 acre forest in both western and eastern Siskiyou County that offers a wide variety of recreation opportunities to residents and visitors, including hiking, boating, white water rafting, fishing, swimming, horse riding, snowmobiling, and campsites. The Forest was established in 1905 and includes Kangaroo Lake, a 21 acre lake, as well as the historic Sawyers Bar Catholic Church. Old growth forest covers an estimated 168,000 acres of the forest. Klamath National Forest includes five officially designated wilderness areas, two of which extend into neighboring forests and one of which is managed by the Bureau of Land Management: Marble Mountain Wilderness, Russian Wilderness, Red Buttes Wilderness, Siskiyou Wilderness, and Trinity Alps Wilderness.

The **Butte Valley National Grassland** is a 18,425 acre grassland along US 97 between the communities of Macdoel and Dorris. The landscape is shrub-steppe, dominated by sagebrush, rabbitbrush, bitterbrush, basin wildrye, intermediate wheatgrass, and many other arid grasses and flowers. Western juniper is the only tree found in the grassland. There are no designated recreation sites within the Butte Valley National Grassland, but visitors can drive through to

view the scenery and bird watch. In 1954, the management of these lands was assigned to the Forest Service and in 1991, the Butte Valley Grassland received its official status and became the nation's 20th National Grassland.

The **Shasta-Trinity National Forest** is a 2,210,485 acre forest in southern Siskiyou County that offers a wide variety of recreation opportunities to residents and visitors, including hiking, climbing, fishing, swimming, horse riding, off-highway vehicle (OHV) riding, campsites, and cabins. The Shasta-Trinity National Forest spans Siskiyou County, Modoc County, Shasta County, Trinity County, Humboldt County, and Tehama County. The forest features five wilderness areas, including Castle Crags Wilderness, Chanchelulla Wilderness, Mount Shasta Wilderness, Trinity Alps Wilderness, and Yolla Bolly-Middle Eel Wilderness, as well as mountain lakes, streams, and rivers. The Mount Shasta Volcano is within the Mount Shasta Wilderness area. The Shasta National Forest and the Trinity National Forest were separately established in 1905 but were combined into one National Forest in 1954.

The **Modoc National Forest** is a 1,654,392 acre forest in eastern Siskiyou County. Most of the forest is within Modoc County, but a small portion extends into Siskiyou County. The Modoc National Forest was established as the Modoc Forest Reserve in 1904, was transferred to the Forest Service in 1905, and became a National Forest in 1907. The Modoc National Forest includes the lands formerly known as the Warner Mountains National Forest. Visitors can hike, swim, bike, ride horses, hunt, camp, and drive along one of the many scenic drives throughout the forest.

The **Six Rivers National Forest** is a 957,590 acre forest in western Siskiyou County. Most of the forest is in Del Norte County, but portions of the forest extend into Siskiyou County, Humboldt County, and Trinity County. The forest was established in 1947 from portions of Klamath, Siskiyou and Trinity National Forests. The area includes the Mount Lassic Wilderness, North Fork Wilderness, Siskiyou Wilderness, Trinity Alps Wilderness, and the Yolla Bolly-Middle Eel Wilderness areas. Visitors can hike, swim and fish along 366 miles of rivers, ride horses, hunt, and camp within the forest.

The **Rogue River-Siskiyou National Forest** is a 1.8 million acre forest that is mainly situated in Oregon but extends into northwestern Siskiyou County. The forest has a wide variety of botanical diversity and is home to incredible rivers, isolated wilderness areas, fisheries and wildlife resources, mountains, meadows, streams, and lakes. The Rogue River National Forest (previously Crater National Forest), established in 1908, and the Siskiyou Forest Reserve, established in 1905, were administratively combined in 2004 into the Rogue River-Siskiyou National Forest. Visitors can go white water rafting, camping, fishing, hiking, mountain biking, as well as skiing at the Mount Ashland Ski Area. The Rogue River Trail is designated as a National Recreation Trail and follows the upper and lower Rogue River.

Bureau of Land Management

The **Cascade-Siskiyou National Monument** is a 114,000 acre monument that is managed by the Bureau of Land Management. The monument spans Oregon and northern Siskiyou County and contains forests, woodlands, grasslands, wet meadows, and interior desert. Visitors can hike, camp, hunt, and fish in the monument lands. The Monument was first designated in 2000 under the Antiquities Act as an ecological wonder known for its incredible diversity of species.

In 2016, the Cascade-Siskiyou National Monument was expanded by 47,000 acres into existing federally owned lands.

United States Fish and Wildlife Service

The U.S. Fish and Wildlife Service administers two wildlife refuges in Siskiyou County.

The **Lower Klamath National Wildlife Refuge** is a 50,092 acre refuge located in northeastern Siskiyou County. The refuge is home to a varied mix of intensively managed shallow marshes, open water, grassy uplands, and croplands that provide feeding, resting, nesting, and brood-rearing habitat for waterfowl and other water birds. Visitors can hike, hunt, take part in educational programs, or drive along one of the many scenic roads in the refuge. The Lower Klamath National Wildlife Refuge was established in 1908 and was designated a National Historic Landmark in 1965.

The **Tulelake National Wildlife Refuge** is a 39,116 acre refuge in Modoc County and northeastern Siskiyou County that preserves breeding grounds for wild birds and animals and protects what remains of what once was the largest wetland area west of the Mississippi River. Migrating waterfowl rest and refuel in the refuge during their transcontinental spring and fall migrations. Visitors can hike, hunt, take part in educational programs, or drive along one of the many scenic roads in the refuge. The Tulelake National Wildlife Refuge was established in 1928.

National Park Service

The National Park Service owns and manages the **Lava Beds National Monument,** which is found within both northeastern Siskiyou County and Modoc County. It was established in 1925. The National Monument features diverse volcanic features, more than 800 caves, Native American rock art sites, historic battlefields and campsites, and high desert wilderness areas. Lava tube caving and bat educational activities are popular experiences for visitors to the National Monument. Visitors can also hike to view above-ground volcanic features such as Schonchin Butte and Mammoth Crater. Backcountry camping is permitted, or there are developed sites adjacent to the visitor's center at Indian Well Campground.

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) administers four wildlife areas in Siskiyou County.

The **Butte Valley Wildlife Area** consists of approximately 13,400 acres of wetlands, sage flats, and farmlands, including the 4,000 acre Meiss Lake in northeastern Siskiyou County. The area is known for viewing waterfowl, bald eagles and sandhill cranes. Visitors can go camping, hiking, and wildlife viewing so long as they are in possession of a CDFW Lands Pass and can go hunting so long as they are in possession of a hunting pass. The land was purchased by the State in 1952 and was designated as a wildlife area by the Fish and Game Commission in 1981.

The **Shasta Valley Wildlife Area** consists of approximately 4,700 acres of Great Basin juniper woodland, riparian forest, seasonal wetlands, and crop lands in central Siskiyou County. Sandhill cranes, waterfowl, raptors, shorebirds, deer, porcupines, and coyotes are commonly seen at Shasta Valley. There are three deep water reservoirs and numerous seasonal wetlands

in the wildlife area. Visitors can go fishing, hiking, wildlife viewing, and birdwatching so long as they are in possession of a CDFW Lands Pass and can go hunting so long as they are in possession of a hunting pass. The land was designated as a wildlife area by the Fish and Game Commission in 1991.

The **Horseshoe Ranch Wildlife Area** is comprised of approximately 5,000 acres of CDFW property, supplemented by an additional 4,000 acres of Bureau of Land Management lands. The wildlife area is found in northern Siskiyou County. Formerly a working cattle ranch as early as 1908, the terrain consists of rolling to steep hills of shrubs, oaks, and conifers surrounding Scotch Creek and several of its tributaries. Bobcats, coyotes, red-tailed hawks, and golden eagles are among the many species that can be seen in the wildlife area. Visitors can go wildlife viewing, camping, and hunting, and do not require a lands pass or hunting pass for entry. The Horseshoe Ranch Wildlife Area was designated as a wildlife area by the Fish and Game Commission in 1977.

The **Cantara / Ney Springs Wildlife Area** consists of two areas along the upper Sacramento River in Southern Siskiyou County and includes 154 acres of mixed conifer, hardwoods, and riparian vegetation. The two parcels, Cantara and Ney Springs, both provide access to the river. Both access points are very scenic and provide access to excellent fishing opportunities. In addition to fishing, visitors can hunt deer, bear, waterfowl, and band-tailed pigeons and do not require a hunting pass for entry. However, entry permits and/or passes or a special drawing may be required for hunting on some Type C wildlife areas. The Cantara / Ney Springs Wildlife Area was designated as a wildlife area by the Fish and Game Commission in 1996.

California State Lands Commission

The California State Lands Commission owns various parcels of land adjacent to Antelope Mountain, east of Grenada, and east of the Klamath River community. None of these parcels of land are promoted as accessible to the public.

Local Parks and Recreation Agencies

Lake Shastina Community Services District owns and manages recreational land within and adjacent to the Lake Shastina community. Hoy Park, which is owned by Siskiyou County, is managed by the Lake Shastina Community Services District and offers a large field for sports, a play structure, picnic tables, and barbeques.

Mount Shasta Recreation and Park District owns and manages recreational land within and adjacent to Mount Shasta city. This includes two parks, Mount Shasta City Park and Shastice Park, which include a skate park, a bike park, a dog park, an ice rink, a youth sports area, and a picnic area. The district hosts various events for locals, such as adult co-ed volleyball, pickleball, and youth soccer.

Dunsmuir Recreation and Park District owns and manages recreational land within Dunsmuir city boundaries. This land is intended to be a refuge for residents from their everyday lives where they can relax, fish, picnic, and where children can play. The district manages two parks, City Park and Tauhindauli Park, a botanical garden, football and baseball fields, an outdoor pool, and a community center.

The **city of Yreka** owns and manages recreational land within and adjacent to its city boundary. This includes Chinese Cemetery Memorial, Discovery Park, Downtown Plaza, Greenhorn Reservoir, Lewis Park, Miner Street Park, Native American Heritage Park, Newton Sports Park, Ringe Park, Shasta Avenue Park, and Yreka Creek Greenway for a total of eight parks and greenways, one memorial, and one plaza. The City's Maintenance Division manages these parks in conjunction with the City Administration.

Weed Recreation and Parks District manages recreational land within and adjacent to the Weed city boundary, some of which is owned by the City of Weed and some of which is owned by the Weed Recreation and Parks District. This includes three parks, Bel Air Park, Charles Byrd Park, and Carrick Park, as well as baseball and softball fields and three picnic areas.

The **Dunsmuir Historic Commercial District** is 97 acres in size and contains four blocks, within which there are thirty-two contributing buildings and three contributing structures. The district is located in the commercial center of the city of Dunsmuir. It was added to the National Register of Historic Places under National Register #82000993 in 1982 for its significance from 1900 to 1924 and from 1925 to 1949 as it relates to local politics, late Victorian architecture, transportation, and commerce. Efforts to connect California and Oregon by rail in the late 1800s led to the establishment of a rail station in what would later become Dunsmuir in 1886. A roundhouse, machine shop division superintendent's headquarters, and many simple wood frame business buildings were built west of the track along what is now known as Sacramento Avenue. Dunsmuir's strategic location midway between Portland and Sacramento made the town a logical choice for the headquarters of all railroading activities on the Shasta Route.

The **West Miner Street Historic District** is a 164-acre district in Yreka. The district has seven contributing buildings and was added to the National Register of Historic Places under the National Register #72000258 in 1972 for its significance from 1850 to 1899 and 1900 to 1924 as it relates to Italianate and Gothic architecture and commerce. The district also became California Historical Landmark 901 in 1977. In the 1850s, Yreka became a commercial and transportation hub for the surrounding communities and mining camps after the discovery of gold nearby. As residences and businesses moved into more permanent buildings with streets, Yreka's commercial area was born. Most of the district's architecturally significant buildings from this period are along West Miner and Third Streets.

Tribal Agencies

The Bureau of Indian Affairs owns and manages land within and adjacent to the Happy Camp community. These areas are not promoted as accessible to the public.

Nonprofit Groups

Several nonprofit groups own and manage land within Siskiyou County.

The Wildlands Conservancy, a non-profit that aims to protect natural spaces for the use of West Coast residents, owns the 6,094-acre Beaver Valley Headwaters Reserve, which is found northeast of Callahan. This reserve includes a portion of the east fork of the Scott River that provides habitats for Coho salmon, king salmon, and steelhead trout. Found within the reserve are a variety of habitats including conifer and willow riparian forests, grasslands, wetland

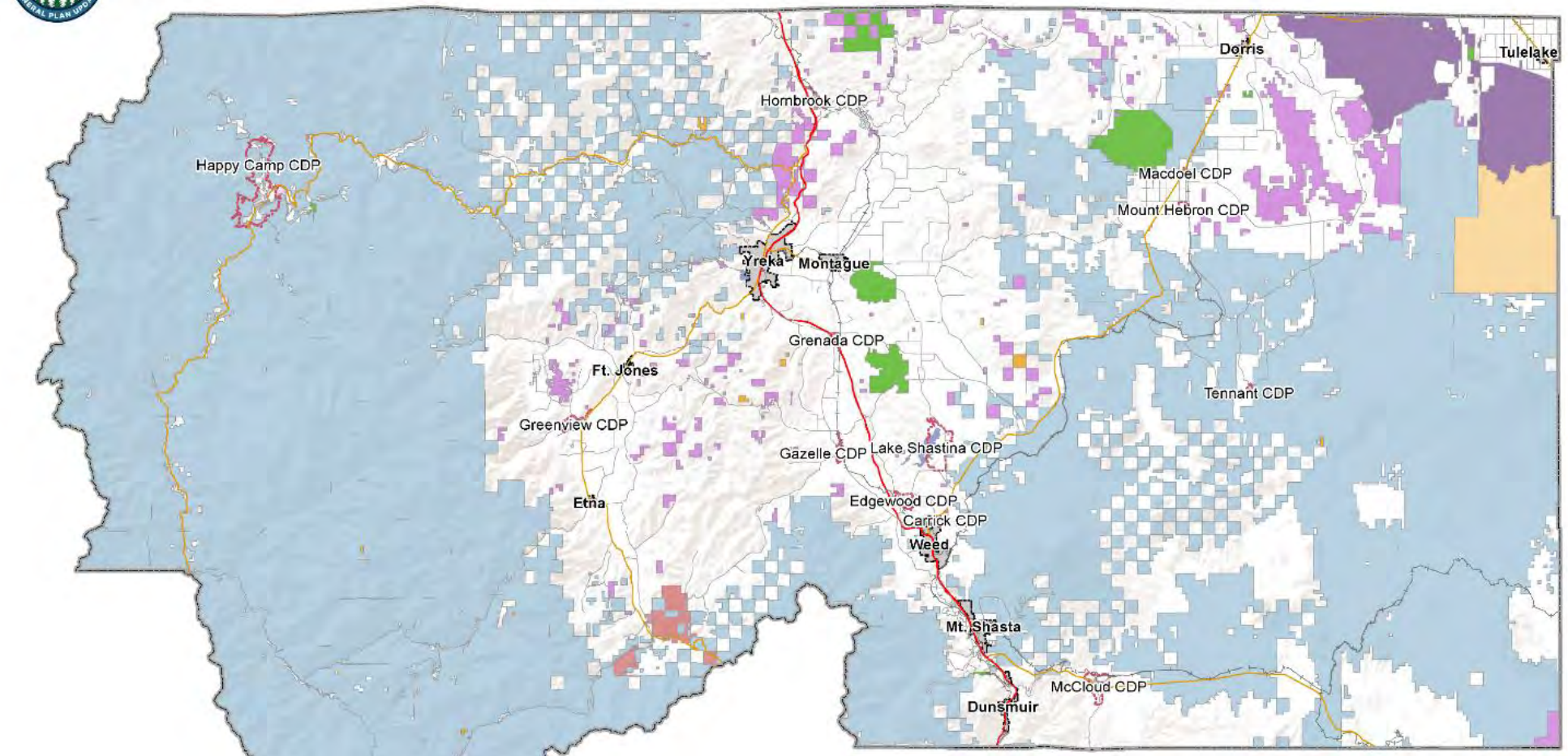
meadows. The historic Callahan Trail runs through the reserve and connects to the Pacific Crest Trail through National Forest lands. Several locations on this scenic reserve are being converted to campground sites as of 2023. As a result of the onsite fisheries' imperiled conditions, California Department of Fish and Wildlife regulations do not permit fishing on the property as of 2023.

The Western Rivers Conservancy, a non-profit that buys land along rivers and streams to conserve habitat for fish and wildlife, owns 1,596 acres area of land called the Bouvier Ranch to the southeast and southwest of Callahan. This project aims to increase the water flow through the portion of the South Fork Scott River that runs through the property to improve Chinook salmon and steelhead habitat. As a part of the property ownership, The Western Rivers Conservancy placed a conservation easement on the ranch. This area is not accessible by the public.

The Nature Conservancy, a non-profit that works to conserve the environmental health of lands and waters, owns 10.2 acres of land north of the Happy Camp community that is not accessible by the public. The Nature Conservancy also owns the 2,330-acre Kerry Landreth Preserve located south of McCloud. Ownership and management of this land protects native fish and the watershed and allows for The Nature Conservancy to monitor native species and water quality. Visitors of the preserve can hike, go on a self-guided nature walk, and birdwatch. Fishing at the preserve is permitted annually from the last Saturday in April through November 15th through a reservation system.

Siskiyou Land Trust, a non-profit that works with landowners to conserve important properties in far northern California, owns 7.5 acres of land within Mount Shasta. This land makes up Sission Meadow, a restored wetland area with boardwalks, benches, picnic tables, and public art installations.

Figure 8-16: Land Ownership



Source: California Department of Forestry and Fire Protection. August 2023.

8.13 Key Terms

Best Management Practices (BMPs). Activities or structural improvements that help reduce the quantity and improve the quality of stormwater runoff. BMPs include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.

Broadband. Broadband or high-speed internet access allows users to access the internet and internet-related services at significantly higher speeds than those available through "dial-up" services.

CAL FIRE. The California Department of Forestry and Fire Protection is an emergency response and resource protection department. CAL FIRE protects lives, property, and natural resources from fire, responds to all types of emergencies, and protects and preserves timberlands wildlands and urban forests.

Charter School. A tax supported school established by a charter between a granting body (i.e., the school board) and an outside group. Charter schools operate within the framework of State law (Education Code §47605-47608) to create a charter that outlines a school's governing structure, mission, methods of assessment, student outcomes, and goals. Charter schools function as a small independent school district and accept students based on criteria established by the charter.

Digital Subscriber Line (DSL). Internet technology that uses existing 2-wire copper telephone wiring to deliver high-speed data services at speeds greater than basic Internet dial-up.

Electricity. A natural phenomenon, either through lightning or the attraction and repulsion of protons and electrons to create friction, that forms an electric current or power.

Electronic "E" Waste. Discarded electric appliances, including computers, computer monitors, TVs, printers, and electronic parts which are prohibited from solid waste landfills.

Elementary School District (ESD). A district that solely manages primary schools, usually including kindergarten through 6th to 8th grades. Many Siskiyou County ESDs operate as K-8 districts.

Fiber. A high-speed method of data transfer using light as opposed to wires. Fiber requires special cabling to operate and is an emerging technology as of the early 2020s.

Flood. A temporary rise in flow or stage of any watercourse or stormwater conveyance system that results in stormwater runoff exceeding its normal flow boundaries and inundating adjacent, normally dry areas.

Flood Control. Specific regulations, facilities, and practices that reduce or prevent the damage caused by stormwater runoff.

Floodplain. Any land area susceptible to inundation by stormwater from any source.

Hazardous Waste. Discarded items with properties that make it dangerous or capable of having a harmful effect on human health or the environment; often designated hazardous due to the concentration of chemical content.

Household Hazardous Waste. Leftover household products that are corrosive, toxic, could catch fire, or explode under certain circumstances, including paints, cleaning chemicals, solvents, fluorescent light bulbs, non-commercial pesticides, insecticides, and motor oil.

Industrial Waste. Solid or liquid material that is discarded from industrial facilities.

Internet. A network that links computer networks all over the world by satellite and telephone, connecting users with various service networks.

Kilowatt-hours (kWh). A unit of measurement for electricity equal to one-thousand-watt hours.

Onsite Wastewater Treatment System. A wastewater system designed to treat and dispose of effluent onsite, which is typically installed when a property cannot be served by a wastewater collection system. Onsite wastewater systems often take the form of a septic tank and leach field system.

Runoff. Drainage or flood discharge that leaves an area as surface flow or as pipeline flow.

Solid Waste. Any discarded material, solid or semisolid, non-soluble material (including gases and liquids in containers) such as agricultural refuse, demolition waste, industrial waste, mining residues, municipal garbage, and sewage sludge.

Stormwater. Precipitation that accumulates in natural and/or constructed storage and stormwater systems during and immediately following a storm event.

Stormwater Facilities. Systems such as watercourses, constructed channels, storm drains, culverts, and detention/retention facilities that are used for conveyance and/or storage of stormwater runoff.

Stormwater Management. Functions associated with planning, designing, constructing, maintaining, financing, and regulating the facilities (both constructed and natural) that collect, store, control and/or convey stormwater.

Special District. Any agency of the State for the local performance of governmental or proprietary functions within limited boundaries; a separate local government that delivers a limited number of public services to a geographically limited area. Special districts are a form of government, have governing boards, provide services and facilities, and have defined boundaries.

Surface Water. Water that remains on the surface of the ground, including rivers, lakes, reservoirs, streams, wetlands, impoundments, seas, and estuaries.

Trauma care levels. A four-level scale describing the kinds of resources available in a trauma center and the number of patients admitted annually. The American College of Surgeons develops and maintains the current definition of trauma care levels.

Type I Fire Apparatus. A fire engine typically used for fires in structures. Type I engines typically operate at 1,000 gallons per minute with a 400-gallon tank, a 1,200 foot 2.5" hose, a 400 foot 1.5" hose, a 200 foot 1" hose, a 20 foot or greater ladder, and four firefighters running the engine.

Type II Fire Apparatus. A fire engine with a 300-gallon tank, 150 gallon per minute operational pump, a 1,000 foot 2.5" hose, a 500 foot 1.5" hose, a ladder, and three personnel.

Type III Fire Apparatus. A fire engine typically used in rural areas characterized by a pump operating at 120 gallons per minute, a large 500-gallon tank, a 1,000 foot 1.5" hose, an 800 foot 1" hose, and four firefighters running the engine.

Type IV Fire Apparatus. A fire engine with a 750-gallon tank that pumps at 50 gallons per minute, a 300 foot 1.5" hose, a 300 1" hose, and two personnel.

Type VI Fire Apparatus. A fire engine that is typically housed on a pickup truck and is used for wildfires in very rural areas. A type VI fire apparatus has a 150-gallon tank capacity with a pump operating at 50 gallons per minute, a 300 foot 1.5" hose, and a 300 foot 1" hose.

Unified School District (USD). A district that manages K-12 education throughout its schools' network.

Unincorporated area. A region or geographic area having a common social identity without municipal organization, but part of a broader body of government such as a county.

Waste Generation Rates. The amount solid waste generated. These rates are used to assess the annual anticipated landfill volume used.

Wastewater Collection System. The totality of the pipes, pump station, manholes, and other facilities that convey untreated (raw) wastewater from the various sources to a wastewater treatment facility.

Watershed. That geographical area which drains to a specified point on a water course, usually a confluence of streams or rivers (also known as a drainage area, catchment, or river basin).

Watt. An electrical unit of power equal to the rate of energy transfer produced in a circuit by one volt acting through a resistance of one ohm, a unit of measurement of resistance.

8.14 Regulatory Setting

Wastewater Collection and Treatment

Federal

U.S. Environmental Protection Agency (EPA)

The EPA Office of Wastewater Management (OWM) supports the Clean Water Act by promoting effective and responsible water use, wastewater treatment, disposal, and management and by encouraging the protection and restoration of watersheds. The OWM provides regulatory standards, voluntary management approaches, and financial and technical assistance to states, Tribes, communities, and regulated entities to protect human health and aquatic ecosystems, reduce flooding, and protect the nation's infrastructure investment. The OWM directs the National Pollutant Discharge Elimination System (NPDES) permit, pretreatment, and municipal bio-solids management programs under the Clean Water Act. The OWM is also home to the Clean Water State Revolving Fund, the largest water quality funding source, focused on funding wastewater treatment systems, non-point source projects, and estuary protection.

Clean Water Act (CWA)

The CWA is the main cornerstone of surface water quality protections in the United States. The CWA regulates discharges of pollutants into the waters of the United States and regulates quality standards for surface waters. Under the CWA, the EPA implements pollution control programs, such as setting wastewater standards for the industry, as well as national water quality criteria recommendations for pollutants in surface waters.

State

State Water Resources Control Board (SWRCB)

The SWRCB coordinates with nine Regional Water Quality Control Boards (RWQCB) to perform functions related to water quality, including implementation and compliance with the provisions of the Federal CWA, issuance of wastewater discharge permits (NPDES and WDR), other programs on stormwater runoff, and underground and above ground storage tanks.

Cortese-Knox-Hertzberg Governmental Reorganization Act of 2000

The Cortese-Knox-Hertzberg Governmental Reorganization Act of 2000 requires California Local Agency Formation Commissions (LAFCOs) to conduct municipal service reviews for specified public agencies under their jurisdiction. One aspect of municipal service review is to evaluate an agency's ability to provide public services, such as wastewater collection and treatment, within its ultimate service area. A municipal service review is required before an agency can update its sphere of influence.

CA Code of Regulations, Title 22

Title 22 regulates the use of reclaimed wastewater. Regulation of reclaimed water is governed by the nine RWQCBs and the California Department of Public Health. In most cases, only disinfected tertiary water may be used on food crops where the recycled water would come into contact with the edible portion of the crop. Disinfected secondary treatment may be used for food crops where the edible portion is produced above ground and will not come into contact with the secondary effluent. Lesser levels of treatment are required for other types of crops, such as orchards, vineyards, and fiber crops. Standards are also prescribed for the use of treated wastewater for irrigation of parks, playgrounds, landscaping and other non-agricultural irrigation.

AB 885 Regulations

State Water Resources Control Board adopted regulations for onsite wastewater treatment systems (OWTS), also known as septic systems. The regulations became effective on May 13, 2013, as an amendment of the California Water Code Section 13290 and was designed to allow the continued use of OWTS while protecting water quality and public health. Currently, Siskiyou County implements Tier 1 regulations under AB 885. However, pending approval of its onsite Wastewater Local Agency Management Program, Siskiyou County plans to implement Tier 2 regulations under AB 885.

Local

Siskiyou County Code of Ordinances, Title 5, Chapter 2: Sewage Disposal

The Siskiyou Code of Ordinances, Title 5, Chapter 2 establishes sewage disposal regulations in the county. These regulations cover the Tier 1 requirements under AB 885 (see section above). This Chapter covers what is considered dangerous and/or unsanitary construction by the County, the permits required, as well as the materials, size, grade, lot size, capacity, percolation tests, and other requirements for installation and continued use of private sewage disposal systems.

Storm Drainage and Flood Protection

Federal

Clean Water Act (CWA)

In 1972, the CWA was amended to provide that any discharge to waters of the United States from any point source is unlawful unless the discharge is in compliance with an NPDES permit. The 1987 amendments to the CWA added Section 402(p), which establishes a framework for regulating municipal and industrial stormwater discharges, including discharges associated with construction activities, under the NPDES program.

National Pollutant Discharge Elimination System (NPDES)

In 1990, the EPA published final regulations that establish stormwater permit application requirements. The regulations, also known as Phase I of the NPDES program, provide that discharges of stormwater to waters of the United States from construction projects that

encompass five or more acres of soil disturbance are effectively prohibited unless the discharge complies with a NPDES permit. Phase II of the NPDES program expanded the requirements by requiring operators of municipal separate storm sewer systems (MS4s) in urbanized areas and small construction sites to be covered under a NPDES permit and implement programs and practices to control polluted stormwater runoff.

Federal Emergency Management Act (FEMA)

FEMA is the Federal agency that oversees floodplains and manages the National Flood Insurance Program (NFIP) as adopted under the National Flood Insurance Act of 1968. FEMA's regulations govern the delineation of floodplains and establish requirements for floodplain management. FEMA prepares Digital Flood Insurance Rate Maps (DFIRMs) that indicate the regulatory floodplain to assist communities with land use and floodplain management decisions to meet the requirements of the National Flood Insurance Program.

Flood Disaster Protection Act (1973)

The United States Congress passed the National Flood Insurance Act in 1968 which created the National Flood Insurance Program (NFIP). In 1973, the Flood Disaster Protection Act amended the original 1968 Act, requiring that flood-prone communities are notified of flood hazards to encourage participation in the program. This act requires all property owners who are under assistance by Federal programs or by Federally supervised, regulated, or insured institutions or agencies in the acquisition or improvement of land or facilities special flood hazard areas to purchase flood insurance. Community participation in the NFIP requires the adoption and enforcement of floodplain management regulations that meet the minimum standards outlined in the NFIP regulations.

State

State Water Resources Control Board (SWRCB)

In California, the NPDES stormwater permitting program is administered by the SWRCB through its nine Regional Water Quality Control Boards (RWQCBs). The SWRCB has established a construction General Permit that can be applied to most construction activities in the State. Construction permittees may choose to obtain individual NPDES permits instead of obtaining coverage under the General Permit. In California, construction projects that will disturb more than one acre are required to obtain NPDES general permit coverage by submitting Permit Registration Documents (PRDs) including a Notice of Intent (NOI), a Stormwater Pollution Prevention Plan (SWPPP), and fees to be covered under Order No. 2009-0009-DWQ (NPDES No. CAS000002). The California General Permit requires a risk level determination based on site and receiving water characteristics, a range of monitoring, sampling, and discharge requirements based on defined risk level and post construction runoff reduction requirements.

AB 162

California State Assembly Bill 162, passed in 2007, requires cities and counties to address flood-related matters in the land use, conservation, safety, and housing elements of their general plans. The land use element must identify and annually review the areas covered by the general plan that are subject to flooding as identified in floodplain mapping by either FEMA or

the California Department of Water Resources (DWR). The conservation element of the general plan must identify rivers, creeks, streams, flood corridors, riparian habitat, and other lands that may accommodate floodwater for the purposes of groundwater recharge and stormwater management. The safety element must identify information regarding flood hazards including flood hazard zones, maps published by FEMA, DWR, the U.S. Army Corps of Engineers, the Central Valley Flood Protection Board, California Emergency Management Agency, etc., historical data on flooding, and existing and planned development in flood hazard zones.

