

## 3. EXISTING CONDITIONS

Existing conditions in Nevada County include existing facilities for bicycling as well as safety, education and encouragement programs. In addition, this chapter places the existing facilities and programs in a land use context by summarizing major destinations. As described in the introduction to this plan, Nevada County is primarily rural with few existing facilities for bicycling but with a growing demand for safe recreational and transportation options. Agency staff and the public have identified the lack of facilities including pathways, wide road shoulders, safe routes and bicycle parking as a key concern.

### 3.1 MAJOR DESTINATIONS

Major destinations in Nevada County include schools, multi-family housing, commercial centers, popular recreational areas, and other land uses. A map of Nevada City and Grass Valley land uses can be found in **Figure 3-1**. Additionally, **Figure 3-2** shows key destinations and income demographics by census block group throughout the County.

#### 3.1.1 Grass Valley

Located along State Route 49 near the southern intersection with State Route 20, the greater Grass Valley area is home to approximately 63 of western Nevada County's top 84 major employers. Major shopping and commercial destinations include the downtown area shops and restaurants on and around East Main Street as well as the Brunswick Basin shopping Center on Brunswick Road, the Pine Creek Shopping Center on Freeman Lane, the Grass Valley Center on McKnight Way, the Fowler Center on Nevada City Highway, the Glenbrook Center off State Route 49/20, the Gold County Center off Sutton Way and others. Public and private educational destinations include at least 11 K-12 schools, including Nevada Union High School. The City is also home to the Sierra College Nevada County Campus, the primary higher education institution in the western County. Destinations for recreation in the Grass Valley area include Empire Mine State Park, neighborhood parks such as Condon Park, the Nevada County Country Club, the Nevada County Fairgrounds and various hiking and mountain bike trails.

#### 3.1.2 Nevada City

Located along State Route 49 near the northern intersection with State Route 20, the greater Nevada City area is home to approximately 14 of western Nevada County's top 84 major employers. Nevada City is the location of the Eric Road Government Center, off State Route 49, where most County government departments are located as well as the County jail and main library. Shopping and commercial destinations are located in and around the historic downtown area on Commercial and Broad Streets as well as at the Seven Hills Center on Zion Street and others. Educational destinations include at least three elementary/middle schools. Destinations for recreation in the Nevada City area include neighborhood parks such as Pioneer Park, hiking and mountain bike trails as well as the nearby Yuba River, a regional destination for mountain biking and whitewater rafting.

### **3.1.3 Truckee**

Located on Interstate 80 at the intersection with State Route 89, at the eastern end of the county, the greater Truckee area encompasses the Donner Pass/Donner Lake area and many outdoor recreation opportunities for on-road and off-road bicycling. Truckee is a major destination for visitors from outside the county, with many seasonal and vacation homes in the area. Local educational destinations include approximately six elementary/middle schools as well as three high schools and high school extension programs, including Tahoe Truckee High School. The Sierra College Tahoe/Truckee extension is also located in Truckee. The greater Truckee area is home to golf courses, state and regional parks and numerous downhill and cross-country snow sports facilities. The recreational industry is a key source of employment for Truckee residents and constitutes many of the employment destinations in the town.

### **3.1.4 Other Unincorporated Community Areas**

There are a number of less-populated unincorporated community areas in western Nevada County, such as Alta Sierra, Chicago Park, Lake of the Pines, Bitney Springs, Lake Wildwood, North San Juan, Penn Valley, Washington and Soda Springs. There are approximately 15 elementary, middle and high schools in these communities, including public and private institutions. Gated communities such as Lake Wildwood and Lake of the Pines are destinations for service industry workers and for residents and their visitors utilizing the lakes and golf courses offered for private use. In addition, both of these areas have public destinations, respectively the Wildwood center on Pleasant Valley Drive and the Higgans Village and Lake Center shopping areas both on Combie Road. Penn Valley is home to a small shopping and employment area centered at the intersection of Penn Valley Drive and Spencerville Road. Although employment destinations in other outlying communities are more limited than in the more populous areas, there is substantial seasonal recreational employment in some areas along the Yuba River Valley.

### **3.1.7 Parks, Open Space and Recreation**

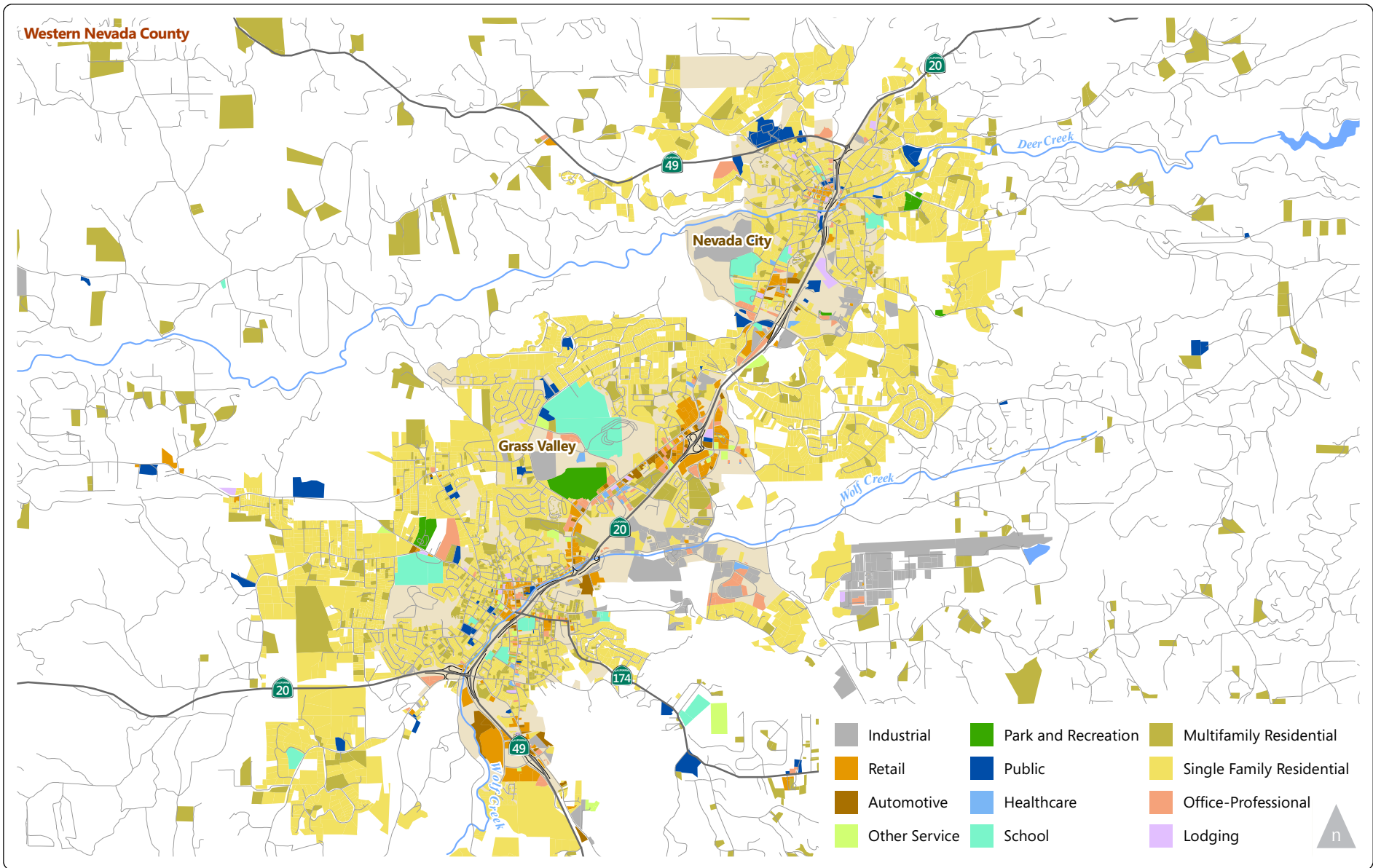
Recreational cycling and access to open space by and for bicycle use have been identified by County residents as high priorities. Many scenic road cycling routes throughout the County are destinations in and of themselves. Examples are Bitney Springs Road, Penn Valley Road and Rough and Ready Highway. In the eastern part of the County, Donner Pass Road west of Truckee is an example of a challenging preferred recreational cycling route. Specific trailhead access for mountain biking are found throughout the County, including Empire Mine State Park and in the state and federal lands in the Truckee area. In addition, local cyclists have identified numerous "caches" of informal, unofficial trails throughout the developed and developing areas of the County. The bikeway improvements included in **Chapter 5** identify routes that, in addition to their transportation function, allow visitors to safely and conveniently bicycle to destinations for mountain biking and hiking as well as enjoying safer recreational road cycling.

