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:

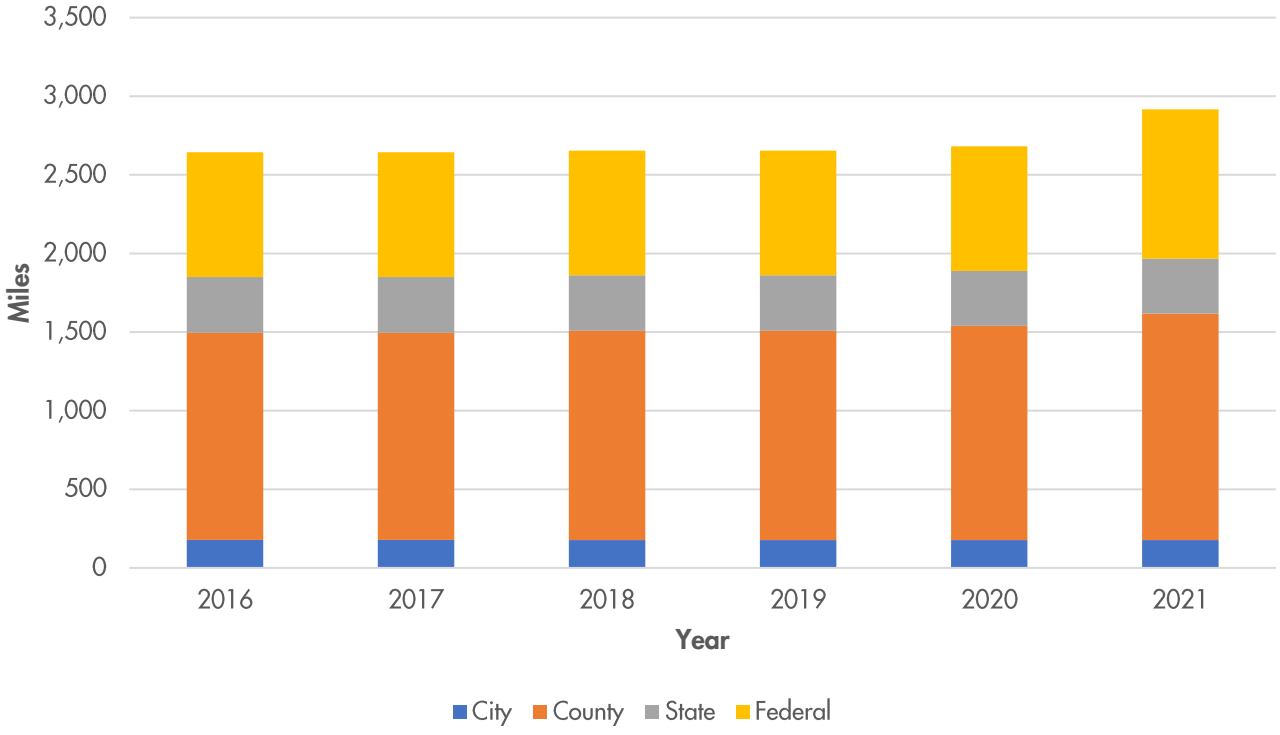
- Roadways and Functional Classifications (Section 5.2)
- Vehicle Miles Traveled (VMT) Trends (Section 5.3)
- Transit Service (Section 5.4)
- Rail Transportation and Goods Movement (Section 5.5)
- Active Transportation Facilities and Services (Section 5.6)
- Aviation Transportation Facilities and Service (Section 5.7)
- Transportation System Management (Section 5.8)
- Key Terms (Section 5.9)
- Regulatory Setting (Section 5.10)
- References (Section 5.11)

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

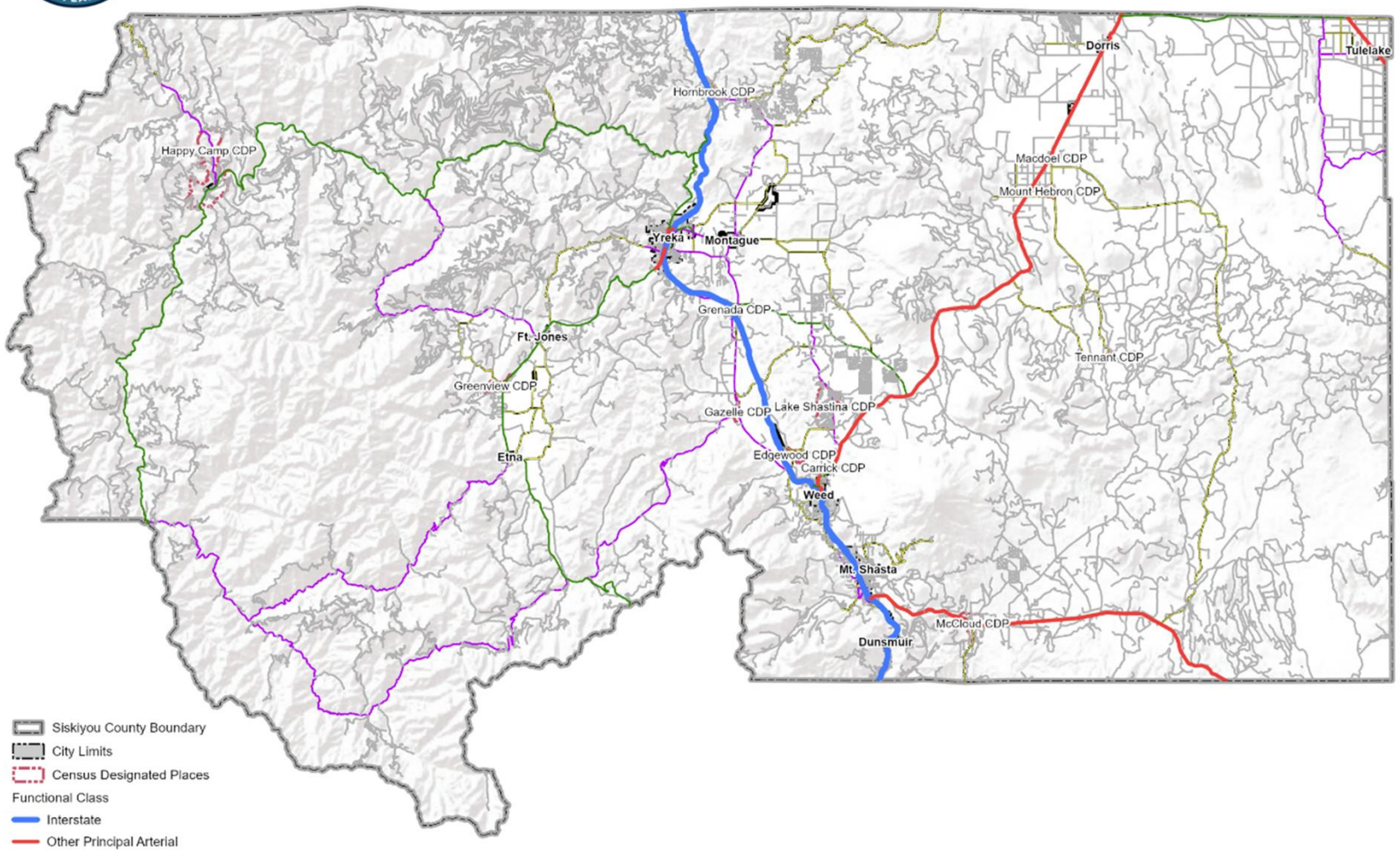


Source: California Highway Performance Monitoring System (HPMS), Public Road Data (PRD), 2022.

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



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 two roadways that meet this definition, SR 89 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.

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

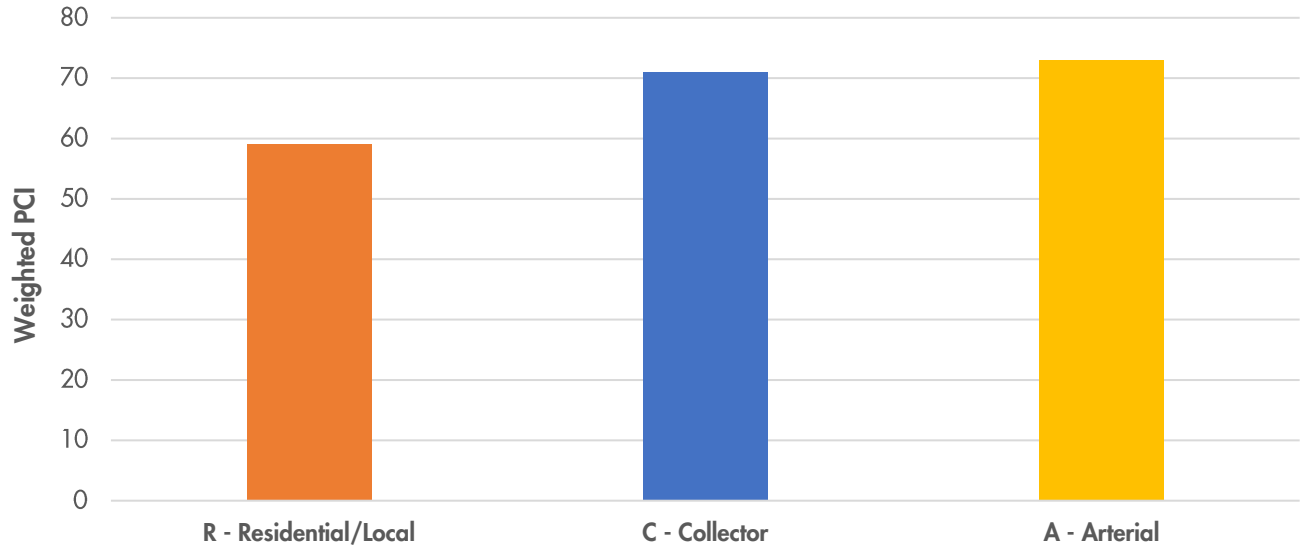
[1] *Please note: Caltrans data identifies collectors as minor or major. Although the Caltrans Functional Classification Map that shows Sawyer Rd as a major collector, the County classifies Sawyer Road as a collector, neither minor nor major.*

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.