Local

Siskiyou County Conservation Element of the General Plan (1973)

The Conservation Element covers the conservation, development, and use of natural resources, including water and its hydraulic force, forest, soils, and rivers. This Element also covers flood control, prevention, and control of pollution of streams and other bodies of water, erosion prevention, protection of watersheds, and use of wildlife habitat areas. The flood plain zoning section covers primary and secondary flood plain districts. The subdivision regulations section covers control of sewage disposal, water quality, flood control regulations, and mandatory setbacks from streams and lakes where septic tank disposal is used.

Siskiyou County Storm Drainage and Sewage Disposal System Standards for New Developments (Code of Ordinances 10.4.802.3 and 10.4.802.4)

Sections 10.4.802.3 and 10.4.802.4 of the Siskiyou County Code of Ordinances include standards for storm drain systems and sewage disposal systems for new housing developments in the county. Storm water runoff must be collected and conveyed by an approved storm drain system. Each unit or lot within a new subdivision development shall be served by an approved public sewer or on-site sewage disposal system.

Solid and Hazardous Waste Disposal and Recycling

State

California Code of Regulation (CCR) Title 27 Sections 21600 through 21900, and Title 13 Sections 17850 to 17869

Title 27 Sections 21600 through 21900 regulate solid and hazardous waste transfer and disposal facilities and are administered jointly by the California Regional Water Quality Control Board Central Valley Region (RWQCB) and CalRecycle. Title 13 Sections 17850 to 17869 regulate compost facilities and are also jointly administered. Permit requests and reports of waste discharge and disposal site information are submitted to the RWQCB and CalRecycle, respectively, and are used by the two agencies to review, permit, and monitor these facilities. Both the RWQCB and CalRecycle regulate facilities individually and through local enforcement agencies. In Siskiyou County, the Local Enforcement Agency (LEA) is the County Environmental Health Division Solid Waste Program, which supports the solid waste landfill diversion goals and operates several solid waste landfills within the county.

AB 341 and SB 1018

AB 341 mandates commercial recycling and regulation, requiring businesses to recycle and jurisdictions to implement programs to regulate the recycling through education, outreach, and monitoring. The law sets a statewide goal of 75 percent disposal reduction by the year 2020; the requirement of disposal reduction for jurisdictions remains at 50 percent. SB 1018 amends AB 341 to require that businesses that generate four cubic yards or more of commercial solid waste per week to arrange for recycling services.

AB 939

AB 939 requires towns, cities, and counties to prepare integrated waste management plans (IWMP) and to divert 50 percent of solid waste from landfills. AB 939 also requires towns, cities, and counties to prepare Source Reduction and Recycling Elements (SRRE) as part of the (IWMP). These elements are designed to develop recycling services to achieve diversion goals, stimulate local recycling in manufacturing, and stimulate the purchase of recycled products.

AB 1826

AB 1826 requires local jurisdictions throughout California to implement an organic waste recycling program for businesses to divert organic waste (organic waste includes food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste).

AB 1594

AB 1594 mandates that jurisdictions can no longer include green material as alternative daily cover when determining their diversion rate; instead, the green material will be considered disposal in terms of the jurisdiction's 50 percent per capita disposal rate. The law includes milestone dates between 2017 and 2024, outlining the various stages of reporting requirements.

Local

Siskiyou County Sanitation and Health Standards (Code of Ordinances 5.1)

The Siskiyou County Code of Ordinances, Title 5, Chapter 1 covers sanitation and health standards as they relate to solid waste and refuse disposal. Standards and requirements on the maintenance of disposal areas, commercial solid waste and refuse disposal, municipal disposal areas, solid waste disposal sites, drop box disposal units, and collection services are covered in this chapter.

Utilities

Federal

Federal Communications Commission

The Federal Communications Commission (FCC) regulates interstate and international communications by radio, television, wire, satellite, and cable in the U.S. The FCC was founded

through the Communications Act of 1934 and operates as an independent agency overseen by the U.S. Congress. The Federal Advisory Committee Act of 1972 put in place a process for establishing, operating, overseeing, and terminating FCC advisory committees for specific aspects of communications. The FCC is made up of six separate bureaus: Consumer and Governmental Affairs, Enforcement, Media, Public Safety and Homeland Security, Wireless Telecommunications, and Wireline Competition. Together, these bureaus are responsible for adopting and modifying rules and regulations that govern business practices. These can include interpretive rules, policy statements, substantive legislative rules, and organizational and procedural rules.

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission (FERC) is an independent agency that regulates the interstate transmission of electricity, natural gas, and oil. FERC also reviews proposals to build liquefied natural gas (LNG) terminals and interstate natural gas pipelines, as well as licenses hydropower projects. The Energy Policy Act of 2005 gave FERC additional responsibilities, including promoting the development of a strong energy infrastructure, open access transmission tariff reform, and preventing market manipulation.

State

AB 1890 (1996)

In 1996, AB 1890 restructured California's electricity market to open the generation of electricity to competition (transmission and distribution systems remain a regulated monopoly). AB 1890 requires utilities to purchase electricity from the wholesale market. AB 1890 gives customers of investor-owned utilities the ability to choose who provides their electricity.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) is a State agency created by constitutional amendment to regulate privately owned telecommunications, electric, natural gas, water, railroad, trail transit, passenger transportation, and in-State moving companies. The CPUC is responsible for assuring that California utility customers have safe, reliable utility services at reasonable rates while protecting utility customers from fraud. The CPUC regulates the planning and approval for the physical construction of electric generation, transmission, or distribution facilities and the local pipelines of natural gas. The CPUC also regulates rates and charges for basic telecommunication services, such as how much one pays for the ability to make and receive calls.

California Energy Commission

The California Energy Commission (CEC) is California's primary energy policy and planning agency. Created in 1974, it is charged with six major responsibilities: energy forecasting, promoting energy efficiency and conservation through the appliance and building efficiency standards, financially supporting public interest energy research, developing green energy resources and technologies for buildings, industry, and transportation, licensing large thermal power plants, and planning for State response to energy emergencies.

SB 350

SB 350 increases the State's Renewables Portfolio Standard to 50 percent by 2030 and doubles State energy efficiency standards. It supports the April 2015 Executive Order's new goal of reducing greenhouse gas emissions by 40 percent below 1990 levels by 2030.

Local

Siskiyou County Energy Element of the General Plan (1993)

The General Plan covers electrical utilities in its Energy Element. The Energy Use chapter addresses the county's overall energy use, as well as its energy use by sector (transportation, residential, commercial, industrial, agriculture, community services, and local economy). The element also goes over the county's projected future energy needs and potential energy issues for the county. Projected potential energy generation sources, including renewable energy sources, are also covered. The Element ends with goals, policies, and implementation measures.

Siskiyou County Geothermal Element of the General Plan (1984)

The General Plan covers and assesses geothermal energy production potential in Siskiyou County. Individual assessments for low, moderate, and high-temperature resource areas and how they would be used in the county is covered, as well as potential land use and environmental issues that could arise with the use of geothermal energy production. The Element ends with goals, policies, and implementation measures.

Law Enforcement

State

CA Government Code Section 24000

Section 24000 of the Government Code mandates the Office of Sheriff be established in each county in California.

California Commission on Peace Officer Standards and Training.

The California Commission on Peace Officer Standards and Training (POST) advocates for, exchanges information with, sets selection and training standards for, and works with law enforcement and other public and private entities. POST was established by the Legislature in 1959 to identify common needs that are shared by representatives of law enforcement.

Fire Protection

Local

Siskiyou County Seismic Safety and Safety Element of the General Plan (1975)

The General Plan covers seismic safety, fire protection, and volcanic hazards in its Seismic Safety and Safety Element. The Fire Protection chapter covers County objectives for fire protection of residents and property by local fire districts. The role of fire districts within the

county are described, as well as standards for buildings, subdivision improvement, minimum road widths, and burning permits.

CAL FIRE Siskiyou Unit Strategic Fire Plan (2022)

The CAL FIRE Siskiyou Unit Strategic Fire Plan covers the collaborative work objectives between CAL FIRE stations and local fire districts within Siskiyou County. The plan focuses on fire prevention and suppression activities to protect lives, property, and natural resources to progress towards a more fire resilient wildland-urban interface and natural environment. Within the plan, wildland fire hazards are identified and evaluated, which aids in determining the level of resources and fire suppression necessary for various fire emergencies. Other goals include facilitating the collaborative development of plans and data analysis between fire agencies, supporting local land use planning processes that protect life, property, and resources from wildland fire, increasing fire prevention awareness, integrating fire and fuels management practices with landowner/land manager priorities across jurisdictions, and implementing post-fire assessments and programs for the protection of life, property, and natural resource recovery.

Siskiyou County Community Wildfire Protection Plan (2019)

The Siskiyou County Community Wildfire Protection Plan is a product of collaboration amongst the citizens of Siskiyou County and serves as a guide with tools to help protect local communities plan and prepare for wildfire impacts. The Plan was developed collaboratively between the Fire Safe Council of Siskiyou County, Siskiyou County leadership, Siskiyou County Fire Chief's Association, CAL FIRE, Local Community Fire Safe Councils, California Office of Emergency Services, Klamath National Forest, Shasta-Trinity National Forest, Rogue-Siskiyou National Forest, Pacific Power, the Northern California Resource Center, as well as through input by local residents and tribal representation. The Plan implements an action plan for wildfires, including preparedness strategies, mitigation actions, potential funding resources, and monitoring programs. Recommendations for six distinct planning regions in the county are found at the end of the Plan.

Siskiyou County Hazard Mitigation Plan (2018)

The Siskiyou County Hazard Mitigation Plan was prepared for the Siskiyou County Office of Emergency Services as a multi-jurisdictional planning effort to leverage resources and to meet requirements of the federal Disaster Mitigation Act of 2000 (DMA) for eligible local governments within the County. DMA requirements include pre-disaster planning, sustainable management of natural resources, and local economic and social resiliency as disaster resistance strategies. This Hazard Mitigation Plan ensures that countywide jurisdictions can receive faster allocations of funding and commit to cost-effective risk-reduction projects for local hazards. The agencies included in this plan include the Cities of Dorris, Dunsmuir, Etna, Fort Jones, Montague, Mt. Shasta, Tulelake, Weed, and Yreka, Siskiyou County, Happy Camp Community Services District, Lake Shastina Community Services District, McCloud Community Services District, and Happy Camp Sanitary District.

Emergency Services

None

Health Care

Local

Community Health Improvement Plan (2022)

The 2022 Siskiyou County Community Health Improvement Plan is a community-owned action plan designed to address the highest priority conditions of health in Siskiyou County. The Community Health Improvement Plan is headed by Siskiyou County Public Health Division and is informed by the health needs identified in the 2022 Community Health Needs Assessment. The Plan was written to align with state and national health priorities and initiatives, as well as to leverage local resources. The goals, objectives, and strategies contained in the plan are intended to use upstream prevention models to address the social determinants of health. This Plan is intended to be reviewed and updated annually.

Schools and Childcare

None

Other County Services

None

Parks and Recreation

Federal

National Forest Management Act

This act requires the Secretary of Agriculture to assess national forest lands, develop a management program based on multiple-use, sustained-yield principles, and implement a resource management plan for each unit of the National Forest System. It is the primary statute governing the administration of national forests.

National Park Service

The National Park Service (NPS) was established in 1916 under the National Park Service Organic Act. The NPS manages its facilities under a policy known as "the dual mandate," which requires NPS to preserve the natural and cultural resource under their jurisdiction for future generations while providing for the "enjoyment," often in the form of recreation use, of the areas under their purview.

Wild and Scenic Rivers Act

The US Forest Service is responsible for preserving the outstanding natural, cultural, and recreational values for the National Wild and Scenic Rivers System, which was created to preserve remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other valuable natural resources. Rivers within these systems are classified as wild, scenic, or recreational, where segments of rivers designated as "wild" are the least developed (free of impoundments, no development, only accessible by trail) and recreational segments are the

most developed (may have undergone some impoundment and has some development along shoreline, readily accessible by road or public transit).

State

California Department of Conservation, Division of Land Resource Protection

The California Department of Conservation, Division of Land Resource Protection (DLRP) works with landowners, local governments, and researchers to conserve open space resources statewide. DRLP provides information, maps, funding and technical assistance to local governments, consultants, resource conservation districts and nonprofit organizations, with the goal of conserving the state's agricultural and natural resources.

California Government Code, Section 65560-65570

California Government Code Sections 65560 through 65570 establish the need for an Open Space Element in a General Plan, define the types of open spaces, require an action program for implementing the Open Space Element, and require that city and county actions be consistent with the Open Space Element. Types of open space include open spaces used for the preservation of natural resources, managed production of resources, outdoor recreation, public health and safety, support of the mission of military installations, and the protection of places, features and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code. Examples of city or county actions that must be consistent with the Open Space Element include acquisition/disposal of land or interest, restriction/regulation of uses, permitting for construction, approval for subdivision maps and adoption of open space zoning regulations. The Quimby Act (California Government Code Section 66477, as amended by Assembly Bill 1359), allows cities and counties to adopt park dedication standards/ordinances requiring developers to set aside land, donate conservation easements or pay fees to acquire parkland.

Public Resources Code

The State Public Park Preservation Act (Public Resources Code 5400-5409) protects and preserves parkland in California. Under the Act, cities and counties may not acquire any real property that is in use as a public park for any non-park use unless compensation or land, or both, are provided to replace the parkland required. This ensures no net loss of parkland and facilities. Public Resources Code Section 5076 requires counties to consider trail-oriented recreational use and shall consider such demands in developing specific open space programs during the development of the General Plan. Cities are also required to consider the feasibility of integrating their trail routes with appropriate segments of the state system.

State Street and Highway Code

The State Street and Highway Code includes provisions for equestrian and hiking trails within the rights-of-way of county roads, streets, and highways.

Local

Siskiyou County Open Space Element of the General Plan (1972)

The Siskiyou County General Plan covers the use of any land for public recreation, the enjoyment of scenic beauty, and the conservation or use of natural resources In its Open Space Element. A majority of county lands are owned publicly at a Federal or State level, most of which is open space lands, which is further divided into open space land for public use or for conservation purposes. The open space action program laid out in this Element ensures the establishment of land use regulations that ensure proper use and conservation of open space lands.

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9. Safety and Hazards

This chapter describes existing public health and safety issues and concerns relevant to the planning process, such as drought, geologic and seismic hazards, flood hazards, fire hazards, hazardous materials, noise, and air quality.



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9.1 Introduction

This chapter summarizes existing hazards and safety conditions in Siskiyou County. It is organized into the following sections:

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9.2 Emergency Preparedness, Response, and Recovery SAF-4
9.3 Seismic and Geologic Hazards SAF-7
9.4 Severe Weather (Drought) SAF-13
9.5 Rockfalls and Avalanches SAF-14
9.6 Flood and Dam Inundation Hazards SAF-15
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9.2 Emergency Preparedness, Response, and Recovery

Emergency services are provided by the Siskiyou County Office of Emergency Services (OES), the Siskiyou County Sheriff's Office, community and regional fire departments, and county hospitals. These organizations use various resources such as the Emergency Preparedness Program to ensure residents and businesses are protected in the event of a natural disaster, multi-casualty incident, or other emergency.

Emergency Services

Emergency Operations

The Siskiyou County OES, located in Yreka, is responsible for the protection of lives, health, and property of Siskiyou County residents when disasters strike. Siskiyou County OES is responsible for ensuring there is a coordinated response from regional, State, and Federal governments to prepare for, respond to, and recover from emergencies and disasters. During large emergencies, OES activates and manages the Siskiyou Operational Area Emergency Operations Center from which emergency incident responses are coordinated and supported. One of Siskiyou County OES's primary responsibilities in maintaining the Emergency Operations Center is keeping staff trained and ready to respond quickly and efficiently in the event of an emergency.

Siskiyou County OES maintains the Emergency Preparedness Program, which is responsible for individual and community preparedness, and planning for public health emergencies including human-made and natural disasters. In partnership with the Siskiyou County Department of Public Health, the OES has developed an Emergency Preparedness guide which lists steps and recommendations to keep residents safe in the event of an emergency.

Siskiyou County OES is responsible for sending emergency messages through the County emergency alert system, ReadySiskiyou Alerts. Community members can sign up for ReadySiskiyou Alerts to receive emails, phone calls, or text messages with emergency information.

Law Enforcement

The Siskiyou County Sherriff's Office (SCSO) is responsible for providing law enforcement services to the unincorporated areas of the county. The office is tasked with enforcing state laws and county ordinances, conducting investigations, managing the county jail, and providing various public safety services. The mission of the SCSO is to provide competent, effective, and responsive public safety services to the citizens of Siskiyou County and visitors.

In addition to the SCSO, some cities within Siskiyou County have their own police departments, such as Yreka, Etna, Tulelake, Lake Shastina, Mount Shasta, and Weed, which are responsible for law enforcement within city limits. The California Highway Patrol is responsible for enforcing traffic laws on state highways and freeways that may pass through Siskiyou County.

Fire Protection

Fire protection in Siskiyou County occurs at the local, regional, and state levels as dozens of agencies coordinate to ensure preparation, response, mitigation, and recovery are up to date. There are 28 fire stations in the county serving a population of 43,530 people. Each of the county's nine cities have their own fire services including Dorris, Dunsmuir, Etna, Fort Jones, Montague, Mount Shasta, Tulelake, Weed, and Yreka. Eleven special districts provide fire protection services to various parts of the county, and two community services districts provide fire protection services. Additionally, the NorCal Fire Cooperative provides fire protection services to select private timber properties in the county. Additional information on all fire protection groups and agencies in the county are available in the Public Facilities, Services, and Infrastructure Chapter of this Report.

CAL FIRE is active in Siskiyou County. CAL FIRE is focused on the protection of life, property, and natural resources in the county and their services include and are not limited to structural fire suppression, wildland fire suppression, search and rescue, water rescue, vehicle extraction, campfire permits, and educational materials.

Medical Services

Emergency medical services in Siskiyou County are primarily provided by the county's two hospitals, Mercy Medical Center Mt. Shasta and Fairchild Medical Center in Yreka. Mercy Medical Center Mt. Shasta provides cancer care, family birth care, heart care, imaging, spine services, orthopedics, and emergency services, including a Level III Trauma Center. Fairchild Medical Center offers primary and specialty services including medical, surgical, orthopedic, emergency, pediatric care, and other specialty services. Fairchild Medical Center cares for more than 60,000 patients per year, including more than 12,000 Emergency Department patients and 1,100 patients per month. Fairchild has met the State criteria for evaluation and treatment of trauma, including a 24-hour Intensive Care Unit, and an emergency landing site for quick helicopter transport to a higher level of care facility.

Emergency Access and Evacuation

The Siskiyou County Office of Emergency Services (OES) maintains the Emergency Preparedness Guide and Evacuation Processes. This includes Evacuation Warnings, Evacuation Orders, Shelter-in-Place Orders, and Emergency Notification Systems. The ReadySiskiyou Alerts and Integrated Public Alert and Warning System (IPAWS), Genasys Protect Evacuation Management Platform, Emergency Notifications System allows the county to rapidly correspond with citizens to inform them of evacuation notices, routes, zones, centers, and other related hazards. This system has been especially crucial during recent large wildfires in the county, such as the McKinney and Mill Fires. Additionally, as part of the County's Multi-jurisdictional Local Hazard Mitigation Plan, hazard-related action plans are included for each of the cities within the county.

Livestock Pass Program

The Livestock Pass is a permit issued by the Siskiyou County Agricultural Commissioner's Office to a Commercial Livestock Operator that permits commercial livestock operators to gain entrance to evacuation zones or other restricted areas to care for commercial livestock during a disaster. Due to the scale of operations and the fact that many ranches operate on a

variety of leased and owned land that may or may not be contiguous, evacuating livestock from commercial ranching operations may not be possible in the event of a disaster. In these cases. sheltering-in-place may be the best and safest alternative to improve livestock welfare, firefighter safety, and public safety. This program is a cooperative between the following organizations and agencies:

- Siskiyou County University of California Cooperative Extension,
- Siskiyou County Agricultural Department,
- Siskiyou County Office of Emergency Services,
- Siskiyou County Sheriff's Office,
- Siskiyou County Animal Control,
- California Highway Patrol,
- CALFIRE,
- U.S. Forest Service, and
- USFS Klamath National Forest.

Emergency Water Supply

Siskiyou County is part of the North Coast and Central Valley Regional Water Quality Control Boards (RWQCB), which manages basin plans for the region's waters. In these basin plans, the region's waters are designated for beneficial uses, which includes fire protection. Additionally, although the County does not maintain an Urban Water Management Plan (UWMP), the City of Yreka maintains its own UWMP, which includes a Water Shortage Contingency Plan. In the event circumstances merit or require declaration of a water shortage emergency, the City must rely on this plan to provide the primary framework to deal with such an emergency.

Available water resources for firefighting crews have historically come from Siskiyou County reservoirs along the Klamath River. However, new emergency water supplies will be installed in coordination with the removal of the Klamath River dams and their accompanying reservoirs, which have historically been used for fighting fires. New emergency water supplies for wildfire suppression, as part of the Klamath River Renewal Program, include the installation of five permanent dry hydrants near road crossings of large tributaries to provide ground-based firefighting crews with reliable water supplies, staging of 5,000 gallon self-supporting tanks for ground and aerial crews, and identification of aerial river access points to be used by helicopters. Additionally, local groundwater sustainability plans (GSP), such as the Scott Valley GSP[1], are working to create, develop, and build local surface storage to provide geographically closer sources of water for fighting wildfire. Finally, the US Forest Service is working to increase the elevation of outlets for several upland lakes, including within the Marble Mountain Wilderness. This purpose of this effort is to increase depth of each lake and improve safety for helicopter firefighting crews pulling water.

[1] *https://www.co.siskiyou.ca.us/naturalresources/page/scott-valley-final-gsp*

9.3 Seismic and Geologic Hazards

Seismic Hazards

Earthquake severity is measured by magnitude and intensity. The energy released, measured on the Moment Magnitude (MW) scale, represents the magnitude of an earthquake. The Richter Magnitude (M) scale has been replaced in most modern building codes by the MW scale because the MW scale provides more useful information to design engineers. Earthquake intensity is measured by the Modified Mercalli Intensity (MMI) scale (Table 9.1). The MMI measures ground-shaking severity at a given site according to damage done to structures, changes in the earth surface, and personal accounts. An earthquake's ground motion causes building and infrastructure damage along fault lines. Peak ground acceleration (PGA) is used to measure earthquake intensity by quantifying how hard the earth shakes in a given location.

Table 9.1 Modified Mercalli Intensity Scale

Intensity	Description
I	Not felt except by a very few under especially favorable conditions
II	Felt by a few people at rest, especially in upper floors of buildings
III	Felt noticeably indoors, but not always recognized as a quake; vibration like a passing truck
IV	Felt indoors by many and outdoors by few. Sensation like heavy truck striking building
V	Felt by nearly everyone. Some breakage of windows, dishes, and plaster
VI	Felt by all; some heavy furniture moved; falling plaster; damage small
VII	Damage negligible in buildings of good design and construction
VIII	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings; walls, monuments, chimneys fall
IX	Damage considerable; buildings shift off foundations
X	Most masonry and frame structures destroyed; railroad rails bent
XI	Few structures remain standing; bridges destroyed
XII	Damage total; lines of sight and level are distorted; objects thrown into the air

Source: USGS 2015.

Faults are categorized as active, potentially active, or inactive. A fault is classified as active if it has moved during the Holocene time (during the last 11,000 years). A fault is classified as potentially active if it has experienced movement in Quaternary time (during the last 1.8 million years). Faults that have not moved in the last 1.8 million years are generally considered inactive.

Siskiyou County is located in a geologically complex and seismically active region. Seismic-related hazards have the potential to result in significant public safety risks and widespread property damage. Other geologic hazards that could result from seismic activity include liquefaction, seismic settlement, and landslides. Figure 9.1 details the county's earthquake shaking potential.

The Shasta Cascade Range, located in Siskiyou County, includes the Trinity Mountains, Modoc Plateau, and Shasta and Lassen peaks, which were all created by geologic forces that are still shaping the landscape today. The Modoc Plateau has both active volcanoes and faults and

much of the northeastern part of the county is located on numerous active faults capable of producing seismic hazards.

History of Events

Seismic Hazard

Earthquakes of various magnitudes have occurred in Siskiyou County in the past and will presumably continue, although there is no record of a statewide or federally declared earthquake disaster. According to the U.S. Geological Survey, there have been over 9,000 earthquakes of various magnitudes in the Siskiyou County over the past 70 years. Very few of these earthquakes have exceeded a magnitude of 3.0 and even fewer have exceeded a magnitude of 4.5 on the Modified Mercalli Scale. Over the past 70 years, only eight earthquakes have registered at or exceeding a magnitude of 4.5, most recently in September of 2023. Table 9.2 identifies earthquakes felt in Siskiyou County with a magnitude of 4.5 or greater since 1953.

Table 9.2 Historical Earthquakes 4.5MW or Greater Since 1953, Siskiyou County

Year	Magnitude	Nearest City
1974	5.0	McArthur
1976	5.0	Likely
1978	4.6	Tennant
1978	4.5	Tennant
1998	4.5	Redding
1998	5.1	Redding
1998	4.62	Redding
2023	4.99	Burney

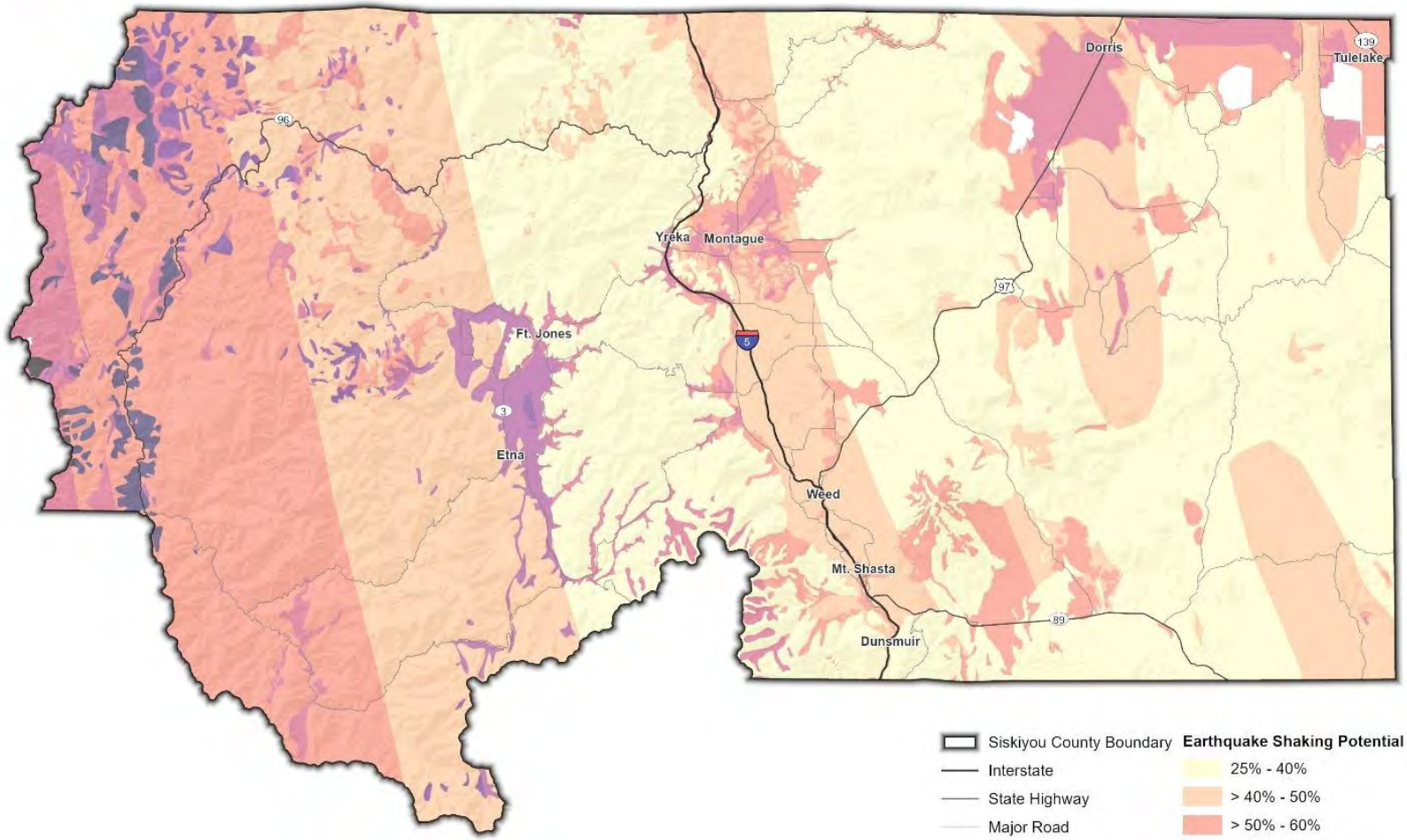
Source: USGS Latest Earthquakes, 2023

Existing and Future Conditions

Seismic Hazard

Most seismic activity since the 1950s has occurred in the less populated areas of the county, with most earthquakes not exceeding a magnitude of 4.5 in recent decades. Certain areas of the county are highly susceptible to damage from seismic activity, including the western portion and most of the central area of the county, as these areas are located along or adjacent to major active fault lines. Additionally, other areas of the county, including the Scott Valley, Dorris, Tulelake, Montague, and other valleys and grasslands are conducive to liquefaction, potentially causing a higher shaking potential in these areas during times of seismic hazards. According to the county's Multi-jurisdictional Local Hazard Mitigation Plan, there are dozens of critical facilities in these eastern communities, including 36 in Mount Shasta and 27 in Weed. Figure 9.1 below shows the range of earthquake shaking potential throughout the county.