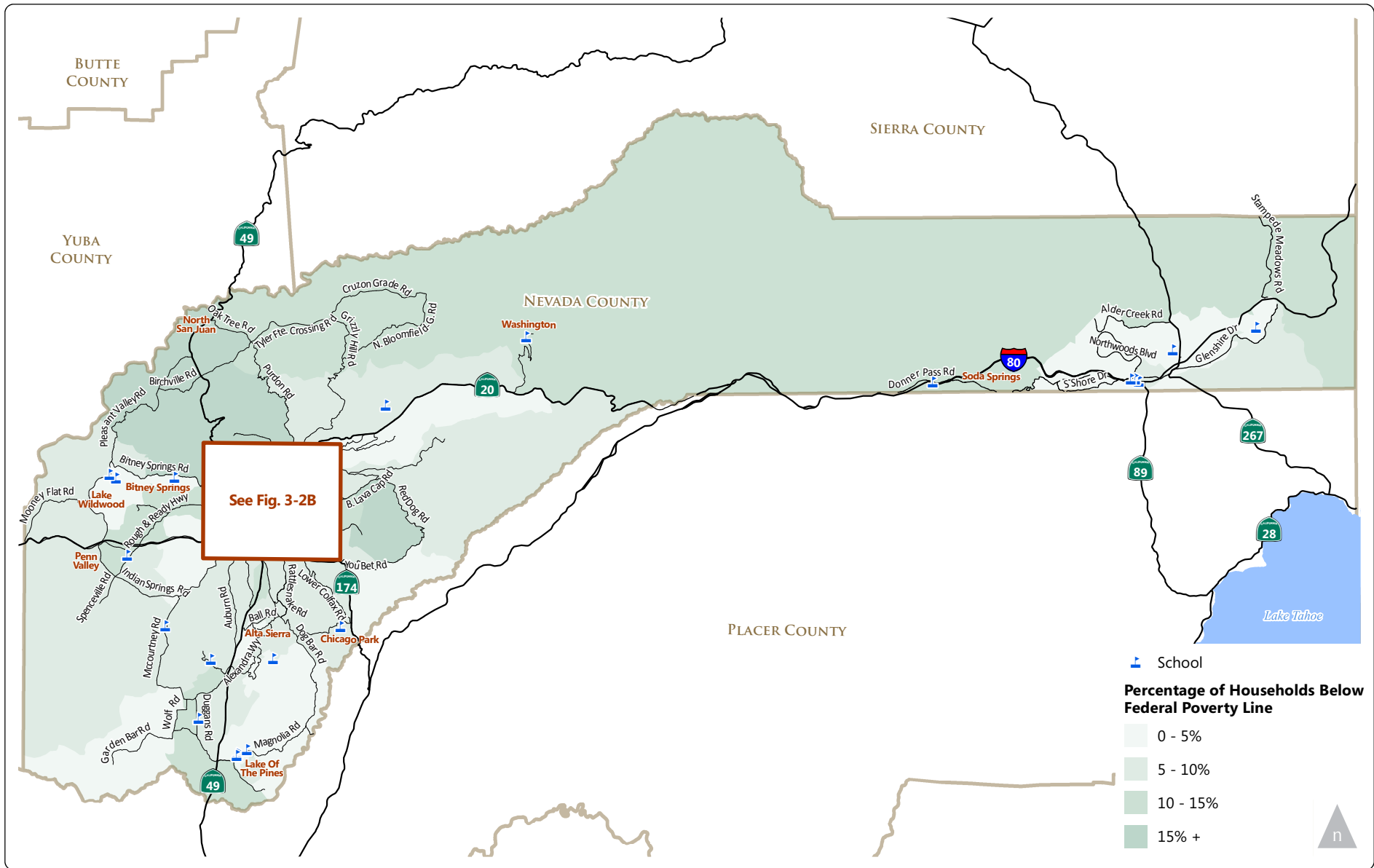
## **3.2 BARRIERS**

Nevada County has some significant barriers for bicyclists to access the destinations mentioned above. These include the State Route 49/20 Freeway, Wolf Creek, Deer Creek, and the topography of the County. The freeway is especially challenging because it separates Grass Valley and Nevada City schools, shopping centers and multi-family housing to the east and west. There are 13 freeway crossings, each with varying