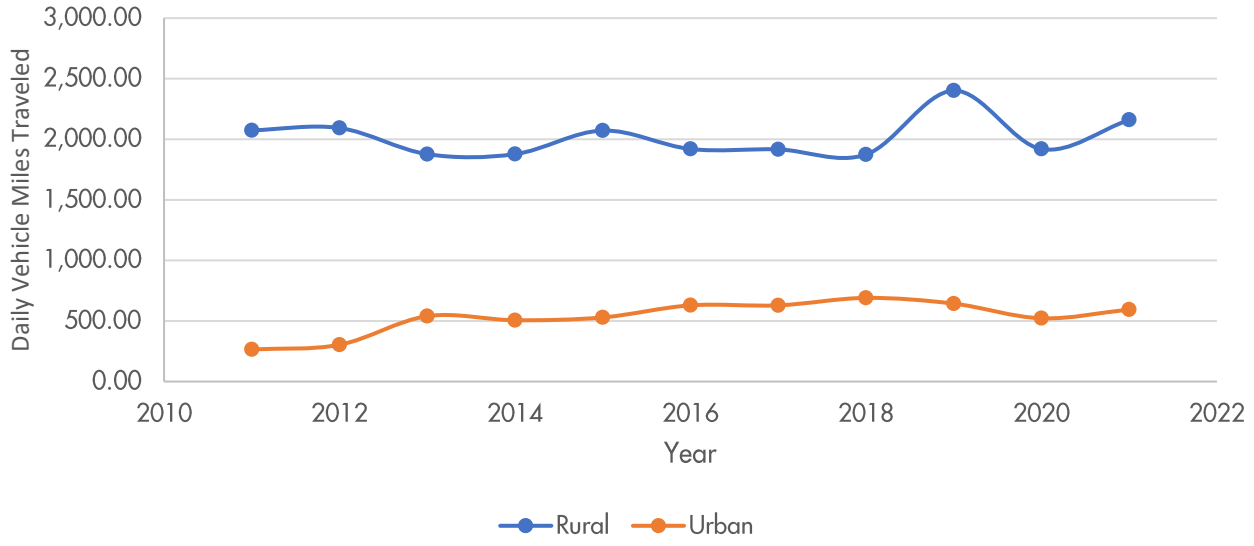
Source: StreetSaver, 2023.

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.

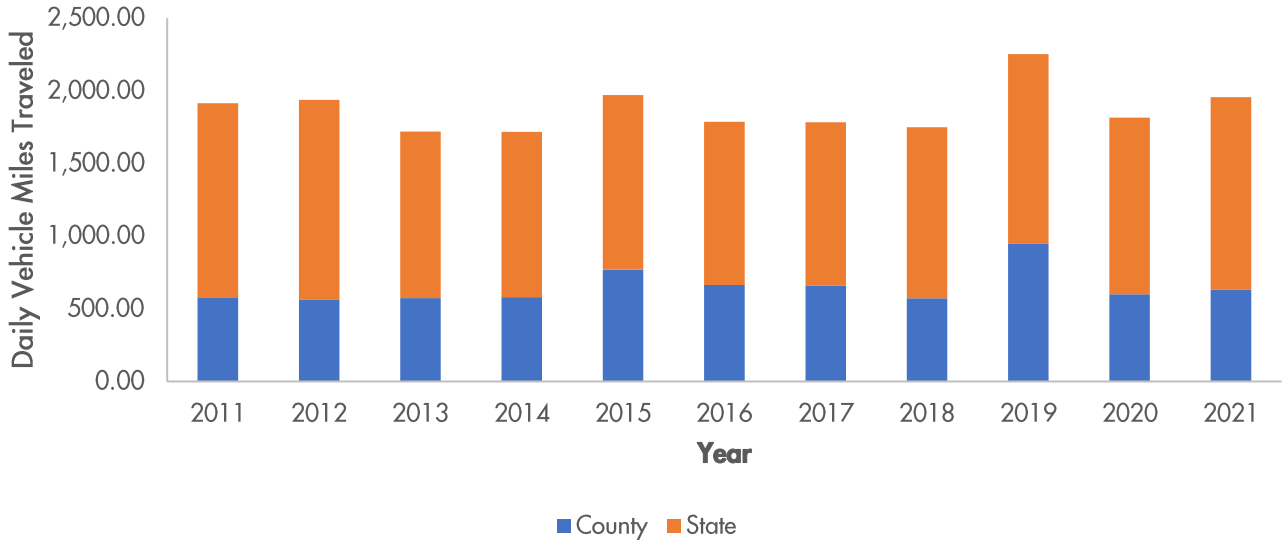
Figure 5.4 depicts the rural and urban road VMT in Siskiyou County. VMT was estimated using Daily VMT sourced from the Highway Performance Monitoring System (HPMS) for public roads. As a sparsely populated county, most of the daily vehicle miles traveled in Siskiyou are on rural roads. Most of the rural 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



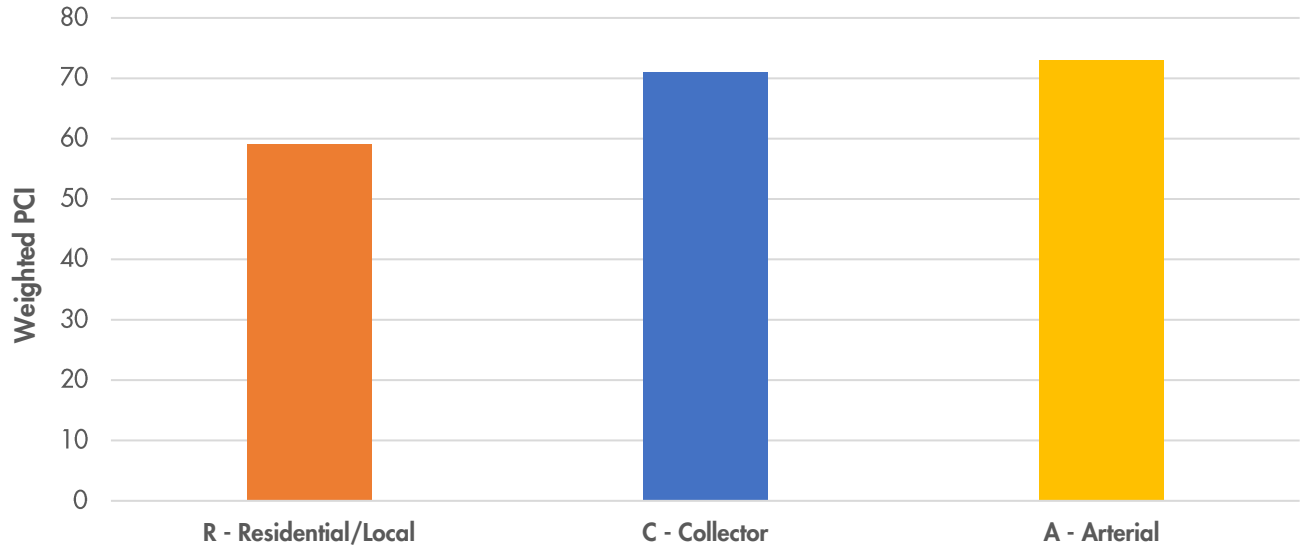
Source: California Highway Performance Monitoring System (HPMS), Public Road Data (PRD), 2022.

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



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

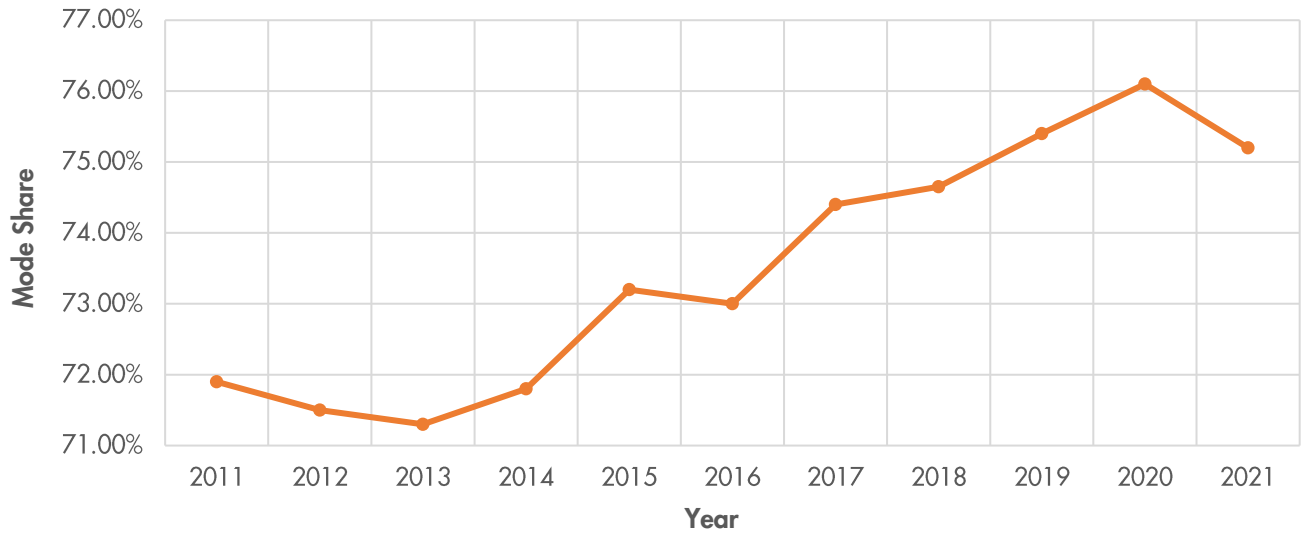
Figure 5.6 Siskiyou County VMT Per Capita