Figure 9.1: Earthquake Shaking Potential



Source: CGS, Map Sheet 48, 2016

Landslide Hazard

Landslide events are often secondary hazards related to earthquakes or heavy rain and can be caused by one or more combination of factors, including:

- Degree of slope
- Weathering of rocks and soil erosion
- Soil types and consolidation of rock and sediments
- Change in water content or groundwater movement
- Shocks and vibrations
- Frost action or ice wedging
- Excavation, grading, and other development
- Removal of or changes in type of vegetation covering slopes

Landslides are common in mountainous regions and a documented geological hazard in Siskiyou County, with the highest risk occurring in areas of steep slopes. Even so, the geographic extent of this hazard mostly affects sparsely populated areas, as shown in Figure 9.2. Typical effects of landslides include damage to roads and railroads, buildings, and infrastructure; however, many damages due to landslides go unrecorded because insurance claims are not made, there is lack of press coverage, or landslides affecting transportation infrastructure may be recorded simply as "maintenance."

History of Events

Landslide Hazard

Based on records from the California Department of Conservation's Reported California Landslides Database, there have been over 20 significant landslides in the county since 1953. Considering the frequency of past events, the likelihood of a significant landslide occurring in any given year is relatively high. Recurrent landslide activity throughout 2021 caused repeated road damage around the Mt. Shasta community. Most recently, due to the immense amount of rain from Tropical Storm Hilary in August 2023 along the recently burned areas of the McKinney, Head, and Happy Camp Complex Fires, a state of emergency was declared in Siskiyou County. Substantial damage and ecological destruction occurred as a result of flash-flooding, mudslides, and landslides.

Existing and Future Conditions

Landslide Hazard

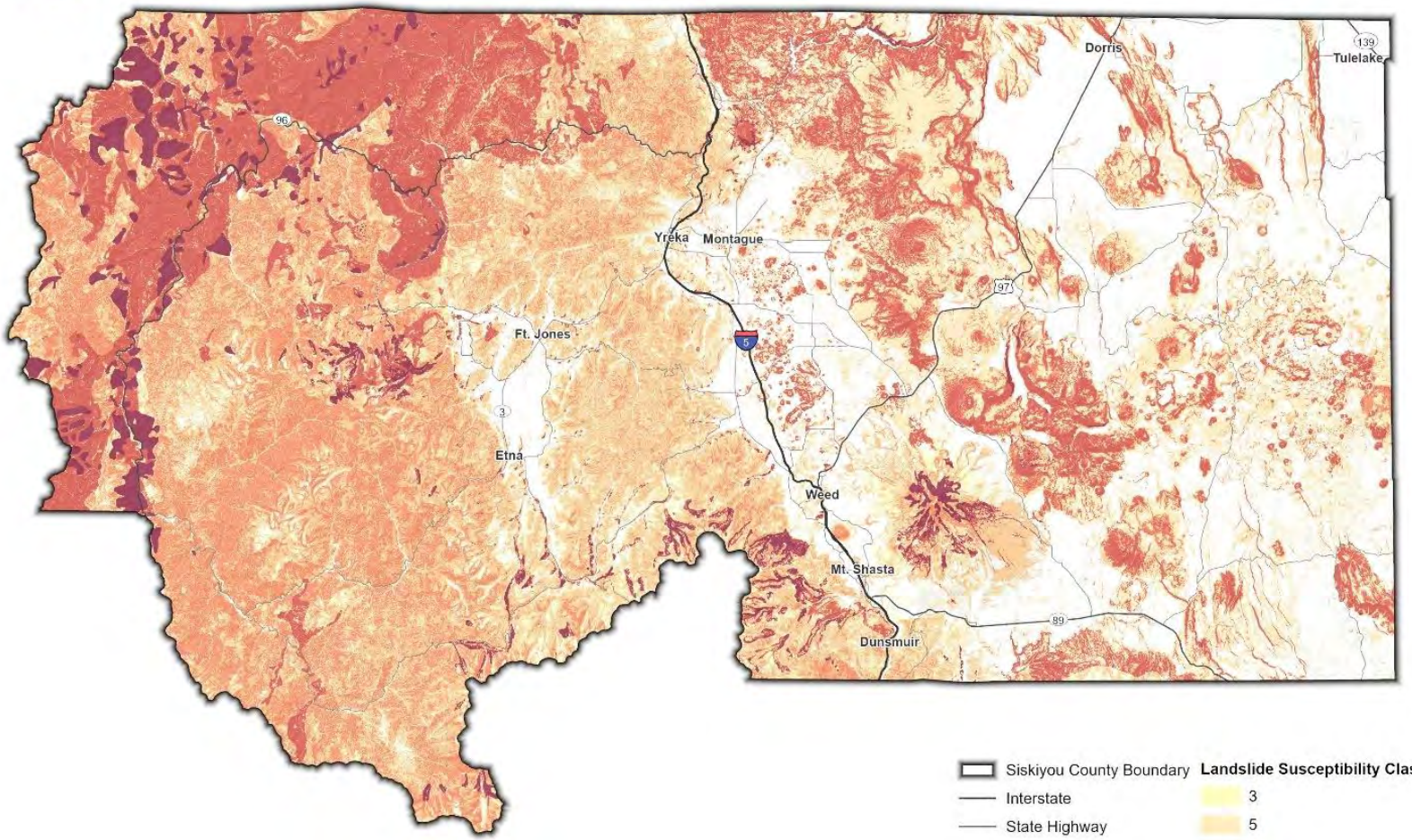
Landslide hazards can be caused or worsened by a number of environmental conditions and human activities. The existing geomorphology of the region, including, but not limited to, high peak flows, stream erosion, topography, and soil type, can have a tremendous impact on the severity of landslide hazards. Additionally, vegetation loss after wildfires due to the lack of public lands management, combined with heavy rain events and snow events, can exacerbate landslide susceptibility in the county. In extreme cases, the removal of stabilizing vegetation due to logging activities can increase landslide hazards in these areas.

Even small-scale landslides are expensive due to recovery costs that may include debris clearance from streets, drains, streams, and reservoirs as well as repairs to road infrastructure, damages, injuries, or economic losses. Landslides can cause increased sediment loads in rivers, which can negatively impact water quality and stress water treatment facilities as well as sensitive habitats. In developed areas, rapidly moving slides also have the potential to cause loss of life.

Increased wildfire severity and frequency have contributed significantly to vegetation loss and slope destabilization, aggravating landslide hazards in the county.

Figure 9.2 shows the relative likelihood of deep-seated landsliding based on regional estimates of rock strength and steepness of slopes prepared by the California Department of Conservation. The map uses detailed information on the location of past landslides, the location and relative strength of rock units, and steepness of slope to estimate susceptibility to deep-seated landsliding. This landslide susceptibility map is intended to provide infrastructure owners, emergency planners, and the public with a general overview of where landslides are more likely to occur. It is not appropriate for evaluation of landslide potential at any specific site.

Figure 9.2: Landslide Susceptibility



Source: CGS, Map Sheet 58, 2018

9.4 Severe Weather (Drought)

California, due to its Mediterranean climate, is susceptible to dry periods, and times of extended drought are likely to occur in the future. While these periods occur naturally, the cycles can be exacerbated by the impacts of wildfires and human-driven activities (i.e., GHG emissions from transportation). Drought is a period of lower than average rainfall over extended periods of time. If the weather pattern lasts a short time (a few weeks or a couple months), the drought is considered short-term. If the weather pattern becomes persistent and the precipitation deficits last for several months or years, the drought is considered to be long-term. It is possible for a region to experience a long-term weather pattern that produces drought, and to have short-term changes in this long-term pattern that result in short term wet spells. Likewise, it is possible for a long-term wet weather pattern to be interrupted by short-term weather spells that result in short-term drought. The current status of drought conditions in Siskiyou County can be verified via the U.S. Drought Monitor Map.

Trends

According to the California Department of Water Resources, there have been six multi-year droughts in Siskiyou County since the early 1900s. There have been three prolonged periods of drought that affected Siskiyou County within the past two decades. These droughts occurred in 2001, 2013-2014, and 2018. The 2013-2014 drought caused the city of Montague to nearly lose its water source for the whole community. The 2018 drought stressed drinking water supplies in several cities and unincorporated areas, which led to economic stress for low-income communities reliant on the county's agriculture industry for employment. Additionally, according to the County's 2018 Crop and Livestock Report, severe drought conditions affected agricultural production, limited irrigation water, increased fallow acres, and exacerbated wildfire conditions on rangelands and timber.

Existing and Future Conditions

Climate conditions in Siskiyou County are expected to continue to be volatile and certain climate hazards, such as increased annual maximum temperature and dry spells, can lead to an increase in drought. The average annual maximum temperature in Siskiyou County is expected to increase by 8.9 degrees Fahrenheit by the end of the century and average maximum duration of dry spells is expected to increase by 11 days. Average precipitation levels are expected to stay relatively similar to current levels, however, there will be larger shifts in variability which lead to larger storm events and longer periods of no precipitation. This is likely to result in increased drought frequency and severity. This increase could lead to countywide stress on water supplies, increased risk of wildfire, and economic loss from water-dependent industries such as agriculture.

9.5 Rockfalls and Avalanches

Rockfalls and avalanches are both types of slope movement that can cause damage to people, property, and infrastructure. Rockfalls occur when individual blocks of rock fall from a cliff or steep slope; this differs from a landslide, which is a mass of snow, ice, or rock that slides, flows, or tumbles down a slope. Although Siskiyou County is not known for regular avalanche conditions, there are several major mountain peaks that could experience avalanches or rockfalls under certain conditions. Mount Shasta is the highest peak in the county at an elevation of 14,167 feet and is home to a recreational ski park and backcountry skiing. The Trinity Mountains, located to the southwest of Mount Shasta are well known for receiving large amounts of snowfall at high elevations, which could result in avalanches under proper conditions, such as heavy snowfall, high winds, and vibration or movement on steep slopes. Another range that could be prone to avalanches are the Scott Mountains, located southwest of Mount Shasta.

History of Events

Historically, avalanches are rare in Siskiyou County, but have been known to occur infrequently. As recently as 2021, two backcountry skiers were caught in an avalanche atop the Etna Summit in western Siskiyou County, which resulted in one fatality. According to the NOAA National Centers for Environmental Information, only two avalanches have been recorded in the past 50 years in Siskiyou County.

Additionally, some rockfalls have occurred in mountain ranges in Siskiyou County, including on Mount Shasta. While rock falls are an inherent risk on Mount Shasta and other steep mountains in the area, they do not occur frequently. Rockfall hazards can worsen as a result of unusual weather patterns, high winds, and falling ice. Unfortunately, some injury or deaths of hikers occur most years as a result of these rockfalls.

Existing and Future Development

Due to the mountainous terrain of much of Siskiyou County and low winter temperatures, avalanches could continue to occur infrequently. However, due to the considerable distance between communities throughout the county, it is unlikely that major damage and loss of life would occur in the future. Climate change effects, such as increased average minimum temperatures could increase the likelihood of future avalanches, as snow melts more rapidly and leads to unstable slopes.

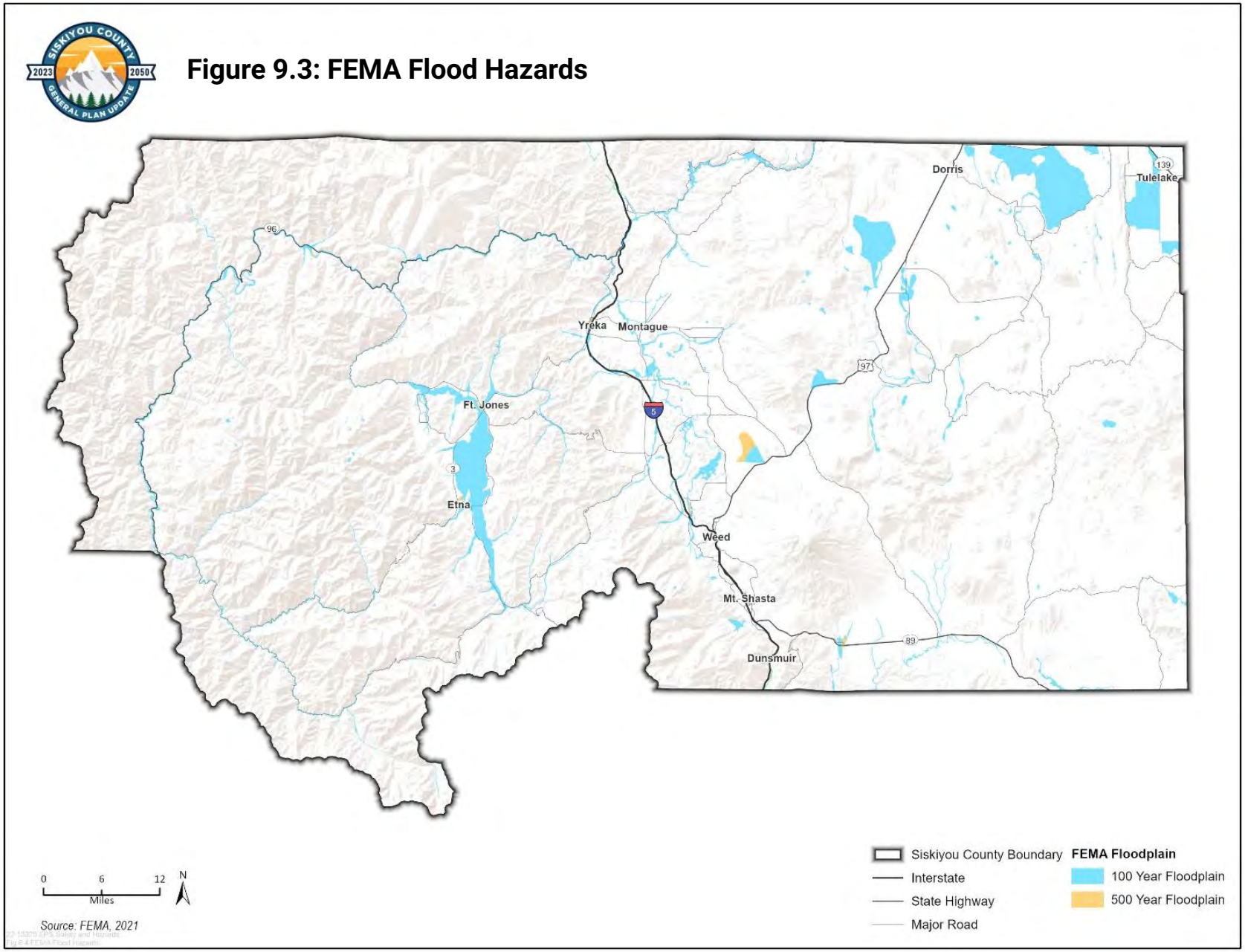
9.6 Flood and Dam Inundation Hazards

Flood

Flooding events are categorized into several types, including riverine flooding, flash flooding, alluvial fan flooding, snowmelt or rain-on-snow flooding, and local or urban drainage flooding. The two primary types of flood events that occur in Siskiyou County are riverine flooding and flash flooding.

Based on the FEMA Flood Insurance Rate Maps (FIRM) for Siskiyou County, and on floodplain awareness areas identified by the California Department of Water Resources (DWR), flooding is possible along the Sacramento River near the city of Dunsmuir, Scott River, Shasta River, Squaw Valley Creek, Panther Creek, Yreka Creek, Boles Creek, Cottonwood Creek, Greenhorn Creek, Humbug Gulch, Indian Creek, Klamath River, and many other watersheds throughout the county. Figure 9.3 identifies FEMA Flood Hazard Zones across Siskiyou County, including areas within the 100- and 500-year floodplains.

Figure 9.3: FEMA Flood Hazards



Dam Failure

Dam or levee failure can be caused by a single factor or a combination of factors, including mechanical failure or structural damage caused by a major event such as flood conditions leading to overtopping, ruptures caused by an earthquake, or failure of an upstream dam. Other causes of failure include internal erosion, improper design and maintenance, or negligent operation.

The hazard potential posed to the areas located downstream of a particular dam is classified in the California Code of Regulations (CCR) and according to FEMA's guidelines for dam safety, as summarized in Table 9.3. Hazard potential classifications reflect probable loss of human life and impacts on economic, environmental, and lifeline interests; these classifications do not speak to the condition of a dam or its risk of failure.

In Siskiyou County, there are eight dams without California Department of Water Resources inundation map approval and nine dams with approved inundation maps. All nine of these dams are listed as significant to extremely high for downstream hazards, which indicates these areas could experience extreme flooding, damage, loss of property, injury, and personal damage.

For dams, the two factors that most influence the potential severity of a full or partial failure are the amount of water stored and the density, type, and value of development and infrastructure located below the dam in its inundation area. The speed of flooding from dam failure depends on the causal factors. Dam failure can occur in as little as a few minutes or more slowly over the course of many months; therefore, warning time for possible evacuation can vary. In the event of a catastrophic failure, evacuation time for locations directly below the dam would be extremely brief, and floodplain characteristics largely determine the available warning time for locations farther downstream. The duration of resulting high water conditions largely depends on the capacity and stage of the reservoir at the time of breach, as well as the severity of the breach.

Table 9.3 California Dam Hazard Potential Classifications, Siskiyou County

Hazard Class	Loss of Human Life	Economic, Environmental, and Lifeline Losses
Low	No probable loss of life	Low economic and environmental losses; expected to be principally limited to the owner's property
Significant	No probable loss of life	Can cause economic loss, environmental damage, impacts to critical facilities, or other significant impacts
High	Expected to cause loss of at least one life	Can cause economic loss, environmental damage, impacts to critical facilities, or other significant impacts
Very High	Expected to cause loss of at least one life and may result in an inundation area with a population of 1,000 persons or more	May result in the inundation of facilities or infrastructure which pose a significant threat to public safety

Source: California Department of Water Resources, Division of Safety of Dams, Downstream Hazard and Conditions Assessment, 2021.

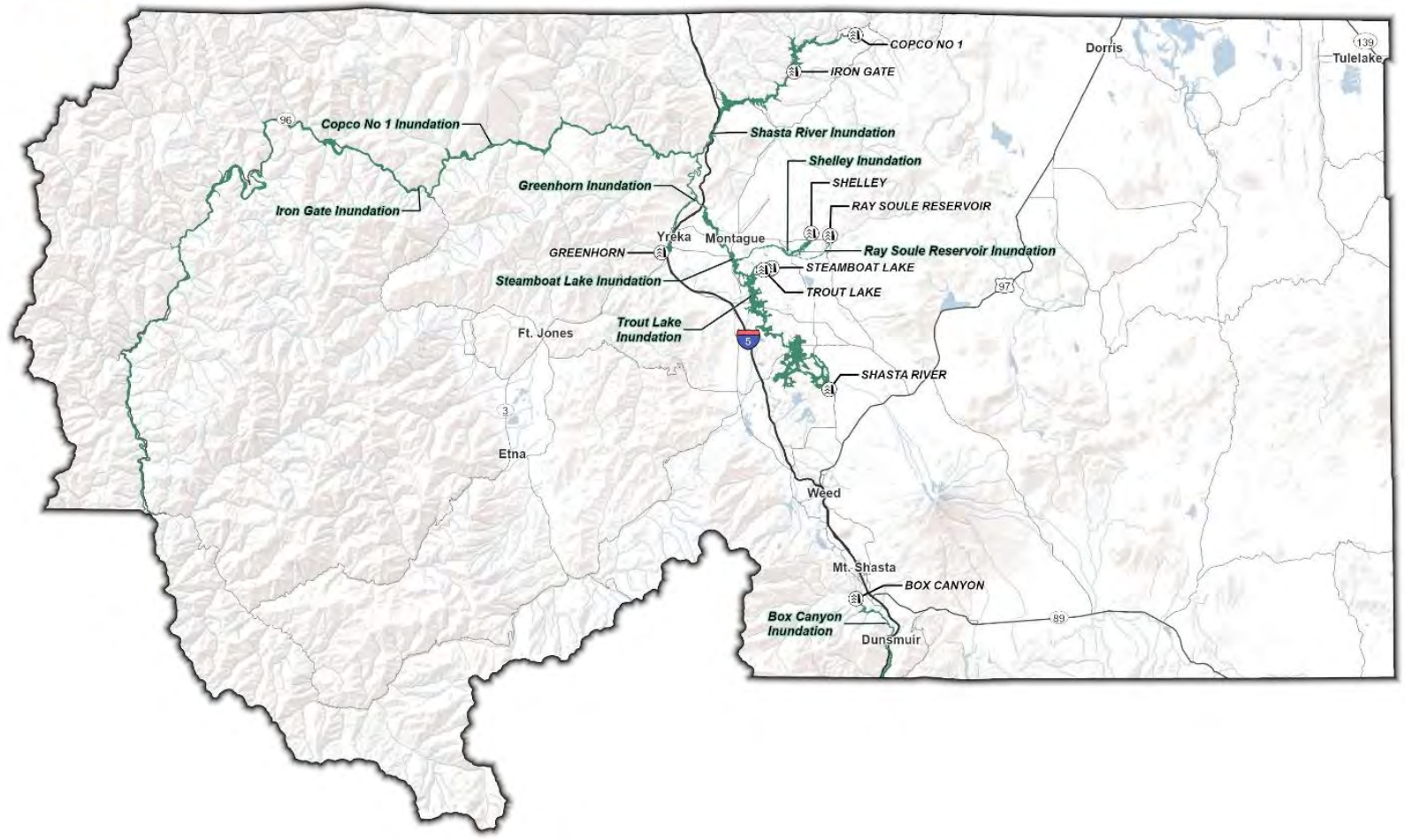
There are nine dams located in Siskiyou County that could potentially affect residents, property, or infrastructure. Table 9.4 lists dams in Siskiyou County, which are shown on Figure 9.4. The Iron Gate Dam and Copco Dams Number 1 and 2 are currently in the process of removal to restore the Klamath River watershed. Inundation maps will not be available until the dam removal is complete.

Table 9.4 Siskiyou County Dams

Name	Year Built	Storage Capacity (acre-feet)
Barton	1964	160
Bass Lake	1949	223
Box Canyon	1969	26,000
Campbell Lake	1929	350
Cloak Lake	1955	123
Copco #1	1922	77,000
Copco #2	1925	73*
Dwight Hammond	1959	348
East Boulder	1937	200
Fiock #2	1946	318
George Fiock #1	1954	223
Greenhorn	1960	251
Iron Gate	1962	58,000
Juanita Lake	1964	348
Kangaroo Lake	1876	168
Montague #2	1978	160
Ray Soule Reservoir	1953	132
Dwinnell	1928	50,000
Shelley	1952	364
Steamboat Lake	1968	2,700
Suzanne Lake	1962	89
Trout Lake	1960	2,108

**Copco #2 Data Source: https://data.coloradoan.com/dam/california/siskiyou-county/copco-no-2/ca00324/*
Source: Siskiyou County Local Multi-jurisdictional Hazard Mitigation Plan, 2019.

Figure 9.4: Dam Locations and Inundation Areas



History of Events

Flood

According to the Siskiyou County Historical Society and the Siskiyou Daily News, flooding events have occurred 27 times in the county since 1852. The most significant flooding in the past 70 years occurred in 1964 when multiple rain-on-snow events in northern California led to what is considered a 1,000-year flood.

According to the National Oceanic and Atmospheric Administration (NOAA) National Center for Environmental Information, the most significant flooding event of the past 25 years occurred in 2005, in which flooding in central Siskiyou County caused damages to 79 homes and businesses, over $7 million in damages, and one fatality. This flood event was characterized as a 15-year flood event in which heavy precipitation created widespread soil saturation and caused heavy runoff into stream and creek channels. This widespread debris flow led to obstructions to major roadways like State Route 96, and overwhelmed culverts and flood-mitigating equipment and infrastructure. Additional historical flooding may have occurred throughout the county but was not captured in official reports.

Dam Failure

There have been nine recorded dam failures in California State history, none of which have occurred in Siskiyou County. Siskiyou County maintains up-to-date regulatory oversight via the National Dam Safety Program and in cooperation with the U.S. Army Corps of Engineers Dam Safety Program, and the Federal Energy Regulatory Commission Dam Safety Program.

Existing and Future Development

Flood

The potential for flooding can change over time and increase through various shifts in land use or modifications to surface permeability, often related to urbanization. In Siskiyou County, which is not highly urbanized, a change in land use or surface characteristics can still create localized flooding issues both within and outside of natural floodplains by altering watersheds or drainage channels.

Considering the frequency of past events, the likelihood of a significant flood occurring in any given year is relatively high. As recently as 2023, when atmospheric river events led to extreme precipitation levels, flooding caused damages to roads, bridges, public facilities, private property, and businesses, and led to evacuation warnings for large parts of the Klamath River near recent burn scars. Due to the increased severity and frequency of wildfires in the region, flooding events near burn scars could become more common and severe. Additionally, climate change is expected to increase the variability of precipitation events which could lead to increased extreme precipitation events These increased precipitation events could stress flood and dam infrastructure and lead to increased flooding events in the future.

Dam Failure

A catastrophic dam failure in Siskiyou County could easily overwhelm local response capabilities and require mass evacuations to save lives. While there have been no recorded

dam failures in Siskiyou County to date, probability based on past occurrences does not reflect the actual risk of future occurrence because dam failure is a human-made hazard.

The largest dams in Siskiyou County are all associated with hydroelectric power generation along the Klamath River. The Iron Gate Dam and Copco 1 and Copco 2 dams have historically had significant to extremely high ratings for downstream hazards, but as part of the Klamath River Renewal Project, they are all being removed to address environmental concerns, improve water quality, restore habitat for at-risk fish species, and restore the health of the Klamath River.

Despite the removal of these dams, Siskiyou County is still home to dozens of other dams that could be at risk of inundation should a hazard event occur. Such hazards that could contribute to dam failure include earthquakes and extreme flooding. Although Siskiyou County has experienced thousands of earthquakes over the past several decades, only eight have been a magnitude 4.5 or higher. Thus, the probability of dam failure occurring in Siskiyou County is very low, provided the proper regulatory system is maintained.

9.7 Fire Hazards

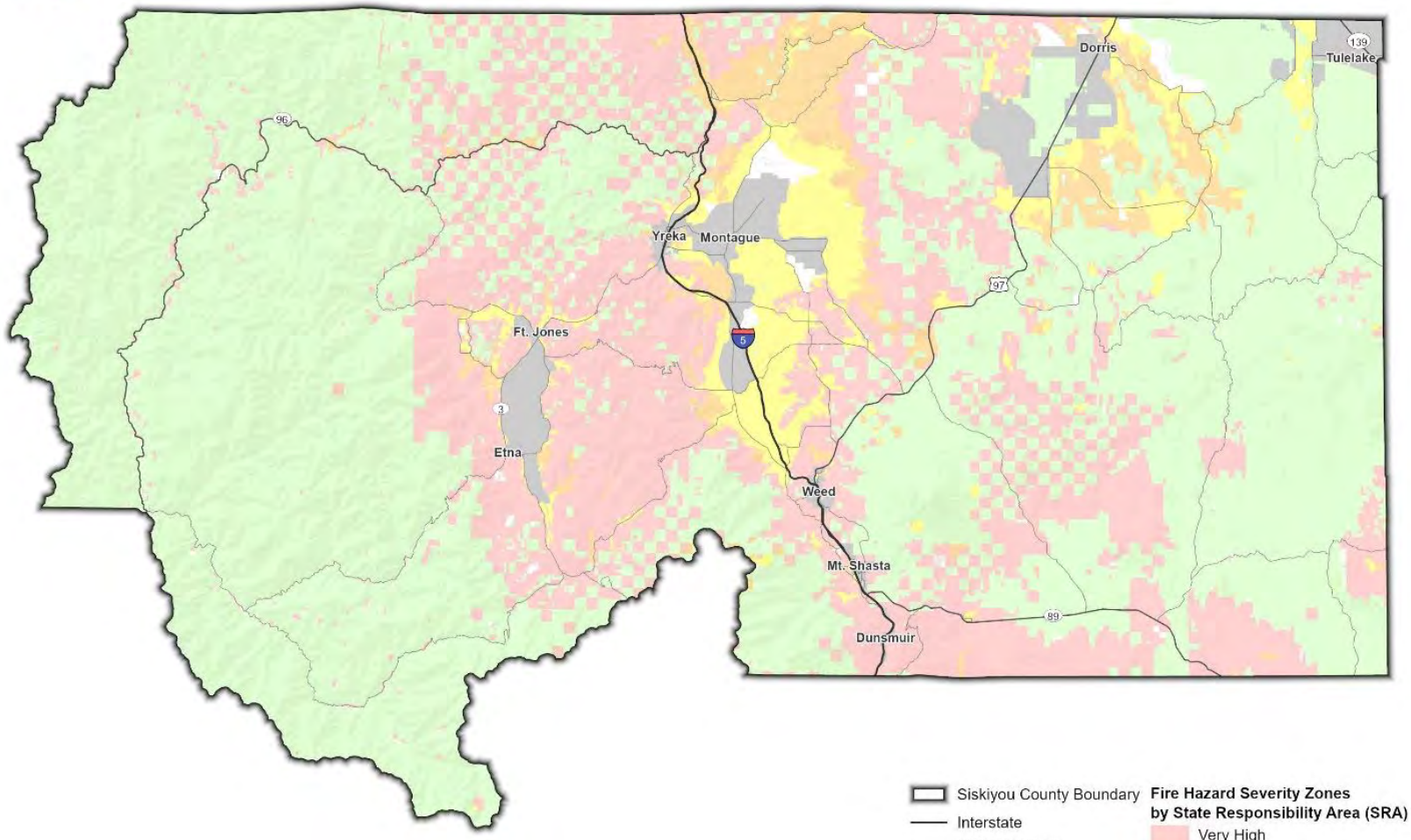
Many areas of the county are at risk of wildland fires. Mountainous highly combustible areas in Siskiyou County coupled with the changing environment and development have resulted in devastating fires and losses over the last several decades. Landscape and climate characteristics are among the most important factors influencing wildfire hazard levels. The buildup of flammable fuels such as brush, dead branches, and limbs, on the county's large swaths of State and Federal land is a major factor in the increase in wildfires severity. Further, weather characteristics, such as wind, temperature, humidity, and fuel moisture content, affect the potential for fire. Of these four, wind is the dominant factor in spreading fire since embers can easily be carried to adjacent exposed areas, starting additional fires.