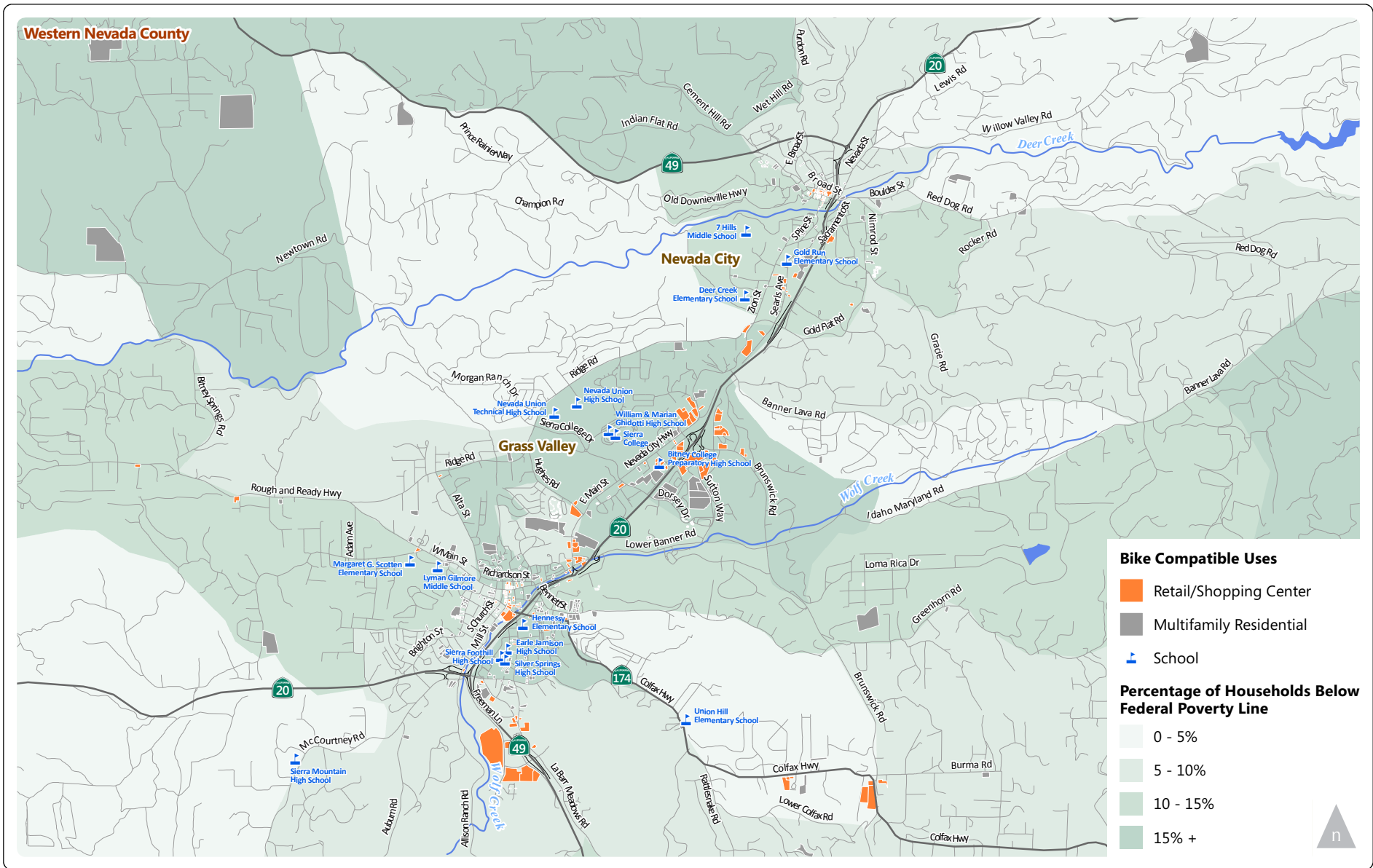


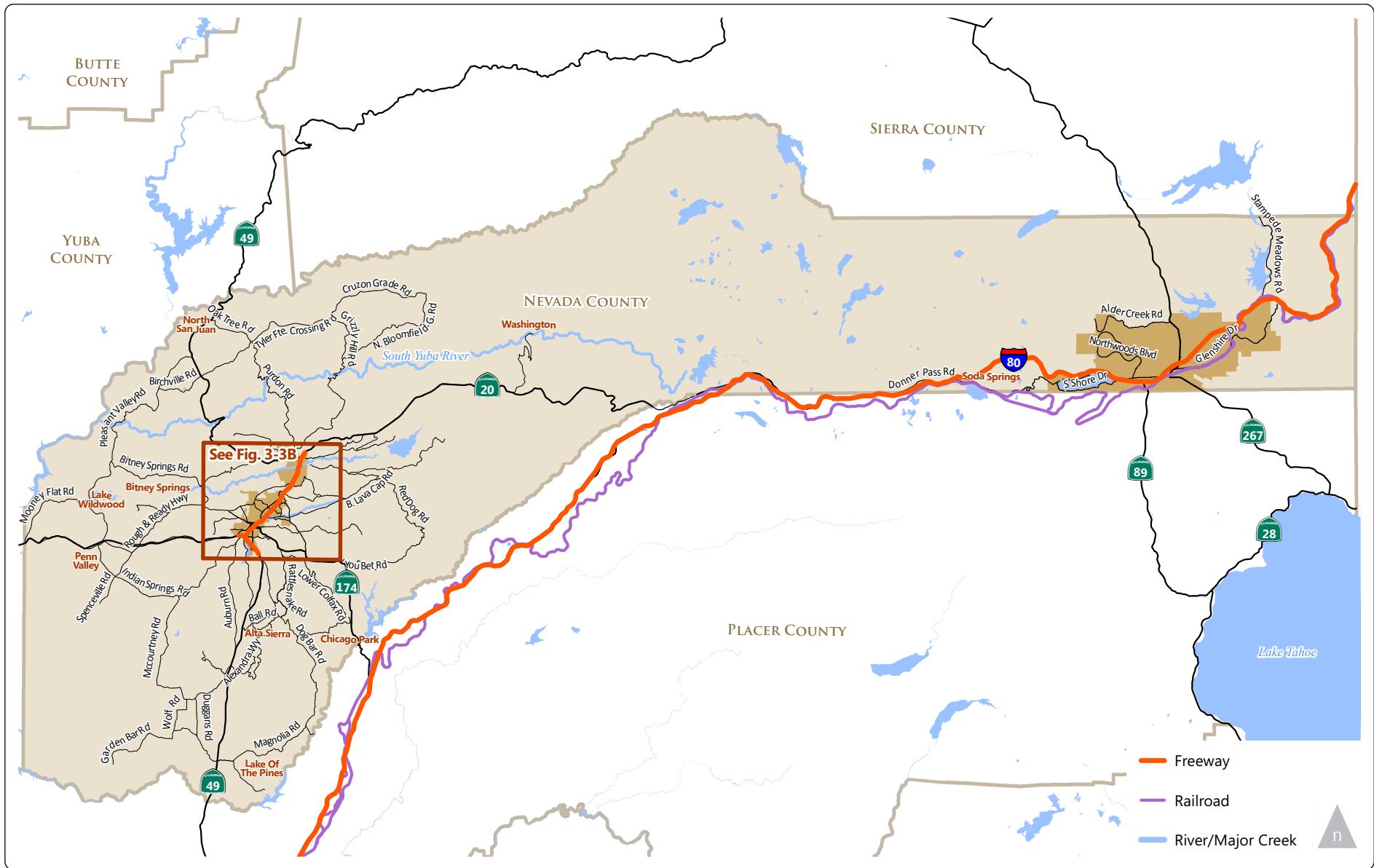
roadway widths, shoulders, bike lanes. Deer Creek also poses a challenge for bicyclists riding from Zion Street to downtown Nevada City, with only one creek crossing to the west of the freeway on South Pine Street. Barriers are illustrated in **Figure 3-3**.

