CITY OF TULELAKE
CIRCULATION ELEMENT

NOVEMBER 19, 2024

CITY OF TULELAKE
591 MAIN STREET
TULELAKE, CA 96134

Figures

4.1 INTRODUCTION

The Circulation Element focuses on the movement of people, goods, water, wastewater, storm water, energy, solid waste, and data and communications in the City of Tulelake. In doing so, the Circulation Element highlights Tulelake's current and planned transportation system, provides an overview of public utilities in the City, and sets forth specific goals, policies, and programs to guide the development and maintenance of circulation in Tulelake through 2045.

4.2 STATUTORY REQUIREMENTS

California Government Code Section 65302(b) states that the circulation element of a general plan shall consist of "the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, any military airports and ports, and other public utilities and facilities, all correlated with the land use element of the plan." It further states that the circulation element must "plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the general plan."

Additionally, recent legislation has increased focus on air quality, reducing greenhouse gas (GHG) emissions, and reducing vehicle miles traveled (VMT) in the Circulation Element. This includes:

- California Complete Streets Act of 2008 (Assembly Bill (AB) 1358);
- Global Warming Solutions Act of 2006 (AB 32);
- Sustainable Communities and Climate Protection Act of 2008 (Senate Bill (SB) 375);
- CEQA Streamlining for Infill Projects (SB 226, 2011); and
- Shift in CEQA transportation metric to VMT (SB 743, 2013).

4.3 BACKGROUND

4.3.1 Highway and Street Classifications

The Federal Highway Administration (FHWA) maintains a functional classification system that defines the role of roads or streets that channel movement through a highway system. Streets and highways are arranged into classes or systems according to the character of service they intend to provide. This roadway functional classification system is the same system the California Department of Transportation (Caltrans) utilizes to make recommendations to the FHWA for approval of the official functional classification maps. The City of Tulelake does not maintain its own functional classification system. Should the City desire to add or modify a functional classification, it would petition Caltrans for the change.

Rural and urban areas have different roles as to density of street and highway networks, travel patterns, and how these elements are integrated into a highway system. To qualify as "urban," the area must encompass at least 2,000 housing units or at least 5,000 persons. The term "rural" encompasses all population, housing, and territory not included within an urban area. The City of Tulelake and its planning area are considered rural. While the "urban" or "rural" designation is independent of the functional classification, urban area boundaries play an important role in developing the functional classification of a road in an urban/rural context. These functional classifications include:

4.3.1.1 Arterials

Arterials provide the highest level of service at the greatest speed for the longest uninterrupted distance, often with multiple lanes and some degree of access control. In rural areas, the FHWA delineates arterials into “principal arterials” and “minor arterials.” Rural principal arterials are further broken down into “interstates” and “other principal arterials.”

4.3.1.2 Collectors

Collectors provide a less highly developed level of service at a lower speed for shorter distances by collecting traffic from local roads and connecting them with arterials. In rural areas, the FHWA delineates collectors into “major” and “minor” collectors. Major collectors serve larger towns not accessed by higher order roads and important industrial or agricultural centers that generate significant traffic but are not served by arterials. Rural minor collectors are typically spaced at intervals consistent with population density to collect traffic from local roads and to ensure that a collector road serves all smaller populated areas.

4.3.1.3 Local Roads

Local roads provide the most direct access to adjoining properties and uses, such as residences, businesses, schools, parks, etc. Because of this, local roads are normally designed to discourage through traffic (e.g., controlled intersections and slower vehicle speeds) and to move traffic toward arterials and collectors where it can move more efficiently. Roads not designated as either an arterial or a collector are local roads.

4.3.2 Existing Street and Highway System

There are 6.81 maintained road miles in the City of Tulelake in 2024. The City’s existing road network is shown in **Figure 4-1, Circulation Map** and the roadways are described according to their FHWA functional classifications below.

4.3.2.1 Arterials

State Route 139 (SR 139) through Tulelake is designated an “other principal arterial.” There are no other arterials within the planning area. Primary access to Tulelake is from SR 139. SR 139 is a north-south, two-lane conventional highway beginning at SR 36 in Susanville approximately 138 miles south of the City and ending at SR 161 (Stateline Road) at the Oregon-California border approximately five miles north of Tulelake. SR 139 connects Tulelake with Modoc and Plumas counties to the east, and with Klamath Falls, Oregon to the north via its connection with Oregon Route 39 (OR 39) at the California-Oregon state line. Klamath Falls is a primary destination for goods and services for city residents.

Like other routes in the California Freeway and Expressway System, SR 139 is managed by the California Department of Transportation (Caltrans). Caltrans reports that in 2022, annual average daily traffic (AADT) on US 97 through Tulelake consisted of approximately 3,400 vehicles, with 310 vehicles in transit during peak hour traffic (i.e., “rush hour”). The heaviest traffic volumes typically occur in August with 3,650 vehicles per day on average. (It is important to note that traffic volumes account for vehicles moving in each direction.) SR 139 is also a significant route for trucks, with trucks accounting for approximately 19.6 percent of the total AADT on SR 139 through Tulelake in 2022, or 667 trucks per day on average.

Traffic volumes on SR 139 vary from year to year, however, they have generally been stable or trending slightly upward when assessed over the long-term. For example, Caltrans reports that

AADT fell by 1,200 vehicles between 2016 and 2022 but increased by 700 vehicles between 2005 and 2022. According to the 2021 Siskiyou County Regional Transportation Plan, traffic volumes on SR 139 are projected to stay relatively unchanged through the year 2041.

4.3.2.2 Collectors

E Street (East-West Road outside city limits) is designated as a rural "major collector." There are no other collectors within the City of Tulelake or planning area. As the only collector, E Street (East-West Road) experiences regular local and through traffic. This includes traffic enroute from SR 139 to the Tule Lake National Wildlife Refuge, Lava Beds National Monument, and in combination with Main Street, to the Tulelake Butte Valley Fairgrounds. The most recent traffic count for East-West Road, as measured 150 feet outside city limits, occurred in October 1990. At that time, annual average daily traffic on East-West Road was 684 vehicles.

