



APPENDIX E
Active Transportation Plan





THE TOWN OF PARADISE ACTIVE TRANSPORTATION PLAN

May 2022



PREPARED FOR
Town of Paradise



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CHAPTER 1: INTRODUCTION

The Town of Paradise’s (Town) Active Transportation Plan (ATP) is a community informed document guiding development of a connected bicycle and pedestrian network (Network) and the programs and policies that support infrastructure and the culture of walking and cycling. The Network will augment community recovery efforts with safe, affordable, comfortable, convenient, and accessible mobility options. The development of the ATP is consistent with multiple recovery projects identified in the Town of Paradise Long Term Community Recover Plan (LTCRP) including the Interconnected Path System project concept.

Vision

The Town of Paradise is a vibrant and resilient community where all residents can comfortably and conveniently walk and bicycle without concerns.

The Town’s Camp Fire recovery initiative provides an opportunity to create a connected network of bicycle and pedestrian trails, locally and regionally, to access services and employment opportunities for all individuals thus increasing economic activity and fostering the Town’s residential, commercial, and recreational redevelopment.

Purpose

The ATP will support initiatives outlined in the Town’s LTCRP by improving connectivity between housing and residential neighborhoods, jobs and employment centers, education facilities, and parks. The ATP will also connect residents and visitors to open spaces within the Town and its surrounding areas. To achieve this, the ATP utilizes community identified infrastructure projects and non-infrastructure programs, policies, and strategies to make active transportation a more convenient and attractive mode of travel in the Town and region.

The ATP was developed using a comprehensive and collaborative approach consisting of:

- Review of **existing documents and plans** that impact transportation and mobility within the Town
- Engagement with the local community to **understand challenges and constraints**
- Analyze the Town’s **existing conditions**, including the 2018 Camp Fire’s regional impact
- Identify strategies that can **address the challenges and constraints** highlighted by engagement efforts and data analysis
- Create an **Action Plan** guiding the ATP implementation of infrastructure and non-infrastructure resources and initiatives.

The ATP’s infrastructure improvements include planning-level concepts requiring further development, which include consideration of local, County, and California Department of Transportation standards, as well as further study, design, and funding. The ATP may also direct future projects, programs, funding applications, and other pursuits to maintain planning consistency and progress toward local objectives.

Background

The Town of Paradise, California is a rural community located in eastern Butte County in the western foothills of the Cascade-Sierra Nevada Mountains, west of the West Branch Feather River. The Town is 12 miles east of Chico, the nearest metropolitan center, and 90 miles north of Sacramento. At an elevation of approximately 2,400 feet, the town is primarily surrounded by forested land and Butte County’s smaller





unincorporated communities, which offers many recreational opportunities. As of 2010, the Town had a population of 26,218 and covered a total area of 18.3 square miles. However, since the 2018 Camp Fire, the Town’s population has significantly reduced to an estimated population of approximately 5,000 in 2022.

The ATP is the Town’s first comprehensive inventory and analysis of infrastructure and non-infrastructure programs that support active transportation modes. The ATP’s full implementation will create a safer and robust active transportation network throughout the Town, which is consistent with the Town of Paradise General Plan (1994) and Regional and State Planning Goals. The ATP will be foundational when applying to regional, state, and federal governments to fund planning, design, and construction of active transportation programs and facilities. Table 1-1 describes goals for the Town of Paradise ATP.

Table 1 Active Transportation Goals

Initiative	Goal
Coordination	Serve as a foundation for cooperative and coordinated planning aligned with federal, state, regional and local goals to develop and support the Town’s Active Transportation network and programming initiatives.
Safety	Provide safe and secure mobility for active transportation users both within Paradise and between Paradise and its environs.
Environment	Improve local and regional air quality by reducing greenhouse gas emissions resulting from transportation.
Equity	Eliminate mobility burdens for disadvantaged Town residents by providing safe and efficient low-cost transportation options.
Public Health	Enable a vibrant, healthy community to grow following the 2018 Camp Fire while providing resources to improve public health.
Resiliency	Construct a network of bicycle, pedestrian, and trail infrastructure that serves dual purposes for emergency vehicle access, increasing resilience and preparedness.
Systematic Improvements	Enhance and improve pedestrian and bicycle safety through a broad spectrum of projects to benefit current and future active transportation users.
Mode Shift	Increase walking and bicycling trips and reduce automobile use through strategic and creative planning of land use and the transportation network.



The Camp Fire's Impact

On November 8, 2018, the most destructive wildfire in California history (and one of the deadliest fires in United States history) struck the Town of Paradise and its neighboring unincorporated communities. Over one thousand fire personnel with nearly eighty fire trucks and eleven fire crews battled the wildfire, which eventually engulfed over 150,000 acres of land before being contained on November 25, 2018. The fire took the lives of 85 residents and destroyed over 19,000 homes, businesses, and other structures (90% of the Town). Approximately 1,800 structures survived, 1,300 of which suffered only smoke damage. Critical infrastructure such as the Town Hall, police station, and fire stations survived, along with displaced residents ready to rebuild their homes.

In response to the devastation caused by the Camp Fire, the Town developed the LTCRP that was developed through a robust community engagement effort. The LTCRP developed a vision for the Town's future focused on making the Town safer and greener with new and improved housing, and a strong economy. Within these focuses, the Town identified several opportunities to capitalize on, including:

- ❖ Creating a safer street network, including sidewalks, wider roads, streetlights, and better connectivity
- ❖ Establishing a walkable downtown and a multi-use central business district
- ❖ Expanding the bicycle path system
- ❖ Developing more parks, green spaces, and outdoor event spaces
- ❖ Increasing recreation opportunities.
- ❖ Installing a sewer system

This ATP was developed in response to the LTCRP's common goals and as a guide to further the opportunity areas listed above.



CHAPTER 2: EXISTING CONDITIONS

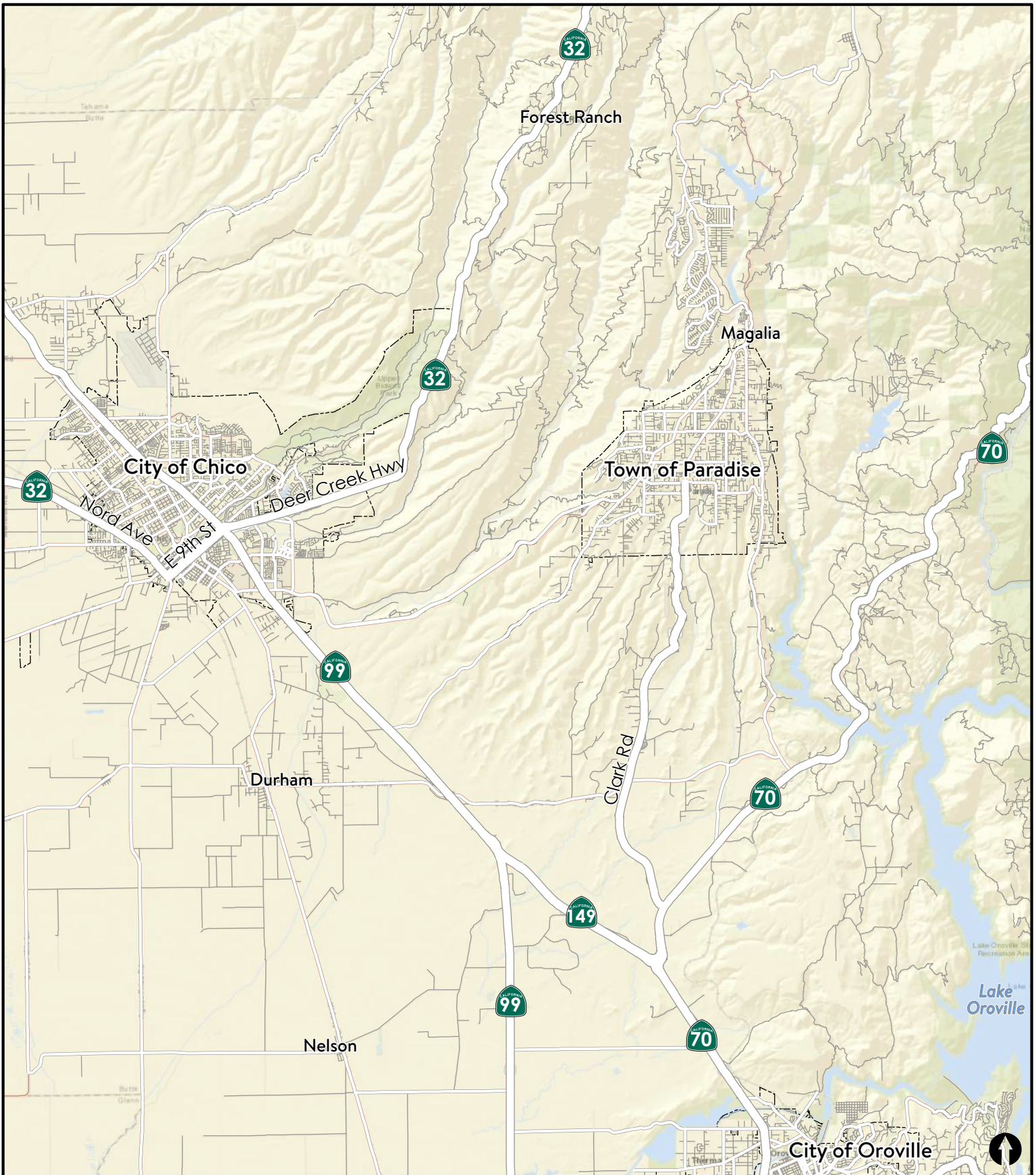
Existing Conditions provide the baseline to comprehensively understanding the Town’s current state. This chapter focalizes the Town’s physical attributes, demographics, and land use and also outlines current travel trends such as vehicle crash trends. Finally, this chapter includes an inventory of Town planning efforts to date, providing a foundation to strengthen and facilitate future strategies.

Topography

The Town of Paradise is constrained by steep topography, which includes three primary steep ridges within the town generally located east of Clark Road, east of Edgewood Lane, and north of Skyway up to Honey Run Road. For example, traveling east to west through Paradise, via Pearson Road, includes an elevation change of approximately 1,670 to 1,860 feet. The Town’s terrain generally increases in elevation moving west to east, with the northeast area representing the highest points in the Town. The Town is adjacent to the Butte Creek to the west and West Branch Feather River to the east. The Town’s southern areas also include several southwest running canyons.

Access

Town ingress and egress is available via five routes from the southwest, south, and north providing direct access to State Highways 99 and 70. **Route 1:** Skyway provides access to and from the City of Chico and Highway 99, from the southwest. **Route 2:** Neal Road also provides access from the southwest to Highway 99, approximately five miles south of the intersection with Skyway. **Route 3:** Clark Road (Highway 191) provides access to and from Highway 70 from the south. **Route 4:** Pentz Road also provides access from the south to Highway 70, approximately four and a half miles east of the intersection with Clark Road (Highway 191). **Route 5:** Access to Paradise from the north is provided via Skyway, a two-lane road which travels north through Stirling City. The southwest and southern access points provide connection to large regional destinations.



TOWN OF PARADISE

Active Transportation Plan

Location and Regional Access



Land Use & Key Destinations

The Town's land use and key destinations are summarized below.

Land Use

The Town has a central downtown business district that constitutes a notable portion of the Town's commercial businesses and activities, with smaller block lengths and tighter lot sizes. Commercial uses extend outward from the downtown along Skyway, Clark Road, and Pearson Road. These three corridors, along with the downtown, make up most of the Town's commercial zoning.

Residential zoning constitutes most of the Town's land use and includes subcategories: Town Residential, Rural Residential, Multi-family Residential, and Agricultural Residential. Multi-family Residential accounts for the smallest share of all four categories and is located centrally within the Town along Pearson Road, Clark Road, and Skyway.

Key Destinations

The beautiful natural landscape, vibrant arts culture, outdoor recreation areas, and access to amenities are intrinsic to the Town's identity. Key destinations within the Town include its downtown, schools, medical facilities, and entertainment and recreational areas.

Civic Institutions

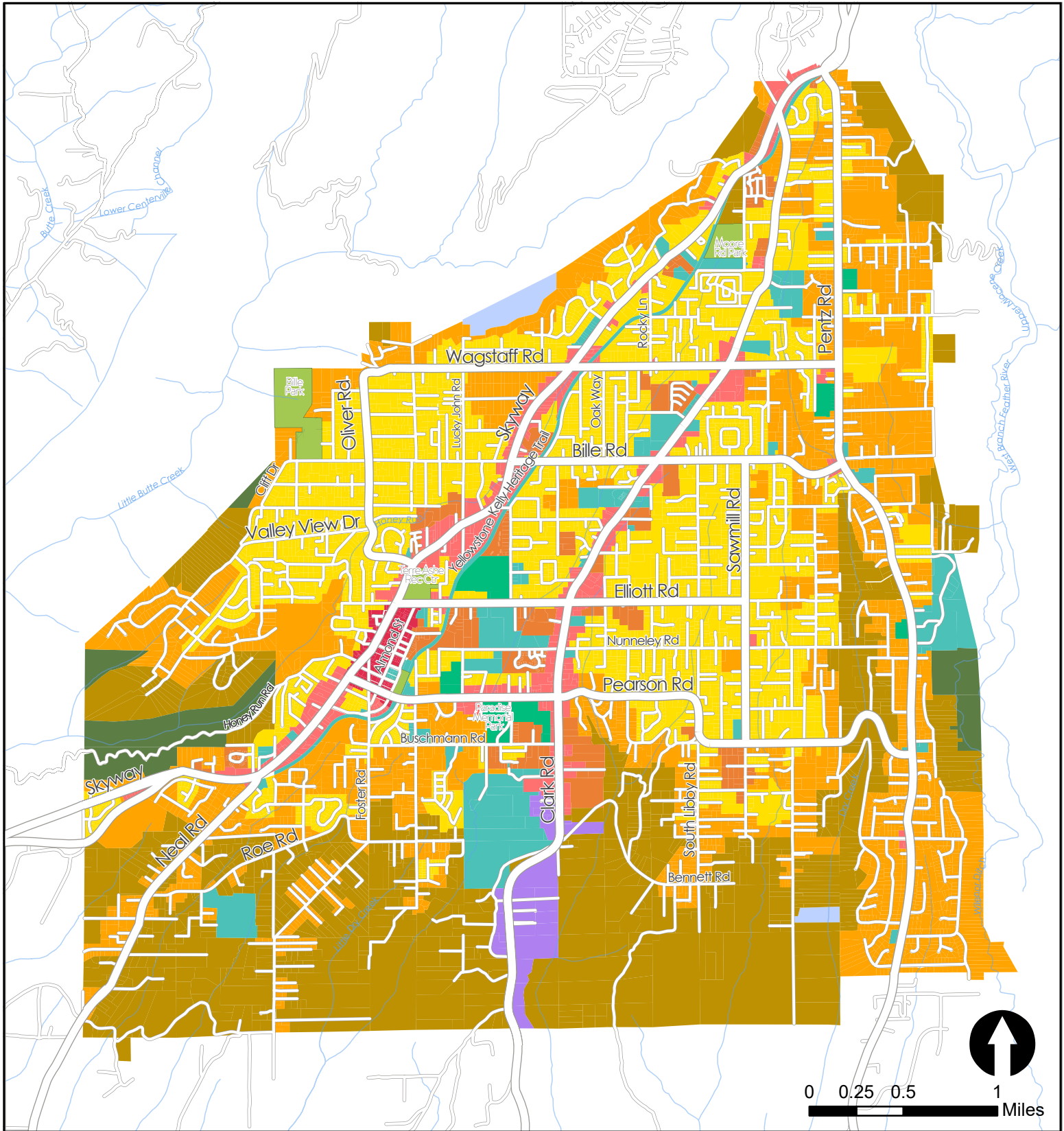
The Town currently operates Town Hall and is home to a United States Postal service branch and Butte County library branch. The Paradise Recreation and Parks District headquarters are also located within the Town. Civic institutions and public services are primarily found along Skyway and Clark Road.

Employment Centers

The primary employment center is in the Town's downtown area, generally situated east of Skyway between Pearson Road to the south and Elliott Road to the north. The City of Chico also serves as a primary employment center to Town residents, accessible by transit (approximately 34-minutes) or bicycle (approximately 1-1.5-hours).

Other Community Destinations

Other major Town destinations and organizations include the Community Resource Coalition, Paradise Ridge Fire Safety Council, Paradise Performing Arts Center, Northern California Ballet, Gold Nugget Museum, Paradise Depot Museum, Moore Road Horse Arena, Paradise Lake, Kunkle Reservoir, Paradise Elks Lodge, and Paradise Moose Lodge. Most of these destinations are on Skyway and Clark Road, with notable clustering around Elliott Road and Pearson Road.



TOWN OF PARADISE

Active Transportation Plan

Land Use Designation

Town Land Use

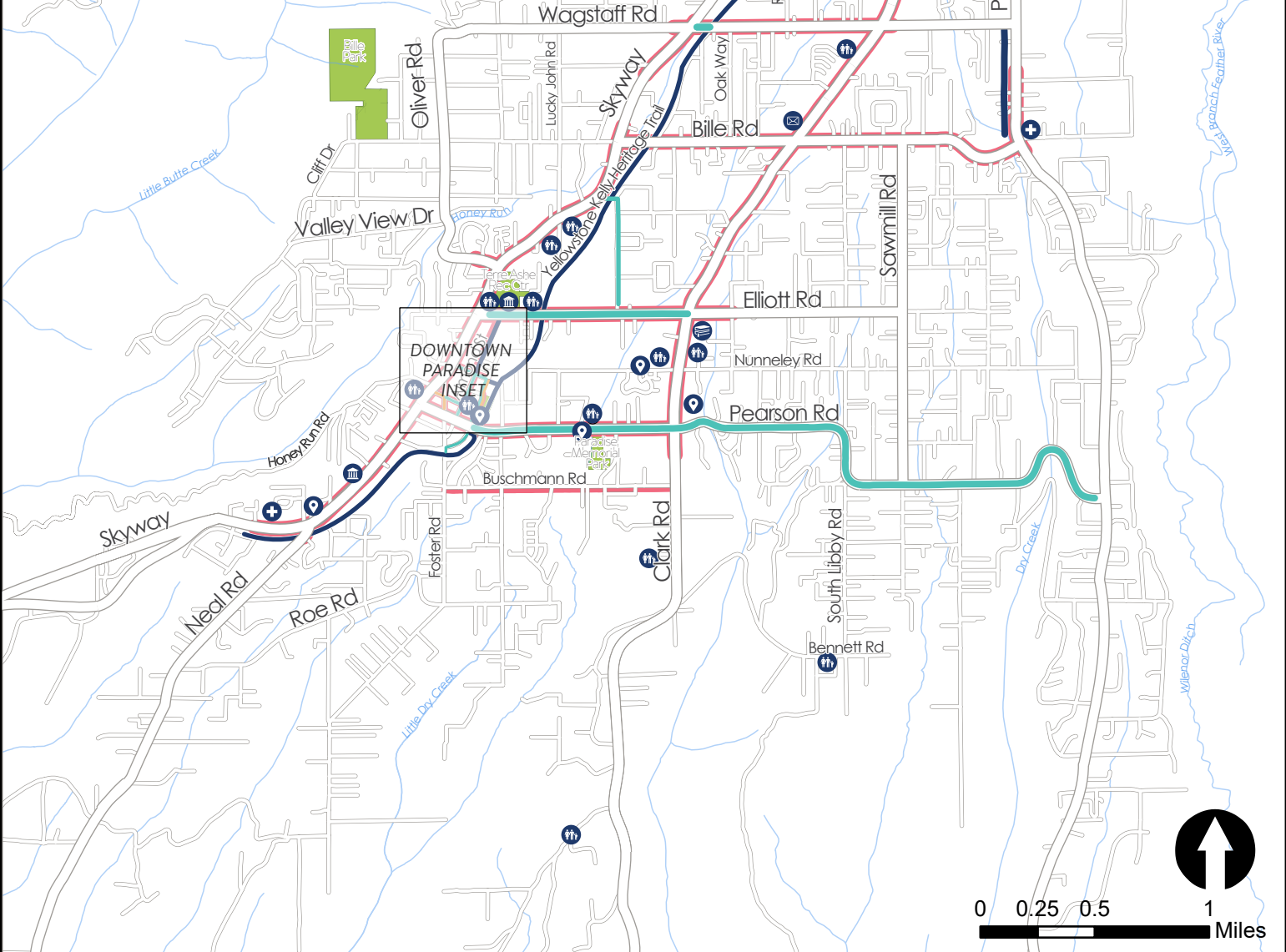
- Town Residential
- Rural Residential
- Multi Family Residential
- Multi Family Residential
- Commercial
- Downtown

- Agricultural
- Industrial
- Community Services
- Schools
- Resource Conservation

Natural Resources

- Parks
- Water Bodies

DOWNTOWN PARADISE INSET



TOWN OF PARADISE Active Transportation Plan

Key Destinations

Existing Network Facilities

- Class I - Multi-use Paths
- Class II - On-street Bike Lane
- Class III - Bicycle Route
- Sidewalks*

Natural Resources

- Parks
- ~ Water Bodies

Key Destinations

- Non-Profit Organizations
- Health Services
- Entertainment Destinations
- Government Services
- Post Office
- Library

*Sidewalks shown only for major roads and may not reflect gaps.



Housing

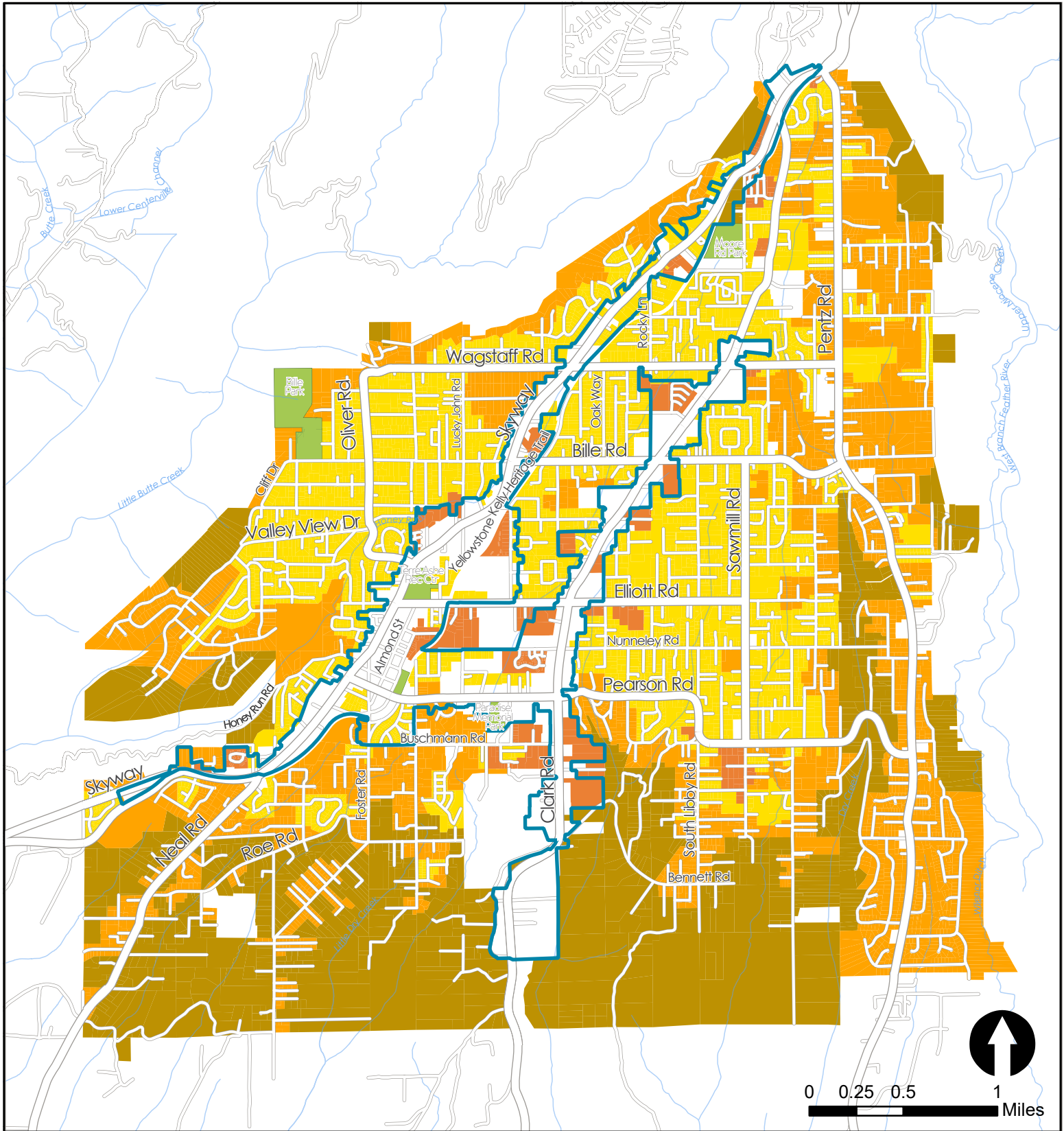
Prior to the Camp Fire, housing in Paradise was predominately comprised of single-family detached residential units. Most housing units in the Town were also owner-occupied, with only 10.5% of residents identifying their home as being renter-occupied per the 2017 American Community Survey 5-Year Estimates (ACS5Y). Updates to the Housing Element are underway to include programs and policies to shape future land uses and identify opportunities for mixed-use developments, affordable housing, and a diversified availability of housing options.