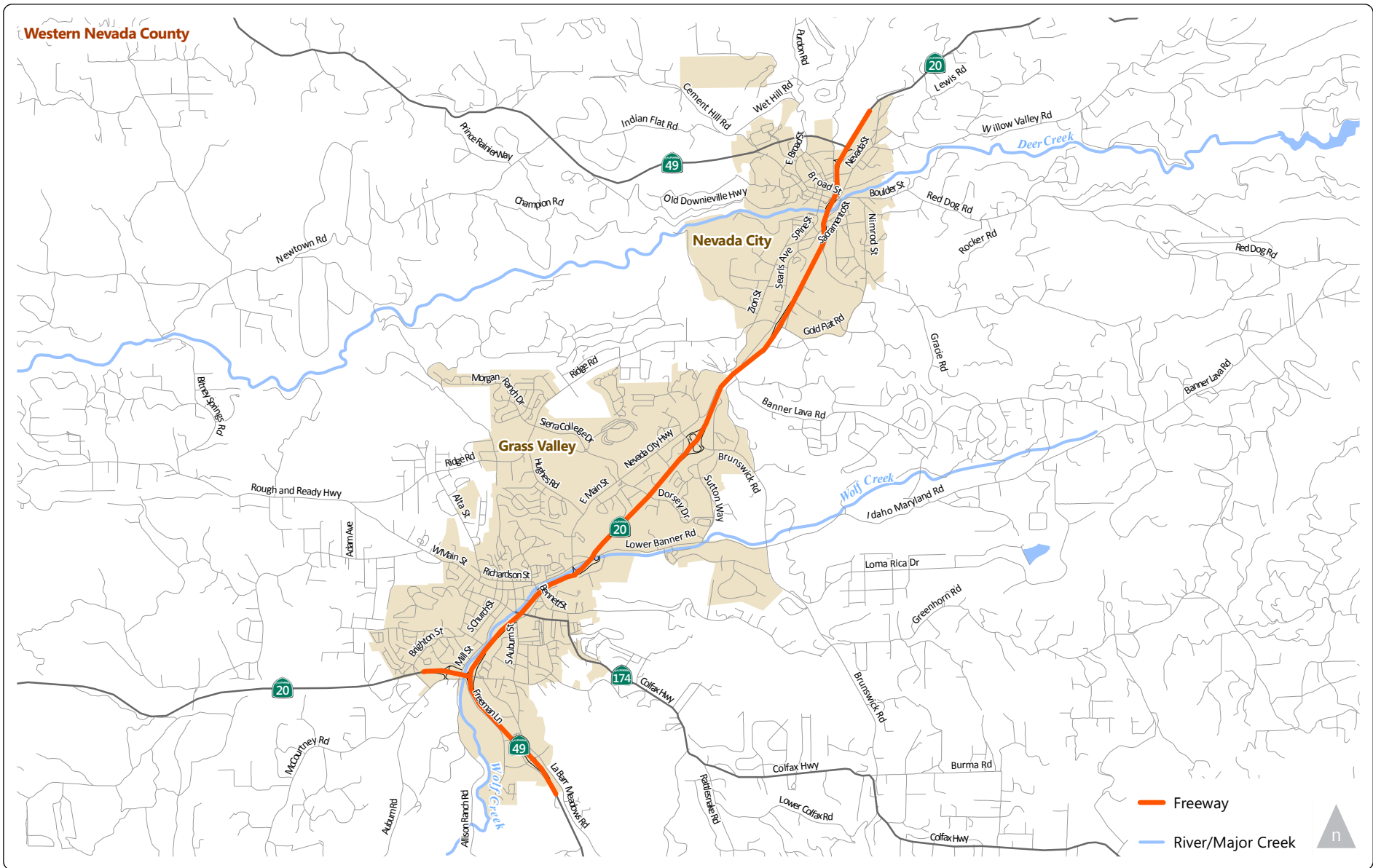














### 3.3 BICYCLE FACILITIES

#### 3.3.1 Bicycle Facility Types

The three types of bikeways described by Caltrans in Chapter 1000 of the Highway Design Manual are as follows.

Class I Bike Path or Trail – Provides for bicycle travel on a paved right-of-way completely separated from any street or highway, except for cases when the path must intersect a conflicting right-of-way. If pathway is to be used primarily for recreation and not with transportation funding, it may be constructed to reflect local conditions and needs.



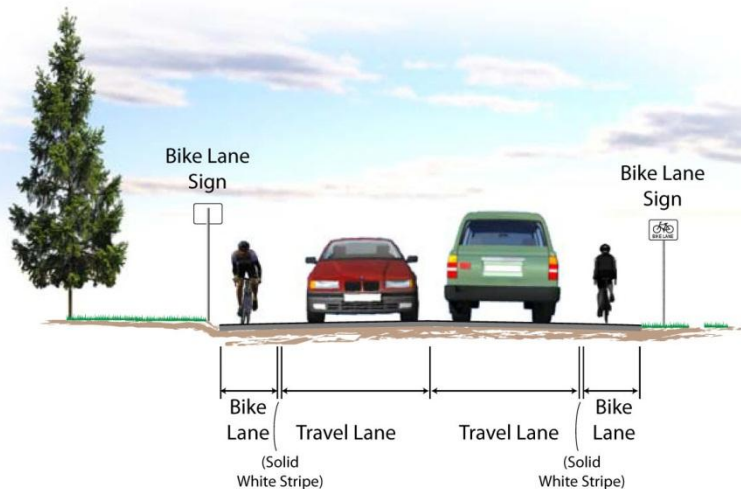
#### CLASS I - Multi-Use Path

Provides a completely separated right-of-way for exclusive use of bicycles and pedestrians with crossflow minimized.



MUTCD R44A (CA)

Class II Bike Lane – Provides a striped and stenciled lane for one way travel on a street or highway.



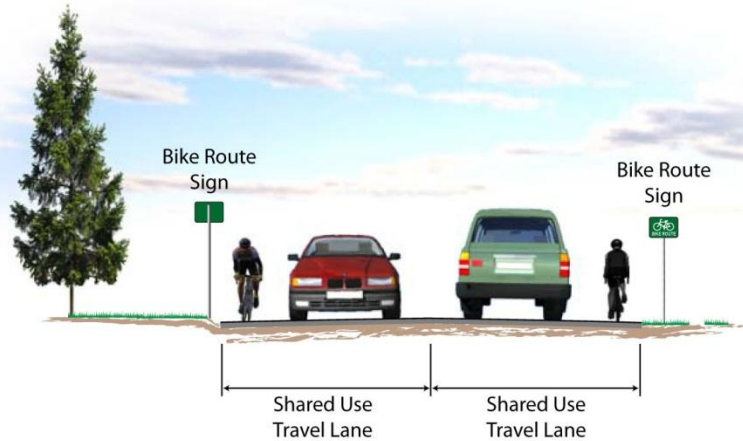
#### CLASS II - Bike Lane

Provides a striped lane for one-way bike travel on a street or highway.



MUTCD R81 (CA)

Class III Bike Route – Provides for shared use with pedestrian or motor vehicle traffic and is identified by items including signage and shared roadway bicycle markings, also known as “sharrows.” These markings provide increased awareness of cyclists to motorists, and may guide cyclists to ride to the left of roadside hazards like parked vehicle “door zones.”



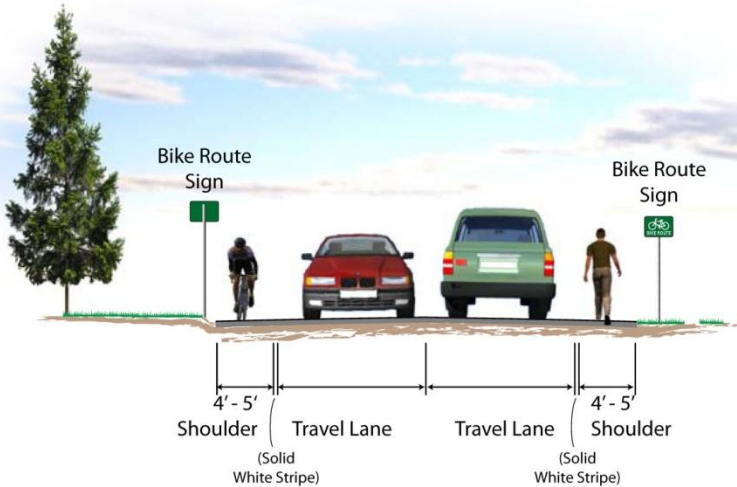
**CLASS III - Bike Route**

Provides a shared use with pedestrians or motor vehicle traffic, typically on lower volume roadways.



MUTCD D11-1

Class III Bike Route with Multi-Use Shoulder – Provides a striped shoulder of variable width. This facility is used when jurisdictions wish to maximize road space for bicycles but do not have sufficient right-of-way to meet minimum requirements for Class II bike lanes. Class III Bike Routes with Multi-Use Shoulder are common in mountainous areas similar to rural Nevada County.



**CLASS III - Bike Route**

Provides a shared use with pedestrians or motor vehicle traffic, typically on lower volume roadways.