Additional landscape characteristics, such as steep slopes and mountainous terrain also contribute to fire hazard by intensifying the effects of wind and making firefighting difficult. Vegetation types influence wildfire hazard levels, as well. For example, landscapes dominated by chaparral are more flammable than other vegetation types. Finally, the decommissioning or roads in the 1990s and 2000s has constrained access to wildfires and the ability to fight them.

Public Resources Code 4201-4204 directs the California Department of Forestry and Fire Protection (CAL FIRE) to map fire hazards within State Responsibility Areas (SRA) based on relevant factors such as vegetation types, fuel loads, terrain, climatology, and other locally known conditions. Fire Hazard Severity Zones (FHSZ) provide the basis for application of various mitigation strategies to reduce risks to development and relate to the construction requirements throughout the county, which are designed to reduce the ignition potential in wildland-urban interface (WUI) areas. As of June 2023, 1,063,355 acres of Siskiyou County SRA is designated as Very High for fire hazard, depicted in Figure 9.5. Additionally, Figure 9.6 depicts the WUI areas in Siskiyou County, which encompasses a large portion of the county's communities, due to their proximity to forested and mountainous areas.

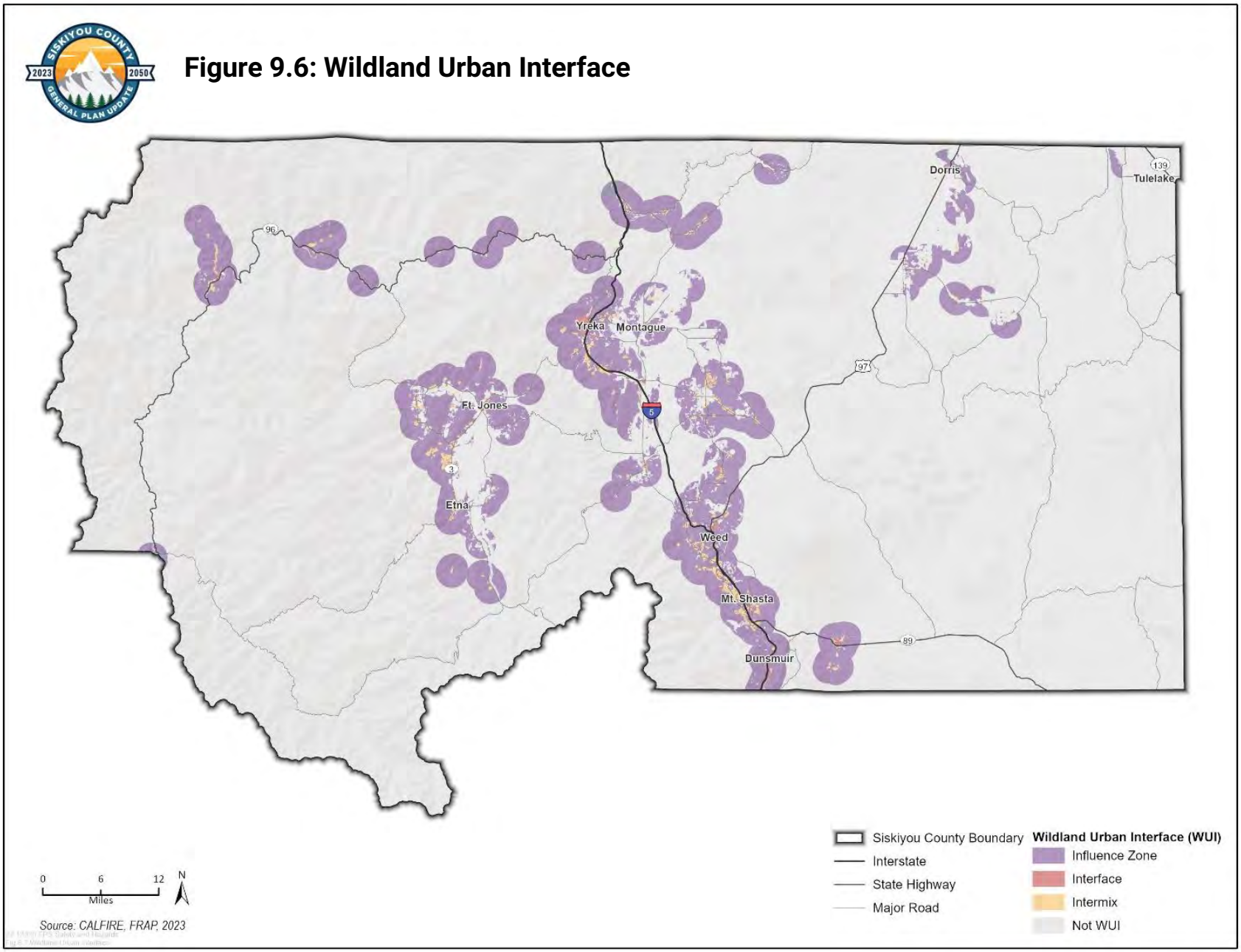
WUI areas are identified through the Siskiyou County Community Wildfire Protection Plan (CWPP). Due to the wide expanse of vegetated land between the small communities developed throughout the county, most of the communities are within a WUI area according to the CWPP.

Figure 9.5: Fire Hazard Severity Zones by Responsibility Areas



Source: CALFIRE, 2008

Figure 9.6: Wildland Urban Interface



History of Events

Vegetation types, combined with pronounced annual dry periods, can result in conditions that favor wildfire. The natural wildfire regime found in Siskiyou County is represented by frequent mixed-severity fires approximately every five to 15 years. These frequencies of fires are also known as the "mean fire return interval." In some areas, particularly in grassland and woodland areas, fire may have occurred on a much more frequent basis. However, many places in Siskiyou County have not had a fire in over 100 years, resulting in increased risk of wildfire. Figure 9.7 details the locations of wildfires in Siskiyou County over the last 100 years.

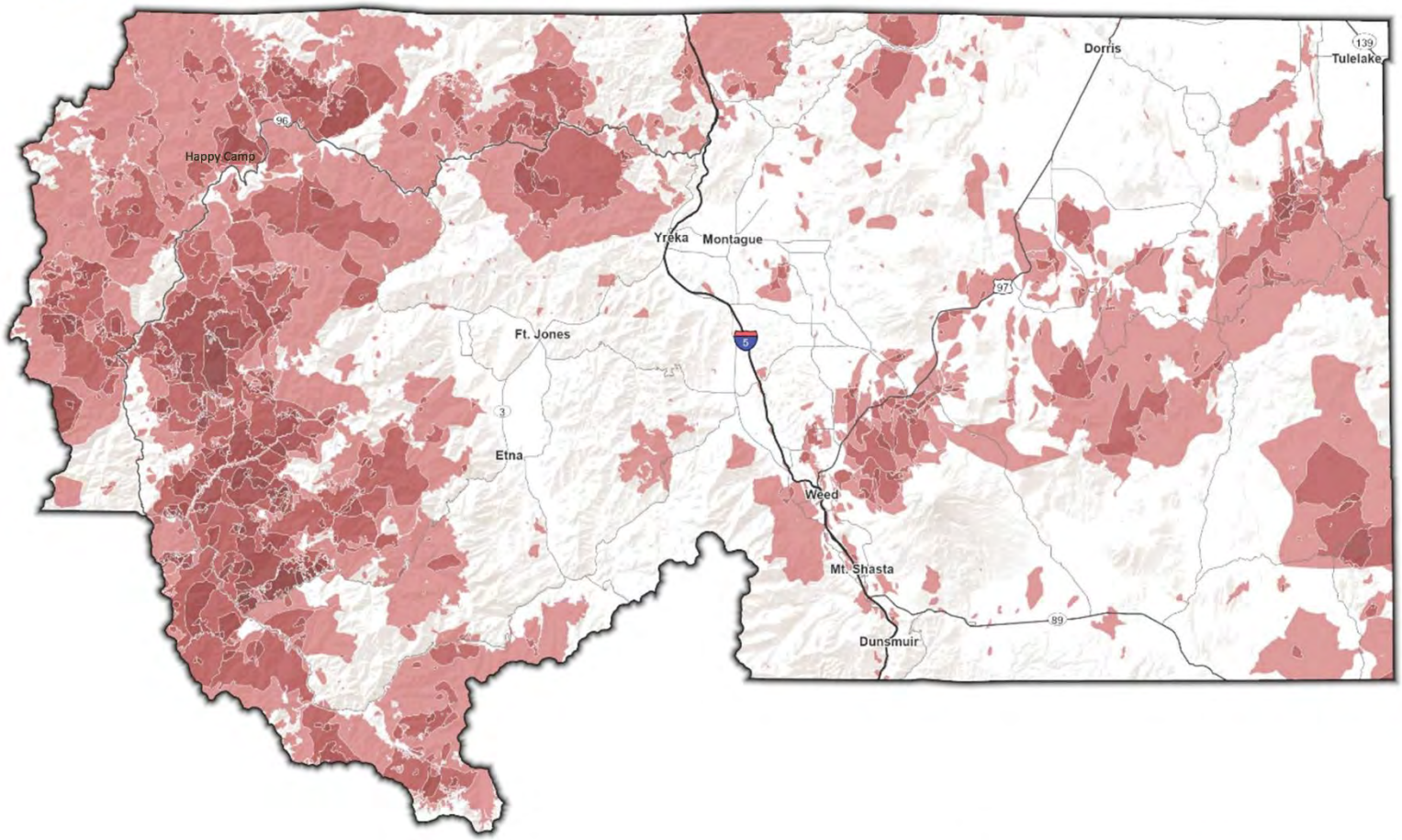
Over the past ten years, large fires have caused significant damage to more than 500,000 acres of wildland and several Siskiyou County communities. Two of the twenty largest fires in California fire history have occurred in Siskiyou County. In 2008, the Klamath Theater Complex Fire burned 192,038 acres and caused two fatalities. In 2014, the Happy Camp Complex Fire burned 134,056 acres. Additionally, in 2014, the Boles Fire destroyed 200 homes outside the city of Weed.

Several significant wildfires have occurred in recent years as well. In 2020, the Slater fire burned 150,000 acres in Happy Camp and surrounding areas and destroyed 224 homes. In 2021, the Tennant Fire burned 10,580 acres and destroyed five structures, the Lava Fire burned 26,409 acres, 23 buildings (including 14 homes) along the slopes of Mt. Shasta, and the Antelope Fire burned 145,632 acres around Tennant and Antelope Creek. In 2022, the McKinney Fire burned over 60,000 acres, destroyed at least 185 structures, largely in the Klamath River community, and caused four fatalities. Shortly thereafter, the Mill Fire in the town of Weed burned nearly 4,000 acres, destroyed 118 structures, and caused two fatalities.

Table 9.5 Wildfires in Siskiyou County Since 2014

	Acres Burned	Additional Impacts
Happy Camp Complex Fire (2014)	134,056	
Boles Fire (2014)	516	200 homes destroyed
Slater Fire (2020)	150,000	224 homes destroyed
Tennant Fire (2021)	10,580	Five structures destroyed
Lava Fire (2021)	26,409	23 buildings (including 14 homes) destroyed
Antelope Fire (2021)	145,632	
McKinney Fire (2022)	60,000	185 structures destroyed, four fatalities
Mill Fire (2022)	4,000	118 structures destroyed, two fatalities

Figure 9.7: Wildfire History



Existing and Future Development

Fire is a function of temperature, wind, and fuels. Since temperature and wind are outside of human control, reducing fuel loading and hardening structures with pre-fire treatments (e.g., double-paned windows, enclosed eaves, ignition-resistant roofing and siding, no vents) is the most effective way people can reduce risk and influence wildland fire behavior. Through the Fire Safe Ordinance, a range of fuel reduction methods have been implemented in the county to create safe conditions for firefighting and to protect communities, natural resources, and critical infrastructure. These methods include individual and community-wide practices that focus on strategically reducing fuel loading on the landscape and creating buffers such as greenbelts. Additional methods include mechanically thinning vegetation, constructing shaded fuel breaks, prescribed burning, strategically placed landscape area treatments, and roadside hazard tree removal.

An analysis of factors that influenced structure losses recent California wildfire events shows that structural hardness is important in determining structure survival. Structures built after the State's fire safe building code updates in 2005 and 2007 were more likely to survive, as were homes with higher improvement values. Mobile homes were far more likely to be destroyed. Evidence about the role of fuel mitigation around structures was less conclusive, with only a weak association with structural survival. However, results suggest the removal of leaves and needles from gutters and rooftops and keeping grass mowed around the structure reduced risk of destruction from wildfires.

The combination of highly flammable vegetation, steep inaccessible wildlands, and high levels of recreational use in Siskiyou County result in major wildfire risk and hazards. Such wildfire risk and hazards expose residential and other development to an increased danger of conflagration, threatening life and property. Other factors contributing to wildfire risk in Siskiyou County include:

- Overstocked forests, severely overgrown vegetation, and lack of defensible space around structures;
- Excessive vegetation along roadsides and over-hanging roads, fire engine access, and evacuation routes;
- Increased pests and disease in weakened or stressed trees due to drought conditions and overstocked forests;
- Narrow and often one-lane or dead-end roads complicate evacuation and emergency response, especially for subdivisions with only one mean of ingress/egress;
- Inadequate or missing street and housing address signs;
- Nature and frequency of lightning ignitions; and
- Increased development in wildland urban interface.

Wildfire Protection Responsibility in California

Local, State, Tribal, and Federal organizations all have some level of legal and financial responsibility for wildfire protection. In many instances, two fire organizations have dual primary responsibility on the same parcel of land, one for wildfire protection and the other for structural fire protection. To address wildfire jurisdiction responsibilities, the California State Legislature outlined various wildfire responsibilities in 1981, described below, in Cal. Pub. Res. Code § 4291.5 and Cal. Health & Safety Code § 13108.5.

Federal Responsibility Areas (FRAs). FRAs are fire-prone wildland areas that are owned or managed by a Federal agency such as the U.S. Forest Service, National Park Service, Bureau of Land Management, U.S. Fish and Wildlife Service, or U.S. Department of Defense. Primary financial and rule-making jurisdiction authority rests with the Federal land agency. In many instances, FRAs are interspersed with private land ownership or leases. Fire protection for developed private property is usually the responsibility of the relevant local government agency, not the Federal land management agency (CAL FIRE, 2013-2018). FRAs are not included in the wildfire severity zone classifications developed by CAL FIRE; FRAs are shown as a separate designation for wildfire mapping in this hazard profile for this reason.

State Responsibility Areas (SRAs). SRAs are lands in California where CAL FIRE has legal and financial responsibility for wildfire protection. CAL FIRE administers fire hazard classifications and building standard regulations in these areas. SRAs are classified into types of land based on cover, beneficial use of water from watersheds, probable damage from erosion, and fire risks and hazards. (California Legislative Information, pp. § 4102, § 4130) CAL FIRE adopts SRA boundaries and updates them every 5 years. Where SRAs contain structures or development, the relevant local government agencies have fire protection responsibility for those improvements. (Office of the State Fire Marshal, 2021)

Local Responsibility Areas (LRAs). LRAs include land in cities, cultivated agriculture lands, unincorporated non-flammable areas, and lands that do not meet the criteria for SRA or FRA. LRA fire protection is typically provided by city or county fire departments, fire protection districts, or by CAL FIRE under contract to local governments. LRAs may still include areas of flammable vegetation and the WUI.

In 2012, as part of local general plan requirements, California began requiring local governments in SRAs and Very High Fire Hazard Severity Zones (VHFHSZ) to update their general plan safety elements to recognize specific wildfire risks in such areas and adopt special findings when approving subdivisions in such areas. Local governments are also required to use wildfire safety guidelines and California Environmental Quality Act (CEQA) initial study wildfire hazards checklist updates issued by the OPR when those become available (Cal. Gov. Code § 65040.20 and § 65302.5). For further information on the details and implications of these safety element requirements, see Progress Summaries 3.F and 8.A of the 2018 California State Hazard Mitigation Plan.

9.8 Hazardous Materials

Hazardous materials and hazardous waste concerns are fully identified and analyzed in the Siskiyou County Hazardous Materials Management Group Certified Unified Program Agency (CUPA). Along with the Unified Program, which was created by Senate Bill 1082, the Siskiyou County Environmental Health Division is responsible for responding to incidents involving any release or threatened release of hazardous materials. Threats to people, property and the environment are assessed, and then remedial action procedures are conducted under the supervision of a Registered Environmental Health Specialist. Siskiyou Couty CUPA details their requirements and policies for aboveground petroleum storage, accidental release, hazardous waste, release response plans, underground storage tanks, and the California Environmental Report System (CERS) on the County website.

Hazardous materials include hundreds of highly toxic, reactive, corrosive, flammable, radioactive, or infectious substances that can potentially pose a significant risk to the general population if released. They are present in nearly every community in the United States, where they may be manufactured, used, stored, transported, or disposed of. Because of their nearly ubiquitous presence, there are hundreds of hazardous material release events annually that contaminate air, soil, and groundwater resources, potentially triggering millions of dollars in clean-up costs, human and wildlife injuries, and occasionally fatalities. Hazardous material releases may occur from any of the following:

Fixed-Site. Includes all releases involving the production and manufacturing, handling, or storage of a hazardous product at a single facility as well as any releases that may occur at a designated hazardous waste disposal site. The California Department of Toxic Substances Control tracks active hazardous waste handling facilities and the California State Water Resources Control Board tracks cleanup, including for Leaking Underground Storage Tanks (LUST). These hazardous material sites are shown on Figure 9.8.

Transportation. Includes all releases that occur while the product is in transit from one facility to another or enroute to be disposed of at a designated hazardous waste disposal site. There are five Hazardous Waste Transporters that serve the Siskiyou County area and several nationally designated hazardous materials routes including: State Route 89, State Route 97 from Oregon to I-5, State Route 96 to I-5, State Route 36, U.S. 395, and State Route 299.

Intentional Spills and Releases. Includes all criminal acts and acts of terrorism in which a hazardous material is used to intentionally cause injuries or fatalities, damage property or the environment, or advance a political or social agenda.

There are currently no hazardous waste receiving facilities in Siskiyou County. All hazardous waste must be transported to Dry Creek Landfill in Oregon, indicating an increased risk of transportation-based hazardous waste material releases along designated hazardous materials routes.

History of Events

From 2015 to 2022, on average Siskiyou County experienced 26 hazardous spills per year, as reported to the Cal OES. During 2018, Siskiyou County experienced the largest number of spills in a single calendar year, including 36 incidents, most of which involved petroleum-type spills

from automobile accidents and railroad derailments. Multiple incidents impacted nearby waterways, but few required evacuations. Based on the frequency of past events and ongoing use of the nationally designated hazardous materials routes through Siskiyou County, it is highly likely that spills will continue to occur multiple times each year in Siskiyou County, largely due to automobile incidents.

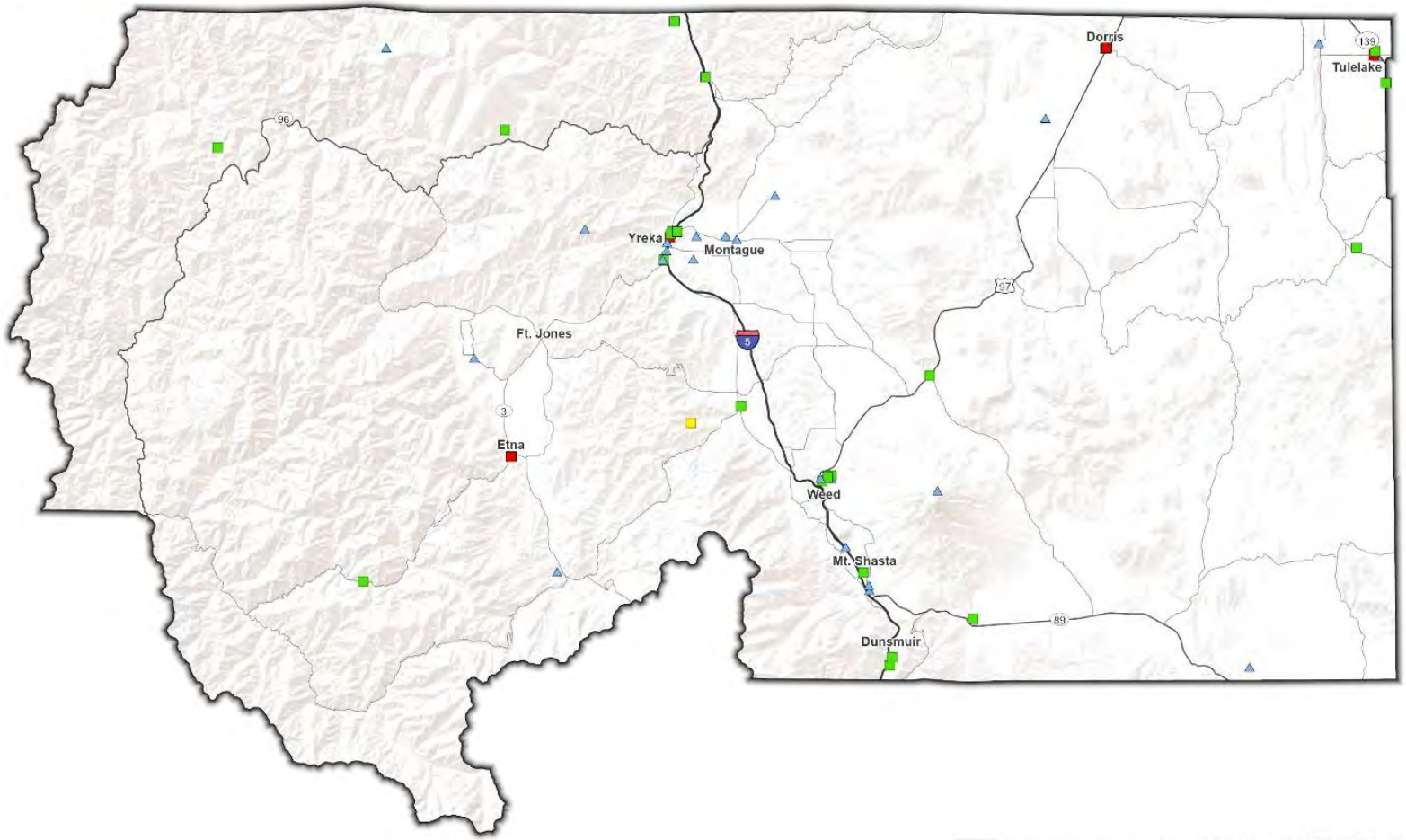
Existing and Future Development

In coordination with CalEPA, the Siskiyou County CUPA is required to develop an Area Plan for local emergency response agencies to establish a plan for emergency response in the event of a hazardous materials release within their jurisdiction. This plan is required to include procedures for emergency response, notification and coordination of emergency response personnel, information for public safety and evacuation, training for emergency response personnel, emergency response supplies and equipment, and feedback after a major incident.

The Area Plan applies to all political subdivisions, including any State or Federal agency operating within Siskiyou County, and whose governing body adopts the plan by ordinance, order, resolution, letter, or agreement. Local government involvement in a hazardous materials release continues throughout an incident and consists of discovery, notifications, evaluation, mitigation, and recovery as appropriate. When a hazardous material or waste spill occurs on private land, the property owner is responsible for cleanup; Siskiyou County Environmental Health Division is responsible for ensuring that proper cleanup and follow-up is conducted. They will contact the proper personnel and ensure cleanup is completed according to Federal, State, and local regulations.

When a hazardous material or waste spill originates on a State highway, the California Highway Patrol is responsible for direction of cleanup and enforcement. When a hazardous material or waste spill occurs on public land, such as that under the jurisdiction of the U.S. Forest Service, it is the managing agency's responsibility to direct cleanup and enforcement. They will initiate all investigations and cleanup and contact the necessary personnel.

Figure 9.8: Hazardous Material Sites



9.9 Noise (Traffic, Railroad, and Stationary)

The Siskiyou County General Plan Noise Element sets standards for exterior community noise by land use in the county, including passively used open space, residential, motels, hospitals, and office buildings, light commercial and heavy commercial. Noise in Siskiyou County is primarily caused by traffic along major roadways such as I-5, U.S. 97, State Route 3, State Route 96, and State Route 89. Other sources of noise may include plane traffic, railroad activities, agricultural operations, and commercial and industrial uses.

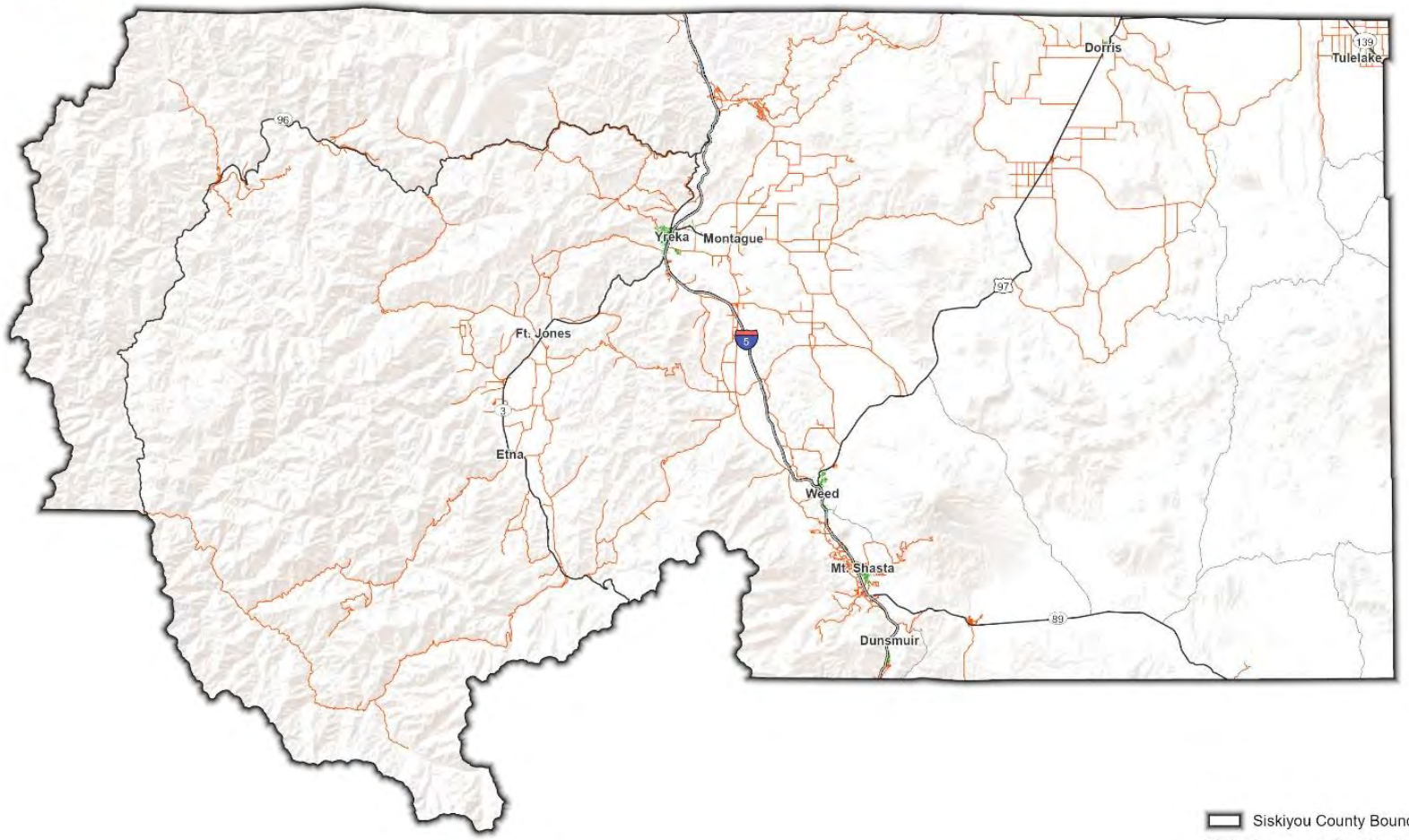
Interstate-5 runs in a north-south direction, spanning 1,381 miles from southern California into Oregon and Washington, connecting several major metropolitan areas. U.S. 97 is a major north-south route that starts in Weed and runs for 670 miles to Washington along the eastern side of the Cascade Mountains. State Route 3, State Route 96, and State Route 89 cover a combined distance of 535 miles through Siskiyou and Trinity Counties. According to the Yreka Area California Highway Patrol, an average of 20,000 vehicles travel through Siskiyou County per day, contributing significant noise pollution to the communities near major transportation routes. Figure 9.9 details the major transportation routes running through Siskiyou County.

Siskiyou County owns and operates Butte Valley Airport, Happy Camp Airport, Scott Valley Airport, Siskiyou County Airport, and Weed Airport. The Dunsmuir-Mott Airport and Montague-Yreka Rohrer Field are also operated within the county and contribute to aviation-related noise.

The Southern Pacific Railroad is the only railroad company that operates in Siskiyou County, traveling from south of Dunsmuir to the Oregon border. This railroad operates up to 24 on-line trips per day in Siskiyou County, including 15 daytime trips and nine nighttime trips from Weed to Klamath Falls, Oregon. The towns of Macdoel and Mt. Hebron are most affected by these operations and frequently experience noise levels between 60 and 65 dBA. It should be noted that most of Macdoel and Mt. Hebron were established, in part, as a result of the railroad coming through the county, and were largely developed around these town's rail stations. Previously, the McCloud River Railroad and the Yreka Western Railroad operated in Siskiyou County; however, these railroad companies are no longer in operation. More information about noise affected communities can be found in the Siskiyou County General Plan Noise Element.

Other sources of noise throughout the county include stationary sources such as general construction, roadway improvements, and industrial activity from the regular operation of equipment such as generators, fans, chillers, compressors, boilers, pumps, and air conditioning systems. Gas stations and commercial mechanical equipment can also generate noise during times of high use.

Figure 9.9: Major Transportation Routes



Source: Siskiyou County, 2023

9.10 Air Quality

Siskiyou County lies within the Northeast Plateau Air Basin, which spans from the Nevada border in the east, to the Siskiyou Mountains in the west, and south to Lassen County. The basin includes the entirety of Lassen, Modoc, and Siskiyou counties, encompassing a total area of approximately 14,920 square miles.

Air quality standards and regulations within the county are administered by the Siskiyou County Air Pollution Control District (SCAPCD), a division of the County's Agriculture, Animal Control, and Weights and Measures Department. This district is responsible for preparing of plans, to attaining and maintaining of Ambient Air Quality Standards, adopting and enforcing rules and regulations for sources of air pollution, and issuing permits for stationary sources of air pollution. SCAPCD also regulates agricultural burning, responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by Federal and State air quality regulations.