Since its incorporation in 1079, the Town has sought a wastewater treatment solution with focus primarily on commercial and densely populated residential areas- the portions of the Town most vulnerable to groundwater degradation and economic stagnation due to sewer limitations. Recent efforts have evaluated a centralized wastewater treatment solution for the Town resulting in secured resources to implement the Paradise Sewer Project. The planned Sewer Service Area (SSA) includes, with some exceptions, properties encompassed by Clark Road, Skyway, and Pearson Road and will enable the Town to capitalize on land uses in the SSA to incorporate multi-family housing, mixed-land uses, and commercial uses that were otherwise not possible. These redefined land uses now present opportunities for the Town to increase local economic activity and increase housing opportunities consistent with state, regional and local goals

Planned Developments

Oak Creek & Noble Park Expansion

Paradise Recreation and Park District (PRPD) has secured a State Proposition 68 grant for \$220,700 for fee-title acquisition of two vacant parcels of land, both adjacent to existing PRPD park properties, in the Town. The Oak Creek property is 2.6 acres and will expand Oak Creek Park's open space and provide direct access to the existing 17 acres of park lands, which are currently accessed by user-created trails across private land. The Noble property is 8.9 acres of wetlands and natural areas adjacent to 12-acre Noble Park will provide additional open green space and natural features to Noble Park.



TOWN OF PARADISE

Active Transportation Plan

Housing

Land Use Designation

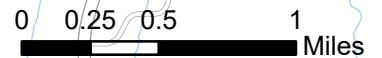
- Town Residential
- Rural Residential
- Multi-Family Residential
- Agricultural Residential

Sewer Service Area

- Service Boundary

Natural Resources

- Parks
- Water Bodies





Parks & Recreation

The Paradise Recreation and Park District (PRPD) manages 465 acres of park land and facilities throughout Paradise, Magalia, Butte Creek Canyon, Concow/Yankee Hill, Forest Ranch, and Feather River Canyon. Most of PRPD's improved park facilities are located within Paradise, including the Terry Ashe Recreation Center, Bille Park, Moore Road Park, and Paradise Memorial Park and Aquatic Park.

Many PRPD facilities are accessible to Town residents, with some limitations for residents east of Clark Road. While PRPD is currently evaluating acquisition of eleven acres further to the east, this Plan prioritizes providing access to existing facilities for all residents. Although existing parks and open spaces sustained relatively minor damage from the Camp Fire, the improvement, growth, and continued investment in park resources establishes the Town as a key outdoor destination in the region.

PRPD is currently developing a Master Management Plan for Bille Park, one of the district's most-used and well-loved parks. The district is looking to add features and amenities for the community that complement and enhance the area's existing topography and natural beauty. PRPD has been conducting public outreach to inform the Master Management Plan, identifying the community's most favored ideas and features. Two potential features that are moving forward for potential implementation include a flow trail and pump track for bicyclists.

Schools

In 2017, the Town of Paradise had a total youth (age 0-19) population of 5,375. Within the Town, there are a total of 14 public, public charter, and private schools for students P-12th grade. There is one adult school within the Town. Following the Camp Fire, the elementary schools were consolidated into the Paradise Ridge Elementary School on Pentz Road. Paradise Junior High School is located on Recreation Drive just south of Pearson Road and Paradise High School is located on Maxwell Drive just north of Elliott Road.

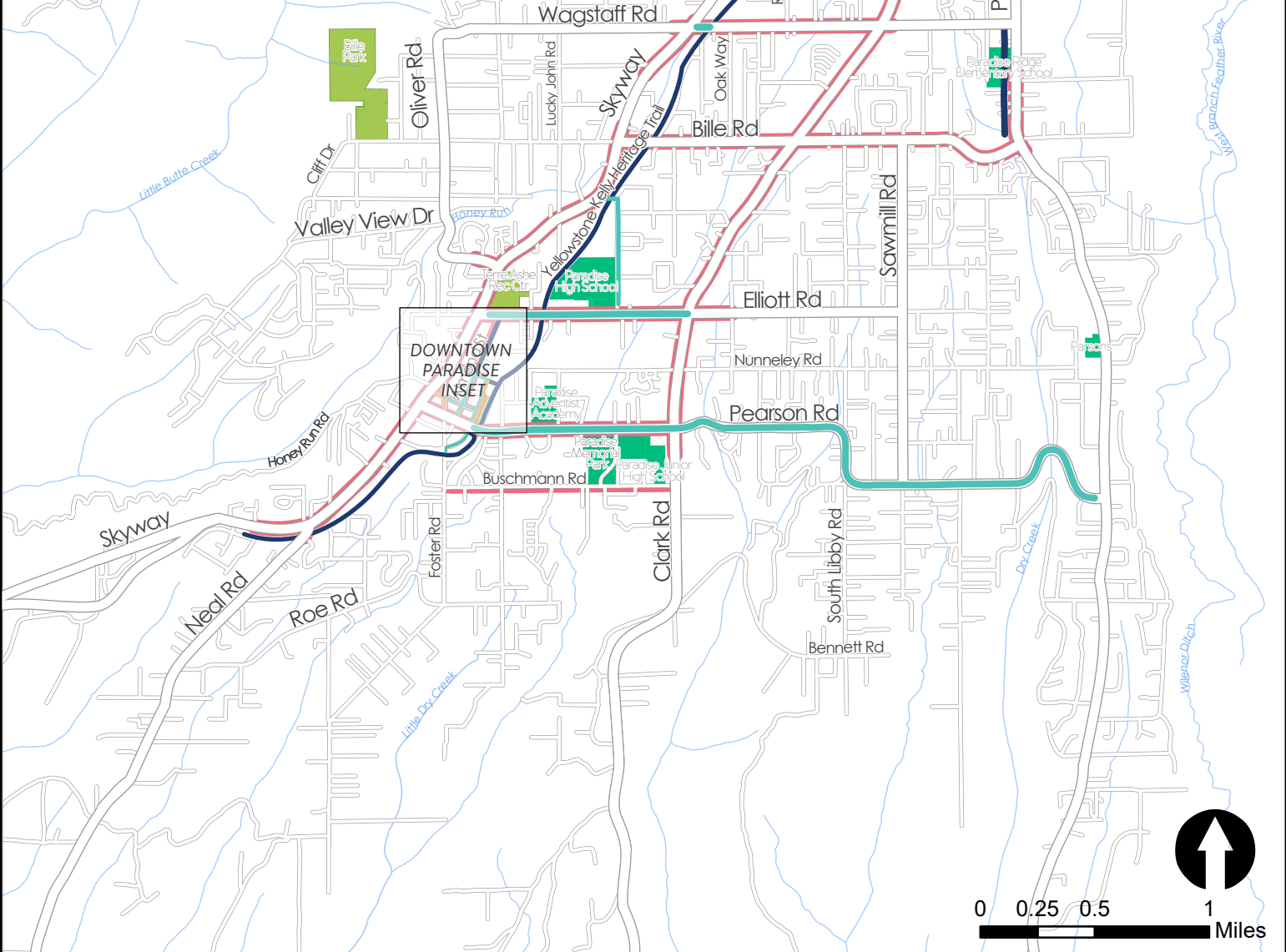
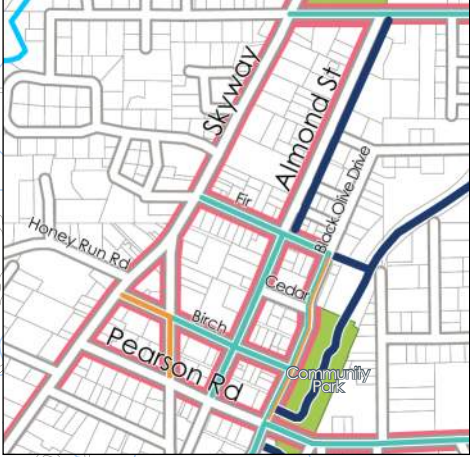
Demographics

Prior to the 2018 Camp Fire, the Town of Paradise had a population of approximately 29,397 residents, according to ACS5Y. Historically, the Town's population had grown at a relatively slow pace with an increase of 11.3% since the year 2000 when the population was 26,408. However, since the 2018 Camp Fire, the Town's population has significantly reduced to an estimated population of approximately 5,000 in 2022.

Overall age distributions dating back to 2010 indicate that the Town's population has generally been older in comparison to both Butte County and the State of California. According to 2017 ACS5Y data, 25% of the Town of Paradise's population was 65 or older, compared to 17% and 13% for the County and State, respectively.



DOWNTOWN PARADISE INSET



DOWNTOWN PARADISE INSET

TOWN OF PARADISE
Active Transportation Plan

School Locations

Existing Network Facilities

- Class I - Multi-use Paths
- Class II - On-street Bike Lane
- Class III - Bicycle Route
- Sidewalks*

Schools

- School Campuses

Natural Resources

- Parks
- ~ Water Bodies



*Sidewalks shown only for major roads and may not reflect gaps.



Equity

Income Distribution

A majority of the Town’s residents live in households with an annual income range of \$50,000-\$75,000. Figure 2-9 illustrates a distribution where there is a small share of high-earning households, and majority of households are earning less than \$49,000 annually while the median household income throughout the state was \$71,805 in 2017 and \$80,440 in 2019. Compared with Figure 2-9, this illustrates that as of 2019 a majority of the Town of Paradise community members are earning less than the state average.

The California Environmental Screen 3.0 indicates that within the Town of Paradise 37% of the population on average lives two times below the federal poverty level and 11% of the population over the age of 16 on average is unemployed and eligible for the labor force.

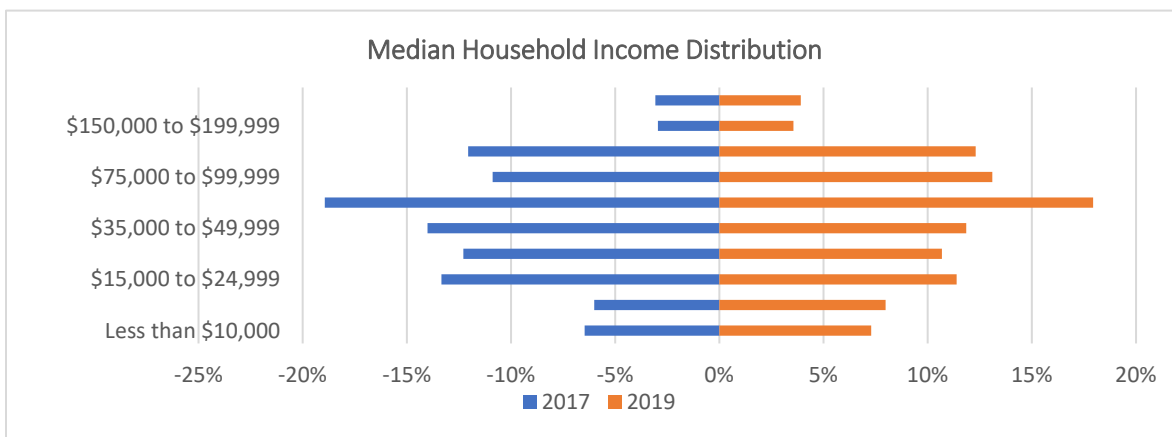


Figure 2 Median Household Income Distribution

Vehicle Accessibility

Information on vehicle availability reflect household economic health and highlight the need for other transportation options. Communities with higher proportion of two- or three-vehicle households tend to be more auto-centric or lack sufficient active transportation or transit infrastructure to support multimodal access and mobility.

Table 2 Vehicle Availability

Vehicles Available	Paradise	Butte County	California
No Vehicle Available	0.9%	2.9%	3.3%
1 Vehicle Available	13.8%	18.8%	19.2%
2 Vehicles Available	41.5%	41.8%	38.8%
3 Or More Vehicles Available	43.7%	36.5%	38.8%

Overall, households in the Town tend to own at least two vehicles or more at a much higher rate than households in Butte County or throughout the State. Less than 1% of the Town’s households live without access to a vehicle in comparison to 2.9% and 3.3% of Butte County and California households, respectively.



Public Health

General Population Health Risks

On average, the Town ranks within the 77th percentile for amount of daily maximum 8-hour Ozone concentration and the 40th percentile for both annual mean PM 2.5 concentrations and drinking water contaminant index for selected contaminants.

The Town’s age-adjusted rate of emergency department visits for heart attacks per 10,000 residents averaged within the 81st percentile. The Town also averaged scores to the 56th percentile for age-adjusted rate of emergency department visits for asthma and 46th percentile for low birth weight.

Student Population Health Measures

A comparison of statewide fitness scores shows that Paradise Union School District 5th and 7th grade students have lower health scores compared to Statewide averages for a majority of exercise tests.

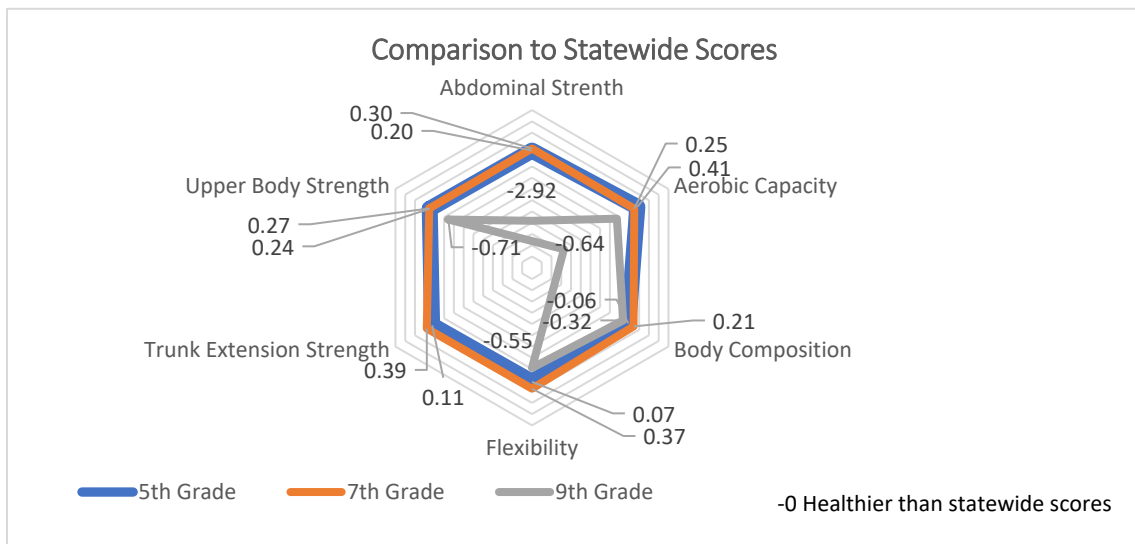


Figure 3 Student Health Scoring Compared to Statewide Scores

Comparing students’ health risks statewide shows that all 5th, 7th, and 9th grade Paradise students showed consistently higher rates of health risks than the Statewide student average. Additionally, 9th graders had a higher health risk than the statewide average for Aerobic Capacity.

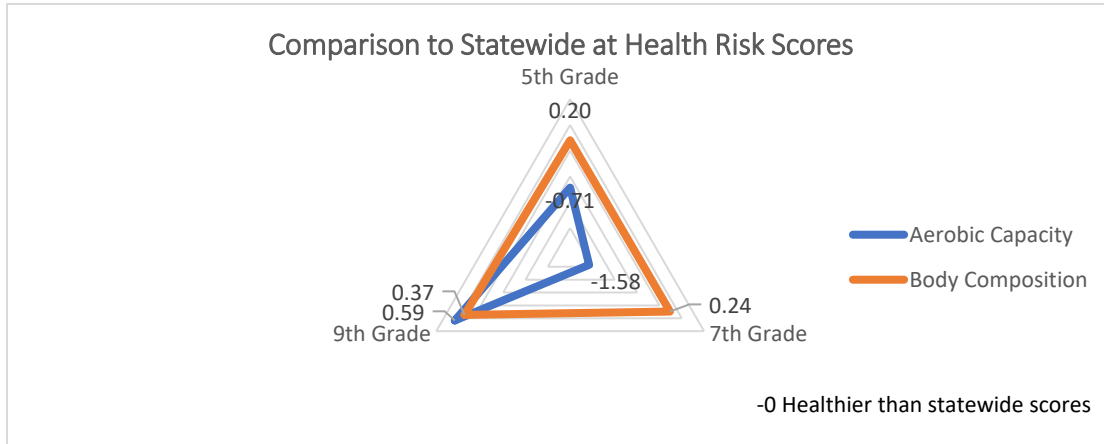


Figure 4 Student Health Risk Comparison to Statewide Scores

Mode Share

Choice in travel mode can reflect an area’s connectivity, available infrastructure, and cultural attitudes toward automobile use. According to the 2017 American Community Survey, most commuters of employment age (16 years and older) in Town utilize a car, with about 77% of residents driving alone (Table 2-2). In comparison, 75% of residents across Butte County drive alone to work, and less than 74% of residents across the State of California do the same. Additionally, only 2.5% of Town residents walk or bike to work, compared with 5.8% and 3.5% of residents across the County and California, respectively.

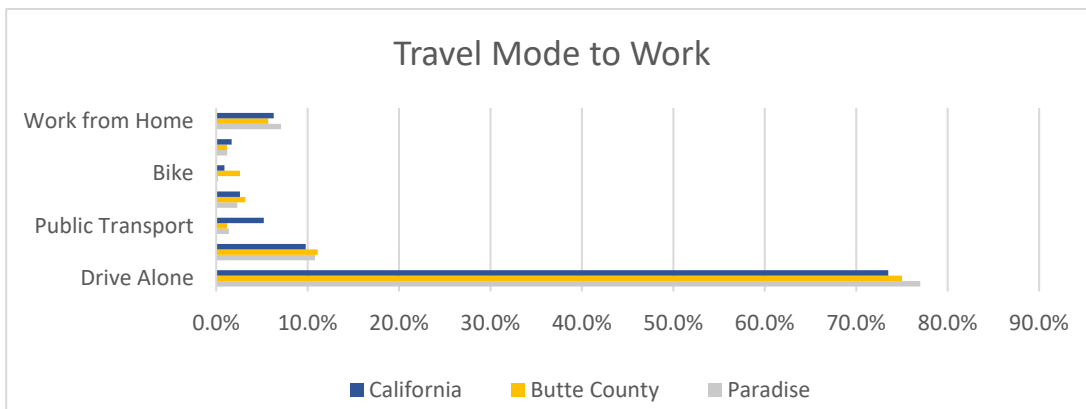


Figure 5 Travel Mode to Work

American Community Survey, 2017 5-Year Estimates: Commuting Characteristics by Sex. n=10,877

Despite a higher percentage of commuters opting to drive alone to work, carpooling as a commute choice is more popular in Town and Butte County than throughout the State. Throughout California, public transit is significantly more utilized for commutes with 5.2% of California’s population using it to commute. In comparison, less than 2% of both the Town and Butte County residents use public transit. Lastly, a higher percentage of the Town’s population works from home (7.1%) than either the populations of Butte County or those across California.



Commute to Work

Workers without access to a vehicle generally spend more time in transit. According to the 2017 American Community Survey, residents who use public transit in the Town to commute to work are much more likely to have long commutes than residents who carpool or drive alone. In fact, 63% of commuters that use public transport report a travel time of at least 30 minutes or greater, compared to only 35% of those who carpool and 32% of those who drove alone.

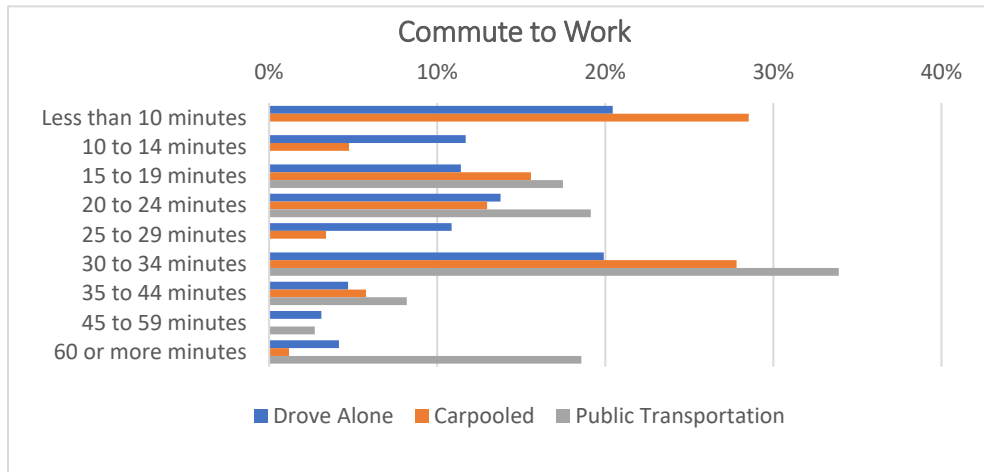


Figure 7 Commute to Work

Safety

Safety is a major concern for both bicyclists and pedestrians because a perceived lack of safety is often cited as one of the primary reasons for not bicycling or walking. Bicycle and pedestrian collision data can indicate existing infrastructure’s level of safety and help identify areas for focused improvements. Identifying collision sites highlights locations that may need improved safety treatments, particularly if multiple collisions occur at the same location.

The following evaluation considered collision history from the Transportation Injury Mapping System (TIMS) between November 1, 2013, and November 1, 2018. Crash data was evaluated before the Camp fire to get a better sense of needs with full population within the community. The crash data indicates collisions involving a pedestrian or involving a bicyclist account for only 2.1% of all collisions; however, combined, these pedestrian and bicycle collisions account for 46% of all collision deaths and 24% of all severe injury collisions. The statewide published crash data indicates active transportation users in Town are disproportionately more likely to be injured or killed in a collision compared to motorists.



High Injury Roadways

Skyway and Clark Road experienced the highest total number of pedestrian-involved and bicycle-involved collisions. Each roadway accounts for 18% of all severe and fatal injuries. Other notable roadways include Bille Road, Elliott Road, Pentz Road, and Sawmill Drive each accounting for 12% of all severe and fatal injuries. Cumulatively, these six roadways where 84% of all severe and fatal injuries occurred are noted for consideration for bicycle and pedestrian safety improvements. Table 3 shows the percent of total collisions affecting active transportation users by year. Table 4 shows a selection of roadways where fatal and severe injuries affect people walking and cycling.