MUTCD D11-1

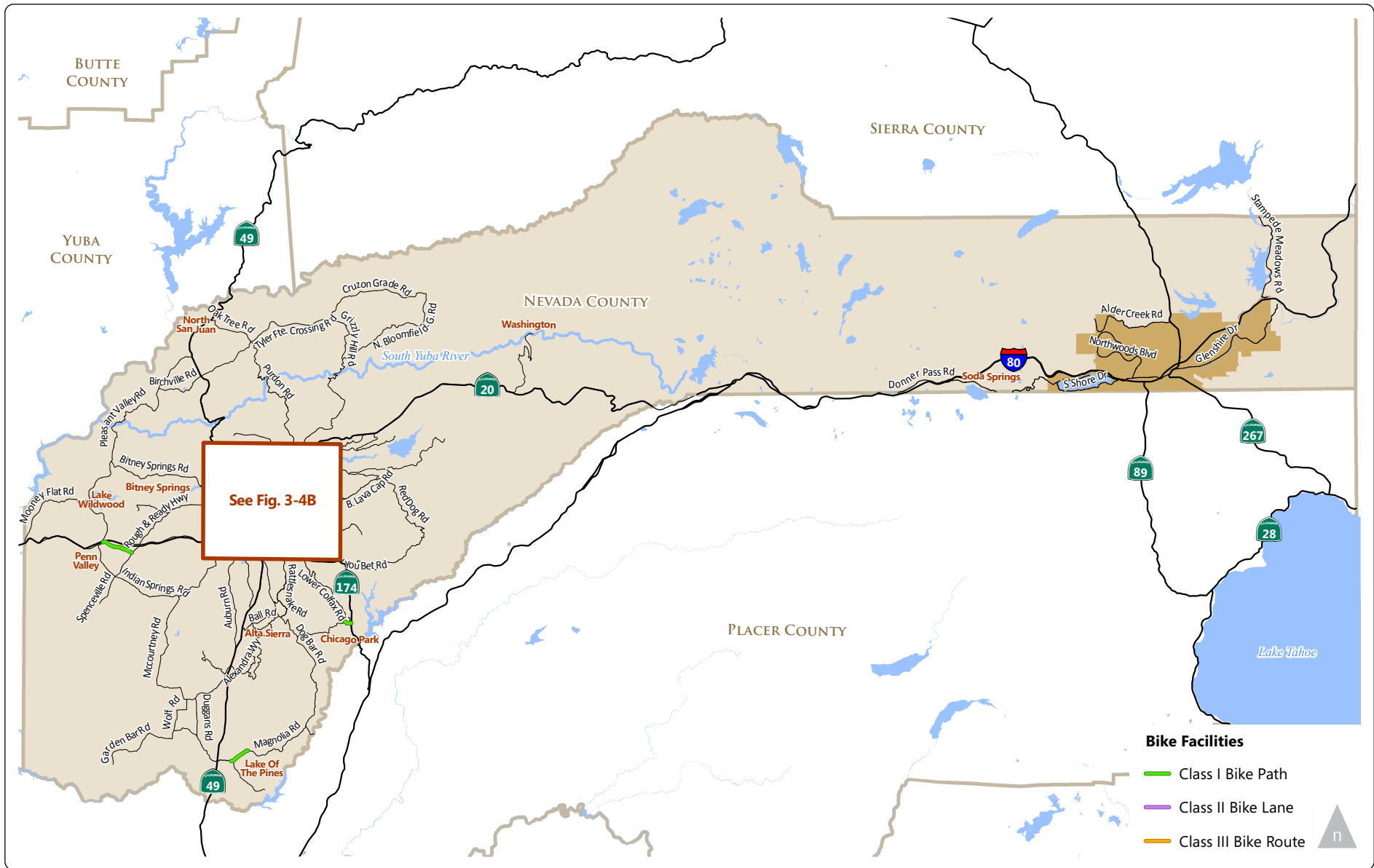
### 3.3.2 Existing Bikeway in Western Nevada County

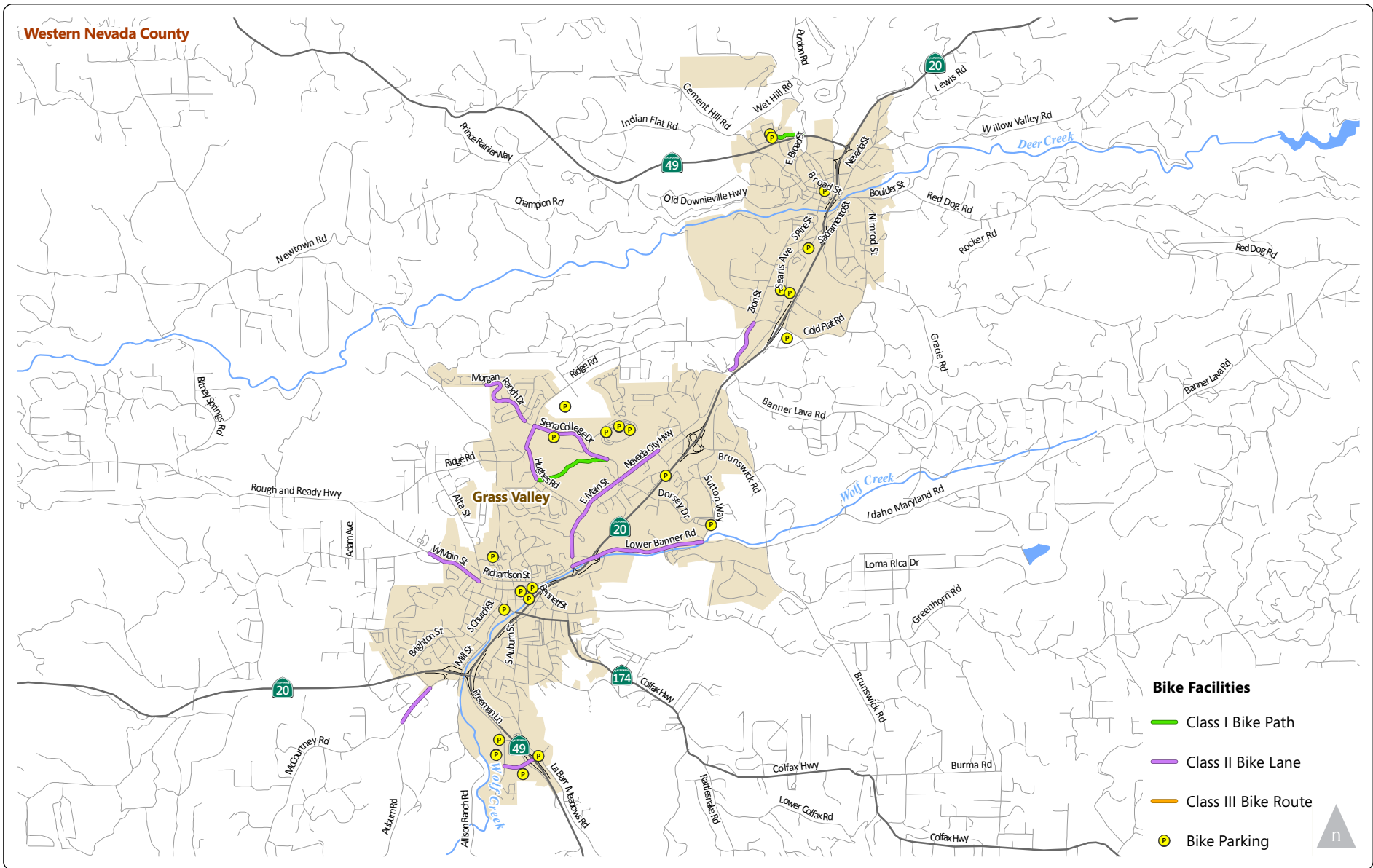
The existing western Nevada County bikeway system consists of approximately 9.4 miles of bikeways, including approximately 4.1 miles of Class I bike paths and 5.3 miles of Class II bike lanes (see **Table 3-1**). Class I bike paths must meet specific width, clearance, curve radii, gradient, and other requirements, while Class II bike lanes and Class III bike routes must meet specific striping, signing and/or other requirements. More details on Class I, II and III facility types are provided in the following section.