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

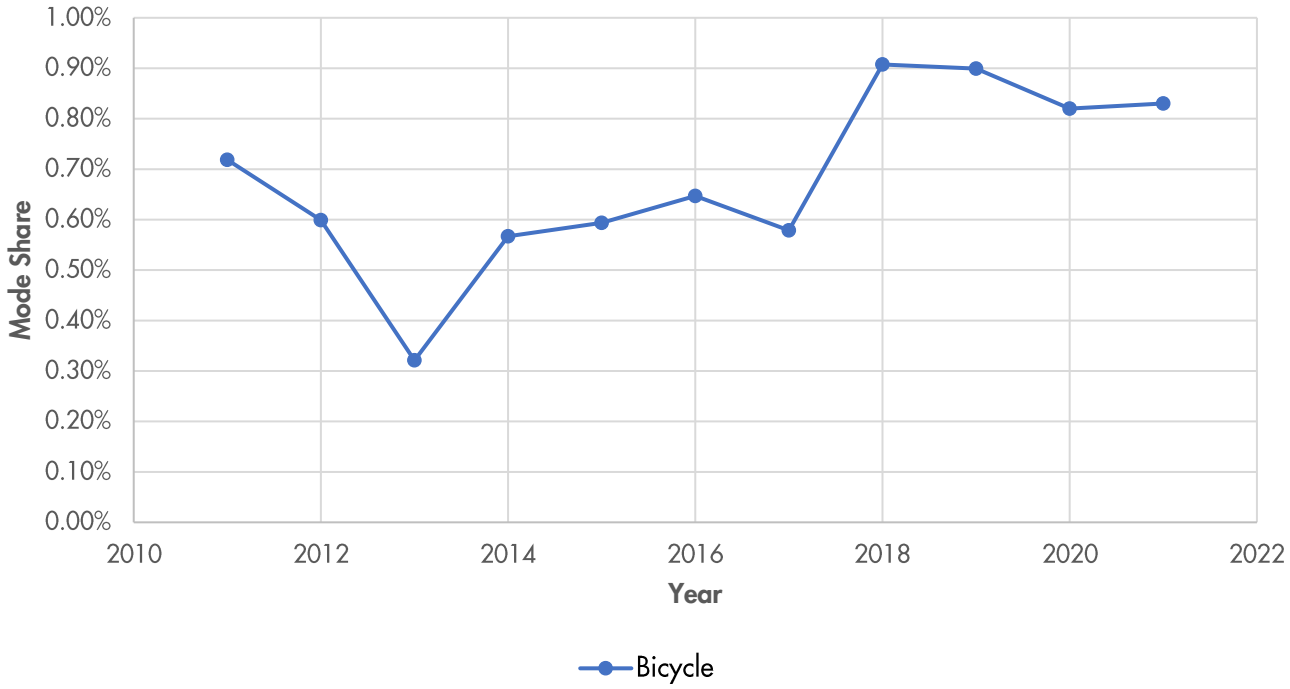
Peak travel periods and road usage are often defined by the commute to work. In Siskiyou County, the dominant work commute mode of travel is driving alone in a private vehicle. Driving alone to work has been slowly increasing in the county from 2011 to 2021, starting at 72 percent in 2011 and peaking 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



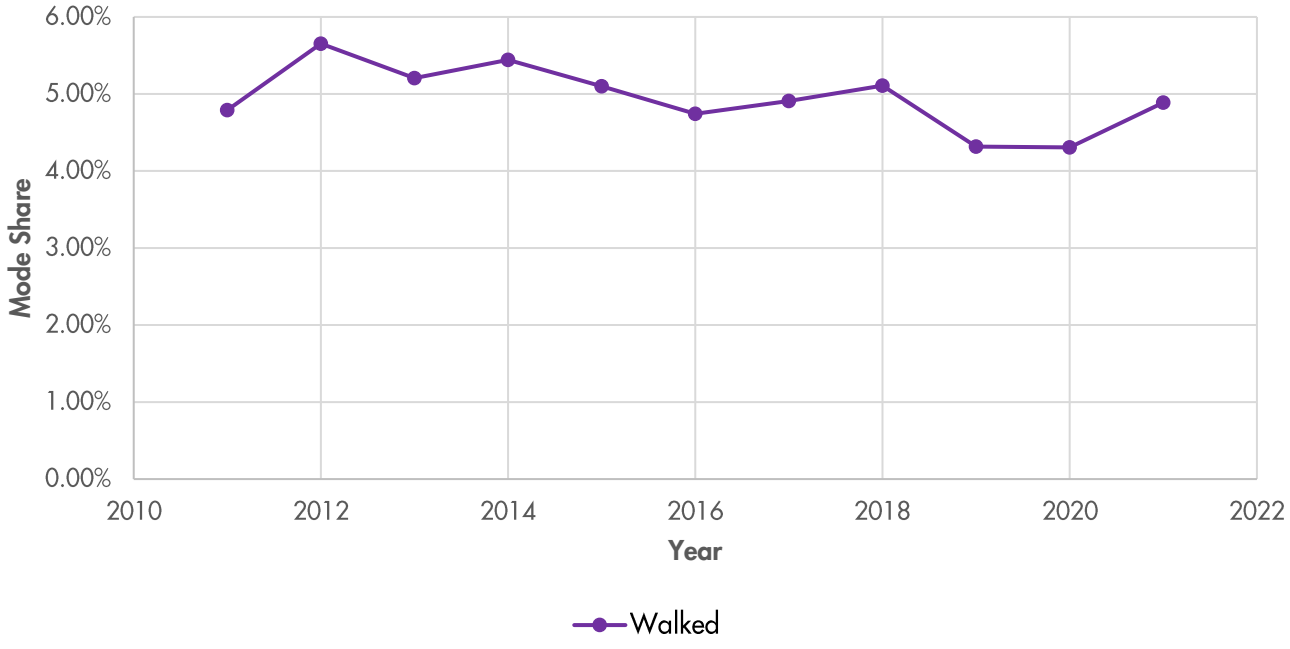
Source: American Community Survey (ACS) Table B08006, 2021 (5-year estimates).

Figure 5.8 Commute to Work Mode Share: Bicycle



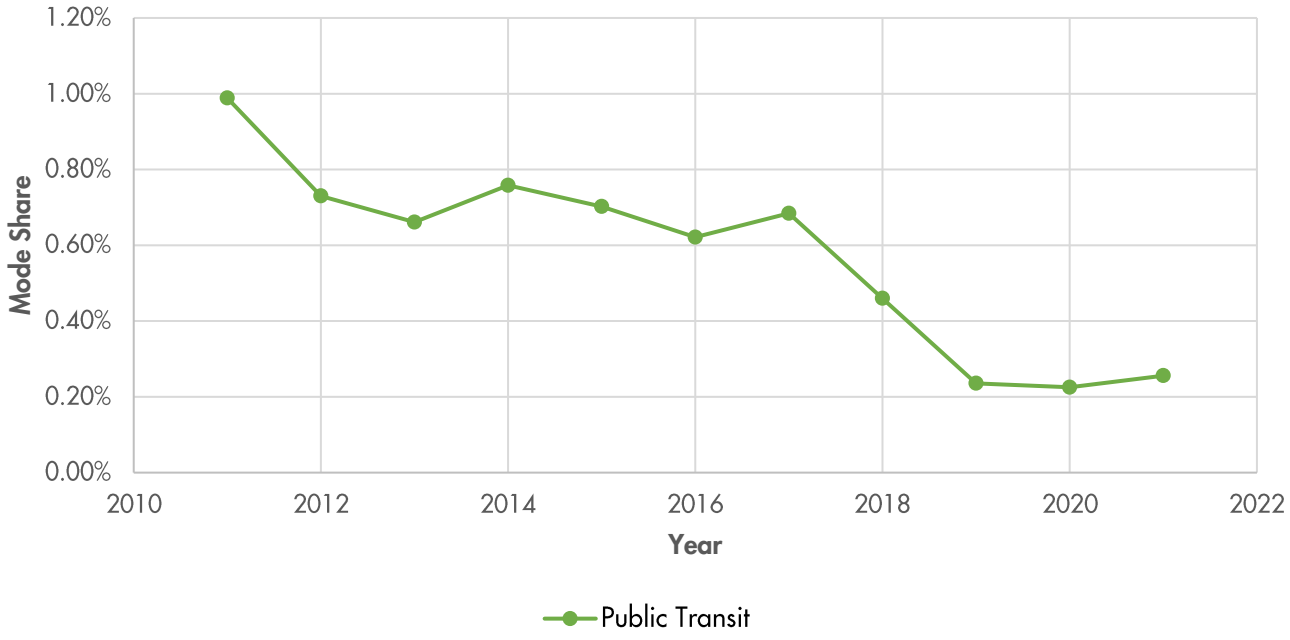
Source: American Community Survey (ACS) Table B08006, 2021 (5-year estimates).

Figure 5.9 Commute to Work Mode Share: Walked



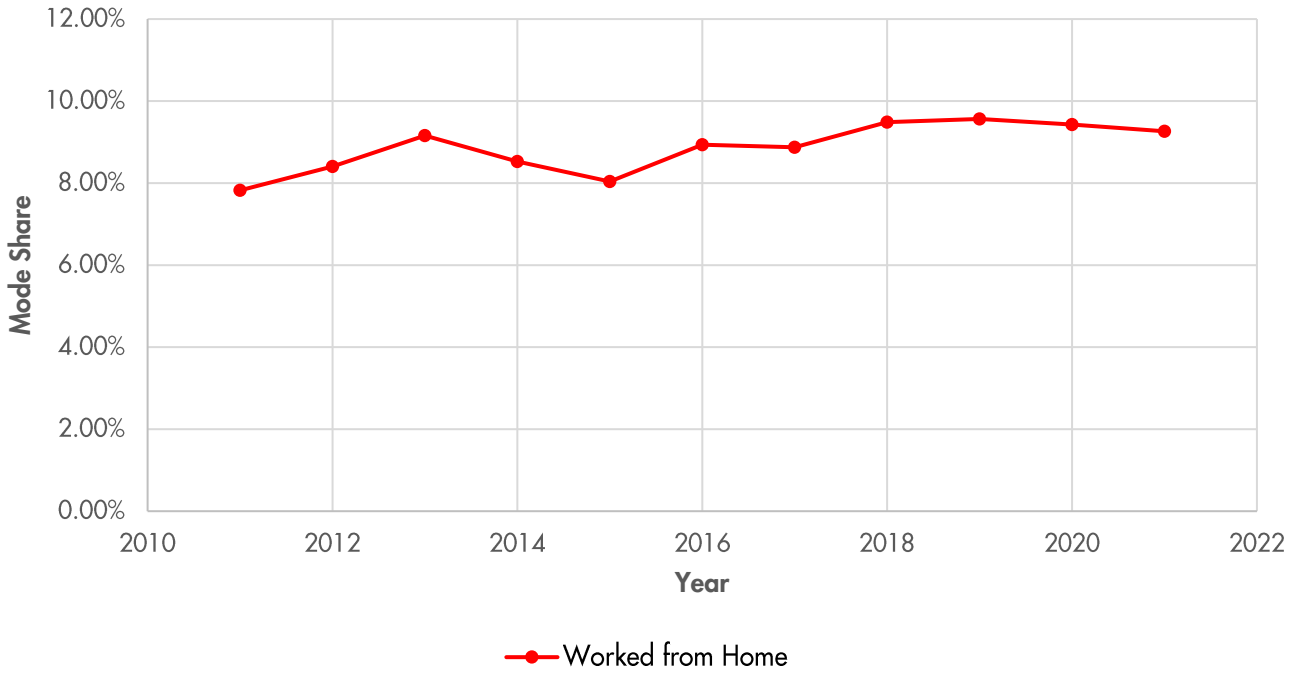
Source: American Community Survey (ACS) Table B08006, 2021 (5-year estimates).