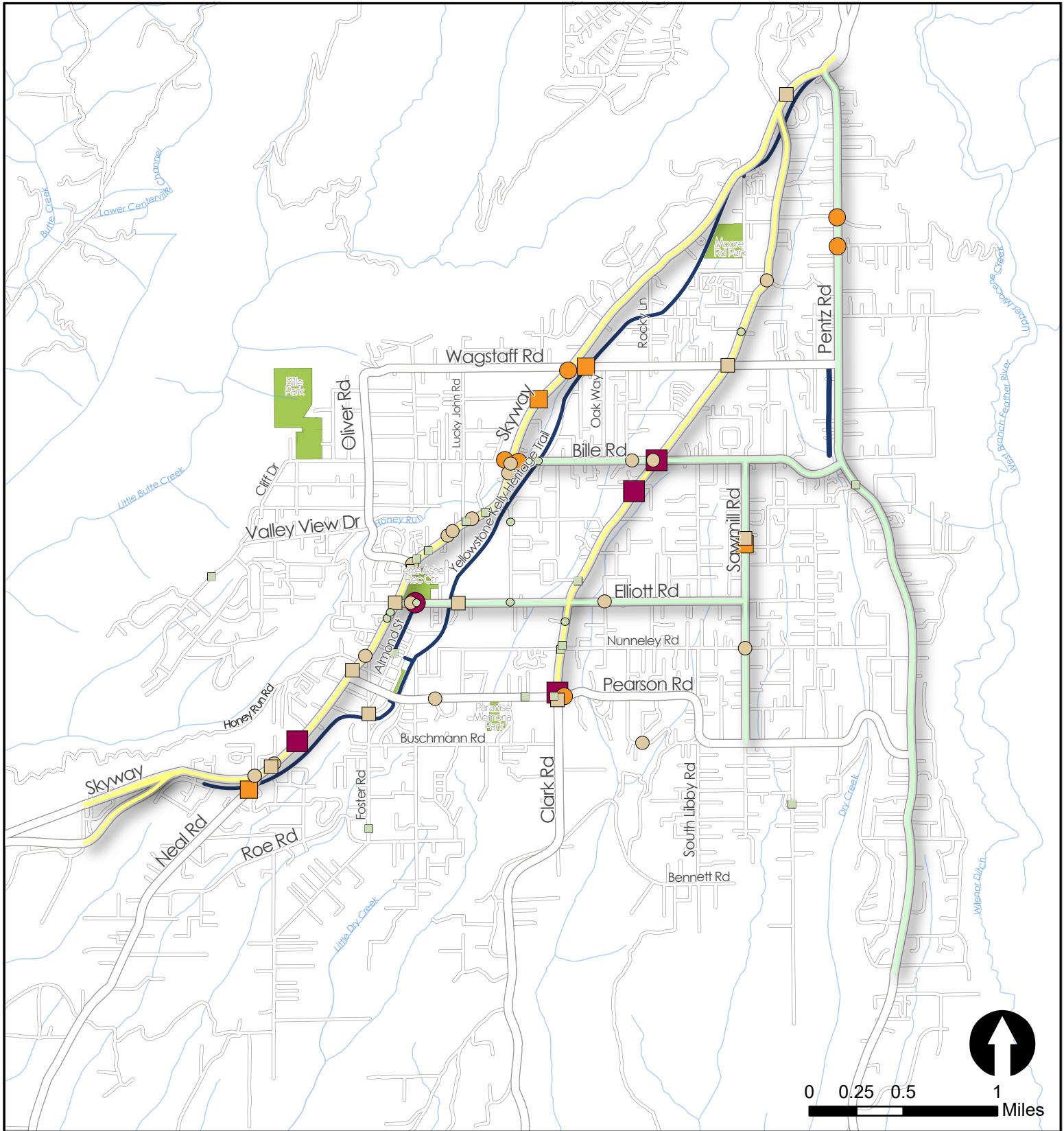
Table 3 Bicycle & Pedestrian Percentage of Total Collisions

Bicycle & Pedestrian Percentage of Total Collisions					
Year	Fatal Injuries	Severe Injuries	Visible Injuries	Complaint of Pain	Total Collisions
2013	N/A	0.0%	33.3%	16.7%	1.5%
2014	0.0%	16.7%	10.3%	6.8%	0.9%
2015	33.3%	14.3%	25.9%	8.3%	1.0%
2016	100.0%	44.4%	15.2%	8.1%	3.4%
2017	0.0%	28.6%	9.4%	8.5%	3.1%
2018	33.3%	15.4%	11.1%	5.1%	1.8%
Total Collisions	45.5%	24.0%	13.6%	7.7%	2.1%

Table 4 High Injury Roadways

Active Transportation High Injury Roadways										
Type	Bille Rd	Clark Rd	Elliott Rd	Neal Rd	Pearson Rd	Pentz Rd	Sawmill Rd	Skyway	Wagstaff Rd	Total
Fatal	0%	18%	6%	0%	0%	0%	0%	6%	0%	29%
Severe	12%	0%	6%	6%	6%	12%	12%	12%	6%	71%
Total	12%	18%	12%	6%	6%	12%	12%	18%	6%	100%

The potential for a severe or fatal collision injury is likely to increase with vehicle speeds and traffic volumes. As shown in Figure 2-11, a majority of severe and fatal injury active transportation collisions occurred along primary roadways where speeds are often higher. For example, the lower vehicle speed roadways in the Paradise downtown area account for only 7% of severe and fatal collisions despite having 14% of all bicycle and pedestrian collisions.



TOWN OF PARADISE

Active Transportation Plan

High-Injury Roadways

Roadway Collision History

- 18% Severe and Fatal Injuries
- 12% Severe and Fatal Injuries

Natural Resources

- Parks
- ~ Water Bodies

Travel Mode

- Bicycle-involved
- Pedestrian-involved

Collision Level of Injury (65)

- Complaint of Pain (23)
- Visible Injury (27)
- Severe Injury (10)
- Fatality (5)



Pedestrian Network

The Town’s existing Pedestrian Network features are highlighted below, including network coverage, facility quality and connections to destinations. The existing conditions pedestrian facility review is focused upon major roadways only.

Coverage

The Town has a total of 187.03 (centerline) miles of public roadway. Currently, the town has 24.47 miles of sidewalks along major roadways, which are concentrated on the major north-south thoroughfares of Skyway and Clark Road and the east-west thoroughfares of Bille Road, Elliott Road, Pearson Road, and Wagstaff Road.

The downtown central business district is undergoing construction to install sidewalks and bikeways utilizing a state grant. In addition to its sidewalk network, the Town’s pedestrians rely on the Yellowstone Kelly Heritage Trail (formerly the Paradise Memorial Trailway), a 5.5-mile-long bi-directional multi-use trail that runs parallel with and east of Skyway between the intersection of Princeton Way and Skyway (southern terminus) to Skyway and Pentz Road (northern terminus).

Quality

The quality of pedestrian infrastructure influences residents’ decisions to walk for travel within the community. A variety of infrastructure is recommended to support all users including sidewalk width, availability of curb ramps, crosswalks, and actuated traffic control devices (signal, flashing beacon, etc.). Tripping hazards, buckled sidewalks, and similar issues present substantial challenges for people with visual impairments, hearing impairments, physical limitations and other individual limitations. This document identifies improvements to provide a pedestrian network that serves all ages and abilities.

The quality of existing facilities varies within the Town. On Skyway, pedestrian facilities are the most continuous within the Town, with the least number of gaps between Longview Drive and Wagstaff Road, with high quality accommodation as described above. Sidewalk facilities on east-west corridors, such as Bille Road, are limited in availability and quality. In some areas, the pedestrian space is limited to a shoulder or dirt path.

Comparatively, the Yellowstone Kelly Heritage Trail within the Town provides a baseline example of a well-maintained, multi-use facility. The Yellowstone Kelly Heritage Trail’s quality and condition is consistently smooth and maintains a ten-foot width throughout the corridor length. The Yellowstone Kelly Heritage Trail features user amenities such as benches, waste bins, educational information boards, and rapid rectangular flashing beacons (RRFB’s) to facilitate crossing of roadways.

Connection to Destinations

Safe and convenient connections to destinations are critical components of a walkable community. Infrastructure that is separated from the roadway, such as sidewalks and multi-use paths, is imperative along roadways with high traffic volumes and high vehicle speeds. Roadways with lower traffic volumes and slower vehicle speeds, such as residential roads, can utilize shared lanes—if lighting and sightlines are appropriate.



Bicycle Network

Bicycle facilities are generally categorized based on four classifications defined by the California Department of Transportation (Caltrans):



- ❖ Class I Shared Use Paths: Dedicated paths for walking and bicycling completely separate from the roadway with an all-weather surface
 - Trails: Paths for walking and biking that may be unpaved or not meet standards for Class I paths



- ❖ Class II Bicycle Lanes: Striped lanes on roadway for exclusive use by bicyclists
 - Class II Buffered Bicycle Lanes: Bicycle lanes that include a striped buffer area either between the bicycle lane and the travel lane or between the bicycle lane and parked cars



- ❖ Class III Bicycle Routes: Signed routes for bicyclists on low-speed, low-volume streets where lanes are shared with drivers
 - Class III Bicycle Boulevards: Bicycle routes that are further enhanced with traffic calming features or other treatments to prioritize bicyclist comfort



- ❖ Class IV Separated Bikeways: On-street bicycle facilities with a physical barrier between the bikeway and motor vehicle lanes, with vertical element consisting of bollards, raised medians, or parked vehicles.

Coverage

Today the Town has a total of 12.1 miles of bikeway:

Overall

Roughly half of the existing network is made up of Class I facilities, with the Yellowstone Kelly Heritage Trail, Almond Street bikeway, and the recently completed Pentz Road bikeway accounting for 5.5 miles, 0.3 miles, and 0.5 miles, respectively. Class II bike lanes make up another 5.7 miles of the system, and Class III bike routes account for less than 0.2 miles. Bikeways tend to be concentrated in the Town's western half, particularly the downtown area.

On-Street Facilities

Class II bicycle lanes currently exist along major east-west routes including Pearson Road, Elliott Road, and Wagstaff Road and also exist along Maxwell Drive and are the only north-south bicycle lanes found outside of the downtown area. Within the downtown area, Class II bicycle lanes are along Fir Street, Birch Street, Pearson Road, Almond Street, and Black Olive Drive. Segments of Black Olive Drive, Foster Road, and Birch Street have also been designated as Class III bicycle routes.



Off-Street Facilities

In addition to the available on-street bicycle facilities, the 5.5 mile-long Yellowstone Kelly Heritage Trail runs parallel with Skyway from the intersection of Princeton Way and Skyway in south-west Paradise to Skyway and Pentz Road near the northern town limits. This Class I trail is the primary source for north-south bicycle connectivity in the Town with direct connections to the downtown area and all bicycle lanes outside of it. The Town has recently constructed Class I facilities along Almond Street and Pentz Road (west side), between Wagstaff Road and Bille Road.

Quality

As like all transportation infrastructure, bicycle infrastructure needs to be maintained in conditions that provide safe, convenient, and reliable trips. Below are some observations on the Town's current bicycle network:

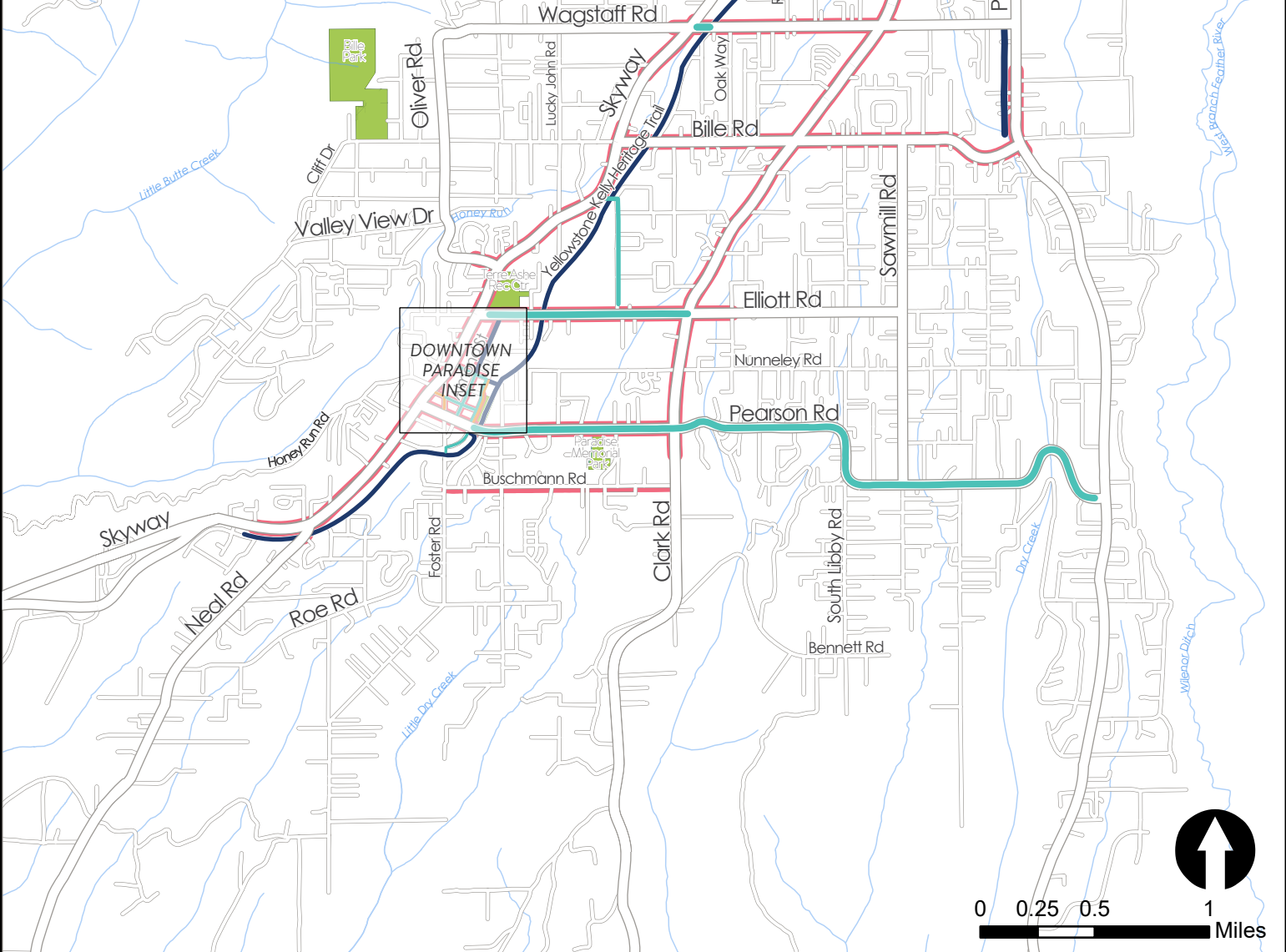
- Class II bicycle lanes in the Town are composed of asphalt, but as they are situated on the roadway's edges, and often collect debris making it difficult to view the pavement markings intended to guide users and motorists.
- Some roadways either lack pavement markings or signage to identify the bicycle facility. For instance, Elliott Road between Skyway and Clark Road has Class II bicycle lanes, yet there are no posted signs or pavement markings identifying the facility from either the westbound or eastbound directions. Class III bicycle routes in the downtown area also lack signage or any markings identifying them as bicycle routes.
- Bicycle lane widths vary from facility to facility or even along the same facility. The same bicycle lanes along Elliott Road vary in width and end just west of the Clark Road/Elliott Road intersection.
- The bicycle network includes the Yellowstone Kelly Heritage Trail. As mentioned in the "Pedestrian Network" section of this chapter, the paved trail provides a high quality route and includes a number of amenities and features such as benches, waste bins, educational information boards, and rapid rectangular flashing beacons (RRFB's) to facilitate crossing of roadways.

Connections to Destinations

The Town's bicycle travel potential will be significantly improved by network connectivity to key community destinations. The following is a discussion of bicycle connectivity with key destinations in the Town:

- Overall bicycle access and facilities are currently concentrated around the downtown area with limited connections either north-south or east-west. The current network does serve destinations and schools along Skyway, Elliott Road, Clark Road, and Pearson Road. However the existing bikeway facilities lack consistency in width, signage, pavement markings intended to provide access and user comfort.
- The Yellowstone Kelly Heritage Trail provides a strong backbone off-street facility for the Town to expand upon. The Yellowstone Kelly Heritage Trail provides north-south connectivity with a high degree of comfort for bicyclists. Expansion of off-street trails can utilize the Yellowstone Kelly Heritage Trail as a precedent to illustrate to the community how separation from car traffic can enhance and support active transportation travel.
- Existing facilities tend to favor the west side of Town with Pearson Road providing the only bikeway to destinations east of Clark Road.

DOWNTOWN PARADISE INSET



TOWN OF PARADISE

Active Transportation Plan

Existing Active Transportation Network

- Existing Network Facilities**
- Class I - Multi-use Paths
 - Class II - On-street Bike Lane
 - Class III - Bicycle Route
 - Sidewalks*

- Natural Resources**
- Parks
 - ~ Water Bodies

*Sidewalks shown only for major roads and may not reflect gaps.



Document Review

To better understand the local conditions and history surrounding the Town, several key documents were analyzed. Local and regional efforts provided insight to various factors and considerations which influence how facilities, networks, and other resources are planned and designed to better serve the local community. Document review provided an initial understanding of the existing conditions and informed the discussions in the latter half of this chapter. The following tables provide summaries and key takeaways from the documents. **For further information see Appendix A.**

Town of Paradise Long-Term Community Recovery Plan (2019):

In January 2019, the Town accepted a grant from the Butte Strong Fund aid in the Town’s recovery and rebuilding process, resulting in the LTCRP, which provided the following transportation related recommendations:

- Designing a walkable downtown and proposing other improvements including a sewer system.
- Improving park and path systems by linking parks and amenities with roads and connecting trails, connecting Yellowstone Kelly Heritage Trail to City of Chico and Stirling City, and linking other trails through state and federal lands.
- Restoring public transportation service to pre-fire levels, explore unmet needs along Pentz Road and West of Skyway, and consider new settlement and density patterns.

Butte County Trails Plan (2018):

The Butte County Resource Conservation District published the Butte County Trails Plan in 2018 which inventoried resources, groups, land managers, and challenges and opportunities for maintenance and development of trails in Butte County. The Butte County Trails Plan identifies and promotes the acquisition of funding sources for trail maintenance and development.

Butte County Transit & Non-Motorized Plan (2015):

The Butte County Transit and Non-Motorized Plan published by the Butte County Association of Governments (BCAG) focuses on improving transportation networks for people who walk, bike, or take transit in Butte County. The plan recommends short-term changes and enhancements, as well as long-term improvements needed based on projected growth in Butte County.

Town of Paradise 2014-2022 Housing Element (2014):

The 2014 Town of Paradise Housing Element assessed the jurisdiction’s housing needs, constraints, resources, and identifies goals, policies, and programs for addressing those needs.

- Goals of the Housing Element include:
 - Facilitating housing production
 - Improving and preserving housing and neighborhoods
 - Accommodating housing for persons with special housing needs
 - Encouraging energy-efficient resources in new residential development and existing housing stock.
- Related Policies and/or Implementation Measures include:
 - New residential development in areas where essential public facilities and services are available or at a reasonable cost.



- Town will promote infill housing, residential, and mixed used in the Central Commercial area. Reduce infrastructure constraints on development.

Pedestrian Safety Workshop Final Recommendations (2013):

In 2013, the Town of Paradise hosted a workshop to review pedestrian safety and outline best practices on how to conduct a walkability assessment in areas near the downtown core and how to lead small group discussions to develop specific recommendations.

Butte County Bicycle Plan (2011):

Published by the Butte County Public Works Department, the 2011 Butte County Bicycle Plan identifies recommended bikeway network improvements within the County's unincorporated area. The plan also includes projects, programs, and policies that encourage and highlight bicycling's benefits as a transportation option.

Paradise Recreation and Park District Master Plan Update (2010):

The Paradise Recreation and Park District developed a Master Plan in 2010 that assessed community needs and provided recommendations to guide prioritized actions by the District.

Town of Paradise General Plan (1994):

The 1994 Town of Paradise General Plan contains chapters on land use, circulation, housing, noise, safety, open space, and education and social services, with a plan to guide land use decisions over a 15-year period. It also identifies issues, goals, policies, and implementation measures related to land use development and conservation.



CHAPTER 3: COMMUNITY ENGAGEMENT

Community engagement provides valuable input from residents, business owners, and other stakeholders to ensure the ATP addresses the Community’s concerns and adheres to the Town’s vision. As part of the ATP development, several community engagement strategies were implemented including survey implementation, student engagement, tabling at community festivals and events, a community workshop, and community engagement from other previous planning efforts.

ATP Community Outreach Activities

Community input is key in developing an ATP that mirrors the community’s vision and addresses ATP related needs. Public engagement for the ATP was conducted in conjunction with the Town’s Transportation Master Plan efforts and included the following activities:

- Community tabling at six (6) community events and festivals such as the Paradise Ridge Chamber of Commerce organized Party in the Park Music and Marketplace. Tabling activity was utilized to solicit public input on the active transportation network needs and prioritize key actions. The tabling activities also promoted the ATP surveys.
- Community Workshop on August 12, 2021, with attendance offered in person at Town Hall and online via video-conferencing software. A presentation was given introducing the existing conditions for the community and identifying a draft active transportation network. The recorded presentation was posted online, and Survey 1 was promoted for the following three weeks to solicit input specifically related to the preparation of the ATP. The Community Workshop was one of four led by the Town related to the preparation of the Transportation Master Plan (covering multi-modal transportation and economic recovery needs).
- Two (2) surveys were developed to inform the ATP and promoted by the Town via announcements, website postings, and social media posts. The results of the survey helped to verify the proposed network address community needs, to prioritize actions, and determine the most relevant and effective non-infrastructure strategies for local use.

Following is a listing of the two surveys and the input received.

Survey 1: Bicycling and Walking Network Public Outreach Survey

Survey 1 was available for completion between August 12, 2021, and September 9, 2021. Participants were asked about their demographics and current and anticipated travel behaviors, their opinion on the proposed network, bicycle and pedestrian amenities, and non-infrastructure programming. A total of 163 responses were collected from the first survey. The following outlines the survey topics, including Demographics, Current and Anticipated Travel Behaviors, Network, Trail Amenities, and Personal Meeting. Included with the survey topics are questions and response summaries.

Demographics

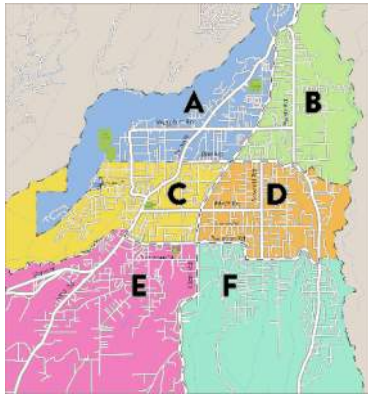
Which best describes you?

Survey participants were primarily current residents (72%), followed by planning to return as a resident (17%), and previous resident (6%).



Which census tract do/did you reside in?

Table 5 Census Tract Median Household Income



Census Tract	Census Tract Median Household Income	Number of Participants	Share
A	\$47,784	26	16%
B	\$57,330	17	10%
C	\$47,896	31	19%
D	\$56,250	36	22%
E	\$53,125	30	18%
F	\$44,500	10	6%
None	-	13	8%
Grand Total	-	163	100%

If you are a current/former resident, how long have you lived in Paradise?

A majority of participant(s) have/had lived in Paradise for 10 years or more (70%), followed by 1-5 years (12%), 5-10 years (9%), and a few months (2%). Some survey participants were not current or former residents (7%).

What is your income?

A majority of participants (39%) earn \$75,000 or more while other participants stated earnings of \$50,000-\$74,999 (23%) and less than \$50,000 (22%). For reference, the average income in Butte County is \$52,537, and the average income in California is \$75,253.

How many vehicles are available within your household?

Most households (47%) have two vehicles available; some households (18%) have one vehicle available, and few households (1%) have no vehicles available. A larger share of households (34%) have three or more vehicles available.

What is your age and race?

Most participants were aged 51 and over and were of white nationality.

Table 6 County Census Ethnicity

Race	Share
Native Hawaiian or Other Pacific Islander	1%
Prefer not to answer	13%
White	86%



Table 7 County Census Age

Age	Share
19-30	8%
31-40	21%
41-50	16%
51-65	28%
65 and above	26%
Prefer not to answer	1%

Current and Anticipated Travel Behaviors

I feel that the ability to walk and/or bike in Paradise is challenging or missing connections to...

Participants were most likely to identify walking and bicycling challenging to Parks (80%), followed by Retail (64%), downtown and Schools (60%, each), and least likely to Community Services (48%).

How do you currently access Parks, Community Services, Downtown, Retail, and Schools?