Generally, Siskiyou County meets State air quality standards, including standards for ozone, PM2.5, and PM10. However, during times of wildfire hazards, air quality in the county can worsen, particularly when smoke levels increase dramatically. Increased smoke levels affect PM2.5 and PM10 levels and could pose health risks to at-risk communities. the frequency and severity of wildfires will continue to exacerbate air quality levels throughout Siskiyou County. Increased smoke levels from wildfires often causes negative health impacts to nearby communities, including those living in and near the wildland-urban interface. New approaches to wildfire management, including prescribed fires, home-hardening efforts, and encouraging defensible space buffers around structures can reduce the severity of future wildfires, therefore limiting these negative health impacts for communities across the county.

9.11 Greenhouse Gas (Emissions Inventory, Forecasts, and Reductions)

Stationary sources, area-wide sources, and mobile sources are the main sources of greenhouse gas emissions within the county. Stationary sources include fuel combustion, waste disposal, cleaning and surface coating, petroleum production, and industrial processes, which leads to the emission of CO_2, CH_4, and N_2O. Area-wide sources include solvent evaporation from activities like pesticide and fertilizer application, asphalt paving, and refrigerants. Additional area-wide sources include wildfires, residential fuel combustion, farming operations, construction and demolition, paved road dust, waste burning and disposal, and wind-blown dust. Mobile sources of GHG pollution include on-road vehicles and off-road vehicles throughout the county. The largest contributing sources to GHG emissions throughout the county are transportation-related emissions and wildfire smoke. In particular, wildfires can cause an increase in greenhouse gas emissions as a result of decaying or burnt trees following wildfires. The loss of forested and vegetated lands due to large scale wildfires can reduce opportunities for carbon sequestration, potentially further increasing local greenhouse gas emissions that would otherwise be mitigated by the many forests and vegetated areas in the county. Reforestation efforts throughout the county are aiming to improve local carbon sequestration, potentially offsetting future greenhouse gas emissions that occur as a result of wildfires.

Further, methane is the primary contributor to the formation of ground-level ozone, a hazardous air pollutant and greenhouse gas, exposure to which causes 1 million premature deaths globally every year.[2] Methane comes from both natural sources and human activities. An estimated 60 percent of today's methane emissions are the result of human activities. The largest sources of methane are agriculture, fossil fuels, and decomposition of waste. Natural processes account for 40 percent of methane emissions, with wetlands being the largest natural source.

The Siskiyou County Regional Transportation Plan, Community Development Department, and existing General Plan include language that supports reductions in GHG emissions. Such language includes reducing vehicle miles traveled throughout the county, switching to certified wood stoves, and encouraging alternative forms of transportation. Additional GHG reduction measures will be considered and incorporated through the Siskiyou County 2050 General Plan Update.

[2] *https://www.unep.org/news-and-stories/story/methane-emissions-are-driving-climate-change-heres-how-reduce-them*

9.12 Climate Change Effects and Impacts

Siskiyou County is projected to experience a variety of climate impacts in the coming decades. According to Cal Adapt's Local Climate Snapshot Tool, by the end of the century, Siskiyou County is expected to reach annual average maximum temperatures of 68.7 degrees Fahrenheit, an increase of 8.9 degrees Fahrenheit from the 2023 baseline average of 59.8 degrees. Additionally, the county is expected to face more extreme heat days in the coming decades. In Siskiyou County specifically, extreme heat days are defined as any days with a maximum temperature above 91.4 degrees Fahrenheit. Currently, the county experiences approximately four extreme heat days per year; by the end of the century, county residents should expect this to increase to approximately 53 extremely hot days per year.

These projected climate changes, along with future precipitation levels that are projected to vary significantly throughout the years, could cause larger storm events, longer dry spells, and more varied, extreme climate events. As a result, flooding risks are likely to increase. Longer storms could result in worsened atmospheric river events and immense precipitation over short periods of time, stressing flood-related infrastructure and increasing the likelihood of destructive flooding events. These precipitation events could also trigger landslides, increasing the potential for roadway infrastructure and structure damage.

Drought events are expected to continue to be volatile through the end of the century, exposing the county to vegetative stress, water limitations, and increased wildfire risk. Without proper mitigation strategies in place, these environmental impacts could compound and overwhelm emergency services departments, putting more citizens at risk for health and property damage. However, many local, State, and Federal fire agencies within the county already have proactive mitigation strategies in place, including annual prescribed burns that are set to increase to approximately 100,000 acres per year. These efforts aim to reduce chances of catastrophic wildfires in the county due to the buildup of unmanaged high risk fuel hazards. Without these prescribed burn efforts or other mitigation strategies in place, communities throughout the county could experience threats to their infrastructure, water supply, emergency services, air quality, and health.

9.13 Key Terms

Area-Wide Source. A pollution source that affects a broad geographical area which may include emissions from multiple point sources.

Atmospheric River. A long, narrow band of highly concentrated water vapor in the atmosphere that transports large amounts of precipitation across vast distances and can contribute to heavy rainfall.

Climate. Climate in the context of this background report means the "average weather," or more specifically, as the statistical description in terms of the average and range of temperature, precipitation, and wind within a given time. Time frames can extend in ranges from months to thousands or millions of years. The typical period used to evaluate climate is 30 years, as defined by the World Meteorological Organization.

Climate Change. Climate change refers to any deviation from the average climate that is statistically significant and has persisted for years at a time. This change is typically extended for decades or longer.

Earthquake. A sudden and violent shaking of the ground caused by the passage of seismic waves through the Earth's crust.

Extreme Heat Days. A day in April through October where the maximum temperature exceeds the 98th historical percentile of maximum temperatures (based on daily temperature data between 1961-1990).

Extreme Storm Events. The increase in precipitation intensity and variability, increase in wind speed, and heavy downpours that increase the risk of flooding, drought, erosion, landslides/debris flows, turbidity, contaminants in reservoirs and surface waters, storm windfall (e.g., trees impacting infrastructure such as utility lines), nutrient and pollutant loading, wildfires, damaged transportation systems, disruptions in energy supply, and increased total costs from damage.

Fault. A fracture or zone of fractures between two rocks of the Earth's crust where compressional or tensional forces can cause slow or sudden movement, which results in earthquakes.

Fuel Loading. Refers to the amount of combustible material, such as vegetation or dead organic matter, present in a specific area. Understanding fuel loading helps assess the potential intensity and behavior of wildfires.

Fuel Moisture Content. The amount of moisture present in vegetation in a given area. It is a crucial factor in assessing the risk of wildfires, as dry vegetation is more susceptible to ignition and can contribute to the rapid spread of fires.

Greenhouse Gas (GHG). Any gas that absorbs infrared radiation in the atmosphere. GHGs contribute to the greenhouse effect and global climate change. Some GHGs, such as carbon dioxide and methane, occur naturally and are emitted to the atmosphere through natural processes as well as human activities. Other GHGs (e.g., fluorinated gases) are created and emitted solely through human activities. The principal GHGs that enter the atmosphere because of human activities include water vapor, carbon dioxide (CO2), methane (CH4),

nitrous oxide (N2O), chlorofluorocarbons (CFCs), fluorinated gases [hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF6), and nitrogen trifluoride (NF3].

Greenhouse Gas Emissions. GHG emissions involve the release of gases into the atmosphere through the generation, transmission, distribution, combustion, leaking or burning of natural gases or fossil fuels for electricity, heat, and transportation. In the United States, the primary sources of GHG emissions are transportation, electricity production, the fossil fuels industry, commercial and residential use, agriculture, respectively. In addition, the natural generation of GHG emissions include the breakdown of permafrost which release carbon and methane, and wildfires which emit carbon dioxide. Carbon dioxide (CO2) makes up the vast majority of GHG emissions.

Landslide. The movement of a mass of rock, debris, or earth down a slope, which can be caused by rain, earthquakes, volcanoes, or other factors.

Mobile Source. A moving or transportable emitter of pollutants, typically associated with vehicles such as cars, trucks, airplanes, and ships.

Noise. Unwanted sound, or pressure variation in the air that can be detected by the human ear, measured by decibel (dB) and classified on a noise rating scale, denoted as "A," "B," and "C".

Particle Pollution. Also known as particulate matter (PM), particles of solids or liquids that are suspended in the air. These particles may include dust, dirt, soot, smoke, or drops of liquid. PM particles are defined by their diameter for air quality regulatory purposes. Particles with a diameter of 10 microns or less are known as PM10 and are inhalable into the lungs and can induce adverse health effects. Fine particulate matter is defined as particles that are 2.5 microns or less in diameter (PM2.5) and is mostly produced from gasoline, oil, diesel fuel or wood combustion.

Sensitive Receptors. Sensitive receptors are generally defined as locations where people reside or where the presence of noise could adversely affect the use of the land. These include schools, residences, senior housing, hospitals, and businesses.

Stationary Source. A fixed or non-mobile facility that emits pollutants into the air, water, or soil.

Surface Permeability. The ability of a material or surface to allow the passage or flow of liquids through it. Often used in the context of soil or pavement, indicating how easily water can infiltrate the surface.

Wildland-Urban Interface (WUI). Areas where structures, and other human development, meet and intertwine with, and are near, undeveloped wildland.

Wildland. Land that has not been cultivated, especially land set aside and protected as a wilderness.

9.14 Regulatory Setting

Federal

Robert T. Stafford Disaster Relief and Emergency Act (Stafford Act). Constitutes the statutory authority for most Federal disaster response activities and access to funds for disaster relief assistance.

Disaster Mitigation Act of 2000. Amendment to the Stafford Act creating the framework for State, local, Tribal, and Territorial governments to engage in hazard mitigation planning to receive certain non-emergency disaster assistance.

National Flood Insurance Act of 1968 and Flood Disaster Protection Act of 1973. In response to increasing losses from flooding nationwide, the U.S. Congress passed the National Flood Insurance Act in 1968, which established the National Flood Insurance Program (NFIP). The 1968 Act made flood insurance available in communities willing to adopt floodplain management programs to mitigate future flood losses. The Act also required the identification of floodplains in the United States and the establishment of flood-risk zones within those areas. The 1968 Act was later expanded by the Flood Disaster Protection Act of 1973 because of flood damage from Hurricane Agnes in 1972. The 1973 Act added a mandatory flood insurance purchase requirement and increased awareness of floodplain mapping needs across the country. The 1973 Act also severely limited Federal financial assistance in the flood hazard areas of communities that did not join the NFIP.

Code of Federal Regulations, Title 44, Section 65.10 (44 CFR 65.10). Levees must meet the criteria of 44 CFR 65.10, titled "Mapping of Areas Protected by Levee Systems." In 2005, Federal Emergency Management Agency (FEMA) issued "Procedure Memorandum No. 34 – Interim Guidance for Studies Including Levees" to help clarify the responsibility of community officials seeking recognition of a levee by providing information identified during a study or mapping project. Documentation regarding levee design, accreditation, and the impacts on flood hazard mapping is often outdated or missing altogether. To remedy this, Memorandum No. 34 provides interim guidance on procedures to minimize delays in near-term studies and mapping projects and to help mapping partners properly assess how to handle levee mapping issues.

Homeowner Flood Insurance Affordability Act of 2014. The Homeowner Flood Insurance Affordability Act, signed in 2014, repealed and modified certain provisions of the Biggert-Waters Flood Insurance Reform Act enacted in 2012. It also made additional program changes to other aspects not covered by the Act, including restoring grandfathering, putting limits on certain rate increases, and updating the approach to ensuring the fiscal soundness of the fund by applying an annual surcharge to all policyholders.

National Fire Plan. The National Fire Plan was developed under Executive Order 11246 in August 2000, following an historic wildland fire season. Its intent is to establish plans for active response to severe wildland fires and their impacts on communities while ensuring sufficient firefighting capacity. The plan addresses firefighting, rehabilitation, hazardous fuels reduction, community assistance, and accountability.

Resource Conservation and Recovery Act (RCRA). Under RCRA, the U.S. Environmental Protection Agency (EPA) regulates hazardous waste from the time that the waste is generated until its final disposal. RCRA also gives the EPA or an authorized State the authority to conduct

inspections to ensure that individual facilities comply with regulations, and to pursue enforcement action if a violation is discovered. The EPA can delegate its responsibility to a State if its regulations are at least as stringent as the Federal regulations. RCRA was updated in 1984 by the passage of the Federal Hazardous and Solid Waste Amendments, which required phasing out land disposal of hazardous waste. Title 22, Section 66261.24 of the California Code of Regulations (CCR) defines characteristics of toxicity and is used to help guide the Federal program.

Superfund Amendments and Reauthorization Act (SARA) Title III, the Emergency Planning and Community Right to Know Act. The SARA of 1986 requires companies to declare potential toxic hazards to ensure that local communities can plan for chemical emergencies. The EPA maintains a National Priority List (NPL) of uncontrolled or abandoned hazardous waste sites identified for priority remediation under the Superfund program. The EPA also maintains the Superfund Enterprise Management System (SEMS) database, which contains information on hazardous waste sites, potential hazardous waste sites, and remedial activities across the nation.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLA, commonly known as the Superfund Act, established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at these sites, and established a trust fund to provide for cleanup when no responsible party could be identified. Under CERCLA, the EPA has the authority to hold parties responsible for releases of hazardous substances and require their cooperation in site remediation.

Hazardous Waste Operations and Emergency Response (HAZWOPER). HAZWOPER requirements include Federal regulations that involve procedures for clean-up operations required by a governmental body, whether Federal, State, local, or other, involving hazardous substances that are conducted at uncontrolled hazardous waste sites. This includes the EPA's NPL, State priority site lists, sites recommended for the EPA NPL, and other initial investigations of government-identified sites which are conducted before the presence or absence of hazardous substances has been ascertained. A person who is engaged in work with any potential for exposure to hazardous substances must comply with HAZWOPER regulations.

Clean Air Act (CAA). CAA is the comprehensive Federal law that regulates air emissions from stationary and mobile sources. Among other things, this law authorizes EPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants.

State

California Air Resources Board (CARB). CARB is responsible for addressing many of the GHG reduction goals, and as such, is responsible for monitoring and regulating sources of GHG emissions. CARB works with relevant State agencies to develop a framework for implementation and tracking progress for meeting carbon neutrality. CARB is also responsible for updating Scoping Plans that assess the progress, and the path to achieving carbon neutrality before 2045, per Assembly Bill (AB) 32. CARB also has responsibility to set regional targets for reducing GHG emissions, as mandated by Senate Bill (SB) 375.

California Code of Regulations Title 14: Natural Resources. Title 14 of the CCR covers the laws and regulations related to natural resources, including fish and wildlife, parks and recreation, and water resources in California. Some of the main areas covered by Title 14 include hunting and

fishing regulations, protected species and habitats, water reserves, boating and watercraft safety, camping and hiking regulations in State parks, and water rights and usage regulations. Title 14 also includes Fire Safe Regulations related to emergency access, building signage, and emergency water availability.

California Department of Forestry and Fire Protection (CAL FIRE). CAL FIRE is dedicated to the fire protection and stewardship of over 31 million acres of California's privately-owned wildlands. The department also provides varied emergency services in 36 of the State's 58 counties via contracts with local governments. Preventing wildfires in State Responsibility Areas (SRAs) is a vital part of CAL FIRE's mission. While these efforts have occurred since the early days of the department, CAL FIRE has adapted to the evolving destructive wildfires and succeeded in significantly increasing its efforts in fire prevention. The department's Fire Prevention Program consists of multiple activities including wildland pre-fire engineering, vegetation management, fire planning, education, and law enforcement. Because of the department's size and major incident management experience, it is often asked to assist or lead in disaster responses for other hazards, including floods, earthquakes, and toxic spills.

California Department of Toxic Substances Control (DTSC). The DTSC is a division of California Environmental Protection Agency (CalEPA) and has primary regulatory responsibility over hazardous materials in California, working in conjunction with the U.S. EPA to enforce and implement hazardous materials laws and regulations. The DTSC can delegate enforcement responsibilities to local jurisdictions.

California Department of Water Resources (DWR). DWR conducts flood forecasting, hydrology, and climatology studies; undertakes statewide flood management data collection and planning; inspects, oversees maintenance of, and in some cases constructs projects on State Plan of Flood Control (SPFC) levees; operates and maintains SPFC channels and other structures, as well as non-SPFC structures including dams; implements flood-related State grant programs; and helps coordinate emergency flood response operations.

California Energy Commission (CEC). The CEC is the State's primary energy policy and planning agency. They are responsible for the certification of electrical generation facilities as eligible renewable energy resources and adopt regulations for the enforcement of California Renewable Portfolio Standards (RPS) procurement requirements of public owned utilities. As mandated by SB 100, they are also responsible for the SB 100 Joint Agency Report, along with the California Public Utilities Commission (CPUC) and CARB.

California Natural Resources Agency (CNRA). The CNRA is required by AB 2800 to create a Climate-Safe Infrastructure Working Group. The working group examines how to integrate projected climate change projections into engineering standards for infrastructure projects and should include registered professional engineers. Recommendations are submitted to the Strategic Growth Council.

California Noise Control Act. The California Noise Control Act, passed in 1973, sets standards for noise limits in new buildings and developments and requires that a noise element be included in city and county general plans. Additionally, the law states that all residents are entitled to a peaceful and quiet environment without the intrusion of noise which may be hazardous to their health or welfare.

California Office of Emergency Services (Cal OES). Cal OES is responsible for mitigating the effects of disasters and for protecting Californians' lives and property. This State office serves as the State's leading agency during all major emergencies and disasters, including directing

response activities and coordinating State and Federal resources and mutual aid assets across all regions to support the diverse communities across the State. Cal OES supports local jurisdictions and communities through planning and preparedness activities, training, and facilitating the immediate response to an emergency through the longer-term recovery phase, including serving as the State's overall coordinator and agent to secure Federal resources through FEMA.

California Public Resources Code 4291 (PRC 4291): Requires maintenance of defensible space around all structures in, upon, or adjoining a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land that is covered with flammable material.

Executive Order S-13-10 (EO S-13-10). EO S-13-08, signed in 2008 and adopted by the CNRA in 2010, requires development of a climate adaptation strategy that directs statewide management of climate impacts from sea level rise, increased temperatures, shifting precipitation, and extreme weather events. The strategy is grouped into seven subject areas: public health, ocean and coastal resources, water supply and flood protection, agriculture, forestry, biodiversity and habitat, and transportation and energy infrastructure. The agency also adopted updated California Environmental Quality Act (CEQA) guidelines that provide direction on addressing greenhouse gas emissions in environmental review documents.

The Hazardous Waste Control Act. The hazardous waste management program enforced by DTSC was created by the Hazardous Waste Control Act (California Health and Safety Code Section 25100 et seq.), which is implemented by regulations described in CCR Title 26. The State program is similar to but more stringent than the Federal program under RCRA. The regulations list materials that may be hazardous and establish criteria for their identification, packaging, and disposal. Environmental health standards for management of hazardous waste are contained in CCR Title 22, Division 4.5. In addition, as required by California Government Code Section 65962.5, DTSC maintains a Hazardous Waste and Substances Site List for the State called the Cortese List.

Office of Planning and Research (OPR). OPR is required to administer the Integrated Climate Adaptation and Resiliency Program as well as provide guidance for meeting general plan requirements per SB 246. This program coordinates regional and local efforts with State climate adaptation strategies that work to ensure communities adapt to the impacts of climate change.

Regional Water Quality Control Board (RWQCB). The RWQCB is authorized by the Porter Cologne Water Quality Control Act of 1969 to protect the waters of the State. The RWQCB provides oversight for sites where the quality of groundwater or surface water is threatened. Extraction and disposal of contaminated groundwater because of investigation and remediation activities or dewatering during construction would require a permit from the RWQCB if the water were discharged to storm drains, surface water, or land.

Senate Bill 1078 (SB 1078). SB 1078 established the RPS in 2002 which required electricity providers to increase procurement of electricity from renewable energy sources through incremental goals set by increasing targets. The RPS program goals are to displace fossil fuel use, build new renewable power plants, ensure reliable operations of the electric grid, and promote customer affordability to reduce GHG emissions. RPS-eligible resources include solar, wind, geothermal, small hydroelectric, or biopower facilities.

Assembly Bill 32 (AB 32)/ Senate Bill 32 (SB 32). In a landmark legislation requirement, the State set goals to reduce statewide GHG emissions to 1990 levels by 2020 (under AB 32), and 40

percent below 1990 levels by 2030 (under SB 32). This reduction is approximately 15 percent below emissions expected at the "business as usual" scenario. Major gases and groups of GHG include carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), chlorofluorocarbons (CFCs), and fluorinated gases [hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6)].

Senate Bill 375 (SB 375). SB 375 directs a collaborative process between regional and State agencies to set GHG reduction targets specific to each region. Under this bill, each Metropolitan Planning Organization (MPO) is mandated to include a "Sustainable Communities Strategy" to demonstrate how the plan will meet Vehicle Miles Traveled (VMT) reduction targets. Using the regional transportation planning process allows cities and counties to have more involvement since local authority maintains authority over land use decisions. Shaping the connection between transportation and land uses can help achieve reductions that are consistent with AB 32 and SB 32's goals.

Senate Bill 743 (SB 743). Implementation strategies for transportation planning are made possible by SB 743 which encourages development patterns that promote less driving, such as infill development and a diversity of land uses to promote walkability and multi-modal transportation networks.

Assembly Bill 2800 (AB 2800). When planning and designing State infrastructure projects, agencies should consider future climate change impacts on critical infrastructure, per AB 2800. Agencies should cite impacts such as prolonged heat waves, extreme participation events, severe drought, increasing wildfires. EO B-30-15 provides built-in resources and processes that can be used between designers, builders, and planners for the implementation of safe infrastructure.

Senate Bill 246 (SB 246). The Integrated Climate Adaptation and Resilience Program was signed into law in 2015 by SB 246 which directs the Office of Planning and Research (OPR) to coordinate the program and a response to the impacts of climate change. In addition to being a centralized source of information for implementing climate adaptation projects, the efforts focus on actions that improve the quality of life for present and future generations.

Senate Bill 379 (SB 379). Climate adaptation and resiliency strategies are required by SB 379 to be included in safety elements of general plans. Climate adaptation strategies should include goals, policies, and objectives for communities that are based on vulnerability assessments unique to the community.

Senate Bill 100 (SB 100). SB 100 was signed in 2018 to reach 100 percent carbon-free electricity by 2045. By law, the California Renewables Portfolio Standard (RPS) requires retail electricity providers to increase procurement from eligible renewable energy sources to 50 percent of total procurement by 2026, 60 percent of total procurement by 2030, and 100 percent of total procurement by 2045. To outline opportunities and barriers for implementing the shift to 100 percent carbon free electricity, the 2021 SB 100 Joint Agency Report was prepared by the CEC, CPUC, and CARB. This joint report is updated every four years. The 2021 report concludes that 100 percent carbon-free electricity is attainable, would benefit public health, promote energy equity, and advance the clean energy economy.

Executive Order N-05-19 (EO N-05-19). Required a report led by CAL FIRE in consultation with other State agencies and departments to identify high-priority fuels reduction projects and other measures to immediately begin to protect California's most wildfire-vulnerable communities.

Senate Bill 99 (SB 99). SB 99 was approved in August 2019 and required legislative bodies of cities or counties to adopt comprehensive, long-term general plans that includes elements such as a housing element and a safety element. This bill requires that the safety element includes information identifying residential developments in hazard areas that do not have at least two emergency evacuation routes.

Assembly Bill 747 (AB 747). AB 747 requires that cities and counties include in their comprehensive general plans a safety element for the protection of the community from unreasonable risks associated with the effects of various geological hazards, flooding, wildland and urban fires, and climate adaptation and resilience strategies. This law also requires that the safety element identifies evacuation routes related to identified fire and geologic hazards.

Assembly Bill 1409 (AB 1409). AB 1409 requires cities and counties that do not have a local hazard mitigation plan to maintain and update the community safety element to identify evacuation routes and their capacity, safety, and viability under a range of emergency scenarios.

Assembly Bill 1279 (AB 1279). On August 31, 2022, the governor signed AB 1279, which built off Executive Order B-55-18 and codified into law the State's commitment to achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter. This goal is in addition to the existing statewide GHG emission reduction targets established by SB 375, SB 32, SB 1383, and SB 100. Building off EO B-55-18, AB 1279 also tasks CARB with including a pathway toward the carbon neutrality goal in the next Scoping Plan update.

Senate Bill 1035 (SB 1035). This law requires that planning agencies review and revise their safety element as necessary to address climate adaptation and resiliency strategies. In addition, should identify new information related to floods and fire hazards, and climate planning upon each revision of the housing element or local hazard mitigation plan.

Unified Program. The Unified Program protects Californians from hazardous waste and hazardous materials by ensuring consistency throughout the State regarding administrative requirements, permits, inspections, and enforcement. CalEPA has established a unified hazardous waste and hazardous materials management regulatory program (Unified Program) as required by Senate Bill 1082 (1993). The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities for the following environmental programs under CalEPA, the State Water Resources Control Board (SWRCB), including the RWQCBs in each region of the State, State Office of Emergency Services, and the State Fire Marshal:

- Underground Storage Tank (UST) Program – hazardous materials release response plans and inventories
- California Accidental Release Prevention Program (CalARPP)
- Aboveground Petroleum Storage Act – requirements for spill prevention, control, and countermeasure plans
- California Uniform Fire Code (UFC) – hazardous material management plans and inventories

These environmental programs are implemented at the local level by local agencies, known for this purpose as Certified Unified Program Agencies (CUPAs). CUPAs carry out the responsibilities previously handled by approximately 1,300 State and local agencies, providing

a central permitting and regulatory agency for permits, reporting, and compliance enforcement.

Local

Siskiyou County General Plan. The Siskiyou County General Plan includes guiding goals and policies for the planning and development of land under the county's jurisdiction. The plan helps the county implement a collective vision for the county in the coming decades.

Siskiyou County Noise Element. The Siskiyou County Noise Element of the General Plan sets standards for exterior community noise. Residential lands are identified as the most sensitive land uses, with an established noise limit of 60 decibels (dBA). Noise limits for any new development site within a residential area are limited to 60 to 65 dBA, with noise abatement features incorporated.

Siskiyou County Hazard Mitigation Plan. The purpose of the Multi-jurisdictional Hazard Mitigation Plan is to reduce or eliminate long-term risk to people and property from hazards. The plan was developed to help the county and its residents be less vulnerable to future hazard events. This plan was prepared following the requirements of the Disaster Mitigation Act of 2000 so that Siskiyou County would be eligible for the FEMA Pre-Disaster Mitigation and Hazard Mitigation Grant programs as well as lower flood insurance premiums (in jurisdictions that participate in the NFIP's Community Rating System).

Siskiyou County Emergency Preparedness Guide. The Siskiyou County Emergency Preparedness Guide, created by the Siskiyou County Public Health Department in coordination with the Office of Emergency Services, is intended to help citizens and communities prepare for emergency events. This guide lists several steps and recommendations to ensure the preparedness and safety of all residents should a disaster event occur. This guide details evacuation planning, emergency planning, evacuation processes, wildfire preparations, water treatment, earthquakes, volcanic eruption, flood hazards, and more.

Siskiyou County Community Wildfire Protection Plan (CWPP). The CWPP is a countywide plan, prepared by the Siskiyou County Fire Safe Council (FSC), to reduce the risk of catastrophic wildfires and protect communities and values at risk on a landscape scale. The CWPP was developed in collaboration with residents, local fire departments, city and county leadership, and other land management entities in Siskiyou County. It is designed to help communities identify and prioritize areas for hazardous fuel reduction treatments and recommends the types and methods of treatment that will protect Siskiyou County communities.

Siskiyou County Hazardous Materials Management Unified Program (CUPA). The Hazardous Materials Management Group implements the Unified Program (UP), at the local government level pursuant to Title 27 § 15110(a)(2). Siskiyou County Environmental Health Division of the Community Development Department became the Certified Unified Program Agency (CUPA) on January 1, 1997. The Environmental Health Division is certified by the CalEPA Secretary to implement the Unified Program specified by Health and Safety Code § 25404(a)(1)(A), within Siskiyou County. Siskiyou County Environmental Health is responsible for responding to incidents involving any release or threatened release of hazardous materials. Threats to people, property and the environment are assessed, and then remedial action procedures are conducted under the supervision of a Registered Environmental Health Specialist.

Siskiyou County Air Pollution Control District (SCAPCD). The SCAPCD aims to protect the health, welfare, and quality of life of county residents and visitors by maintaining good air quality through control of air pollutant emissions with fair and effective implementation of air quality regulations. The SCAPCD includes information and procedures for fire and smoke, burn permits, burn days, and incentives and grants.

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10. Hydrology and Water Quality

This chapter describes the geographic and regulatory setting for hydrology and water quality in Siskiyou County, including surface water resources, groundwater resources, water quality considerations, flood hazard areas, and water supply.