Figure 5.10 Commute to Work Mode Share: Public Transit



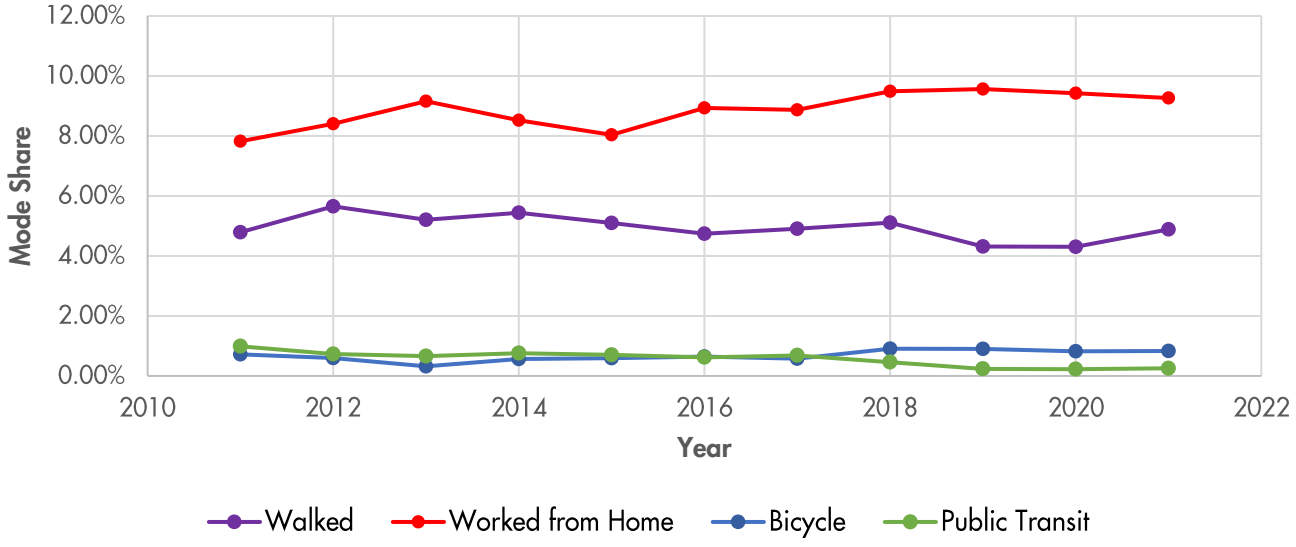
Source: American Community Survey (ACS) Table B08006, 2021 (5-year estimates).

Figure 5.11 Commute to Work Mode Share: Worked from Home



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

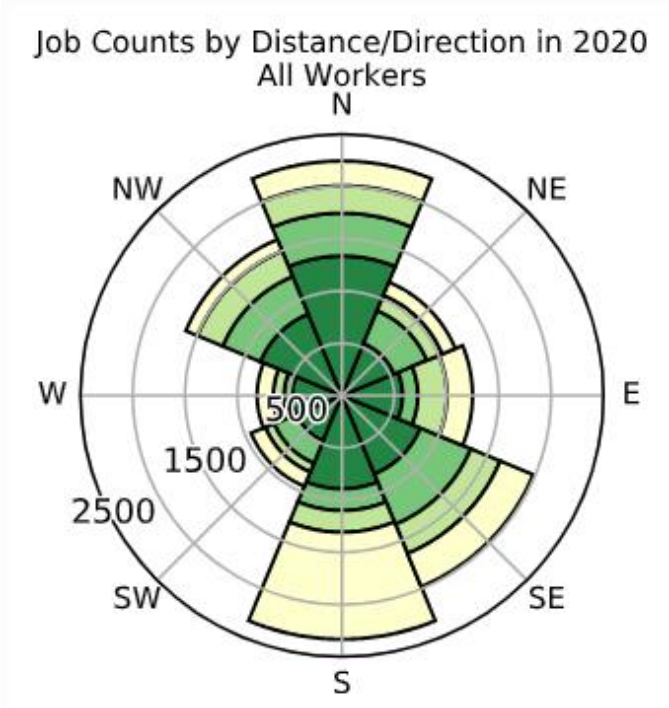
Figure 5.12 Commute to Work Mode Share



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

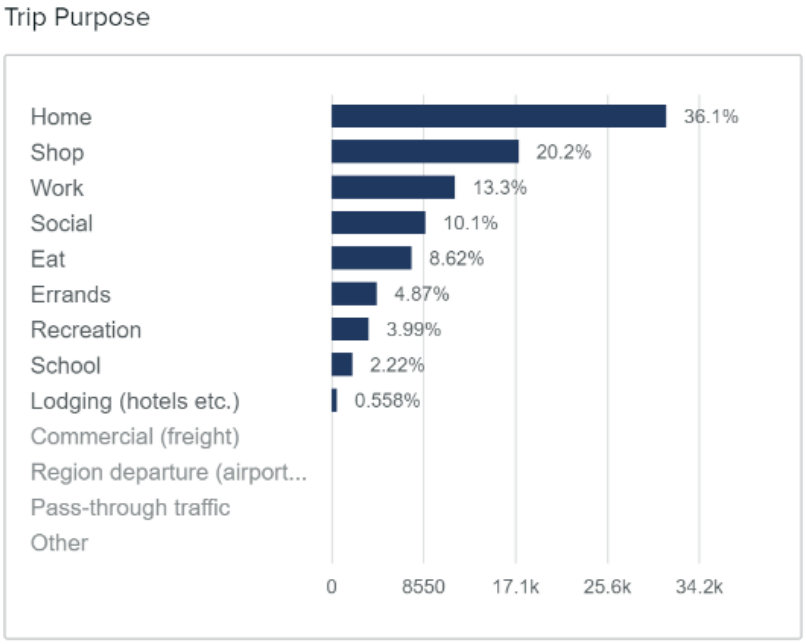


Jobs by Distance - Work Census Block to Home Census Block

	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.

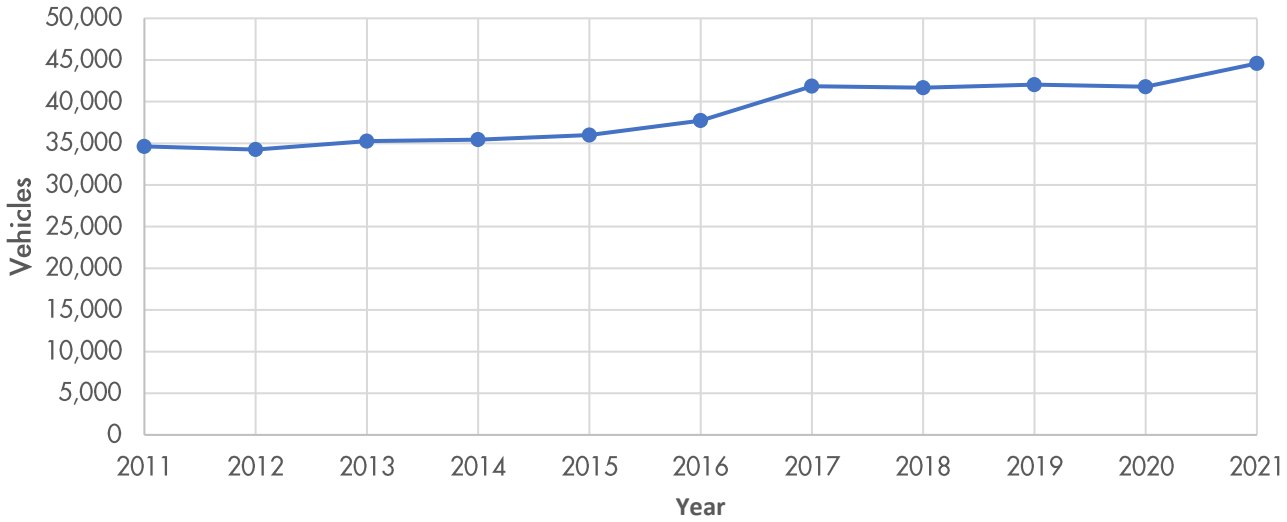
Figure 5.14 Private Auto Trip Purpose, Average Fall 2022 Weekday



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

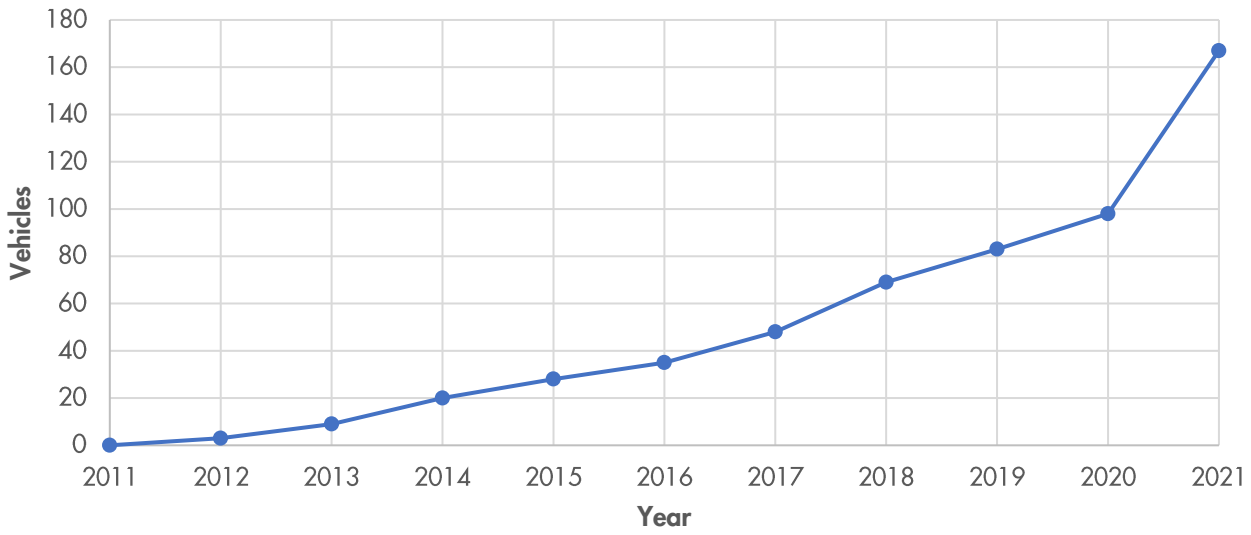
As the primary commute to work mode of travel, private vehicles are abundant in Siskiyou County, with 1.02 light-duty vehicles per capita. This tops the California state average of 0.75. Since 2011, nearly 10,000 new non-zero-emission light-duty vehicles have taken to the road and a small but rapidly 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

