NEVADA DEPARTMENT OF TRANSPORTATION

NEVADA STATEWIDE BICYCLE PLAN

Prepared by Kimley-Horn and Associates, Inc.

FEBRUARY 2013

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The Nevada Department of Transportation (NDOT) Transportation Planning Division would like to express its appreciation to the dedicated individuals who provided valuable input in the development of Nevada's Statewide Bicycle Plan. In addition to the many citizens who attended the public open houses and provided important recommendations, the following individuals representing local, regional and state agencies were instrumental in the preparation of the plan:

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- *Steve West, Winnemucca City Manager*
- *Shari Whalen, Fernley City Engineer*
- *Scott Wilkinson, Elko Development Manager*
- *Mary Winter, Spring Creek Association*
- *Mike Workman, Lyon County Public Works*

Project Team

- *Project Manager - Bill Story, NDOT Bike Pedestrian Coordinator*
- *Consultant Project Manager – Mike Colety, Kimley-Horn and Associates, Inc.*
- *Plan Development – Peter Lagerwey, Toole Design Group*
- *Plan Development Support- Michael Hintze, Toole Design Group*
- *GIS and Crash Analysis– Michael Green, Kimley-Horn and Associates, Inc.*

2. INTRODUCTION

Since the Nevada Bicycle Advisory Board was created by the Nevada Legislature in 1991, bicycling conditions have been improved through a number of programs in Nevada. NDOT and representatives from other public and private organizations throughout the state have come together to support bicycling. NDOT adopted State Bicycle Plans in 1996 and 2003, which included a Statewide Bicycle Plan Policy in support of bicycling as an important mode of transportation. These plans and policies have directly led to significant improvements for bicyclists in Nevada. NDOT has installed bicycle facilities on state highways as components of other projects, revised design standards to better accommodate bicycling, hosted statewide bicycle and pedestrian conferences, provided maps and educational materials, and provided support to bicycle education and safe routes to school programs throughout the state. In addition, many public agencies, both urban and rural, have adopted bicycle plans and have also been supportive of improvements to bicycling.

Although previous plans have promoted and supported bicycling throughout Nevada, many components were most applicable to urban and suburban issues. This Statewide Bicycle Plan (Plan) focuses on infrastructure and connectivity needs for rural areas outside of the bicycle planning jurisdictions within the following metropolitan planning organization (MPO) areas in Nevada:

- Carson Area MPO
- Regional Transportation Commission (RTC) of Southern Nevada
- Tahoe MPO
- Washoe County RTC

Although the four MPO areas in Nevada were not specifically included in the development of this plan, it is believed that the plan recommendations are generally applicable to these areas as well, and are intended to complement their existing Bicycle Plans.

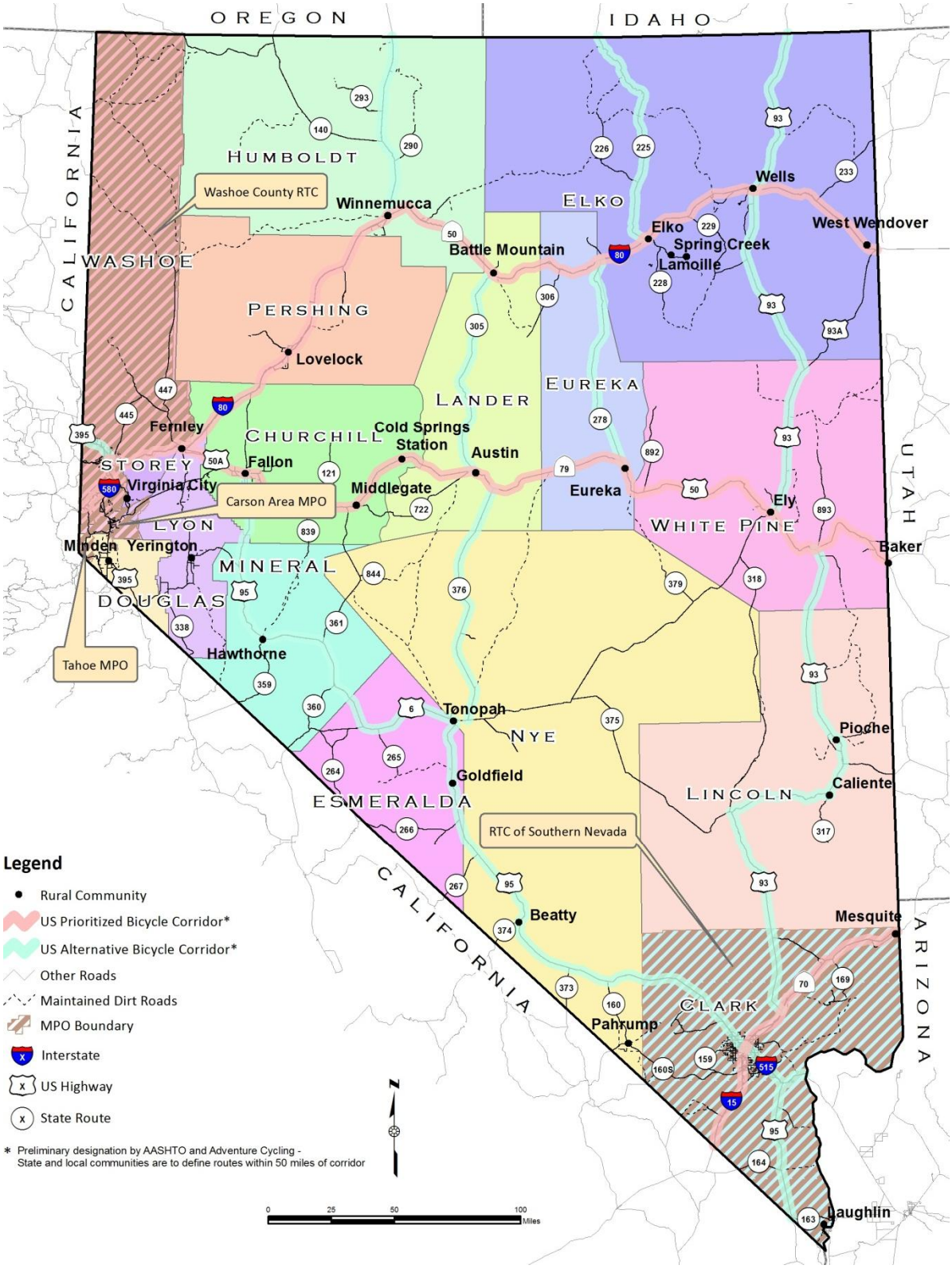
This Plan includes design guidance and policies regarding accommodating bicyclists on state highways and rural communities throughout Nevada. In addition, this Plan addresses the implementation of US Bicycle Routes within the state, while encouraging jurisdictions to address connectivity across boundary limits.

Figure 1 shows the U.S. Prioritized and Alternate Corridors within Nevada, in addition to the four MPO areas. These MPO boundaries only cover a small portion of the state, thus demonstrating the importance of addressing issues associated with bicycling within, to, and through rural communities. The U.S. Prioritized and Alternate Corridors are a preliminary designation by the American Association of State Highway and Transportation Officials (AASHTO) and Adventure Cycling Association with state and local officials responsible for designating the specific route within 50 miles of the highway corridor.

This plan is being led by the Nevada Department of Transportation in coordination with the Nevada Bicycle and Pedestrian Advisory Board (NBPAB), formerly the Nevada Bicycle Advisory Board (NBAB). The NBAB was recently converted to the NBPAB and had been a vital component related to the improvements to bicycling in Nevada since its creation in 1991. The scope of work for this project and content of this plan was developed with input from the NBPAB. From their input, this project included an extensive component of Public Involvement that is described in the following section.

The content of the Plan was presented to stakeholders in two technical memorandums. The first technical memorandum summarized the results from the Public Involvement and Existing Conditions tasks. The second technical memorandum summarized the Vision, Goals and Objectives, and the Recommendations of the Plan. Stakeholder feedback on both documents has been incorporated into the Plan. Ultimately, the Plan will also serve as the bicycle component of the state's Long Range Transportation Plan.

Figure 1: State Map and US Bicycle Corridors



3. PUBLIC INVOLVEMENT

The development of this Plan was guided by extensive input from stakeholders. The three main components of public input were through a Stakeholder Committee, Public Meetings, and a User Survey. The following subsections describe each of these items in further detail and also include a summary of statewide issues.

3.1 Stakeholder Committee

The Stakeholder Committee was developed to provide regular input during the Plan development process. The Stakeholder Committee consisted of individuals from NDOT headquarters, each NDOT District, counties, local jurisdictions, State Parks, and local cycling advocates who provided feedback regarding the direction of the Plan as well as an overview of the progress along the way.

Stakeholder Committee meetings were primarily scheduled on a bi-monthly basis from October 2011 until September 2012. The participation by representatives from both engineering and planning divisions from NDOT, MPOs, local jurisdictions, and interested organizations provided valuable input that was critical to the creation of an implementable plan that meets the needs of the citizens and visitors to Nevada.

3.2 Public Meetings

The consulting team and NDOT's Project Manager visited 15 rural communities during the development of the Plan where they met with local stakeholders to better understand the unique issues that each community faces regarding bicycling within and around their area. The trip also provided the team the opportunity to observe existing bicycling conditions along state routes and identify connectivity issues between rural communities.

Since it was not feasible to visit every rural community in Nevada, a subset of 15 communities was selected to represent conditions within Nevada and they were visited in the following order:

1. Pioche/Caliente, Lincoln County (November 14, 2011)
2. Ely, White Pine County (November 14, 2011)
3. West Wendover, Elko County (November 15, 2011)
4. Elko / Spring Creek, Elko County (November 15, 2011)
5. Winnemucca, Humboldt County (November 16, 2011)
6. Lovelock, Pershing County (November 16, 2011)
7. Fallon, Churchill County (November 17, 2011)
8. Fernley, Lyon County (November 17, 2011)
9. Yerington, Lyon County (November 18, 2011)
10. Minden, Douglas County (November 18, 2011)
11. Pahrump, Nye County (January 26, 2012)
12. Tonopah, Nye County (January 26, 2012)
13. Middlegate, Churchill County (September 26, 2012)
14. Cold Springs Station, Churchill County (September 26, 2012)
15. Austin, Lander County (September 26, 2012)

Within each community, a meeting was held to present an overview of the project scope and then receive input from the public on local bicycling conditions and needs. In advance and during each meeting, locals were instructed on how to fill out the User Survey.

The project team meeting with a group in Elko, Nevada

The following subsection includes a summary of the public input received through the User Survey. The survey was available online and in a hard copy format.

Section 3.4 includes a summary of public input and a comprehensive list of global issues that were observed across the state. In general, most of the items are associated with poor bicycle facilities, a lack of facilities, or the need for support from government agencies. A summary of findings from visits to each of the 15 rural communities is included in **Appendix A.**

The following are key infrastructure needs/issues from the public meetings:

- Blind curves on mountain passes on Hwy 50 without shoulders
- Path from Caliente to Kershaw Ryan
- Need signage on roads to get to bike destinations, including mountain bike trailheads
- Bike lane needed along the 12-mile roadway segment from Ely to McGill
- Path needs to be completed from Elko to Lamoille Canyon
- Signage needed on I-80 indicating that bicycling is permitted
- Need bike facility to connect Fernley to Wadsworth
- Need path along Buckeye in Minden
- Need bike connectivity between all communities, Minden to Carson City as one example
- Need improved bike facilities to schools
- Need improved facilities through and/or around Carlin Tunnel

3.3 User Survey

The intent of the User Survey was to learn more about people's preferences for bicycling in Nevada. The questions were created with the purpose of gathering specific information to guide the development of this plan. Specifically, the results have been used to develop and prioritize the recommended infrastructure, policies, programs and legislation within this Plan.

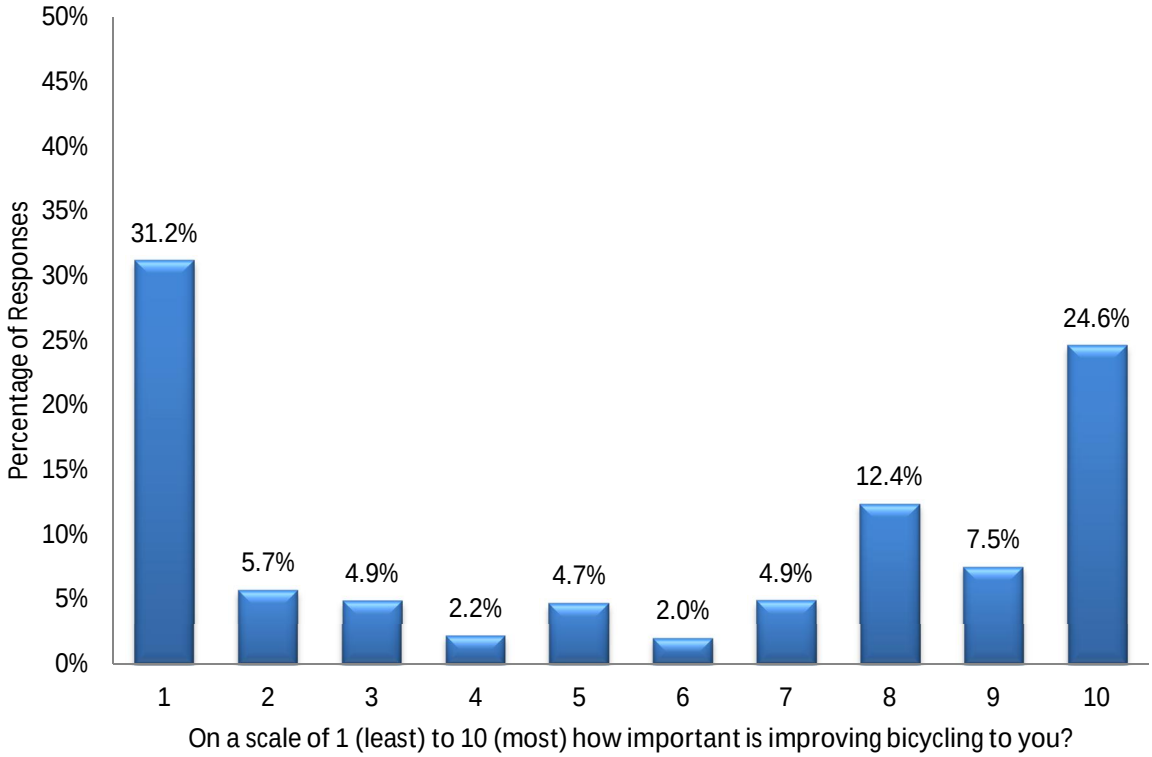
The Stakeholder Committee was involved in the creation of the User Survey and assisted with publicizing the survey. There were 777 Bicycle User Surveys returned from people residing in 17 Nevada counties. A copy of the survey is included in **Appendix B**. Since this statewide plan focuses on rural conditions, the survey was publicized primarily to rural communities and not the urban areas that fall within the Metropolitan Planning Organization boundaries within the state. The following is a summary of the survey responses:

Q1. In what county do you live in?

Answer Options	Response Percent	Response Count
Carson City	10.2%	78
Churchill County	1.8%	14
Clark County	3.0%	23
Douglas County	13.6%	104
Elko County	11.9%	91
Esmeralda County	0.0%	0
Eureka County	0.0%	0
Humboldt County	6.6%	50
Lander County	0.5%	4
Lincoln County	0.3%	2
Lyon County	5.9%	45
Mineral County	1.0%	8
Nye County	0.3%	2
Pershing County	1.2%	9
Storey County	0.7%	5
Washoe County	38.5%	294
White Pine County	0.9%	7
Not Nevada Resident	3.5%	27
answered question		763
skipped question		13

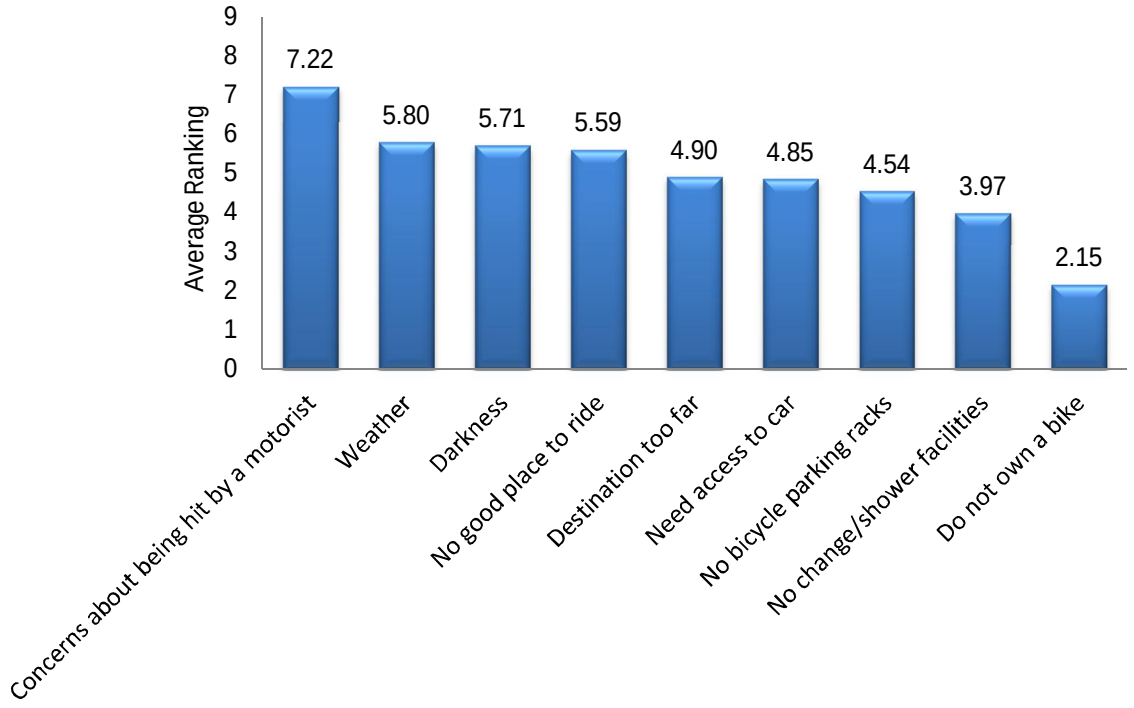
Participants of User Survey represent at total of 17 counties in Nevada. The majority of participants (74.2%) of the User Survey were from Washoe County, Douglas County, Elko County, and Carson City.

Q2. On a scale of 1 (least) to 10 (most), how important is improving bicycling to you?



Participants of the User Survey displayed a large variance of opinion pertaining to the importance of bicycling. The majority of the participants hold high importance on bicycling while the subsequent majority of participants hold low importance on bicycling. The average response was 5.5 out of 10.

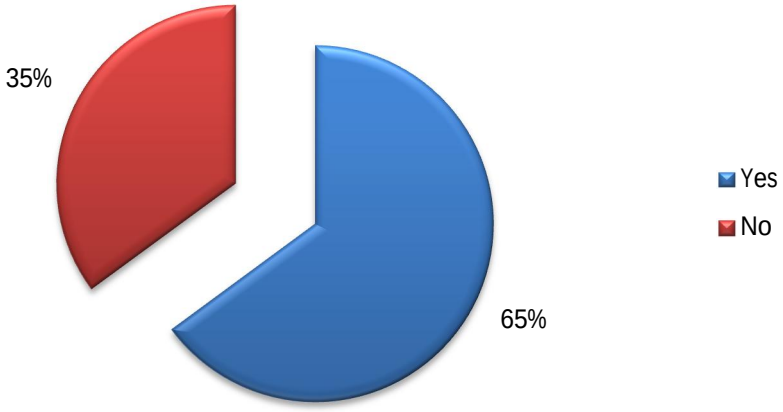
Q3. Why don't you ride a bike or why don't you ride more often (1 is most important, 9 is least important, with no two items receiving the same ranking)?



Why don't you ride a bike or why don't you ride more often (1 is most important, 9 is least important, with no two items receiving the same ranking)?

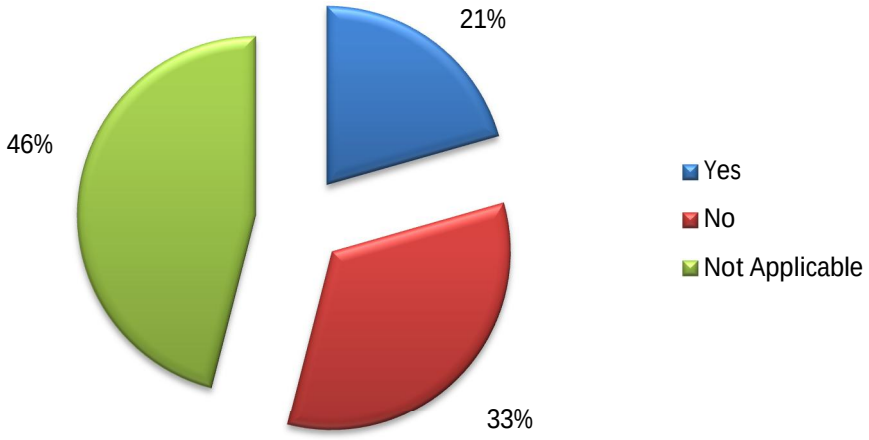
The majority of participants attribute their frequency of bicycling with factors of safety related to situational, site conditions, and location.

Q4. Did you ride your bicycle to school as a child?



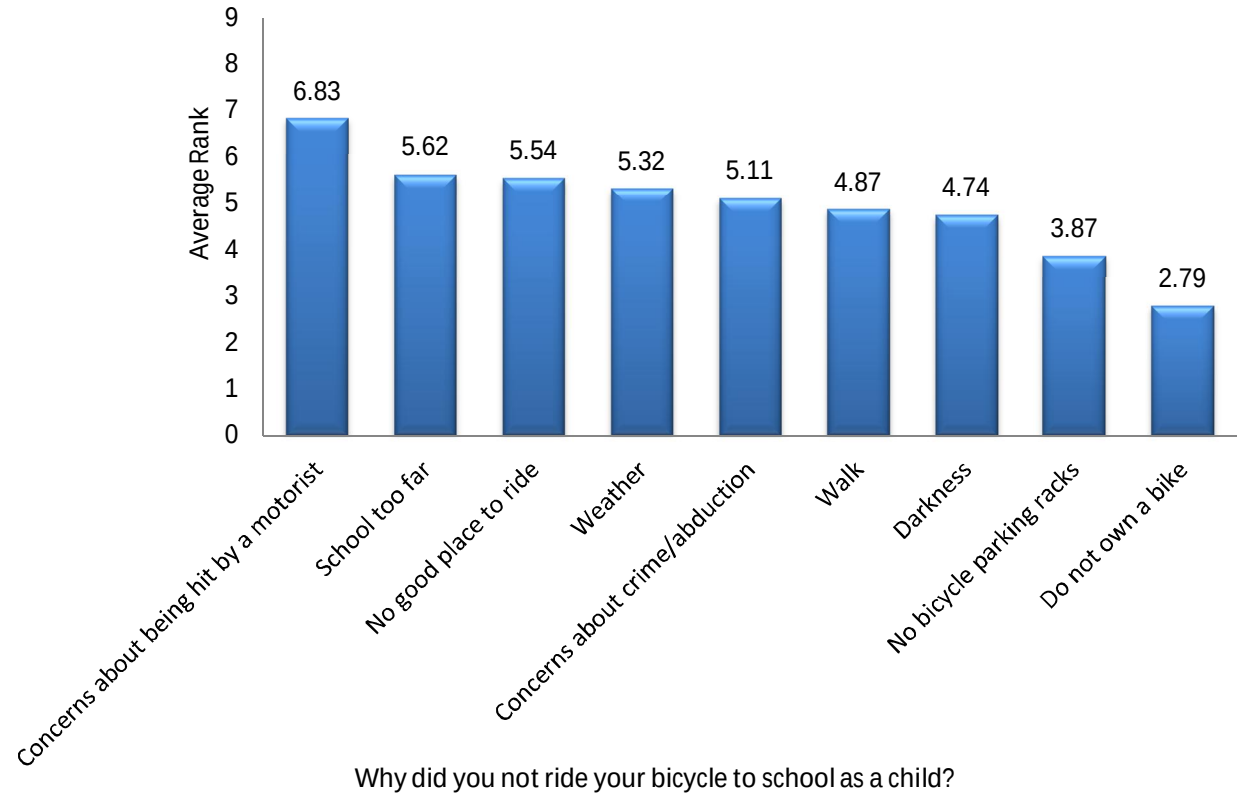
Approximately two-thirds (65%) of all participants rode their bicycles to school as a child.

Q5. If you are a parent, do or did your children ride their bicycle to school?



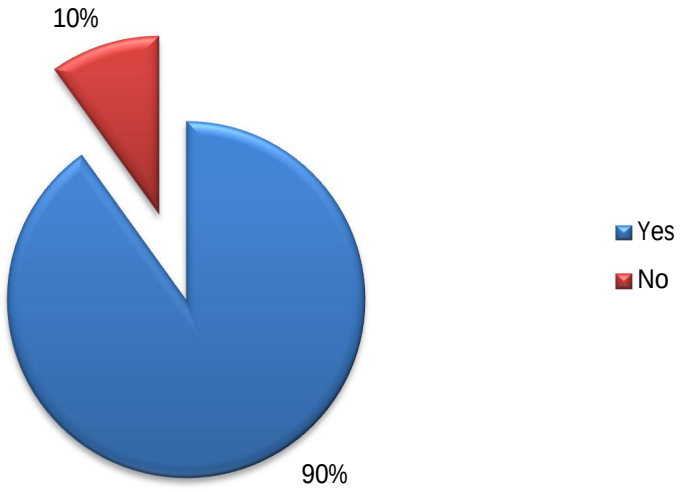
Of the participants who are parents, approximately one-third allow their children to ride their bicycle to school.