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10.1 Introduction

This chapter documents existing hydrology and water quality conditions in Siskiyou County. It is organized into the following sections:

10.1 Introduction HYD-3
10.2 Water Resources and Reliability (Groundwater and Surface Water) HYD-4
10.3 Water Quality HYD-9
10.4 Water Suppliers, Treatment, and Delivery HYD-11
10.5 Water Conservation Measures HYD-17
10.6 Groundwater Sustainability Plans HYD-18
10.7 Water Management HYD-24
10.8 Key Terms HYD-25
10.9 Regulatory Setting HYD-26
10.10 References HYD-29

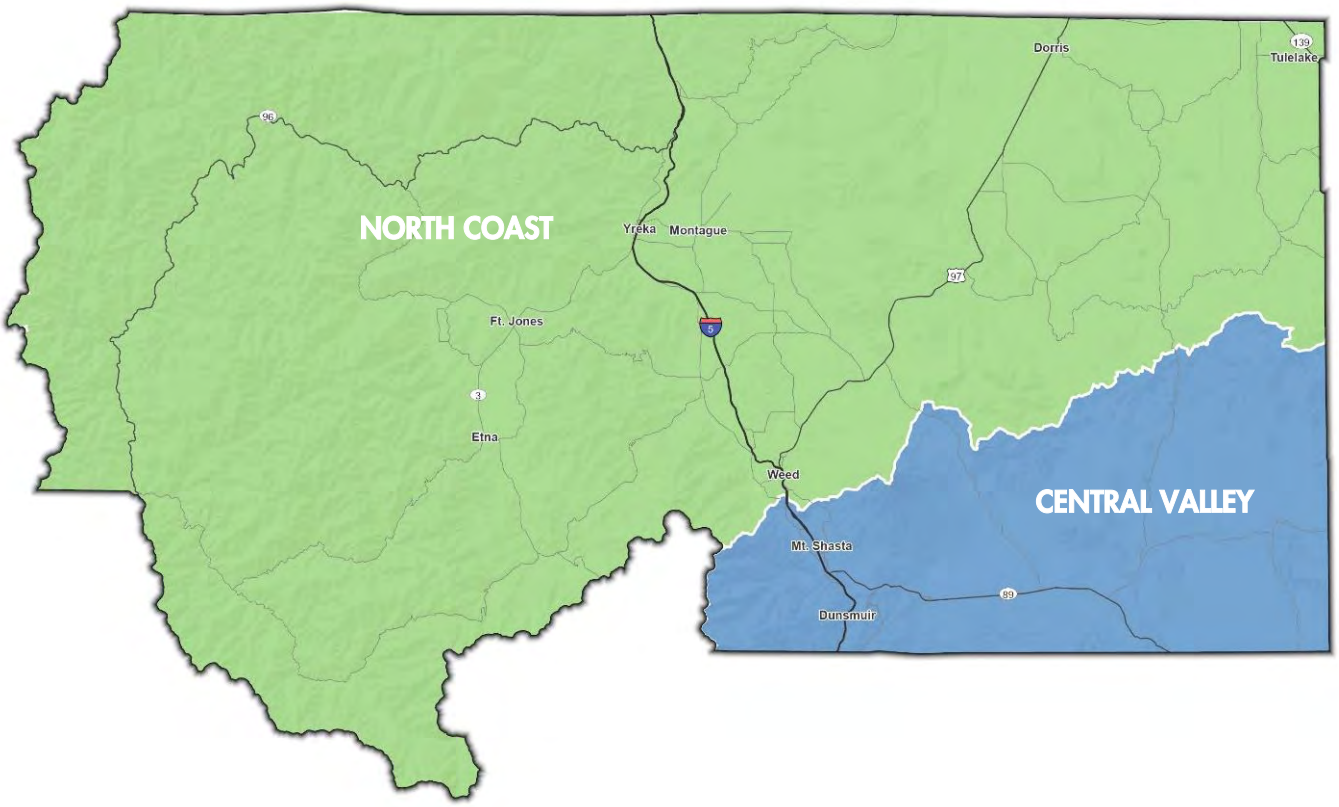
10.2 Water Resources and Reliability (Groundwater and Surface Water)

Existing Conditions

Siskiyou County is in northern California, within the jurisdiction of the North Coast RWQCB and the Central Valley RWQCB, as noted in Figure 10.1. The North Coast RWQCB contains the majority of Siskiyou County's watersheds under its jurisdiction, except for the Sacramento River Headwaters in southern Siskiyou County. The Central Valley RWQCB has authority over waters used for irrigation of the Central Valley, including much of the Sacramento River. Siskiyou County's largest and most noteworthy watershed is the Klamath River Watershed, which has recently been the topic of major news.

In November 2022, the Federal Energy Regulatory Commission (FERC) approved the license surrender order for the Lower Klamath River Hydroelectric Project to decommission and remove four dams along the Klamath River. This decision granted the Klamath River Renewal Corporation and the states of California and Oregon the right to remove these dams along the Klamath River and re-wild hundreds of miles of critical salmon habitat.

Figure 10.1 Regional Water Quality Control Boards



Hydrology and Drainage

Hydrology refers to the movement of water across the ground surface. Watershed areas refer to all the land and water features that contribute to the flow of water into a specific waterbody. As shown in Figure 10.2, there are twelve defined watersheds in Siskiyou County, summarized below.

- **Klamath River Watershed.** The largest watershed in the area is the Klamath River Watershed, which is divided into the Lower, Middle, and Upper Klamath subwatersheds. The Klamath River Watershed encompasses a wide range of communities and tributaries from southern Oregon to Trinty County. In Siskiyou County, the Klamath River Watershed runs from the California-Oregon border through the communities of Montague, Yreka, Fort Jones, Weed, and Happy Camp.
- The Klamath River is the largest river that flows through Siskiyou County, flowing for 263 miles from eastern Oregon through the Klamath Mountains in Siskiyou County to the Pacific Ocean. The river has many tributaries including the Shasta River, the Scott River, and the Salmon River. The Klamath River has been a source of conflict between hydroelectric companies and environmental interests, and in November 2022, four dams were approved by FERC to be removed. The removal of these dams will reopen 400 miles of critical habitat for threatened, endangered, and other species of concern such as Coho salmon, Chinook salmon, and steelhead trout. Additionally, the Klamath River is especially culturally significant to the Karuk Tribe, who have been some of the leading advocates for these dam removals.
- **Scott River Watershed.** The Scott River, a tributary of the Klamath River, is a 60-mile-long river that originates in the Trinities and is fed by the Trinities, the Russians, and the Marbles. The Scott River features several smaller tributaries such as French Creek, Shackleford Creek, Sugar Creek, and Mill Creek and is a major source for agriculture-related irrigation in the Scott Valley. The Scott River is known for its Coho and Chinook salmon and steelhead fisheries and is culturally significant for the Karuk peoples, the Shasta Indian Nation, and the Quartz Valley Indian Nation. The French Creek is one of the most prolific Coho Salmon producing systems in the state; an estimated 70 percent of the state's Coho Salmon originates from the French. Like other water systems in the area, the Scott River faces water management conflicts between agriculture uses and environmental interests.
- **Shasta River Watershed.** The Shasta River is a tributary of the Klamath River. Originating in the Shasta-Trinity National Forest near the base of Mount Shasta, the Shasta River flows northwest through the Shasta Valley to its confluence with the Klamath River, just past the City of Yreka. The Shasta River is about 58 miles long and plays a crucial role in the agriculture landscape of the Shasta Valley, acting as a major irrigation source for farmers. The river is especially culturally significant to the Shasta Indian Nation and provides critical habitat for salmon and steelhead in the area.
- **Lost River Watershed.** The Lost River watershed encompasses an area of approximately 3,000 square miles in Modoc and Siskiyou Counties in California and Klamath and Lake Counties in Oregon. The Upper Lost River originates in Siskiyou County near Clear Lake and flows north into Oregon to the Malone Dam. The Lower Lost River originates downstream of Malone Dam where it flows north, west, then south into Siskiyou County where it terminates at the Tulelake National Wildlife Refuge.

- **Pit River Watershed.** The Pit River Watershed includes the Lower and Upper Pit River Watersheds and starts at Lake Britton and continues downstream for about 40 miles to the confluence with Lake Shasta. The Pit Watershed is mainly controlled by the Pacific Gas and Electric Company (PG&E) which uses the reservoirs along the River, Pit 4, 5, 6, and 7 Reservoirs, for hydropower generation. Most of the Pit River flows through heavily forested areas of Shasta-Trinity National Forest and is managed principally by PG&E.
- **Salmon River Watershed.** The Salmon River is the second largest tributary to the Klamath River and covers 751 square miles in southwestern Siskiyou County. The river has no dams, diversions, or significant irrigation withdrawals, making it completely accessible to anadromous fish that are culturally and ecologically significant to the area. The river contains an 18-mile long mainstem and two forks, the North Fork and the South Fork.
- **Butte Valley Watershed.** The Butte Valley Watershed is located in northern Siskiyou County north to the California-Oregon border. It covers an area of about 79,739 acres in size and about 84 percent of the water is groundwater, serving three small communities throughout the watershed.
- **Sacramento Headwaters Watershed.** The Sacramento Headwaters originates from water flowing off Mt. Shasta and the Klamath Mountains in lower Siskiyou County. These waters flow about 40 miles before entering Lake Shasta above the Shasta Dam, where the flow rate is regulated by the reservoir for hydropower and recreation. From there, the waters flow south through the Central Valley, where it is used primarily for irrigating agriculture.
- **McCloud River Watershed.** The McCloud River watershed is located partly in southern Siskiyou County at the southern end of the Cascade Range and covers about 800 square miles. The McCloud River originates from several spring-fed streams adjacent to Highway 89, approximately 16 miles east of the community of McCloud, and is dammed to form Lake McCloud, a reservoir operated by PG&E for hydropower generation.
- **Applegate River Watershed.** The Applegate River is a major tributary of the Rogue River, originating in southern Oregon. The Applegate River flows through the Siskiyou Crest in northwest Siskiyou County and runs into Applegate and Little Applegate Valleys. There, the waters help irrigate vineyards and help maintain the immense biodiversity of the region.

Surface Water Features

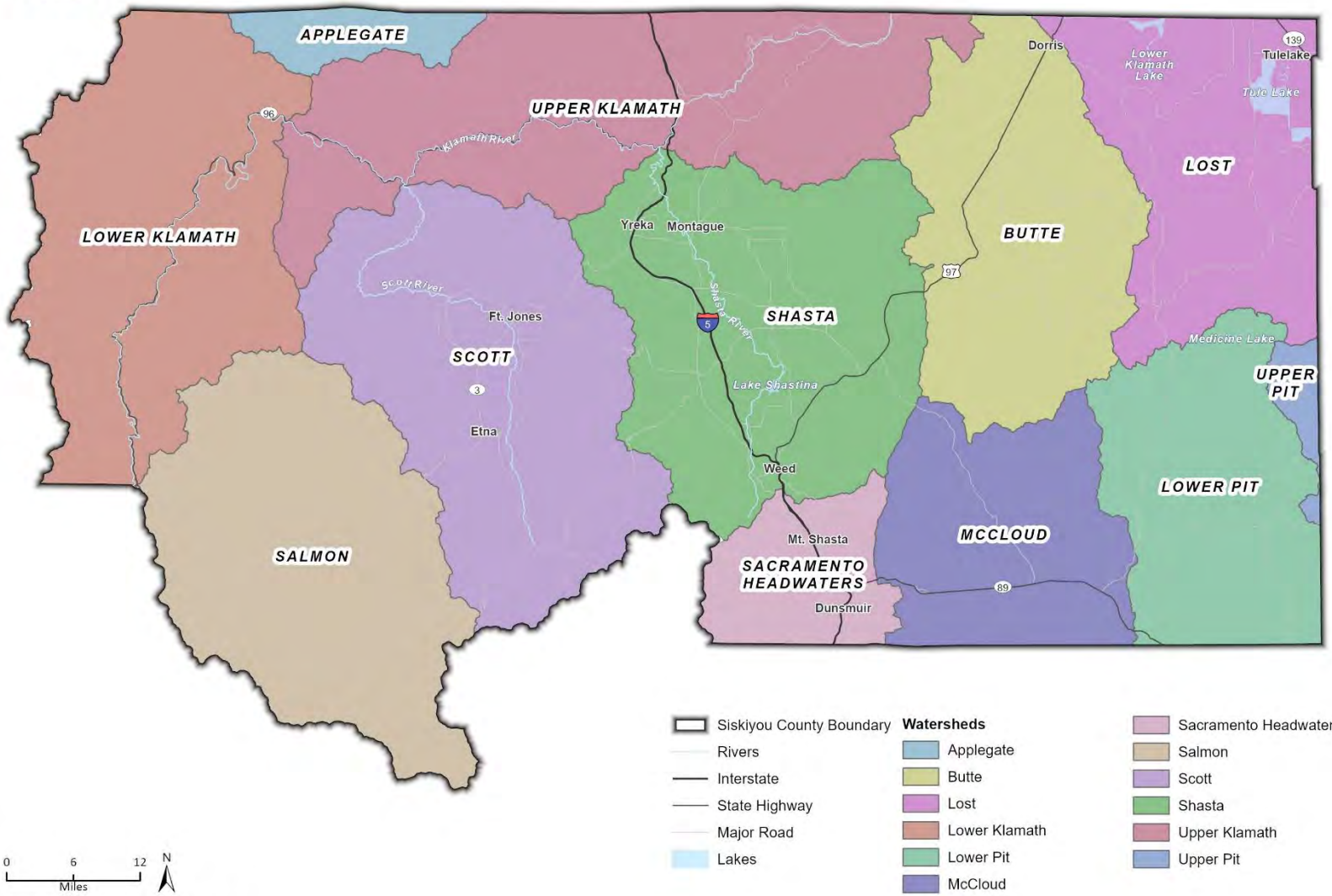
In addition to the rivers and watershed areas described above, additional surface water features in Siskiyou County are summarized below.

- **Lower Klamath Lake.** Lower Klamath Lake is a 128-square-mile freshwater lake located along the California-Oregon border near the town of Dorris, California. The lake is in the National Wildlife Refuge System and the habitat around the lake is considered to be pristine birdwatching habitat, known for its ecological significance. The lake's water levels are mainly influenced by agriculture uses, precipitation, water diversions, and practices to support wildlife habitat.
- **Lake Shastina.** Lake Shastina is a reservoir created by the construction of the Dwinnell Dam on Big Springs Creek, a tributary of the Shasta River. The reservoir covers about 1,365 acres and is located next to Lake Shastina, a census designated place, about nine miles from Weed, California. The reservoir was initially constructed in 1926 for irrigation of agriculture fields in Shasta Valley and is now also used as a vacation home

site and recreation lake for fishing, boating, and paddling. Water levels of the reservoir are determined by natural factors such as precipitation levels, snowpack and runoff and other factors like irrigation uses and environmental flow requirements.

- **Medicine Lake.** Medicine Lake is located in northeastern Siskiyou County within the Medicine Lake Highlands in Modoc National Forest. The lake is about 600 acres and is a main source for outdoor recreation such as fishing, boating, hiking, and camping. The lake is culturally significant for the Modoc peoples and is part of their ancestral lands.
- **Lake Siskiyou.** Lake Siskiyou is a 26,000 acre foot reservoir that was created by the Box Canyon Dam along the Sacramento River near the town of Mount Shasta. The dam is maintained by the Siskiyou County Flood Control & Water Conservation District and Siskiyou Power Authority, as it provides hydroelectric power to the surrounding area. Additionally, the lake is a major source of recreation for residents and tourists in the county, where activities such as fishing, swimming, boating, kayaking, and hiking are popular.
- **Meiss Lake.** Located in eastern Siskiyou County, Meiss Lake spans about 4,200 acres within the Butte Valley Wildlife Area, which is managed by the California Department of Fish and Game. The lake is fed seasonally by several creeks throughout Butte Valley including Prather Creek, Ikes Creek, and Musgrave Creek. This area is renowned for waterfowl hunting, fishing, and hiking.
- **Tule Lake.** Tule Lake is located in northeastern Siskiyou County and is part of the National Wildlife Refuge system, offering vital wetland staging areas for migrating waterfowl in the Pacific Flyway. The lake spans about 57,000 acres and is one of the largest freshwater lakes in the state. Tule Lake is part of the Lost River watershed and is primarily fed by the Lost River and the Sprague River, which flow into the lake from the east. The lake and surrounding wetlands are managed by the US Fish and Wildlife Service, which offer hiking access and special license hunting opportunities.
- **Grass Lake.** Grass Lake is a large, wet meadow located in eastern Siskiyou County which occupies a closed depression that was created when a lava flow from Little Deer Mountain blocked a valley that drained to the east. The lake spans an area if about 1,570 acres and is underlain by porous and permeable volcanic rocks, including olivine basalts and basaltic andesites. The nearby Grass Lake Rest Area offers opportunities for outdoor recreation including a short trail and views of the lake and wildflowers.

Fig 10.2 Watersheds and Surface Groundwater



Source: NHD, WBDHUC8, 2023; NHD, 2023

10.3 Water Quality

As described in Section 10.3 and noted in Figure 10.1, Siskiyou County is within the jurisdiction of both the North Coast RWQCB and the Central Valley RWQCB; therefore, water quality in the county is managed for compliance with both Basin Plans, which are summarized below.

North Coast Basin Plan

The Water Quality Control Plan for the North Coast Region contains regulations adopted by the North Coast RWQCB to control the discharge of waste and other factors affecting the quality of water within the region. This plan contains the CWA's Antidegradation Policy, which follows state and Federal regulations for waste discharge into waterbodies. Additionally, the Plan sets objectives for maintaining water quality throughout the region by targeting bacteria, biostimulatory substances, chemical constituents, color, dissolved oxygen, floating material, oil and grease, pesticides, pH, radioactivity, sediment, settleable material, suspended material, tastes and odors, temperature, toxicity, and turbidity, as required by Federal water quality criteria contained in the National Toxics Rule and the California Toxics Rule. Every six years the North Coast RWQCB prepares a Water Quality Assessment Report that evaluates water quality information and identifies bodies of water that do not meet water quality standards and are not supporting their beneficial uses. The 2018 Water Quality Assessment Report shows waters that have been placed on a list of impaired water bodies with identified pollutant(s) or stressor(s) causing impairment (North Coast RWQCB, 2018).

The **Shasta River Watershed** has an action plan to bring temperature and dissolved oxygen total maximum daily loads (TMDLs) within water quality standards, in order to protect the beneficial uses of water in the Shasta River watershed. The Shasta River watershed was listed as impaired for organic enrichment/dissolved oxygen in 1992, and as impaired for temperature in 1994, pursuant to Section 303(d) of the Clean Water Act. Since then, water temperature conditions regularly exceed temperature thresholds protective of salmonids. Designated beneficial uses that are impaired by these conditions include cold freshwater habitat; rare, threatened, and endangered species; migration of aquatic organisms; and spawning, reproduction, and/or early development of fish; commercial and sport fishing; and contact and non-contact water recreation. Beneficial uses associated with the cold freshwater salmonid fishery are the most sensitive to the dissolved oxygen and water temperature impairments. The Klamath River, to which the Shasta River is a major tributary, is also listed as impaired for low dissolved oxygen, high water temperature, and high nutrient levels. Many individuals, groups, and agencies have continued to improve and restore fish habitat and water quality throughout the Shasta River and its tributaries.

The **Scott River Watershed** has an action plan to bring sediment and temperature total maximum daily loads (TMDLs) within water quality standards, as denoted by the U.S. EPA, in order to protect the beneficial uses of water in the Scott River watershed. As of 2018, excessive sediment loads and elevated water temperatures in the Scott River and its tributaries have resulted in degraded water quality conditions that impair designated beneficial uses, including contact and non-contact water recreation; commercial and sport fishing; cold freshwater habitat; rare, threatened, and endangered species; migration of aquatic organisms; and spawning, reproduction, and/or early development of fish. The Scott River watershed has been listed as impaired with relation to sediment since 1992, and impaired with relation to temperature since 1998, pursuant to Section 303(d) of the Clean Water Act. Since

then, many individuals, groups, and agencies have continued to improve and restore fish habitat and water quality throughout the Scott River and its tributaries.

Central Valley Basin Plan

The Water Quality Control Plan for the Central Valley Region contains plans for both the Sacramento River and San Joaquin River Basins, focused on water quality objectives for inland surface waters and ground waters throughout the basins. The plan sets objectives for maintaining water quality by targeting bacteria, biostimulatory substances, chemical constituents, color, dissolved oxygen, floating material, oil and grease, pesticides, pH, radioactivity, sediment, settleable material, suspended material, tastes and odors, temperature, toxicity, and turbidity. Additionally, the plan sets forth water use plans for the basins, focusing on water quality concerns from agriculture, which accounts for the most water use in the two sub-basins. As such, the plan maintains water quality standards for agricultural drainage including salts, nutrients, pesticides, trace elements, sediments, and other by-products that affect the water quality of the rivers and Delta in the two sub-basins.

10.4 Water Suppliers, Treatment, and Delivery

Siskiyou County is upstream of the headwaters of both the State Water Project (SWP) and the Federal Central Valley Project (CVP). The County receives surface water runoff from the Klamath Mountains, the Cascade Range, including Mount Shasta, the Trinity Mountains and the Scott Mountains. These mountain ranges collectively shape the hydrology of Siskiyou County, contributing to the flow of major watersheds such as the Klamath River, Sacramento River, and the Salmon River.

Residents not using a community or municipal water provider depend on private wells and surface water to meet water needs. Based on the California Water Code, water suppliers that provide over 3,000 acre-feet of water annually or serve more than 3,000 urban connections are required to submit an Urban Water Management Plan (UWMP). Due to the sparse population and limited connections within the county, only the City of Yreka maintains an active UWMP. The County provides water to some county residents but has less than 3,000 service connections and therefore is not required to maintain a UWMP. Because a large portion of Siskiyou County is unincorporated and communities are dispersed, many residents of these areas rely on private wells to access groundwater. As a result, the unincorporated areas of Siskiyou County could face water supply pressure if drought conditions prevent adequate access to water sources.

In the past, wildfire conditions exacerbated water supply sources for smaller and unincorporated communities in Siskiyou County, including the Hornbrook CSD which provides water to Hornbrook residents. During the Klamath Fire in 2018, the CSD water system lost one of its three groundwater well and the roof over a 98,000 gallon drinking water reservoir. As a result of water use during this time, debris became trapped in the system's water lines, requiring a full flush of the system and cleaning and reinstalling water meters. These wildfire conditions led to extreme shortages and usage regulations, as well as infrastructure damage to storage tanks and treatment capabilities in smaller communities throughout the county. Climate change conditions are expected to exacerbate water conditions, especially for unincorporated communities without access to long-term water supplies.

Although the County does not maintain regulated water supplies, there are six public water suppliers and four community service districts that manage the needs of Siskiyou County as well as a private water company, noted in Figure 10.3, including:

- Montague Water Conservation District
- Lake Siskiyou Highlands Mutual Water Corporation
- Grenada Sanitary District
- Hornbrook Community Services District
- McCloud Community Services District
- Tennant Community Services District
- Yreka Water Department
- Mount Shasta Water Utility
- Weed City Water
- Dunsmuir Water Department
- Etna Water Utility

Unincorporated County

Montague Water Conservation District

The Montague Water Conservation District is located in the city of Montague and provides irrigation water to landowners in the northern part of the Shasta Valley near Montague. The District owns and operates Dwinnell Reservoir and the Shasta River Dam Number 60 in Shasta Valley. More information about the Montague Water Conservation District can be found via their website.

Lake Siskiyou Highlands Mutual Water Corporation

The Lake Siskiyou Highlands Mutual Water Corporation supplies water to the Siskiyou Lake Highland Subdivision and to the Mount Shasta Resort complex. The company extracts groundwater from three wells, which is pumped into two 96,000-gallon bolted steel water storage tanks before being pumped to customers. The company performs its own testing and water treatment services through an aeration process to meet lead and copper regulations. More information can be found via the company's 2020 Water Quality Consumer Confidence Report.

Copco Lake Mutual Water Company

The Copco Lake Mutual Water Company provides water services to 69 connections in the community of Copco Lake, located in the Klamath River Basin. The Water Company extracts water from a well and a natural spring, and was not impacted by the drawdown of Copco Lake in early 2024. More information about the Copco Lake Mutual Water Company can be found via the community's forum or by calling the company directly.

Grenada Sanitary District

Grenada Sanitary District serves residents and the Elementary School in Grenada CDP and provides water services to 57 connections. The District's water system includes a well, a storage tank, the distribution system, and water meters. More information about the Grenada Sanitary District can be found via their website.

Hornbrook Community Services District

The Hornbrook Community Services District is located in the community of Hornbrook and provides domestic water service to 142 connections. The District obtains water from four wells, which pump water into a storage tank. The placement of the storage tank creates a gravity flow system for residents connected to the District's water system. During the Klamathon Fire in 2018, the CSD water system lost one of its three groundwater well and the roof over a 98,000 gallon drinking water reservoir. Since then, improvements have been made to the system to repair the damaged well, reservoir, and other components of the system. More information about the Hornbrook Community Services District can be found via their website.

McCloud Community Services District

The McCloud Community Services District is located in the community of McCloud and provides domestic water service to 1,300 persons through 728 connections. The water is

extracted from groundwater spring sources, including Intake, Upper Elk, and Lower Elk Springs, all of which are located north of McCloud. Many components of this District's water system were initially installed in the 1940s by the McCloud Lumber Company, much of which is still in use today. More information about the McCloud Community Services District can be found via their website.

Tennant Community Services District

The Tennant Community Services District is located in the community of Tennant and provides domestic water service to 101 connections. The water is extracted from a well which was installed in 2012; however, the District is also permitted to source water from Antelope Creek if needed. This District's water system was initially installed in the 1920s by the Long Bell Lumber Company and is still in use today. More information about the Tennant Community Services District can be found by calling the District directly.

Incorporated Cities

Yreka Water Department

The Yreka Water Department is located in Yreka. The City's Water Department serves its residents as well as some connections in the unincorporated county. The city's water sources included several wells and reservoirs, such as the Greenhorn Dam and Reservoir, which was the main source of water to the city prior to the 1970s. As the city grew throughout the late 20th century, droughts and shortages had greater impacts on residents, leading the City to find alternative water sources. In 1968, a 24-inch pipeline from Fall Creek, Fall Creek Pump Station, Water Treatment Plant (WTP), and Evergreen, City Ranch, and Klamath Pass Reservoirs, was completed, giving the City a safe reliable water supply. The City currently obtains its water supply from Fall Creek. The Yreka UWMP includes water use information by sector, with single-family dwellings using the most water, and landscape demands using the least amount of water. Additionally, the UWMP includes projections for water use and supply reliability analysis, which indicates the main water source for the city, Fall Creek, has 100 percent reliability in single and multiple dry years. More information about the Yreka Water Department can be found on the City of Yreka Public Works Department website.

Mount Shasta Water Utility

The Mount Shasta Water Department is located in Mount Shasta. The City's Water Department serves its residents as well as some connections in the unincorporated county within its Sphere of Influence. The City's water supply is derived from natural springs located two miles east of the City at the top of McCloud Avenue, as well as two active deep underground water wells which have a total maximum production of approximately 3.7 million gallons per day, or approximately 1,351 million gallons per year. The wells only operate during the summer periods of high demand. The City's water system also includes four storage reservoirs with a total of 1.7 MG of water storage, one booster pump station (used when needed to boost pressure during the summer months), approximately 188 fire hydrants, and approximately 185,000 feet of distribution pipelines. In 2015, the City completed the installation of water meters at every service connection served by the City.

Weed City Water

The Weed Water Department is located in Weed. The City's Water Department serves residents within the City limits, including residential and commercial connections as well as local fire protection systems of hydrants and sprinklers. The City of Weed relies on springs and wells for water supply. Water from Beaughan Springs, Mazzei Well, and Gazelle Well are supplied by the Mount Shasta Watershed. Beaughan Springs is privately owned by Roseburg Forest Products. The City's water sources allow for delivery of approximately 2.97 million gallons per day. The City also maintains six storage reservoirs , totaling 1.55 million gallons of water. The City's water distribution system consists of more than 135,000 feet of ¾-inch to 12-inch diameter pipeline built from a variety of materials resulting in some variability in age and condition. The vast majority of the City's network is less than 30 years old and expected to last for another 40 years or more.

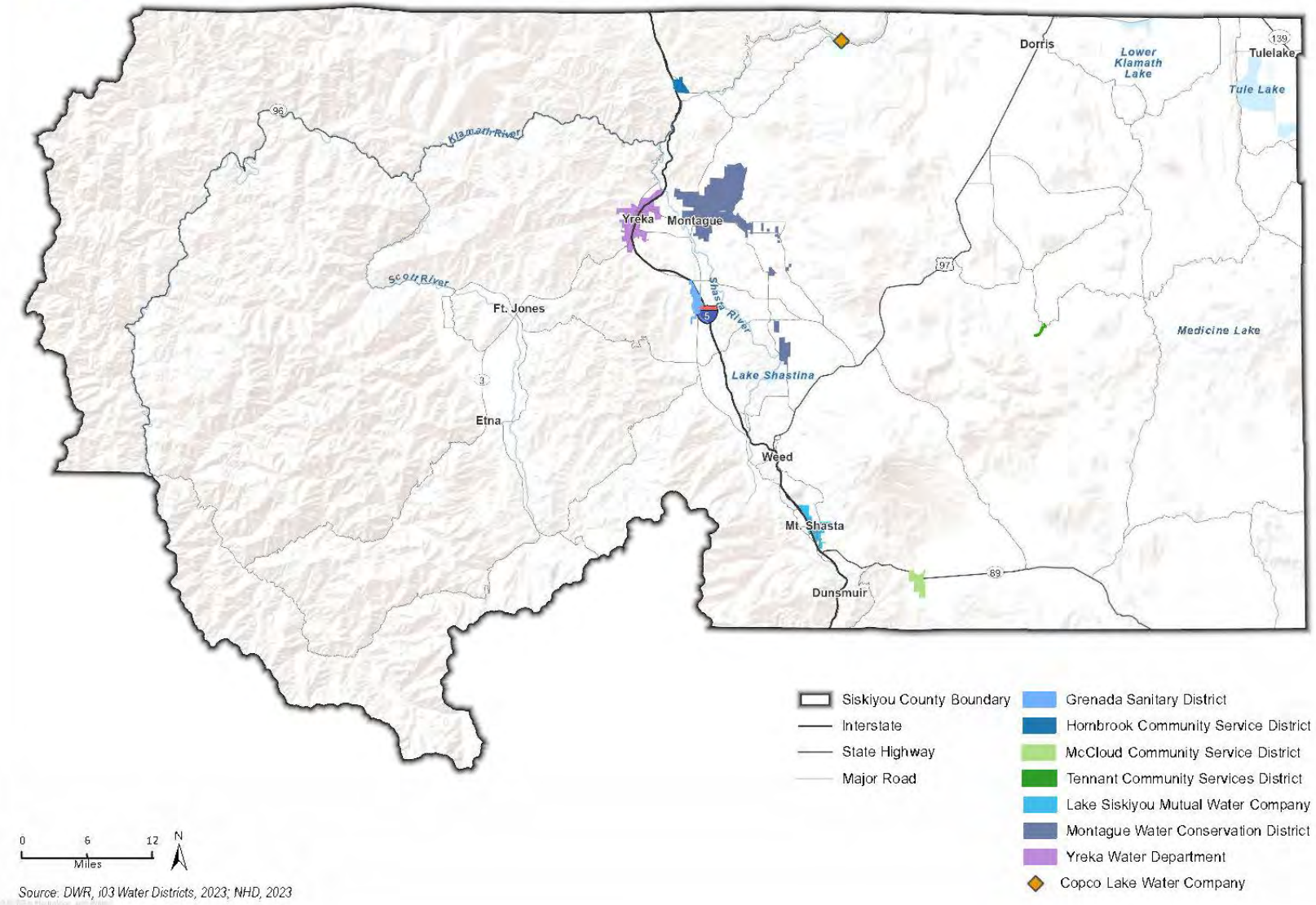
Dunsmuir Water Department

The Dunsmuir Water Department is located in Dunsmuir. The City's Water Department serves residents within the City limits. The City obtains all of its water from the Mossbrae Springs, and has a water right for 1.27 million gallons per day, which adequately serves existing and future projected demands. The water is of excellent quality and does not require treatment or chlorination. The City's distribution piping system dates to the early 1900's consisting of old, thin-walled, steel piping. The City has implemented several projects over the years for replacing the worst of these old water mains.