A majority of participants use a personal vehicle (88%), others do not access the above destinations (7%), and few walk or bicycle to the above destinations (5%).

How would you access the destinations if the network was built?

If the proposed network was built, participants are likely to begin walking or bicycling to access the destinations. Participants who rely on personal vehicles are most likely to walk or bicycle once or several times a week (53%), and participants who do not currently access those destinations are most likely to access them by walking or bicycling once a month (36%) or even daily (18%).

Table 8 Biking Frequency Preferences

Anticipated Use of Built Network	I currently access parks, community services, downtown, retail, and schools by:		
	Car	Walk or Bike	Do Not Access
I would walk or bike daily	24%	50%	18%
I would walk or bike once or several times a week	53%	38%	9%
I would walk or bike once a month	15%	13%	36%
Never or several times a year	5%	0%	18%

Network

Route Prioritization

Participants were asked the following questions related specifically to the proposed network:

1. Out of these planned routes, which are your Top Three that you hope to see constructed?



2. Have you experienced a situation where you were walking or bicycling and were nearly struck by a motorist in the Town of Paradise?
3. Are there areas along any of these routes where you currently avoid walking or bicycling due to fear of being struck by a motorist?

The Top Three preferred routes include Bille (53%), Clark (39%), and Elliott (34%). Routes where participants have most-often nearly been struck by a vehicle include Pentz (14%), Bille, and Skyway (13% each). Participants mostly avoid walking and/or bicycling on Pentz (35%), Bille (34%), and Skyway (29%). Averaging responses to all three questions provided a ranked list in the following order:

Table 9 Survey 1: Preferred Implementation Corridors

Class I Route	Top 3 Preferred Route Implementation	Stated Concern for Personal Safety	Avoidance of Existing Conditions	Average
Bille	53%	13%	34%	33%
Pentz	30%	14%	35%	26%
Skyway	31%	13%	29%	24%
Elliott	34%	7%	26%	23%
Clark	39%	7%	21%	22%
Pearson	33%	10%	25%	22%
Wagstaff	18%	8%	26%	17%
Neal	12%	7%	21%	13%
Roe Road Extension	21%	3%	14%	13%
Oliver	11%	6%	20%	12%
Sawmill	8%	6%	19%	11%
Valley View	7%	2%	9%	6%



Condition Improvements

Participants cited separation from car traffic (77%) and wider paths (74%) as the top improvements to help them feel more confident walking and bicycling throughout town. Improved lighting (33%) and rest areas with seating (21%) were less cited, while shelter from sun and rain (9%) was selected by fewer participants.

Table 10 Condition Improvements

Answer	Tally
Separation from car traffic	77%
Wider paths	74%
Improved lighting	33%
Seating/rest areas	21%
Shelter from sun/rain	9%

Trail Amenities Prioritizations

Participants were asked to rank various improvements and amenities on a scale of 1-6 (from least to highest priority). Weighted scores indicate survey respondents felt that all improvement types are at least high priority.

- Highest Priority Improvements (4-5 weight)
 - Separated Paths (4.8)
 - Nighttime Lighting (4.2)
- High Priority Improvements (3-4 weight)
 - Rest Areas (3.8)
 - Water Bottle Filling Stations (3.6)
 - Educational Boards (3.3)
 - Mile-markers (3.2)

Bicycle Racks and Lockers

Participants responded to an open-ended question inquiring where they would like bicycle racks installed, and while a majority of participants cited locations by land-use, a subset of participants cited specific locations or sub-categories. Bicycle lockers were considered a lower priority with 37% of respondents expressing no need for racks/lockers and 15% having no opinion. Participants who did identify locker locations chose areas consistent with those identified for bicycle rack locations, which are shown in the table below.



Table 11 Bicycle Racks and Lockers

Bike Rack Location	Respondents
Retail Locations	43%
Downtown	20%
Grocery Stores	5%
Restaurants	5%
Parks	36%
Trails	4%
Recreational Areas	2%
Yellowstone Kelly Heritage Trail	2%
Terre Ashe Recreation Center	2%
Community Services	8%
Schools	9%
Transit Stops	3%
Event Hubs	2%

Pedestrian Network Treatments

Survey participants heavily favored proposed network treatments. In order of favorability, participants approved of lighting at crosswalks (76%), benches along sidewalks (63%), shade structures (55%), and water bottle filling stations (41%).

Lighting

Participants provided generalized answers to the question, “Are there areas along public roads that need improved lighting at night?” Of them, a majority had no opinion (26%), responded in agreement (19%), responded in disagreement (15%), responded “everywhere” (12%), or responded “major roadways” (6%). Specifically identified locations include Pentz (5%), Skyway (4%), and Clark (3%), and other specific locations were Valley View, Wagstaff, Elliott, Oliver, Bille, and Pearson (2%, each).



Non-Infrastructure Programming

Participants were asked which non-infrastructure programs under Education, Encouragement, Enforcement, and Evaluation (Four E's) they would like to see implemented within the community. The results are shown below in order of highest to lowest preference per category.

Table 12 5 E's Programming

Topic	Program	Interest
Education	School Safety Programs: Events and workshops hosted at schools throughout the community	73%
	Bike and Pedestrian Guides: Pamphlets, flyers, and other resources for bike and pedestrian laws, trail-use, and routes finding	49%
	Traffic Safety Programs: Learn from the local Police Department how to be a safe cyclist, pedestrian, and driver	25%
	Bike Safety Event: Gain safety tips from guest speakers and police officers	27%
Encouragement	New Walking and Bicycling Facilities Grand Opening Events: Ribbon-cutting ceremonies with biking and walking events to unveil completed projects	56%
	May Bike Month: A week/month of bike-related community events such as helmet check-ups and bike tune-ups	52%
	Walk to School Day: An annual walk to school event with participation by Police and Fire Departments	48%
	Bike Rodeo: Practice bicycle navigation and balance skills for riding in Town	38%
	Cycling Classes: Road skills courses for all experience levels, ages, and abilities	37%
Enforcement	Selective Enforcement Near School Zones: Active enforcement in and around school zones when students travel to and from school	72%
	Bike and Pedestrian Safety Enforcement: Focused enforcement in areas with frequent collisions involving bicyclists and pedestrians	56%
	Ticket Diversion Program: An option to enroll in traffic safety courses, rather than pay a fine, when issued a traffic violation	47%
Evaluation	Work with Local Schools: Work with local schools to evaluate walking and biking activity to and from school	68%
	Communitywide Bicycle and Pedestrian Counts: Collect data on walking and cycling activity to estimate social, economic, and health benefits for future improvements	60%



Personal Meaning

Participants were asked to: “Please describe why this network is needed in your community.” A word cloud generator was used to highlight key words in participants’ answers, shown below. Words shown below in the largest font were cited most often with the following key words receiving the most use:

- Walk
- Bike
- Town
- Paradise
- Community

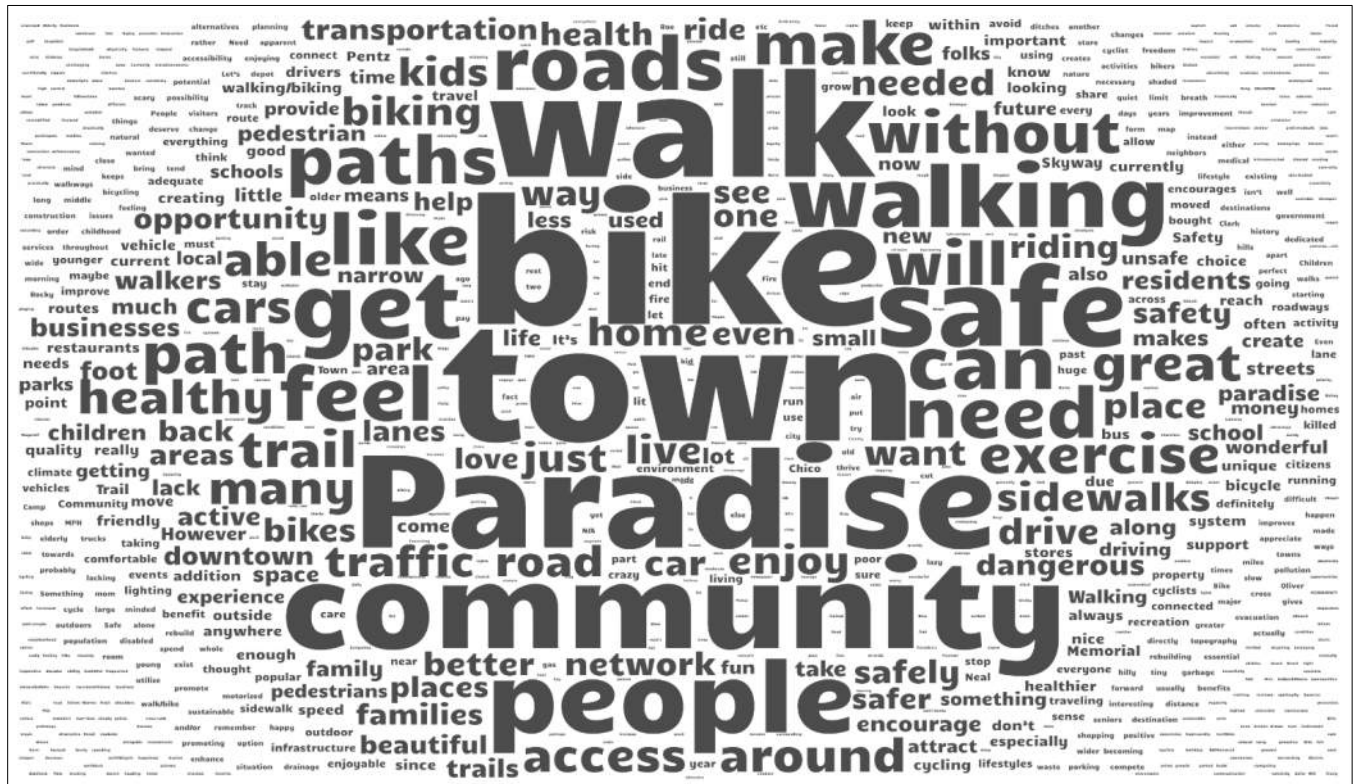


Figure 6 Survey 1 Word Cloud



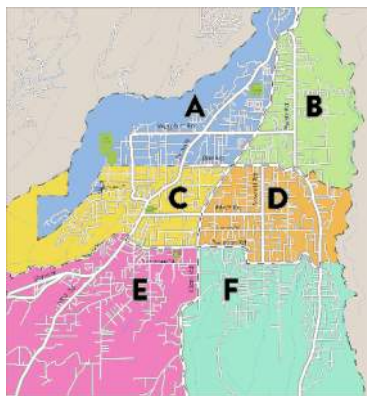
Survey 2: Paradise Active Transportation Plan

Survey 2 was available for completion between October 2, 2021, and November 22, 2021. During this period, the survey was distributed at various Town events such as the Johnny Appleseed Event, Outdoor Movie Series, Semi-Annual Peddlers Fair, and Chili Cornhole event. The second, shorter survey asked participants about their demographics and views about walking and bicycling. They were also asked about the three prioritized routes established by the first survey: Bille Road, Elliott Road, and Clark Road. A total of 201 responses were collected from the second survey, which are further discussed in the sections below.

Demographics

While all census tracts were represented in the survey participants, most participants were from Census tract E (24.5%) followed by tract A and C (17.2% each). Participants mostly came from opposite ends of the wage spectrum with 35% earning less than \$58,000 and 21% of participants earning \$90,000 or higher (for reference, the average income in Butte County is \$52,537, and the average income in California is \$75,253).

Table 13 Survey 2 Medium Household Income



Medium Household Income	Number of Participants	Share
Less than \$58,000	70	35%
\$58,000 to \$63,000	23	11%
\$63,000 to \$67,000	11	5%
\$67,000 to \$72,000	13	6%
\$72,000 to \$90,000	27	13%
\$90,000 or higher	39	19%
None	18	9%
Grand Total	201	100%

I am concerned about walking or bicycling because...

Participants were given a matrix with a set of walking and bicycling concerns and were asked to indicate whether they strongly disagree, disagree, were neutral, agree, or strongly agree with the concern.

The concerns that most participants strongly agree with are they do not feel safe around cars or trucks on the road (45.9%), the lack of off-street paths or on-street bike lanes (42.7%), and insufficient lighting (30.7%). Concerns that participants agree with are lack of bicycle parking (27.6%) and lengthy destinations (21.9%).



Participants are neutral or not very concerned about having too much to carry, as 53.1% were neutral, and only 1.4% strongly agreed. Traveling with small children was also not a big concern, most participants were neutral (37.1%) or strongly disagreed (26.4%) with the concern.

Table 14 Survey 2 Results Concerns

Concern	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Insufficient lighting	11.4%	8.4%	13.9%	35.5%	30.7%
Lack of bicycle parking	10.5%	15.1%	36.8%	27.6%	9.9%
I have too much to carry	16.1%	15.4%	53.1%	14%	1.4%
I travel with small children	26.4%	14.3%	37.1%	13.6%	8.6%
My destinations are too far away	13.2%	21.2%	28.5%	21.9%	15.2%
I am unable to walk/bike long distances	23.7%	27.6%	26.3%	9.9%	12.5%
Lack of off-street paths or on-street bike lanes	9.9%	5.8%	10.56%	31%	42.7%
I do not feel safe around cars/trucks on the road	12.4%	6.5%	13.5%	21.8%	45.9%

I would walk or bicycle along the proposed routes to...

Participants were given a matrix with a set of reasons for walking and bicycling and were asked to indicate whether they strongly disagree, disagree, were neutral, agree, or strongly agree with the reason.

Most participants strongly agreed with exercise/recreate (55.4%), experience nature (50.6%), and help the environment (42.7%). The reasons and responses are further detailed in the table below.



Table 15 Survey 2 Results Walk/Bike Preferences

Reason	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Save money	10.1%	17.7%	36.1%	20.3%	15.8%
Exercise/recreate	12.9%	3.8%	4.3%	23.7%	55.4%
Visit friends/family	10.6%	7.5%	23%	34.2%	24.8%
Get to/from transit	7.4%	20.8%	36.2%	18.8%	16.8%
Experience nature	10.8%	2.3%	4.5%	31.8%	50.6%
Help the environment	9.8%	3.7%	15.2%	28.7%	42.7%
Travel to school or work	11.3%	14.7%	41.3%	13.3%	19.3%
Shop, run errands, or eat out	13%	9.9%	21.1%	30.4%	25.5%

Based on public outreach, the Top 3 prioritized routes to construct are along Bille Rd, Clark Rd, and Elliott Rd. Do you have additional input?

88.7% agreed with the stated priorities.

Other routes brought up included Pentz Road, Buschmann Road, and Skyway. According to the previous survey, Pentz and Skyway were identified as two of the top three routes which people avoided walking and bicycling on.

Are you supportive of a bike skills area and bike pump track at Bille Park?

89% of participants were supportive of a bike skills area and bike pump track at Bille Park.



Personal Meaning

Participants were asked to: “Please describe why this network is needed in your community.” A word cloud generator was used to highlight key words in participants’ answers, shown below. Words shown below in the largest font were cited most often with the following key words receiving the most use:

- Walk
- Bike
- Town
- Paradise
- Community
- People

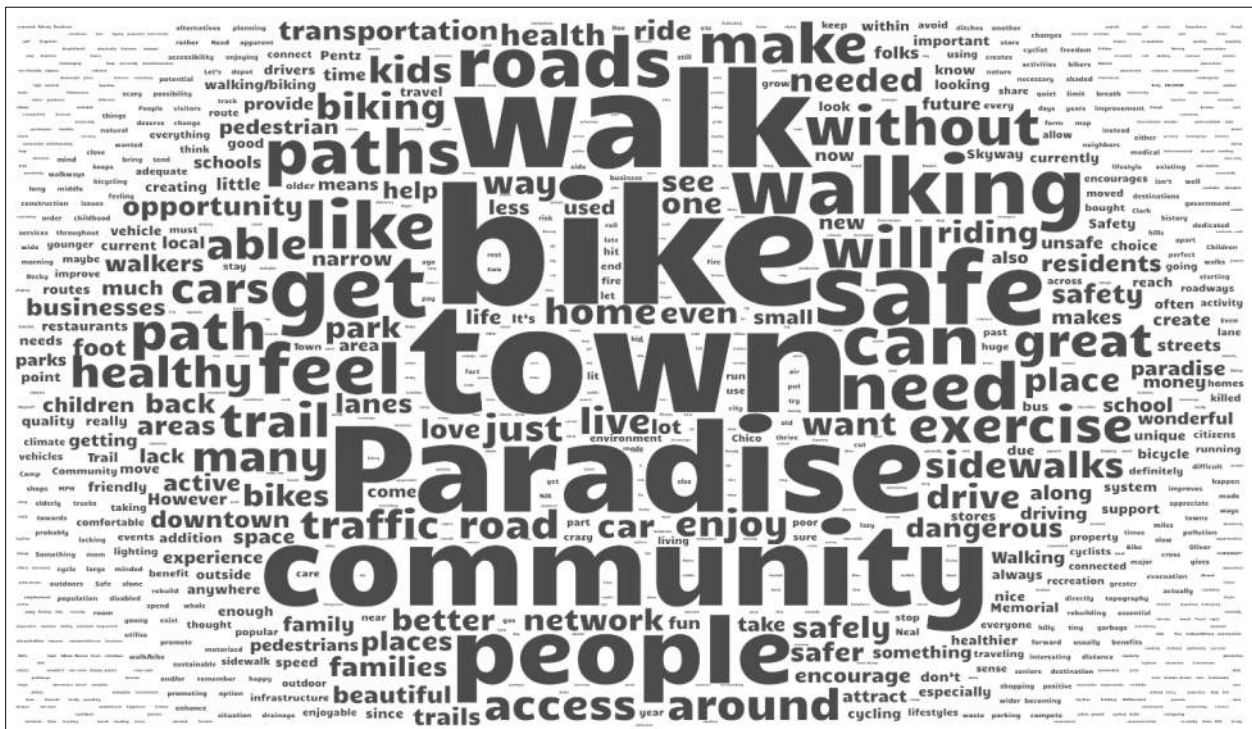


Figure 7 Survey 2 Word Cloud



Leadership Student Engagement

On December 2, 2021, ATP engagement was facilitated with a Student Leadership Class of 17 students at Paradise High School and received feedback on the Town's existing and proposed networks.

During the engagement, students stated they often avoided travel along the Yellowstone Kelly Heritage Trail before the fire due to security concerns related to lighting during dark conditions, illicit activity, and police pursuits along the trail.

Students discussed opportunities and priorities using a map where they placed stickers for improvements they would prioritize. The students noted several routes and areas where network improvements, access, or increased safety were desired, as detailed below:

Schools: While Paradise High School has good pedestrian access, other schools such as Paradise Charter Middle School, Children's Community Charter School, Paradise Ridge Elementary School, and Paradise Adventist Academy would benefit from active transportation network improvements.

Hang Out Spots: Places such as Terry Ashe Recreation Center, Bille Park, and shopping centers where students gather are areas where improved active transportation access is desired.

Employment Opportunities: Retail shops along Skyway such as Meehos, Lynne's Coffee, and the seasonal ice-skating rink at Terry Ashe Recreation Center are destinations where the high school students typically work.

Medical Offices: Includes Adventist Health at the Feather River Health Center.

Churches: The Paradise Alliance Church was noted as an important center within the community and primary evacuation assembly point.

Safe Zones: Students emphasized interest in a direct route with access to the police station in case of emergencies.

When asked about travel constraints and barriers, safety was the biggest concern because students felt concerned about visibility during nighttime conditions. The students noted a concern about homeless population in the area; therefore, and considered blue emergency call beacons, often seen on college campuses, to improve ability to quickly secure help if needed on the trails.

Students liked the idea of having gathering spots or "stops" along the trails with multiple amenities such as bike racks, tables, and benches. Gathering spots could be in an open area for visibility and safety, as well as near major destinations (as mentioned above) to be able to safely park their bike.

Students also wanted to see directional signage and maps along the trails such as maps showing current location along with main access points of the trail and distance markers. Naming specific destinations on signs would also be beneficial for visitors or new trail users. They also suggested additional educational boards with Paradise history and information such currently along the trail at some locations.



Other Engagement Efforts

Long-Term Community Recovery Plan (2019)

In January 2019, the Town accepted a grant from the Butte Strong Fund aid in the Town’s recovery and rebuilding process, resulting in the Paradise LTCRP.

The comprehensive list of projects identified in the LTCRP were categorized into five themes based on the capacity to create a future for the Town that is: Safer, Welcoming, Stronger, Better, and/or Greener. Projects were ranked according to importance among three tiers, being: 1) Physical recovery, 2) Economic recovery, and 3) Community aspirations.

Eight key projects were identified and confirmed by the community that support traveling safely via public transportation, walking, and bicycling within the Town.

Table 16 Long-Term Community Recovery Plan Projects

Improvement	Theme	Tier	Details	Public Comments
Interconnected Path System	Safer	1	<ul style="list-style-type: none"> • Add new Class I multipurpose pathways and dark-sky pedestrian lighting on evacuation routes. • Crosswalks and bike lanes should be added where appropriate. • On secondary public roads (beyond primary evacuation routes), consider focusing improvements on one side of the street. 	--
Evacuation Routes	Safer	1	<ul style="list-style-type: none"> • Perform a traffic study that would provide the empirical data needed to seek funding. • Include projects like parallel pedestrian bike path for emergency vehicle use. 	<i>"I love the idea of using walkways as emergency vehicle routes!"</i>
Safe Streets	Safer	1	<ul style="list-style-type: none"> • Add new sidewalks, curb gutters, lighting, crosswalks, and bike lanes where appropriate. 	<i>"Design complete streets for all road users with bike/pedestrian network across town"</i> <i>"Need pedestrian access from neighborhoods to the downtown"</i>
Long Dead-End Streets	Safer	1	<ul style="list-style-type: none"> • Establish standards to create a safe length/number of houses where additional means of access is required. 	<i>"As an owner of a dead end street over here, I would not like my road opened to more traffic (except in emergencies) but would be</i>



				<i>okay with pedestrian and bike access"</i>
Walkable Downtown	Better	1	<ul style="list-style-type: none"> • Design a walkable central business district • Amend pre-fire project to include sewer plan and water system repairs. • Possibility for a new Civic Center connected to the Community Park. 	<i>"Shops in this area would need possible help Skyway congestions by moving shops. Need pedestrian access from neighborhoods to the downtown - and yes!" "Include some pedestrian-only streets (not just the potential area by proposed civic center), parking lots on perimeter too"</i>
Elementary and Secondary Education	Better	1	<ul style="list-style-type: none"> • Create a pedestrian connection at Pearson and Shady Lane to residential areas. • Build safe walking and biking routes to all schools. • Prioritize school bus circulation. 	--
Outdoor Destination	Better	2	<ul style="list-style-type: none"> • Link parks and amenities together with a trail system. • Connect the Yellowstone Kelly Heritage Trail to City of Chico and Stirling City. • Investigate access to the Flumes. 	<i>"Mountain bike network, love the flumes canyon rim trails - great!" "I love the idea of connecting parks!"</i>
Public Transportation	Better	3	<ul style="list-style-type: none"> • Explore unmet needs along Pentz Road and west of Skyway. • Consider new settlement and density patterns to align with the emerging needs of the community. 	<i>"Could be a great place to house Butte College students if bike paths improved and public transportation improved" "Senior housing and services near walking areas and bus/public transportation"</i>

Butte County Trails Plan (2018)

The Butte County Trails Plan is a planning study that inventoried the trails throughout the County and identified needed routes, funding, and management for trails. Community input was gathered through a Trails Survey to understand how participants use the trails and their needs and desired opportunities. 757 people responded to the Butte County Trails Plan trails survey with an 85% completion rate. The figures below highlight hiking as a frequent purpose for trail use and interest in greater connectivity from future trails.