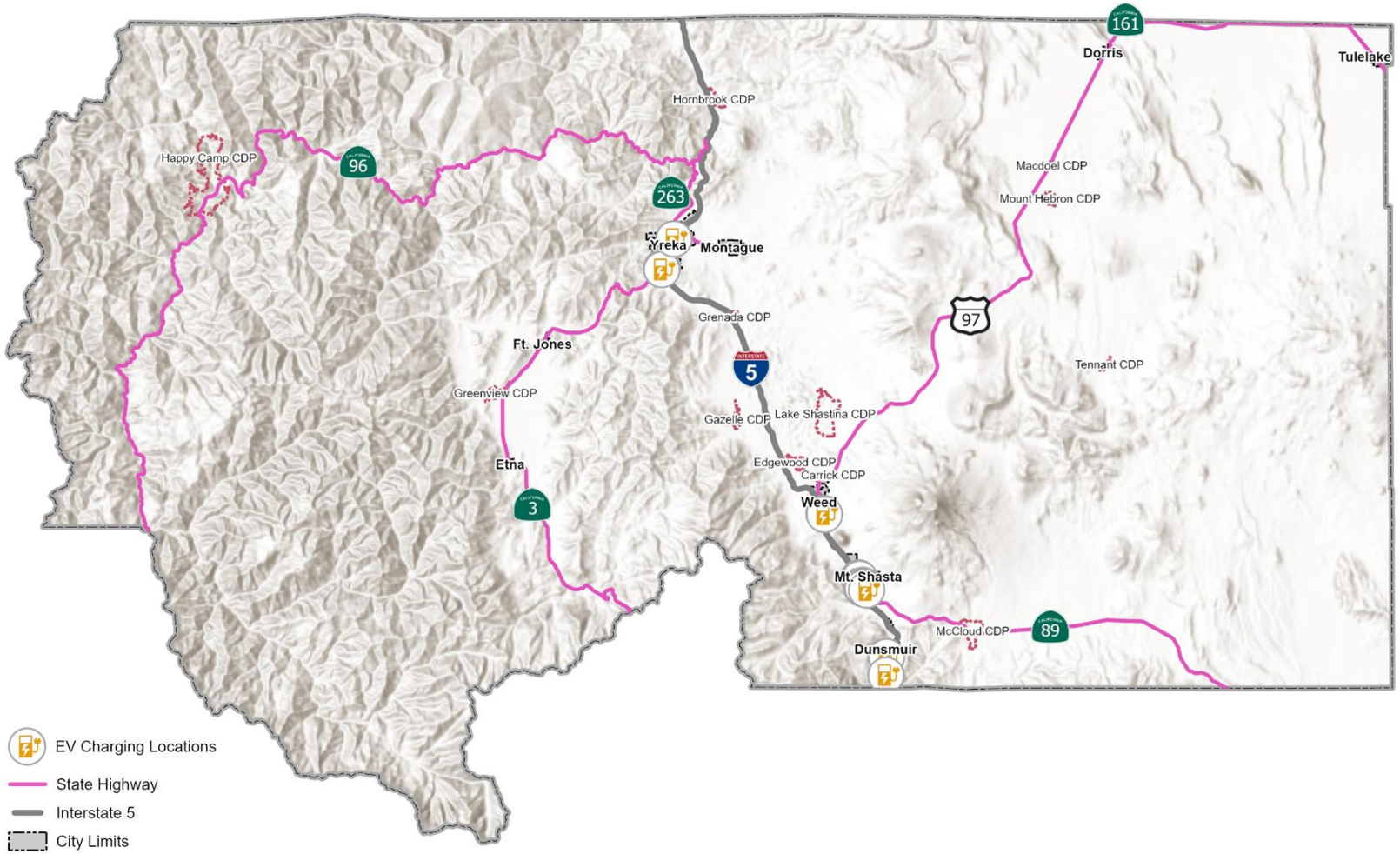
Figure 5.16 Total Light-Duty Zero-Emissions Vehicles



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



Source: Siskiyou County, 2023
Service Layer Esri, USGS

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

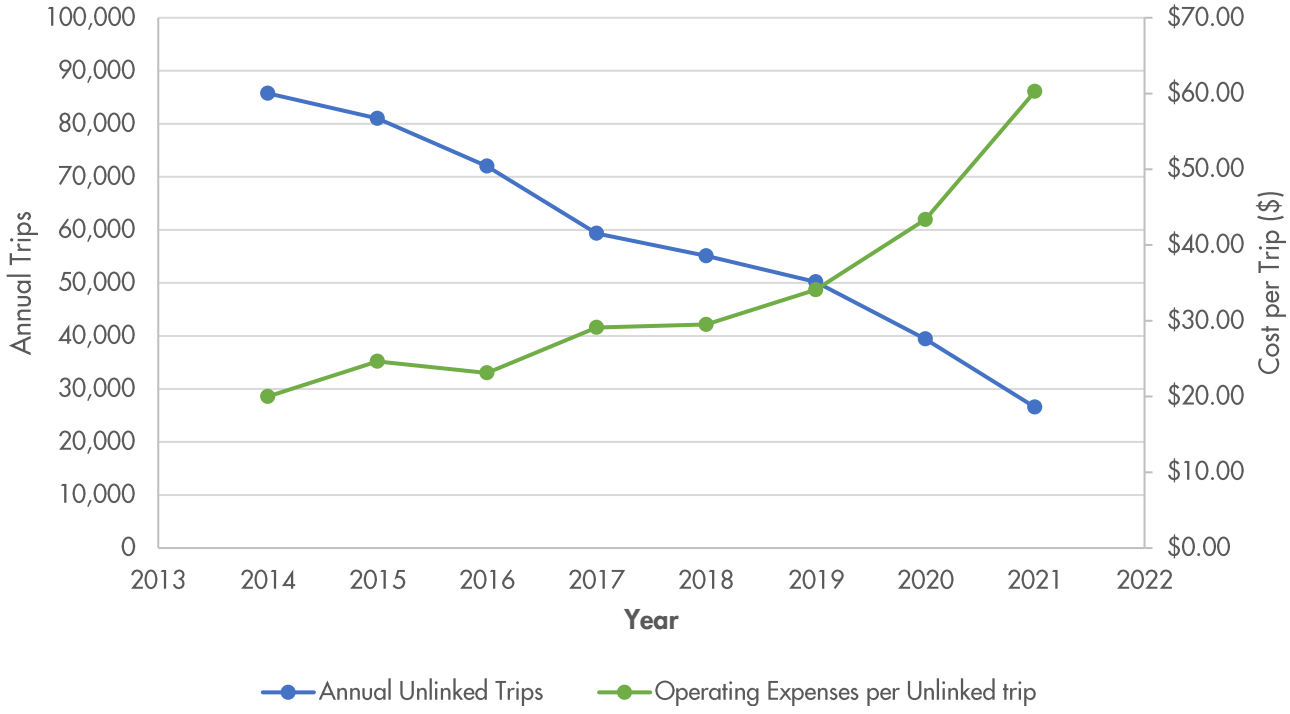
Source: Siskiyou County, 2023
Service Layer Esri, CGIAR, USGS

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.

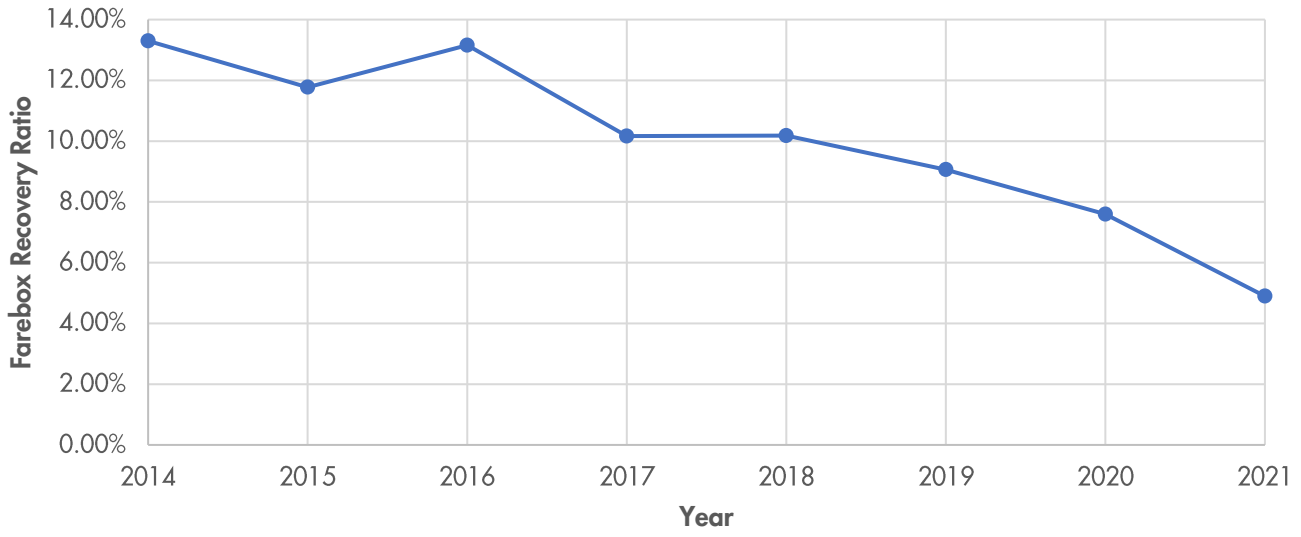
Figure 5.19 shows the year-over-year trend in transit trips and the effect on costs per trip. Many transit agencies have experienced waning ridership due to favorable economic conditions, ride-hailing apps such as Uber and Lyft, and the passage of AB 60 in 2013 which removed restrictions on undocumented 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