Q6. If you answered "No" to Question 4, why not? (1 is most important, 9 is least important)



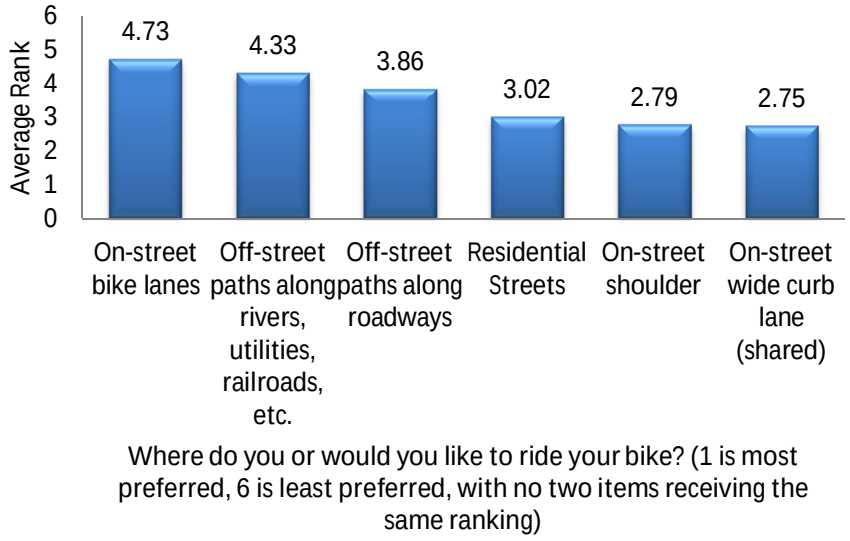
The parents that do not allow their children to travel to school by bicycle attribute their reluctance to safety, commuting distance, and existing bicycling infrastructure.

Q7. Do you ride a bike now? If "No", skip to Question 13.



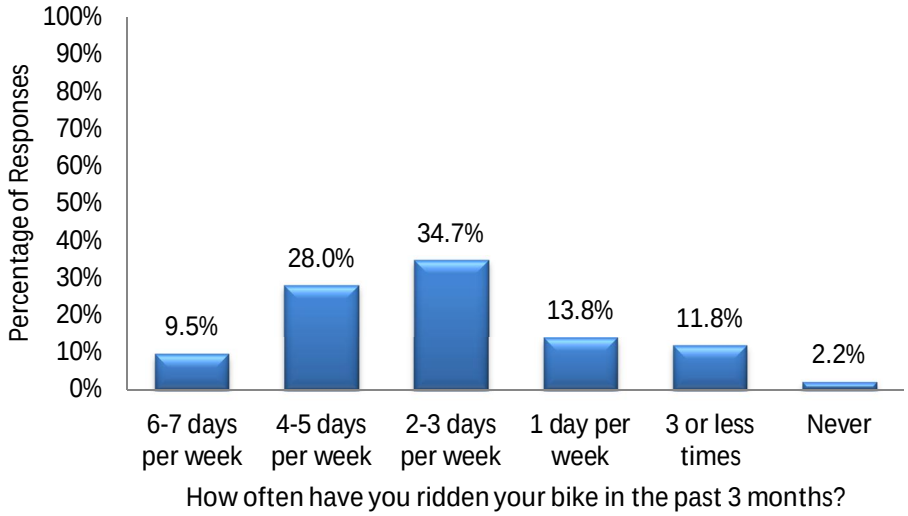
The vast majority (90%) of the participants of the User Survey currently do ride their bicycle.

Q8. Where do you or would you like to ride your bike? (1 is most preferred, 6 is least preferred, with no two items receiving the same ranking)



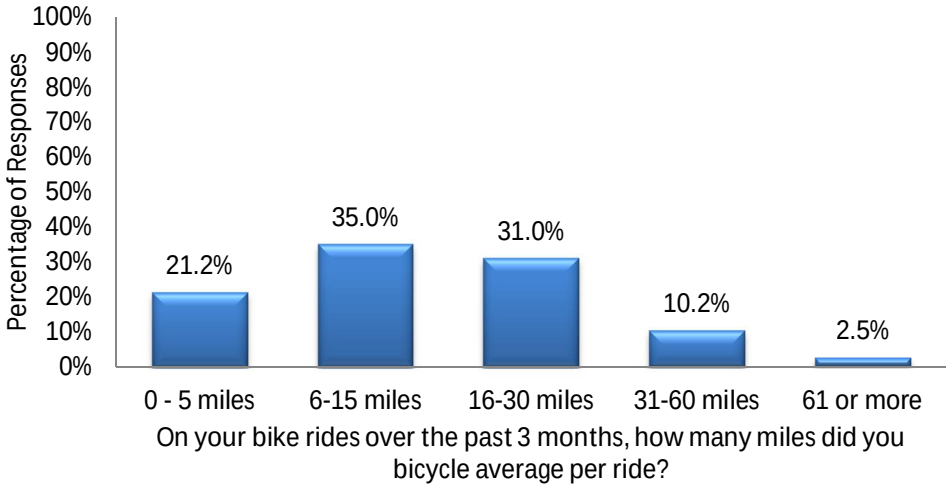
Most participants prefer to ride their bicycles on-street bike lanes, off-street paths, and off-street paths along roadways.

Q9. Which response best describes how often you have ridden your bike in the past 3 months?



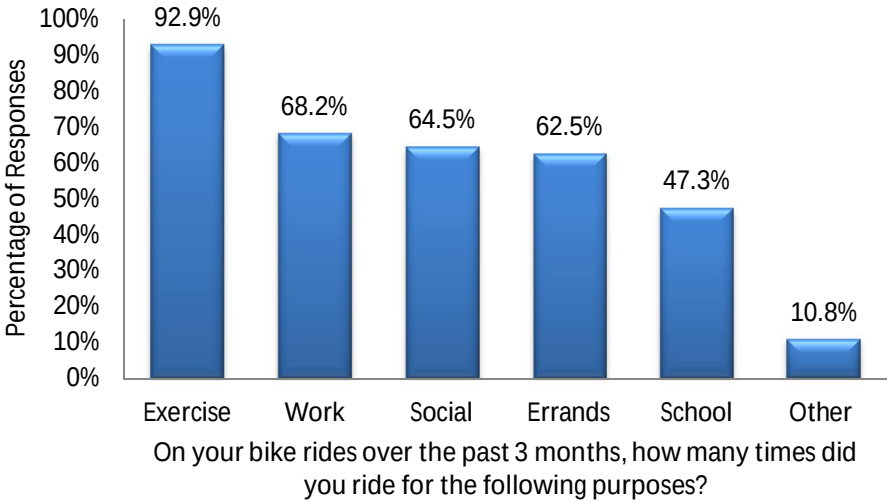
Participants of User Survey display a right-skewed bell curve with the majority of participants riding more than one day per week and the most riding two to three days per week.

Q10. On your bike rides over the past 3 months, how many miles did you bicycle on average per ride?



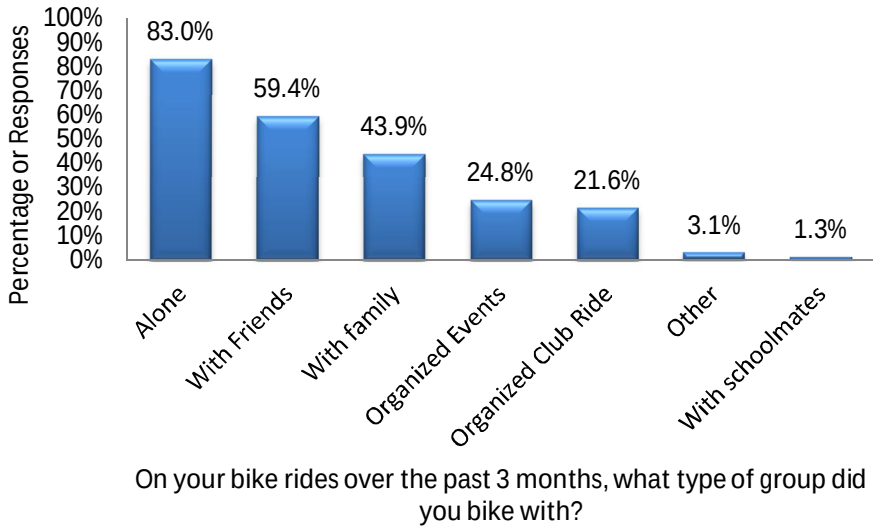
Participants of User Survey display a right-skewed bell curve with the majority of participants riding less than 31 miles and the most riding 6-15 miles per bike ride over past three months.

Q11. On your bike rides over the past 3 months, how many times did you ride for the following purposes?



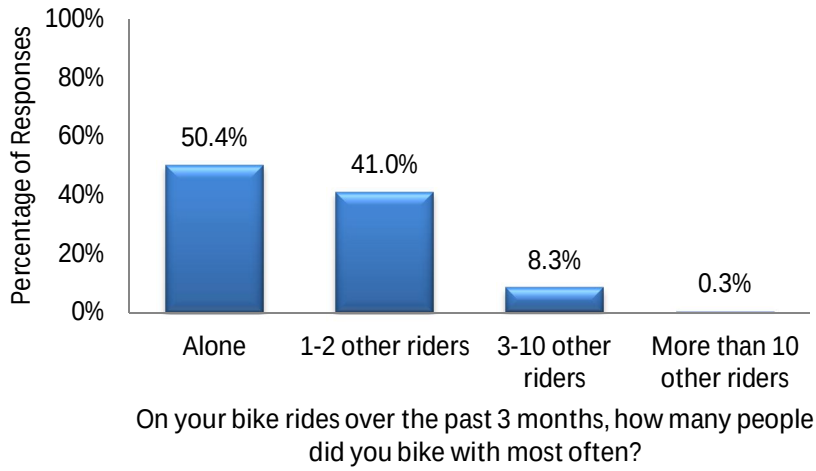
Participants of the User Survey primarily bicycle for the purpose of exercise, work, social interaction, and errand-related activities.

Q12. On your bike rides over the past 3 months, what type of group did you bike with?



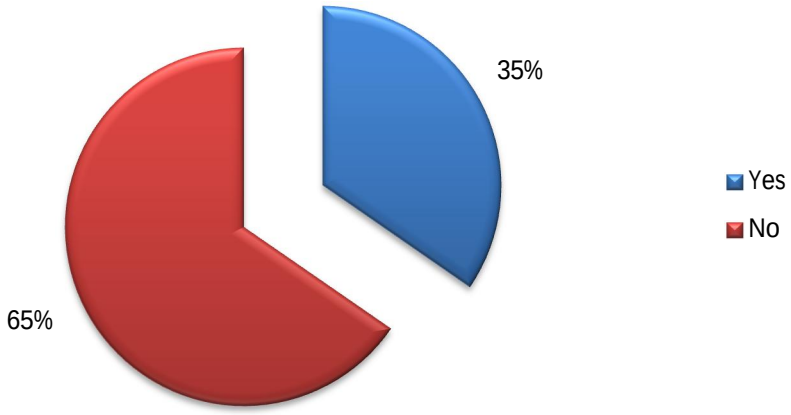
Participants of the User Survey typically bicycle alone or with friends and family.

Q.13 On your bike rides over the past 3 months, how many people did you bike with most often?



The greater majority of the participants of the User Survey typically bicycle alone or with up to two other riders.

Q14. Do you travel by motor vehicle to your preferred bicycle riding destination?

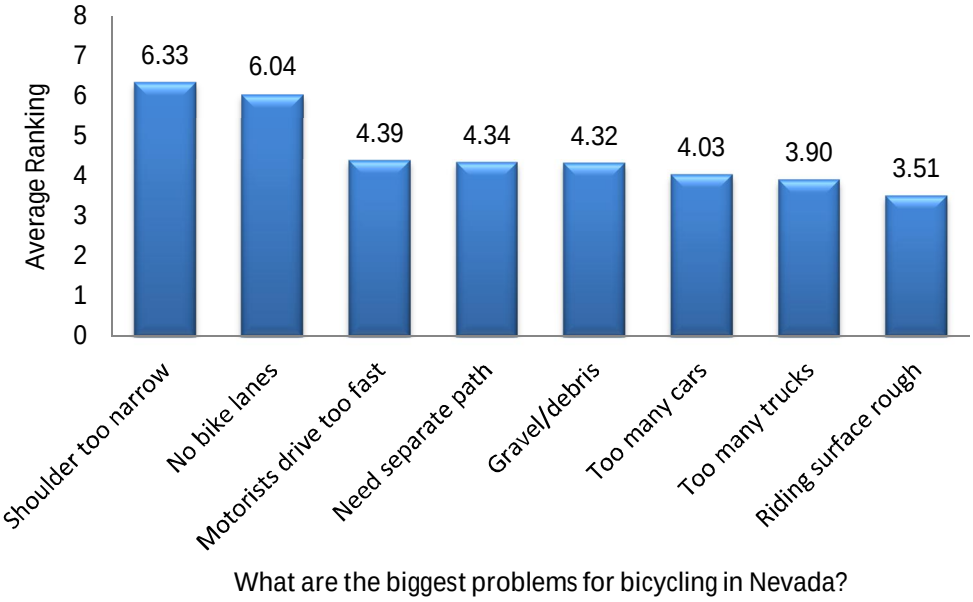


Approximately two-thirds (65%) of all participants of the User Survey do not use a motor vehicle to get to their preferred bicycle riding location.

Q16. Which state highways do you bike on or would you like to bike on most often (statewide map provided)?

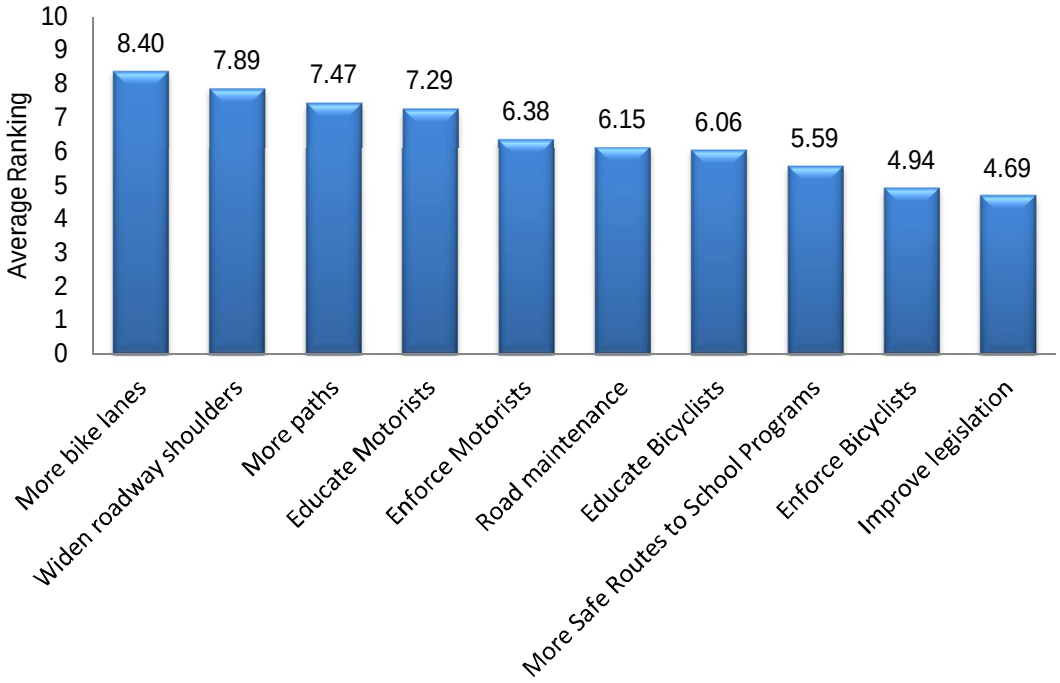
*A list of the responses is included in **Appendix B**.*

Q17. What are the biggest problems for bicycling in Nevada?



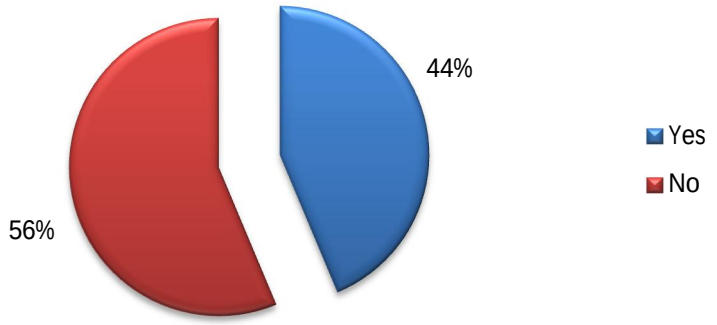
The largest bicycling problems that the participants of the User Survey face in Nevada are existing bicycling infrastructure safety issues, bicycling infrastructure maintenance, and bicycle motor vehicle interactions.

Q18. What should be done to improve bicycling in Nevada?



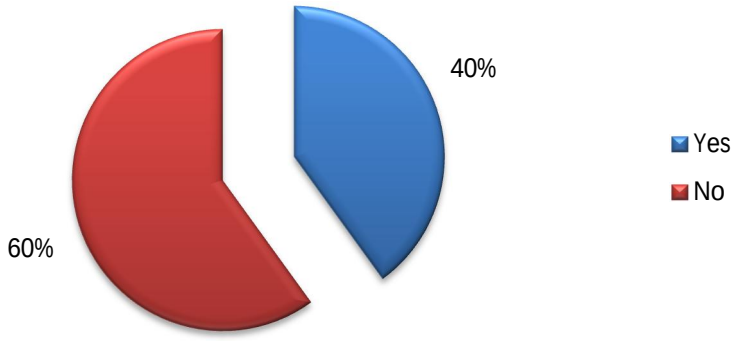
Participants of the User Survey believe that improvements to bicycling in Nevada can be implemented through advancements in safe bicycling infrastructure, education programs for the interaction among motorists and bicyclists, and improved legislation.

Q19. Do you feel your community supports bicycling as a form of transportation?



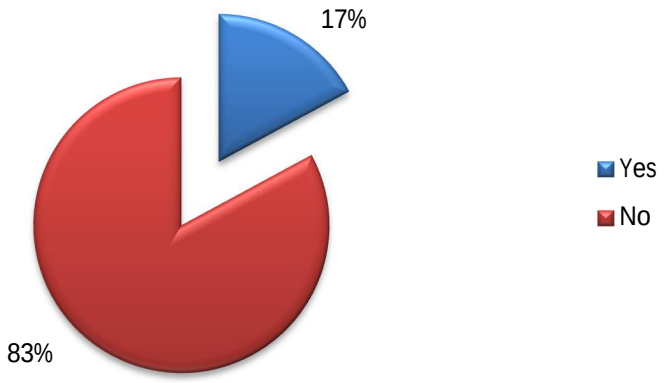
Over half of all participants (56%) of the User Survey believe that their community does not support bicycling as a form of transportation.

Q20. Do you feel your local government supports bicycling as a form of transportation?



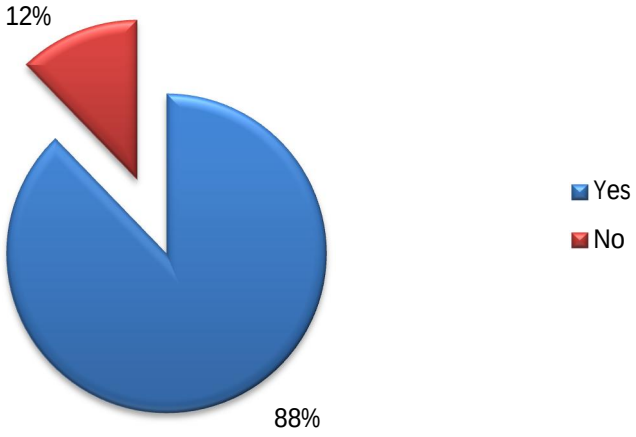
The majority of participants (60%) of the User Survey believe that their government does not support bicycling as a form of transportation.

Q21. In your community have you received training on riding a bicycle?



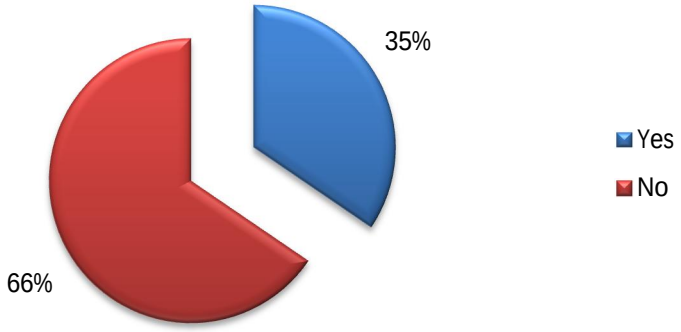
The vast majority of participants (83%) of the User Survey do not believe that their community provides training about riding a bicycle.

Q22. Do you think you understand the laws regarding bicycles and vehicles?



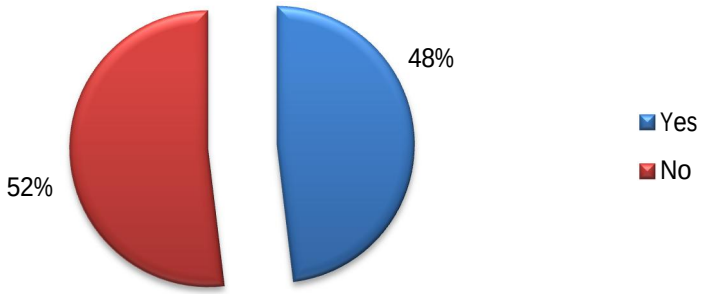
The vast majority of the participants (88%) of the User Survey do believe that they adequately understand the laws regarding bicycles and vehicles.

Q23. Do you feel law enforcement agencies in your community apply traffic enforcement resources to all roadway users?



Approximately two-thirds (66%) of the participants of the User Survey do not feel that law enforcement agencies administer traffic enforcement resources to all roadway users.

Q.24 Do you feel law enforcement in your community understands the laws pertaining to bicycles and bicycle – vehicle interaction?

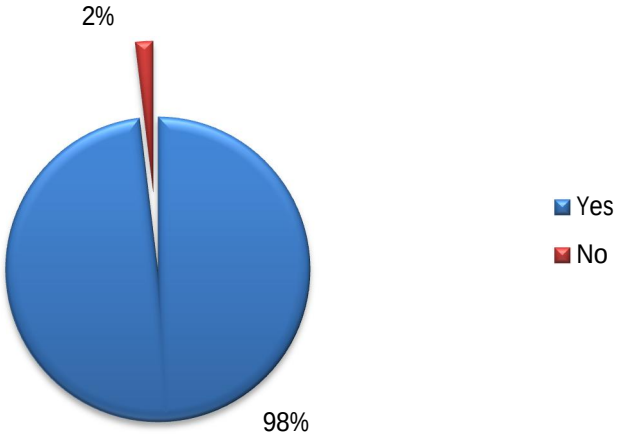


Approximately half of all participants of the User Survey believe that communal law enforcement does not understand the laws pertaining to bicycle and bicycle/vehicle interaction.

Q25. What additional comments would you like to provide regarding bicycling in Nevada?

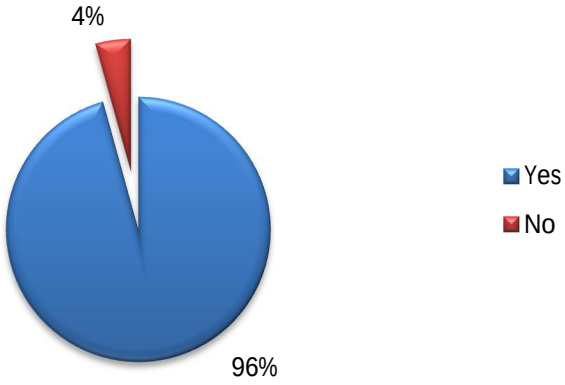
*A list of the responses in included in **Appendix B**.*

Q27. Do you own a car?



Nearly all of the participants (98%) of the User Survey currently own a vehicle.

Q.28 Do you own a bicycle?



Nearly all of the participants (96%) of the User Survey own a bicycle.

3.4 Statewide Public Input Summary

Many Nevadans support cycling and support improvements to cycling in Nevada. An extensive amount of public input was received through the public meetings and User Surveys. This information was used as a key component of prioritizing components and recommendations of this Plan. This subsection includes a summary of the main input received through the public meetings and survey as well as an extensive list of 50 issues regarding bicycling in Nevada that were discovered through the public input process.

The following is a brief summary of the top items heard during from the public:

- Nevada is a great place to bicycle with scenic, low-volume highways and great mountain bicycling.
- Bicycle tourism is an untapped resource in Nevada (on-road and mountain biking). Rural Nevada needs more emphasis on cycling to capture tourists and bicyclists that are currently traveling through and from Nevada to adjacent states to go cycling. More emphasis is needed to "capture" this tourism revenue.
- Bicycling conditions on local highways are typically poor because of a lack of shoulders and/or rumble strips limiting the use of the shoulder. In addition, motorists are often aggressive towards bicyclists, especially when adequate bike facilities are lacking.
- Additional bicycle education (adult bicycling courses and youth bicycling rodeos) used to be more common, but we have not had any in many years and need those to start again.
- Our communities need more transportation options other than driving. A higher priority on providing bicycling facilities is needed by local, county, and state governments.