Many rural roads in Nevada County are narrow and winding and some have high seasonal traffic volumes, shoulders of varying width and some steep sections. Based on a basic inventory, approximately 16.9 miles of rural roads in Nevada County feature a multi-use shoulder. Although these multi-use shoulders do not feature Class III bike route signage, and are not considered Class III bike routes with multi-use shoulder, they improve conditions for bicycling.

See **Figure 3-4** for a map of the bikeway network in western Nevada County. For existing bikeways in the Town of Truckee, please refer to **Appendix E. Table 3-1** provides a summary of existing bikeways and **Table 3-2** details existing bikeway segments.

TABLE 3-1: WESTERN NEVADA COUNTY EXISTING BIKEWAYS SUMMARY	
Bikeway Type	Miles
Class I Bike Path	4.1
Class II Bike Lanes	5.3
Class III Bike Route with Multi-Use Shoulder	0
Class III Bike Route	0
<b>Subtotal</b>	9.4
Multi-Use Shoulder on Rural Roadways	16.9
<b>Total</b>	26.3
Source: Fehr & Peers, 2013	









<b>TABLE 3-2: EXISTING WESTERN NEVADA COUNTY BIKE PATHS AND BIKE LANES</b>					
<b>Segment Name</b>	<b>From</b>	<b>To</b>	<b>Bikeway Class</b>	<b>Area</b>	<b>Miles</b>
Litton Pathway	Hughes Rd.	Sierra College Dr.	I	Grass Valley	0.6
Magnolia School Pathway	Lakeshore North	Kingston Lane	I	Lake of the Pines	0.8
Mount Olive Pathway	Lower Colfax Rd.	Mountain Lion Rd.	I	Nevada County	0.8
Penn Valley Pathway	Spenceville Rd.	Pleasant Valley Rd.	I	Penn Valley	1.6
Rood Center Pathway	North Bloomfield Rd.	Helling Way	I	Nevada City	0.3
<b>Total Existing Class I Bike Path</b>					<b>4.1</b>
E Main St./Nevada City Hwy.	Scandling Ave.	Manor Dr.	II	Grass Valley	1.1
Idaho Maryland Rd.	E Main St.	Sutton Way	II	Grass Valley	0.8
Hughes Rd.	Ridge Rd.	Lidster Ave	II	Grass Valley	0.3
Sierra College Dr.	Ridge Rd.	Litton Pathway	II	Grass Valley	0.7
Morgan Ranch Dr.	Success Mine Loop	Vistamont Dr.	II	Grass Valley	0.6
McCourtney Rd.	Brighton St.	Auburn Rd.	II	Grass Valley	0.3
Rough & Ready Hwy. / W Main St.	Grass Valley city limits	Alta St.	II	Grass Valley	0.5
Ridge Rd.	Hughes Rd.	Sierra College Dr	II	Grass Valley	0.3
McKnight Way	Freeman Ln	La Barr Meadows Rd.	II	Grass Valley	0.3
Nevada City Hwy.	Banner Lava Cap Rd.	Ridge Rd.	II	Nevada City	0.4
<b>Total Existing Class II Bike Lane</b>					<b>5.3</b>
Source: Fehr & Peers, 2013					

### 3.3.3 Past Expenditures on Bicycle Facilities

Based on the inventory of the existing bikeway network, an estimate of past expenditures is possible. **Table 3-3** provides a summary of the past Countywide expenditures on bicycle facilities, in 2013 dollars. **Chapter 6** provides an explanation of 2013 per mile costs for the various bikeway classifications.

TABLE 3-3: WESTERN NEVADA COUNTY PAST BIKEWAY EXPENDITURES			
Bikeway Classification	Mileage	2013 Per Mile Cost	Expenditure
Class I Bike Path	4.1	\$528,000	\$2.2 million
Class II Bike Lanes	5.3	\$739,200	\$3.9 million
Class III Bike Route with Multi-Use Shoulder	0	\$580,800	\$0
Class III Bike Route	0	\$1,580	\$0
<b>Subtotal</b>	9.4	N/A	\$6.1 million
Multi-Use Shoulder on Rural Roadways	16.9	\$580,800	\$9.8 million
<b>Total</b>	26.3	N/A	\$15.9 million

Source: Fehr & Peers, 2013

As shown in **Table 3-3** the past countywide expenditures on Class I bike paths and Class II bike lanes total approximately \$6.1 million. Including the multi-use shoulders on roads, the total past countywide expenditures total \$15.9 million.

### 3.3.4 Signing

Implementing a well-planned, attractive and effective system of network signing enhances bikeway facilities by promoting their presence to both potential and existing users. Signing may help increase the bicycle mode split by directing cyclists to on-street and off-street bikeways. In particular, multi-use paths that meet Caltrans standards require additional signs and stencils to help manage different user groups such as bicyclists, persons with disability, and pedestrians.

Currently a few standard bike route signs exist in Nevada County, mostly at local street connections and decision points. No continuous routes are identified by signage or pavement markings.

### 3.3.5 Maintenance

Maintenance of bikeway facilities is a critical and often overlooked element of bikeway planning. Bikeway maintenance is divided into two categories, routine maintenance and major maintenance. Major maintenance consists of projects with significant capital funding needs, such as pathway reconstruction, shoulder maintenance or repaving of a bicycle lane as part of roadway repaving. Routine maintenance

consists of activities including bike lane sweeping, repainting lines, and replacing signage and stencils. In Nevada County, such routine activities are conducted on an ongoing basis concurrently with regular roadway maintenance. In eastern Nevada County, the Town of Truckee has particular maintenance challenges posed by heavier snowfall. Combined with snow plows and sand, winter conditions can obscure and damage bicycle lane striping and stenciling. The Town of Truckee also does not clear snow from its off-street bicycle facilities except for one Class I bike path.

### **3.3.6 Bicycle Support Facilities**

Support facilities help improve the convenience of cycling, and may increase bicycle mode split between certain origins and destinations. These facilities include bicycle parking, shower and changing space, secure storage for bicycle gear, Class I bike path amenities, and directional signage.

#### Bicycle Parking

Bicycle parking ranges from temporary racks to 24-hour personal access lockers, depending on the needs of cyclists using the facility. Appropriate parking facilities are typically identified according to the following factors:

- **Type of trip and duration of stay:** determines how long the bicycle will be left unattended.
- **Security of area:** determined by cyclist's perception.
- **Equipment to be stored:** this factor includes the value of the bicycle(s) to be left unattended, and any additional equipment that the cyclist might want to keep secure, including helmets, cycling attire and panniers.

Bicycle parking facilities are classified as follows:

*Class I Bicycle Parking* is typically provided at major employment sites, schools, and transportation terminals for long-term parking. Class I bicycle parking includes bike lockers, bike cages, bike rooms, and bike corrals.

Because access is limited to users, these facilities provide higher security, allowing bicyclists to feel comfortable leaving bicycles for long periods of time. Building owners/managers often regulate long-term parking and issue keys to bike cages or bike rooms. Alternatively, electronic bicycle lockers offer a keyless option allowing a user to pay for secure parking time.

*Class II Bicycle Parking* is typically provided by bike racks, and usually accommodates stays up to two hours. Racks are relatively low-cost devices that typically hold two to eight bicycles, support the bicycle at two points of contact, allow bicyclists to securely lock the frame and at least one wheel, are secured to the ground, and are located in high visibility areas with effective "passive surveillance".