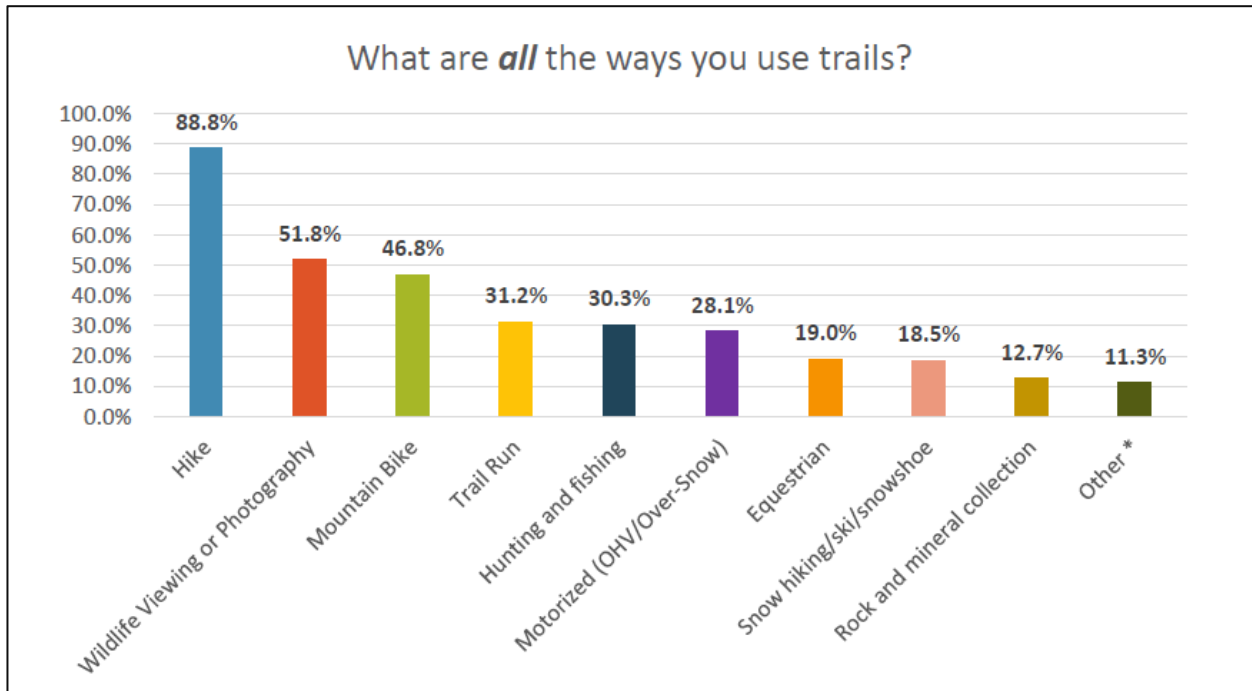


Figure 8 Trail User Survey

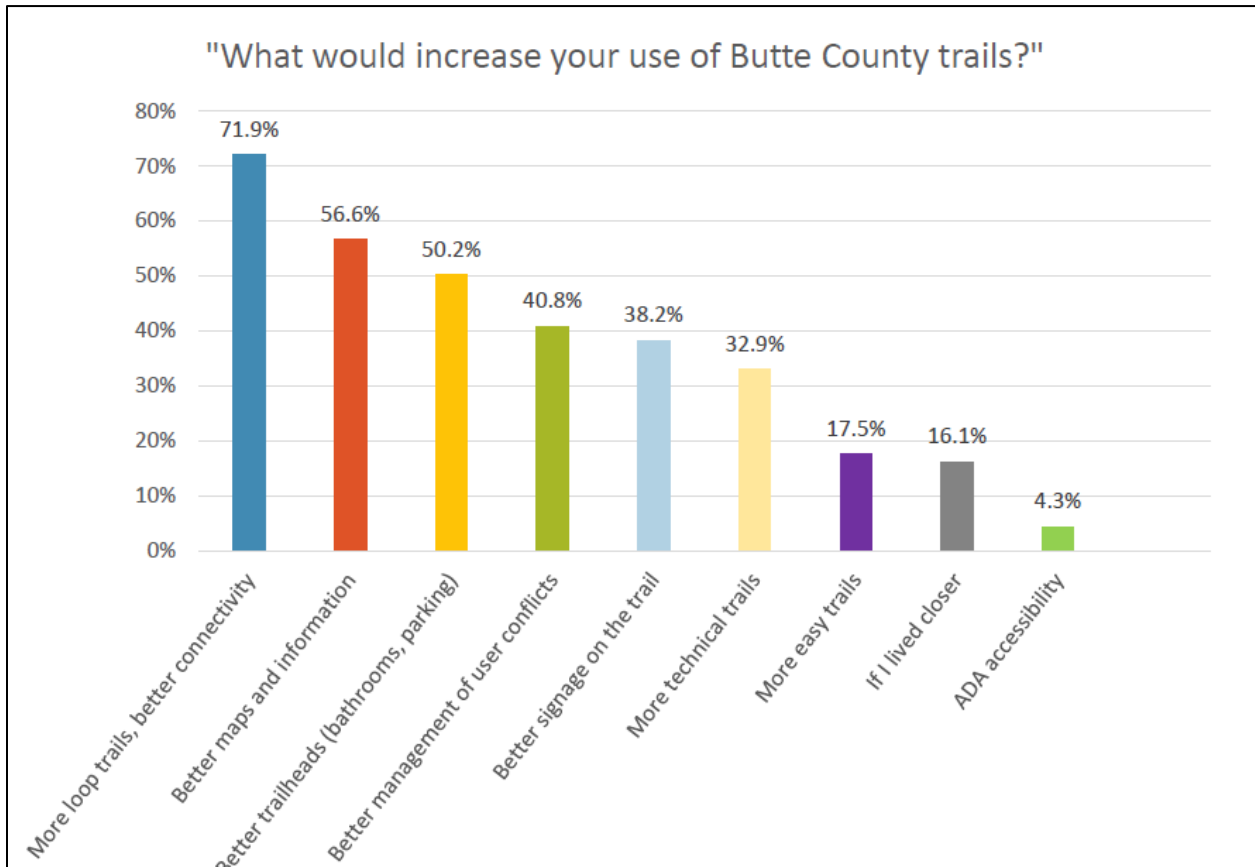


Figure 9 Butte County Trail Survey Results





CHAPTER 4: NEEDS ANALYSIS

As a result of the existing conditions analysis and the public engagement process outcomes, active transportation needs can be identified and analyzed. The Needs Analysis section utilizes the information discussed in the previous chapters to evaluate the pedestrian and bicycle networks separately, framing the needs under three categories: Safety, Accessibility, and Connectivity.

Safety Needs Analysis: The Safety Needs Analysis outlines areas with a history of crashes, specifically severe injuries and fatalities, and it also considers the public survey that collected information pertaining to residents perceived safety on several roadways, which provides perspective on roadways that may not have substantial collision history. By improving walking and biking safety, the Town addresses the needs of residents who must walk and bike for economic, health, age, and other reasons; it also provides an incentive for more people to walk and bike as a transportation choice.

Accessibility Needs Analysis: The Accessibility Needs Analysis shows where infrastructure is needed to service the Town’s residents. Public concerns about access to safe and convenient bicycle infrastructure will be a deterrent to cycling activity. Access concerns encompass a wide variety of trip purposes such as commuting to work or school, utilitarian trips such as shopping, as well as recreational trips. An improved bikeway network provides an incentive for people that might bicycle but are concerned about their public safety (known as the “interested but concerned” demographic). For pedestrians, providing accessibility generally means adding sidewalks primarily along arterials and some residential streets.

Connectivity Needs Analysis: The Connectivity Needs Analysis takes the Accessibility Needs Analysis a step further and evaluates how the current network connects residents to destinations such as downtown, schools, parks, and employment areas; however, similarly to the Accessibility Needs Analysis, the fewer connections the network provides the fewer people will use it. This is a critical issue for people who must walk or bike to school and work as they must figure out how to reach their destinations on infrastructure shared with automobile traffic.

Pedestrian Network

The pedestrian infrastructure is foundational for a walkable community and is necessary for individuals to safely walk to their destinations. Pedestrian facilities such as sidewalks, multi-use paths, and crosswalks offer a safe and convenient dedicated pedestrian infrastructure, so people have access to transit stops, employment opportunities, schools, recreation, and healthcare. Review of sidewalks along the Town’s arterial roadways showed gaps in the sidewalk network along high-speed and high-volume roads which pose substantial challenges to residents who walk. Given limited information about sidewalks on residential streets and the importance of evaluating the Town’s arterials, the Needs Analysis focuses on the major roadways: Skyway, Clark Road, Bille Road, Elliott Road, Pearson Road, and Wagstaff Road.

Safety

Keeping people safe is paramount to successful transportation systems. Safety is amplified for pedestrians due their vulnerability. In addition to quantitative crash statistics, it is essential that perceived safety be considered in pedestrian safety and analysis.

Crashes

Crash statistics from 2013 to 2018 reflect 32 pedestrian crashes in the Town, varying from Complaint of Pain (15), Visible Injury (9), Severe Injury (4), and Fatality (4). While most of the crashes occurred on



Skyway (11), Clark Road experienced the second most crashes (10) and had the most pedestrian crash fatalities (3). Although most of the pedestrian crash locations on Skyway and Clark Road have sidewalks, the design, quality, and maintenance of the current network can be evaluated to determine adherence to applicable local, state, and federal standards such as the Americans with Disabilities Act. Also due to the long blocks, signalized pedestrian crossing needs to be considered for appropriate crossings. Due to the general low-density development, lighting also needs to be considered to ensure pedestrian visibility and general safety. While various crashes occurred where infrastructure does not exist including 2 crashes (1 Severe Injury) on Sawmill Road and one crash on Pentz Road south of Bille Road, pedestrian infrastructure still needs to be considered on these roads as well.

The intersection of Pearson Road and Clark Road has experienced the most crashes per intersection (3) with one fatality (1). The pedestrian safety at this intersection needs to be studied to ensure crashes do not continue to occur.

Perceived Safety

During public engagement, the community was asked to identify areas within the community where perceived safety while walking or cycling occur. Perceived safety issues can be a result of various components such as lack of sidewalks, crosswalks, lighting, isolation, and vehicle speeds, and they provide a more nuanced look at roadway safety and crash statistics. Based on the Public Engagement Survey #1, roadways such as Pentz, Bille, Skyway, and Pearson were noted to have the highest concerns for personal safety.

Table 17 Perceived Safety Results

Roadway	Stated Concern for Personal Safety
Pentz	14%
Bille	13%
Skyway	13%
Pearson	10%
Wagstaff	8%
Elliott	7%
Clark	7%
Neal	7%
Oliver	6%
Sawmill	6%
Roe Road	3%
Valley View	2%



Based on the Public Engagement Survey #1, respondents avoid utilizing roadways such as Pentz, Bille, and Skyway for walking and cycling activity.

Table 18 Safety Concerns

Roadway	Avoidance of Existing Conditions
Pentz	35%
Bille	34%
Skyway	29%
Elliott	26%
Wagstaff	26%
Pearson	25%
Clark	21%
Neal	21%
Oliver	20%
Sawmill	19%
Roe Road	14%
Valley View	9%

In addition to the surveys, during engagement with youth at the High School, safety concerns along the existing Yellowstone Kelly Heritage Trail were noted.

Accessibility Needs

In addition to sidewalks, Class I Multi-Use Paths, such as the Yellowstone Kelly Heritage Trail, provide pedestrian accessibility, and based on the Pedestrian Network Existing Conditions, the current accessibility needs are:

- Olive Road—Wagstaff Rd to Skyway
- Wagstaff Road—Olive Rd to Skyway
- Pentz Road—Skyway to Town boundary
- Elliott Road—Copeland Rd to Sawmill Rd
- Pearson Road—Clark Rd to Pentz Road
- Sawmill Road—Pearson Rd to Bille Road
- Clark Road—Pearson Rd Town north boundary.
- Skyway—Town south boundary to Longview Dr, Bille Rd to Thomasson Ln, and Wagstaff to Town north boundary.



Connectivity Needs

Providing safe and convenient connections to destinations is key to having a walkable community. Separate infrastructure, like sidewalks and multi-use paths, are imperative along high-volume and high-speed streets. Slower and calmer side residential streets can utilize shared roadways if the lighting and sightlines are appropriate.

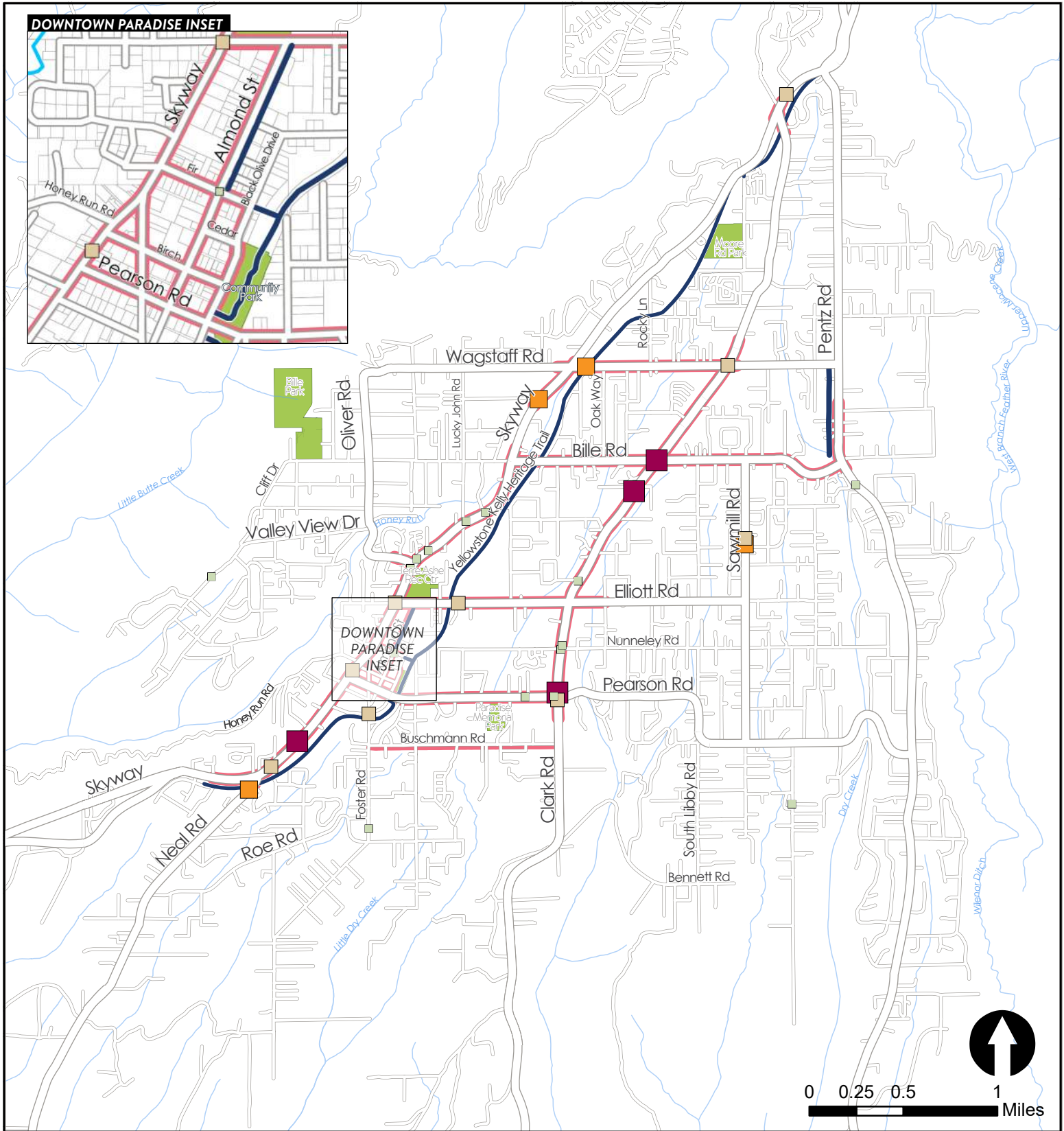
Many of the Town's destinations are along roadways that have some form of sidewalk, so the degree of existing connectivity is substantial. The connectivity needs generally revolve around extending existing infrastructure to increase the number of people who can connect to these destinations. The items below list the key needs for establishing connections to destinations.

Schools

Connectivity to school facilities is key to improving students' health and is proven to improve student academic performance. As mentioned, most of the schools have sidewalk connectivity, but the connectivity is limited for students west of Skyway, east of Clark Road, south of Elliott Road, and north of Wagstaff Road. This also applies for Paradise high School, Paradise Adventist Academy, and Paradise Junior high School. Other schools such as the Children's Community Charter School and Parsons would benefit from provision of sidewalks to establish direct connectivity.

Parks

Parks are some of the most visited destinations by pedestrians as they are generally near residential areas and provide a respite from the built environment. Connectivity can be improved to access Billie Park through improvements on Oliver Road and Wagstaff Road, as well as Moore Road Park with improvements linking to the Yellowstone Kelly Heritage Trail, along Moore Road, Forest Service Road, and Clark Road.



TOWN OF PARADISE

Active Transportation Plan

Pedestrian Network Needs
Analysis: Safety

Existing Network Facilities

- Class I - Multi-use Paths
- Sidewalks*

Natural Resources

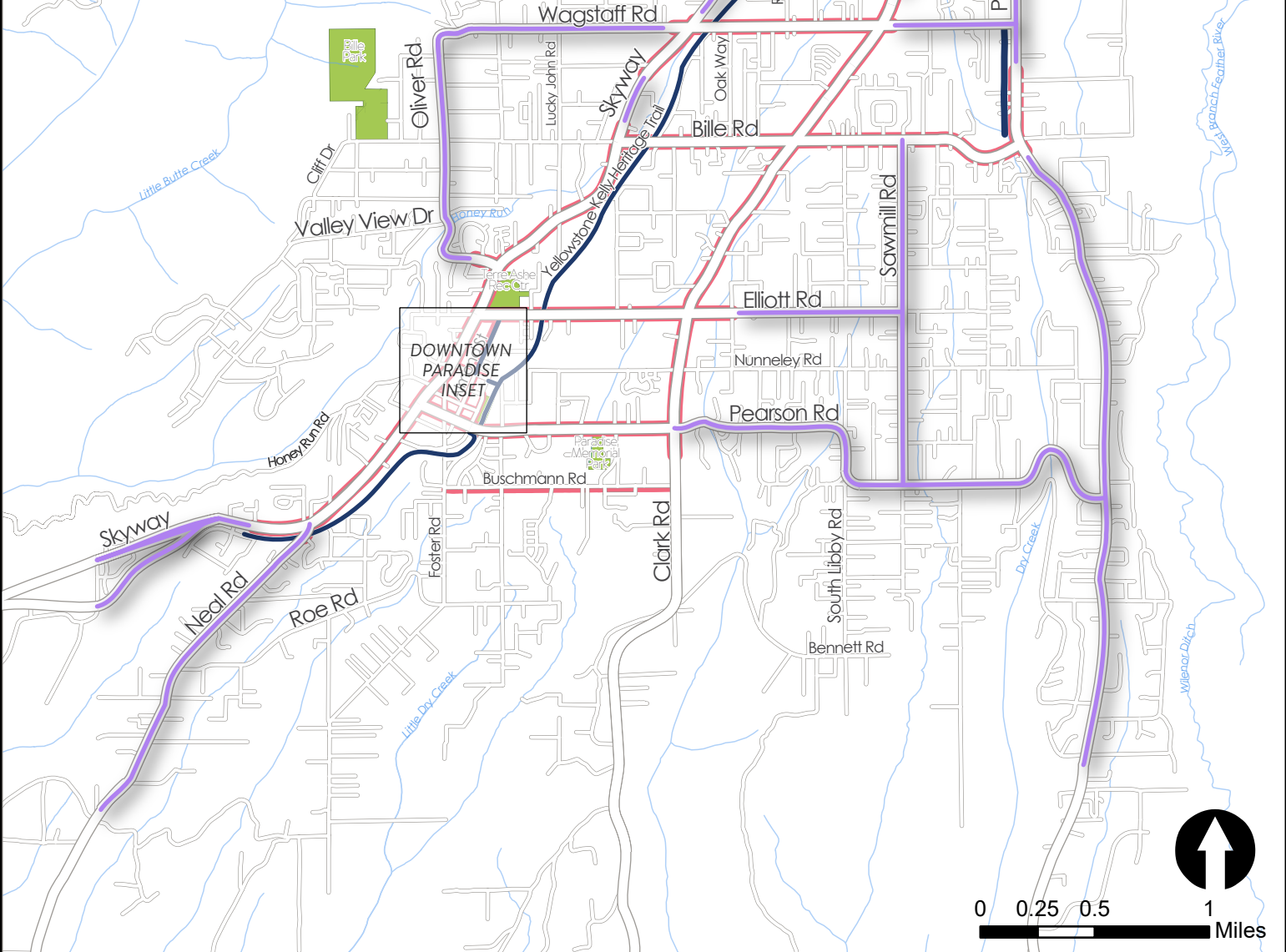
- Parks
- ~ Water Bodies

Collision Level of Injury

- Complaint of Pain (15)
- Visible Injury (9)
- Severe Injury (4)
- Fatality (4)

*Sidewalks shown only for major roads and may not reflect gaps.

DOWNTOWN PARADISE INSET



DOWNTOWN PARADISE INSET



TOWN OF PARADISE

Active Transportation Plan

Pedestrian Network Needs
Analysis: Accessibility

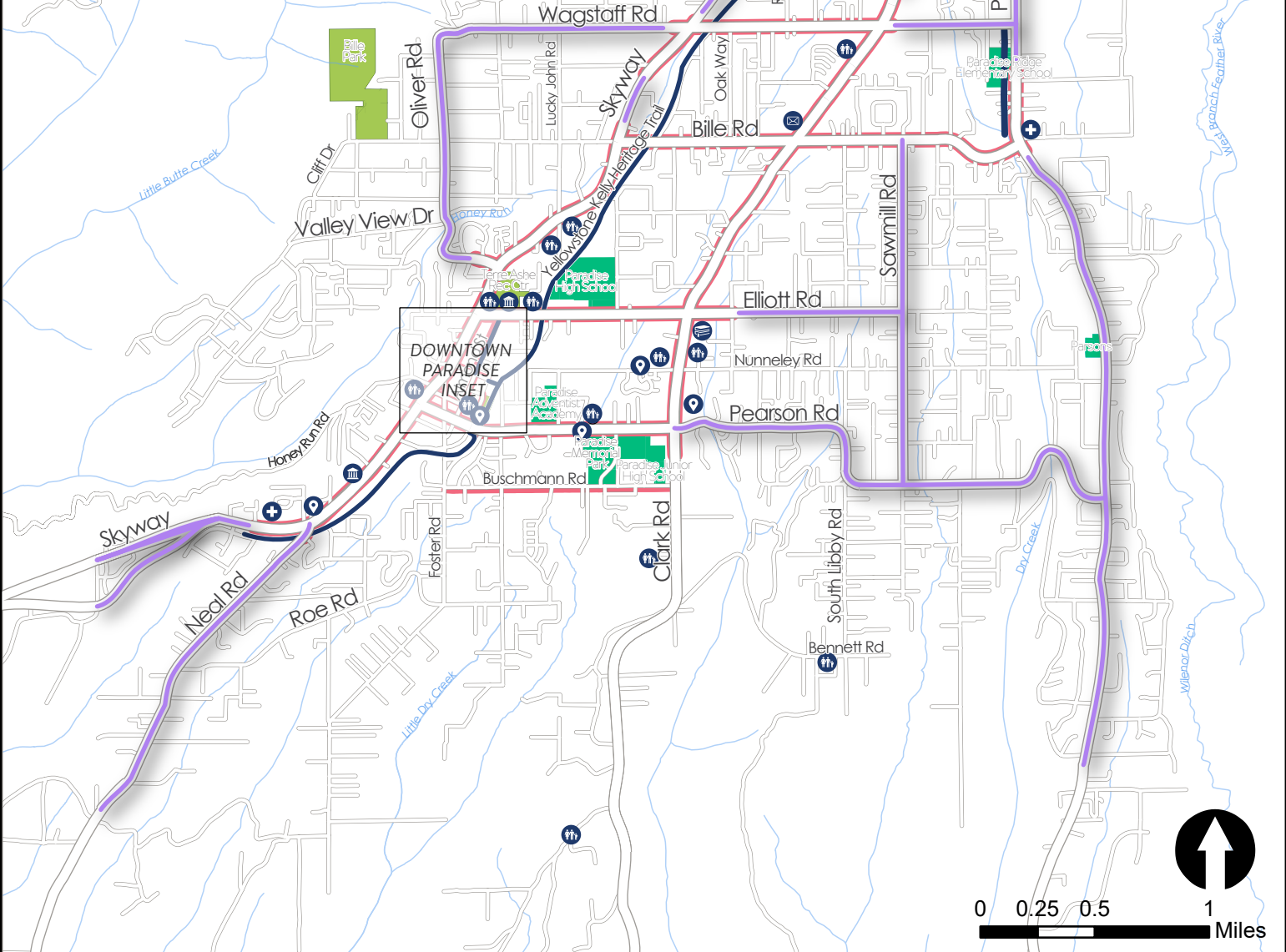
- Existing Network Facilities**
- Class I - Multi-use Paths
 - Sidewalks*

- Needs Analysis**
- Recommended Analysis Roadways

- Natural Resources**
- Parks
 - ~ Water Bodies

*Sidewalks shown only for major roads and may not reflect gaps.