The following is a summary of the key responses from the User Survey:

- Over 45% of our survey respondents (777 respondents) consider the importance of bicycling a priority 8 or higher out of 10.
- The top reason respondents don't ride more often is because of concerns about being hit by a motorist.
- 65% of respondents bicycled to school as a child, whereas only 46% of our respondents who had children have had their children ride to school. The top reasons cited for not having children ride to school is also concerns about being hit by a motorist.
- Bicycle lanes are the preferred bike facilities, with off street paths along rivers or utility corridors is second.
- Exercise is the top reason for bicycling, with work, social, and errands being the next top reasons.
- Of those that have bicycled in the last three months (90%), 83% of those respondents biked alone at least once, 59% biked with friends at least once, whereas only 8% of our respondents had biked with three or more riders.
- 35% of respondents who rode their bike traveled by car to their bicycling location.
- Shoulder being too narrow and no bike lanes are the biggest problems for bicycling in Nevada.
- Educating motorists is the top priority for non-infrastructure components.
- 44% feel their community supports bicycling as a form of transportation and 40% feel their local government supports this.
- 17% have received training on riding a bicycle.
- 48% feel law enforcement understand bicycle related laws, but 65% feel that law enforcement does not apply traffic enforcement to all users regarding bicycling.
- 96% of our respondents own a bicycle and 98% own a car.

The following list summarizes all bicycling-related issues within Nevada discovered through the public input process. The majority of these issues are prevalent throughout the state, although some are specific to a particular area. These issues are based on information gathered from the public meetings, coordination with the stakeholder committee, and the User Survey. As a component of the Plan, prioritization criteria were developed and these issues have been incorporated into the recommended strategies as high, medium, or low priority.

1. Advocacy Groups Lacking – Lack of organized bicycle advocacy groups at the local level.
2. Alternate Roadway Corridors Not Inventoried – There are old roads that parallel newer roads in many places throughout rural Nevada. However, they are in various states of repair (some are used, others look partially or entirely abandoned); they are often hard to access and there is not an inventory of their availability (locations) or suitability for bicycling.
3. Alternate Corridors Not Preserved – Former railroad rights-of-way corridors that would make excellent trails are being (or were) lost due to lack of information and knowledge regarding the acquisition and preservation of rail corridors. Stretched budgets have also resulted in a lack of staff resources to pursue rail-trail opportunities.
4. ATVs on Bike Facilities – ATVs, while regulated, are often allowed to ride on designated bicycle facilities including paved pathways and mountain bike trails.
5. Bicyclists Not Respected by Motorists – Many motorists do not respect bicyclists - bicycling is not a legitimate part of local culture. Bicyclists relayed stories of harassment and intimidation by motorists.
6. Bicyclists Often Riding Wrong Way – Observed a lot of wrong-way riding by bicyclists.
7. Bike Lane Width Sometimes Includes Gutter – Gutter pan sometimes included in the width of a bicycle lane even if pavement to gutter pan edge is not smooth.
8. Bike Plans for Communities Lacking – Towns and counties do not have adopted, current bicycle plans. Since NDOT requires that proposed bicycle facilities are in an adopted plan, opportunities to construct bicycle facilities as part of NDOT projects or to receive state/federal funds are often lost. Many towns and counties do not have the time, money, or expertise to develop a bicycle plan.
9. Bikeways Not Coordinated Across Jurisdictional Boundaries – Town and county bicycle planning is not always coordinated. As a result, there is often a lack of connectivity between the more urbanized town areas and bicycle destinations (e.g. state parks, public lands, mountain bike trails, and low-volume country roads) in the rural, county areas.
10. Bikeway Innovation Lagging – Newer bicycle facility options such as shared lane markings are not widely known about or used.
11. Bikeways Have Ridge at Edge – Some overlays stop at the shoulder resulting in a ridge (lip) a ridge that can cause bicyclists to fall.
12. Bikeways Lacking in Tunnels – There are few provisions for bicyclists going through tunnels (e.g. lack of signs or bicycle activated flashing lights to warn motorists as is done at tunnel in Tahoe).
13. Bikeways Lacking Along Hwy 50 – Highway 50 is the most popular cross county bicycling route and has significant bicycle travel but lacks a bikeable shoulder through many mountain passes with limited visibility around curves.
14. Bikeways Lacking Access to Mountain Bike Areas – Mountain bike areas close to rural towns are often not accessible by bicycle from the town due to lack of facilities (e.g. road leading out of town is high speed and does not have shoulders). Consequently, bicyclists find it necessary to load their bikes on their motor vehicles and drive to nearby mountain bike trail heads.
15. Bikeway Terms Not Understood – There is a lack of understanding and use of terms to describe various bicycle facilities (e.g. bike route, bicycle lane, bicycle path etc.).
16. Bikeway Variances – Local zoning boards give variances to developers, thereby losing opportunities to install bike lanes and paths required by local zoning regulations.

17. Education Materials Not Readily Available – Locals don't know where to get bicycle educational materials for schools, summer recreational programs, etc.
18. Education Programs Lacking – There are very few bicycle safety education programs offered to children in country towns. In the past, rodeos and other safety programs were more available through schools, and local police and sheriff's departments. These have become less frequent or have disappeared over time.
19. Enforcement Lacking and Uninvolved – Law enforcement officials are typically not involved in bicycle safety (i.e. they do not ticket motorists or bicyclists and they no longer provide safety training rodeos for children).
20. Facilities for Aging Populations Lacking – There are aging populations in many of the small country towns that lack adequate trail (sidewalk) facilities to exercise and access local services.
21. Funding Opportunity Awareness Lacking - Local, rural jurisdictions are not always aware of state funding opportunities. Consequently, there are times when there is a lack of applications for some pots of money.
22. Funding Shortage for Bike Infrastructure – Lack of funding for bicycle infrastructure improvements.
23. Gravel on Facilities – Existing bicycle facilities are not maintained (e.g. trails in disrepair, bicycle lanes and shoulders are full of gravel).
24. Gravel on Shoulder – Gravel on roadways at locations where there are access roads/driveways.
25. Helmet Use Low – Helmet use by bicyclists, especially children is low.
26. High Speed Right Turn Lanes – High speed right turn add lanes on arterial streets create a challenge for bicyclists going straight.
27. Infrastructure Inconsistent – There is a lack of consistency with regard to the design of NDOT vs. non-NDOT roads (e.g. lane width, shoulder width, curbs radii etc.).
28. Interstate Access – For bicyclists traveling from urbanized to rural areas, there are no informational signs to indicate where they are allowed to access interstate freeways.
29. Rumble Strip Takes Up Shoulder – Rumble strips are often placed to right of white edge line on the 12- to 24-inch shoulder forcing bicyclists to ride to the left of the edge line. Also, design and application of rumble strips are inconsistent.
30. Interstate By-pass Wayfinding Lacking – There are no way-finding signs to guide bicyclists through towns in rural areas. This is particularly important for bicyclists who have exited an interstate freeway and must travel through town and back to a freeway entrance.
31. Interstate Locations That Bikes Must Exit Unclear – It is not clear where bicyclists traveling on interstate freeways entering urbanized areas are required to exit the freeway.
32. Interstate Way-Finding Lacking – For bicyclists traveling on interstate freeways, there are no way-finding signs to indicate where they should exit to access small towns.
33. Legality of Bicycling on Sidewalks Not Clear – Lack of clarity regarding bikes on sidewalks. State law says that bicyclists are not allowed on sidewalks unless granted "permission" by "owner".
34. Locals feel NDOT Not Prioritizing Bicycling – Some locals feel NDOT doesn't really care about bicyclists and does not recognize the importance of touring bicyclists to economies of small towns. Examples cited include: a) rumble strips in narrow shoulders of NDOT roads; 2) NDOT projects that ignored local requests for bicycle facilities; and 3) non-responsiveness of NDOT officials in district offices. Some locals are concerned that NDOT does not value their input. Locals complained that by the time they find out about a project, it is already scoped, budgeted, and designed.
35. Maps of Local Bike Facilities Lacking – Lack of bicycle maps at the local level that show bicycle facilities, water, bike shop and destinations such as mountain bike areas.
36. Rumble Strips Next to Guard Rail – Rumble strips are sometimes installed immediately adjacent to guardrails, which is inconsistent with state guidelines.
37. School Crossing Guards Lacking – There are often no school crossing guards at crossings of arterial streets near schools (state, county and local roads).

38. School Kid's Bikes Need Repairs – Children don't know how to fix their bikes (e.g. flat tires due to punctureveine, also known as goatheads).
39. School Support and Facilities Lacking – Some local school districts do not recognize or support bicycling and/or walking to school; and they are not aware of SRTS programs and grants. Children often cannot bicycle to school due to lack of bicycle facilities.
40. Schools Lacking Adequate Bike Parking – There is often a lack of bicycle parking facilities at schools.
41. Shared Use Path Crossing Advanced Motorist Signing Lacking – Inadequate warning/crossing signs for motorists at locations where paths cross roadways.
42. Shared Use Path Intersection Priority – Assignment of right-of-way at trail crossings. Some trails arbitrarily require trail users to stop at all crossings, including driveways.
43. Shoulders Lacking or Too Narrow – Many state, county and local highways do not have a shoulder, have a very narrow shoulder, and/or have the entire shoulder covered in a rumble strip.
44. Special Event Participants Lacking – Special events (century rides, etc.) need more participants.
45. Special Event Permitting Unclear – Lack of clarity as to whether permits are required for special events with more than 50 participants and the requirements for the application. Regional NDOT offices may have different policies.
46. Special Event Signing Requirements Not Clear – Lack of clarity with regard to state rules regarding way-finding guidance (arrows on the pavement and temporary signs) to direct bicyclists participating in special events (e.g. century ride).
47. Touring Bicyclist Economic Impact Not Quantified – There are no numbers regarding the importance (or potential) of bicycling to the economy of rural towns.
48. Touring Bicyclist Travel on Through – Bicycle tourism in Nevada is an untapped resource. Touring bicyclists do not stop in Nevada to bike (they go on to Utah, Colorado, and other destinations).
49. Touring Bicyclists Lack Water – Touring bicyclists lack places where they can find water. NDOT facilities in rural areas may be able to provide water.
50. Utility Corridors Don't Officially Allow Bikes – Authorities (agencies) that operate irrigation and drainage networks do not allow bicycle facilities on dikes and service roads. However, informal use is widespread and often tolerated.
51. Workzones – On interstate freeways, state highways and local roadways, space for bicyclists is not routinely provided through construction zones. For example, it is not uncommon to see motorists channeled into one lane or on the shoulder, leaving no place for the bicyclists to ride.

4. EXISTING CONDITIONS

4.1 Statewide Observations

Bicycling conditions in 15 communities were observed. A number of conditions were noted, both good and poor, in addition to locations where there were opportunities to improve bicycling. In general, examples of good existing bicycling conditions included the following:

- Wide shoulders
- Rumble stripes (rumble strip located under the fog line)
- Bike lanes
- Bike routes
- Signage and wayfinding
- Bike parking
- Bike amenities and lodging

I-80: Although there is a rumble strip located adjacent to the fog line, wide shoulders provide adequate space for bicycles along this route.

SR 535, Elko: A wide shoulder through this rural community serves as a bicycle facility as well as a break down area for vehicles.

US 50, Middlegate Station: Free camping, shade, water, picnic facilities, lodging and a bar and grill available to bicyclists

I-80: Segments of I 80 have rumble lines, with the rumble strip under the fog line, which maximize the space available for bicyclists while also serving as a safety measure for motorists.

Battle Mountain: Consistent signage can help bicyclists navigate through routes as well as heighten driver awareness.

Fernley, SR 828: Bike paths can provide neighborhood connectivity.

Fallon: Bike parking can promote bicycling within a community.

West Wendover: Bike lanes enhance multi-modal use of a corridor, and can increase bicycle safety.

West of Carlin Tunnel, I-80: Rest stops along highways provide necessary amenities for bicyclists, especially touring cyclists along remote highways.

They Highway 50 corridor has the highest volume of touring bicyclists in the state and many towns along Highway 50 cater to bicyclists. Middlegate, Cold Springs Station, Austin, Eureka and Ely all provide shade, food and lodging options. Middlegate and Austin provide free showers and camping.

Several adjacent highways, some abandoned and some with very low use, were noted for having the potential to serve as alternative bike routes. The following photos illustrate examples of opportunities that exist within the state.

I-80, East of Battle Mountain: Existing paved parallel road

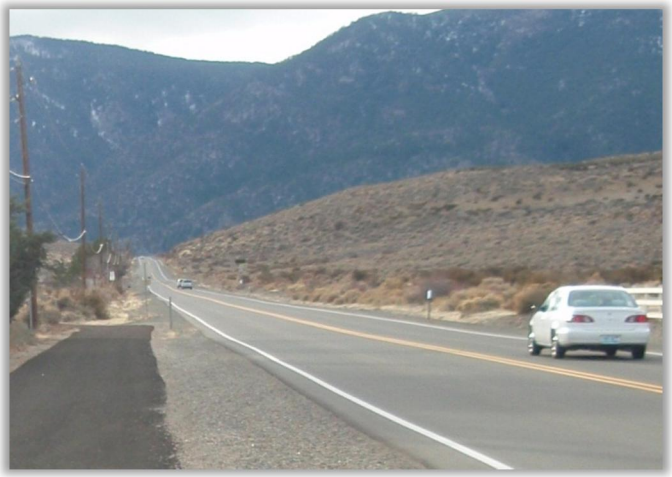
I-80, East of Carlin Tunnel: Old Highway available as alternate route

US 50, Near Middlegate, existing parallel gravel road

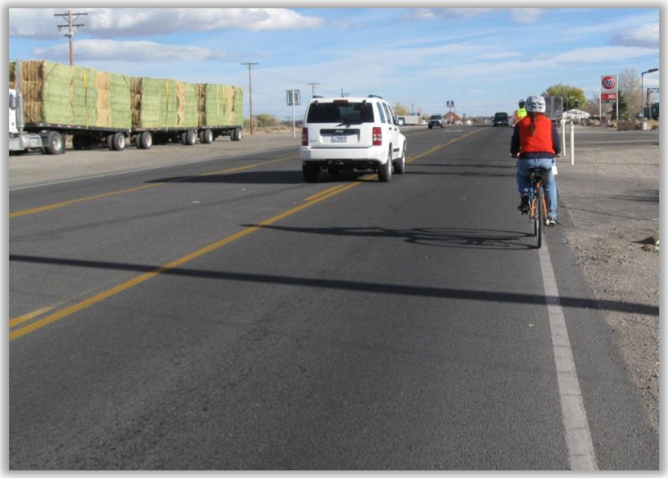
There were, however, a number of examples of poor conditions observed during the trip. Such poor conditions included:

- Narrow shoulders
- No shoulders
- Rumble strips
- Pinch points for bicyclists
- Lack of continuity through bridges and tunnels
- Lack of signage
- Lack of amenities

I-80 at Carlin Tunnel, Narrow shoulder entering and in tunnel



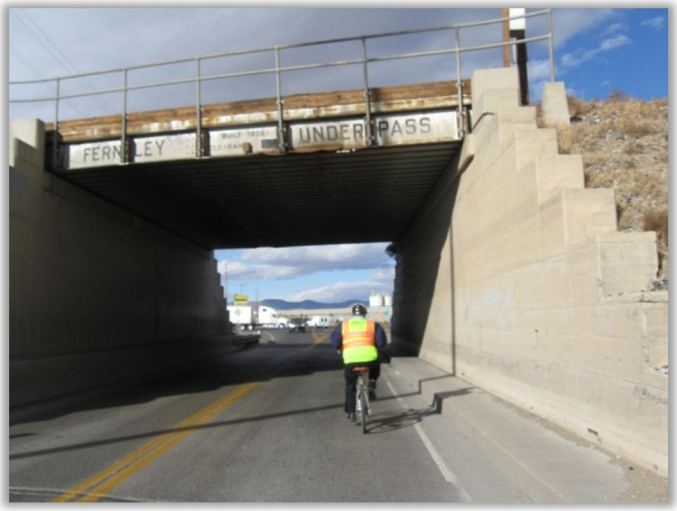
Jacks Valley Road, Minden: Narrow shoulder and path near roadway



US 50 (Old Lincoln Highway/E Main Street), Fernley: Narrow shoulder

US 93 in Alamo: Widening for turn lanes can result in no shoulders.

US 95, South of Goldfield: Rumble strips placed within a narrow shoulder make the shoulder unusable for bicyclists.



Fernley: Narrow underpasses can become pinch points for bicyclist, providing little room for shared use of a roadway segment.

US 50, East of Austin: Narrow shoulders and blind curves

US-93, North of Ely: Certain areas of Nevada currently have very long distances without any rest stops or water.

4.2 Infrastructure Data

The evaluation of existing conditions also included research and review of available data pertaining to bicycle facilities within the state. This primarily involved the collection of data in geospatial format (GIS). GIS data is most beneficial because it can be used to visually identify network gaps and inadequate facilities, which is an important element in reviewing statewide data.

Information on existing on-road and off-road bicycle routes that go through Nevada (excluding those that are primarily within the Metropolitan Planning Organization boundaries) was collected. These trails include many historical off-road routes that are in varying levels of preservation, on-road routes used for special events and the proposed US Bicycle Route Corridors. This data is illustrated on **Figure 2** and includes the following:

- Applegate-Lassen Trail
- Bidwell Trail
- California-Humboldt River Emigrant Trail
- Death Valley – Manley Trail
- Donner Trail
- Hastings's Cutoff
- Jedediah Strong Smith Trail
- Park to Park Pedal Century Ride
- Pony Express
- Spanish Trail
- US Bicycle Corridors

The Highway Performance Monitoring System (HPMS) is a national information system that includes data relating to the infrastructure of highways. This is a large data source that can be used to assess current bicycling conditions as well as trends over years. The NDOT is in the process of converting this data to a GIS format, which will greatly enhance the ability for this data to be evaluated, mapped and used to effectively evaluate bicycling conditions. Each state is required to submit geospatial data conforming to HPMS system standards to the Federal Highway Administration. **Appendix C** summarizes the 2011 NDOT HPMS data submittal and includes a complete list of the types of data required. This summary also identifies the extent of each data type that was able to be prepared. As part of the review of existing conditions, GIS data for grade, Average Annual Daily Traffic (AADT), and shoulder width were requested and reviewed. As shown in **Appendix D**, grade and AADT are complete datasets; however data for shoulder width only contains sample locations. NDOT intends on completing this dataset as part of this year's HPMS submittal. This data is illustrated on **Figure 3**.

Figure 2: Statewide Bicycle Routes

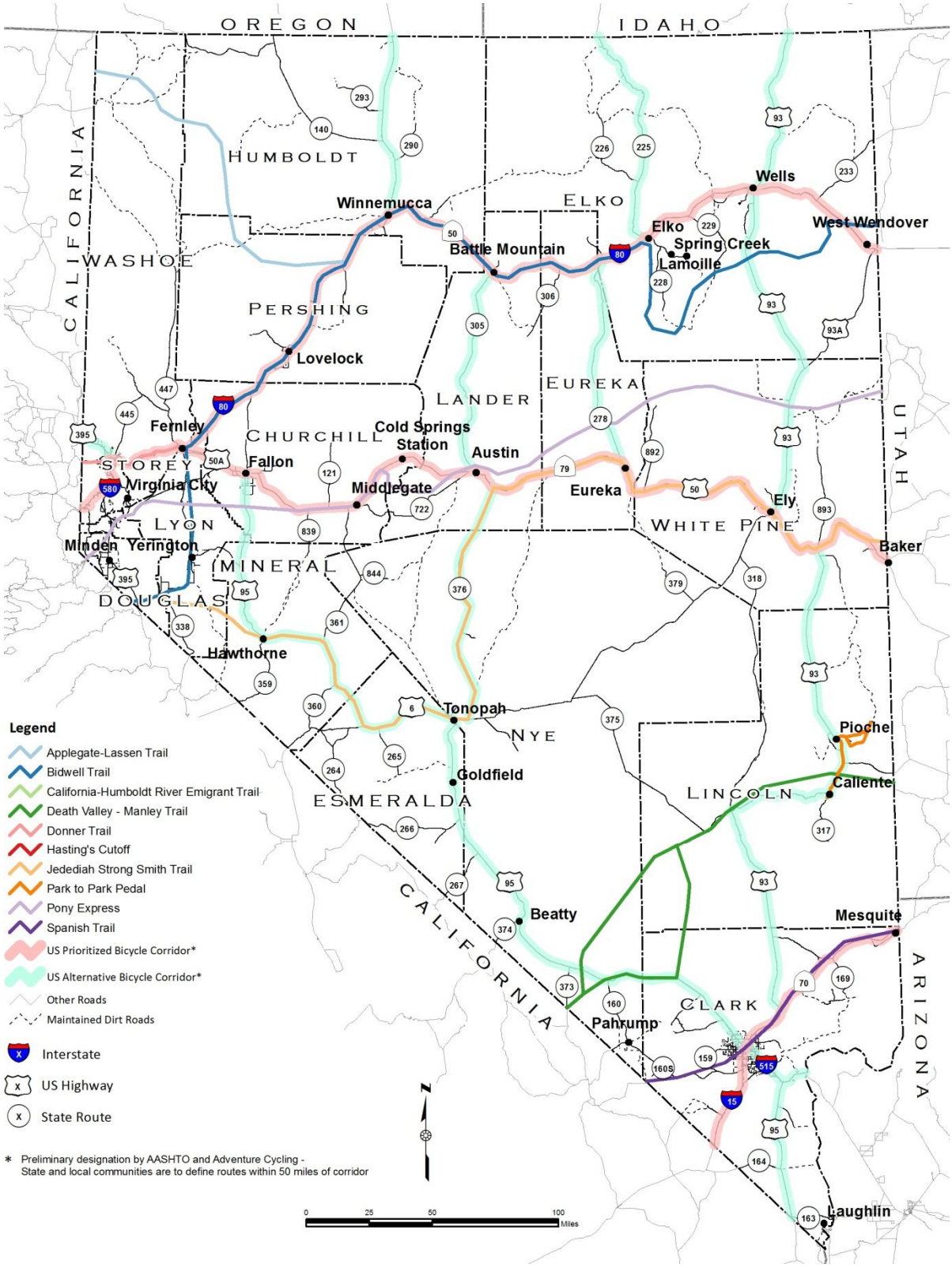
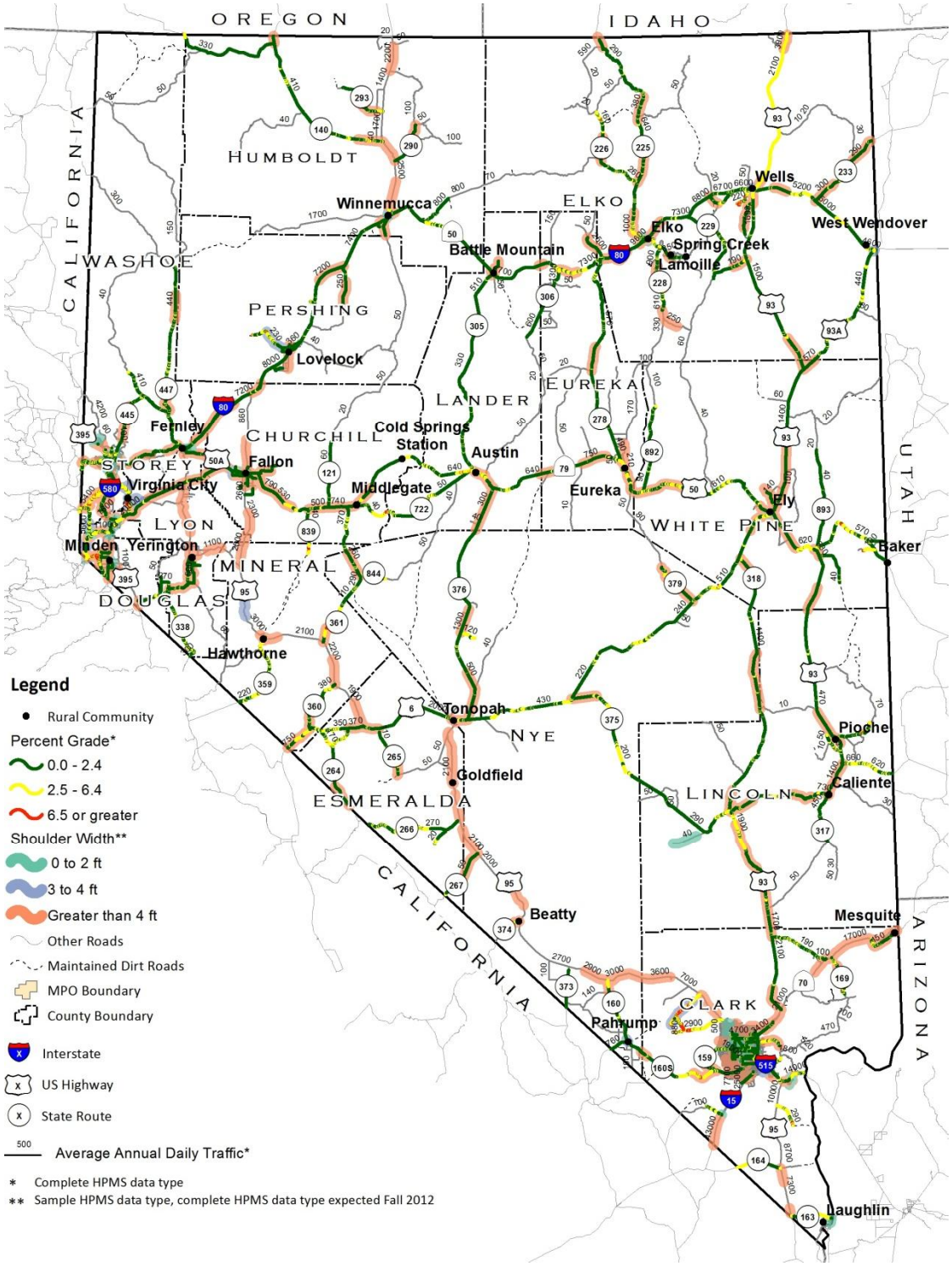


Figure 3: Statewide HPMS Data



Information regarding the location of rumble strips is also important for the evaluation of existing bicycling conditions. The NDOT Safety Engineering Division maintains a tabular database of highway segments with rumble strips, including the shoulder width associated with each segment. In general, 2,653 miles of the 6,298 mile of all state-maintained roadways have rumble strips, which represents approximately 42%. **Table 1** shows the distribution of segments with rumble strips and adjacent shoulder widths. As shown, slightly over half of the segments with rumble strips have shoulders that are four feet or less, which leaves less than four feet of usable space adjacent to the rumble strip. Rumble strips that are not located partially under the fog line can significantly reduce the effective width for bicyclists, especially when the total shoulder width is four feet or less.