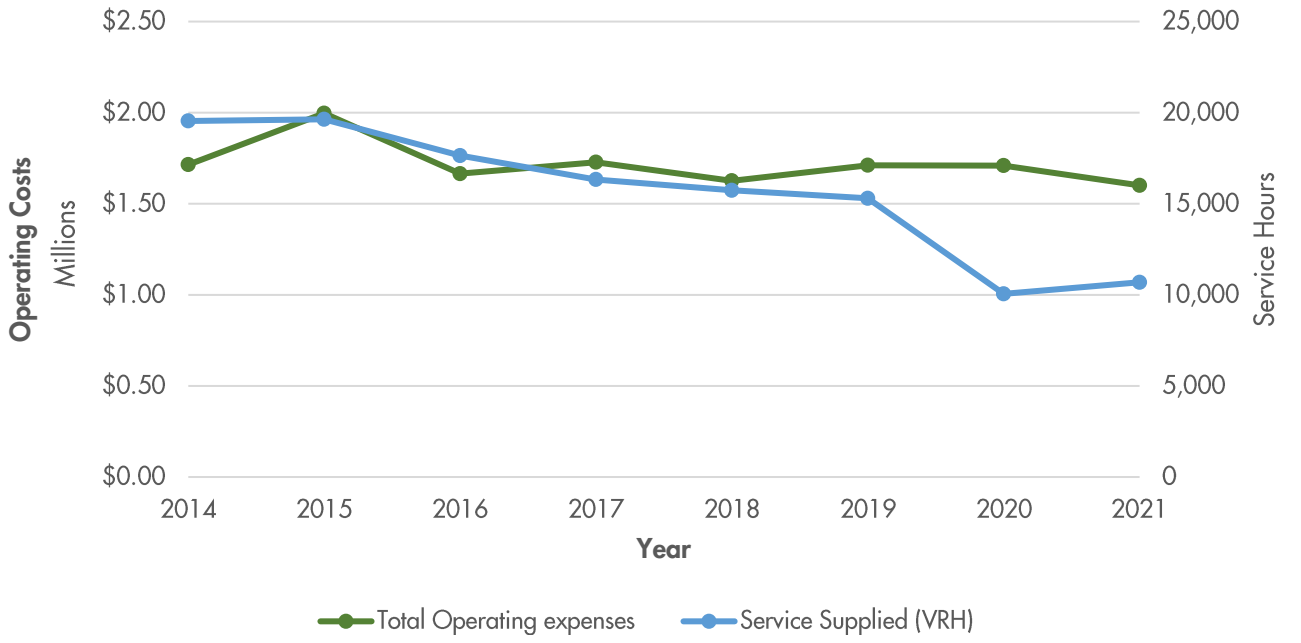
Figure 5.20 Farebox Recovery Ratio, STAGE



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



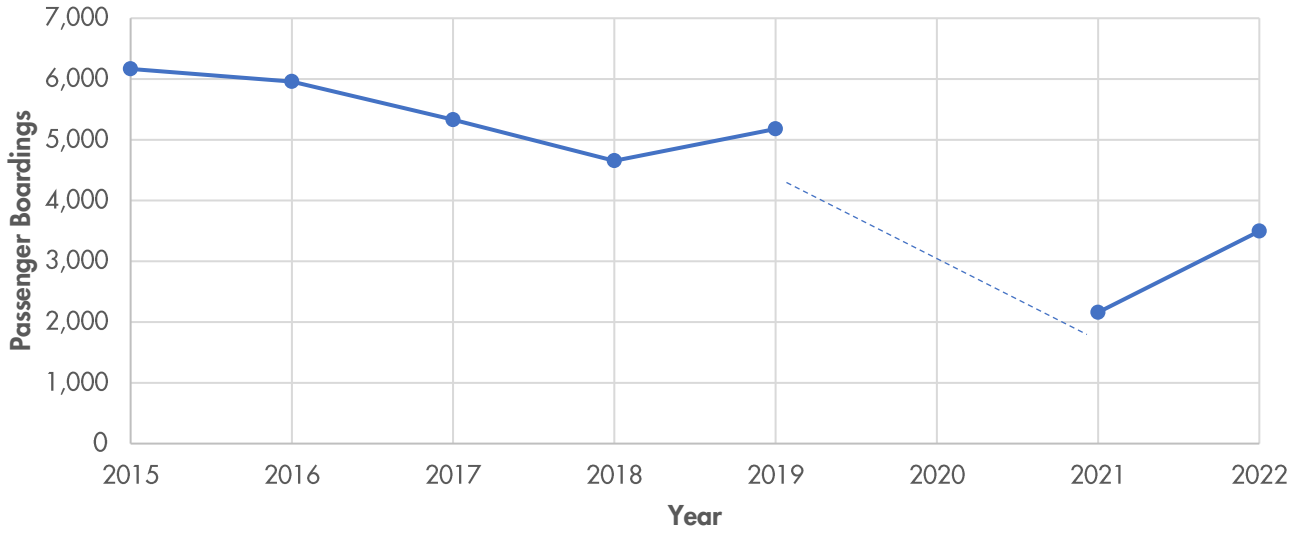
Source: Federal Transit Administration, County of Siskiyou Agency Profiles, 2022, accessible at: https://www.transit.dot.gov/ntd/transit-agency-profiles/county-siskiyou

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



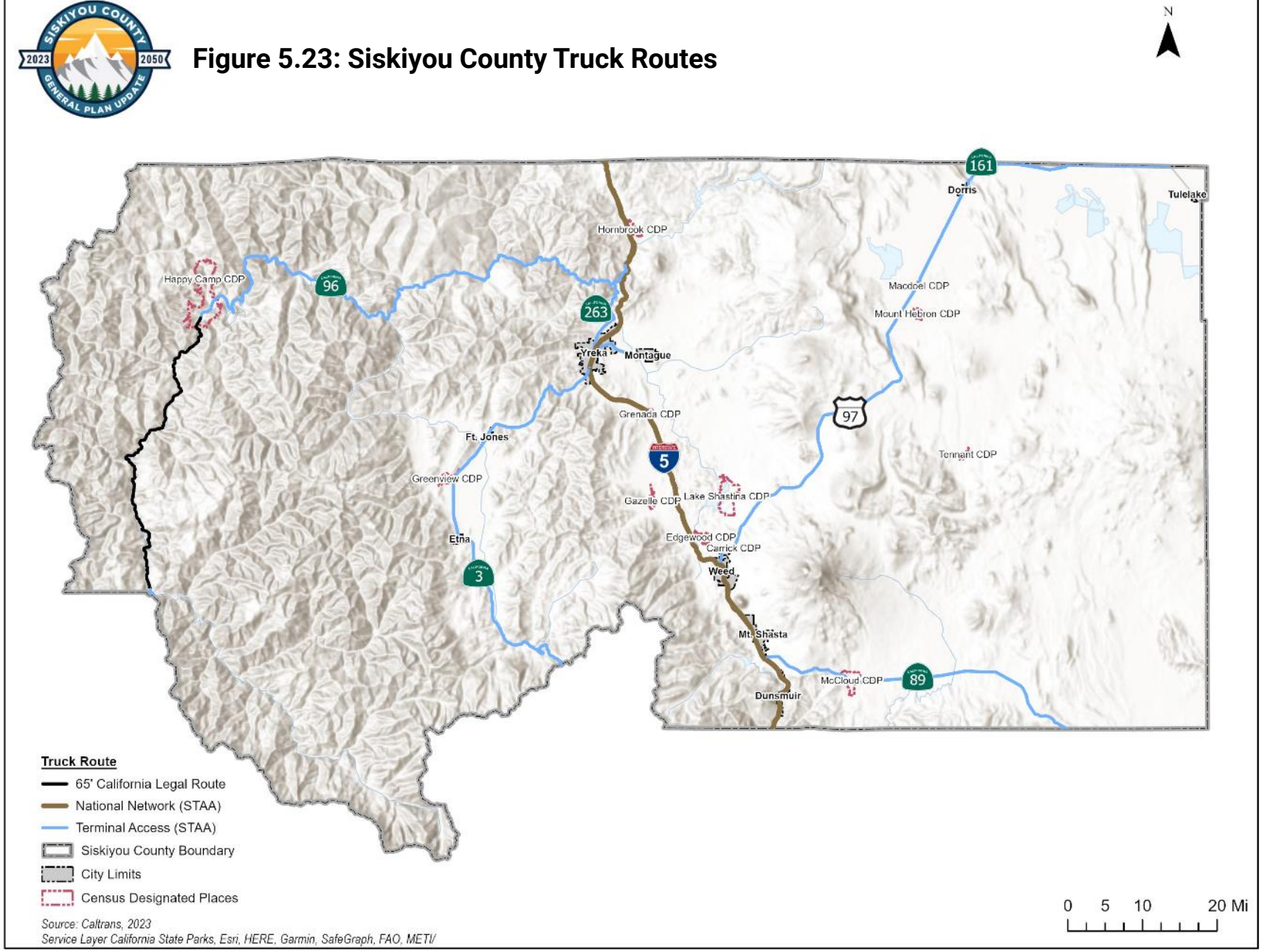
Source: Amtrak Fact sheet, 2015-2022.

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.

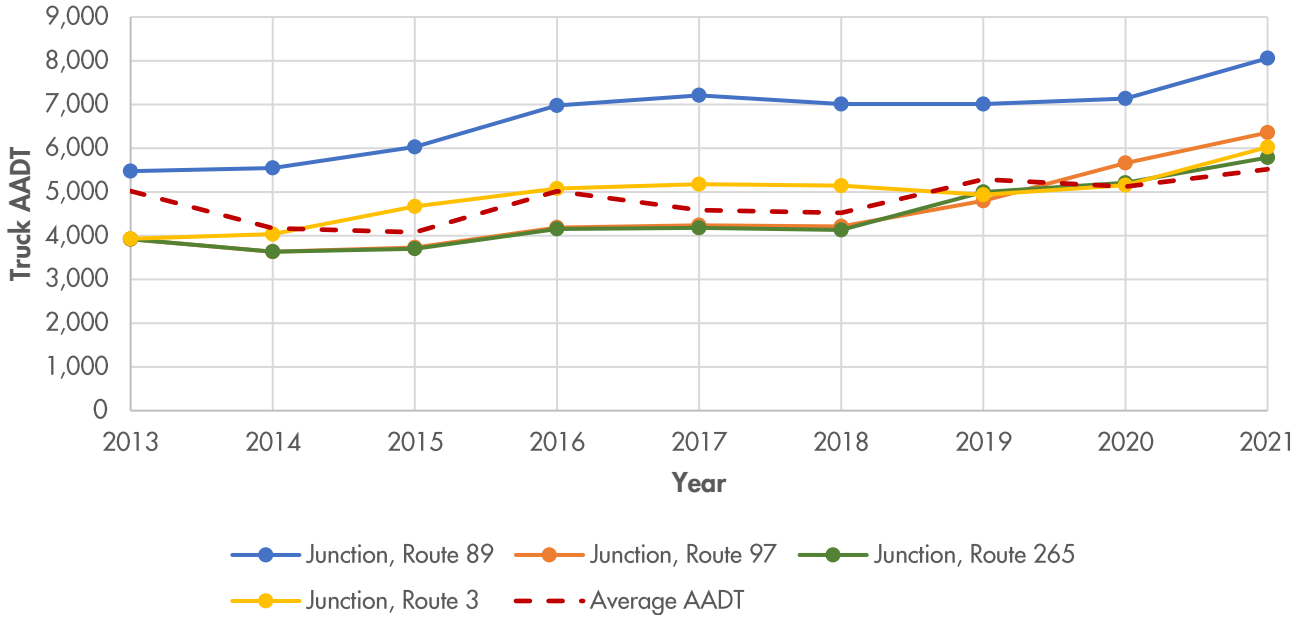
The most critical truck route in Siskiyou County is Interstate 5 (I-5), serving as both the gateway to and major corridor through the county. I-5 is the sole National Network designated route and connects to the Terminal Access routes which provide access to the rest of the county. On average it facilitates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