DOWNTOWN PARADISE INSET



**TOWN OF PARADISE
Active Transportation Plan**

Pedestrian Network Needs
Analysis: Connectivity

- Existing Network Facilities**
- Class I - Multi-use Paths
 - Sidewalks*

- Needs Analysis**
- Recommended Analysis Roadways

- Natural Resources**
- Parks
 - Water Bodies

- Key Destinations**
- Non-Profit Organizations
 - Health Services
 - Entertainment Destinations
 - Government Services
 - Post Office
 - Library
 - Schools

*Sidewalks shown only for major roads and may not reflect gaps.



Bicycle Network

Bicycle infrastructure is paramount for individuals to ride to their destinations, and as previously noted, the Town needs a safe and convenient bicycle network that connects residents to destinations and attracts new cyclists in order to maximize cycling use and capitalize on the benefits of cycling. This section considers the bicycle network needs for the Town based on the existing conditions discussed in Chapter 2 and the engagement activity results outlined in Chapter 3. Considerations are given to perceived gaps in bicycle mobility, existing challenges, and how the needs could potentially be addressed. Specifically, the Needs Analysis considers the needs of potential cyclists (or interested but concerned residents), which constitutes a much larger population than existing cyclists. The “interested but concerned” potential cyclist most often requires greater separation from car traffic to decide to bicycle, especially on high-volume, high-speed streets. With that said, a variety of bicycle facilities can be used through a community to create a network that connects everyone to every destination, but in order to attract people to cycling, the infrastructure must be safe, accessible, and connect to key destinations.

Safety

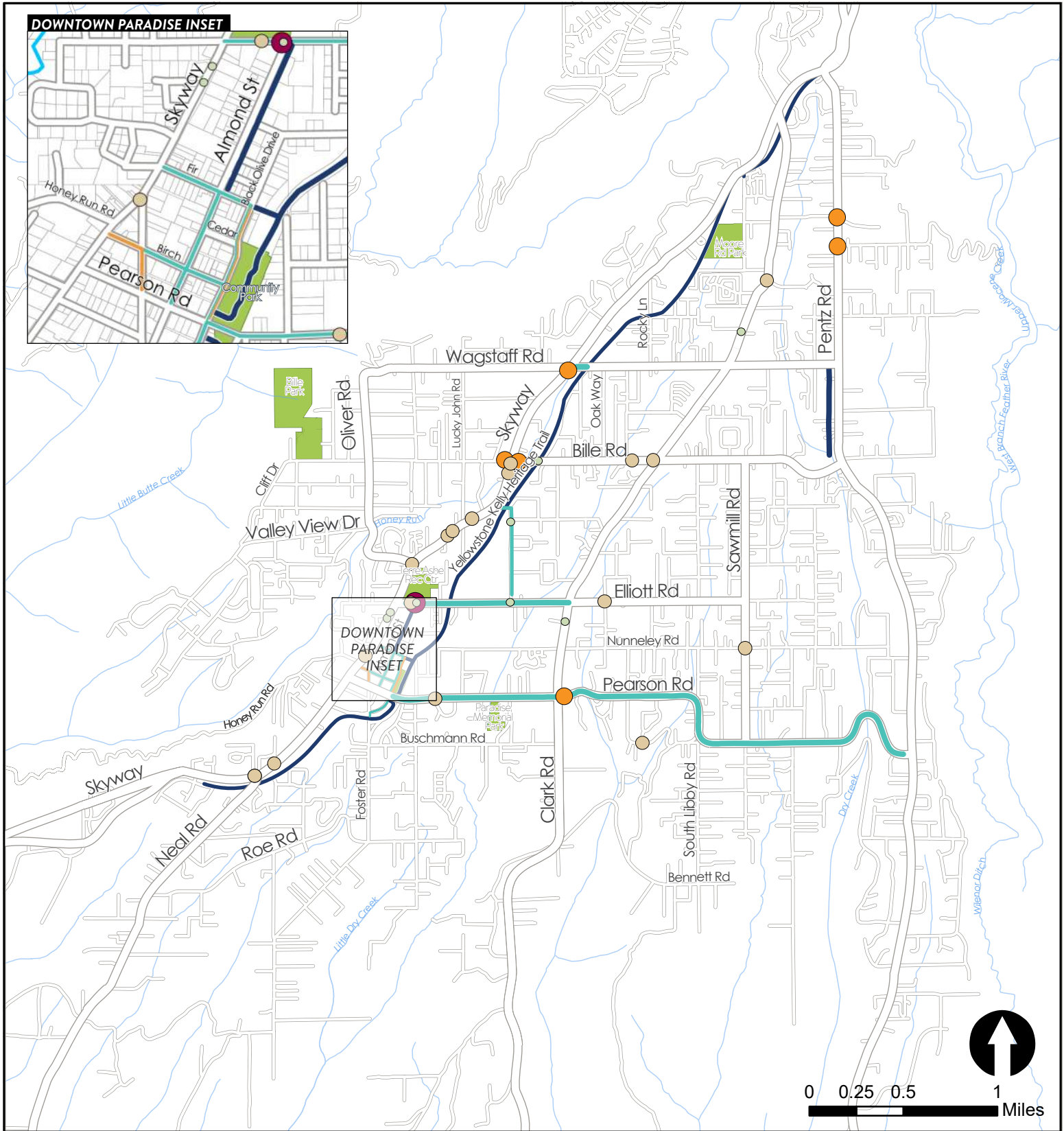
Crash Analysis

Crash statistics from 2013 to 2018 reflect 33 bicycle crashes in the Town, varying from Complaint of Pain (8), Visible Injury (18), Severe Injury (6), and Fatality (1) with almost half of the crashes occurred on Skyway (14) including 3 severe injuries. Nine (9) of the bicycle crashes on Skyway occurred where there is no bicycle infrastructure, illustrating a need for improvements in this section, south of Bille Rd. Four (4) crashes, including 2 severe injuries occurred at the Skyway/Bille Road intersection, which is just west of the Yellowstone Kelly Heritage Trail. The only bicycle crash fatality occurred at the Elliott Road/Almond Street intersection, and two additional bicycle crashes occurred at this location. Led by the Town, a project is under construction that will add a Class I trail to the east side of Almond Street and improve the Elliott Road/Almond Street intersection.

Overall, 24 of the 33 (72%) crashes occurred on roads without bicycle infrastructure, including two severe injuries on Pentz Road.

Perceived Safety

Perceived safety issues can be a result of various components such as lack of infrastructure, lighting, horizontal separation from motorists, and motor vehicle speeds. Perceived safety provides a more nuanced look at the roadway safety in addition to crash statistics. In other words, people may not be bicycling because they perceive the network uncomfortable or unsafe.



DOWNTOWN PARADISE INSET



TOWN OF PARADISE

Active Transportation Plan

Bicycle Network Needs Analysis:
Safety

Existing Network Facilities

- Class I - Multi-use Paths
- Class II - On-street Bike Lane
- Class III - Bicycle Route

Natural Resources

- Parks
- ~ Water Bodies

Collision Level of Injury

- Complaint of Pain (8)
- Visible Injury (18)
- Severe Injury (6)
- Fatality (1)





Accessibility

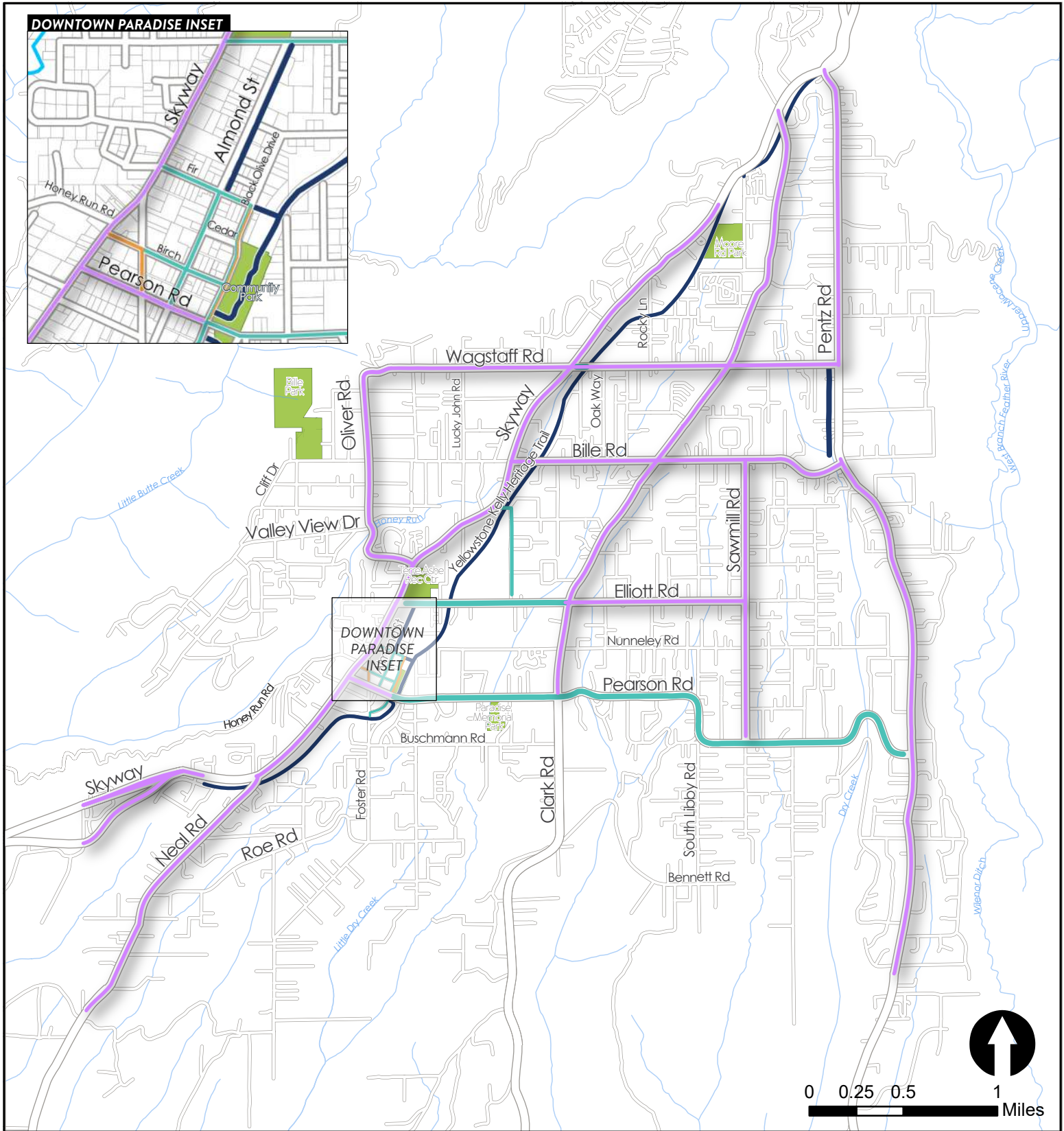
Providing a bicycle network that is inviting to everyone is a key metric for a bicycle friendly community, and to accomplish this, communities need to provide facilities so all residents can choose to bike without questioning their comfort or safety.

Today the Town has the foundational 5.5 mile long off-street trail (Yellowstone Kelly Heritage Trail) and 4.2 miles of Class II on-street bike lanes on 44.7 miles of arterial roadways meaning only 9% of the town's arterial network is supported by some form of bicycle infrastructure. From a systemwide standpoint, this indicates that there are few on-street opportunities for residents to access a bicycle facility or link to the Yellowstone Kelly Heritage Trail.

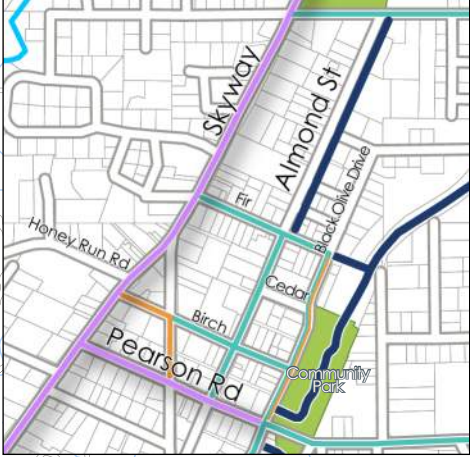
Connectivity

As mentioned earlier, the Town's bicycle potential will be significantly impacted by how well the network connects people to destinations. The items below identify current issues and challenges:

- Downtown – Since the primary need for the downtown area is to foster connections with destinations throughout the town, it is paramount that existing facilities such as Pearson Road, Elliott Road, and the Yellowstone Kelly Heritage Trail have new connecting facilities to broaden their reach.
- Schools – Schools need to be connected to all students, so that students have safe and convenient infrastructure to arrive to school safely and with some physical activity to start their day.
- Parks – Parks and bicycles are best when paired together. All parks need bicycle access so residents can start their recreation activities as soon as they leave their front door.



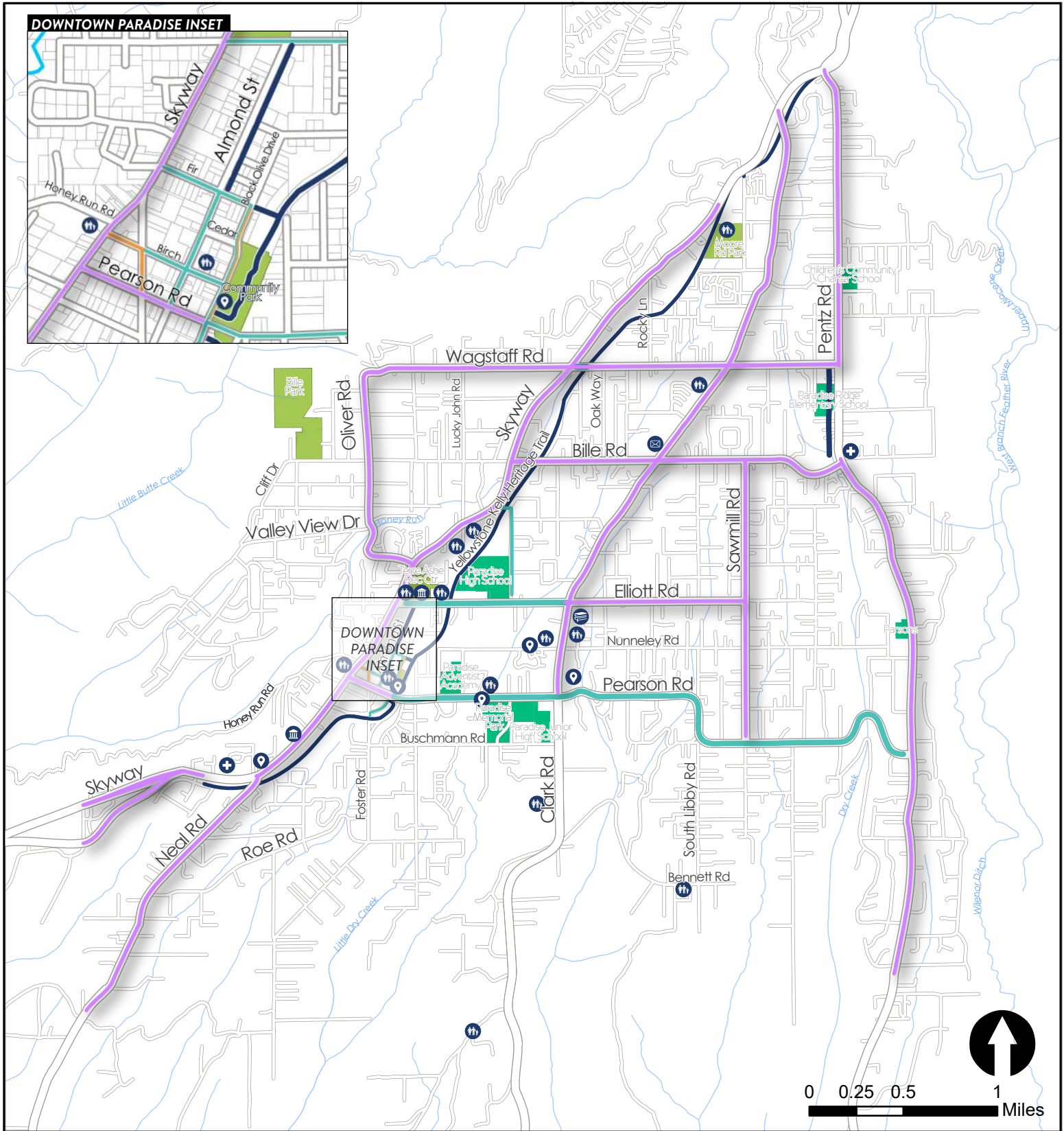
DOWNTOWN PARADISE INSET



TOWN OF PARADISE
Active Transportation Plan

Bicycle Network Needs Analysis:
 Accessibility





TOWN OF PARADISE

Active Transportation Plan

Bicycle Network Needs Analysis:
Connectivity

Existing Network Facilities

- Class I - Multi-use Paths
- Class II - On-street Bike Lane
- Class III - Bicycle Route

Needs Analysis

- Recommended Analysis Roadways

Natural Resources

- Parks
- ~ Water Bodies

Key Destinations

- Non-Profit Organizations
- Health Services
- Entertainment Destinations
- Government Services
- Post Office
- Library
- Schools



CHAPTER 5: RECOMMENDATIONS

This chapter provides recommendations for active transportation projects and programs based on the existing conditions, community outreach, and needs analysis. These recommendations are supported by residents and stakeholders and work to advance Town and region’s goals, especially through recovery efforts.

Bicycle and Pedestrian Network Recommendations

While there are streets in the Town with some existing sidewalks and bicycle lanes, the combined active transportation network lacks consistency and geographic reach. Critical gaps in the network need to be filled to increase the destinations accessible by walking and cycling and to improve safety and comfort in using these modes. This will in turn encourage existing users to continue walking and biking as a means of travel and will attract new users that may be interested but have previously been concerned about safety and connectivity.

Based on the Needs Analysis and the findings from public outreach efforts, the proposed bicycle network includes 36 miles of interconnected pathways along 12 of the Town’s primary corridors. The off-street trails will provide safety and comfort to serve residents and visitors through dedicated spaces that is separated from motor vehicle traffic. Additionally, it will connect the downtown area with the rest of the Town thereby improving mobility options for residents and reducing bicycle and pedestrian conflicts with vehicles. The proposed off-street multi-use trail network is recommended to avoid barriers such as bollards to provide dual functionality serving emergency responder vehicles during emergencies and evacuations. See Table 19 for a more detailed overview of the recommended active transportation network improvements including preliminary cost estimates for implementation.



Table 19 Active Transportation Network Recommendations

Route	Project Limits	Facility	Length	Key Connections	Estimated Cost
Bille Path	Bille Park to Pentz Road	Class I Multi-use	3 miles	<ul style="list-style-type: none"> • Transit stops on routes 40 & 41 • Yellowstone Kelly Heritage Trail • Bille Park • Medical and commercial uses along Skyway and Clark • U.S. Post Office • Religious institutions 	\$18 million
Clark Path	Skyway to Pearson Road	Class I Multi-use	3.5 miles	<ul style="list-style-type: none"> • Transit stops on routes 40 & 41 • Paradise Performing Arts Center • Moore Road Ball Park • Medical and commercial uses • Linkage to Wagstaff, Bille, Elliott, Pearson, and Roe Road • U.S. Post Office • Paradise Memorial Park and Aquatic Park • Financial institutions • Religious institutions 	\$22 million
Elliott Path	Skyway to Sawmill Road	Class I Multi-use	1.9 miles	<ul style="list-style-type: none"> • Transit stops on routes 40 & 41 • Yellowstone Kelly Heritage Trail • Terre Ashe Recreation Center • Downtown • Paradise Cemetery • Paradise High School • Medical and Commercial Uses on Skyway and Clark • Religious institutions 	\$13 million
Neal Path	Skyway to Red Sky Lane	Class I Multi-use	1.6 miles	<ul style="list-style-type: none"> • Transit stops on routes 40 & 41 	\$10 million



				<ul style="list-style-type: none"> • Yellowstone Kelly Heritage Trail • Feather River Health Center • Town Hall • Paradise Hope Center • Financial institutions • Southern Town of Paradise 	
Oliver Path	Skyway to North Oliver Road	Class I Multi-use	1.2 miles	<ul style="list-style-type: none"> • Transit stops on routes 40 & 41 • Downtown • Bille Park • Terre Ashe Recreation Center • Religious institutions 	\$8 million
Pentz Path	Skyway to Wagstaff and Bille to Malibu	Class I Multi-use	4.4 miles	<ul style="list-style-type: none"> • Paradise Ridge Elementary School • Religious institutions • Linkage to Bille, Pearson, and Roe Road 	\$27-32 million
Pearson Path	Clark Road to Pentz Road	Class I Multi-use	2.3 miles	<ul style="list-style-type: none"> • Transit stops on routes 40 & 41 • Medical and Commercial Uses on Clark • Connectivity with Pearson On-Street Bike Lanes • Paradise Memorial Park and Aquatic Park • Paradise Junior High School • Financial institutions • Religious institutions 	\$14 million
Roe Road Path	Roe Road to Malibu Drive	Class I Multi-use	5 miles	<ul style="list-style-type: none"> • Linkage with north-south corridors 	Incorporated in Roe Road Extension funding
Sawmill Path	Bille Road to Pearson Road	Class I Multi-use	1.5 miles	<ul style="list-style-type: none"> • Linkage to Bille Path, Elliott Path, Pearson Path • Nearby residential area 	\$9 million
Upper Skyway Path	Oliver Road to Pentz Road	Class I Multi-use	3.5 miles	<ul style="list-style-type: none"> • Terre Ashe Recreation Center • Linkage to downtown, Bille Path, Elliott Path, 	\$22 million



				Pentz Path, Clark Path, Oliver Path, and Yellowstone Kelly Heritage Trail <ul style="list-style-type: none"> • Commercial uses • Paradise High School • Moore Road Ball Park 	
Lower Skyway Path	Yellowstone Kelly Heritage Trail to Southgate Interchange	Class I Multi-use	8.6 miles	<ul style="list-style-type: none"> • Yellowstone Kelly Heritage Trail • Feather River Health Center • Town Hall • Transit stops on routes 40 & 41 • Paradise Ridge Lookout Point • Linkage to City of Chico 	\$26 – 34 million (may be incorporated into other capital projects)
Skyway – Yellowstone Kelly Heritage Trail Link	Skyway/Oliver to Yellowstone Kelly Heritage Trail	Class I Multi-use	0.3 miles	<ul style="list-style-type: none"> • Yellowstone Kelly Heritage Trail • Terre Ashe Recreation Center • Paradise High School • Transit stops on routes 40 & 41 • Downtown • East-West Off-Street Connectivity 	\$3 million
Valley View Path	Valley Ridge Drive to Oliver Road	Class I Multi-use	1.2 miles	<ul style="list-style-type: none"> • Terre Ashe Recreation Center • Bille Park • Linkage with Oliver Path and downtown • Nearby residential area 	\$9 million
Wagstaff Path	Oliver Road to Clark Road	Class I Multi-use	1.9 miles	<ul style="list-style-type: none"> • Transit stops on routes 40 & 41 • Medical and Commercial Uses on Skyway and Clark • Paradise Unified School District offices • Financial institutions • Religious institutions 	\$9 million



Pedestrian

In addition to the expansion and growth of an off-street trail network, other recommendations for the pedestrian network include:

- Closing gaps in the existing sidewalk network
 - Include sidewalk gap construction as part of future roadway extensions and roadway rehabilitation projects.
- Providing new ADA standard ramps
 - Replace older non-compliant ADA ramps.
 - Ensure that all intersections are ADA compliant, including ramps and audible signals.
- Enhanced Crosswalks
 - Install rapid rectangular flashing beacons on high pedestrian and high vehicle speed/volume locations based on engineering review.
 - Ensure that crosswalk striping and placement is implemented with applicable engineering treatments such as high visibility markings, lighting, advance yield lines, and other features as appropriate.