The posted speed limit on E Street is 25 mph and there is a single 16-foot travel lane in each direction. Nevertheless, due to a much wider, largely unobstructed right-of-way that subconsciously facilitates greater speeds, vehicles occasional speed through the four-way stop at the Main Street intersection, regardless of the flashing, red traffic light and stop sign. Consequently, to better cue drivers to slow down and stop as they approach the intersection, provide for safer pedestrian crossings and cross traffic, and mitigate the safety hazard, the City is currently in the process of developing a pinchpoint at the intersection of E Street and Main Street.

4.3.2.3 Local Roads

Aside from SR 139 and E Street (East-West Road), the roads in Tulelake and the planning area are local roads. Within Tulelake, roads typically follow a grid-based system, with Main Street and Modoc Avenue serving as the principal north-south roadways and E Street serving as a major cross street. Most other streets are designed to move traffic toward these roadways. E Street, Main Street, and Ray Oehlerich Way all provide direct access to SR 139.

Being a small community located in a rural environment, two-lane local roads adequately carry current traffic volumes throughout the City. And with limited population growth anticipated over the life of the Plan, new development and related traffic volumes are not expected to increase significantly. As a result, it is expected that the existing local road network will be adequate to handle existing and projected traffic volumes related to the growth of the community for the current planning period.

While no new roads or significant road projects are anticipated as being needed to accommodate population growth over the next 20 years, the City has been coordinating with the Siskiyou County Local Transportation Commission (SCLTC) and Caltrans regarding possible improvements to Ray Oehlerich Way and its intersection with SR 139 to facilitate development and provide for more reliable emergency access. Further, additional street improvements and road maintenance will continue to be necessary to keep roads in a safe traveling mode throughout the planning period. To do so, the City works with SCLTC to survey the roads and prioritize needed road maintenance and repair every five years. The priority projects are then budgeted for and scheduled, as feasible, in the Regional Transportation Plan. Though this system has worked well for the City for prioritizing maintenance and repairs, there remains considerable need for additional funding for projects to be completed.

4.3.2.4 Scenic Highways

The Scenic Highway Program was created by the California Legislature in 1963 for the purpose of protecting and enhancing the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. Designation as a scenic highway depends upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been officially designated.

At present there are no roads in the planning area that have been officially designated as state scenic highways, however, SR 139 is eligible for designation. To designate that portion of SR 139 through the City, the City Council would need to apply to Caltrans for scenic highway approval and adopt a corridor protection program that describes measures being taken by the City to protect the corridor's visual quality via development and land use regulations; detailed land and site planning; control of outdoor advertising; careful attention to and control of earthmoving and landscaping; and the design and appearance of structures and equipment.

In addition to the State Scenic Highway Program, the National Scenic Byways Program was established by Congress in 1991 to help recognize, preserve, and enhance selected roads throughout the United States. Roads designated as Scenic Byways and All-American Roads by the U.S. Secretary of Transportation are chosen for their archeological, cultural, historic, natural, recreational, and scenic qualities.

The Volcanic Legacy Scenic Byway All-American Road is one of only 42 Scenic Byways in the United States, and a spur of the Scenic Byway passes through Tulelake en route to the Lava Beds National Monument to the south. The full route of the Volcanic Legacy Scenic Byway All-American Road extends from Crater Lake in Oregon to Mount Lassen in California, a distance of roughly 500 miles. The road segments within Tulelake and the surrounding area that comprise portions of the Scenic Byway include all of SR 161, SR 139 between SR 161 and E Street (East-West Road), E Street (East-West Road) between SR 139 and Hill Road, and Hill Road between East-West Road and Lava Beds National Monument.

4.3.2.5 Pedestrian and Bicycle Facilities

Bicycle and pedestrian networks should be complete systems for transportation, including coordination with land use plans, housing, and transit systems. Bicycle and pedestrian networks can be used to connect residents to employment centers, community centers, schools, commercial districts, and transit stops. Active transportation can be used to fill the gaps in transit systems when available, encourage recreational bicycling and walking for exercise, and build a healthier, happier community. The Land Use Element prioritizes infill development, which creates opportunities for active transportation by decreasing the distance between origins and destinations.

There has traditionally been little investment in bicycle and pedestrian infrastructure in Tulelake due the low volume of traffic on city streets and the cost of improvements. Bicycle parking is provided at a few locations, including the schools and library, however, there are presently no bicycle lanes, bicycle routes, or multi-use paths in Tulelake. The pedestrian network is better but similarly incomplete with significant gaps in sidewalks and walkways throughout the community. Most of Main Street, large portions of C and D streets, and a short segment of Fourth Street have are fully improved and sidewalks have also been developed along much of E Street, F Street, G

Street, First Street, and Second Street. Otherwise, where sidewalks are present, they are generally not well-connected, which diminishes their utility.

The SCLTC is in the process of developing a regional Active Transportation Plan (ATP) as part of its effort to build a transportation network that meets the unique needs of Siskiyou County's rural communities, including the City of Tulelake. When complete, the ATP will emphasize the improvement of pedestrian and bicycle connections used to access schools, goods and services, and other important destinations for children, the elderly, and people with disabilities. Having an ATP allows communities to better identify and prioritize the specific active transportation improvements needed in their community and to better qualify for grant funding to implement the improvements.

Funding continues to be a significant challenge in implementing an active transportation network. Although the State supports investment in biking and walking by funding programs such as the Active Transportation Program and the Affordable Housing and Sustainable Communities Programs, many communities are interested in implementing active transportation projects and there is strong competition for these funds. Therefore, as part of the City's efforts to develop a connected active transportation system for Tulelake, as well as better compete for funding assistance, the City will continue to coordinate with SCLTC and other communities in the region on development of the ATP and to plan for a regional active transportation network. Once the ATP is complete, the City of Tulelake and other communities in Siskiyou County can better target grant opportunities to improve their active transportation networks.

4.3.2.6 Parking

The provision for parking is an integral part of a transportation system. Whether at home or at some destination point, sufficient space must be provided to park vehicles. Typically, this is done through the application of standards in a city's zoning ordinance, which require specific amounts of off-street parking based on the type and intensity of use. The City's zoning ordinance has a chapter dedicated to off-street parking and loading requirements.