Table 1: Rumble Strip Inventory – Overall

Rumble Strip Inventory			
Shoulder Width	***Less than 2 ft***	***2 - 4 ft***	***Greater than 4 ft***
Mileage of Rumble Strip	325	1022	1303
Percent of Total Miles of Rumble Strip	12%	39%	49%

Table 2 identifies the distribution of segments with rumble strips and adjacent shoulder widths by route with respect to the total mileage of each route. It is important to note that error may exist due to an incomplete inventory of rumble strips. In addition, a separate dataset provided by the NDOT Location Division (GIS Section) was utilized to evaluate the total mileage for each segment. Error may exist due to inconsistent route name terminology among data sets. However, the results of this analysis can be used to identify general trends among routes. Typically, state routes have smaller shoulders and interstates have larger shoulders, and these results conform to this trend.

Table 2: Rumble Strip Inventory – Route

		Rumble Strip Inventory			
Route	***Total Mileage***	***Shoulder Width***	***Less than 2 ft****	***2 - 4 ft****	***Greater than 4 ft****
HU03	1.2	*Mileage of Rumble Strip*	0.3	0.0	0.0
		Percent of Total Route Mileage	28%	0%	0%
SR 221	3.0	*Mileage of Rumble Strip*	0	0.66	0
		Percent of Total Route Mileage	0%	22%	0%
PE15	7.5	*Mileage of Rumble Strip*	2.1	0.0	0.0
		Percent of Total Route Mileage	28%	0%	0%

*The existing inventory of rumble strips and the associated shoulder width is currently incomplete.

Table 2 (CONTINUED): Rumble Strip Inventory – Route

		Rumble Strip Inventory			
Route	***Total Mileage***	***Shoulder Width***	***Less than 2 ft****	***2 - 4 ft****	***Greater than 4 ft****
SR 766	11.6	*Mileage of Rumble Strip*	6.3	0.0	0.0
		Percent of Total Route Mileage	54%	0%	0%
SR 604	15.5	*Mileage of Rumble Strip*	0.0	15.5	0.0
		Percent of Total Route Mileage	0%	100%	0%
SR 163	19.2	*Mileage of Rumble Strip*	19.2	0.0	0.0
		Percent of Total Route Mileage	100%	0%	0%
SR 227	20.1	*Mileage of Rumble Strip*	6.8	0.0	5.5
		Percent of Total Route Mileage	34%	0%	28%
SR 431	24.5	*Mileage of Rumble Strip*	8.2	0.0	0.0
		Percent of Total Route Mileage	33%	0%	0%
SR 208	37.9	*Mileage of Rumble Strip*	0.0	8.8	0.0
		Percent of Total Route Mileage	0%	23%	0%
SR 160	80.3	*Mileage of Rumble Strip*	22.7	17.3	12.5
		Percent of Total Route Mileage	28%	22%	16%
SR 318	110.7	*Mileage of Rumble Strip*	30.0	0.0	5.3
		Percent of Total Route Mileage	27%	0%	5%
I 15	123.8	*Mileage of Rumble Strip*	0.0	43.3	25.5
		Percent of Total Route Mileage	0%	35%	21%
I 80 W	416.2	*Mileage of Rumble Strip*	18.8	314.6	82.8
		Percent of Total Route Mileage	5%	76%	20%
I 80 E	426.0	*Mileage of Rumble Strip*	18.8	42.8	364.3
		Percent of Total Route Mileage	4%	10%	86%
US 395	43.6	*Mileage of Rumble Strip*	7.1	11.7	0.0
		Percent of Total Route Mileage	16%	27%	0%
US 6	305.6	*Mileage of Rumble Strip*	0.0	13.3	24.0
		Percent of Total Route Mileage	0%	4%	8%
US 50	341.3	*Mileage of Rumble Strip*	0.0	61.7	98.3
		Percent of Total Route Mileage	0%	18%	29%
US 93	452.7	*Mileage of Rumble Strip*	88.7	31.3	101.8
		Percent of Total Route Mileage	20%	7%	22%
US 95	508.5	*Mileage of Rumble Strip*	18.2	154.9	308.2
		Percent of Total Route Mileage	4%	30%	61%

*The existing inventory of rumble strips and the associated shoulder width is currently incomplete.

4.3 Existing Documents, Policies, and Legislation

The primary method of collecting existing documents related to bicycling throughout the state was through a Stakeholder Survey sent to the representatives from rural communities on the Stakeholder Committee. The Stakeholder Survey was used as an instrument to consolidate current information about various Nevada Counties and use that information for development of this Plan. Specifically, the Stakeholder Survey was used as a tool to document existing conditions of bicycle facilities and services, identify state network gaps, develop prioritization criteria and ultimately influence Plan recommendations. The following sections are a summary of documentation from the Stakeholder Survey in matrix form (**Table 3**) and paragraph form.

Table 3: NDOT Statewide Bicycle Plan – Existing Document Matrix

	West Wendover	Spring Creek	Churchill County	Pershing County	Fernley	Elko City	Fallon	Douglas County	Eureka County	Yerington	Winnemucca	NDOT
Bike Plan (NDOT Approved)	2001/08		2010		1997/99	2000				2000		2003
Bike Plan(Not Approved by NDOT)								2003				
Existing/Proposed Facilities	CAD	PDF	PDF/GIS		PDF	GIS		PDF			PDF	PDF
Major Bikeway Initiatives	PDF				PDF							
Laws												PDF
Policies	PDF											PDF
Programs					PDF							PDF
Construction Standards	PDF							PDF				PDF
Maintenance Expectations and Protocols		PDF										
Cycle Tourism	PDF											
Completed Survey								X				
None				X			X		X			

4.3.1 *Bicycle Plans*

The following community bicycle plans are considered approved by NDOT with the exception of the Douglas County Plan, which was never formally approved. Approval of a community Bicycle Plan was previously done by having the plan taken to the State Transportation Board; however the Nevada Bicycle and Pedestrian Advisory Board, a Governor appointed board, now will recommend approval to the NDOT Director when they are satisfied with a plan. The NDOT Director will make the final determination to approve or not. The importance of having

a local plan approved by NDOT is that the community is now eligible for state and/or federal funding for the bicycle facilities and programs identified in the plan.

West Wendover 2001/2008

The Bicycle System Plan sets forth long-term guide to future planning, design and implementation of a City-wide system of Bicycle Lanes, Signed Shared Roadways and Shared-Use Paths to be utilized by the residents and non-residents for non-automotive purposes including recreational purposes through the greater West Wendover area.

Churchill County 2010:

Churchill County Bicycle Plan has trails that can be used by their residents such as the shared-use paths, marked bike lanes, hiking and mountain biking trails and has a clear distinction of who is responsible for the maintenance of these trails and bicycling routes.

Fernley 1997/1999:

Fernley Bicycle Plan proposes to create an interconnected community in which its resident can walk or bike easily and safely between residential areas, to and from destinations in Fernley, and to other communities nearby.

Elko City 2000:

The City of Elko proposes to develop an integrated on-street and off-street non-motorized transportation system for pedestrians and cyclists to augment the traditional motorized vehicle transportation system. The City of Elko also proposes to promote public safety through public support, education and awareness of the City's Police Department Bicycle Patrol program.

Douglas County 2003:

The purpose of Douglas County's Comprehensive Trails Plan is to provide enhancement and development of a coherent, workable community trails program which will assist towards the creation of a system of hard and soft surface multi-use paths, through Douglas County. The Plan establishes specific public access points, trailhead and trail locations to be developed over the life of the Master Plan.

Yerington 2000:

The Yerington Plan is a map that designates which roadways are Bicycle Routes, including local roadway and the State Highways in Yerington.

NDOT 2003:

This Bicycle Plan is an update from the 1996 NDOT Bicycle Plan and emphasizes the definition of the roles of the state and local government in the continual development of transportation facilities which accommodate bicyclists. The 2003 NDOT Bicycle Plan outlines the vision, goals and objectives for urban/suburban areas as well as state highway corridors. The Bicycle Plan also summarizes current bicycling conditions and the benefits and impact of improved bicycling infrastructure through bicycle safety and public involvement for the implementation of these objectives.

4.3.2 *Existing/Proposed Facilities*

The following is a list of the communities that have maps of existing and/or proposed facilities. Proposed facilities listed on these maps do not necessarily have identified funding.

West Wendover:

The existing bicycling facilities include bike lanes, shared roadways, and shared-use path facilities. The terminology referenced on the map is the old Class I to III terminology that should be updated to current terminology on the next rendition.

Spring Creek:

Existing bicycle path on Lamoille Highway (SR 227) between Jiggs Road and Spring Creek Parkway.

Churchill County:

Existing bicycling facilities according to TRACC (Trails Across Churchill County) map includes; shared use paths, marked bike lanes, hiking mountain bike and equestrian paths, bike routes, bike routes with wide shoulder, bike routes with signage. Each of the facilities on the TRACC map also identifies the responsible party for maintenance of roadways.

Fernley:

Fernley's existing bicycling plan map specifies NDOT identified bicycle corridors, bike path/multi-use trial and bicycle lanes. Proposed bicycling paths include currently proposed and funded bicycle lanes and bicycle route with shoulder/outside lane improvements required.

Elko City:

Elko City existing bicycling paths include bike lanes, bike routes, shared use paths and parks.

Douglas County:

Douglas County 2003 Trails Plan includes existing on-street and off-street trail facilities. The plan also makes a graphical distinction between high priority, medium priority and low priority of on-street and off-street trails proposed projects. Existing and proposed trails heads are also organized from high priority, medium priority, and low priority as proposed projects

NDOT

4.3.3 *Major Bikeway Initiatives*

West Wendover:

Wendover Boulevard Enhancements Project, Wendover Boulevard Enhancement Project Phase 2, Leepy Hills Trails Addition (expansion of Existing trail system)

Fernley:

City of Fernery Safe Routes to School Plan, SR 828 (Farm District Road) Multi Use Path, US 95 Multi Use Path

4.3.4 *Policies*

West Wendover:

West Wendover Public Works Standards and Specifications for Construction

Spring Creek:

2008 Elko County Public Land Policy Plan, Policy Section 16.

4.3.5 *Programs*

Fernley:

City of Fernley Safe Routes to School Plan

NDOT:

Safe Routes to School

4.3.6 *Construction Standards*

West Wendover:

West Wendover Public Works Standards and Specification for Construction

Douglas County:

Douglas County, Design Criteria and Improvement Standards 2008

4.3.7 *Maintenance Expectations and Protocols*

Spring Creek:

1994 Maintenance Agreement of Bicycle Path

4.3.8 *Cycle Tourism*

West Wendover:

West Wendover Trails Map

4.3.9 *Legislation*

The Nevada Revised Statutes (NRS) contains legislature pertaining to the use of bicycles. The following is a summary of current laws.

NRS 484A.025 includes a definition of a bicycle as "a device propelled by human power upon which a person may ride, having two tandem wheels either of which is over 14 inches in diameter, or every such device generally recognized as a bicycle though equipped with two front or two rear wheels except a moped." In addition, most legislation also pertains to the use of an electric bicycle, which has been defined in NRS 484B.017 as "a device upon which a person may ride, having two or three wheels, or every such device generally recognized as a bicycle that has fully operable pedals and is propelled by a small electric engine which produces not more than 1 gross brake horsepower and which produces not more than 750 watts final output." NRS 408.579 includes legislation that permits electric bicycles to be used on trails and walkways that are intended for bicycles.

According to NRS 408.321, the Nevada Department of Transportation shall:

- Consider bicycle lanes and routes, facilities, signs, and turnouts into their designs;
- Develop a bicycle and pedestrian safety education program;
- Provide secretarial services to the Nevada Bicycle and Pedestrian Safety Advisory Board; and
- Have the authority to prohibit the use of bicycles on highways or require a permit

According to NRS 408.321, the Nevada Bicycle and Pedestrian Safety Advisory Board shall:

(a) At its first meeting and annually thereafter, elect a Chair from among its members.
(b) Meet regularly at least once each calendar quarter and may meet at other times upon the call of the Chair.
(c) Promote programs and facilities for the safe use of bicycles and pedestrian safety in this State.
(d) Advise appropriate agencies of the State on policies, programs and facilities for the safe use of bicycles and pedestrian safety.

Relating to the responsibilities of an individual operating a bicycle or electric bicycle, NRS has defined that users shall:

- Be subject to the duties applicable to those driving a motor vehicle, except for an individual operating while on duty, including a peace officer, firefighter, emergency medical technician, or employee of a pedestrian mall (NRS 484B.777);
- Use hand signals when appropriate (484B.769);
- Ride upon an attached seat with no more persons than intended by design (NRS 484B.770);
- Ride as near to the right side of the roadway as practical when appropriate (NRS 484B.777); and
- Utilize a headlamp and red rear reflectors when operating at night (NRS 484B.783).

In addition, an operator of a bicycle or electric bicycle shall not:

- Attach themselves to a motor vehicle (NRS 484B.773);
- Carry an article that prevents them from using at least one hand (NRS 484B.780); and
- Intentionally interfere with the movement of a motor vehicle (NRS 484.324).

Relating to the responsibilities of an individual operating a motor vehicle, NRS 484B.270 has defined that users shall:

- Not intentionally interfere with an individual operating a bicycle or electric bicycle, and utilize due care. This includes moving to the lane to the immediate left if possible when passing. If this is not possible, no less than 3 feet should be provided;
- Yield to bicycles and electric bicycles riding on a pathway or lane; and
- Be subject to additional penalty if found to be at fault for a collision.

NRS 455contains legislature relating to skate parks. Relating to bicyclists utilizing these facilities, NRS 455B.290 states that a person shall not use a skate park to ride a bicycle while under the influence of a controlled substance. In addition, NRS 205.2741 includes language making it illegal to willfully damage a bicycle, making the offense subject to a penalty no less than a misdemeanor.

4.4 Crash Data

The Nevada Department of Transportation annually completes a crash data review for the preceding 3 years. The most recent report is the 2007 to 2009. It is important to recognize that most bicycle crash data only includes bicycle crashes with motor vehicles that are significant enough to require a police report. The data included in NDOT's report does not include minor collisions with bicycles and motor vehicles that don't have a police report nor does it include bicycle crashes that do not include a motorist. The following is a summary of the bicycle and motor vehicle crashes for years 2007 to 2009. This bicycle crash data from this study is included in **Appendix E**.

Table 4: NDOT Bicycle/Motor Vehicle Crashes (2007 to 2009)

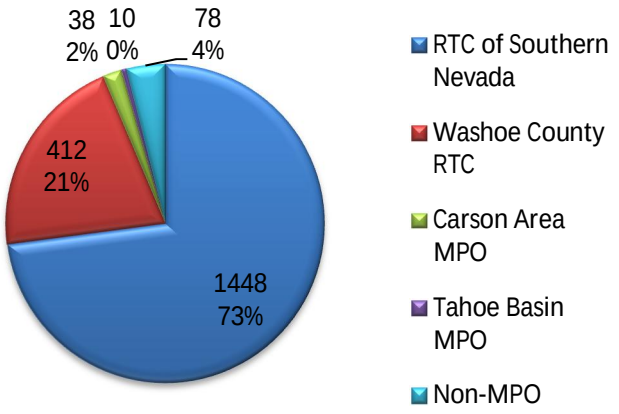
BICYCLE

COUNTY	2007				2008				2009			
	TOTAL INJURY COLLISION	TOTAL INJURIES	TOTAL FATAL COLLISIONS	TOTAL FATALTIES	TOTAL INJURY COLLISION	TOTAL INJURIES	TOTAL FATAL COLLISIONS	TOTAL FATALTIES	TOTAL INJURY COLLISION	TOTAL INJURIES	TOTAL FATAL COLLISIONS	TOTAL FATALTIES
CARSON	12	12			11	12			6	6		
CHURCHILL	5	6			5	5	1	1	3	3		
CLARK	320	341	6	6	243	250	6	6	421	432	5	5
DOUGLAS	4	4			6	6			9	9		
ELKO	1	1			3	3			4	4		
ESMERALDA												
EUREKA												
HUMBOLDT					2	2						
LANDER												
LINCOLN												
LYON	1	1			1	1			4	4		
MINERAL												
NYE			1	1					2	2		
PERSHING												
STOREY					1	1						
WASHOE	86	99	3	3	111	115			106	112	1	1
WHITE PINE												
TOTAL	429	464	10	10	383	395	7	7	555	572	6	6

The following are additional key results from the NDOT crash data:

- Bicycle crashes trended up over the three years, but fatalities decreased slightly.
- Improper crossing and wrong side of road are most common bicyclist factor, followed by darting, failure to obey signs, signals or officer, and failure to yield right of way. Not visible, inattentive and lying in roadway are minor contributing factors.
- Failure to yield is the most common motorist factor.
- There are typically more bicycle crashes and fatalities per day on weekdays than on weekends. Most collisions are between 3 and 5 PM, with noon to 3 being secondary.
- Nearly all bicycle crashes are within the MPO boundaries.

NDOT also provided GIS bicycle crash data for Nevada from 2006 to 2011. The data is spatially located where the event occurred, and is coded with information related to the incident including crash severity and type. As illustrated below, only 4% (78) of the crashes occurred outside of the four MPO boundaries.

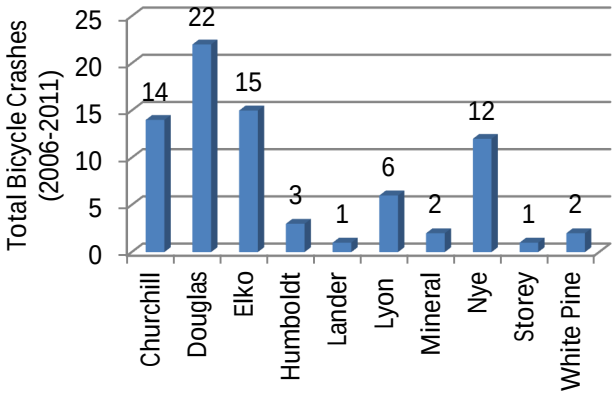


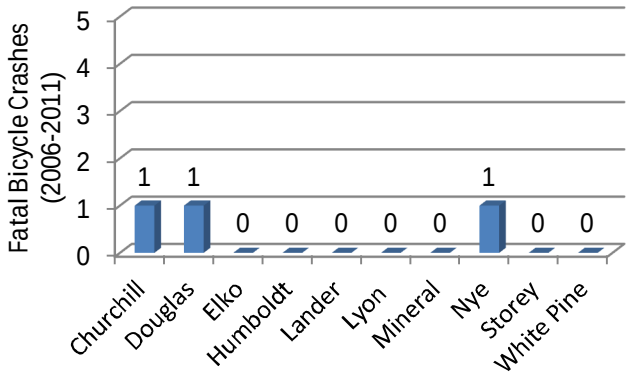
Of the crashes that occurred outside of the MPO boundaries, the majority of crashes occurred in the following towns as illustrated in **Figure 3**:

- Elko
- Fallon
- Minden
- Pahrump

The specific crash type and bicyclist movement for the crashes located in these four towns have been mapped and are located in **Appendix F**. Note that there are inconsistencies with how crash type is currently recorded. Officers are instructed to indicate a crash type of "non-collision" for all crashes not involving two motor vehicles, and indicate bicycle-specific crash types in a separate field for such incidents. However, upon reviewing the data provided, not all crashes are coded in this manner. Some bicycle crash types are coded in the crash type field, while others are coded as "non-collision". In addition, most bicycle crashes do not contain data in the bicycle-specific crash type field. In order to effectively evaluate bicycle crashes, it is important to address these inconsistencies.

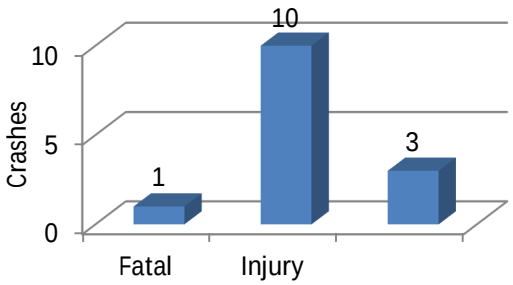
In addition to towns with the highest number of bicycle crashes, the characteristics for crashes outside the MPO boundaries were also summarized by county. The following charts illustrate the distribution of crashes by severity (where PDO stands for property damage only), crash type, lighting, and bicyclist movement.