Bicycle

In addition to the expansion and growth of an off-street trail network, other recommendations for the bicycle network the addition of bicycle parking in new developments and at key community destinations, as well as rest areas and wayfinding.

There are currently 10 miles of bikeway along the Town’s arterial corridors covering 30% of the Town’s major roadways. Implementation of the recommended active transportation network will create a unified system ensuring that Town residents have a wide range of opportunities to walk and bicycle. The recommended improvements would increase the active transportation network to 39.3 miles of paths for walking and cycling along 88% of the Towns’ major roadways. The proposed pathway network is along key arterials that will provide direct access to destinations and direct routes across town; therefore, providing comfortable and safe infrastructure along the corridors.

Additionally, pedestrian facilities along the public roadway network will also grow from 31 miles (13%) of the public roadway network to 67 miles (36%). Furthermore, 91% of added pedestrian miles would be built along arterial corridors and will thus significantly enhance the overall pedestrian access along these high-speed, high-volume roadways.

The Yellowstone Kelly Heritage Trail is a foundational spine traveling north-south in the community, and new east-west connections will leverage the cherish community trail to link with destinations Town wide. The system of connected paths will increase the Yellowstone Kelly Heritage Trail total length by approximately 255% can provide individuals with a variety of travel options and accessibility. With 87% of the proposed active transportation network composed of off-street trails, the network will directly improve safety by reducing conflict with motor vehicles and can provide opportunities for the “interested but concerned” potential cyclist to ride on a more comfortable and physically separated infrastructure.

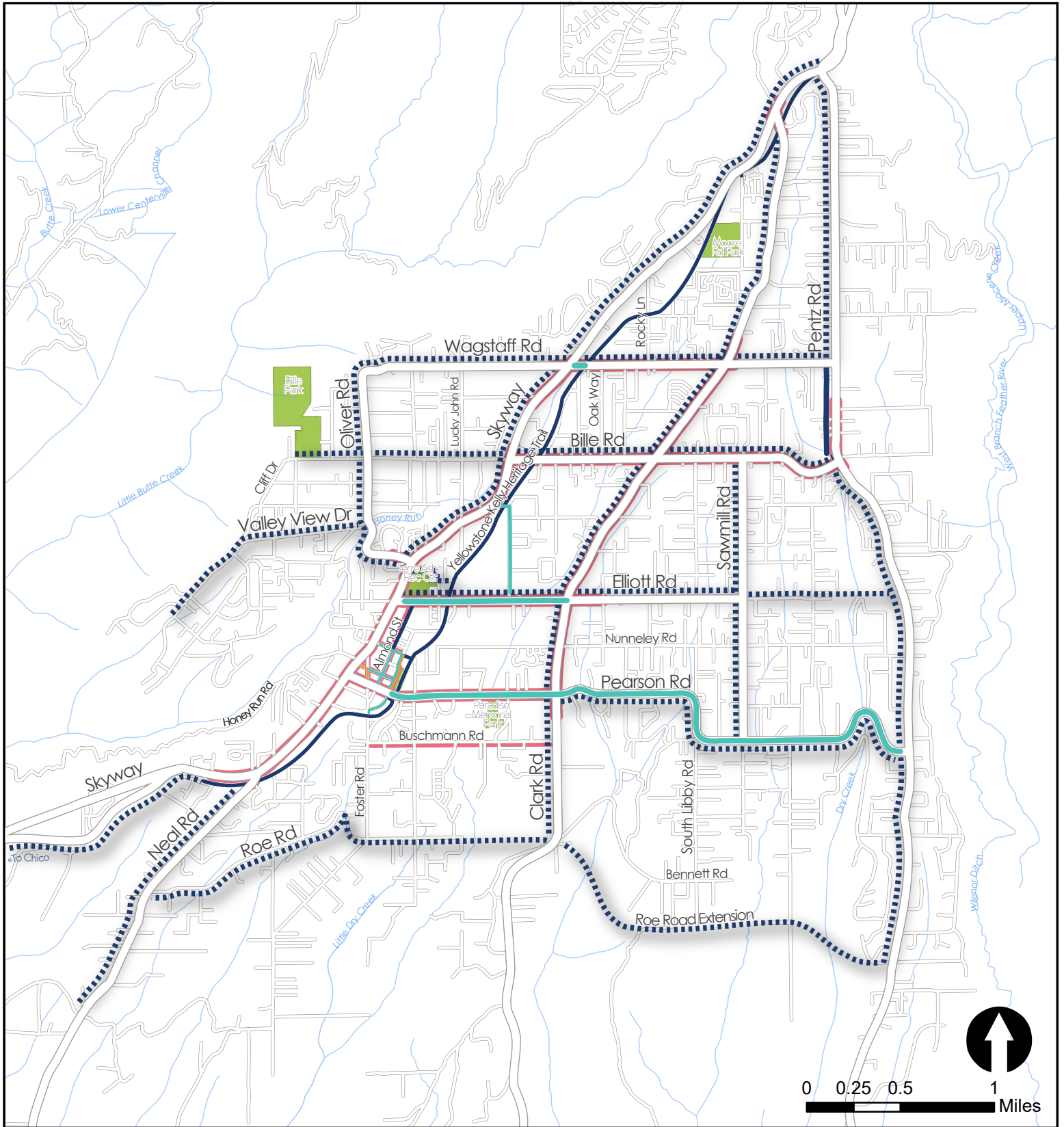
The projects identified by this ATP have also been designed and evaluated to result in better bicycle and pedestrian connections to local retail, businesses, public services, health care, schools, and open spaces. Buildout of the proposed network will include new direct multi-use path connections with the following destinations that previously did not have direct access to an off-street facility:



- Paradise Post Office
- Paradise Library
- Six (6) non-profit organizations
- Two (2) government services
- Parson's School
- Children's Community Charter School
- Bille Park

In addition, many destinations, schools, and parks will be within a quarter-mile of multiple off-street facilities; the numbers below signify how many streets connect to these respective areas:

- Downtown Paradise (3)
- Paradise High School (3)
- Paradise Junior High School (2)
- Paradise Ridge Elementary School (3)
- Moore Road Park (3)
- Paradise Memorial Park (2)
- Bille Park (2)



TOWN OF PARADISE

Active Transportation Plan

Existing and Planned Active Transportation Network

Existing Network Facilities

- Class I - Multi-use Paths
- Class II - On-street Bike Lane
- Class III - Bicycle Route
- Sidewalks*

Proposed Network Facilities

- - - Class I - Multi-use Paths

Natural Resources

- Parks
- ~ Water Bodies

*Sidewalks shown only for major roads and may not reflect gaps.



Additional Infrastructure Recommendations

A bicycle and pedestrian network is fully leveraged when combined with amenities that facilitate network use; therefore, supporting infrastructure such as lighting, wayfinding, and bicycle parking have been identified below. Many of the items listed below were identified by community members during public engagement activities as desired improvements.

Lighting

Lighting to improve safety along routes is a key feature that was brought up throughout the outreach process and is recommended along sidewalks and consistently within the proposed Class I network. Dark sky pathway lighting is proposed on Class I facilities to improve visibility while retaining the Town's rural characteristics.

Wayfinding

Currently, wayfinding signage exists at limited locations throughout the Town. Additional signage at trailheads and along trails can help orient users and designate usage, especially when there are multiple trails, and it can also be educational and identify



features, history, directional guidance, trail features, or landmarks to make the experience more enjoyable for users. Moreover, signage and surface markings along trails help ensure safety among all users by designating appropriate uses, which could be implemented via Paradise Recreation Parks Department (PRPD). PRPD develops appropriate signage to identify allowed uses on PRPD-managed facilities. The Town may incorporate design standards for consistent and easily understood signage along the complete bicycle and pedestrian network. The Yellowstone Kelly Heritage Trail currently features lighting and information board, and at a minimum, it is recommended that these features be maintained and expanded to cover more of this facility's segments in addition to new off-street facilities as appropriate.

Bicycle Parking

Bicycle parking amenities are also recommended. Bicycle parking is recommended at major destinations such as in the downtown area and by recreational facilities and can be included as part of land development projects. The scale and design of these facilities can be adapted to their unique project circumstances and consider any other conditions unique to their project location.

Programmatic & Policy-Based Recommendations

Walkability, bicycle friendliness, and ADA compliance are common elements found in healthy and vibrant communities as communities that are walkable and accessible provide a range of benefits that improve the quality of life for residents and visitors.

Safer bicycling and walking conditions are best achieved through a combination of strategies targeted to address infrastructure and non-infrastructure needs. The tools and strategies discussed in this toolkit are organized around the Five E's, a universal framework and approach to improving roadway safety often used by planning practitioners.



The Five E's

A comprehensive network and culture of walking and cycling occurs through strategies addressing the following five E's:

- Engineering – Refer to the network recommendations provided in this report.
- Education – Education programs are designed to improve safety and awareness.
- Encouragement – Encouragement programs focus on encouraging people to bicycle more frequently by providing incentives, recognition, or services that make bicycling a more convenient and viable transportation mode.
- Enforcement – Enforcement programs enforce legal and respectful use of the transportation network.
- Evaluation – Tracking progress towards implementation of the recommended network and monitoring travel activity and crash history can guide future decision making.

The following discussion reviews the benefits of four non-infrastructure related E's and includes sample tools and strategies for each approach. Engineering elements have been addressed by the project network recommendations discussed earlier in the chapter. During public engagement, various strategies addressing the non-infrastructure strategies were presented to identify local interest as shown in the table below.



Table 20 The Five E's

E's	Programs	Description	Interest
Education	School Safety Programs	Events and workshops hosted at schools throughout the community	73%
	Bike & Pedestrian Guides	Pamphlets, flyers, and other resources for bike and pedestrian laws, trail-use, and routes finding	49%
	Traffic Safety Programs	Learn from the local Police Department how to be a safe cyclist, pedestrian, and driver	25%
	Bicycle Safety Events	Gain safety tips from guest speakers and police officers	27%
Encouragement	Grand Opening Events	Ribbon-cutting ceremonies with biking and walking events for the unveiling of completed projects	56%
	May Bike Month	A week/month of bike-related community events such as helmet check-ups and bike tune-ups	52%
	Walk to School Day	An annual walk to school event with participation by Police and Fire Departments	48%
	Bike Rodeo	Practice bicycle navigation and balance skills for riding in Town	38%
	Cycling Classes	Road skills courses for all experience levels, ages, and abilities	37%
Enforcement	Selective Enforcement	Active enforcement in and around school zones when students travel to and from school	72%
	Active Transportation Safety Enforcement	Focused enforcement in areas with frequent collisions involving bicyclists and pedestrians	56%
	Ticket Diversion Program	Option to enroll in traffic safety courses, rather than pay a fine, when issued a traffic violation	47%
Evaluation	Local School Collaboration	Work with local schools to evaluate walking and biking activity to and from school	68%
	Bicycle & Pedestrian Counts	Collect data on walking and cycling activity to estimate social, economic, and health benefits for future improvements	60%



Education

School Safety Programs

The Safe Routes Partnership (SRP) is a nonprofit organization committed to promoting safe walking and biking to school and other community destinations. SRP and other regional and statewide advocacy organizations often partner with local jurisdictions to provide workshops and trainings on safe routes to school, active transportation policy and programming, funding for sustainable transportation, and community engagement and coalition development. Customized workshops and training are developed to align with community needs and can be offered in-person or online. Safe Routes to School activities can include:

- Pedestrian and Bicycle Safety Education Courses
- Walk to School Day and Bike to School Day
- Walking School Busses
- Safety Walk Audits
- Safety Education Campaigns

Safe Routes to School programs benefit students, parents, and schools in a multitude of ways. For example, students that walk or bike to school safely are more likely to succeed in academics. One study found that after walking for 20 minutes, students responded to test questions with greater accuracy and had more brain activity than students who had been sitting. Additionally, after physical activities including walking and biking, students completed learning tasks faster and more accurately¹. Another study of 801 schools in Washington DC, Florida, Texas, and Oregon showed an average 18 percent increase in walking and biking associated with infrastructure improvements² thereby reducing families' costs of commuting to/from school³⁴ and traffic congestion⁵. Creating safe environments and supporting programs for walking and biking to school increases student and parent interest in walkable and/or bikeable commuting routes.

¹ Hillman CH, Pontifex MB, Raine LB, Castelli DM, Hall EE, Kramer AF. The effect of acute treadmill walking on cognitive control and academic achievement in preadolescent children. *Neuroscience*. 2009;159(3):1044-1054. doi:10.1016/j.neuroscience.2009.01.057

² Noreen McDonald, Ruth Steiner, Chanam Lee, Tori Rhoulac Smith, Xuemei Zhu and Yizhao Yang (2014). "Impact of the Safe Routes to School Program on Walking and Bicycling." *Journal of the American Planning Association*. Vol 80, Iss 2, p 153-167

³ Digest of Education Statistics, 2010. Tables 184, 186 and 187. Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2011.

⁴ McDonald NC, Steiner RL, Palmer WM, Bullock, AN, Sisiopiku, VP, Lytle BF. Costs of school transportation: quantifying the fiscal impacts of encouraging walking and bicycling for school travel. *Transportation*. 2014; doi:10.1007/s11116-014-9569-7.

⁵ McDonald N., Brown A., Marchetti L., Pedroso M. (2011). U.S. School Travel 2009: An Assessment of Trends.

American Journal of Preventive Medicine, 41(2), 146-151.





Bike and Pedestrian Guides

Developing local public education and safety campaigns are a useful tool to teach safe walking tips to communities. Bicycle and pedestrian education campaigns can help local jurisdictions communicate the skills and knowledge necessary to be safe bicyclists and pedestrians by helping inform community members of traffic safety laws, facilitate safe bicycling and walking behavior and practices, and communicate common unsafe bicycle and pedestrian practices that lead to collisions. Education and safety campaigns should consider the sensitivities and different needs of different groups of people, such as children, adults, and seniors.

Trail Etiquette Education Campaign

Agencies have developed trail etiquette educational messages for promotion. King County Parks created the “6 Easy Ways to Share the Trail” tips for sharing public trails during high-volume use:

- Stay right, pass left
- Leave room for others to pass
- Use your voice or a bell when passing
- Go slow when passing
- Be visible in low light
- Keep pets close for their safety and others

Community partners have worked with agencies to protect and enhance recreational access. Tread Lightly! (TL!) and its partners lead a national initiative that promotes outdoor ethics to heighten individuals’ sense of good stewardship. TL! provides motorized and active transportation outdoor ethics training and education materials, including “Sharing Our Trails: A Guide to Trail Etiquette”, covering:

- Common courtesies
- Yielding
- Guidelines for equestrians on shared trails
- Guidelines for off-highway vehicle (OHV) riders when encountering horses on the trail
- Guidelines for bicyclists when encountering horses on the trail
- Guidelines for other trail recreationists when encountering horses on the trail

Encouragement

Encouraging bicycle and pedestrian activity helps generate excitement and brings awareness to the benefits of active transportation; it can also help foster public support for bikeway and pedestrian infrastructure projects and policies that are geared towards improving safety on streets. Tools to encourage bicycle and pedestrian activities include promoting national and local active transportation events, implementing engineering demonstration events, and adopting local policies and programs that support safe and efficient active modes of transportation.



Grand Opening Events

Grand opening events are a great way to bring public awareness to the availability of a new active transportation facility, and these events generally garner media attention and can include various activities and amenities such as ribbon cutting, helmet giveaways, bike decorating, mobile repair stations, food trucks, group riding, and more. Grand opening events are recommended upon completion of major projects as defined by their complexity, project length, or significance.

Promote National and Local Active Transportation Events

Promoting nationally recognized active transportation events, such as Walk and Bike to School Day, Pedestrian Safety Month (October), and Bike Month (May), or hosting special local events, such as walking and biking contests, can help generate excitement and encourage more bicycling and walking in communities. These events communicate and celebrate the benefits of active transportation and often inspire continued bicycle and pedestrian activity beyond the day or event.

Host National Bike Month

Through its Bicycle Friendly America (BFA) program, the League of American Bicyclists (LAB) recognizes communities that improve bicycling conditions through education, encouragement, enforcement, and evaluation programs resulting in communities achieving platinum, gold, silver, bronze status, or an honorary mention. Bicycle friendliness can indicate that a community is healthy and vibrant and can increase property values and tourism and spur business growth. Details on pursuing the bicycle friendly community designation is posted online and renewals occur every four years.

Walk to School Day

Walk to School Day events are designed to promote walking and/or biking to schools and are best orchestrated in collaboration with law enforcement and school and district staff to improve outreach with students and parents. Creating institutional capacity and systems to participate helps avoid discontinuous participation as parent champions age-out of schools. Walk to School events generally include the development of flyers, media releases, social media toolkits, hard-copy, or electronic surveys, and feedback at these events can solicit input on potential pedestrian and bicycle improvements, raising awareness for new projects, identifying potential safety concerns, and other barriers to walking and biking.

Enforcement

Consistent traffic law enforcement is an important tool local jurisdictions can use to improve bicyclist and pedestrian safety and reduce the risk of severe and fatal collisions. Enforcement activities target behaviors that impact bicyclist and pedestrian safety such as motorist speeding, driver impairment, and distraction; these activities can include traffic violation enforcement, safety patrols on major arterial streets, radar speed signs, and more. The focus by local law enforcement on these activities helps increase awareness and can reduce the frequency of traffic collisions affecting people walking and cycling.

Effective bicycle and pedestrian safety enforcement activities often include collaboration and coordination with multiple departments within local jurisdictions. The U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) developed guides on how to enforce both bicycle safety and pedestrian safety, and in these guides, the NHTSA found that effective bicycle and pedestrian safety enforcement activities tend to include some of the following components:



- Collaboration with partners in local businesses, civic organizations, and government agencies.
- Collaboration and coordination between the judiciary branch and Town officials on planned traffic safety operations.
- Coordination with Town engineers to ensure locations selected for traffic safety operations are suitable.
- Police officer trainings on local laws pertaining to crosswalks, pedestrians, and bicyclists, as well as training on safety program goals, objectives, and procedures.
- Incorporating bicycle and pedestrian safety operations into routine enforcement activities.
- Enforcing speed limits and vehicle code violations specific to pedestrian and bicyclist safety.
- Enforcing emerging electric bike, scooter, and applicable local policies.

Selective Enforcement Near School Zones

Drop-off and pick-up hours around school zones can be very stressful for students, parents, and school staff. The stress caused by the significant influx of traffic onto and around school campuses during these periods can sometimes lead to violations of traffic rules. Traffic law non-compliance has the potential to amplify and worsen traffic operations and can create additional hazards to parents and students walking and biking. Working with local law enforcement to establish more targeted enforcement around school campuses, particularly around drop-off and pick-up hours, can be an effective way to reduce incidents and maintain appropriate traffic flow.

Active Transportation Safety Enforcement

This form of enforcement can be used to gather information on collision factors involving motorists, pedestrians, and bicyclists, which is done by deploying officers either periodically or on a set basis to patrol locations where frequent collisions have occurred. Officers can focus upon drivers that speed, make illegal turns, fail to stop at signs or signals, fail to yield to pedestrians in crosswalks, or other noted traffic violations. Enforcement of traffic laws can also enforce violations committed by pedestrians or cyclists, such as failing to yield to drivers that have the right-of-way or riding a bicycle contraflow upon the roadway. The local police can determine when citations or warnings can be issued based on local preferences, recognizing financial penalties can disproportionately affect lower income community members.

Ticket Diversion Program

Ticket diversion programs provide a mechanism for improving safety by giving bicyclists and pedestrians the option of taking a safety course in-lieu of paying a fine for traffic violations. Ticket diversion programs effectively encourage and promote active transportation and safety within the Town through various ways. The diversion program avoids financial penalties and improves education within the community on safe travel behaviors. A traffic diversion course is allowed by state law within California, but needs to be developed in conjunction with the local or neighboring police departments (such as City of Chico or Butte County Sheriff's Office).



Evaluation

Evaluating bicycle and pedestrian planning strategies is an important tool for local jurisdictions to determine whether an approach is successful in improving bicycle and pedestrian conditions and safety, which involves applying appropriate performance metrics to measure a strategy’s effectiveness in meeting project and community goals. Applying performance metrics can also help local jurisdictions customize and adopt appropriate strategies that require complex design solutions specific to a given community.

Metrics to Measure Safety

The type of performance metrics used will vary based on the project’s nature, goals, and data available. Performance metrics to measure safety provide information on the well-being of active transportation users on a given network and the community’s public health. Some common performance metrics used to measure bicyclist and pedestrian safety are identified in the following table.

Table 21 Safety Evaluation Strategies

Component	Content
Bicycle/Pedestrian Counts and Trends	Conducting bicycle and pedestrian counts provides information on infrastructure usage levels and whether bicycle and pedestrian activity is increasing or decreasing over a period of time. Low levels of bicycle and pedestrian activity can be an indicator of infrastructure and safety issues. Several resources, including guidance and best practice strategies from FHWA, Caltrans, and the National Bicycle and Pedestrian Documentation Project, are available that describe best practices in data collection for bike and pedestrian counts.
Bicyclist/Pedestrian Injuries and Fatalities	Analyzing bicyclist and pedestrian injuries and fatalities can identify streets or intersections for evaluation. Review can consider collision patterns based on time of day, type of crash, cause of the crash, and location. A common resource for collision data is the California Highway Patrol’s (CHP) Statewide Integrated Traffic Records System (SWITRS), which provides collision data for a variety of modes as well as data on injury severity. Another useful resource is the University of California, Berkeley Transportation Injury Mapping System (TIMS),
Traffic Speed Monitoring	Analyzing traffic speeds can provide information on a roadway’s propensity for bicycle and pedestrian collisions and level of injury severity as increases in frequency and injury severity are often found in collisions with vehicles traveling at higher speeds. The National Center for SRTS reports that crashes at speeds of 30 mph are approximately eight times more likely to kill a pedestrian than crashes at speeds of 20 mph.

Metrics to Measure Infrastructure/Network Quality

Performance metrics to measure the bicycle and pedestrian network quality provide information on elements that impact the bicycle and pedestrian environment’s quality and attractiveness. Simply providing active transportation infrastructure does not always increase bicycle and pedestrian activity within a community. Higher quality pedestrian infrastructure, which enhances the attractiveness of biking



and walking, considers elements such as bike lane buffers, pedestrian buffers, street trees, sidewalk widths and accessibility, safety, connectivity, distances to crosswalks, and others. Some common performance metrics used to measure bicycle and pedestrian infrastructure/network quality are identified in the following table.

Table 22 Quality Evaluation Strategies

Component	Content
Level of Traffic Stress	The Mineta Transportation Institute developed a methodology, which utilizes a classification system of roadways to determine their level of traffic stress. Measuring low-stress connectivity to evaluate and guide bicycle network planning can also be applied to the pedestrian network planning. Level of traffic stress can be used to measure the qualitative aspects of bicycle and pedestrian facilities and sidewalks by considering factors such as number of travel lanes on the roadway, traffic volumes, posted speed limits, presence or absence of bike and pedestrian buffers (street trees, on-street parking, street furniture, etc.), and others. This metric provides information on the anticipated comfort level a bicyclist or pedestrian would have biking or walking along a given corridor.
Bicycle/Pedestrian Level of Service (BLOS/PLOS)	BLOS/PLOS is another performance metric for measuring quality of service of a bicycle or pedestrian facility that incorporates measures for comfort, safety, and ease of mobility. The 2010 Highway Capacity Manual (HCM 2010) includes methodologies for calculating BLOS and PLOS and includes a variety of elements in its calculation, such as traffic volumes, speed, signalized intersections, pavement conditions, and others.
Walk or Bike Audits	Walk audits to evaluate existing facilities and needs are a helpful tool to inventory and evaluate the quality of bicycle and pedestrian facilities. Organizations such as the Pedestrian and Bicycle Information Center and the American Association of Retired Persons (AARP) provide sample walk audit checklists on their websites available for use.
Connectivity/Gap Closure	Connectivity and gap closure can help provide information on a bicycle or pedestrian facility’s accessibility considering that sidewalks with missing gaps can impede pedestrian activity for those with disabilities and can also deter those without disabilities from walking along a corridor. Similarly, bikeways with missing gaps can deter bicyclists from choosing to bike to their destination if the gap makes them feel unsafe.