Though the provision of off-street parking is required throughout much of the City, most streets in Tulelake are of sufficient width to provide some on-street parking as well. This helps to offset situations where off-street parking has not been provided in the past, as well as giving neighborhoods more available parking for guests. Though less commonly needed, on-street parking areas also provide space for snow storage following winter storms. To address the parking needs in the downtown area, the City provides diagonal on-street parking along both sides of Main Street from B Street to F Street as well as along a segment of Modoc Avenue.

4.3.2.7 Traffic Management

Most streets in Tulelake do not experience significant traffic and few traffic calming measures have traditionally been required. The lack of significant traffic on city roadways is an important element of the overall livability and small-town feel of Tulelake. And while considerable population growth and a corresponding increase in traffic on local roads are not anticipated for the planning period, the City of Tulelake does experience seasonal and event-related increases in visitor traffic, particularly on E Street (East-West Road) and Main Street as discussed in Section 4.3.2.2 above.

There are a variety of traffic calming measures that can achieve speed reductions, deter congestion, and reduce demand for vehicle trips. Some traffic calming measures alter the configuration of a roadway while others change how people psychologically perceive and respond to a street. Traffic calming measures can include center medians with vegetation, pinchpoints,

lane shifts, bulb outs, and roundabouts. Depending on site-specific conditions, speed reduction mechanisms can improve safety and result in fewer or less serious injuries when accidents occur.

As noted above, due to concern for pedestrian and cross traffic safety at the intersection of Main Street and E Street, the City is constructing a pinchpoint at this location. Although no new traffic calming measures are currently planned, the City continues to evaluate its roadways and intersections for safety, and to coordinate with Caltrans relative to SR 139 and its intersection with city streets. As such, new measures may be determined necessary in the future.

4.3.3 Shipping and Transit

4.3.3.1 Railroad

During Tulelake's formative years, the railroad was the primary means of transportation and the focal point of commercial activity in the community. Tulelake also served as an important trans-shipment point for the region's agricultural products and spur lines were active with the loading and unloading of cars. However, as mobility increased and as trucking grew to become the predominant method of shipping goods after 1960, railroad operations slowed in response.

According to the Federal Railroad Administration, the most recent count of train traffic through Tulelake occurred in 2019. At that time, four trains on average passed through the City each day on the Union Pacific Railroad-owned line. In 2024, community members estimate that train traffic has fallen to 1-2 trains per week on average. It was further noted that when two trains pass through in a week, it is typically the same train on its return trip from Newell Grain Growers Associates less than one mile south of town. Trains no longer stop in the City, and the spur lines are inactive. To access passenger rail service to other parts of the Country, residents must travel approximately 25 miles to the nearest Amtrak station in Klamath Falls.

4.3.3.2 Trucking

Freight movement to and from the Tulelake area is provided by inter- and intrastate firms, however, there are no local terminal facilities in Tulelake. Being located on SR 139, several hundred trucks pass through Tulelake daily. Therefore, to direct heavy truck traffic to areas designed for commercial and industrial use and away from residential areas and other sensitive land uses, the City has established a system of designated truck routes and penalties for noncompliance. This system also allows the City to ensure its roadways are structurally designed to accommodate the loads placed on them without excessive maintenance and cost.

4.3.3.3 Public Transit

As California strives to reduce VMT and GHG emissions, transportation strategies that include alternatives to driving single-occupancy vehicles have become increasingly important for cities and counties to develop and implement. And while Tulelake and Siskiyou County are sufficiently rural that single-occupancy vehicles are likely considered a necessity by most residents, the availability of quality transit service facilitates access to goods, services, and employment opportunities for all residents, encourages ridership, and helps to meet State goals. Further, by coordinating transit routes and stops with bicycle and pedestrian infrastructure (e.g., bicycle parking and sidewalks), cities can promote ridership for a wider range of residents.

At present, public transit in Tulelake is limited to weekly bus service to Klamath Falls. There are two stops along Main Street and the bus departs in the morning and returns in the afternoon. The service is available on Tuesdays and is provided by the Modoc Transportation Agency (MTA) which operates Sage Stage, the in-town bus service for Alturas. Along with providing local bus

service in Alturas, approximately 70 miles south of Tulelake, Sage Stage provides intercity connections to Redding, Klamath Falls, and Reno, Nevada.

The County of Siskiyou operates Siskiyou County's local bus service, Siskiyou Transit and General Express (STAGE). Based in Yreka, STAGE principally serves central and southern Siskiyou County and does not extend out Tulelake or nearby Dorris. In addition, the Basin Transit Service Transportation District (BTS) provides bus service in nearby Klamath Falls but the service does not extend into California. Should STAGE's bus service eventually be extended to Tulelake, it is unlikely that it would be heavily utilized for daily bus service to Yreka approximately 93 miles away when Klamath Falls and its larger availability of goods, services, and employment opportunities is much closer. Nevertheless, there are very few state or county services available in Tulelake, and with no such services available for California residents in Oregon, Tulelake residents must periodically travel to Yreka. For this reason, it is anticipated that a weekly or semi-weekly bus service to Yreka would benefit the community.

Greyhound Lines, Inc. (Greyhound) operates the largest, private intercity bus service in North America. However, like STAGE and BTS, Greyhound does not provide service to Tulelake. To access the nearest Greyhound station and bus service to other parts of the Country, residents must travel to Klamath Falls.

4.3.3.4 Aviation

The Tulelake Municipal Airport is located approximately seven miles southeast of the City in Modoc County adjacent to the community of Newell. The airport, which is neither owned nor maintained by the City of Tulelake, serves general aviation aircraft and does not provide commercial flights or scheduled service to other destinations. The nearest airport with passenger service, the Medford-Rogue Valley International Airport, is located approximately 100 miles to the northwest in Medford, Oregon. Passenger air service was previously available in Klamath Falls at the Crater Lake-Klamath Regional Airport, but the service was terminated 2017. It is unknown whether a commercial carrier will return to Klamath Falls. Since the end of passenger air service in Klamath Falls, the Oregon Department of Transportation has partnered with POINT to offer daily shuttle service from the Amtrak station in Klamath Falls to the Medford-Rogue Valley International Airport. Other airports commonly used by city residents include the Sacramento International Airport in Natomas, the Redding Regional Airport in Redding, and the Reno-Tahoe International Airport in Washoe County, Nevada.