Figure 5.23: Siskiyou County Truck Routes



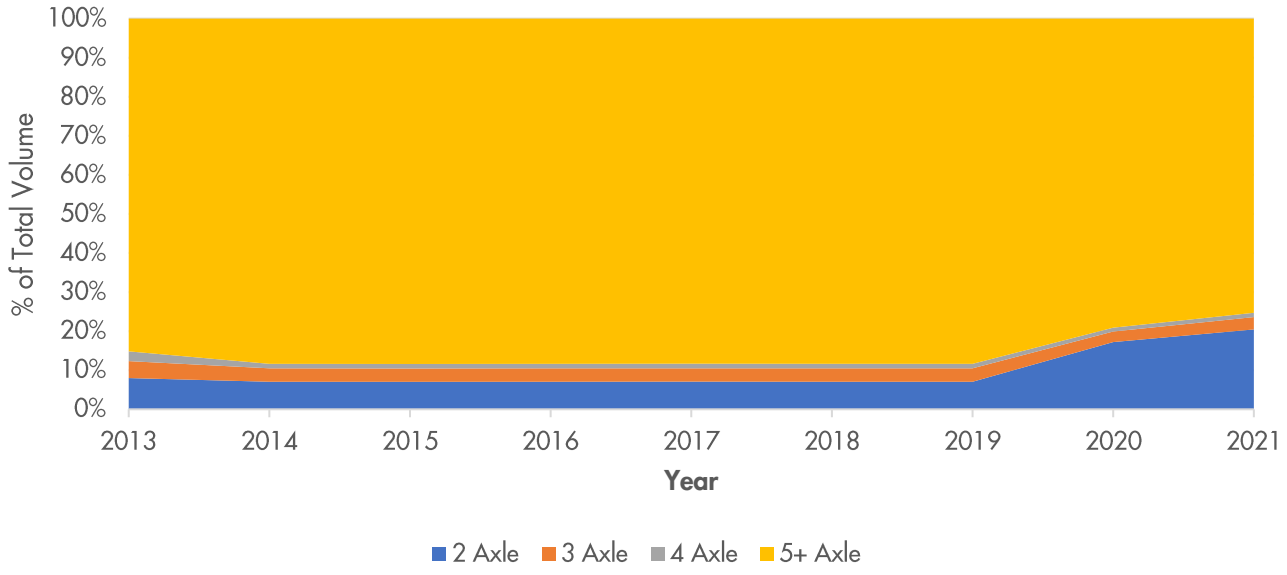
From 2013 to 2021, truck volumes along I-5 increased 34 percent on average. Figure 5.24 displays trends in average annual daily traffic (AADT) for trucks at four National and Terminal Access route junctions. The count locations are shown in Figure 5.26. The majority of truck traffic in Siskiyou is from 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



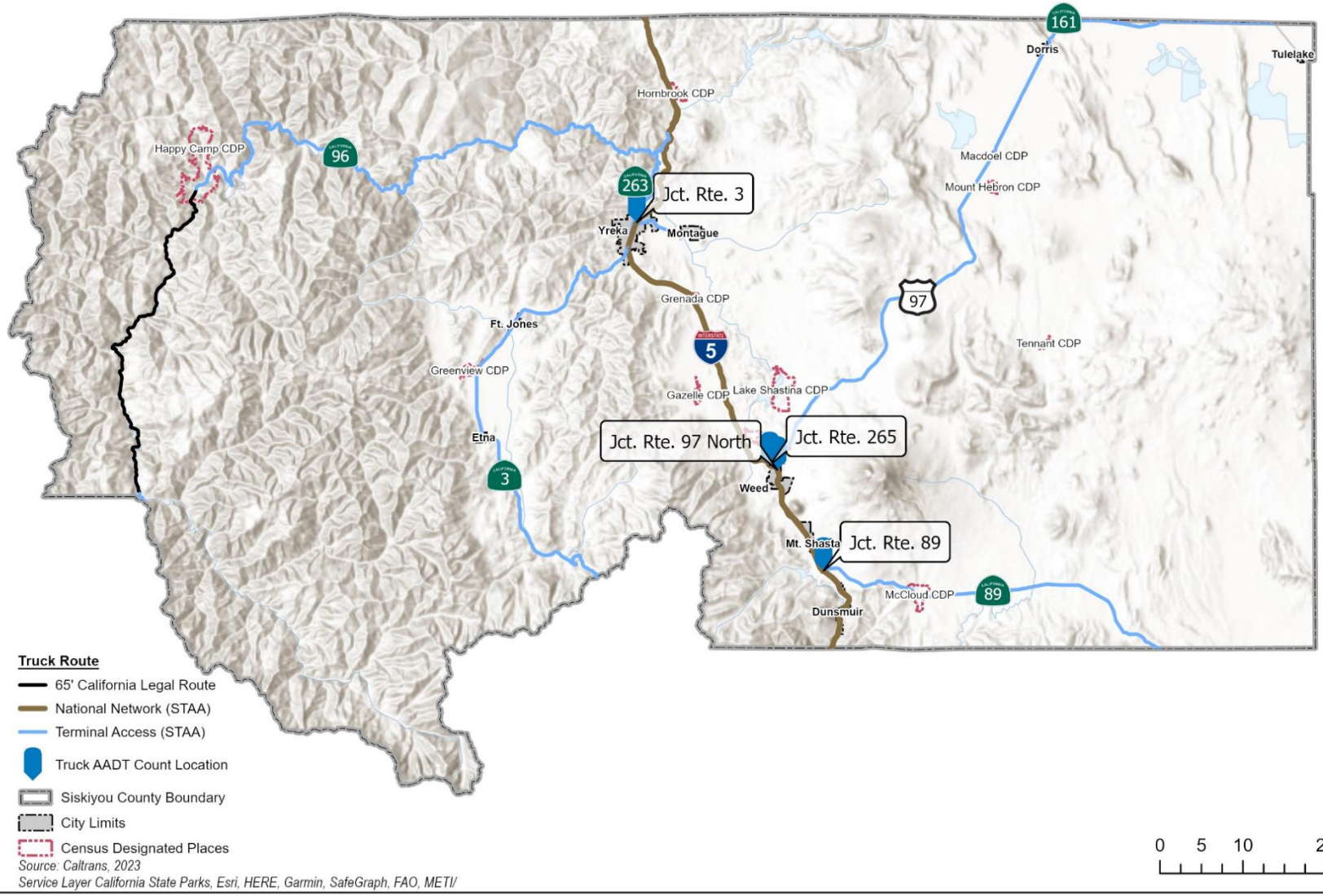
Source: Caltrans Traffic Census, 2013-2021.

Figure 5.25 Truck Traffic By Number Of Axles



Source: Caltrans Traffic Census, 2013-2021.

Figure 5.26: Truck Count Locations



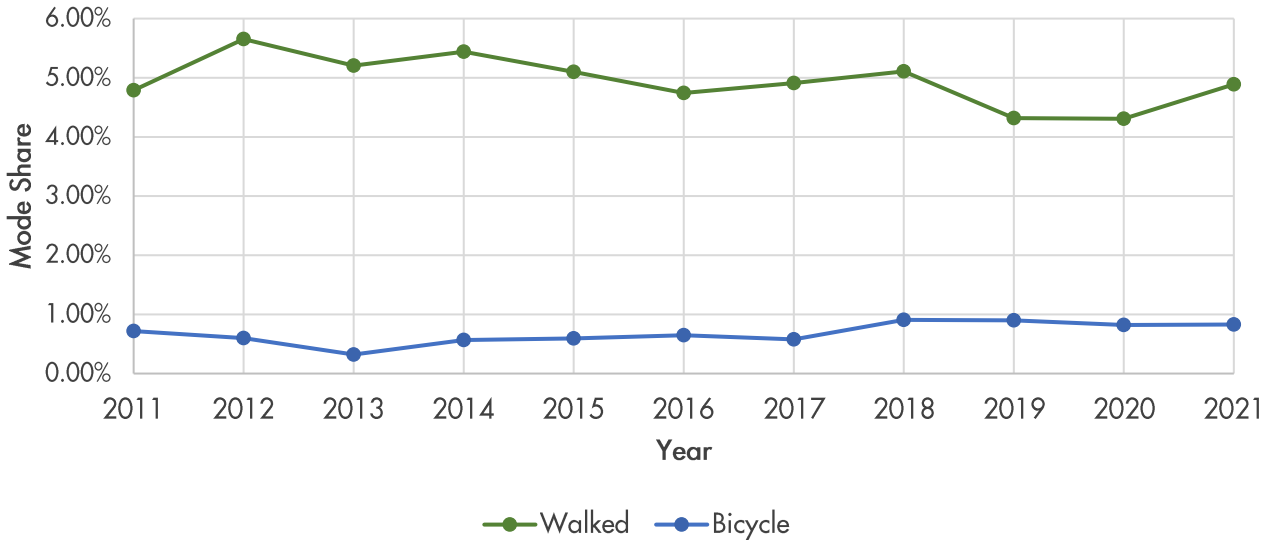
5.6 Active Transportation Facilities and Services

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 1 percent for bicycling and 5 percent for walking.