CHAPTER 6: IMPLEMENTATION

This ATP provides a list of infrastructure, policy, and program projects with the goal of continuous progress towards a more accessible, safe, and enjoyable active transportation network within the Town of Paradise. To achieve these goals, the ATP should be supported with various considerations that will improve the efficiency, timeliness, and likelihood of success of the recommended projects, programs, and policies. The section’s purpose is to identify the actions necessary to effectively implement the Town of Paradise ATP.

Infrastructure Project Implementation Plan

ATP project implementation will occur incrementally in a variety of ways. Some projects may be incorporated into the Town’s Capital Improvement Program (CIP) process and will be implemented as CIP projects are funded, while others can happen as part of regular maintenance and operations practices and projects. Recovery within the Town presents a significant opportunity to implement some of these recommendations and will play a key role in shaping the community within the overall vision, the LTCRP, and other documents and plans.

The ATP prioritizes the network recommendations, allowing for phased development and pursuit of grants and other funding sources when available.

Implementation Scoring Methodology

Each recommended network improvement was scored based using quantitative and qualitative benefits to the community, as measured within a 0.25-mile buffer around the facility. Benefits include access to transit stops, connections with other facilities, access points, collision history, employment opportunities, and key destinations (parks, public services, schools, health centers, non-profit organizations, and entertainment destinations). Population estimates were calculated within each facility’s buffer area to identify population characteristics benefitting from the facility, including number of households, households without access to a vehicle, households earning low- to -medium income, population demographics, and individuals aged 19 and under or aged 5 and over.

The outcomes for benefits and population estimates were normalized based on facility length to provide a comparison between trail facilities. Standard deviation was then used to apply a score to the trail facilities, which were then summed for a rank-order list of prioritized projects.

Infrastructure Project Implementation Priority List

The table below outlines the infrastructure network recommendations by priority list and includes the total Z-Score and estimated costs for implementation. The Z-score indicates how much a given value differs from the standard deviation. The Z-score, or standard score, is the number of standard deviations a given data point lies above or below mean, with a higher score indicated a higher priority based on the evaluation criteria.



Table 23 Recommended ATP Projects

#	PROJECT	TOTAL Z SCORE	ESTIMATED COSTS (millions)
1	Skyway-Yellowstone Kelly Heritage Trail Link	33.6	\$3
2	Elliott Path	4.0	\$13
3	Upper Skyway Path	2.4	\$22
4	Clark Path	1.7	\$22
5	Oliver Path	1.4	\$8
6	Bille Path	(1.6)	\$18
7	Sawmill Path	(1.9)	\$9
8	Wagstaff Rd	(3.7)	\$9
9	Neal Path	(3.9)	\$10
10	Lower Skyway Path	(4.1)	\$26-\$34
11	Pearson Path	(4.8)	\$14
12	Valley View Path	(6.2)	\$9
13	Roe Rd	(8.3)	N/A
14	Pentz Path	(8.6)	\$27-\$32

N/A = Not applicable since Class I along Roe Road would be incorporated into the larger roadway project.

Implementation Coordination

Successful implementation of the ATP, including the projects, programs, and policies identified herein, will require ongoing cooperation within and among Town departments, neighboring communities, Butte County, BCAG, and residents. While the Town is responsible for implementing most of the active transportation projects, other agencies such as Butte County Association of Governments (BCAG) are uniquely positioned to provide assistance with planning and programming efforts, pursuit of funding, and coordination between jurisdictions when necessary. BCAG is also a critical partner to ensure advancement of regionally significant projects.



Improvements on facilities that involve other jurisdictions or agencies such as Butte County and Caltrans can be pursued in partnership, including grant pursuits and community engagement. Partnerships can also be established with non-profit organizations and community groups to improve outreach efforts and strategically engage segments of the community that may be harder to reach.

Public participation serves as an integral part of any future developments and projects. Implementing ATP projects will have direct impacts on Town residents and businesses and therefore, stakeholder engagement can confirm community values, visions, and needs. Continued collaboration with the community through in-person and virtual public engagement is recommended. Engagement activities can facilitate discussion between Town staff, neighboring jurisdictions, public agencies, community-based organizations, schools, residents, businesses, and other potential stakeholders.

New construction projects are exciting as they present an opportunity for increased access, improved safety, and an increase in active transportation trips. Continued consideration of maintenance needs is recommended to ensure new and existing facilities are well-suited to serve the community.

Cost and funding sources

The improvements identified by this ATP total nearly \$150 million in costs, all of which needs funding for implementation, therefore, these improvements are considered to be “unconstrained.” It is recommended that the Town pursue external funding to finance the design and construction of projects, improvements, and programs, including pursuit of eligible grant funding opportunities. Where it would provide an additional funding advantage, the Town can explore the benefits of partnering with local and regional agencies, non-profits, and private sector partners to better compete for grant funding programs. The following table presents potential funding sources that can be leveraged to deliver the various components identified by this ATP, a high-level description of the funding source and any potential requirements, and considerations for specific types of projects and/or phases that are potentially eligible under each source. Some of these sources may be limited to the construction of improvements, while others may focus on maintenance of existing facilities.



Table 24 ATP Funding Sources

Potential Funding Sources			
Source	Type	Description	Considerations
Active Transportation Program (ATP)	State	Funds projects that increase walking and bicycling trips, increase safety and mobility of active transportation users, contribute to goals to reduce greenhouse gases, and enhance public health.	<ul style="list-style-type: none"> • Bicycle and pedestrian facilities • Non-infrastructure programs
Affordable Housing and Sustainable Communities (AHSC) Program	State	Funds land-use, housing, transportation, and land preservation projects to support infill and compact development that reduce greenhouse gas emissions. The Program included \$550M in its latest round.	<ul style="list-style-type: none"> • Bike and pedestrian facilities • Non-infrastructure Programs – Education • Must connect with affordable housing component
Office of Traffic Safety (OTS) Grant Program	State	Provides annual funds to prevent serious injury and death resulting from motor vehicle crashes so that all roadway users arrive at their destination safely. Funds can be used for bicycle and pedestrian safety	<ul style="list-style-type: none"> • Non-infrastructure programs – Education campaigns
State Transportation Improvement Plan (STIP)	State	The STIP is the biennial five-year plan adopted by the Commission for future allocations of certain state transportation funds for state highway improvements, intercity rail, and regional highway and transit improvements. Local agencies should work through their Regional Transportation Planning Agency (RTPA), County Transportation Commission, or Metropolitan Planning Organization (MPO), as appropriate, to nominate projects for inclusion in the STIP.	<ul style="list-style-type: none"> • Bicycle and pedestrian projects • Must be eligible for State Highway Account or Federal Funds



<p>State Highway Operation and Protection Program (SHOPP)</p>	<p>State</p>	<p>The Office of SHOPP Management is responsible for planning, developing, managing, and reporting the four-year SHOPP portfolio of projects. The Program is the State Highway System’s “fix it first” program that funds repairs and preservation, emergency repairs, safety improvements, and some highway operational improvements on the State Highway System.</p>	<ul style="list-style-type: none"> • Bicycle and pedestrian elements • Facility type, right of way, project scope, and quality of nearby alternative facilities
<p>Local Streets and Roads Program (LSRP)</p>	<p>State</p>	<p>Provides approximately \$1.5 billion per year to cities and counties for basic road maintenance, rehabilitation, and critical safety projects on the local streets and roads system.</p>	<ul style="list-style-type: none"> • Complete Streets components • Safety projects • Bike lanes
<p>Solutions for Congested Corridors Program (SCCP)</p>	<p>State</p>	<p>Provides funding for projects that implement specific transportation performance improvements and are part of a comprehensive corridor plan by providing more transportation choices. Also, preserves the character of local communities and creates opportunities for neighborhood enhancement.</p>	<ul style="list-style-type: none"> • Bicycle lanes and pedestrian improvements
<p>Public Access Program</p>	<p>State</p>	<p>Funds projects that public benefits, leverage funding to produce the greatest benefit, and provide access to natural wild areas. Prioritizes boating access projects, hunting and fishing projects, and non-consumptive wildlife-oriented recreation.</p>	<ul style="list-style-type: none"> • ADA trails • Can consider planning grants if projects will qualify for future implementation funding under this program
<p>Surface Transportation Block Grant (STBG) Program</p>	<p>Federal</p>	<p>Provides flexible funding to states and localities for projects that improve and preserve the conditions and</p>	<ul style="list-style-type: none"> • Bicycle and pedestrian infrastructure projects



		performance on any Federal-aid road or highway.	
Highway Safety Improvement Program (HSIP)	Federal	Aims to achieve significant reduction in fatalities and serious injuries on all roads and provides funding for safety improvement projects on public roads. The HSIP requires a data-driven, strategic approach to improve highway safety on all public roads with a focus on performance.	<ul style="list-style-type: none"> • Bicycle and pedestrian infrastructure improvements • Requires an action plan to identify and implement safety improvements
Recreational Trails Program	Federal	Provides funds for development and maintenance of recreational trails and trail-related facilities for motorized and nonmotorized recreational trail uses	<ul style="list-style-type: none"> • Trail side and trailhead facilities and linkages • Construction of new trails and maintenance of existing trails
Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Discretionary Grant Program	Federal	Provides funds for innovative multi-modal transportation projects that work to achieve national objectives, including bicycle and pedestrian projects and plans.	<ul style="list-style-type: none"> • Bicycle and pedestrian projects • Planning grants





APPENDIX A

Document Review

Town of Paradise Long-Term Community Recovery Plan (2019)

The Town of Paradise Long-Term Community Recovery Plan is the product of the Long-Term Community Recovery program and in response to the devastation caused by the 2018 Camp Fire. The following four recovery projects have the strongest nexus with this ATP and its goals.

Interconnected Path System

- A proposed path system focused on increasing lane capacity along main ingress and egress routes in the event of an emergency evacuation – a critical safety issue in Paradise. The project works well with PG&E’s plans to underground the utility network as the paths would sit above buried trenches.
- Capital improvement grants should be secured to add new Class I multipurpose pathways and dark-sky pedestrian lighting on evacuation routes. This could provide a parallel network for first responders to use in the event of a disaster and increase mobility options for residents, while decreasing conflicts with vehicles. Crosswalks and bike lanes should also be added where appropriate.
- On secondary town (public) roads, beyond primary evacuation routes, consideration should be given to adding a narrow path, urb, gutter, and dark-sky pedestrian lighting along one side of the street. This would further improve pedestrian safety and connectivity.

Walkable Downtown

- Design a walkable central business district (Skyway to the Community Park and Pearson to Elliott Road). The town was awarded a grant before the fire to add sidewalks, lighting, landscaping, and drainage facilities in this area. Paradise should now amend this project to integrate plans for a sewer system and repairs to the water system and should consider the implications of a new Civic Center connected to the Community Park.

Outdoor Destination

- Although local parks sustained relatively minor damage from the fire, improving the park and path system is important for recovery as a baseline amenity.
- An opportunity could exist for the Paradise Recreation and Park District (PRPD) to leverage Paradise’s unique natural beauty and outdoor lifestyle to make the town an outdoor destination for both residents and visitors. Existing building blocks including the Memorial Trail Bille Park, Upper Ridge Nature Preserve Lakeridge Park, Coutolenc Park, Paradise Lake, etc. form a foundation. New components of this initiative could include:
 - Linking parks and amenities together with a path network along roads
 - Connecting the Yellowstone Kelly Heritage Trail to City of Chico and Stirling City



- Exploring trails along the canyon rims for recreation and forest management access. These trails could be linked through state and federal lands to create a contiguous trail network.
- Investigating access to the Flumes.

Public Transportation

- The public transit system did not sustain physical damage in the fire and has returned to limited service. It provides a valuable alternative to owning a primary or secondary vehicle.
- The town should work with the Butte County Associations of Governments to plan the future of public transportation in Paradise. At a minimum, service should be restored to pre-fire levels. These routes provide good access to residents that are within a quarter mile of Skyway and Clark Road. Forward planning could include exploring unmet needs along Pentz Road and West of Skyway, and new settlement and density patterns should also be considered to align with the emerging needs of the community.

Butte County Trails Plan (2018)

The Butte County Trails Plan is the result of a planning effort focused on inventorying existing resources, groups, and land managers, the challenges and opportunities for maintenance and development of trails in Butte County and identifying and promoting the acquisition of funding sources for trail maintenance and development. Below are some of the plan's proposed actions and areas of opportunity noteworthy for the Town of Paradise ATP.

Information and Outreach

- Leveraging the power and availability of websites, mobile applications, and other mobile and non-mobile electronic technologies can have a tremendous impact on the ability to connect individuals with trails locally and regionally.
- There is a clear need for more signage that provides both directional and interpretive information, such as connecting users to a trail or another trail in the network.

Sustainability

- Trails should be designed to meet the demands of its intended users, the community, and the land.
- Trail systems should be designed so people want to use them, not just once or twice, but for a lifetime. Loop options, connectivity, and thoughtful design are key to building a world-class trail system.



Butte County Transit & Non-Motorized Plan (2015)

The purpose of the Butte County Transit and Non-Motorized Plan is to outline transit service and active transportation enhancements that can be made in Butte County to expand mobility, improve intermodally, and result in a set of recommended local and intercity public transit services, improved bikeways and bicycle paths, and improved pedestrian access to transit. The following are recommendations identified by the plan to improve access, convenience, and mobility for bicycles and pedestrians in or around the Town of Paradise.

Recommendations

- Bicycle Parking and Access to Transit
 - Provide pay-by-the-hour bicycle lockers at Paradise Transit Center (Almond Street and Birch Street).
- Wayfinding Signage
 - Adopt a policy in the jurisdiction's active transportation plan to establish wayfinding signage such as the one in the City of Oakland's policy.
 - Bikeway signage should follow Manual of Uniform Traffic Control Devices and California Highway Design Manual standards.
 - Identify locations for signs at decision points for bikeways and walkways to major destinations.
 - Identify locations for signs for pedestrian wayfinding to major destinations within areas identified as most suitable for active transportation modes. Pedestrian signage should guide travelers to nearby, major destinations and may also be educational.
- High-Priority Pedestrian Areas and Transit Stops
 - Crossings should be enhanced with appropriate traffic control devices.
 - Sidewalk gaps should be completed in the ½-mile buffer surrounding the Paradise Transit Center, including along the east side of Almond Street, Black Olive Drive, Birch Street, and Foster Road.
- High-Priority Proposed Bikeway Projects
 - Extend the Skyway bike path to the Town limits, extend the bike lane on Pearson Road, and add bike lanes to Bille Road, Sawmill Road, and Wagstaff Road.
 - Chico-Paradise bike path: Skyway, Honey Run Road to Paradise Town limits.
 - Oroville-Paradise bike lanes: Class II bike lanes on Cherokee Road from Oroville City Limits to SR 70; Class II bike lanes on SR 70 from Cherokee Road to Pentz Road; and Class II bike lanes and Class III bike route on Pentz Road from SR 70 to Paradise Town limits.



Town of Paradise 2014-2022 Housing Element (2014)

As the Town of Paradise Housing Element, this document serves as an assessment of the jurisdiction's housing needs, constraints, and resources; it also identifies goals, policies, and programs for addressing these needs. Community engagement also played a key role in the development of this document with town residents, businesses, and advocates being some of the groups involved in the outreach process. The following are goals as outlined by the 2014-2022 Housing Element and draft 2022-2030 Housing Element Update, as well as a list of policies (HP) and implementation measures (HI) with a direct nexus to this ATP.

Goals

- HG-1: Encourage and facilitate the production of all housing types, from affordable workforce housing to executive homes, to meet the Town's share of regional housing needs consistent with the Paradise General Plan's overall goals, objectives, and policies.
- HG-2: Improve and preserve safe, decent housing and neighborhoods for all Paradise residents.
- HG-3: Reasonably accommodate housing designated for persons with special housing needs.
- HG-4: Encourage energy-efficient resources in new residential development as well as in the existing housing stock.

Related Policies and/or Implementation Measures

- HP-5: New residential development will be directed to areas of the community where essential public facilities and services are available or can be provided at a reasonable cost.
- HP-7: The Town of Paradise will promote development of infill housing, residential, and mixed uses in the Central Commercial area, through continuing to allow appropriate residential uses in commercial zones and continuing to provide flexibility in development standards for mixed-use projects.
- HI-1: Reduce infrastructure constraints to development

Pedestrian Safety Workshop Final Recommendations (2013)

In response to a fatal collision that occurred on Skyway in 2013, the Town of Paradise invited California WALKS to facilitate a workshop for community residents, Town staff, and others. This workshop provided an overview of pedestrian safety best practices, how to conduct a walkability assessment of areas near the downtown core, and to lead small group discussions to develop specific recommendations for Town Council to improve the safety and walkability of Paradise. This report summarizes overall walkability and pedestrian safety observations of downtown Paradise and specific recommendations from community residents who attended the Community Pedestrian Safety Training. The following are key recommendations from this effort.



Infrastructure

- **Implement Gateway Treatments at entry points to downtown as a traffic calming measure.** Gateways can be used as a visual cue to drivers that they are entering a different environment that will require them to drive more slowly. Additionally, gateways are often used to convey a sense of neighborhood identity and sense of place. Generally, gateway treatments alone cannot discourage speeding traffic without additional traffic calming measures.
- Seek funding to repair sidewalks in the downtown core up to ADA standards
- Complete the Skyway, Highway Safety Improvement Project (HSIP) Project to improve safety along Skyway between Vista Way and Elliott Road.

Programming

- Seek funding for education and enforcement efforts through the California Office of Traffic Safety grants or including an education and/or enforcement component in future Highway Safety Improvement Program (HSIP) or Active Transportation Program grant applications.
- Collaborate with Butte County Association of Governments (BCAG) to evaluate accessibility barriers of transit stops and seek funding to remove barriers.
- Explore the feasibility of a downtown business improvement district to fund sidewalk repair and maintenance and for pedestrian-scale streetscape improvements and amenities.

Policy

- Adopt a Standardized Daylighting Policy
- Crosswalk Marking & Enhancement Policy

Butte County Bicycle Plan (2011)

The Butte County Bicycle Plan is the County's vision for making bicycling an integral part of the transportation system within its unincorporated limits. The plan includes recommended projects, programs, and policies that can encourage use of bicycling as a sensible, non-polluting, healthy, and affordable mode of transportation and recreation in the County. This document serves as an update to the previously adopted Countywide Bikeway Master Plan (2006). The following are recommended improvements identified by the plan that affect the Town of Paradise or surrounding areas.

Planned Class I Bikeways

- Skyway Bicycle Path: From Honey Run Road to Paradise Town Limits
- Old Diamond Match Railway Multi Use Trail: From Skyway to Paradise Lake



Planned Class II Bike Lanes

- Neal Road: From Yellowstone Kelly Heritage Trail to Oro-Chico Highway
- Old Skyway: From Coutolenc Road to Paradise Town Limits
- Skyway: Old Skyway to Lovelock Road

Planned Class III Bike Routes

- Coutolenc Road: Old Skyway to Lovelock Road
- Pentz Road: From Paradise Town Limits to Durham Pentz Road

Paradise Recreation and Park District Master Plan Update (2010)

The purpose of the Paradise Recreation and Park District Master Plan is to assess how well the District is meeting its responsibility in accommodating the diverse recreation needs of the Town of Paradise and the surrounding areas. The Master Plan Update provides a road map to guide the District in its operations for the subsequent ten years and information that can help establish priorities and determine the levels of funding and support required to address community needs. The following are insights and recommendations from this plan pertaining to trails and bikeways in the Town of Paradise.

Trails and Bikeways

- Since 2002, community demand for trails, paths, and bikeways has increased significantly. In addition to paths and trails within parks, residents are looking for dedicated walking and biking routes that provide connections between parks and other community centers like schools and shopping areas
- Development of connecting trail and bike facilities requires collaboration between the District, the Town of Paradise, Butte County, the Paradise Irrigation District, and other public land managers for planning, construction, and maintenance. While the Town of Paradise is the primary transportation planning entity within the town limits, the County of Butte has this responsibility in the unincorporated areas, except on lands managed by the U.S. Forest Service.
- Existing bikeways include approximately six miles of the class I Yellowstone Kelly Heritage Trail and a small section of Class II bike lanes. Regional bikeways and connections to the Paradise Urban Area are addressed by the Countywide Bikeway Master Plan for Butte County.
- The District will continue to support the Town of Paradise and Butte County in implementing their bikeway master plans and will provide planning and grant writing assistance.
- One potential new alignment discussed as part of this Master Plan update process would connect Paradise Lake with Coutolenc Park, Lakeridge Park, and Magalia Reservoir traversing through Lassen National Forest and Paradise Irrigation District land.
- When feasible, the District will seek appropriate land for new park development near existing or proposed bikeways and trails so that park facilities, such as restrooms and picnic areas, will complement the recreational use of the bikeways and trails.



- The District will continue to develop trails within parks to provide facilities for walkers and joggers. Limited use of these park trails will also be available to dirt bikes or skateboards depending on the trail surface and pedestrian safety, and signage will identify allowed uses.

Town of Paradise General Plan (1994)

The Town of Paradise General Plan is intended to chart and direct future land use decisions over a 15-year period. It contains chapters on land use, circulation, housing, noise, safety, open space, and education and social services. Collectively, this document identifies the various issues, goals, policies, and specific implementation measures related to land use development and conservation. The following are key elements of the General Plan that have a nexus with this ATP.

Land Use Densities

- LUP-49: High density residential development should receive the higher town density range if all the following factors are achieved. The project includes "high end" amenities, such as bicycle/pedestrian paths, mini parks, noise and aesthetic buffers, and aggressive landscaping plans.

Circulation Element

- CO-6: Revise and update the bicycle and pedestrian and the Yellowstone Kelly Heritage Trail master plans as necessary.
- CP-11: The feasibility of a bicycle path, hiking system, and network of trails should be explored with access to schools, creeks, commercial and residential areas, parks, along canyons, and possibly extending from Stirling City to Chico.

Open Space / Natural Resource Conservation

- OCEP-42: All new subdivisions should be designed to encourage pedestrian travel and use of bicycles.
- OCEP-43: The design of collector streets shall include bicycle lanes, and cul-de-sacs shall be connected by paths wherever possible.

Town of Paradise Design Standards Downtown Guidelines (2010 & 2022)

The Town of Paradise Design Standards Downtown Guidelines is a document intended to encourage creativity, interest, and variety by building upon local character to create efficient, sustainable, and livable places. These standards are meant for property owners, developers, business owners, engineers, and others to achieve superior quality design of new construction and additions to existing structures. The following are standards identified by this document affecting bicycles and pedestrians.



Connecting to the Pedestrian

- Pedestrian Shelter: Provide shade from the summer sun (and protection from the rain, when possible) with street trees, trellises, awnings, and other devices along street frontages and paths internal to the project, especially on the south side of buildings.
- Aesthetic Quality: The highest detail and material quality for projects should be placed where pedestrians have the greatest and closest contact with it.
- Semi-Private Spaces on the Street: Porches, patios, balconies, and courtyards that allow residents of mixed-use projects or other users to actually and symbolically claim the space should be placed along pedestrian paths wherever possible. This will provide clarity about who has the right to control a space and a greater sense of security for the user and increased potential for social connections.

Bicycle Parking / Storage

- Rack Design: By their shape and construction, bike racks should allow the bicyclist to secure the bike frame to the device. The best devices incorporate in their design a closed loop so that either cable lock or a high security shackle lock may be used. A second desirable feature is two points of contact, which help prevent the bicycle's steering from turning and causing it to fall. Simpler designs are generally more desirable than elaborate ones that have moving parts. Examples of appropriate types include the inverted U, the ribbon type rack, or the corkscrew.



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