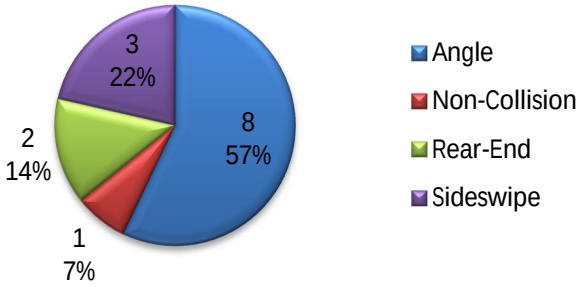


Churchill County

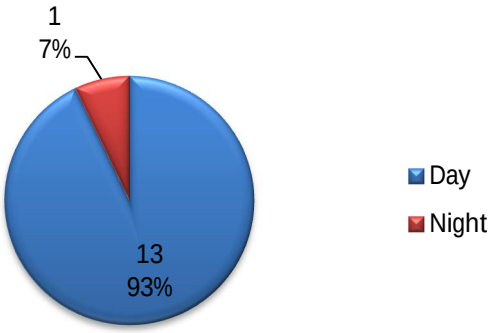
Crash Severity



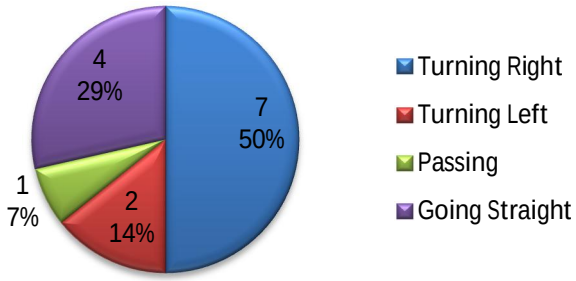
Bicycle Crash Type



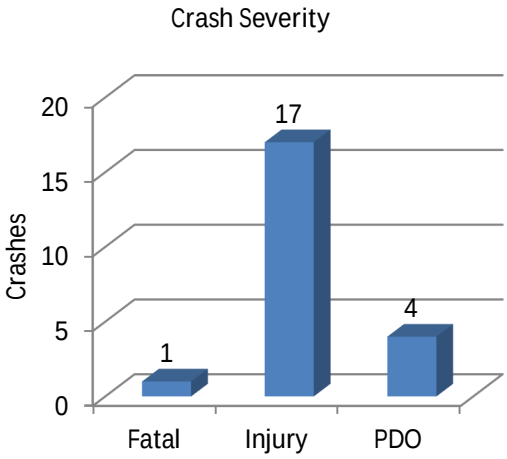
Lighting Conditions

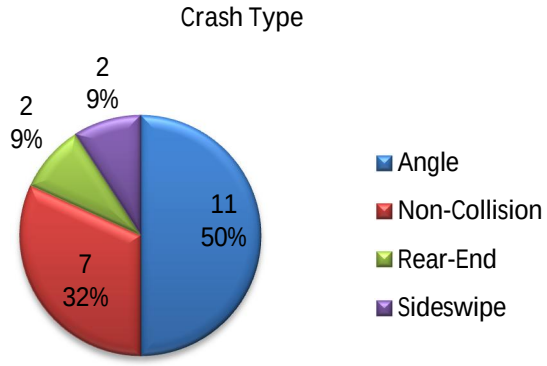


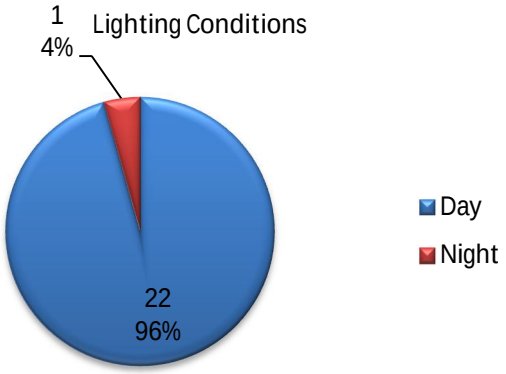
Bicyclist Movement

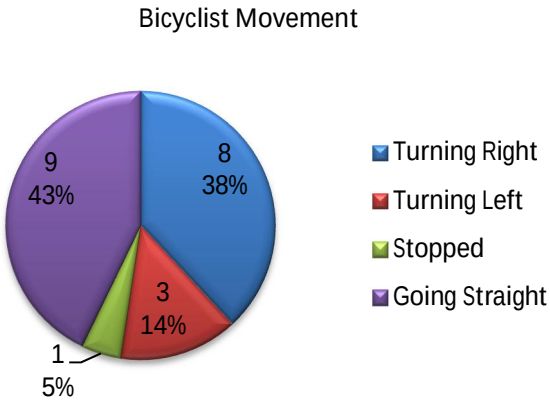


Douglas County

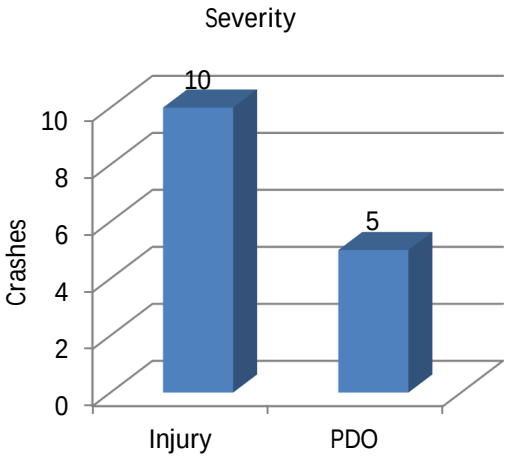


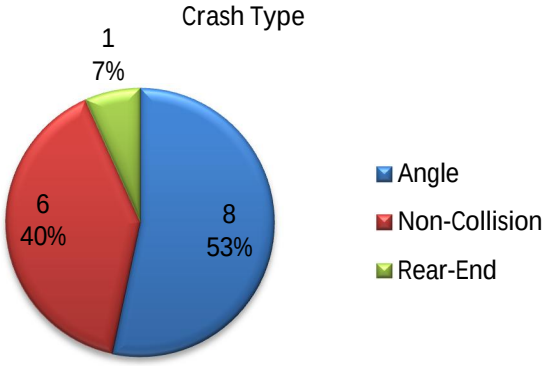


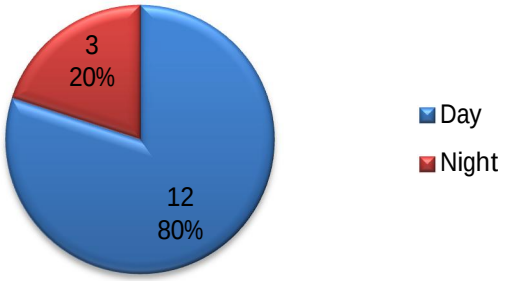


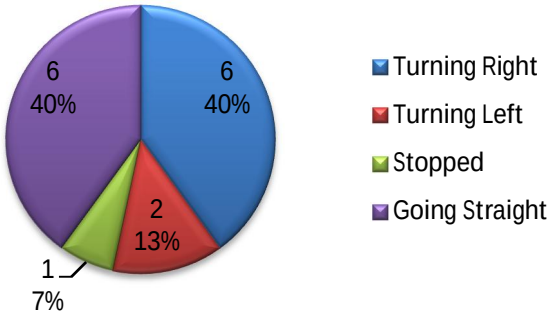


Elko County

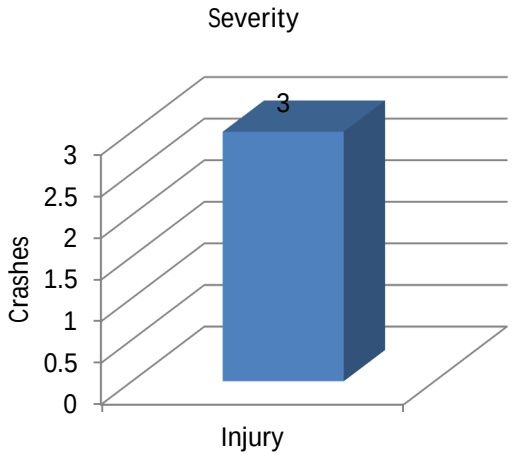

Severity
Crashes
10
8
6
4
2
0
10
5
Injury
PDO

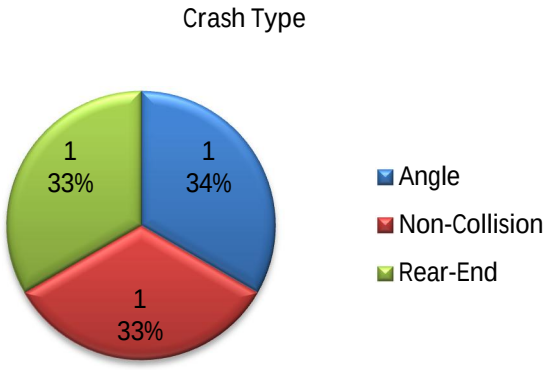

Crash Type
1
7%
6
40%
8
53%
Angle
Non-Collision
Rear-End

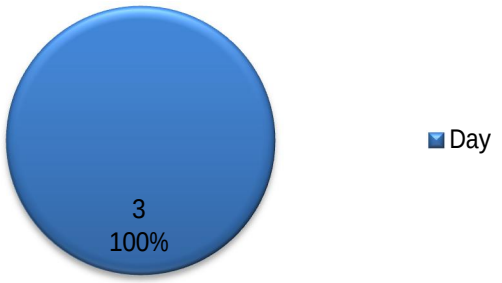

Lighting Conditions
3
20%
12
80%
Day
Night

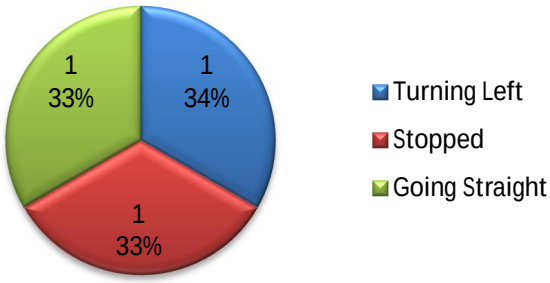

Bicyclist Movement
6
40%
6
40%
2
13%
1
7%
Turning Right
Turning Left
Stopped
Going Straight

Humboldt County

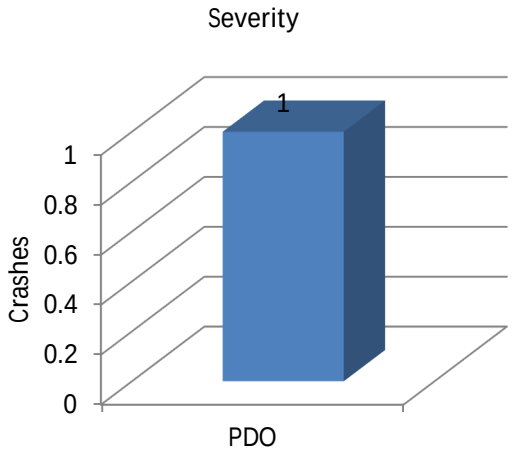


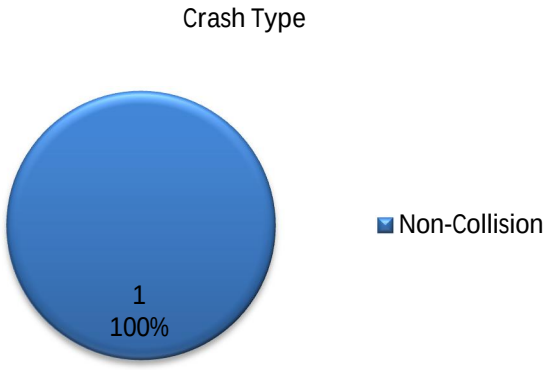


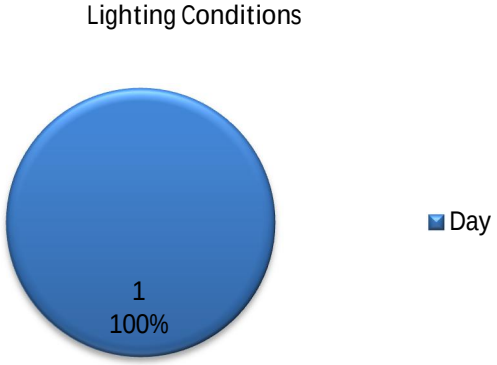


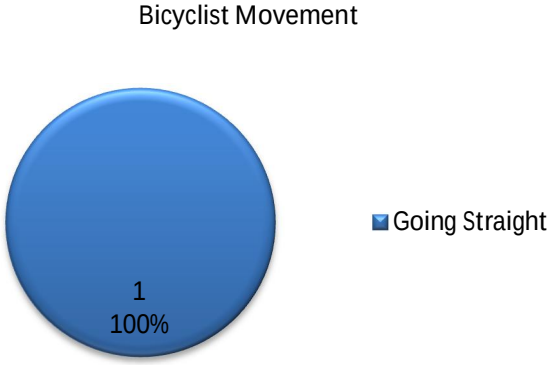


Lander County

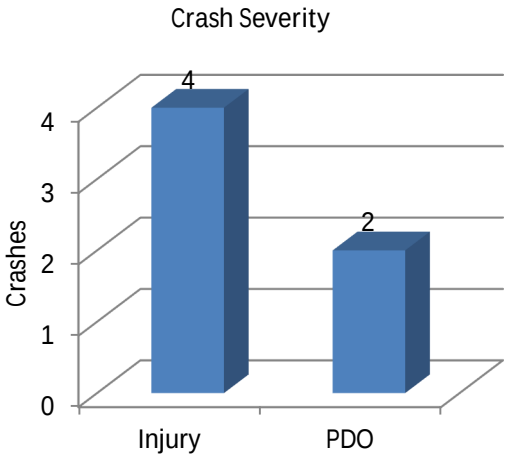


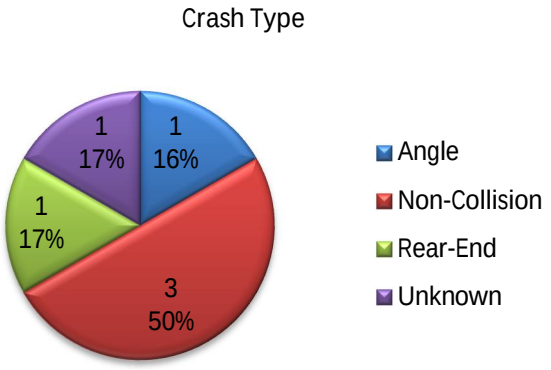


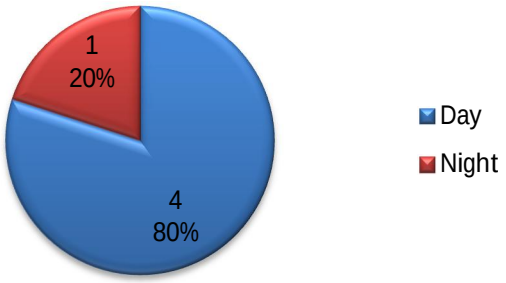


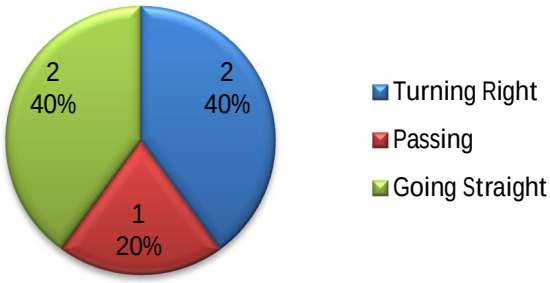


Lyon County

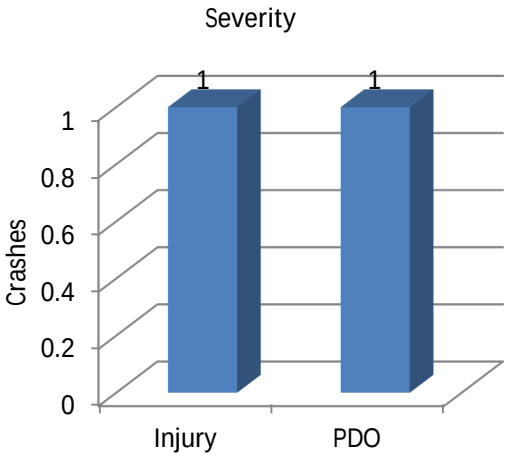

Crash Severity
Crashes
0
1
2
3
4
4
2
Injury
PDO

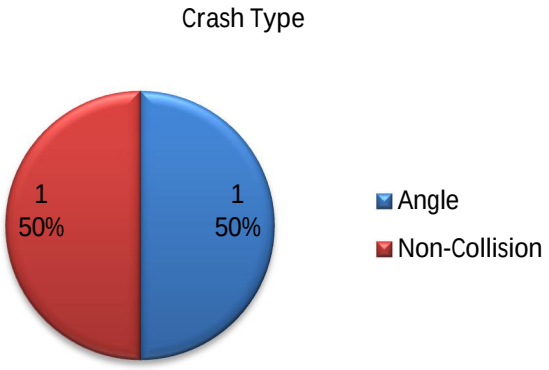

Crash Type
1
16%
3
50%
1
17%
1
17%
Angle
Non-Collision
Rear-End
Unknown

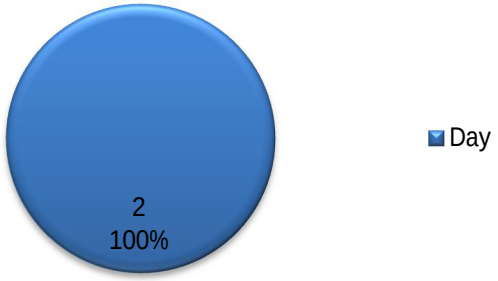

Lighting Conditions
1
20%
4
80%
Day
Night

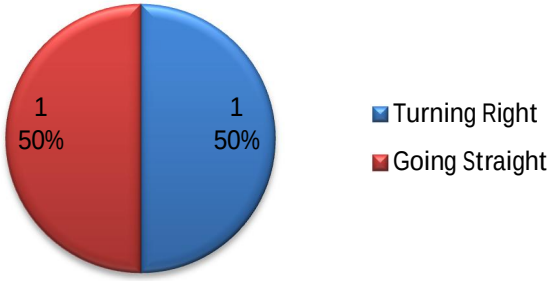

Bicyclist Movement
2
40%
2
40%
1
20%
Turning Right
Passing
Going Straight

Mineral County

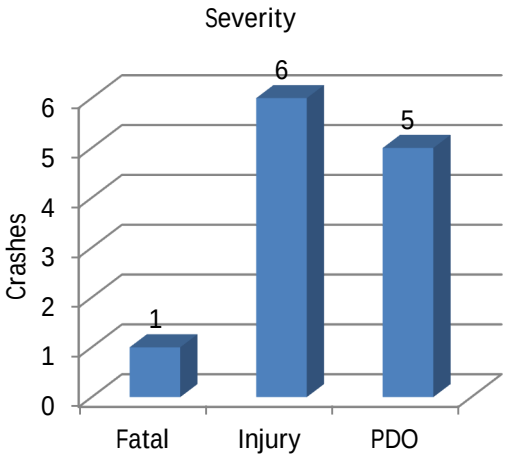


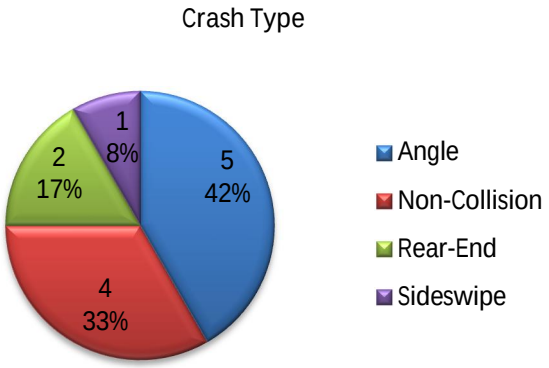


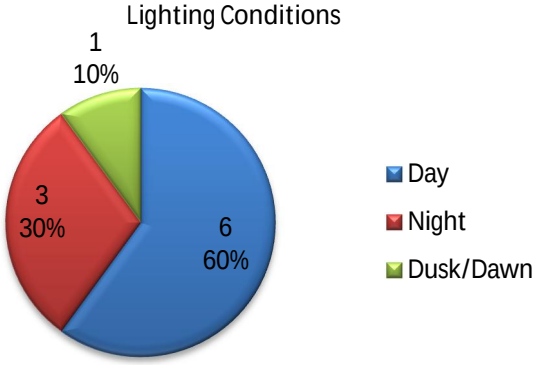


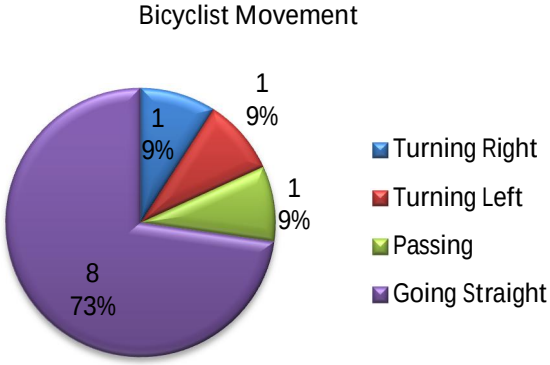


Nye County

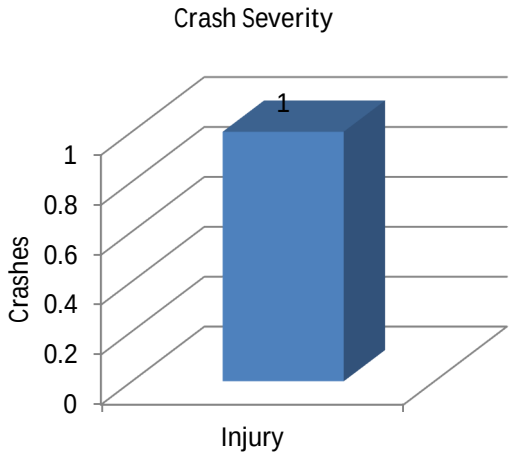

Severity
Crashes
0
1
2
3
4
5
6
1
6
5
Fatal
Injury
PDO

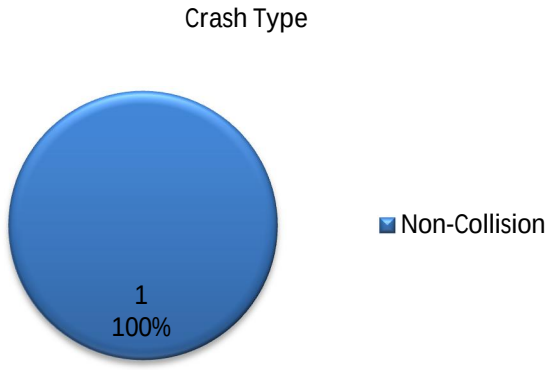

Crash Type
1
8%
2
17%
5
42%
4
33%
Angle
Non-Collision
Rear-End
Sideswipe

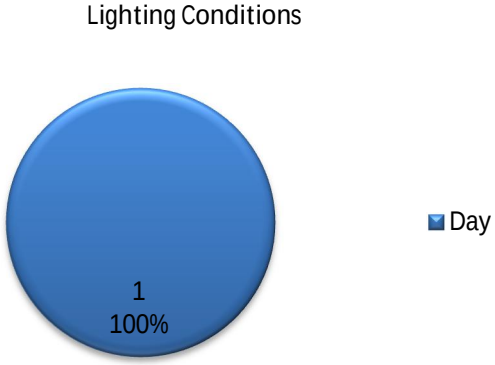

Lighting Conditions
1
10%
3
30%
6
60%
Day
Night
Dusk/Dawn

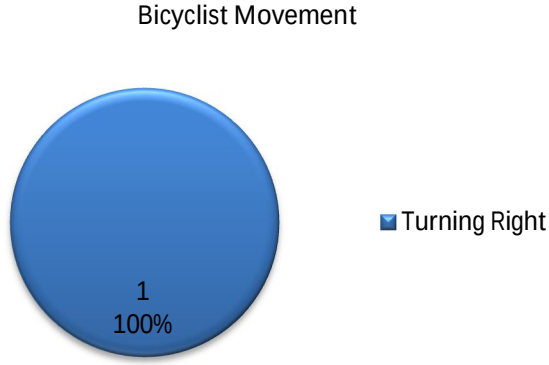

Bicyclist Movement
1
9%
1
9%
1
9%
8
73%
Turning Right
Turning Left
Passing
Going Straight

Storey County

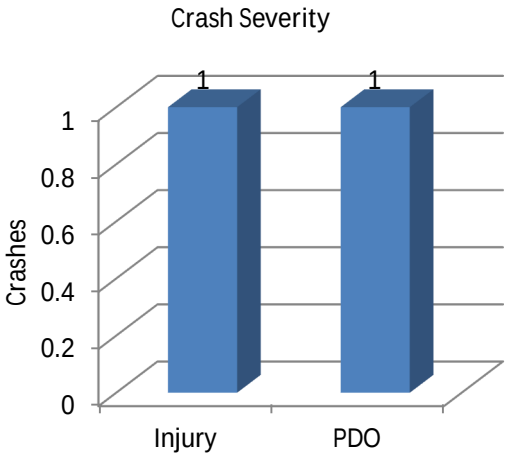


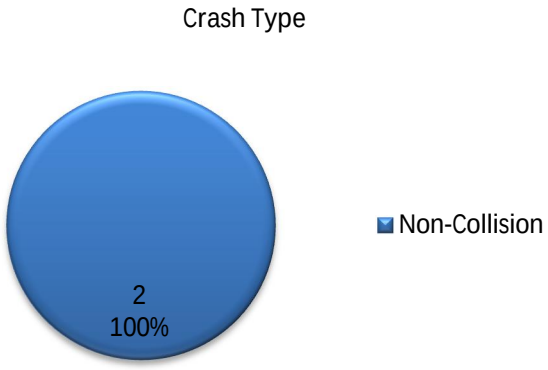


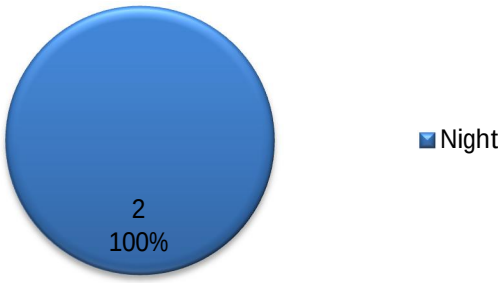




White Pine County







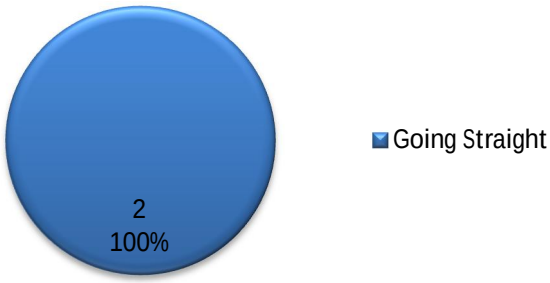
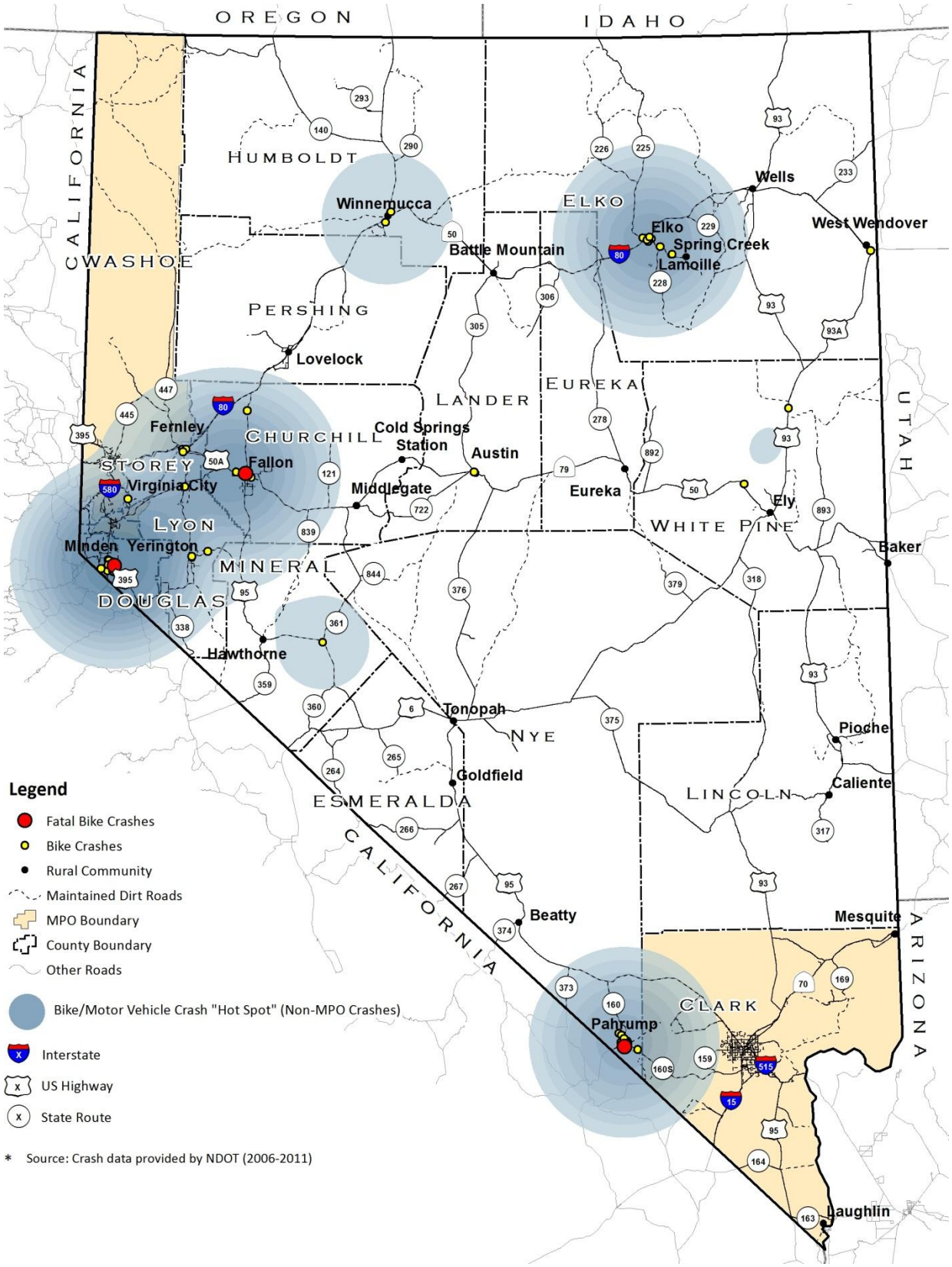


Figure 4: Non-MPO Crash Density



5. VISION, GOALS AND OBJECTIVES

The following Vision, Goals, and Objectives were developed in coordination with the Stakeholder Committee to guide the development and implementation of this Plan.