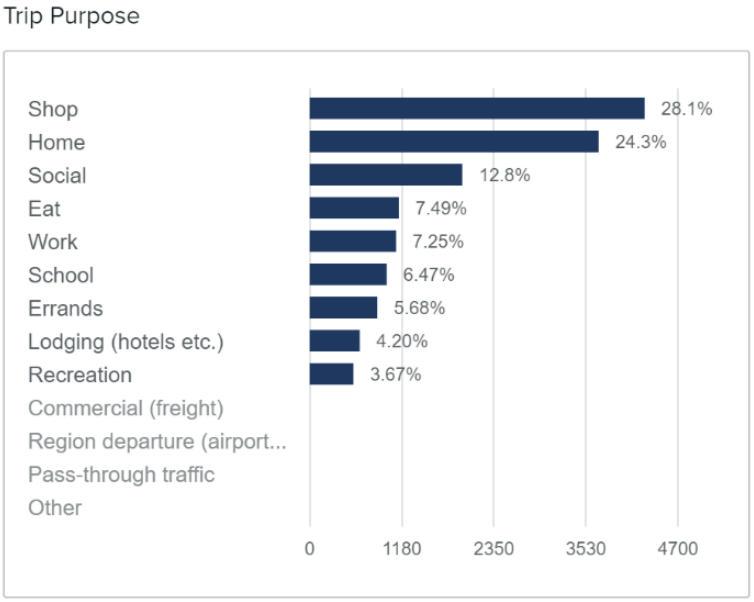
Figure 5.27 Commute to Work Mode Share



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.

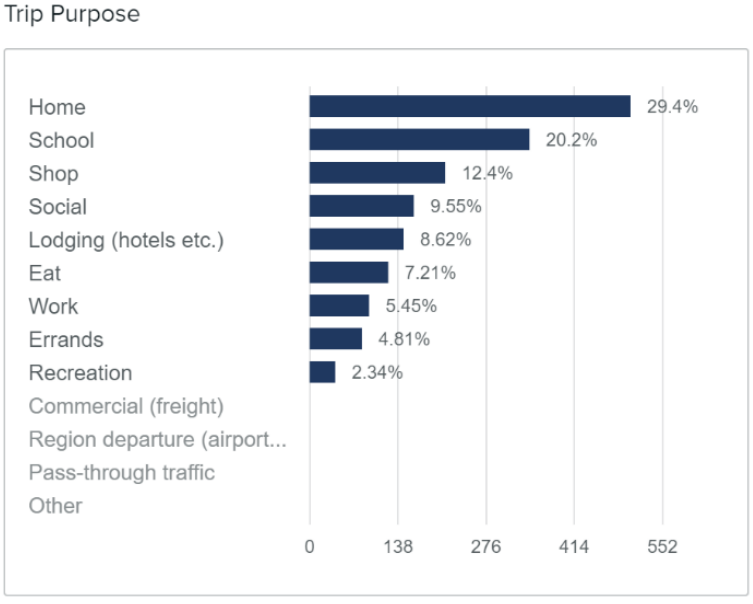
Figure 5.28 Walking Trip Purpose, Average Fall 2022 Weekday



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

Siskiyou County currently has 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.

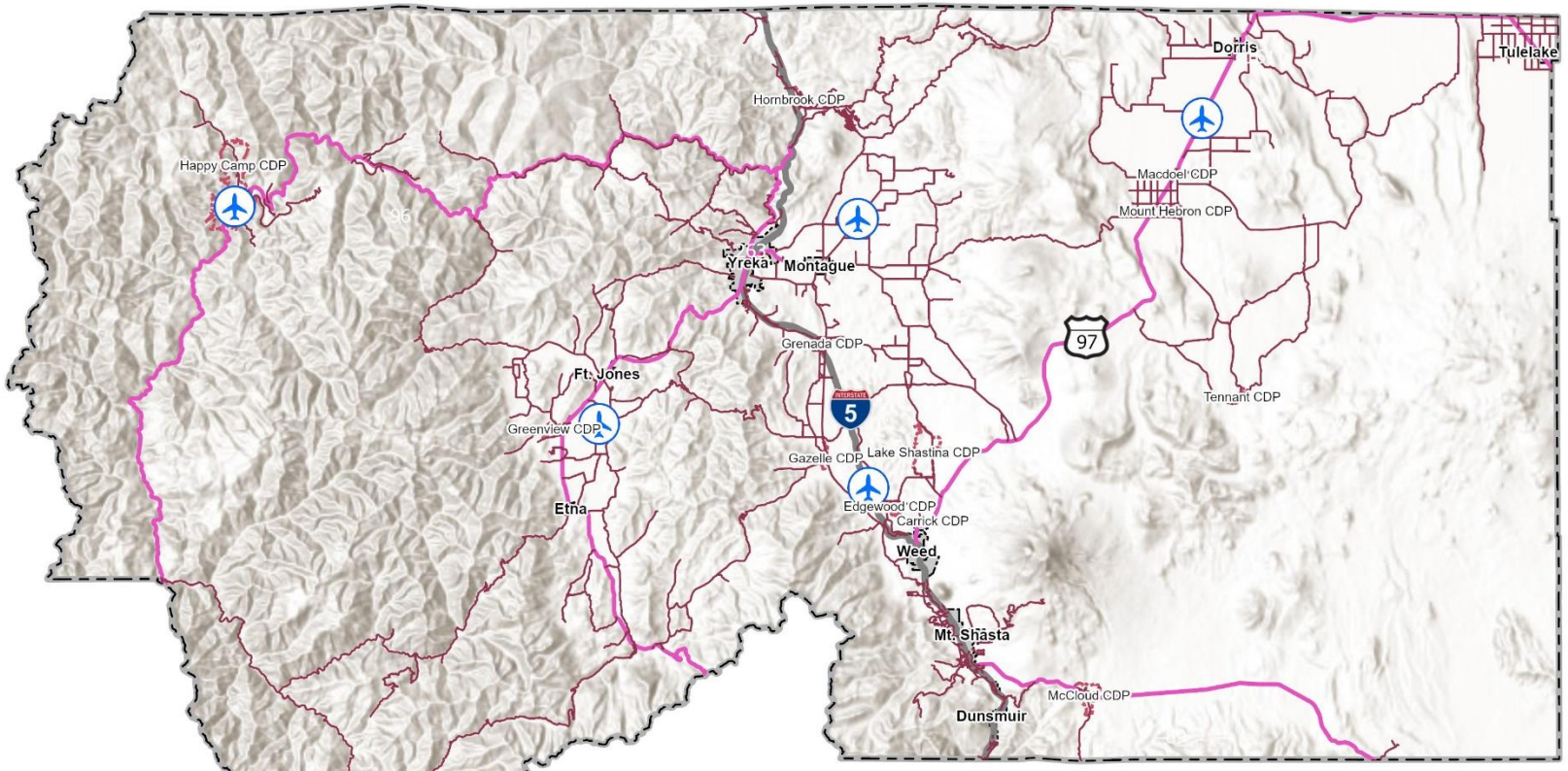
Scott Valley Airport is located approximately five miles south of the Town of Fort Jones and eight miles north of the City of Etna. The airport was activated in 1949 and houses a helitack base that operates between June and October. On average, 22 aircraft operate out of the airport daily, although this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

Siskiyou County Airport (KSIY/SIY) is the primary airport in 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.

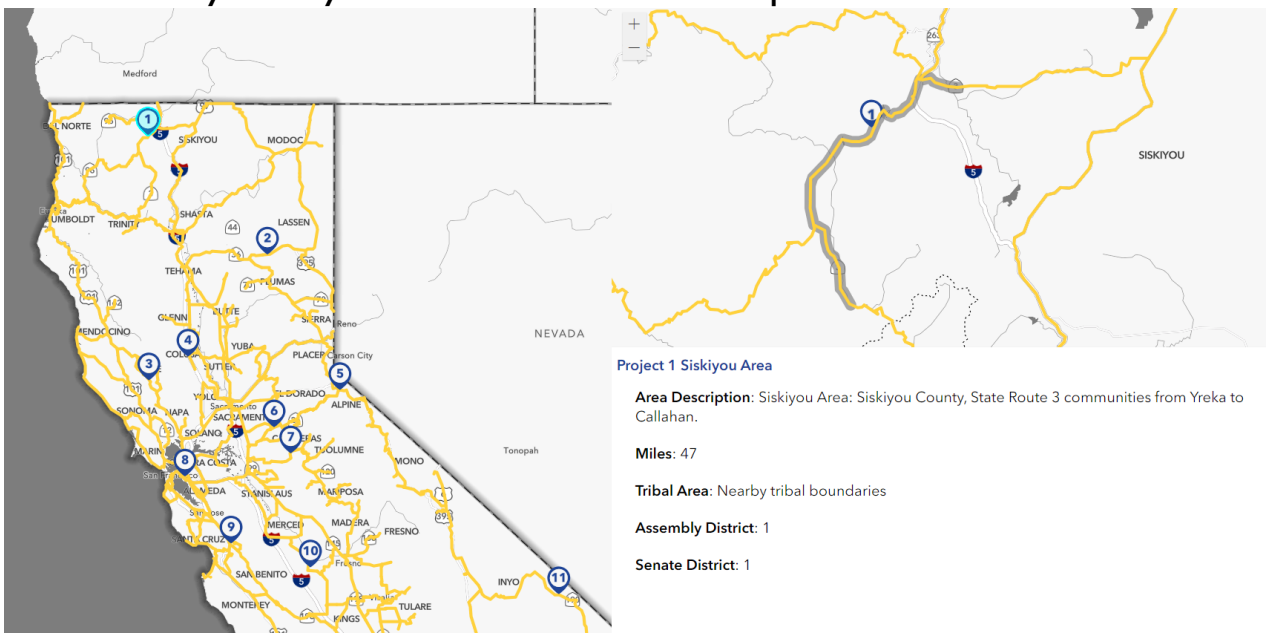
0	1	2	3	4	5
No Driving Automation Zero Autonomy. The driver performs all driving tasks.	**Driver Assistance** The driver controls the vehicle, but some driver-assist features may be included in the vehicle design.	**Partial Driving Automation** The vehicle has combined automated functions, like acceleration 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 Siskiyou Economic Development Council has partnered with CalSPEED to encourage residents and businesses to provide broadband speed and connectivity data with the California Public Utilities Commission. The California Public Utilities Commission has also 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.

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 Laws, Regulations, and Policies

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.

State Laws, Regulations, and Policies

California Transportation Plan

The California Transportation Plan is prepared by the California State Transportation Agency every five years to provide a long-range policy framework to meet the State's future mobility needs and reduce greenhouse gas (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 Laws, Regulations, and Policies

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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