Etna Water Utility

The Etna Water Department is located in Etna. The City's Water Department serves residents within the City limits. The City obtains its water from Etna Creek, where it enters the water system at the south end of town. A gravity system is provided from a concrete diversion dam located at Etna Creek, and feeds two water storage tanks with a storage capacity of 274,000 gallons while the demand is approximately 70,000 gallons. The City is in need of a larger storage tank in order to provide for operational, fire, and emergency requirements. The City's water treatment facility, located on Highland Avenue, consists of pressured filters and chlorine disinfectant pursuant with State drinking water standards. This system was implemented in the early 1970s.

Fig 10.3 Water Districts



Source: DWR, i03 Water Districts, 2023; NHD, 2023

Siskiyou County Water Treatment

As described in Section 10.9, *Regulatory Setting*, Siskiyou County is within the jurisdiction of both the North Coast RWQCB and the Central Valley RWQCB; therefore, water treatment in the county is managed for compliance with both Basin Plans. Although Siskiyou County is largely unincorporated and allows for communities to treat their own water, the County has prepared a draft Local Agency Management Program (LAMP) relating to the oversight of onsite wastewater treatment systems (OWTS) within the county. As of 2024, the County's Local Agency Management Program has not yet been approved by the State. This oversight allows the County to maintain operational standards, permitting control, licensing requirements, site evaluations, installation requirements, and maintenance requirements over the wastewater treatment systems throughout the county, including incorporated and unincorporated areas. The LAMP also regulates domestic wastewater from residential or commercial buildings in the unincorporated areas of the county with daily flows not exceeding 10,000 gallons. There are several water treatment facilities throughout the county including in Yreka, Mt. Shasta, Montague, Greenview, Edgewood, Carrick, Dewitt Park, and Macdoel.

The LAMP lists communities in Siskiyou County that have high OWTS density. These communities include Greenview, Edgewood, Carrick, Dewitt Park, and Macdoel. The communities of Greenview and Edgewood are older established communities that have high OWTS density and will likely require future development to maintain adequate separation from groundwater. In order to satisfy LAMP requirements for developing new OWTS, wet weather groundwater monitoring is required to ensure no leakages are occurring into local groundwater. Carrick is also experiencing high OWTS density but is likely to face new development constraints because of parcel size limitations. This will likely result in the community needing an alternative system to maintain proper OWTS regulations in the future. Dewitt Park, a subdivision of Yreka, is served by private wells, and is also experiencing high OWTS density. However, similarly to Carrick, setback requirements are often challenged due to the small parcel sizes and may require an alternative system to meet size constraints.

10.5 Water Conservation Measures

Siskiyou County water conservation measures are managed by the Siskiyou County Flood Control and Water Conservation District. The District was formed in 1957 to provide for the control and conservation of flood and storm waters and the protection of watercourses, watersheds, public highways, life and property from damage or destruction of these waters. Additionally, the District acquires, retains, and reclaims water from drainage, storms, floods, and other sources to save, conserve, and distribute these waters for beneficial use within the district's boundaries, to replenish the supply of groundwater.

There are four groundwater basins in Siskiyou County which have been identified as Medium Priority by DWR, in accordance with the Sustainable Groundwater Management Act (SGMA). Medium and High Priority basins are required to be managed under a Groundwater Sustainability Plan (GSP) implemented by a Groundwater Sustainability Agency (GSA). In April 2017, the Siskiyou County Flood Control and Water Conservation District became the GSA for the Butte, Scott, and Shasta Valley groundwater basins. Additionally, the Siskiyou County Board of Supervisors, the Tulelake Irrigation District, Modoc County, and the City of Tulelake serve as members of the Tulelake GSA.

SGMA was enacted in September 2014 which requires local agencies to develop GSPs to assess and project future groundwater conditions and provide management and monitoring activities. In accordance with SGMA, each GSP includes sustainable management goals and criteria to maintain groundwater resources in ways that best supports the continued and long-term health of the people, environment, and the economy in the associated communities. Additionally, each GSP includes Projects and Management Actions to achieve sustainability, as well as implementation and budget tracking schedules.

The GSP details six sustainability indicators with a goal of preventing undesirable results to any of the indicators. These indicators are chronic lowering of groundwater, reduction of groundwater storage, degraded water quality, depletions of interconnected surface water, seawater intrusion, and land subsidence. Additional GSP Elements include management of policies governing wellhead protection and well construction, destruction and abandonment, groundwater extraction and illegal cannabis, and groundwater export. More information about the four GSPs of Siskiyou County can be found in the next section.

10.6 Groundwater Sustainability Plans

This section describes the four groundwater sustainability plans used in Siskiyou County. The Butte, Scott, and Shasta Valley groundwater sustainability plans were prepared for the Siskiyou County Flood Control and Water Conservation District. The Tulelake groundwater sustainability plan was prepared for the Tulelake GSA, which consists of Siskiyou County, Modoc County, Tulelake Irrigation District, and the city of Tulelake. The goal of these sustainability plans is to maintain groundwater resources in ways that best support the continued and long-term health of the people, the environment, and the economy for generations to come. Sustainability indicators of focus for each plan are:

1. Chronic lowering of groundwater levels,
2. Reduction of groundwater storage,
3. Degraded water quality,
4. Depletions of interconnected surface water, and
5. Land subsidence.

Butte Valley Groundwater Sustainability Plan

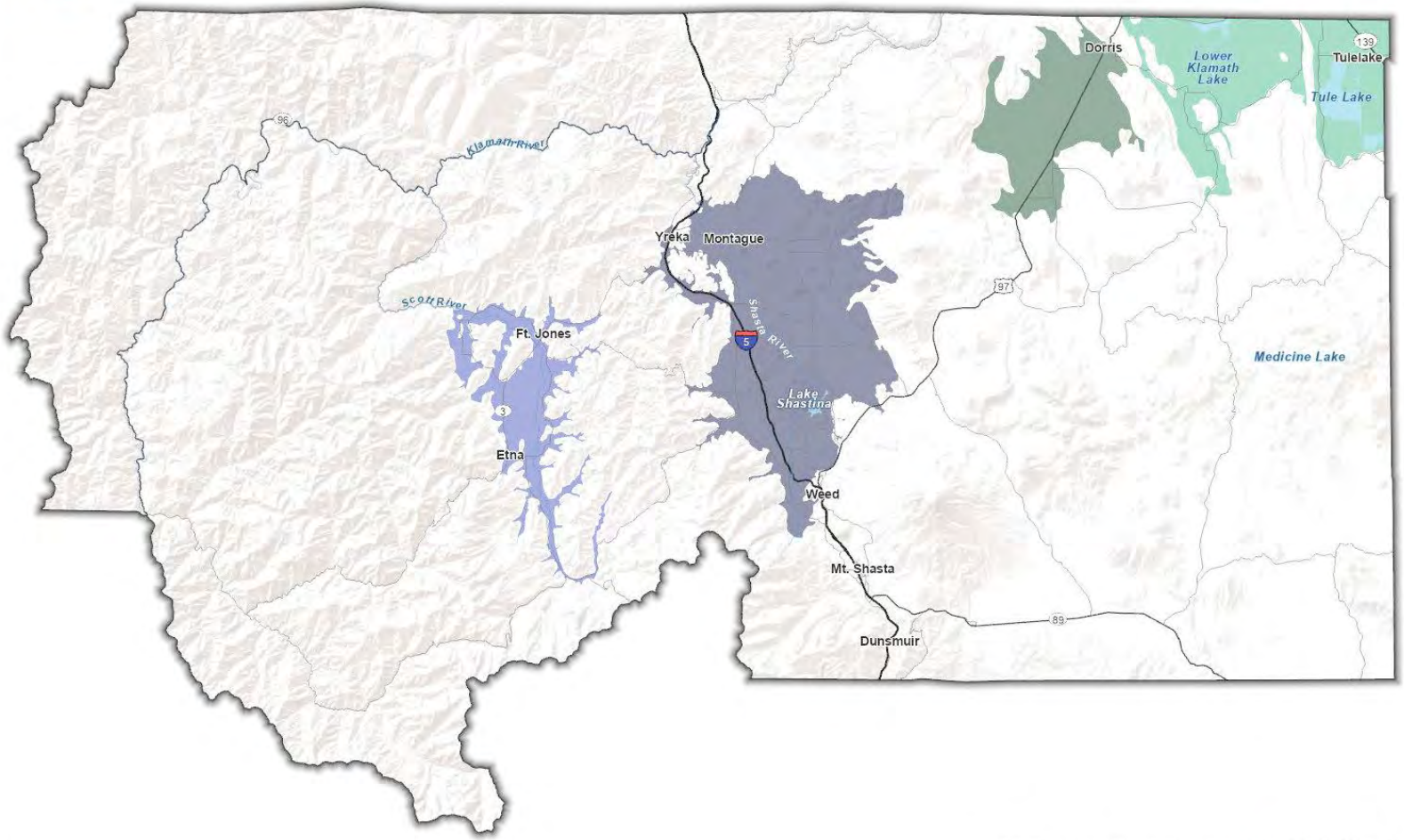
Plan Area

The Butte Valley Groundwater Sustainability Plan outlines a 20-year plan to direct sustainable groundwater management activities that considers the needs of all users in the basin and ensures a viable groundwater resource for beneficial use by agricultural, residential, industrial, municipal, and ecological users. The Butte Valley Basin is a medium priority, hydrologically closed basin located in northern Siskiyou County. The primary communities in Butte Valley are the city of Dorris and the communities of Macdoel and Mount Hebron. The most significant land use in the basin is for agriculture, which accounts for 39 percent of the land in the basin. The primary crops are alfalfa, hay, and strawberry. Adjacent groundwater basins include Tule Lake, Lower Klamath, Red Rock Valley, and Shasta Valley.

Basin Setting

Groundwater levels in the basin fluctuate on a short-term scale with a seasonal high in the spring and seasonal low in the fall. Groundwater recharge in the basin depends on precipitation, which has steadily declined since the 1980s. Groundwater storage for the Butte Valley Basin is difficult to approximate, but best estimate calculations show that the total groundwater storage capacity is 2,560,000 acre-feet. Potential contaminants of concern for the basin are dibromoethane, arsenic, benzene, boron, nitrate, and specific conductivity. Special-status species that depend on the basin for survival are primarily found in riparian areas. Illegal cannabis cultivation is a concern for the basin, as it is challenging to accurately estimate the groundwater use and water quality impacts from illegal commercial cannabis production, and as a result this land use practice is not accounted for in the currently used water budget analysis.

Fig 10.4 Basins that Require a Groundwater Sustainability Plan



Source: DWR, Bulletin 118, Groundwater Basins, 2023; NHD, 2023

Sustainable Management Criteria and Plan Implementation

Monitoring wells throughout the basin are used to assess conditions relevant to each sustainability indicator. Monitor wells were selected based on well location, monitoring history, well information, and well access. Permits are required in order to extract groundwater from the Butte Valley Groundwater Basin. Key Groundwater Sustainability Plan implementation steps, timelines, and budgets are detailed in section five of the plan. Annual implementation of the plan over a 20-year planning period is projected to cost between $135,000 and $230,000, when accounting for groundwater sustainability agency (GSA) management and administration, monitoring, technical support, data management, coordination, reporting, management actions, and outreach. GSAs can charge pumping and permitting fees, as well as other regulatory fees to fund these efforts; however, much of this cost can be offset through grant awards.

Shasta Valley Groundwater Sustainability Plan

Plan Area

The Shasta Valley Groundwater Sustainability Plan outlines a 20-year plan to direct sustainable groundwater management activities that considers the needs of all users in the basin and ensures a viable groundwater resource for beneficial use by agricultural, residential, industrial, municipal, and ecological users. The Shasta Valley Basin is a medium priority basin located in northern Siskiyou County. The primary communities in Shasta Valley are the cities of Yreka, Weed, and Montague, as well as the communities of Grenada, Carrick, Gazelle, and Edgewood. Land ownership in the basin consists mainly of two large conservation properties, Shasta Valley Wildlife Area (under the jurisdiction of California Department of Fish and Wildlife) and the Big Springs Ranch Wildlife Area (under the jurisdiction of California Department of Fish and Wildlife and NOAA National Marine Fisheries Service). Agriculture is also a significant land use in the basin, with primary crops such as alfalfa, grain, hay, and pasture.

Basin Setting

Groundwater levels in the basin have generally been stable since the 1990s. In the central and west-central areas of the basin, groundwater levels are shallow and seasonal variation in groundwater levels has not been seen over this period. In the groundwater table northwest of Gazelle, groundwater levels are much deeper and do tend to show some variation with drought conditions.

The Shasta River and its major tributaries are a part of the interconnected surface water system of the basin. In most years, the net direction of the watershed is as aquifer recharge into the river, however the magnitude and direction of the flow exchanged between surface water and groundwater varies both in time and spatially. Groundwater storage for the Shasta Valley Basin has not been previously estimated due to the complexity in estimating storage properties of volcanic aquifers. Potential contaminants of concern for the basin are arsenic, benzene, boron, iron, manganese, nitrate, pH and specific conductivity. Special-status species and areas that depend on the basin for survival include Chinook salmon, coho salmon, steelhead trout, pacific lamprey, and riparian vegetation within the basin planning area.

Sustainable Management Criteria and Plan Implementation

Monitoring wells are used throughout the basin to assess conditions relevant to each sustainability indicator. Monitor wells were selected based on well location, monitoring history, well information, and well access. Key Groundwater Sustainability Plan implementation steps, timelines, and budgets are detailed in section five of the plan. Annual implementation of the plan over a 20-year planning period is projected to cost between $168,750 and $287,500, when accounting for groundwater sustainability agency (GSA) management and administration, monitoring, technical support, data management, coordination, reporting, management actions, and outreach. GSAs can charge pumping and permitting fees, as well as other regulatory fees to fund these efforts; however, much of this cost can be offset through grant awards.

Scott Valley Groundwater Sustainability Plan

Plan Area

The Scott Valley Groundwater Sustainability Plan outlines a 20-year plan to direct sustainable groundwater management activities that considers the needs of all users in the basin and ensures a viable groundwater resource for beneficial use by agricultural, residential, industrial, municipal, and ecological users. The Scott Valley Basin is a medium priority basin located in western Siskiyou County. The primary communities in Scott Valley are the cities of Etna and Fort Jones, as well as the communities of Greenview and Callahan. Two areas in the basin are exempt from Sustainable Groundwater Management Act requirements to develop Groundwater Sustainability Plans, including an interconnected zone adjudicated through Decree Number 30662 in 1980 and the Quartz Valley Indian Reservation. The most significant land use in the basin is for irrigated agriculture, a majority of which is for alfalfa production and pasture.

Basin Setting

Groundwater levels in the basin have generally been stable since the mid-1960s, despite significant increases in groundwater pumping over this period. As a result of the Basin's consistent water levels during different climate cycles and high interconnectivity with surface water, no significant long-term trends in water levels have been noted over this period.

The Scott River and its major tributaries are all a part of the interconnected surface water system of the basin. In most years, the net direction of the watershed is as leakage into the aquifer, however the magnitude and direction of the flow exchanged between surface water and groundwater varies both in time and spatially. Overall groundwater storage for the Scott Valley Basin was estimated at 400,000 acre-feet, which is distributed throughout six different groundwater units. Over half of this estimated groundwater storage capacity is located in the Scott River floodplain deposits. Water quality in the basin is generally good and meets local need for municipal, domestic, and agricultural uses. Certain contaminated sites within the basin have higher levels of certain contaminants, such as benzene, salt, and nutrients, although these sites are undergoing the process of remediation. Special-status species that depend on the basin for survival include Chinook salmon, coho salmon, and steelhead trout and their aquatic habitat within the basin planning area. Any significant diversion or alteration of these waters requires an alteration permit (also known as a 1600 agreement) through CDFW to ensure that public trust resources, including fish, are protected.

Sustainable Management Criteria and Plan Implementation

Monitoring wells throughout the basin will be used to assess conditions relevant to each sustainability indicator. Monitor wells were selected based on well location, monitoring history, well information, and well access. Key Groundwater Sustainability Plan implementation steps, timelines, and budgets are detailed in section five of the plan. Annual implementation of the plan over a 20-year planning period is projected to cost between $135,000 and $230,000, when accounting for groundwater sustainability agency (GSA) management and administration, monitoring, technical support, data management, coordination, reporting, management actions, and outreach. GSAs can charge pumping and permitting fees, as well as other regulatory fees to fund these efforts; however, much of this cost can be offset through grant awards.

Tule Lake Subbasin Groundwater Sustainability Plan

Plan Area

The Tule Lake Subbasin Groundwater Sustainability Plan outlines a plan to provide sustainable groundwater management by 2042. The Tule Lake Subbasin is a medium priority basin located in northeastern Siskiyou County and stretching into Modoc County. The Subbasin lies within the Upper Klamath Groundwater Basin. The most significant land use in the basin is for agriculture, with primary crops such as grain, hay, alfalfa, potatoes, and sweet potatoes.

Basin Setting

Groundwater levels within the subbasin fluctuate partially as a result of the amount of surface water delivered to the Tulelake Irrigation District for agricultural production. Since 2001, surface water supplies have generally decreased, which has led to increased groundwater extraction from the subbasin.

The main source of water within the subbasin is surface water from the Klamath River. Within the subbasin, surface water systems include a portion of the lower Lost River Improved Channel which extends into the Tulelake area and the sumps. This system is highly regulated as part of the U.S. Bureau of Reclamation's Klamath Project. Surface water presence in the subbasin and flows in the Lost River are dependent upon deliveries of water from the Klamath Project.

Water quality in the basin is generally good and meets local need for municipal, domestic, and agricultural uses. There are no known areas of degraded water quality within the subbasin. Special-status species within the basin boundary are dependent on surface water, not on groundwater. Any significant diversion or alteration of these waters requires an alteration permit (also known as a 1600 agreement) through CDFW to ensure that public trust resources, including fish, are protected.

Sustainable Management Criteria and Plan Implementation

The sustainability goal for the Tule Lake Subbasin is to ensure that by 2042 the Subbasin is being locally managed and operated in order to maintain a reliable water supply for current and future beneficial uses, without causing undesirable results.

Monitoring wells throughout the subbasin are used to assess conditions relevant to each sustainability indicator. Key Groundwater Sustainability Plan implementation steps, timelines, and budgets are detailed in section seven of the plan. Annual implementation of the plan over a 20-year planning period is projected to cost from $50,000 to greater than $150,000, when accounting for groundwater sustainability agency (GSA) management and administration, monitoring, technical support, data management, coordination, reporting, management actions, and outreach. GSAs can charge pumping and permitting fees, as well as other regulatory fees to fund these efforts; however, much of this cost can be offset through grant awards.

10.7 Water Management

The Porter-Cologne Act, originally established in 1967, gives the State Water Resources Control Board (SWRCB) the authority to govern water quality and beneficial uses of surface- and groundwater. Additionally, it authorizes the RWQCBs to create management objectives that protect and maintain clean and safe waters. Siskiyou County falls under the jurisdiction of the North Coast RWQCB and the Central Valley RWQCB. The water quality control plans (Basin Plans) for Siskiyou County, written and managed by the RWQCB, lists beneficial uses for each of the waterbodies of the region and broad categories of waters, including groundwater. Beneficial uses for Siskiyou County waters includes municipal and domestic supply, agricultural supply, groundwater recharge, industrial service supply, freshwater replenishment, recreation, freshwater habitat, wildlife habitat, rare, threatened, or endangered species, Native American culture, and more. A full list of beneficial uses for Siskiyou County waterbodies can be found via the North Coast RWQCB Basin Plan and the Central Valley RWQCB Basin Plan.

Siskiyou County water resources are managed by several coordinating agencies, organizations, irrigation districts, special districts, and the Court of Siskiyou County. The following bodies of water have adjudications ordered by the Superior Court of Siskiyou County: Scott River System, Shasta River System, Shackleford Creek System, and French Creek Stream System. The watermasters of these water systems direct water management within these adjudicated systems. Siskiyou County Flood Control and Water Conservation District manages the Butte, Scott, and Shasta Valley groundwater basins, the Tulelake Subbasin Groundwater Sustainability Agency manages the Tulelake groundwater basin, and the SWRCB manages all other non-adjudicated surface water in the County. The Siskiyou County Flood Control and Water Conservation District oversees county waters from drainage, storms, and floods and helps to redistribute these waters for beneficial use within the District boundaries and replenish groundwater. Because most of Siskiyou County is unincorporated, residents of these areas rely on private wells and permits to pump groundwater. However, incorporated communities within Siskiyou County also have their own water management divisions and public works departments to manage the community water supply, treatment, drainage systems, and distribution systems, such as the Yreka and Mt. Shasta Public Works Departments.

Irrigation Districts

Irrigation districts are a type of water district that manage water usage for the irrigation of agricultural crops. These districts play a crucial role in supporting the county's farming operations. Irrigation districts have the power and responsibility to acquire, plan, construct, improve, operate, and keep in repair the necessary works for the production, storage, transmission, and distribution of water for irrigation purposes. The County has six irrigation districts. **Montague Water Conservation District** serves the city of Montague and agricultural properties to the north, east, and south of the city. **Grenada Irrigation District** serves the community of Grenada and agricultural properties located south of the community. **Scott Valley Irrigation District** serves a portion of the community of Scott Valley along Eastside Road and Scott River Road, excluding the town of Fort Jones. **Big Springs Irrigation District** serves the area surrounding Big Springs Lake and serves many agricultural and ranching properties. **Tulelake Irrigation District** spans an area in both Siskiyou and Modoc Counties. This District serves the area surrounding, but excluding, the city of Tulelake in Siskiyou County and the community

of Newell in Modoc County. **Butte Valley Irrigation District** serves areas of the Butte Valley surrounding, but excluding, the city of Dorris and the community of Mt. Hebron.

10.8 Key Terms

Central Valley Project. A Federal power and water management project in California under the supervision of the United States Bureau of Reclamation. It supplies water to the Greater Sacramento area, the San Francisco Bay area, and the California Central Valley. It also reduces flood risk in the Central Valley and produces electrical power through a system of 20 dams and reservoirs.

Groundwater. Water located beneath the land surface, specifically within pore spaces of saturated soil, sediment, or rock formations.

Groundwater Basin. An aquifer or system of aquifers that has reasonably well- defined boundaries and more or less definite areas of recharge and discharge. Refers to subsurface deposits and geologic formations that are capable of yielding usable quantities of water to a well or spring. The Sustainable Groundwater Management Act defines "basin" as a groundwater basin or subbasin identified and defined in Department of Water Resources Bulletin 118 or as modified pursuant to Section 10722 of the Act.

Headwaters. The uppermost part of a river or stream, where water originates and begins to flow, eventually forming a larger body of water.

Hydrology. The movement, distribution, and properties of water on the Earth's surface, including rivers, lakes, streams, and oceans.

Reservoir. An artificial or natural storage place for water, such as a lake, pond, or aquifer, from which the water may be withdrawn for such purposes as irrigation, water supply, or irrigation.

Runoff. Precipitation that is not used by plants, evaporated, or infiltrated to soils, and is transported across land surfaces to streams or other surface water bodies.

Surface water. Water on the surface of land such as wetlands, streams, rivers, lakes, and reservoirs. Surface water is naturally replenished by precipitation and naturally lost through evaporation and subsurface seepage into the ground.

Tributary. A stream or river that flows into a larger main river or body of water and contributes to the larger water body's flow and volume.

Watershed. The total area above a given point on a watercourse that contributes water to its flow; the entire region drained by a waterway or watercourse that drains into a lake or reservoir.

10.9 Regulatory Setting

Federal

Clean Water Act (CWA). The Federal CWA (33 United States Code [U.S.C.] § 1251 et seq.) and subsequent amendments outline the protocol for regulating discharges of pollutants to federally jurisdictional waters of the United States (U.S.). It is the primary Federal law applicable to water quality of the nation's surface waters, including lakes, rivers, and coastal wetlands, and was enacted to "restore and maintain the chemical, physical, and biological integrity of the nation's waters," implemented by the U.S. Environmental Protection Agency (EPA). In California, the U.S. EPA has delegated regulatory authority for CWA implementation to the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs).

Section 303(d), Impaired Waterbodies and Total Maximum Daily Loads. Section 303(d) of the CWA requires states to identify waters where adopted water quality standards and beneficial uses are still unattained. These lists of prioritized impaired waterbodies, known as the "303(d) lists," are submitted to the U.S. EPA every two years. The law requires the development of total maximum daily load (TMDL) criteria to improve water quality of impaired waterbodies. States develop TMDLs for impaired waterbodies to maintain beneficial uses, achieve water quality objectives, and reduce the potential for future water quality degradation. A TMDL must account for point and non-point sources, where point source pollution is any contaminant entering the environment from an easily identified location, and non-point source pollution is a diffuse source of pollution that occurs over a wider area, including stormwater runoff.

Section 404, Placement of Dredge or Fill Material into Waters of the U.S. The United States Army Corps of Engineers (USACE) is responsible for issuing permits under CWA Section 404 for placement of dredge or fill material into waters of the U.S., which can include oceans, bays, rivers, streams (including nonperennial streams with a defined bed and bank), lakes, ponds, and seasonal and perennial wetlands. CWA Section 404 requires project proponents to obtain a permit from the USACE for all discharges of fill or dredged material into waters of the U.S. before proceeding with a proposed activity. The USACE may issue either an individual permit or a general permit.

Section 401, Water Quality Certification. Section 401 of the CWA specifies that the SWRCB or applicable RWQCB must certify that any Federal action meets with state water quality standards, (23 California Code of Regulations § 3830, et seq.). California has a policy of no net loss of wetlands, which the SWRCB and RWQCBs address by requiring mitigation for dredge and fill impacts to wetlands and waterways. Dredge and fill activities in wetlands and waterways that impact waters of the U.S. require a CWA Section 404 permit from the USACE.

Section 402, National Pollution Discharge Elimination System (NPDES). The SWRCB and the RWQCBs implement and enforce the Federal NPDES program in California. Established in 1972, the NPDES regulations initially focused on municipal and industrial wastewater discharges, followed by stormwater discharge regulations that became effective in December 1990. NPDES permits provide two levels of control: technology-based limits which are based on the ability of dischargers to treat wastewater, and water quality-based limits, which are required if technology-based limits are not sufficient to protect the waterbody. Additionally, stormwater permitting for construction site discharges is described below under state regulations.

Safe Drinking Water Act (SDWA). The SDWA, administered by the U.S. EPA, was established to protect the quality of drinking water in the U.S. This law allows the U.S. EPA to enact minimum standards to protect tap water and requires all owners or operators of public water systems to comply with these standards. This law does include standards regulating the quality of water underground.

Wild and Scenic Rivers (WSR) Act of 1968. The WSR Act led to the creation of the National Wild and Scenic Rivers System through the National Parks Service (NPS), which is a collection of exceptional rivers that have been designated to protect their free-flowing condition, water quality, and outstanding natural, cultural, and recreational values for the enjoyment of present and future generations.

State

Porter-Cologne Water Quality Control Act (1969). The Porter-Cologne Water Quality Control Act mandates protection of waters of the state, or all various aquatic resources regulated by state agencies, such that activities that may affect waters of the state be regulated to attain the highest quality water. The SWRCB is given authority to enforce the Porter-Cologne Water Control Act and SWRCB regulations mandate a "non-degradation policy" for state waters, especially those of high quality. Under the authority of the SWRCB, the protection of water quality in the Klamath River Watershed and its tributaries is under the jurisdiction of the North Coast RWQCB. The RWQCB establishes requirements prescribing the quality of point sources of discharge and establishes water quality objectives. These objectives are established based on the designated beneficial uses for a particular surface water or groundwater. Beneficial uses of the Klamath River Watershed include domestic, agricultural, and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

North Coast Region Regional Water Quality Control Board (RWQCB). The North Coast RWQCB is one of two Regional Water Boards that regulate Siskiyou County's watershed resources. The North Coast RWQCB has jurisdiction for the western and northern portions of the county extending as far east as the Mt. Shasta community in the south of the county and as far east as Tule Lake in the north of the county. The SWRCB works to protect surface water resources across the state and provide safe drinking water to communities across the state. The North Coast RWQCB adopted a Basin Plan, which controls the discharge of waste and other controllable factors affecting the quality of waters of the state within the boundaries of the North Coast Region. The North Coast RWQCB developed the Klamath Watershed Management Area to manage the water quality of this watershed.

Central Valley Regional Water Quality Control Board (RWQCB). The Central Valley RWQCB has jurisdiction over the southeastern corner of the county, extending from the town of Dunsmuir to the Modoc County border. The Central Valley RWQCB adopted a basin plan, which includes the Water Quality Control Plan for the Sacramento River, whose headwaters are in Siskiyou County.

Urban Water Management Planning Act (UWMP Act). The California UWMP Act, enacted by California Water Code (CWC) Section 10620, requires all urban water suppliers providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 AFY to maintain an UWMP. The water supply providers within the Planning Area, Yreka Water Department, Montague Water Conservation District, and Lake Siskiyou Mutual Water

Company maintain UWMPs. In accordance with the UWMP Act, UWMPs identify and characterize the respective agency's planning activities to ensure adequate water supplies to meet existing and future demands for water within its service territory and outline contingency planning steps to execute during times of actual or anticipated water supply shortages.