#### Shower and Locker Facilities

People are more likely to commute to work on bicycles if they have convenient access to showers and lockers; these facilities assist in encouraging regular commuting via bicycle. Shower and locker facilities

are typically implemented as a component of new commercial building construction, and managed by the building owner/manager; they are rarely publicly owned and operated.

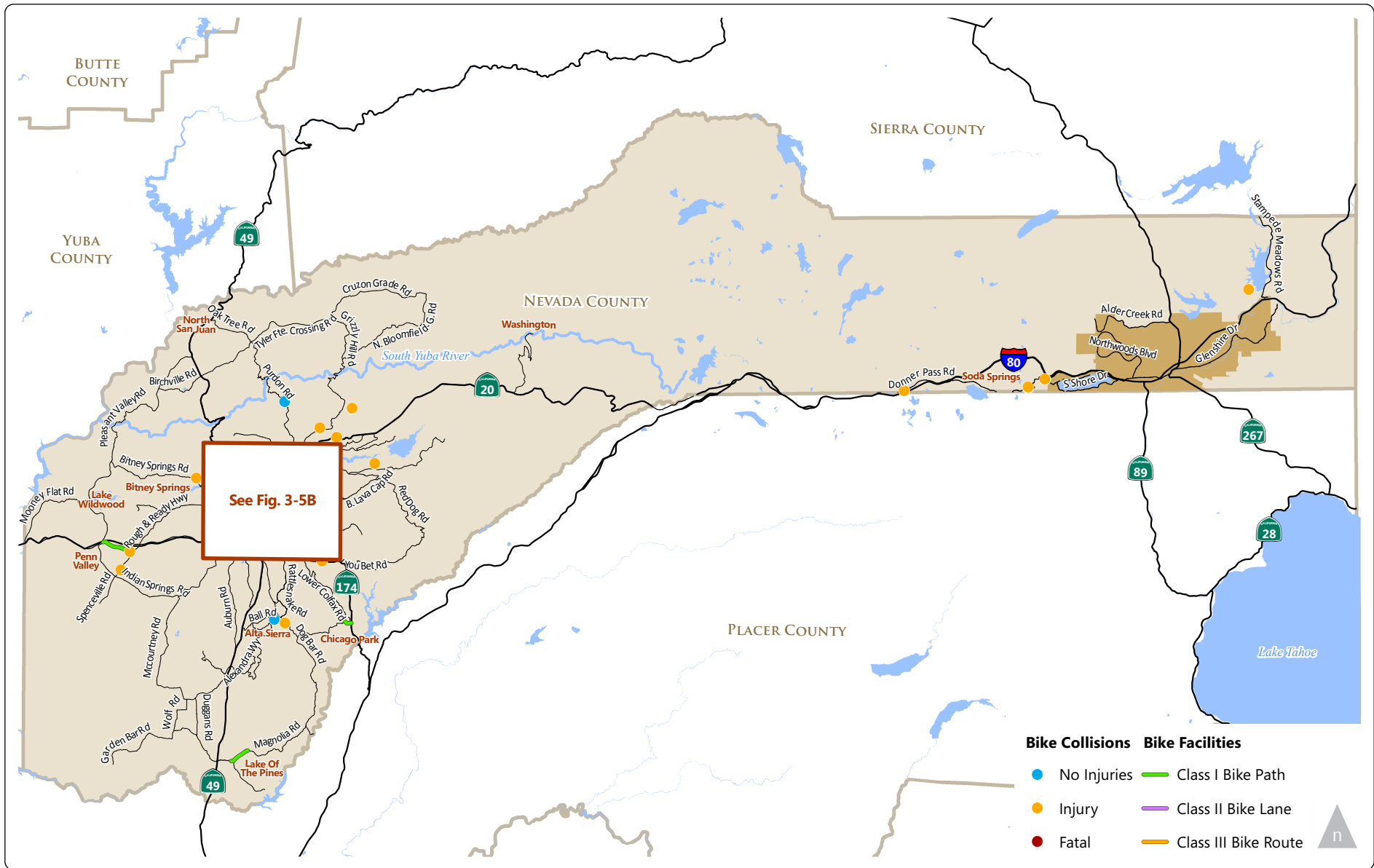
#### Nevada County Existing Bicycle Parking and End-of-Trip Facilities

Field reviews conducted in 2007 and 2012 revealed approximately 23 locations with existing bicycle parking throughout the western part of the county, also shown in **Figure 3-4**. These locations are primarily at government buildings and public facilities, Sierra College and Nevada Union High School campuses, and a number of shopping centers. Nevada City has one on-street bicycle parking facility and parklet in its downtown core and Grass Valley has bike lockers at its City Hall. Despite these facilities, in many cases, bicyclists visiting stores, restaurants, places of employment and community facilities must temporarily lock their bicycles to parking signs, benches and rails. Nevada County Zoning Regulations require that most parking lots with 20 or more vehicle spaces provide one bike rack per 20 spaces for new development (Section L-II 4.2.9.C.6 of Parking Standards). Bicycle racks must be designed to provide a minimum of four bicycle spaces.

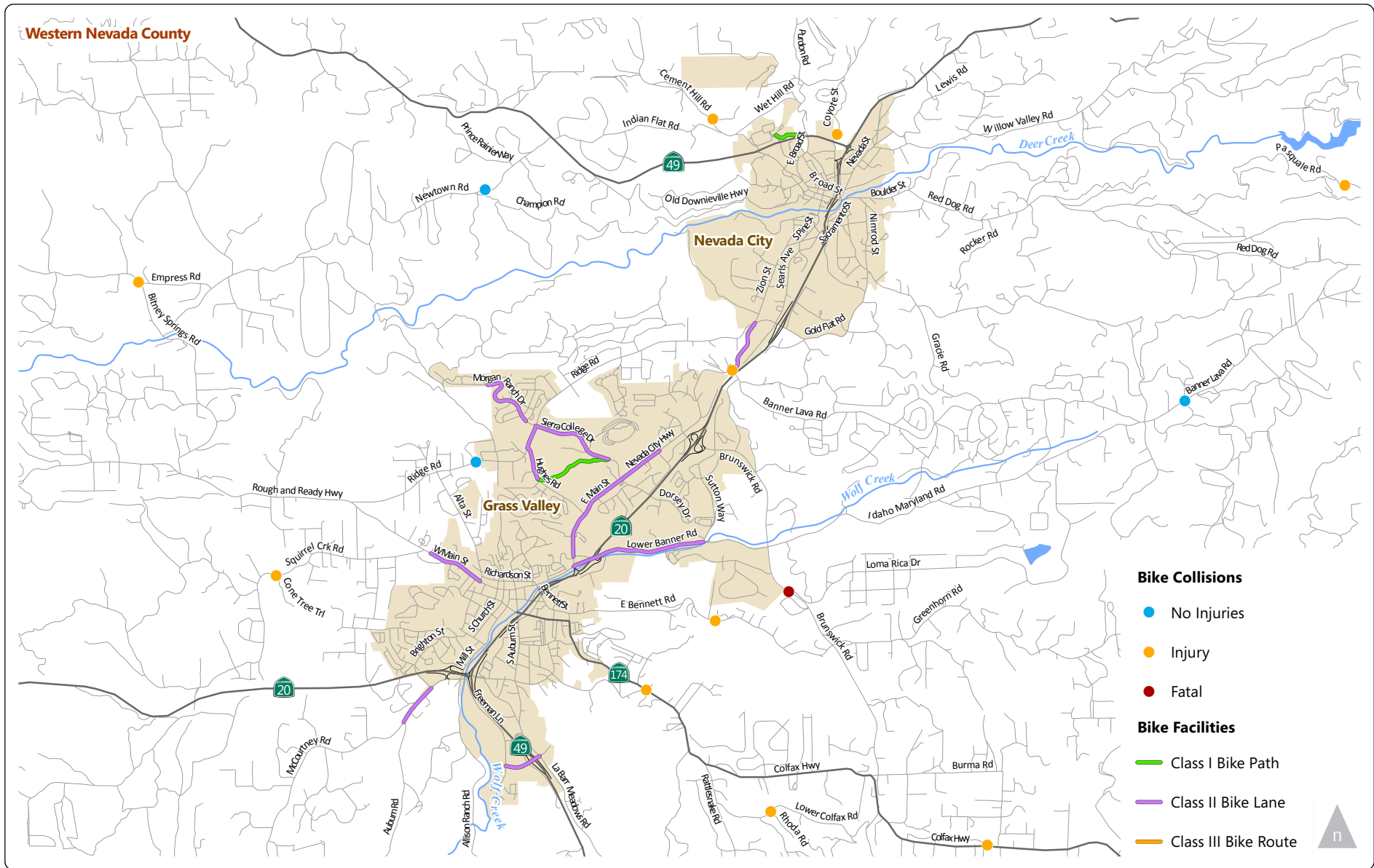
No official shower or locker facilities for bicycle commuters are known to exist in Nevada County. It is possible that some employers provide these facilities or that bicycle commuters use facilities in health clubs or other establishments. The *Nevada County Bicycle Master Plan Update (1996)* stated a policy that encouraged employers to provide such facilities for commute cyclists.