4.3.4 Public Utilities

4.3.4.1 Water

The City of Tulelake obtains its water from three wells. The groundwater is conveyed via booster pump to two elevated tanks with a combined storage capacity of 175,000 gallons. Water is provided to all residential, commercial, institutional, and industrial customers, and for fire protection services. In 2018, the City completed repairs to many of its old water lines, thereby reducing system losses and improving water storage capacity. The City's water system, which once consisted of shipping potable water in via train car, is now very reliable. Even during summer months following multiple drought years, there has not yet been a need to restrict water usage except to enforce statewide orders.

In addition to the City's municipal water supply, the Tulelake Irrigation District (TID) maintains a series of irrigation canals in and around the City. The majority of the TID's surface water supply is from the Klamath River, which is directed to TID through an intertie between the Klamath River

and the Lost River, known as the Lost River Diversion Channel. TID does not provide water to the City of Tulelake or to any properties or land uses in the City.

Goals, policies, and programs for the conservation of water resources are provided in the Conservation Element.

4.3.4.2 Wastewater

The City operates a wastewater collection and treatment system that serves development throughout the City. The collection system was constructed in 1947 and Tulelake's wastewater treatment plant (WWTP) and disposal facility was originally installed in 1973. For many years, the City discharged treated wastewater to a waterway, a practice that needed to be terminated and upgraded to a lagoon system. In 2007, the City of Tulelake received a cease and desist order from the RWQCB that required a significant upgrade to the WWTP to comply with. After acquiring grant funding for the necessary improvements, two lined and aerated treatment ponds were added in 2016 and the surface water discharge was eliminated and replaced with agronomic reuse. Recycled wastewater is now pumped to two effluent storage ponds and to a feed line that supplies irrigation water for cover crops. The City's current water distribution and wastewater conveyance systems are shown **Figure 4-2, Water and Wastewater Utilities**

4.3.4.3 Storm Drainage

Due to the relatively level ground, permeable soil conditions, and the cost of street improvements, Tulelake does not have a true storm drain system or curb and gutter throughout most of the City. The City's storm drainage consists of water running into street drains, onto rock, and into a pocket drain, which holds water that is then soaked into the ground. While this system has been mostly adequate and resulted in only limited localized flooding in the past, increased storm intensities resulting from climate change will likely require that the City eventually expand the system's capacity to accommodate increased stormwater runoff.

4.3.4.4 Solid Waste

The City provides for the removal of the solid waste generated inside city limits. In addition, the City is a member agency of the Siskiyou County Integrated Solid Waste Management Regional Agency, which oversees solid waste collection and disposal throughout Siskiyou County. The nearest transfer station is the Tulelake Transfer Station located on County Road 95001, approximately seven miles northwest of Tulelake. Solid waste originating from within the City is transported to the Tulelake Transfer Station and subsequently disposed of at one of seven landfills under contract with the Siskiyou County Integrated Solid Waste Management Regional Agency to receive the waste. Most of the receiving facilities are located in Oregon.

According to the California Department of Resources Recycling and Recovery (CalRecycle), the average individual in Siskiyou County generated 4.7 pounds of garbage per day in 2019. Based on an estimated population of 902 in Tulelake at the time of the 2020 U.S. Census, it is projected that city residents generate roughly 1.55 million pounds (773.7 tons) of garbage per year. In an effort to reduce the amount of organic material being generated inside city limits and deposited in landfills, the City adopted regulations for the recovery of edible food waste consistent with and in accordance with the State of California's Short-Lived Climate Pollutants Organic Waste Reduction Strategy (i.e., SB 1383).

4.3.4.5 Electrical Transmission

There are no electrical energy production facilities in Tulelake. Pacific Power provides electrical service to the City and surrounding areas via a 69 kV electrical transmission line that enters and exits the City along E Street and a substation located adjacent to the railroad. At present, the power supplied is sufficient to meet the demands of the community. However, as temperatures continue to increase under climate change and prolonged heat becomes more common, it is anticipated that demand for cooling technologies will increase in the community, resulting in greater energy demand.

Aside from underground power to the Ridgeview Estates Subdivision, power lines are located above ground throughout of the community and generally follow transportation corridors. Current Public Utility Commission regulations require that all new facilities for residential subdivisions and commercial developments be located underground.

4.3.4.6 Data & Communications

Cal-Ore Communications provides landline telephone and fixed broadband services in Tulelake, with AT&T, T-Mobile, Verizon, and U.S. Cellular offering cellular telephone and data services. Broadband technologies available in Tulelake include fiber optic, digital subscriber line (DSL), fixed wireless, satellite, and mobile. As a result, high speed internet is generally available in the City; however, there are pockets within the City where downstream and upstream speeds are limited, and which are eligible for California Advanced Services Fund (CASF) infrastructure grants for service provider improvements. To qualify, an area must lack a facility-based broadband provider that serves households (or areas) at a minimum speed of at least 25 megabits per second (Mbps) down and 3 Mpbs up. Projects funded by the CASF program deploy infrastructure capable of providing broadband access at speeds of a minimum of 100 Mbps down and 20 Mbps up. Downstream speed ranges in the City are shown in **Figure 4-3, Consumer Fixed Downstream Data Availability**.

4.4 LEVEL OF SERVICE AND VEHICLE MILES TRAVELED

Level of Service (LOS) is a standard established by the Institute of Transportation Engineers (ITE) to quantify the subjective measure of traffic efficiency and tolerance. Factors taken into consideration include the volume of traffic, street and intersection design, signal timing, and other variables. LOS is normally used to describe peak-hour conditions, specifically the morning or afternoon hour when traffic is the heaviest.

To prevent roads from reaching a level in which traffic moves with poor efficiency from point to point, cities have historically established guidelines at which a street or road is considered to have reached the highest service volumes that are tolerable within a community. Rated in grades from LOS A (best) to LOS F (worst), a roadway's levels of service is based on the amount of congestion and delay drivers experience.