Vision

The vision for NDOT's Bicycle Program is for Nevada residents and visitors, of all ages and abilities, to experience a convenient, pleasant, and safe bicycling environment.

Goals

There are two major goals of the NDOT Bicycling Program that will guide the specific objectives and strategies within this plan.

1. Increase bicycling's mode share throughout Nevada in and between communities, both by residents and tourists
2. Reduce crashes involving bicyclists and eliminate all bicyclist fatalities in support of Nevada's "Zero Fatalities" and the national "Towards Zero Deaths" initiatives.

Objectives

The following objectives are the specific tasks to be evaluated to determine the success of this Plan and bicycling in Nevada.

1. Increase agency support of bicycling
2. Increase bicycle tourism
3. Accommodate appropriate bicycling facilities on all roadways in Nevada open to bicycling
4. Increase motorists and bicyclists compliance with laws associated with bicycling

6. RECOMMENDATIONS

The recommendations within this Plan are based upon the existing conditions and bicyclists' needs discovered through public input and stakeholder involvement. Recommendations are presented as strategies to obtain the following four objectives:

Objective 1: Increase agency support of bicycling
Objective 2: Increase bicycle tourism
Objective 3: Accommodate appropriate bicycling facilities on all roadways in Nevada open to bicycling
Objective 4: Increase motorists and bicyclists compliance with laws associated with bicycling

The recommendations take into account that bicycle accommodation is not a one size fits all approach and that bicycling accommodation should be responsive to the preferences of different bicycling user groups and trip types. The 2012 AASHTO Guide for the Development of Bicycle Facilities (2012 AASHTO Bike Guide) defines two user groups based on bicyclist skill and comfort level:

Experienced and Confident:

- Most comfortable riding with vehicles on streets and are able to navigate streets like a motor vehicle, including using the full width of a narrow travel lane when appropriate and using left-turn lanes
- While comfortable on most streets, some prefer on-street bike lanes, paved shoulders or shared use paths when available
- Ride with the flow of traffic on streets and avoid riding on sidewalks
- Typically ride at speeds of 15 to 25 miles per hour on level grades and can reach up to 45 miles per hour on steep descents

Casual and Less Confident:

- Prefer shared use paths, bicycle boulevards, or bike lanes along low-volume streets
- May have difficulty gauging traffic and may be unfamiliar with rules of the road as they pertain to bicyclists; more likely to walk bike across intersections
- May use less direct route to avoid arterials with heavy traffic volumes
- May ride on sidewalk if no on-street facility is available
- Typically ride around 8 to 12 miles per hour
- Typically cycle shorter distances, one to five miles

Bicyclists generally also have different preferences based on if the trip is local versus long distance. Local trips are often more utilitarian (e.g. biking to a shopping destination or school) and long trips more recreational (e.g. biking for exercise or sport), although there are also short recreation trips and long utilitarian trips. Local trips typically do not go much further beyond the populated area, whereas long distance trips may be cross-state, touring type trips, or regional trips between destinations. These trip types are also based on information in the 2012 AASHTO Bike Guide and generally have the following characteristics:

Long-Distance Trips:

- Directness of route not as important as visual interest, shade, and protection from wind
- Loop trips may be preferred to back tracking; start and end points are often the same with an exception being bicycle touring trips
- Trips typically range from under a mile to over 50 miles
- Short term parking is needed at recreational sites, parks, trailheads and other activity centers
- Varied topography may be desired, depending on the fitness and skill level of the bicyclist
- More likely to be riding in a group
- Sometimes drive with bicycle to starting point of ride
- Typically ride on the weekend or on weekday before or after commute hours

Local Trips:

- Directness of route and connected, continuous facilities more important
- Trips generally travel from residential to schools, shopping or work areas
- Trips typically range from 1 to 10 miles in length
- Short-term and long-term bicycle parking is needed at destinations
- Flat topography preferred
- Often ride individually
- Bicycle is primary mode of transportation for the trip; may transfer to public transportation and may not have access to a car for the trip

The following table summarizes the preferences of both trip types for the two user groups.

Table 5: User Groups and Trip Types

		Experienced/Confident Bicyclists		Casual/Less Confident Bicyclists	
		Long Distance	Local	Long Distance	Local
Facility Type	Bicycle Lane	✓	✓	✓	✓
	Paved Shoulder	✓	✓	✓	✓
	Shared Lanes	✓	✓		
	Marked Shared Lanes		✓		✓
	Shared Use Path			✓	✓

As is displayed in the table above, all of the different facility types are preferred by at least one particular user group for either a local or long distance trip. Therefore, the recommendations of this plan recognize that all of

these different facility types serve a particular purpose and should be considered for particular conditions and in some cases two facilities may be appropriate within the same area or corridor.

The following sections describe the recommendations of this plan.

6.1 Increase Agency Support of Bicycling

State, regional and local agencies can provide support to bicycling by providing the policies, programs, and facilities that bicyclist's prefer. The following sections provide recommendations for agencies to provide bicycle plans, bicycle accommodation policies, and bicycle promotion. The following sections summarize five supporting strategies:

Strategy 1A: NDOT to provide guidance and technical support to regional and local jurisdictions for developing bicycle plans that are adopted and endorsed by the Nevada Bicycle and Pedestrian Advisory Board

Strategy 1B: State, regional, and local jurisdictions adopt a policy that all design projects with new roadways or modifications to existing roadways are required to include appropriate bicycle accommodation

Strategy 1C: NDOT to encourage design, engineering, planning, and other appropriate staff to complete bicycle facility design training once every three years

Strategy 1D: NDOT to provide guidance to regional and local agencies on the creation of funding mechanisms for bicycle related projects and the identification of available state and federal funding opportunities and programs that are available for bicycle related projects

Strategy 1E: NDOT to work with health advocates and agencies in promoting bicycling as part of a healthy lifestyle for children and adults, including safe routes to schools

The following sections summarize these five strategies:

6.1.1 *Strategy 1A*

NDOT to provide guidance and technical support to regional and local jurisdictions for developing bicycle plans that are adopted and endorsed by the Nevada Bicycle and Pedestrian Advisory Board.

Support: As described in Section 2.4.2 of the 2012 AASHTO Bike Guide, a Statewide Bicycle Plan is often focused on policy issues, while a local or regional level bicycle plan may focus on bicycle network planning as well as policies and design practices. There are many barriers and assets that are best known at the local level. Developing bicycle plans for local communities allows for local knowledge, combined with best practice and applicable standards and guidelines, to be consolidated and formulated into one "go-to" document that clearly outlines the necessary steps for making local communities more bicycle-friendly. Specifically, approved local or county level plans in Nevada will serve the following primary purposes:

- Documents the specific needs and preferences of the local bicycling community
- Enables the preferred bicycle facilities to be "piggy-backed" on other public and private sector improvement projects
- Identify priorities for recommended changes in local laws, policies, programs and infrastructure

Makes the jurisdiction eligible to compete for federal and state funding for the construction of bicycle facilities

Guidance: It is recommended that local jurisdictions develop a bicycle plan that is developed with extensive input from local bicycle advocates/riding clubs, organizers/sponsors of special bicycling events (e.g. century ride; mountain bike competition) and schools. In its effort to encourage local communities to develop bicycle plans, NDOT may provide guidance, technical support and/or funding. The bicycle plan can be a short document that should address the following sections:

- Vision, Goals, and Objectives
- Existing Conditions (plans, facilities, initiatives, laws, programs, standards, maintenance, cycle tourism)
- Recommended Plan Components
- Implementation Plan (recommendations for short-, mid-, and long-term programs and projects, funding sources, evaluation)

There are several communities (e.g. Cities of Elko and West Wendover) that do have approved bicycle plans, which may require updating based on new data, standards, and guidelines. Local bicycle plans that are developed and approved should be updated on a periodic basis (i.e. every 5 years) to reflect changing conditions and best practice in addressing the 5 E's: Education, Encouragement, Enforcement, Engineering, and Evaluation.

6.1.2 *Strategy 1B*

State, regional, and local jurisdictions adopt a policy that all design projects with new roadways or modifications to existing roadways are required to include appropriate bicycle accommodation.

Support: A requirement for bicycle accommodation can come in the form of a bicycle policy or a complete streets policy. As summarized on the national Complete Streets Coalition website (www.completestreets.org):

Instituting a Complete Streets policy ensures that transportation planners and engineers consistently design and operate the entire roadway with all users in mind – including bicyclists, public transportation vehicles and riders, and pedestrians of all ages and abilities.

Complete streets can offer many benefits in all communities, regardless of size or location.

Complete streets make economic sense. A balanced transportation system that includes complete streets can bolster economic growth and stability by providing accessible and efficient connections between residences, schools, parks, public transportation, offices, and retail destinations.

Complete streets improve safety by reducing crashes through safety improvements. One study found that designing for pedestrian travel by installing raised medians and redesigning intersections and sidewalks reduced pedestrian risk by 28 percent (Transportation Research Record 1828, Paper No. 03-3135, pp. 56-66 by Michael R. King, Jon A. Carnegie and Reid Ewing).

Complete streets encourage more walking and bicycling. Public health experts are encouraging walking and bicycling as a response to the obesity epidemic, and complete streets can help. One study found that 43 percent of people with safe places to walk within 10 minutes of home met recommended activity levels, while just 27 percent of those without safe places to walk were active enough (Designing for Active Recreation, Active Living Research, February 2005).

Complete streets can help ease transportation woes. Streets that provide travel choices can give people the option to avoid traffic jams, and increase the overall capacity of the transportation network. Several states, including California, Colorado and Oregon, have adopted complete streets policies as one strategy to increase the overall capacity of their transportation network and reduce congestion.

Complete streets help children. Streets that provide room for bicycling and walking help children get physical activity and gain independence. More children walk to school where there are sidewalks, and children who have and use safe walking and bicycling routes have a more positive view of their neighborhood. Safe Routes to School programs, gaining in popularity across the country, will benefit from complete streets policies that help turn all routes into safe routes.

Complete streets are good for air quality. Poor air quality in our urban areas is linked to increases in asthma and other illnesses. Yet if each resident of an American community of 100,000 replaced one car trip with one bike trip just once a month, it would cut carbon dioxide (CO2) emissions by 3,764 tons per year in the community. Complete streets allow this to happen more easily.

Complete streets make fiscal sense. Integrating sidewalks, bike lanes, transit amenities, and safe crossings into the initial design of a project spares the expense of retrofits later. Jeff Morales, former Director of Caltrans, said, "by fully considering the needs of all non-motorized travelers (pedestrians, bicyclists, and persons with disabilities) early in the life of a project, the costs associated with including facilities for these travelers are minimized."

Guidance: It is recommended that NDOT adopt a Complete Streets Policy and local and regional agencies adopt a similar policy.

The following is guidance on the state level policy based on information from the National Complete Streets Coalition website (www.completestreets.org). Additional guidance is provided on the website.

> NDOT shall provide for the needs of motor vehicle drivers, public transportation vehicles and patrons, bicyclists, and pedestrians of all ages and abilities in all planning, programming, design, construction, reconstruction, retrofit, operations, and maintenance activities and products. NDOT shall view all transportation improvements as opportunities to improve safety, access, and mobility for all travelers in Nevada and recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system.

The website includes additional recommendations on the considerations for addressing specific issues and exceptions.

If adoption of a Complete Streets Policy is not possible, an alternate approach is a Bicycle and Pedestrian Accommodation Policy. The following summarizes U.S. Department of Transportation (USDOT) document "Accommodating Bicycle and Pedestrian Travel: A Recommended Approach (http://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/design_guidance/design.cfm#d1):

1. Bicycle and pedestrian ways shall be established in new construction and reconstruction projects in all urbanized areas unless one or more of three conditions are met:
    - Bicyclists and pedestrians are prohibited by law from using the roadway. In this instance, a greater effort may be necessary to accommodate bicyclists and pedestrians elsewhere within the right-of-way or within the same transportation corridor.

- The cost of establishing bikeways or walkways would be excessively disproportionate to the need or probable use. Excessively disproportionate is defined as exceeding 20 percent of the cost of the larger transportation project.
- Where population is sparse or other factors indicate an absence of need. For example, the Portland Pedestrian Guide requires "all construction of new public streets" to include sidewalk improvements on both sides, unless the street is a cul-de-sac with four or fewer dwellings or the street has severe topographic or natural resource constraints.

2. In rural areas, paved shoulders should be included in all new construction and reconstruction projects on roadways used by more than 1,000 vehicles per day, as in states such as Wisconsin. Paved shoulders have safety and operational advantages for all road users in addition to providing a place for bicyclists and pedestrians to operate.

   Rumble strips are not recommended where shoulders are used by bicyclists unless there is a minimum clear path of four feet in which a bicycle may safely operate.
3. Sidewalks, shared use paths, street crossings (including over- and undercrossings), pedestrian signals, signs, street furniture, transit stops and facilities, and all connecting pathways shall be designed, constructed, operated, and maintained so that all pedestrians, including people with disabilities, can travel safely and independently.
4. The design and development of the transportation infrastructure shall improve conditions for bicycling and walking through the following additional steps:
   - Planning projects for the long-term. Transportation facilities are long-term investments that remain in place for many years. The design and construction of new facilities that meet the criteria in item 1 above should anticipate likely future demand for bicycling and walking facilities and not preclude the provision of future improvements. For example, a bridge that is likely to remain in place for 50 years, might be built with sufficient width for safe bicycle and pedestrian use in anticipation that facilities will be available at either end of the bridge even if that is not currently the case
   - Addressing the need for bicyclists and pedestrians to cross corridors as well as travel along them. Even where bicyclists and pedestrians may not commonly use a particular travel corridor that is being improved or constructed, they will likely need to be able to cross that corridor safely and conveniently. Therefore, the design of intersections and interchanges shall accommodate bicyclists and pedestrians in a manner that is safe, accessible, and convenient.
   - Getting exceptions approved at a senior level. Exceptions for the non-inclusion of bikeways and walkways shall be approved by a senior manager and be documented with supporting data that indicates the basis for the decision.
   - Designing facilities to the best currently available standards and guidelines. The design of facilities for bicyclists and pedestrians should follow design guidelines and standards that are commonly used, such as the 2012 AASHTO Bike Guide, AASHTO's A Policy on Geometric Design of Highways and Streets, and the ITE Recommended Practice "Design and Safety of Pedestrian Facilities".

6.1.3 *Strategy 1C*

NDOT to encourage design, engineering, planning, and other appropriate staff to complete bicycle facility design training once every three years.

Support: Providing the appropriate accommodation for bicyclists within design projects requires knowledge of current best practices for bicycling accommodation. Planners and design engineers must recognize that different bicyclists have different characteristics and needs. Bicycle facility design is typically not taught in detail to design

engineers and it is something that is continually evolving based on application and evaluation of alternate approaches.

Guidance: Bicycle facility design courses should be provided at different locations throughout the state on an annual or biannual basis so that planners and designers have multiple options to meet this requirement. Design courses should be one-half to one day minimum and may be focused on bicycle accommodation only or be a part of a complete streets design course.

Bicycle courses can be provided as part of a consultant contract, similar to the facility design course as part of the contract for the development of this plan. In addition, there is currently a 1 day FHWA sponsored course on the 2012 AASHTO Bike Guide and a 1.5 day National Highway Institute Bicycle Facility Design Course.

6.1.4 *Strategy 1D*

NDOT to provide guidance to regional and local agencies on the creation of funding mechanisms for bicycle related projects and the identification of available state and federal funding opportunities and programs that are available for bicycle related projects.

Support: Having a bicycle plan and a bicycle accommodation policy in place are important elements of improving bicycling conditions, but funding for bicycle improvements and programs is critical for bicycling conditions to continue to improve. Without funding opportunities, the positive momentum gained with the development of a plan and policy often disappears and/or turns negative. With funding, momentum can continue to build through the positive energy associated with new bicycling infrastructure and programs.

Guidance: In order for bicycling to be adequately funded, bicycling will need to be funded both through "piggy-backing" and independent bicycle project funding.

Piggy-backing is when bicycle improvements are included as a component of a larger scale project. An example is a bicycle lane, paved shoulder, shared use path or bicycle crossing that is constructed along with a roadway improvement project. As described previously, piggy-backing is most effective once a bicycle plan for the local region has been adopted. Realistically, retrofitting the existing roadway network in Nevada for improved bicycle accommodation is a long process and piggy-backing of improvements is the most effective means for accomplishing this.

Independent funding for bicycling is critical to support bicycle programs and the construction of crucial bicycle facilities that are not associated with roadway improvement projects. The Federal Transportation Bill passed in July 2012 restructured and redefined eligibility for federal funding of bicycle and pedestrian projects. Three programs, Recreational Trails, Safe Routes to School, and Transportation Enhancements were consolidated under a new program titled "Transportation Alternatives". State agencies (NDOT) will have more choices in how the funding is spent. While there is less dedicated non-motorized funding overall, NDOT will have the option of continuing, increasing or reducing current levels of spending on bicycling and walking projects and programs.

NDOT should adopt federal funding project rating criteria that incentivize bicycle improvements. Specifics on funding opportunities are included in the Implementation Plan (see Section 8).

6.1.5 *Strategy 1E*

NDOT to work with health advocates and agencies in promoting bicycling as part of a healthy lifestyle for children and adults, including safe routes to schools and special events.

Support: Safe Routes to School programs and special events are great ways to promote cycling and communicate the health benefits of bicycling.

According to the 2011 Health In Brief Report by the US Centers for Disease Control and Prevention, almost one in five children older than five is obese and about two-thirds of Americans over 20 are overweight, with one-third being obese. According to the United Health Foundation, Nevada is ranked 42nd in the country in health.

A study published in 2010 in the American Journal of Public Health by John Pucher found a statistically significant negative relationship at all levels when comparing the relationship between bicycling and walking travel and obesity in 14 countries and all 50 states in the U.S.

The following article from Discovery Channel in October 2011 on bicycling (http://dsc.discovery.com/adventure/the-top-7-health-benefits-of-cycling.html) summarizes the benefits of cycling:

Bicycling, along with being the most efficient mode of human locomotion, is also one of the best all-around activities for improving our health.

Seven Health Benefits of Cycling:

1. Cycling is good for your heart: Cycling is associated with improved cardiovascular fitness, as well as a decrease in the risk of coronary heart disease.
2. Cycling is good for your muscles: Riding a bike is great for toning and building your muscles, especially in the lower half of the body – your calves, your thighs, and your rear end. It's also a great low-impact mode of exercise for those with joint conditions or injuries to the legs or hips, which might keep them from being active.
3. Cycling is good for your waistline: You can burn a lot of calories while biking, especially when you cycle faster than a leisurely pace. Cycling has been associated with helping to deter weight gain and has the added benefit of ramping up your metabolism, even after the ride is over.
4. Cycling is good for your lifespan: Bicycling is a great way to increase your longevity, as cycling regularly has been associated with increased 'life-years', even when adjusted for risks of injury through cycling.
5. Cycling is good for your coordination: Moving both feet around in circles while steering with both your hands and your body's own weight is good practice for your coordination skills.
6. Cycling is good for your mental health: Riding a bike has been linked to improved mental health.
7. Cycling is good for your immune system: Cycling can strengthen your immune system, and could protect against certain kinds of cancers.

Guidance: NDOT should provide support to local communities willing to support programs, provide materials to their community on the health benefits of bicycling and/or organize events to promote bicycling. The following is a list of potential programs and events:

- Safe Routes to School:

- NDOT currently has a Safe Routes to School program that provides support to communities throughout Nevada. This program is no longer a federal requirement, however this program is important to Nevada and should be maintained.
- See: http://www.walknevada.com/.

- Bike Month and/or Bicycle and Pedestrian Event:
  - Bike months are often held in May throughout the United States and typically include a number of events, including a Bike to Work Day, additional guidance is available at
  - http://www.biketoworkinfo.org/resources/pdf/2010_National_Bike_Month_Organizer_Kit.pdf.
  - Nevada Moves Day is typically held in April and encourages both bicycling and walking to school.
- Open Streets Event:
  - Open streets initiatives temporarily close streets to automobile traffic so that people may use them for walking, bicycling, dancing, playing, and socializing.
  - With more than 70 documented initiatives in North America, open streets are increasingly common in cities seeking innovative ways to achieve environmental, social, economic, and public health goals.
  - See: http://openstreetsproject.org/.
- Bike Ride Event:
  - Hosting a bicycling events such as a bike-athon, bike to the ballpark, mountain bike ride, or 5- to 100-mile bike rides are great ways to promote bicycling. These events can generate funds for a local cause, create recognition that bicyclists are present and promote pride in local bicycling. These events often increase local bike riding throughout the year and can be justification for bicycle facility improvements. Some existing events in rural Nevada include:
    - Park to Park Pedal; Lincoln County, Nevada
    - No Hill Hundred; Fallon, Nevada
    - Pine Nut Cracker Mountain Bike Race; Gardnerville, Nevada
    - Tour of the Carson Valley; Genoa, Nevada
    - Lamoille Hill Climb; Lamoille, Nevada (near Elko)
  - Host a bicycle ride sponsored by the Governor and/or legislators to show their support for bicycling.
- Bicycle Friendly America Program:
  - The Bicycle Friendly America program is organized by the League of American Bicyclists to provide incentives, assistance, and award recognition for communities that actively support bicycling. (http://www.bikeleague.org/programs/bicyclefriendlyamerica/). The bicycle friendly state and community applications require documentation of an areas legislation and enforcement; policies and programs; infrastructure and funding; education and encouragement; and evaluation and planning. States are ranked in numerical order and communities are listed as being bicycle friendly with levels from bronze to platinum.
  - It is recommended that NDOT focus on improving bicycling in Nevada such that Nevada's ranking continues to improve and that NDOT supports communities in their application for Bicycle Friendly Community status.

6.2 Increase Bicycle Tourism

The most frequent recommendation received from project stakeholders in rural Nevada was to increase bicycle tourism. Increasing bicycle tourism through the improvement of bicycling conditions is seen by stakeholders as a

way to improve the economies in rural Nevada towns. The following four strategies were identified to increase bicycle tourism in Nevada:

Strategy 2A: NDOT to review and propose additional essential resting spot/accommodation facilities (water) for bicyclists.

Strategy 2B: NDOT to assist agencies with developing bicycle tourism materials related to road and mountain bicycling, including maps that show destinations and designated routes.

Strategy 2C: NDOT to establish US Bicycle Routes and regional bicycle routes in Nevada.

Strategy 2D: NDOT to establish clear rules and guidelines addressing special events, including permitting and acceptable temporary wayfinding.

6.2.1 *Strategy 2A*

NDOT to review and propose additional essential resting spot/accommodation facilities (water) for bicyclists.

Support: Roadways between rural towns in Nevada can often go over 100 miles without having any locations where water is available. This is less of an issue in a car, but combine this long distance without water with summer heat topping 100 degrees and you have a potential health emergency situation for a bicyclist.

For bicycle tourism to grow and thrive bicyclists must have water available at reasonable intervals, know where to find the water, and how far it is between water stops.

Guidance: A review is to be completed of existing water locations and potential water locations. Potential water locations include both public and private sources. Existing public sources include parks and recreation facilities in towns that currently may not be clearly designated to approaching bicyclist nor called out in bicycling maps. Potential public sources include NDOT maintenance facilities and other facilities that have water, but have access to that water closed off at certain times. Existing and potential private water sources include bicycle friendly businesses such as bike shops, gas stations, or even private residences.

Once existing locations are mapped, potential additional locations should be identified and a study conducted to determine the feasibility of locating an accessible water source. Once identified, water locations and the distances between locations should be noted both on printed materials and on signage along designated routes. A maximum distance of 25 miles between water stops should be provided whenever practicable.

6.2.2 *Strategy 2B*

NDOT to assist agencies with developing bicycle tourism materials related to road and mountain bicycling, including maps that show destinations and designated routes.

Support: Bicycling areas that are well known, such as Moab, Utah for mountain biking and Tucson, Arizona for road bicycling, benefit economically from a significant amount of bicycle tourism. It is quite common to see motor vehicle travelers carrying bicycles throughout these states to get to bicycling destinations. Most people are unaware of the great bicycling opportunities available throughout Nevada and getting good information out to about bicycle tourism opportunities is the first step to bringing more bicycle tourists to Nevada.

Guidance: It is important to have both online and printed material available for bicycle tourists. Online material has the benefit of being instantly accessible to potential travelers worldwide and is easier to keep information current. However, printed materials have the benefit that they can be mailed to known bicycling enthusiasts,

distributed to multiple locations, and available to those who do not have access to the internet and can easily be taken with you during a trip.

West Wendover has a good example of a local bicycle trails map for tourists that can be used as a reference for developing a bicycle tourism map. This map also has good information on other attractions located in town. The content of this map can be built upon by adding information on local bike shops and/or bicycle friendly businesses. Bicycle Tourism corridor maps and pamphlets should also be developed for main corridors such as Highway 50.

The Nevada Bicycle and Pedestrian Advisory Board (www.bicyclenevada.com) and the Nevada Commission on Tourism (http://travelnevada.com/things-to-do/biking/) both have information on bicycling in Nevada. Bicycle Nevada has information on bicycle events throughout the state and on bike travel in Nevada. It also contains links to information on the Flume Trail at Lake Tahoe, Red Rock in Las Vegas, and biking Highway 50 through central Nevada. The Nevada Commission on Tourism website has good general information on bicycling and then specific information on over 20 bicycling areas or trails in Nevada, including both mountain and road biking. They also offer a free Travel Nevada Visitor's Guide with bicycling featured on the cover.

Recommendations for the Nevada Commission on Tourism website are to provide additional information on traveling through Nevada by bicycle as well as information on bicycling in and around Nevada towns. This would include clarification on the bike trail list between mountain and road bike links. It would be a benefit if the links were shown on a map of Nevada.