### **3.4 BICYCLE SAFETY**

The Bicycle Master Plan development process included an evaluation of bicycle safety. In particular, existing bicycle collision data was reviewed to identify bicycle collision locations and the nature and type of collisions that have occurred within the County. Collision data involving bicycles was collected from the California Highway Patrol Statewide Integrated Traffic Records System (SWITRS) for August 2006 to July 2011. **Figure 3-5** shows the location and severity of these collisions.







### **3.5 EDUCATION PROGRAMS, SUPPORT GROUPS AND EVENTS**

Education is an important element in encouraging increased bicycling and safety. Improving bicycle facilities and support facilities in the County cannot fully improve conditions for bicycling without proper education of both youth and adult cyclists and motorists. Education of all roadway user groups can address specific collision types common for bicyclists. Safety and education programs may include Safe Routes to Schools in-class instruction, adult "Street Skills" classes that teach safe bicycle operation and maintenance, and "Share the Road" outreach that targets both motorists and cyclists. More details about proposed programs can be found in **Chapter 5**.

As reported by members of the Project Advisory Committee, programs include courses taught by law enforcement agencies, and events and programs hosted by support groups, discussed in section 3.5.1 below.

#### ***3.5.1 Support Groups***

Nevada County is home to at least 3 local bike shops and bike-related businesses, along with the following bicycle advocacy groups:

- The Bicyclists of Nevada County (BONC) is the local chapter of the International Mountain Biking Association. The group's primary mission is to improve opportunities for recreational trail bicycling by promoting responsible mountain bicycling, preservation and improvement of riding opportunities, cooperation with other interest groups and the education of cyclists and non-cyclists. They regularly hold group rides and trail building and improvement events.
- The Sierra Express Bicycle Club is a volunteer organization that promotes all forms of cycling. The club was established in the early 1970's and today promotes itself as a club for all road riders. The Sierra Express Bicycle Club promotes cycling at every level, with regularly scheduled rides and their annual century ride.
- Youth Bicyclists of Nevada County (YBONC) is a non-profit foundation that provides local schools with organizational, financial and trail construction assistance. The foundation works with school bike clubs and mountain bike leagues to promote youth cycling in the county.
- The Nevada Union Miners Mountain Bike Team is an organization composed of existing Nevada Union High School Students. The team competes against other schools as part of the Nor Cal High School Cycling League and hosts group rides and training events.

#### ***3.5.2 Events***

Events promote awareness of bicycling for transportation and recreation. Most bicycling events in Nevada County are organized by the above advocacy groups and include group rides, volunteer days, commuting events, and the annual Nevada City Bicycle Classic, a popular bike race in downtown Nevada City that attracts amateur and professional cyclists from around the country.

### 3.5.3 Programs

The Bicycle Recycle Project at Seven Hills School in Nevada City trains students in bicycle building, repair, and maintenance. Participating students complete a basic curriculum then can rehabilitate disabled bicycles donated by the community. Once repaired, students donate the rehabilitated bicycles to variety of organizations and individuals with need, including community agencies, homeless shelters such as Loaves and Fishes in Sacramento, and private families. The Project teaches mechanical and technical skills, promotes social awareness, and builds leadership abilities. Since its inception, the Project has trained over 1,500 students and built over 2,000 bicycles.

## 3.6 MULTI-MODAL CONNECTIONS

Improving non-motorized access to transit is an important part of making bicycling a part of daily life in Nevada County. Linking bicycles with public transit overcomes barriers such as trip distance, personal safety and security concerns, and riding at night, in poor weather, or up hills. This link also enables bicycles to reach more distant areas for both recreation and transportation.

Bicycling to transit instead of driving benefits communities by reducing air pollution, demand for park-and-ride lots, energy consumption and traffic congestion with relatively low cost investments.

There are four main components of bicycle-transit integration:

- Allowing bicycles on transit;
- Offering bicycle parking at transit locations (including lockers and/or racks);
- Improving bikeways to transit within a three mile "catchment zone" radius;
- Encouraging usage of bicycle and transit programs.

About 0.5 percent of workers who live in Nevada County commute to work via public transit.<sup>4</sup> This percentage increases to about 1.9 percent and 0.9 percent in Grass Valley and Nevada City, respectively.<sup>5</sup> The Gold Country Stage provides the County's primary fixed route transit and is operated by the Nevada County Department of Public Works. Existing Gold Country Stage public transit service in western Nevada County provides fixed-route service to most County communities including Grass Valley, Nevada City, Alta

---

<sup>4</sup> *Means of Transportation to Work*, American Communities Survey 2007-2011 5-Year Estimates, Grass Valley and Nevada City CDP, California, accessed February 2013.

<sup>5</sup> *Means of Transportation to Work*, American Communities Survey 2007-2011 5-Year Estimates, Nevada County, California, accessed February 2013.



Sierra, Chicago Park, Lake of the Pines, Bitney Springs, Lake Wildwood, San Juan Ridge and Penn Valley, and Auburn and Colfax in Placer County.

Currently, the entire fleet of Gold Country Stage vehicles is equipped with one bike rack that can carry up to two bicycles. Racks are usable at any time at the same fare rate as a regular passenger. Overflow bicycles are not allowed inside transit vehicles. Typically, bicycle parking facilities do not exist at bus stops along the transit routes unless those facilities serve nearby land use such as a commercial, employment, or educational center. Multi-modal transfer points may include park-and-ride lots or busy stops at locations such as the Sierra College campus or major shopping centers, as well as the Tinloy Transit Center in downtown Grass Valley. Nevada County has one Caltrans-operated park-and-ride lot in Penn Valley at the intersection of Penn Valley Drive and State Route 20. The location does not provide bike lockers.

Truckee Area Regional Transit and the Tahoe Trolley provide fixed route service between the Town of Truckee and nearby Lake Tahoe, ski resorts and recreation areas. Truckee Trolley provides limited fixed transit service on an east-west route through town and to points east and west, as well as a dial-a-ride on-demand pickup service. TART buses can carry up to two bicycles at a time on a front-mounted bicycle rack.

**Figure 3-6** includes Gold Country Stage routes as well as bus stop multi-modal transfer locations. Potential improvements to Nevada County's multi-modal services are described in **Chapter 5**.