For the purpose of guiding future development relative to the City's transportation network, the City of Tulelake strives to maintain a LOS threshold of "C" or better for all city streets and intersections. LOS C provides for "acceptable delays" and ensures city streets remain safely below but efficiently close to capacity. The City balances this LOS target with considerations of vehicle activity, pedestrian safety, cost, and meeting the needs of all users of the City's transportation network. Accordingly, the City Council may approve requests for deviations from the LOS threshold in unusual or exceptional circumstances, and as it determines necessary and appropriate. Note that this threshold reflects community expectations for its roadways and is not

appropriate for evaluation of impacts under the California Environmental Quality Act (CEQA), as discussed below.

With the passage of SB 743 (2013), the way transportation impacts are analyzed under CEQA changed. Once based on LOS, CEQA standards now require that transportation impacts be assessed primarily based on the effects on Vehicle Miles Traveled (VMT). Whereas LOS is a metric for traffic congestion and delay, VMT is a measure of vehicle activity that accounts for the number and length of vehicle trips within an area over a given period. VMT is commonly applied on a per-household or per-capita basis and is a primary input for regional air quality analyses and for developing VMT rates for safety analysis.

Rates of VMT are typically lowest in compact, walkable, and mixed-use areas. Higher rates of VMT tend to occur in suburban or rural areas with low population densities and longer distances to activity centers. For these reasons, efforts to reduce VMT often focus on encouraging infill development. Similarly, SB 743 aims to encourage infill development and a diversity of land uses instead of sprawl, and to promote multi-modal transportation networks that provide efficient access to destinations and improve public health through active transportation.

While LOS is no longer relevant for CEQA purposes, LOS-based performance goals remain relevant for non-CEQA planning purposes and as a tool for the City to ensure its roadway system meets the expectations of the community. Further, policies in the Circulation and Land Use elements serve to reconcile competing interests of LOS and VMT and to meet the needs of all users of the transportation network, including pedestrians and bicyclists.

4.5 CORRELATION WITH LAND USE ELEMENT

The policies and programs in the Land Use Element directly tie to those highlighted in this Circulation Element. Creating connected, accessible, and complete systems of circulation networks and ensuring access to opportunities within a community and region requires coordination between land use and circulation planning.

As emphasized in the Land Use Element, mixed-use neighborhoods, revitalization of the town center, and infill development reduce the transportation needs of residents and businesses alike. Pedestrian and bicycle routes should connect the City's parks and schools with residential areas identified in the Land Use Element. Moreover, truck routes should continue to be directed away from sensitive areas and instead serve areas designed for heavier commercial and industrial uses in the Land Use Element.

4.6 CORRELATION WITH OPEN SPACE & CONSERVATION ELEMENT

As described in the Open Space & Conservation Element, the "Urban Heat Island Effect" can occur in small or large cities, and even in suburban areas. Heat islands form as natural land cover is replaced with dark-colored rooftops, pavement for roads and parking lots, and other hardscapes that collect and retain heat. According to the U.S. Environmental Protection Agency, these dark surfaces can reach temperatures up to 60 degrees Fahrenheit (°F) warmer than the air, thereby increasing the ambient temperatures in areas 1-7 °F higher than in natural landscapes during the day and 2-5 °F higher at night.

The use of trees in urban landscapes is an effective, low technology way to reduce the heat island effect, reduce energy consumption, improve air quality, reduce stormwater runoff, decrease soil erosion, improve the pedestrian environment, reduce glare, and improve community image and aesthetics. Studies have shown that urban trees offer returns far greater than their cost of planting

and upkeep, and these benefits increase with the increased size and extent of the tree canopy. For these reasons, the City of Tulelake promotes trees along pedestrian and bicycle paths, where appropriate, to enhance the urban canopy.

4.7 CORRELATION WITH SAFETY ELEMENT

Climate change is a critical consideration in the Circulation Element, as transportation is a significant source of greenhouse gases (GHG). The California Air Resources Board (CARB) reports that, as of 2021, about 38 percent of the state's GHG emissions come from the transportation sector, as compared to 29 percent nationally. To achieve GHG reduction goals, the City of Tulelake is focusing on mixed-use development close to the town center, improving its active transportation network, and working with transit and para-transit providers to improve services to the community.

The recent increase in demand for work-from-home employment may assist in reaching GHG emissions targets by reducing the number of daily commuters in vehicles. However, adequate broadband coverage must be provided to facilitate remote work, and though there has been significant improvement in broadband coverage over the past 20 years, limitations and challenges persist.

One of the many anticipated consequences of climate change is increased storm intensities, which will require the City to reevaluate its existing drainage and limited stormwater infrastructure to ensure there is enough capacity to accommodate the increased volume of rainfall and runoff. Impacts on infrastructure associated with climate change and severe weather hazards are discussed further in the Safety Element and detailed in the Siskiyou County Multijurisdictional Local Hazard Mitigation Plan, which the City has adopted as part of the General Plan by reference.

4.8 CIRCULATION ELEMENT GOALS, POLICIES & PROGRAMS

GOAL C-1	**A balanced transportation system that maximizes mobility and choice for city residents.**
GOAL C-2	**A transportation system that is adequate, safe, and efficient for all users.**
GOAL C-3	**A transportation system that contributes to the social, economic, and environmental well-being of the community.**
GOAL C-4	**A pattern of development and a transportation system that minimize vehicle miles traveled (VMT).**

GOAL C-1 A balanced transportation system that maximizes mobility and choice for city residents.

POLICY C-1.1: The City supports the development of a network of complete streets that reflects the local context and which provides for the mobility of all users, regardless of age or ability.

POLICY C-1.2: The City supports the development and expansion of local and regional public transit systems.

POLICY C-1.3: The City supports transit services, agencies, and organizations that provide paratransit services to individuals with special needs

POLICY C-1.4: The City supports partnerships, including with the Siskiyou County Local Transportation Commission (SCLTC), California Department of Transportation (Caltrans), and other Siskiyou County communities, to fund active transportation improvements in the City and region.

Program C-1A: Ensure that land use and transportation planning balance the needs and safety of motorists, pedestrians, bicyclists, and transit users.

Program C-1B: Evaluate the feasibility of installing elements of complete street improvements when planning roadway improvements.

Program C-1C: Require new development to contribute its fair share to complete street improvements.