It is also recommended for NDOT to coordinate with national organizations such as Adventure Cycling in promoting bicycle tourism in Nevada. Adventure Cycling distributes an extensive volume of cycle tourism information and providing additional material on bicycling in Nevada to Adventure Cycling will increase exposure of the bicycle tourism opportunities in Nevada.

6.2.3 *Strategy 2C*

NDOT to establish US Bicycle Routes and regional bicycle routes in Nevada.

Support: The AASHTO and the Adventure Cycling Association teamed together to establish a U.S. Bicycle Route System. As noted on the Adventure Cycling website, the U.S. Bicycle Route System is an emerging national network of bicycle routes that are of national or regional significance. Routes in the network provide important links to cities, towns, transportation hubs, and scenic, cultural, and historic destinations. They are continuous, crossing state and, maybe in the future, international borders. These routes are on roads and trails and offer facilities that are suitable for bicycle travel.

Guidance: The U.S Bicycle Route System designates Prioritized Corridors and Alternate Corridors. The corridors are not routes, but 50-mile-wide areas where a route may be developed. Prioritized corridors have been assigned a route number and it is expected that they will be developed first. Alternate corridors do not yet have route numbers assigned and it is expected that they will be developed after the Prioritized Corridors.

Within Nevada, I-80, I-15, and US 50 are priority corridors (east/west routes) and US 93 and US 95 are alternate corridors (north/south). Many states within the country have many options for designation of the specific route within each corridor. However, Nevada's roadway network is such that there are limited options through rural

Nevada for roadways other than interstates and state highways that could be designated as the bicycle corridor. In urban areas, it will be important to designate the alternate route that avoids the interstate and/or state highway.

It is recommended that NDOT lead an initiative to establish U.S. Bicycle Routes in Nevada. The following is Guidance from Adventure Cycling's website on developing U.S. Bicycle Routes:

In order for U.S. Bike Routes to be designated, a number of stakeholders need to be involved, including the bicycle community, state and local agencies, and organizations. There are a number of steps that happen in the implementation process, including gaining agreements from all the agencies and organizations that own the facilities on which the route travels (beyond the typical, these might include bridges, ferries, federal lands, etc.). Sometimes state DOTs rely heavily on the bicycling and trail community to develop the routes; sometimes DOTs use their own staff and resources; and then there are those cases when multiple organizations and agencies are involved in a team or committee approach. There is no right way, but there are suggested guidelines on what makes a good bicycle travel route. Some states develop criteria to help with route development. Which criteria the state uses are not prescribed by AASHTO, however, there is a purpose and policy on the development of U.S. Bicycle Routes, which the state DOT agrees to follow as part of the application for numbered designation. Adventure Cycling provides technical assistance to the route implementers and coordinates communication between states and other stakeholders. Adventure Cycling also manages updates to the corridor map and is a liaison with AASHTO staff and the Task Force when questions or promotional opportunities arise.

After route designation is granted by AASHTO, the state DOTs are expected to map and promote the routes, either through conventional highway maps, state bike maps or online maps. These maps may also be contracted out for production by bicycle organizations or might be provided by volunteers.

Transportation agencies and local governments may also sign the routes with the official M1-9 sign (although this isn't required by AASHTO, it is strongly encouraged). The original U.S. Bicycle Routes sign was recently updated to a green-on-white version. Though both of the signs work, the green version stays in the same color family as state bike route signs and it also indicates that the route is a U.S. route, verses one of a local or regional levels.

Along with the development of U.S. Bicycle Routes in Nevada, it will be important to review implementation of Nevada's policy on prohibiting bicycling on interstates within urban areas in Nevada. The policy includes a requirement that a reasonable alternate route must be designated and signed. Currently, there is not a formal list of all locations where bicycling is prohibited on interstates in Nevada nor are there approved signed alternate routes.

6.2.4 *Strategy 2D*

NDOT to establish clear rules and guidelines addressing special events, including permitting and acceptable temporary wayfinding.

Support: As mentioned previously, special events are a critical way to increase the amount of bicycling and community support of bicycling. However, based on stakeholder input the permit process for special events on NDOT roadways can be confusing and difficult to navigate. Special event permits for bicycling on NDOT's roadways are controlled individually by each of the three districts and it appears that each district has different policies and procedures for obtaining a permit.

Guidance: A review of the permit application process in each of the three districts should be completed and then a statewide application process developed. The primary purpose of the permit process is to make sure adequate safety precautions are taken for bicyclists and that motorized traffic is not inappropriately delayed. It is important for the process to designate what types of events do and do not require a permit and that the size of the event significantly impacts the appropriate process. For example, an organized century ride typically does not need road closures that might be required for a cycling road race. The Colorado DOT has a detailed special events guideline from January 2010 that is a good reference for development of a similar document in Nevada (http://www.coloradodot.info/programs/bikeped/documents/Special%20Events%20on%20CO%20Roadways%205%2017%2006.pdf).

6.3 Accommodate appropriate bicycling facilities on all roadways in Nevada open to bicycling

Bicyclists ride on all roadways in Nevada with the exception of interstates and urban areas where bicycling is explicitly prohibited. Providing the appropriate bicycle facility can improve safety, comfort, and increase the amount of bicycling. In addition, providing a bicycle facility such as a bicycle lane, a shoulder wide enough for bicycling, or a shared use path can improve conditions for motorists by providing a designated spot for bicyclists.

It is important to always remember that one size does not fit all for bicycling. As described at the beginning of this section, there are different bicycle user types and bicycle trip types that influence the desired facility type. In addition, there are many specific conditions when a bicyclist should ride outside of a designated bicycle facility. A few examples of this are when a bicycle facility has debris to be avoided on the shoulder or in a bike lane, a parked or slow moving vehicle, pedestrian, or animal needs to be passed or when a bicyclist is preparing for a turn.

The following strategies were identified to improve bicycle facilities in Nevada:

Strategy 3A: NDOT to adopt statewide design guidelines and specifications that address bicycle facility design of both rural and urban type facilities, including wayfinding and informational signs, and accommodating bicycle facilities in work zones.

Strategy 3B: NDOT to revise their maintenance guidelines to address bicycle facilities and bicyclist considerations.

Strategy 3C: NDOT to define, inventory, and preserve, as necessary, alternate corridors such as railroad, utility, and roadway rights-of-way for bicycling.

Strategy 3D: NDOT to maintain a list of regionally significant bicycle improvement projects and assist with implementation.

The following sections summarize each strategy:

6.3.1 *Strategy 3A*

NDOT to adopt statewide design guidelines that address bicycle facility design of both rural and urban type facilities including wayfinding and informational signs, and accommodating bicycle facilities in work zones.

Support: The design of transportation facilities within Nevada should follow a complete streets approach, which ensures that transportation facilities are designed with users of all ages and abilities taken into consideration:

bicyclists, pedestrians, public transportation users, and motorists. A complete streets approach recognizes that transportation facilities are a critical part of the livability of communities.

Guidance: All transportation facilities within NDOT right-of-way must comply with NDOT's Standard Plans and Specifications as well as the Manual on Uniform Traffic Control Devices (MUTCD). In addition, bicycle facilities in Nevada should incorporate the guidance within the 2012 AASHTO Bike Guide.

One approach to address this would be for the bicycle accommodation policy to include a requirement that the standards and guidelines within these documents be followed. The following three sections summarize the content of these documents.

6.3.1.1 NDOT Standard Plans and Specifications

All transportation facilities within NDOT right-of-way must comply with NDOT's Standard Plans and Specifications. The current edition is 2010 for Plans and 2001 for the Specifications. Although many of the standard plans may apply to bicycle facility designs, only T.38-1.1 includes a specific bicycle facility standard, which is for the bicycle lane legends (on-street markings). The documents are available on NDOT's website under the contractors tab at: http://www.nevadadot.com/business/.

6.3.1.2 MUTCD Chapter 9

Part 9 of the MUTCD is titled Traffic Control for Bicycle Facilities and includes standards and guidance on the signing and marking for both on-street bicycle facilities and shared use paths. It is a national requirement that all roadways within public right-of-way be designed in accordance with the MUTCD. The MUTCD can be downloaded for free at: http://mutcd.fhwa.dot.gov/.

6.3.1.3 AASHTO Guide for the Development of Bicycle Facilities

The 2012 AASHTO Bike Guide was recently published and includes extensive guidance on a wide range of bicycle planning and design considerations. The approximately 200 page document includes the following chapters:

1. Introduction
2. Bicycle Planning
3. Bicycle Operation and Safety
4. Design of On-Road Facilities
5. Design of Shared Use Paths
6. Bicycle Parking Facilities
7. Maintenance and Operations

The document includes over 100 pages dedicated to design guidelines on bicycle facilities. It is available for purchase for $144 ($120 for AASHTO Members): https://bookstore.transportation.org/Item_details.aspx?id=1943.

6.3.2 *Strategy 3B*

NDOT to revise NDOT's maintenance guidelines to address bicycle facilities and bicyclist considerations.

Support: Bicycle facilities can become unsafe and unusable when there is debris present or when the pavement surface deteriorates. Smaller rocks and cracks that do not cause an issue for motor vehicles can cause crashes for bicyclists and can encourage bicyclists to ride into motor vehicle travel lanes.

Guidance: A maintenance program that addresses bicycle issues is needed to provide adequate bicycling facilities. As stated in the 2012 AASHTO Bike Guide, a bikeway maintenance program should address the following:

1. Sweeping
2. Surface repairs
3. Pavement overlays
4. Vegetation
5. Traffic signal detection
6. Signs and markings
7. Drainage improvements
8. Chip sealing
9. Patching
10. Utility cuts
11. Snow clearance

6.3.3 *Strategy 3C*

NDOT to define, inventory and preserve, as necessary, alternate corridors such as railroad, utility, and roadway rights-of-way for bicycling.

Support: There are numerous corridors that existed in the past that could be used for bicycling and are independent of the existing state highway system. The difficulty with converting these corridors to bikeways starts with the fact that many of these corridors are not currently documented, have been abandoned, or ownership may have been sold to the adjacent land owner. However, there are still many of these corridors that could be converted to bikeways for at least certain sections and it is important to make efforts to preserve existing rights-of-ways so additional opportunities aren't lost.

Guidance: Complete a review of available corridors through rural Nevada that could be converted to bikeways, including on-street bikeways and off-street natural surface trails and paved shared use paths. It is anticipated the review would include the following:

1. Location placed on statewide map
2. Ownership and easements
3. Existing condition
4. Priority ranking of opportunities

6.3.4 *Strategy 3D*

NDOT to maintain a list of regionally significant bicycle improvement projects and assist with implementation.

Support: It is important for the state to monitor and provide guidance on the improvement of major bicycle infrastructure needs within the state.

Guidance: Projects included on the list should be ones that have a regional significance or that benefit to residents of more than just one local community. Bicycle facilities on this list would likely be either bikeways between two communities and/or bikeways that are critical to bicycle tourism. These projects could include bike lanes, shoulder widening, or shared use paths. A priority will be placed on projects that fill a small gap within existing facilities. Based on stakeholder input, the following is the initial list (in no specific order):

- Trail from Caliente to Kershaw Ryan State Park (~2 miles)
- Shared Use Path from Spring Creek Parkway to Lamoille Canyon, Elko (~5.5 miles)
- Widen shoulder on Hwy 50 from Hwy 50 Alt near Fernley to Silver Springs (~17 miles)
- Widen shoulder on US 93 from Ely to McGill (~12 miles)
- Improve bicycle facilities on I-80 through and/or around the Carlin Tunnel (spot improvement)
- Improve SR 427 (Main St), Fernley to Wadsworth (~3 miles)
- Widen Shoulder on US 95A, Schurz to Yerington (~24 miles)
- Bikeway from Jacks Valley Road (North Minden to Carson City), US 395 or Alternate Corridor
- Address blind curves through mountain passes along Hwy 50, with shoulder widening, signage and/or flashing beacons alerting drivers to presence of bicyclists (on demand similar to tunnels)

A preliminary feasibility review should be completed on these projects to determine the initial feasibility and order of magnitude of cost. It is recommended that once NDOT's GIS database has been updated to include all shoulder width, rumble strip, and traffic volume data the proposed projects and the entire state maintained roadway system be evaluated with the GIS data. This update is currently expected at the end of 2012. Priority should be placed on corridors within or close to towns where existing roadways have higher traffic volume and do not have adequate accommodation for bicycling. Gap locations should also be identified. Gap locations are those locations where a short section of improvement will complete the bikeway within a longer corridor.

6.4 Increase motorists and bicyclists compliance with laws associated with bicycling

Bicycle crashes are a serious problem both when they involve a motor vehicle and when they do not. One major issue with addressing crashes that do not involve a motor vehicle in public right-of-way is that they typically go unreported to police and do not get entered into NDOT's main crash database. Although it is important to reduce both crashes that involve motor vehicles and those that do not, this report is going to specifically focus on crashes that involve motor vehicles in public right-of-way since there is data available regarding these crashes. However, it is anticipated that many of these strategies listed below will also reduce bicycle crashes that do not involve a motor vehicle.

Bicycle safety along roadways has been shown to be directly related to motorist and bicyclist compliance with laws associated with bicycling. In particular, a significant number of bicycle/motor vehicle crashes are primarily caused by motorists or bicyclists failing to yield appropriately at intersections, including driveways. The strategies to reduce crashes involving bicyclists by increasing compliance with bicycle laws are listed below:

Strategy 4A: NDOT, in partnership with other state, local, and private sector organizations, will provide bicycle training for youth and adult bicyclists.

Strategy 4B: NDOT should provide leadership on statewide bicycle media campaign, materials, and outreach that address proper motor vehicle and bicycle interaction.

Strategy 4C: NDOT should work with the Office of Traffic Safety as well as local, regional, and state law enforcement agencies in support of enhanced enforcement, for both bicyclists and motorists, related to unsafe and unlawful behaviors.

Strategy 4D: NDOT to establish a Bicycle Infraction Diversion Program that allows violators of bicycling related infractions (motorists and bicyclists) to complete a training course instead of paying a fine.

Strategy 4E: NDOT to continue to work with advocates and local jurisdictions to address legislative issues and needed changes related to bicycling during Nevada's bi-annual legislative sessions.

Strategy 4F: NDOT to increase distribution of bicycle law information, as it relates to both motorists and bicyclists.

6.4.1 *Strategy 4A*

NDOT, in partnership with other state, local, and private sector organizations, will provide bicycle training for youth and adult bicyclists.

Support: Both the amount of bicycling and the safety of youth and adult bicyclists are impacted by an individual's comfort and knowledge regarding bicycling on the road. Increasing the number of youth and adult bicyclists who attend bicycle education programs will directly increase the number of bicyclists riding safely in Nevada.

Guidance: There are a number of great resources for educating youth and adult bicyclists on-line. The following three resources have extensive information:

- League of American Bicyclists: http://www.bikeleague.org/programs/education/index.php
- Pedestrian and Bicycle Information Center: http://www.bicyclinginfo.org/education/
- Cycling Savvy: www.cyclingsavvy.org

The League of American Bicyclists has an extensive Smart Cycling Program that covers all aspects of safe riding skills as well as bicycle riding tips. There are currently 10 people listed in Nevada as League Cycling Instructors. The following courses are available:

- Traffic Skills 101
- Traffic Skills 201
- Group Riding
- Commuting
- Bicycling Skills 123 Youth
- Bicycling Skills 123
- Safe Routes to School

The Pedestrian and Bicycling Information Center (PBIC) has an extensive list of free educational materials for all ages. The PBIC refers people to LAB for educational courses.

Cycling Savvy is a newer approach to adult bicycle education that was started by the Florida Bicycle Association in 2009. The course cost is typically $75 per person for all three modules, plus additional fees for the creation of local materials. The maximum class size for the on-bike portions is 10, but the classroom session can include up to 20. The course focuses entirely on cycling in traffic and is a modular course of three 3-hour classes:

- The Truth and Techniques of Traffic Cycling – a 3-hour classroom session on traffic laws, crash prevention, bicycle driving principles, and unique traffic management strategies developed for this course.
- Train Your Bike – a 3-hour on-bike skill-building session held in a parking lot
- Tour of Local Roads – a 3½ hour experiential, on-road learning experience

6.4.2 *Strategy 4B*

NDOT should provide leadership on statewide bicycle media campaign, materials, and outreach that address proper motor vehicle and bicycle interaction.

Support: Public perception of bicycling and bicyclists is an important factor that affects bicycle ridership and safety. Encouraging people to ride more and for bicyclists and motorists to be safer is most effective when the approach includes education, enforcement, and engineering aspects.

Guidance: A statewide media campaign should be developed that is aimed at changing driver and bicyclist behavior in support of the goal of increasing bicycling and improving bicycle safety. One such topic that is currently relevant in Nevada is the three-foot passing law passed during the 2011 legislative session. The media campaign should be developed based on guidance provided by FHWA (http://safety.fhwa.dot.gov/ped_bike/education/) and at Bikes Belong (http://www.bikesbelong.org/assets/documents/uploads/Bikes_Belong_Foundation_Safety_Campaign_Best_Practices_Report_reduced.pdf)

Bikes belong provides good guidance on developing a bicycle campaign and states that many existing campaigns focus on the cheaper and easier approach of providing information about laws and suggested behavior but that comprehensive studies of road safety campaigns conclude that emotional campaigns are more effective.

Guidance on developing an effective bicycle safety campaign includes:

- The emotional campaign should personalize and humanize cyclists, but should not be fear-based.
- A successful bicycle safety campaign delivers a clear message to a wide range and large number of people, including both motorists and cyclists.
- Good videos spread virally on the internet; A bicycle safety video on “Look out for cyclists” on YouTube has had over 6.3 Million views.
- Involve local bicyclists in events that spread the campaign message.
- Campaign messages should not be one sided and should speak to both bicyclists and motorists.
- The campaign should indirectly encourage more cycling, since it is generally accepted that bicycling safety is improved the more bicyclists that there are.
- Explain cyclist behavior that may not commonly be understood such as taking the lane.
- Get the word out by getting into systematic distribution processes.
- Remember all parts of the community.

6.4.3 *Strategy 4C*

NDOT should work with the Office of Traffic Safety as well as local, regional, and state law enforcement agencies in support of enhanced enforcement, for both bicyclists and motorists, related to unsafe and unlawful behaviors.

Support: As stated under the support for Strategy 4B, changes to bicycling related behavior is most effective when enforcement is included with education and engineering.

Guidance: The purpose of enforcement related to bicycling is to discourage behavior that has specifically been shown to contribute to bicycle involved crashes. This includes wrong way bicycling on the sidewalk, lack of front and rear lights at dusk/dark, and failure to yield by motorists and bicyclists at intersections.

Police officers can be hesitant to give bicyclists or motorists a ticket for bicycle related infractions because they are not fully aware of the safety impacts and because of not wanting to impose a fine for the bicycle related infraction. Educating police officers on the safety impacts and creating a Bicycle Infraction Diversion Program are two ways to increase police officers support of bicycle related enforcement. A Bicycle Infraction Diversion Program is one that allows bicyclists and motorists who receive a bicycle related infraction to attend a Bicycle Education Course instead of paying the fine. This approach is addressed in the following strategy.

6.4.4 *Strategy 4D*

NDOT to establish a Bicycle Infraction Diversion Program that allows violators of bicycling related infractions (motorists and bicyclists) to complete a training course instead of paying a fine.

Support: As stated in the previous strategy, a Bicycle Infraction Diversion Program can increase police officers support of bicycle related enforcement. A Bicycle Infraction Diversion Program is one that allows bicyclists and motorists who receive a bicycle related infraction to attend a Bicycle Education Course instead of paying the fine.

Guidance: The program would allow a bicycle infraction to be dismissed if proof is submitted of completion of an approved bike education course. The City of Tucson has been operating such a program since 2008. The following is a current summary of the program on the Pima County Justice Court Home page (http://www.jp.pima.gov/BikeDiversionProgram.htm).

If you were cited by the Pima County Sheriff's Department or U of A Police Department for a civil traffic violation(s) while operating a bicycle, you may be eligible to attend the County Attorney's Bicycle Diversion Program. Successful completion will result in the dismissal of all charges.

Eligibility will be determined by the County Attorney. A cyclist is eligible for this diversion program only once each year, calculated from violation date to violation date.

This four hour class, free of charge, includes a bicycle safety manual and other materials, a review of state and local laws, how to perform a quick bicycle safety check, and practice of on-bike safety skills. Crash types and crash avoidance techniques will be discussed.

If you are interested in attending this class, contact the County Attorney's Bike Diversion Program at 520-740-5600 prior to the court date listed on your ticket.

Bend Oregon initiated a Bicycle Diversion Program in 2011. Their program requires payment of a $50 fee to cover the cost of the bicycle education course; however infractions can be up to $297. It is believed that officers were hesitant to give out the tickets with the high fine, but are now more willing to issue tickets with the diversion program set up. An offender is allowed to take the course once every five years.

It is recommended that a pilot program be initiated in a local community that is supportive of this approach and the program is initiated based on guidance from existing programs such as Tucson, Arizona and Bend, Oregon. Development of the program should include a review of existing Nevada Revised Statutes and if any revisions are necessary to implement this program.

6.4.5 *Strategy 4E*

NDOT to continue to work with advocates and local jurisdictions to address legislative issues and needed changes related to bicycling during Nevada's bi-annual legislative sessions.

Support: Legislative issues direct education and enforcement of bicycle related issues in the state and can have a direct impact on bicycle safety. The 2011 legislative session was very successful in terms of bicycling initiatives. Legislation was passed that specified safe passing of bicyclists, minimum of three feet and also makes a bicycle crash caused by a motorist a misdemeanor charge. However, a clarification is necessary to address drivers crossing a double yellow line, when safe to do so, in order to provide adequate space for a bicyclist.

Guidance: Based on the review of existing bicycle laws, and feedback from the League of American Bicyclists on Nevada's Bicycle Friendly State application in 2012, the following are the three primary laws that are recommended for focus in the 2013 legislature.

1. Update state traffic laws regarding bicycling riding "as far right as practicable" to include the four exemptions listed in the Uniform Vehicle Code. This recommendation is specifically listed in the feedback from the 2012 Bicycle Friendly State application.

Current Version of NRS 484B.777

NRS 484B.777 Operating bicycle or electric bicycle on roadway.

1. Every person operating a bicycle or an electric bicycle upon a roadway shall, except:

(a) When traveling at a lawful rate of speed commensurate with the speed of any nearby traffic;

(b) When preparing to turn left; or

(c) When doing so would not be safe,

ride as near to the right side of the roadway as practicable, exercising due care when passing a standing vehicle or one proceeding in the same direction.

2. Persons riding bicycles or electric bicycles upon a roadway shall not ride more than two abreast except on paths or parts of roadways set aside for the exclusive use of bicycles or electric bicycles.

(Added to NRS by 1957, 504; A 1991, 2229; 2009, 400)—(Substituted in revision for NRS 484.509)

Proposed Version of NRS 484B.777 (Proposed Revisions highlighted)

NRS 484B.777 Operating bicycle or electric bicycle on roadway.

1. Every person operating a bicycle or an electric bicycle upon a roadway shall, except:

(a) When traveling at a lawful rate of speed commensurate with the speed of any nearby traffic;

(b) When overtaking and passing another bicycle or vehicle proceeding in the same direction.

(c) When preparing to turn left; or

(d) When approaching a place where a right-turn is authorized, or

(e) When doing so would not be safe, including but not limited to: fixed or moving objects; parked or moving vehicles; bicycles; pedestrians; animals; surface hazards; or substandard width lanes that make it unsafe to continue along the right-hand curb or edge. For purposes of this section, a "substandard width lane" is a lane that is too narrow for a bicycle and a motor vehicle to travel safely side by side within the lane.

Ride as near to the right side of the roadway as practicable, exercising due care when passing a standing vehicle or one proceeding in the same direction.

2. Persons riding bicycles or electric bicycles upon a roadway shall not ride more than two abreast except on paths or parts of roadways set aside for the exclusive use of bicycles or electric bicycles.

(Added to NRS by 1957, 504; A 1991, 2229; 2009, 400)—(Substituted in revision for NRS 484.509)

2. Modify NRS 484B.217 to allow for motorists to cross the double yellow line when passing a slow moving vehicle, to allow motorists to provide the 3 foot clear from a bicyclist and cross the yellow line to pass. This law change also allows a motorist to do the same to pass a slow moving maintenance vehicle, construction vehicle or farm equipment.

Current Version of NRS 484B.217

NRS 484B.217 Zones in which overtaking on left side or making left-hand turn prohibited; exceptions; additional penalty for violation committed in work zone.

1. The Department of Transportation with respect to highways constructed under the authority of chapter 408 of NRS, and local authorities with respect to highways under their jurisdiction, may determine those zones of highways where overtaking and passing to the left or making a left-hand turn would be hazardous, and may by the erection of official traffic-control devices indicate such zones. When such devices are in place and clearly visible to an ordinarily observant person, every driver of a vehicle shall obey the directions thereof.

2. Except as otherwise provided in subsections 3 and 4, a driver shall not drive on the left side of the highway within such zone or drive across or on the left side of any pavement striping designed to mark such zone throughout its length.

3. A driver may drive across a pavement striping marking such zone to an adjoining highway if the driver has first given the appropriate turn signal and there will be no impediment to oncoming or following traffic.

4. Except where otherwise provided, a driver may drive across a pavement striping marking such a zone to make a left-hand turn if the driver has first given the appropriate turn signal in compliance with NRS 484B.413, if it is safe and if it would not be an impediment to oncoming or following traffic.

5. A person who violates any provision of this section may be subject to the additional penalty set forth in NRS 484B.130.

(Added to NRS by 1969, 1489; A 1973, 1325; 1979, 1804; 2003, 3240)—(Substituted in revision for NRS 484.301)

Proposed Revisions to NRS 484B.217 (Proposed Revisions highlighted)

NRS 484B.217 Zones in which overtaking on left side or making left-hand turn prohibited; exceptions; additional penalty for violation committed in work zone.