The 2020 UWMP for Siskiyou County's water suppliers each include data and projections for water supply and demand, conservation programs, water demand management measures and Best Management Practices (BMPs), and recycled water opportunities through the year 2045. They also address requirements of the Water Conservation Bill of 2009 (Senate Bill X7-7) through per capita water use reduction targets, as well as Assembly Bill 1668 and Senate Bill 606, through inclusion of a Drought Risk Assessment and Water Shortage Contingency Plan.

Sustainable Groundwater Management Act (SGMA). SGMA, passed in 2014, created a framework for sustainable, local groundwater management in California. SGMA directed the Department of Water Resources (DWR) to identify priority groundwater basins for the purpose of implementing SGMA. Only high and medium priority basins are currently subject to SGMA requirements, including the requirement of Groundwater Sustainability Agencies (GSA) to develop Groundwater Sustainability Plans (GSP) for groundwater basins.

Lake and Streambed Alteration Permits (1600 Agreements). The Lake and Streambed Alteration Program requires an alteration permit (also known as a 1600 agreement) with the California Department of Fish and Wildlife when any person, business, State or local government agency, or public utility proposes one of the following activities: substantially divert or obstruct the natural flow of any river, stream or lake; substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake; or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. Alteration permits put limits on any proposed diversion to ensure that public trust resources, including fish, are protected.

Local

Siskiyou County General Plan. The County's General Plan provides information for land use decisions within the county. The components of the General Plan that relate to water supply and management are the Conservation Element and Open Space Element. The Conservation Element outlines objectives for the conservation and protection of water resources to ensure continued protection of beneficial uses for people and wildlife. Specific topics addressed in the Conservation Element include preventing pollution from industrial and agriculture waste, maintaining water supply and planning for future expansion, reclaiming and recycling wastewater, and protecting watershed and recharge lands from development. The Open Space Element includes language for protecting watersheds and groundwater recharge land to maintain water habitat, quality, and quantity.

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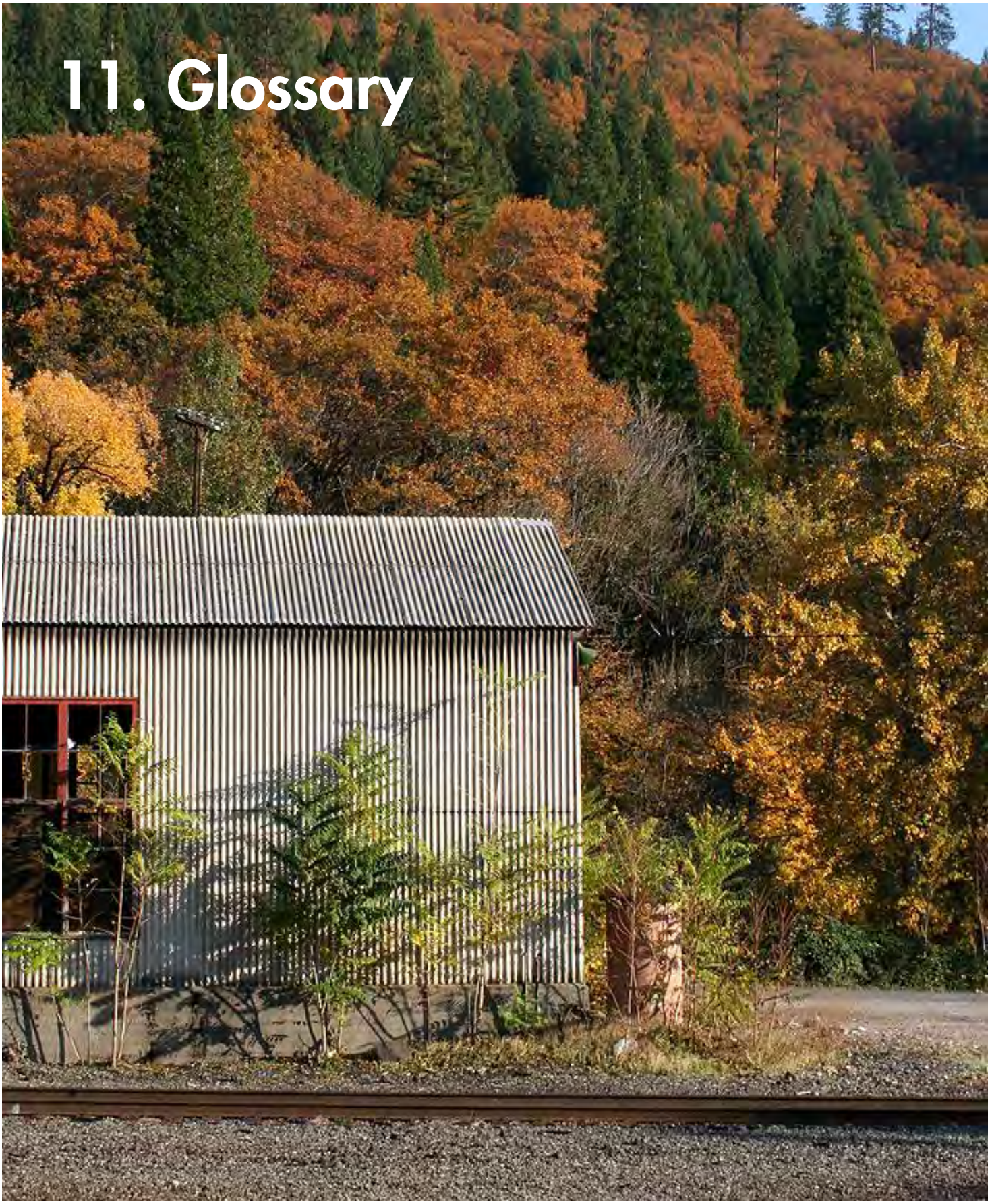
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11. Glossary



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11.1 Glossary

Active Transportation. Transportation modes that are not motorized such as personal vehicles, public transit, or rail. Active transportation typically encompasses pedestrians and bicyclists.

Anadromous Fish. Fish born in freshwater that spend most of their lives in saltwater and return to freshwater to spawn, such as salmon and some species of sturgeon.

Annual Average Daily Traffic (AADT). A measure of traffic volume on a public roadway over an annual period. AADT is typically utilized to identify trends in travel demand.

Area-Wide Source. A pollution source that affects a broad geographical area which may include emissions from multiple point sources.

Atmospheric River. A long, narrow band of highly concentrated water vapor in the atmosphere that transports large amounts of precipitation across vast distances and can contribute to heavy rainfall.

Automated Vehicles. Also referred to as Autonomous Vehicles, automated vehicles are vehicles that provide various levels of driver assistance technologies. Automated vehicles are equipped with artificial intelligence or other technology that allow the vehicle to operate safely either without a driver or with a driver present to maintain control of the vehicle if necessary.

Best Management Practices (BMPs). Activities or structural improvements that help reduce the quantity and improve the quality of stormwater runoff. BMPs include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.

Broadband. The broadcasting of data over a high-speed internet connection. Broadband provides internet access through various technologies including fiber optic, wireless, cable or satellite.

By Right. A by-right approval is granted when a development proposal strictly conforms to zoning and building codes and, thus, qualifies for construction without requiring a conditional use permit, a planned unit development permit, or any other discretionary local-government review or approval that would constitute a "project" as defined in Section 21100 of the Public Resources Code.

CAL FIRE. The California Department of Forestry and Fire Protection is an emergency response and resource protection department. CAL FIRE protects lives, property, and natural resources from fire, responds to all types of emergencies, and protects and preserves timberlands wildlands and urban forests.

California Historical Landmarks. Buildings, sites, features, or events of statewide historical significance.

California Points of Historical Interest. Sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific, technical, religious, experimental, or other value.

California Protected Areas Database (CPAD). Database that provides data on national, state, regional parks, forests, preserves and wildlife areas, urban parks, land trust preserves, and special district open space lands such as watersheds.

California Register of Historical Resources (CRHR). A list of cultural resources determined by the State Historical Resources Commission to be of architectural, historical, archaeological, or cultural significance at the State level.

Candidate Species. Species for which the United States Fish and Wildlife Service (USFWS) has sufficient information on their biological status and threats to propose them as endangered or threatened under the Endangered Species Act but for which development of a proposed listing regulation is precluded by other higher priority listing activities.

Central Valley Project. A Federal power and water management project in California under the supervision of the United States Bureau of Reclamation. It supplies water to the Greater Sacramento area, the San Francisco Bay area, and the California Central Valley. It also reduces flood risk in the Central Valley and produces electrical power through a system of 20 dams and reservoirs.

Charter School. A tax supported school established by a charter between a granting body (i.e., the school board) and an outside group. Charter schools operate within the framework of State law (Education Code §47605-47608) to create a charter that outlines a school's governing structure, mission, methods of assessment, student outcomes, and goals. Charter schools function as a small independent school district and accept students based on criteria established by the charter.

Climate Change. Climate change refers to any deviation from the average climate that is statistically significant and has persisted for years at a time. This change is typically extended for decades or longer.

Climate. Climate in the context of this background report means the "average weather," or more specifically, as the statistical description in terms of the average and range of temperature, precipitation, and wind within a given time. Time frames can extend in ranges from months to thousands or millions of years. The typical period used to evaluate climate is 30 years, as defined by the World Meteorological Organization.

Community Plans. Community plans serve as land use plans for specific geographic unincorporated communities. The community plans govern the distribution, general location, and extent of uses of the land for housing, business, industry, open space, agriculture, and public facilities.

Conditional Use Permit (CUP). A discretionary permit required for certain land uses that may need special conditions to address site-specific constraints and/or ensure compatibility with surrounding land uses.

Connected Vehicles. Vehicle equipment, applications, or systems with technology that allows the vehicle to "communicate" with nearby vehicles and infrastructure. Communication between connected vehicles are used to improve safety, network efficiency, mobility and identify

potential hazards. Typically, vehicle information is shared and obtained through radio signals that provide 360 degrees of information coverage.

Cost Burdened Household. A household paying more than 30 percent of gross household income on housing costs.

County Seat. A city or town that is the administrative center of its county.

Critical Habitat. Areas designated by USFWS as essential to the conservation of a federally listed species, which may require special management considerations or protection.

Cultural Resources. Observable evidence of past human activities that is at least 45 years old, including prehistoric or historic archaeological sites, historic built-environment resources, traditional cultural properties and landscapes, and paleontological resources.

Digital Subscriber Line (DSL). Internet technology that uses existing 2-wire copper telephone wiring to deliver high-speed data services at speeds greater than basic Internet dial-up.

Disadvantaged Communities. Areas in the State that experience a combination of burdens such as economic, health, environmental and transportation. Burdens are typically caused by factors such as poverty, unemployment, air quality and pollution, and accessibility.

Discretionary Approvals. Any land use entitlement or permit of any type in which the approving entity applies judgment in deciding whether and how to carry out or approve a project including, but not limited to, tentative and parcel maps, rezones, General Plan amendments, use permits, variances, grading permits, land conservation permits, specific or precise plans, design review, view blockage review, conceptual review, and building permits when discretionary.

Earthquake. A sudden and violent shaking of the ground caused by the passage of seismic waves through the Earth's crust.

Electricity. A natural phenomenon, either through lightning or the attraction and repulsion of protons and electrons to create friction, that forms an electric current or power.

Electronic "E" Waste. Discarded electric appliances, including computers, computer monitors, TVs, printers, and electronic parts which are prohibited from solid waste landfills.

Elementary School District (ESD). A district that solely manages primary schools, usually including kindergarten through 6th to 8th grades. Many Siskiyou County ESDs operate as K-8 districts.

Employment. The number of persons who hold a job in a given time period. These jobs include both full-time and part-time work. Employment often refers to the labor force that resides in a city or county. The term "job", then, refers to jobs that are located in the city or county.

Endangered Species. A species whose survival and reproduction in the wild is in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, predation, competition, disease, or other factors.

Extreme Heat Days. A day in April through October where the maximum temperature exceeds the 98th historical percentile of maximum temperatures (based on daily temperature data between 1961-1990).

Extreme Storm Events. The increase in precipitation intensity and variability, increase in wind speed, and heavy downpours that increase the risk of flooding, drought, erosion, landslides/debris flows, turbidity, contaminants in reservoirs and surface waters, storm windfall (e.g., trees impacting infrastructure such as utility lines), nutrient and pollutant loading, wildfires, damaged transportation systems, disruptions in energy supply, and increased total costs from damage.

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

Fault. A fracture or zone of fractures between two rocks of the Earth's crust where compressional or tensional forces can cause slow or sudden movement, which results in earthquakes.

Fiber. A high-speed method of data transfer using light as opposed to wires. Fiber requires special cabling to operate and is an emerging technology as of the early 2020s.

Flood Control. Specific regulations, facilities, and practices that reduce or prevent the damage caused by stormwater runoff.

Flood. A temporary rise in flow or stage of any watercourse or stormwater conveyance system that results in stormwater runoff exceeding its normal flow boundaries and inundating adjacent, normally dry areas.

Floodplain. Any land area susceptible to inundation by stormwater from any source.

Fuel Loading. Refers to the amount of combustible material, such as vegetation or dead organic matter, present in a specific area. Understanding fuel loading helps assess the potential intensity and behavior of wildfires.

Fuel Moisture Content. The amount of moisture present in vegetation in a given area. It is a crucial factor in assessing the risk of wildfires, as dry vegetation is more susceptible to ignition and can contribute to the rapid spread of fires.

Geomorphic Province. Naturally defined geologic regions that display a distinct landscape or landform. Each province displays unique, defining features based on geology, faults, topographic relief, and climate.

Greenhouse Gas (GHG). Any gas that absorbs infrared radiation in the atmosphere. GHGs contribute to the greenhouse effect and global climate change. Some GHGs, such as carbon dioxide and methane, occur naturally and are emitted to the atmosphere through natural processes as well as human activities. Other GHGs (e.g., fluorinated gases) are created and emitted solely through human activities. The principal GHGs that enter the atmosphere because of human activities include water vapor, carbon dioxide (CO2), methane (CH4),

nitrous oxide (N2O), chlorofluorocarbons (CFCs), fluorinated gases [hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF6), and nitrogen trifluoride (NF3].

Greenhouse Gas Emissions. GHG emissions involve the release of gases into the atmosphere through the generation, transmission, distribution, combustion, leaking or burning of natural gases or fossil fuels for electricity, heat, and transportation. In the United States (U.S.), the primary sources of GHG emissions are transportation, electricity production, the fossil fuels industry, commercial and residential use, agriculture, respectively. In addition, the natural generation of GHG emissions include the breakdown of permafrost which release carbon and methane, and wildfires which emit carbon dioxide. Carbon dioxide (CO2) makes up the vast majority of GHG emissions.

Groundwater Basin. An aquifer or system of aquifers that has reasonably well-defined boundaries and more or less definite areas of recharge and discharge. Refers to subsurface deposits and geologic formations that are capable of yielding usable quantities of water to a well or spring. The Sustainable Groundwater Management Act defines "basin" as a groundwater basin or subbasin identified and defined in Department of Water Resources Bulletin 118 or as modified pursuant to Section 10722 of the Act.

Groundwater. Water located beneath the land surface, specifically within pore spaces of saturated soil, sediment, or rock formations.

Hazardous Waste. Discarded items with properties that make it dangerous or capable of having a harmful effect on human health or the environment; often designated hazardous due to the concentration of chemical content.

Headwaters. The uppermost part of a river or stream, where water originates and begins to flow, eventually forming a larger body of water.

Highway Performance Monitoring System (HPMS). Developed in 1978, the Highway Performance Monitoring System is a national highway information system that provides data on the nation's highways such as extent, condition, performance, and operations. Each State is required to submit highway and public road data annually to the Federal Highway Administration to be included in the annual Highway Performance Monitoring system report. The report is a tool for the FHWA to appropriately apportion Federal funding to individual States for transportation needs.

Historic District. A group of buildings, properties, or sites recognized as historically or architecturally significant. These may be designated at the Federal level, managed by the National Park Service, at the State or local levels. Federally designated historic districts are listed on the NRHP. In some counties or jurisdictions, historic districts receive legal protection from certain types of development considered to be inappropriate.

Historic Property. Any cultural resource listed in or eligible for listing in the NRHP.

Historical Resource. Any resource listed in, or determined eligible for listing in, the CRHR, a resource included in a local register of historical resources or identified in a historical resources survey pursuant to PRC Section 5024.1(g), or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant.

Household Hazardous Waste. Leftover household products that are corrosive, toxic, could catch fire, or explode under certain circumstances, including paints, cleaning chemicals, solvents, fluorescent light bulbs, non-commercial pesticides, insecticides, and motor oil.

Household. All persons that occupy a housing unit as their usual place of residence.

Hydrology. The movement, distribution, and properties of water on the Earth's surface, including rivers, lakes, streams, and oceans.

Incorporated City. A municipality that has been established and recognized by the State of California as either a general law or charter city. It is a self-governing entity with its own city council, mayor, and other local officials.

Industrial Waste. Solid or liquid material that is discarded from industrial facilities.

Intelligent Transportation Systems (ITS). A system comprised of wireless and wired communication and technologies that are aimed at improving safety and mobility of transportation networks. ITS supports the integration of technology to facilitate communication between infrastructure and vehicles.

Internet. A network that links computer networks all over the world by satellite and telephone, connecting users with various service networks.

Jobs. Work positions available in a particular location in each industry sector, within a specific time period. These positions include both full-time and part-time work.

Kilowatt-hours (kWh). A unit of measurement for electricity equal to one thousand watt hours.

Land Use Designation. A description of the type and intensity of land uses allowed in a specific area.

Landslide. The movement of a mass of rock, debris, or earth down a slope, which can be caused by rain, earthquakes, volcanoes, or other factors.

Local Agency Formation Commission (LAFCO). A commission within each county that reviews and evaluates all proposals for the formation of special districts, incorporation of cities, annexation to special districts or cities, consolidation of districts, and merger of districts with cities.

Median Income. The average income as the midpoint at which 50 percent of households earn more than the median income, and the same proportion earn less. This differs from the mean income, which is a simple average of aggregate income divided by the number of households.

Mineral Resource Zones. A classification of State lands into four geographic zones: 1) areas of no mineral resource significance (MRZ-1); 2) areas of identified mineral resources significance (MRZ2); 3) areas of undetermined mineral resource significance (MRZ-3); and areas of unknown mineral resources potential (MRZ-4).

Mobile Source. A moving or transportable emitter of pollutants, typically associated with vehicles such as cars, trucks, airplanes, and ships.

Municipal Service Reviews (MSRs). A comprehensive review of public services and facilities provided by a city or special district.

NAICS. North American Industry of Classification System; a standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.

National Register of Historic Places (NRHP). A list of cultural resources determined by the National Park Service to be of historic, cultural, architectural, archaeological, or engineering significance at the national level.

Noise. Unwanted sound, or pressure variation in the air that can be detected by the human ear, measured by decibel (dB) and classified on a noise rating scale, denoted as "A," "B," and "C".

Occupation. The type of work that a person does on a job. Occupational employment statistics classify these jobs based on categorical descriptions of their primary activities and duties.

Onsite Wastewater Treatment System. A wastewater system designed to treat and dispose of effluent onsite, which is typically installed when a property cannot be served by a wastewater collection system. Onsite wastewater systems often take the form of a septic tank and leach field system.

Overlay Zone. Zones are layered over base zoning districts, often covering multiple zoning districts. Overlay zones apply standards and regulations for development on parcels covered by the overlay in addition to the requirements of the existing base zone.

Overpayment. Housing expenses in excess of 30 percent of household income; also known as housing cost burden.

Paleontological Resources. Any fossilized remains, traces, or imprints of once living organisms preserved in rock or sediment.

Particle Pollution. Also known as particulate matter (PM), particles of solids or liquids that are suspended in the air. These particles may include dust, dirt, soot, smoke, or drops of liquid. PM particles are defined by their diameter for air quality regulatory purposes. Particles with a diameter of 10 microns or less are known as PM10 and are inhalable into the lungs and can induce adverse health effects. Fine particulate matter is defined as particles that are 2.5 microns or less in diameter (PM2.5) and is mostly produced from gasoline, oil, diesel fuel or wood combustion.

Pavement Conditions Index. The numerical scale to determine the health of a roadway's pavement. The PCI is a scale from 0 to 100, with 100 being a newly surfaced street and zero a failed street. A PCI score of 70 to 100 is considered "Excellent/ Good," 50 to 69 is "Fair," 25 to 49 is "Poor," and 0 to 24 is "Very Poor." If a roadway receives a low PCI score, it is considered at high risk for rapid deterioration.

Planning Area. The area directly addressed by the General Plan. A city or county planning area typically encompasses the agency's boundaries and potentially annexable land within its sphere of influence. In the case of counties, the planning area is the entire county.

Population. The count of all persons living within a specified geographic area. Household population will only include those persons residing in housing units, and excludes the population count from group quarters and similar accommodations.

Poverty. A household is defined as living in poverty if their annual income falls below a specified threshold. As defined by the Census Bureau (for use in the American Community Survey figures cited in this section), the Federal poverty threshold varies depending on the number of persons living in a household, and the number of dependent children. This figure is adjusted annually. This slightly differs from the poverty guideline used by Health and Human Services in determining eligibility for certain government aid programs.

Precipitation. Water released from clouds in the form of rain, freezing rain, sleet, snow, or hail. Precipitation is the main way atmospheric water returns to the surface of the Earth.

Preservation. According to the National Historic Preservation Act (NHPA), the term "preservation" or "historic preservation", includes identification, evaluation, recordation, documentation, curation, acquisition, protection, management, rehabilitation, restoration, stabilization, maintenance, research interpretation, conservation, and education; the act or process of applying measures necessary to sustain the existing form, integrity, and materials of a historic property.

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

Race and Ethnicity. Data sources reporting data on racial and ethnic characteristics, such as the U.S. Census, identify these characteristics based on self-reporting. The guidelines used by the Census reporting the following racial categories at a minimum: White; Black or African American; American Indian or Alaska Native; and Asian and Native Hawaiian or Other Pacific Islander. Racial categories also include the option for respondents to self-identify as "Some Other Race."

Rare. A plant species that, although not presently threatened with extinction, is present in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens.

Regional Transportation Planning Agency. A State-created planning agency that typically serves individual counties or multiple counties. RTPAs are usually referred to as transportation commissions, councils, or associations of governments.

Reservoir. An artificial or natural storage place for water, such as a lake, pond, or aquifer, from which the water may be withdrawn for such purposes as irrigation, water supply, or irrigation.

Retail Demand. Households create demand for a broad range of different goods and services. Retail demand focuses on those goods that are typically provided by retail businesses. This demand is expressed in terms of potential dollars spent on goods or dollars spent with specific types of retail businesses.

Retail Leakage. The extent to which existing household demand for specific retail store types is not met by local stores in that category, and those shoppers go to stores located outside of their local market area instead. This unmet demand serves as a measure by which to evaluate potential retail store attraction or expansion options.

Riparian. Of, on, or pertaining to the bank of a natural water course. For example, riparian vegetation is composed of plant species normally found near streams, lakes, and other freshwater bodies, such as lakes, ponds, and reservoirs. Riparian areas are affected by surface or subsurface waters and are typically transitional between wetlands and upland areas.

River. A large natural stream of water flowing in a channel to the ocean, a lake, or another such water body.

Room Occupancy. The occupancy rate is one of the commonly used measures to track economic activity for hotels and motels. Within a specific geographic area or market segment, this rate looks at the total number of room-nights available and compares it to the actual number of nights in which the room was occupied.

Runoff. Precipitation that is not used by plants, evaporated, or infiltrated to soils, and is transported across land surfaces to streams or other surface water bodies.

Sensitive Receptors. Sensitive receptors are generally defined as locations where people reside or where the presence of noise could adversely affect the use of the land. These include schools, residences, senior housing, hospitals, and businesses.

Severely Cost Burdened Household. A household paying more than 50 percent of gross household income on housing costs.

Shasta Cascade Region. A region of California located in the northeastern and north-central sections of the State bordering Oregon and Nevada, including the counties of Butte, Lassen, Modoc, Plumas, Shasta, Siskiyou, Tehama, and Trinity.

Solid Waste. Any discarded material, solid or semisolid, non-soluble material (including gases and liquids in containers) such as agricultural refuse, demolition waste, industrial waste, mining residues, municipal garbage, and sewage sludge.

Special District. Any agency of the State for the local performance of governmental or proprietary functions within limited boundaries; a separate local government that delivers a limited number of public services to a geographically limited area. Special districts are a form of government, have governing boards, provide services and facilities, and have defined boundaries.

Special Status Species. Rare, threatened, or endangered plant or animal species protected by Federal, State, or other agencies in accordance with any of the following:

- Species listed as threatened or endangered under the Federal Endangered Species Act (FESA); including those proposed and candidates for listing;
- Species listed as candidate, threatened, or endangered under CESA;

- Species designated as Fully Protected by the California Fish and Game Code (CFGC), and Species of Special Concern or Watch List by the California Department of Fish and Wildlife (CDFW);
- Plant species listed as rare under the Native Plant Protection Act (NPPA);
- Plant species recognized on the California Rare Plant Rank (CRPR) lists 1A, 1B, 2A and 2B by the California Native Plant Society (CNPS) and CDFW; and
- Species designated as locally important by the local agency [i.e., lead California Environmental Quality Act (CEQA) agency] and/or otherwise protected through ordinance, local policy, and/or Habitat Conservation Plans (HCPs) or Natural Community Conservation Plans (NCCPs).

Sphere of Influence. A planning boundary outside of an agency's legal boundary (such as a city limit line) that designates the agency's probable future boundary and service area. In order for an area to be considered for annexation by a city or special district, it must be within their sphere of influence.

Stationary Source. A fixed or non-mobile facility that emits pollutants into the air, water, or soil.

Stormwater Facilities. Systems such as watercourses, constructed channels, storm drains, culverts, and detention/retention facilities that are used for conveyance and/or storage of stormwater runoff.

Stormwater Management. Functions associated with planning, designing, constructing, maintaining, financing, and regulating the facilities (both constructed and natural) that collect, store, control and/or convey stormwater.

Stormwater. Precipitation that accumulates in natural and/or constructed storage and stormwater systems during and immediately following a storm event.

Surface Permeability. The ability of a material or surface to allow the passage or flow of liquids through it. Often used in the context of soil or pavement, indicating how easily water can infiltrate the surface.

Surface water. Water on the surface of land such as ground, including rivers, lakes, reservoirs, streams, wetlands, impoundments, seas, and estuaries. Surface water is naturally replenished by precipitation and naturally lost through evaporation and subsurface seepage into the ground.

Take. To harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct, a special status wildlife species.

Threatened. A species that is abundant in parts of its range but declining in overall numbers and likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

Trauma care levels. A four-level scale describing the kinds of resources available in a trauma center and the number of patients admitted annually. The American College of Surgeons develops and maintains the current definition of trauma care levels.

Tribal Cultural Resources. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a Tribe that are listed, or determined to be eligible for listing, in the national or State register of historical resources, or listed in a local register of historic resources.

Tributary. A stream or river that flows into a larger main river or body of water and contributes to the larger water body's flow and volume.

Type I Fire Apparatus. A fire engine typically used for fires in structures. Type I engines typically operate at 1,000 gallons per minute with a 400-gallon tank, a 1,200 foot 2.5" hose, a 400 foot 1.5" hose, a 200 foot 1" hose, a 20 foot or greater ladder, and four firefighters running the engine.

Type II Fire Apparatus. A fire engine with a 300-gallon tank, 150 gallon per minute operational pump, a 1,000 foot 2.5" hose, a 500 foot 1.5" hose, a ladder, and three personnel.

Type III Fire Apparatus. A fire engine typically used in rural areas characterized by a pump operating at 120 gallons per minute, a large 500-gallon tank, a 1,000 foot 1.5" hose, an 800 foot 1" hose, and four firefighters running the engine.

Type IV Fire Apparatus. A fire engine with a 750-gallon tank that pumps at 50 gallons per minute, a 300 foot 1.5" hose, a 300 1" hose, and two personnel.

Type VI Fire Apparatus. A fire engine that is typically housed on a pickup truck and is used for wildfires in very rural areas. A type VI fire apparatus has a 150-gallon tank capacity with a pump operating at 50 gallons per minute, a 300 foot 1.5" hose, and a 300 foot 1" hose.

Unemployment Rate. The number of persons who participate in the labor force, but do not hold a job in a given time period. Labor force participation is defined as persons who either work or are looking for work.

Unified School District (USD). A district that manages K-12 education throughout its schools' network.

Unincorporated area. A region or geographic area having a common social identity without municipal organization, but part of a broader body of government such as a county.

Unincorporated Community. An established community that is not an incorporated city and falls under the jurisdiction of its respective county government.

Vacancy Rate. The amount of vacant building square footage as a percentage the overall building space inventory. The averages described in this section are also differentiated by building type.

Vehicle Miles Traveled (VMT). The measure of annual vehicle miles traveled within a specific area. To determine VMT, Annual Average Daily Traffic (AADT) is multiplied by the length of a road segment and combining all roads in the specific area. In 2020, Senate Bill 743 was passed and requires all local agencies to use VMT as the preferred metric for assessing transportation impacts, replacing the previous metric, Level of Service (LOS).

Visitor Spending. Travelers passing through and coming to Siskiyou County do so for business, leisure, family, shopping, and other purposes. While in Siskiyou County, they spend money on

goods, services, accommodations, and transportation. This spending is expressed in terms of dollars spent in specific categories.

Waste Generation Rates. The amount solid waste generated. These rates are used to assess the annual anticipated landfill volume used.

Wastewater Collection System. The totality of the pipes, pump station, manholes, and other facilities that convey untreated (raw) wastewater from the various sources to a wastewater treatment facility.

Watershed. That geographical area which drains to a specified point on a water course, usually a confluence of streams or rivers (also known as a drainage area, catchment, or river basin).

Watt. An electrical unit of power equal to the rate of energy transfer produced in a circuit by one volt acting through a resistance of one ohm, a unit of measurement of resistance.

Wildland. Land that has not been cultivated, especially land set aside and protected as a wilderness.

Wildland-Urban Interface (WUI). Areas where structures, and other human development, meet and intertwine with, and are near, undeveloped wildland.

Zoning District. A defined area that includes regulations for allowable land uses, and height, bulk, and space development standards.

Zoning Ordinance. The adopted zoning regulations of a city or county.