Program C-1D: Consider multi-modal access requirements when making investment decisions about parks, recreation areas, public parking, and other city facilities.

Program C-1E: Ensure that new subdivisions are designed to include features that facilitate walking and bicycling.

Program C-1F: Work with transit providers (e.g., STAGE, BTS, Sage Stage) to extend and/or expand service to Tulelake to better address the transportation needs of the community.

Program C-1G: Work with transit providers, social services providers (e.g., Planning & Service Area 2 Area Agency on Aging), and community organizations (e.g., nonprofits and churches) to provide paratransit services to those with special needs, including on demand rides for the elderly and disabled.

Program C-1H: Continue to coordinate with SCLTC and other communities in the region on development of the Active Transportation Plan and utilize the Active Transportation Plan to better target grant opportunities to improve the City's active transportation network.

Program C-1I: Partner with the SCLTC, Caltrans, and others to fund active transportation improvements in Tulelake and the region.

GOAL C-2 A transportation system that is adequate, safe, and efficient for all users.

POLICY C-2.1: The City endeavors to provide adequate, safe, and efficient access to and from all land uses identified in the Land Use Element.

POLICY C-2.2: The City strives to maintain Level of Service (LOS) C or better on city streets and intersections.

POLICY C-2.3: The City supports deviations from the LOS standard when LOS C is unsafe for non-automobile users, is too expensive for the City to maintain, and/or results in increased VMT.

POLICY C-2.4: The City supports long-range plans for improvement of SR 139 through Tulelake by Caltrans to maintain safety and efficiency of traffic.

POLICY C-2.5: The City requires that new development provide adequate off-street parking to accommodate parking demands generated by the use.

POLICY C-2.6: The City requires that publicly accessible parking areas be designed to provide safe access for pedestrians and bicyclists.

POLICY C-2.7: The City supports the use of shared parking facilities that provide safe and convenient connectivity between adjacent uses**.**

Program C-2A: Review existing roadways and sidewalks to ensure that they meet general safety standards and are ADA compliant. If it is found that any routes are unsafe or noncompliant, make the necessary improvements to ensure that the routes are improved to appropriate standards.

Program C-2B: Continue to evaluate, improve, and maintain city streets and sidewalks to ensure safe, efficient operation.

Program C-2C: Adopt street standards that reflect adjacent land uses and anticipated traffic volumes. Provide flexibility where necessary to maintain public safety and neighborhood character.

Program C-2D: Design public rights-of-way, intersections, and parking areas to include accessible, safe access for all users.

Program C-2E: Strive to maintain adequate on-street and off-street parking areas, including electric vehicle charging stations, to meet ongoing parking demands.

Program C-2F: Evaluate the use of in lieu fees to offset the parking impacts of new or expanded commercial, institutional, or industrial land uses as an alternative to requiring that such uses provide the minimum off-street parking spaces required by Code.

Program C-2G: Actively participate in regional transportation planning programs, including programs coordinated by the SCLTC, and use the regional planning process to improve the City's transportation network.

Program C-2H: When a project is proposed that has the potential to impact SR 139 or the intersection of a city street with the highway, coordinate with Caltrans to address and resolve issues that may affect the safety and efficiency of related traffic.

Program C-2I: Coordinate with Caltrans regarding safety issues on SR 139 and the highway's intersections with city streets to ensure sufficient improvements are in place to safeguard the community.

Program C-2J: Minimize the effects of truck traffic on city streets by continuing to maintain and enforce a system of designated truck routes, and ensure designated truck routes are designed to accommodate the heavier loads placed on them.

Program C-2K: Periodically evaluate the Zoning Code's parking standards for adequacy and consistency with state law and amend as necessary.

Program C-2L: Support efforts to promote safety at rail crossings in the City.

GOAL C-3 A transportation system that contributes to the social, economic, and environmental well-being of the community.

POLICY C-3.1: The City supports the enhancement of the visual appearance of pedestrian and vehicular routes.

POLICY C-3.2: The City recognizes the relationship of local transportation decisions to broader regional issues, such as congestion management and environmental sustainability.

POLICY C-3.3: The City promotes access to public transit, non-vehicular modes of transportation, and greater linkages between land uses and transit to reduce automobile-related emissions.

POLICY C-3.4: The City supports equitable deployment of comprehensive utility infrastructure in the City, including the efficient expansion of broadband infrastructure and the provision of cost-effective high-speed internet service to promote economic prosperity.

POLICY C-3.5: The City requires that development mitigate adverse impacts of a proposed project on the existing transportation system.

POLICY C-3.6: The City endeavors to provide public services, facilities, and utilities that are efficient, cost effective, and in compliance with state and federal regulations.

Program C-3A: Construct, improve, and maintain the system of curb, gutters, sidewalks, and crosswalks for circulation, safety, and drainage control, giving priority to high traffic areas.

Program C-3B: Evaluate the planting of low maintenance shade trees in landscaped areas adjacent to streets where non-motorized travel is expected, where such improvements can be made without jeopardizing emergency response and future capacity requirements, and where such improvements are feasible and appropriate.

Program C-3C: As part of the CEQA process, require traffic studies for projects that have the potential to generate substantial increases in VMT or impact traffic patterns.

Program C-3D: Protect natural features and sensitive areas to the extent feasible when maintaining and expanding the City's circulation system.

Program C-3E: Develop a targeted approach to digital inclusion that includes expansion of public Wi-Fi in the downtown area, city hall, community center, and other key areas of community interest.

Program C-3F: When possible, reduce barriers to the equitable deployment of new broadband and telecommunication technologies and infrastructure to attract employers and businesses.

Program C-3G: Work with state agencies and regional partnerships to develop funding for improvements to the City's water, wastewater, and storm drain systems.

GOAL C-4 A pattern of development and a transportation system that minimize vehicle miles traveled (VMT).

POLICY C-4.1: The City supports the implementation of strategies to reduce the number and length of vehicle trips, including active transportation improvements, mixed-use development, greater access to public transit, and the placement of development in proximity to employment and activity centers.

POLICY C-4.2: The City promotes new development that will reduce household and employment VMT relative to existing conditions.

POLICY C-4.3: The City supports on- and off-street improvements that provide functional alternatives to automobile usage, promote active transportation, and reduce VMT.

Program C-4A: Ensure that Tulelake's transportation system complements the land use pattern, and that land use decisions complement and make efficient use of the transportation system.

Program C-4B: Continue to develop and improve the City's pedestrian and bicycle transportation network, using on- and off-street improvements as appropriate, to increase nonvehicular access to local destinations**.**

Program C-4C: When planning for the extension of public transit, develop and support strategies that strengthen first/last mile connectivity to enhance the viability and utility of the service for all users, such as wayfinding signs, sidewalks, and bicycle parking.

Program C-4D: Coordinate with Caltrans on development of a carpooling lot to facilitate and support regional commuting.

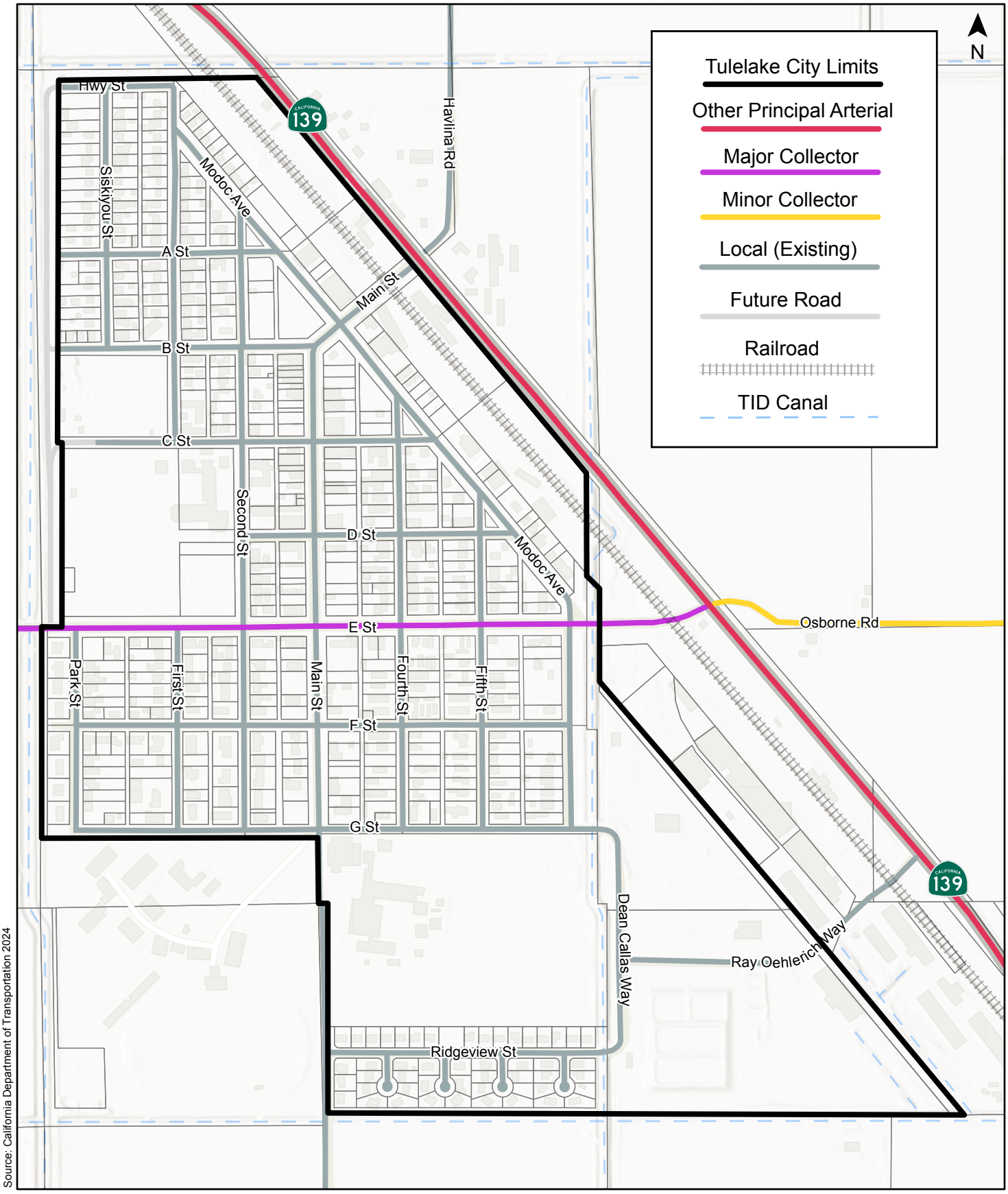

Figure 4-1, Circulation Map

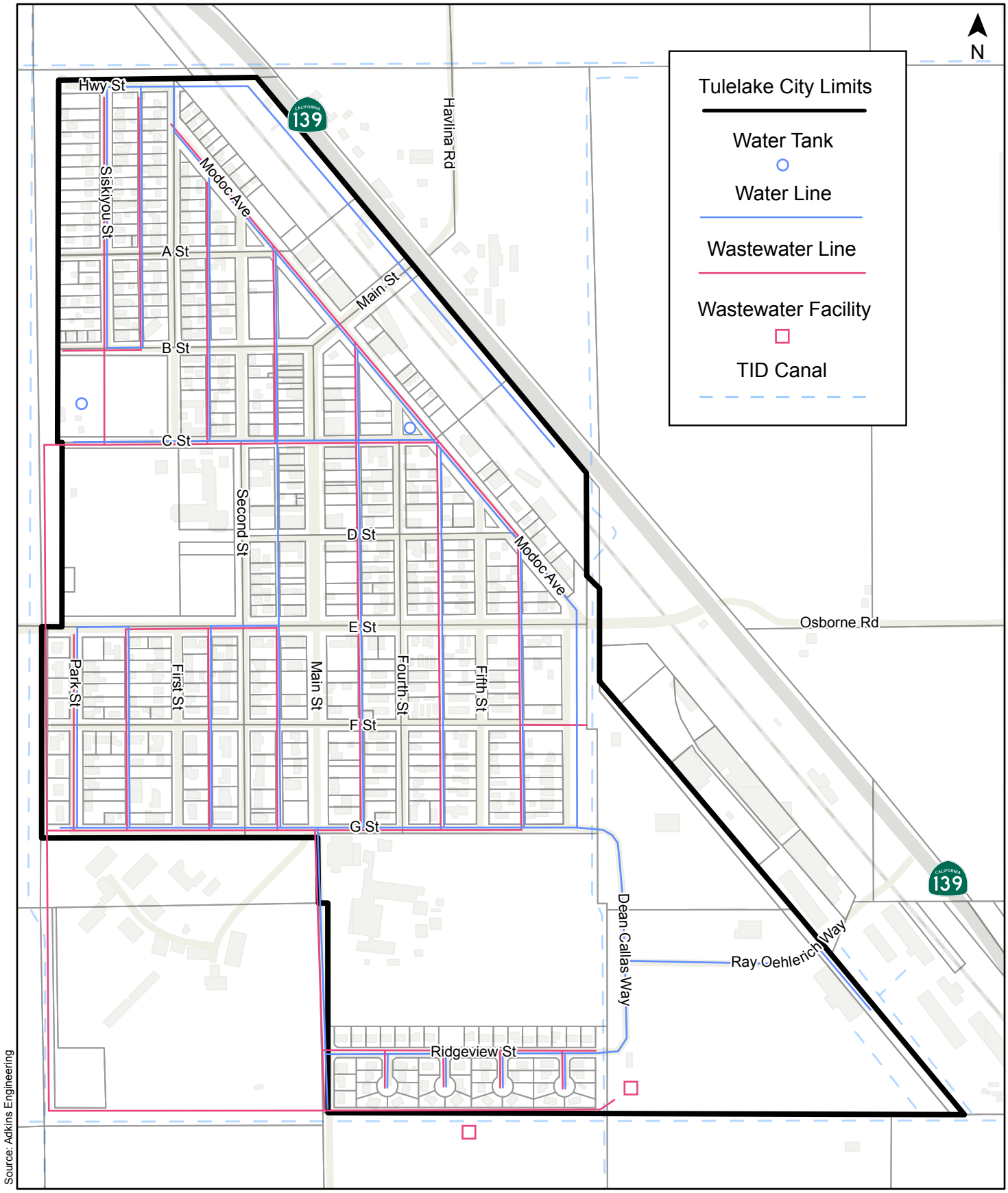

Figure 4-2, Water and Wastewater Utilities

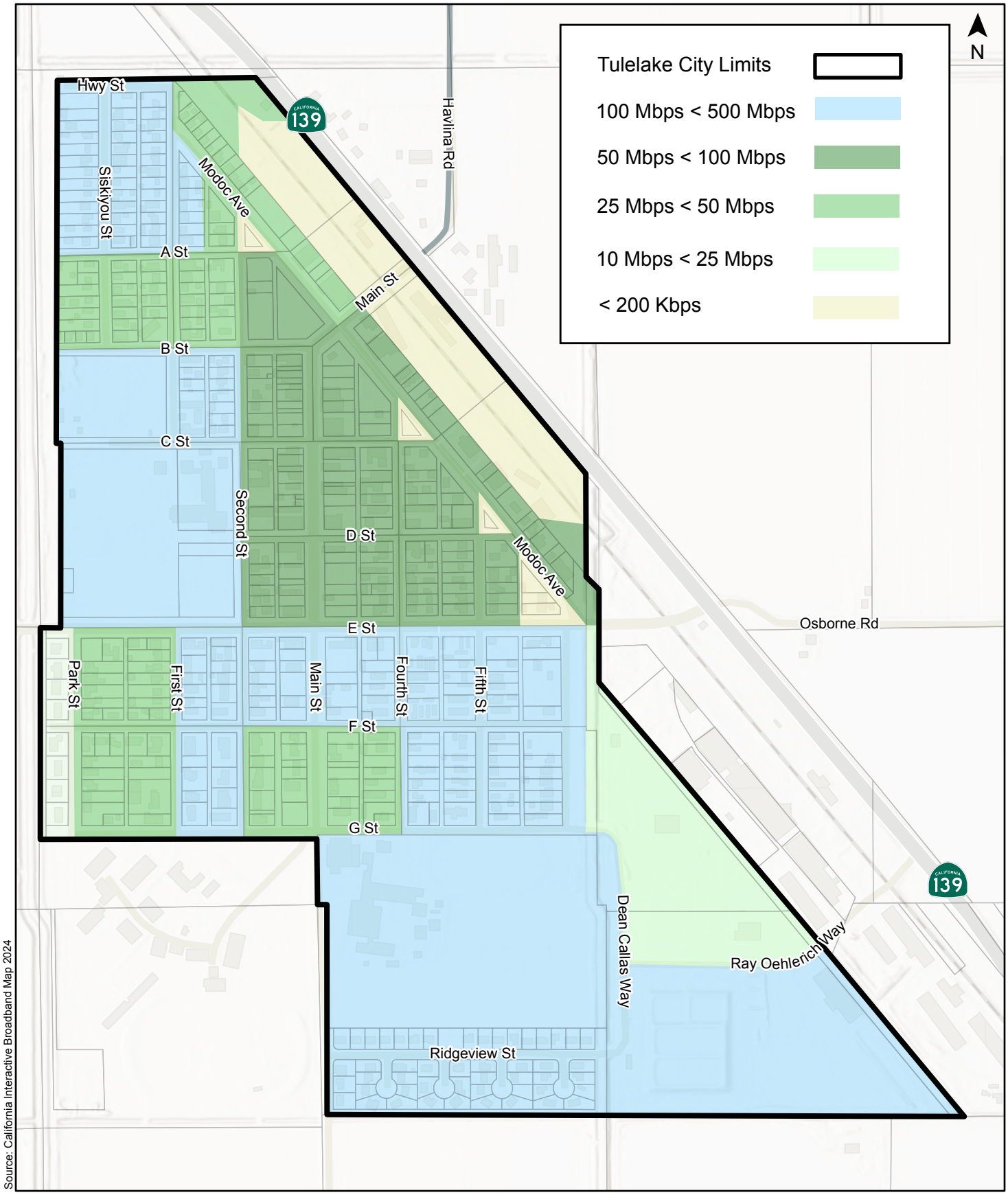

Figure 4-3, Consumer Fixed Downstream Availability