1. The Department of Transportation with respect to highways constructed under the authority of chapter 408 of NRS, and local authorities with respect to highways under their jurisdiction, may determine those zones of highways where overtaking and passing to the left or making a left-hand turn would be hazardous, and may by the erection of official traffic-control devices indicate such zones. When such devices are in place and clearly visible to an ordinarily observant person, every driver of a vehicle shall obey the directions thereof.

2. Except as otherwise provided in subsections 3, 4 and 5, a driver shall not drive on the left side of the highway within such zone or drive across or on the left side of any pavement striping designed to mark such zone throughout its length.

3. A driver may drive across a pavement striping marking such zone to an adjoining highway if the driver has first given the appropriate turn signal and there will be no impediment to oncoming or following traffic.

4. Except where otherwise provided, a driver may drive across a pavement striping marking such a zone to make a left-hand turn if the driver has first given the appropriate turn signal in compliance with NRS 484B.413, if it is safe and if it would not be an impediment to oncoming or following traffic.

5. A driver may drive across a pavement striping marking such zone when all of the following apply:

6. The slower vehicle is proceeding at less than half the speed of the speed limit applicable to that location.

7. The faster vehicle is capable of overtaking and passing the slower vehicle without exceeding the speed limit.

8. There is sufficient clear sight distance to the left of the center or center line of the roadway to meet the overtaking and passing provisions of this section and section NRS 484B.207 and , considering the speed of the slower vehicle.

9. A person who violates any provision of this section may be subject to the additional penalty set forth in NRS 484B.130.

(Added to NRS by 1969, 1489; A 1973, 1325; 1979, 1804; 2003, 3240)—(Substituted in revision for NRS 484.301)

3. NRS should be clarified to designate that bicycling on the sidewalk or in a crosswalk is permissible at the relative speed of a pedestrian.

Add NRS 484B.782:

NRS 484B.782 Operating a bicycle or electric bicycle on sidewalk or in crosswalk

Except as otherwise provided in subsection 2, an operator of a bicycle or an electric bicycle shall not ride on a sidewalk or within a crosswalk.

An operator of a bicycle or an electric bicycle may ride within a sidewalk or crosswalk if:

(a) The bicycle or electric bicycle is operated at a similar speed and operating characteristics of a pedestrian; and

(b) The bicycle or electric bicycle operator yields to all pedestrians.

While a bicycle or an electric bicycle is operated on a sidewalk or crosswalk in compliance with subsection 2, it is subject to all laws specific to pedestrians, including subsection NRS 484B.283B, with the exception of NRS 484B.297.

6.4.6 *Strategy 4F*

NDOT to increase distribution of bicycle law information, as it relates to both motorists and bicyclists.

Support: The Department of Motor Vehicles (DMV) exam and study materials are the primary material for driving safety guidance that most drivers in Nevada are exposed to. The Nevada DMV And Office of Traffic Safety have developed many quality reference materials regarding bicycle safety and have included information on the most current bicycle laws in the Driver Handbook and new driver materials.

Guidance: Additional effort should be made to disseminate the DMV's driver education materials to motorists and bicyclists in Nevada. The DMV website (www.dmvnv.com) receives a significant amount of traffic and they have developed an informative Traffic Laws and Traffic Safety page (http://www.dmvnv.com/dltrafficlaws.htm). However, the home page for the DMV does not mention safety and there is not a link available from the home page to the traffic safety page. Safety should be highlighted on the DMS home page and NDOT and DMV should partner to provide the educational materials they have regarding bicycling to more Nevada drivers.

7. PERFORMANCE MEASURES

The Nevada Statewide Bicycle Plan is intended to increase bicycling mode share throughout Nevada (Goal 1) while reducing crashes involving bicyclists (Goal 2). This plan defines four objectives, and four or more strategies for each objective that provide specific action steps to be taken to achieve these goals. As the state and its partners move forward with implementing the Plan, it will be important to establish accountability by monitoring and evaluating the status of each defined strategy, and tracking progress towards the Plan's two main goals over time. Performance measures are a helpful tool that can be used by NDOT and/or the State Bicycle Advisory Board to monitor progress. A priority was placed on selecting performance measures for this project that can be tracked using data that is already collected on a regular basis or measures that can be self-reported by agencies to NDOT. The following are performance measures for the primary goals of the plan:

7.1.1 *Goal 1: Increase bicycling mode share throughout Nevada in and between communities, both by residents and tourists.*

- Percent of people biking
  - American Community Survey (only captures journey-to-work trips)
  - National Household Travel Survey (some data may not be available for portions of Nevada)
- Number of people biking
  - Annual bicycle counts using automatic counters
    - NDOT invest in automatic counters for each district and conduct counts at targeted locations on an annual basis. Targeted locations may include routes that attract tourists (e.g. The Loneliest Road, scenic byways, roads that have planned and existing bicycle facility improvements, roads that connect population areas and destinations such as parks, regional trails, and representative roads in more densely populated areas). Refer to the National Bicycle and Pedestrian Documentation Project (NBPD) "instructions" for more detailed guidance on count methodology. Refer to NBPD "Automatic Count Technologies" summary or individual manufacturers of count technology (e.g. EcoCounter, Econolite, TRAFx) for more information.
  - Number of participants in bicycle events
    - NDOT adopts uniform permitting process across districts that includes requirements for documenting number of participants
- Participation in Safe Routes to School
  - Require Safe Routes to School grant recipients to report number of students bicycling to school from annual classroom tallies.

7.1.2 *Goal 2: Reduce crashes involving bicyclists and eliminate all bicyclist fatalities in support of Nevada's "Zero Fatalities" and the national "Towards Zero Deaths" initiatives.*

- Number of bicycle involved fatalities
  - NDOT Annual Crash Report, which includes police report crashes
- Number of bicycle crashes
  - Number of injuries/fatalities due to bicycle crashes recorded at selected hospital emergency rooms

NDOT will be responsible for collecting data for the goal-focused performance measures listed above on an annual basis.

The following pages include a table with performance measures for each strategy, which includes the performance target (i.e. what specifically is to be achieved), baseline measurement, frequency of data collection, the responsible entity for collecting data, and tracking the measure and the target user group (i.e. who will benefit from the strategy). Each potential measure varies in terms of data availability and data precision. Depending on agency resources one or more of these measures may be pursued.

Table 6: Strategy Performance Measures

		Performance Measure	Performance Target	Baseline Measurement	Data Collection Frequency	Responsible Entity
	Objective 1. Increase agency support of bicycling					
Strategies	**1A:** NDOT to provide guidance and technical support to regional and local jurisdictions for developing bicycle plans that are adopted and endorsed by the Nevada Bicycle and Pedestrian Advisory Board.	Number of regional and local jurisdictions with adopted bicycle plans	30% by 2015, 100% by 2022	2012	Biennially	NDOT
	1B: State, regional, and local jurisdictions adopt a policy that all design projects with new roadways or modifications to existing roadways are required to include appropriate bicycle accommodation.	State adopts policy in addition to number of jurisdictions/ agencies that have adopted a complete streets or routine accommodation policy	State adoption by 2014 30% of all other agencies by 2015, 100% by 2022	2012	Biennially	All jurisdictions/ agencies that own, construct, and maintain roadways.
	1C: NDOT to encourage design, engineering, planning and other appropriate staff to complete bicycle facility design training once every 3 years.	Number of training courses offered in Nevada	1 training per NDOT District every 3 years	2012	Annually	NDOT
	1D: NDOT to provide guidance to regional and local agencies on the creation of funding mechanisms for bicycle	Number of regional and local jurisdictions that have secured	30% by 2015, 80% by 2022	2012	Every 3 years	NDOT

		Performance Measure	Performance Target	Baseline Measurement	Data Collection Frequency	Responsible Entity
	related projects and the identification of available state and federal funding opportunities and programs that are available for bicycle related projects.	funding for bicycle-related projects from state or federal sources				
	1E: NDOT to work with health advocates and agencies in promoting bicycling as part of a healthy lifestyle for children and adults, including safe routes to schools.	Number of bicycling-related events held statewide	50 per year by 2015, 100 per year by 2022	2012	Annually	NDOT and regional, local governments
	Objective 2. Increase bicycle tourism					
Strategies	**2A:** NDOT to review and propose additional essential resting spot/accommodation facilities (water) for bicyclists.	Number of essential resting facilities for bicyclists	Average of 1 facility every 25 miles on designated bicycle routes by 2022	2012	Biennially	NDOT
	2B: NDOT to assist agencies with developing bicycle tourism materials related to road and mountain bicycling, including maps that show destinations and designated routes.	Number of communities that provide profiles of local touring & mountain biking opportunities	Average of 5 communities per year provide updated profiles	2013	Annually	NDOT with coordination with Nevada Commission on Tourism
	2C: NDOT to establish US Bicycle Routes and regional bicycle routes in Nevada.	Number of miles of roadway designated and improved as U.S. or regional bicycle routes	50 miles per year	2012	Annually	NDOT
	2D: NDOT to establish clear rules and guidelines addressing special events, including permitting and acceptable	Publish guidelines and make readily available via NDOT website;	By 2014	N/A	N/A	NDOT

		Performance Measure	Performance Target	Baseline Measurement	Data Collection Frequency	Responsible Entity
	temporary wayfinding.	guidelines implemented				
	Objective 3. Accommodate appropriate bicycling facilities on all roadways in Nevada open to bicycling					
Strategies	**3A:** NDOT to develop state-specific, and adopt appropriate national design guidelines, standards and specifications (e.g. latest edition AASHTO Guide for the Development of Bicycle Facilities) that address bicycle facility design of both rural and urban type facilities, including wayfinding, signage, and accommodation of bicycle facilities in work zones.	Adopt statewide, and appropriate national design guidelines, standards and specifications	Adopted by 2014	N/A	N/A	NDOT
	3B: NDOT to revise their maintenance guidelines to address bicycle facilities and bicyclist considerations.	Revised maintenance guidelines adopted	Adopted by 2014	N/A	N/A	NDOT
	3C: NDOT to define, inventory and preserve, as necessary, alternate corridors such as railroad, utility and roadway rights-of-way for bicycling.	Miles of corridors inventoried and/or preserved	10 miles per year	2012	Annually	NDOT with regional and local partners
	3D: NDOT to evaluate projects for appropriate bicycle accommodation, coordinate with local jurisdiction on bicycle facility needs, maintain a list of regionally significant bicycle improvement projects and assist with implementation.	Number of projects completed	1 project per year	2012	Annually	NDOT
	Objective 4. Increase motorists and bicyclists compliance with laws associated with bicycling					
Strate	**4A:** NDOT, in partnership with other State, Local and private sector organizations, supports	Number of local agencies or organizations that	40% by 2015, 100% by	2012	Annually	NDOT, in partnership with other

	Performance Measure	Performance Target	Baseline Measurement	Data Collection Frequency	Responsible Entity
bicycle safety education programs, including disseminating educational materials, providing train the trainer program content, and providing support to agencies hosting trainings.	have received educational materials and hosted trainings	2022			State, local and private sector organizations
4B: NDOT should provide leadership on statewide bicycle media campaign, materials and outreach that address proper motor vehicle and bicycle interaction, including building awareness of Nevada's 3-foot bicycle passing law.	Establish branding and media strategy	By 2015	N/A	N/A	NDOT
4C: NDOT should work with Office of Traffic Safety as well as local, regional and state law enforcement agencies in support of enhanced enforcement, of both bicyclists and motorists, related to unsafe and unlawful behaviors.	Number of law enforcement officers trained to address unsafe, unlawful bicycle-motorist behaviors	50% of all law enforcement officers by 2015, 100% by 2022	2012	Annually	NDOT in coordination with OTS and DPS
4D: NDOT to establish a bicycle diversion program that allows violators of bicycling related infractions (motorists and bicyclists) to complete a training course instead of paying a fine.	Model bicycle diversion program developed and disseminated to responsible agencies	2015	N/A	N/A	NDOT in coordination with local agency and enforcement agency
4E: NDOT to continue to work with advocates and local jurisdictions to address legislative issues and needed changes related to bicycling	Number of bicycle-related legislative actions	Two per legislative session (2 years)	2012	Bi-annually	NDOT in coordination with Office of Traffic Safety

		Performance Measure	Performance Target	Baseline Measurement	Data Collection Frequency	Responsible Entity
	during Nevada's bi-annual legislative sessions.					
	4F: NDOT to increase distribution of bicycle law information, as it relates to both motorists and bicyclists.	Number and distribution of documents with bicycle law information	2014	N/A	N/A	NDOT in coordination with Nevada DMV

8. IMPLEMENTATION PLAN

8.1 Introduction

This Plan contains policy, program, and infrastructure improvement recommendations and strategies organized around achieving the Plan's four objectives and addressing the "five E's – Education, Encouragement, Enforcement, Engineering, and Evaluation. Recommendations also respond to issues identified by stakeholders during the planning process. Given the reality of limited budgets and staff resources at the state and local levels recommendations will be implemented incrementally over time. This section of the Plan prioritizes recommendations in order to provide direction for Plan implementation and focus early efforts on those actions that will provide the greatest benefits at the lowest cost.

While there are a number of criteria that could be considered when prioritizing what actions and roadway improvements to pursue and when, this Plan focuses on projects and programs that are pragmatic, e.g., low cost/high benefit and result in improved safety for all roadway users. Recommendations have been prioritized using the following criteria:

- Level of expected improvement to bicycle safety
- Degree to which action is likely to encourage ridership
- Stakeholder input
- Feasibility in terms of required funding and staff resources and level of coordination

Recommendations that meet multiple criteria are favored in the short-term, particularly those recommendations that are relatively low cost/high benefit.

This Plan does not recommend any specific bicycle facility improvements to roadways. Specific bicycle facility improvement decisions will be determined by NDOT and local communities based on stakeholder input, planned roadway improvements, and other factors. Chapter 2 of the 2012 AASHTO Guide for the Development of Bicycle Facilities offers useful guidance for deciding where bicycle improvements are needed and different approaches to implementation.

8.2 Funding

In order to make Nevada a more bicycle-friendly state it will be necessary to invest in infrastructure, modify policies and practices of NDOT and other agencies that design, operate, and maintain roadways, and initiate (or continue) programs that educate roadway users about bicycle safety and encourage more people to bicycle. Funding the programs and infrastructural improvements that support bicycling will come from federal, state, and local sources. At the state level, Plan recommendations may be implemented by reallocating funds in NDOT's annual budget to provide staffing and resources to support programs and by incorporating bicycle infrastructure improvements into NDOT's Statewide Transportation Improvement Program (STIP). Localities may take similar actions by dedicating staff and budget resources to support bicycle planning and programs (e.g., education, encouragement, and enforcement), incorporating bicycle improvements into capital improvement programs, and routinely accommodating bicycle facilities when making major roadway improvements.

Federal transportation funding is an important source of funding for states and localities.

With passage of the most recent federal transportation bill, Moving Ahead for Progress in the 21st Century Act (MAP-21), the Transportation Enhancements, Safe Routes to School, Recreational Trails, and redevelopment of underused highways to boulevards programs have been consolidated into the Transportation Alternatives Program (TAP). The Transportation Alternatives Program builds upon the legacy of the TE program by expanding travel choices, strengthening the local economy, improving the quality of life, and protecting the environment.

The Transportation Alternatives program is one component of the total federal transportation funding apportionment states receive. Other programs that are part of the federal apportionment to states, and which could be important for supporting this Plan's recommendations include the National Highway Performance Program, the Surface Transportation Program, and the Highway Safety Improvement Program (HSIP). The Section 402 State and Community Highway Safety Grant Program is another potential source of funding for certain types of projects that may benefit bicyclists. The following are some details for each of these funding sources:

8.2.1 *Transportation Alternatives*

MAP-21 gives states more flexibility in how they allocate federal monies. States have the option to increase funding that supports walking and bicycling, keep funding levels the same, or decrease funding. Under the new bill, state DOTs are to distribute 50% of TAP funding to defined Transportation Management Areas, which consist of cities or metro areas with populations greater than 200,000. TMAs (Regional Transportation Commissions in Nevada and often Metropolitan Planning Organizations) are required to distribute these funds through a competitive grant process. The other 50% of funds are distributed directly by state DOTs through a competitive grant process with no sub-allocation of funding by population. Governors are given the authority to opt-in or out of the Recreational Trails program on an annual basis. If they choose to opt-out funding set aside for the Recreational Trails program automatically goes into the TAP.

8.2.1.1 Eligible Activities for Transportation Alternatives Program

The following activities are eligible to receive funding from Transportation Alternatives program:

- Construction, planning, and design of on-road and off-road trail facilities for pedestrians, bicyclists, and other nonmotorized forms of transportation, including sidewalks, bicycle infrastructure, pedestrian and bicycle signals, traffic calming techniques, lighting and other safety-related infrastructure, and transportation projects to achieve compliance with the Americans with Disabilities Act of 1990.
- Construction, planning, and design of infrastructure-related projects and systems that will provide safe routes for non-drivers, including children, older adults, and individuals with disabilities to access daily needs.
- Conversion and use of abandoned railroad corridors for trails for pedestrians, bicyclists, or other nonmotorized transportation users.
- Construction of turnouts, overlooks, and viewing areas.
- Inventory, control, or removal of outdoor advertising.
- Historic preservation and rehabilitation of historic transportation facilities.
- Vegetation management practices in transportation rights-of-way to improve roadway safety, prevent against invasive species, and provide erosion control.
- Archaeological activities relating to impacts from implementation of a transportation project eligible under this title.
- Any environmental mitigation activity, including pollution prevention and pollution abatement activities and mitigation to address stormwater management, control, and water pollution prevention or abatement related to

highway construction or due to highway runoff, including activities described in sections 133(b)(11), 328(a), and 329; or reduce vehicle-caused wildlife mortality or to restore and maintain connectivity among terrestrial or aquatic habitats.

In addition to the eligibilities listed above from section 101 of MAP-21, eligible Transportation Alternatives projects also include any projects eligible under the Recreational Trails Program or Safe Routes to School Program (SRTS). Major changes to SRTS funding include elimination of the requirement that states spend between 10 and 30 percent of SRTS funds on non-infrastructure activities (e.g., public awareness campaigns and outreach to press and community leaders, traffic education and enforcement, student training, and funding for training, volunteers, and managers of SRTS programs), and state SRTS coordinators are no longer mandated, but are an eligible use of funds. Law enforcement activities within 2 miles of a K-8 school remain eligible for funding as SRTS projects. SRTS-related law enforcement activities can also be funded by HSIP funds, if SRTS is identified in the Strategic Highway Safety Plan.

Eligible Transportation Alternatives projects also include the "planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways" as stated in Section 213(b)(4) of title 23 U.S.C. Lastly, although the language for the national Scenic Byways program will stay intact, funding for projects has not been included in the new transportation bill. There will be no national Scenic Byways funding program.

The Transportation Alternatives program is a part of the Federal-aid Highway Program. Although the program is a "grant" program under Federal regulation, it is not an "up-front" grant program and funds are available only on a reimbursement basis. Only after a project has been approved by the State Department of Transportation or Metropolitan Planning Organization and the FHWA division office can costs become eligible for reimbursement. This means project sponsors must incur the cost of the project prior to being repaid. Costs must be incurred after FHWA division office project approval or they are not eligible for reimbursement.

8.2.1.2 Relevance of MAP-21 to the Nevada Statewide Bicycle Plan

This Plan addresses those areas of the state (e.g., cities, towns, and unincorporated areas) with populations less than 200,000. Funding from MAP-21's Transportation Alternatives program may be instrumental for making bicycling improvements in these areas. For areas with populations less than 200,000 MAP-21 directs state DOTs to administer a competitive grant process.

Recreational trails, and the development of new trails, are an important component of Nevada's bicycling system, and therefore the Recreational Trails program could prove to be a vital funding source for expanding the state's trail system.

In order to continue and enhance support of bicycling in the state of Nevada, NDOT should:

- Fully fund, staff and implement the Transportation Alternatives Program
- Maximize full bicycling and walking eligibility in all programs that derive funding from MAP-21
- Spend down current SAFETEA-LU funds

More information, including updates, on MAP-21 and final rulemaking can be found at Advocacy Advance http://www.advocacyadvance.org/MAP21 and from the FHWA at http://www.fhwa.dot.gov/map21/.

8.2.2 *Surface Transportation Program (STP)*

The Surface Transportation Program provides flexible funding that may be used by States and localities for projects on any Federal-aid highway, including the NHS, bridge projects on any public road, transit capital projects, and intracity and intercity bus terminals and facilities. Among the eligible activities under STP are projects relating to intersections that: have disproportionately high accident rates; have high congestion; and are located on a Federal-aid highway.

8.2.3 *Highway Safety Improvement Program (HSIP)*

The HSIP emphasizes a data-driven, strategic approach to improving highway safety that focuses on results. A highway safety improvement project corrects or improves a hazardous road location, or addresses a highway safety problem. Funds may be used for projects on any public road or publicly owned bicycle and pedestrian pathway or trail. Each State must have a Strategic Highway Safety Plan (SHSP) to be eligible to use up to 10 percent of its HSIP funds for other safety projects under 23 USC (including education, enforcement and emergency medical services).

8.2.4 *State and Community Highway Safety Grant Program*

Highway Safety Funds are used to support State and community programs to reduce deaths and injuries on the highways. In each State, funds are administered by the Governor's Representative for Highway Safety. Pedestrian Safety has been identified as a National Priority Area and is therefore eligible for Section 402 funds. Section 402 funds can be used for a variety of safety initiatives including conducting data analyses, developing safety education programs, and conducting community-wide pedestrian safety campaigns. Since the 402 Program is jointly administered by NHTSA and FHWA, Highway Safety Funds can also be used for some limited safety-related engineering projects. A State is eligible for these formula grants by submitting a Performance Plan, which establishes goals and performance measures to improve highway safety in the State, and a Highway Safety Plan, which describes activities to achieve those goals.

Additional information is available from the following web sites:

- NHTSA 402 Programs and Grants
  - http://www.nhtsa.gov/
- Traffic Safety Fact Sheets for Section 402 and Related Programs
  - http://www.nhtsa.gov/Laws+&+Regulations/Section+402+SAFETEA-LU+Fact+Sheet
- Uniform Guidelines for State Highway Safety Programs
  - http://www.nhtsa.gov/nhtsa/whatsup/tea21/tea21programs/
- Traffic Safety Fact Sheets—Links to laws
  - http://www.nhtsa.dot.gov/people/injury/TSFLaws/PDFs/810728W.pdf

8.2.5 *National Highway Performance Program*

The NHPP provides support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a State's asset management plan for the NHS.

NHPP projects must be on an eligible facility and support progress toward achievement of national performance goals for improving infrastructure condition, safety, mobility, or freight movement on the NHS, and be consistent with Metropolitan and Statewide planning requirements. Eligible activities include:

- Construction, reconstruction, resurfacing, restoration, rehabilitation, preservation, or operational improvements of NHS segments.
- Construction, replacement (including replacement with fill material), rehabilitation, preservation, and protection (including scour countermeasures, seismic retrofits, impact protection measures, security countermeasures, and protection against extreme events) of NHS bridges and tunnels.
- Bridge and tunnel inspection and evaluation on the NHS and inspection and evaluation of other NHS highway infrastructure assets.
- Training of bridge and tunnel inspectors.

8.3 Implementation Matrix

The following matrix summarizes Plan recommendations and categorizes these recommendations into short-, mid-, and long-term programs and projects using the criteria listed above in the Introduction. Short-term recommendations are focused on actions that address many of the top issues identified by stakeholders, can be accomplished with relatively low effort, and offer high benefit. Short-term projects are to be accomplished or initiated within one year of the adoption of this Plan. Mid-term recommendations are actions that may require additional effort and coordination, and therefore may take longer to accomplish or initiate – the timeframe for these recommendations is between two and three years from the adoption of this Plan. Long-term recommendations are expected to require a higher level of effort and coordination – the timeframe for these recommendations is beyond three years from the adoption of this Plan.

In some cases the strategies identified in Section 4 have more than one component to them, which may be pursued separately due to varying levels of effort. In such cases, the strategy has been broken into two or more recommendations. The matrix also identifies potential funding sources, where applicable, and which of the five E's the recommendation addresses. This prioritized list of recommendations is not static and should be revisited on a periodic basis, e.g., every two to three years; priorities may shift depending on available resources and level of cooperation among stakeholders.

It is recommended that NDOT review the list of recommendations and select the top priorities each year and then develop one or multiple consultant contracts to address implementation.

Table 7: Implementation Matrix

	Recommendation	Level of Effort/ Cost	Responsible Entity and Funding Source	Discussion	Education	Encouragement	Enforcement	Engineering	Evaluation
Short-term	Establish clear rules and guidelines addressing special events, including permitting and acceptable temporary wayfinding (Objective 2, Strategy 2D)	Low	Use existing NDOT staff resources	Establishing clearer rules and more streamlined process for permitting of special events utilizing state roadways will encourage more such events, which in turn, will encourage more bicycling and raise awareness among all roadway users.		✓			
	Maintain a list of regionally significant bicycle improvement projects and assist with implementation. (Objective 3, Strategy 3D)	Low to Medium	Use existing NDOT staff resources with cooperation from regional and local partners	Projects included on the list should be ones that have a regional significance or that benefit residents of more than just one local community.		✓		✓	
	Revise NDOT's maintenance guidelines to address bicycle facilities and bicyclist considerations. (Objective 3,Strategy 3B)	Low	Use existing NDOT staff resources	Consideration of bicycles in routine roadway maintenance is important for improving bicycle safety. This recommendation should be initiated immediately and continued indefinitely.				✓	
	Assess where there are gaps in essential resting spots with potable water, e.g., greater than 25 mile distance. (Objective 2, Strategy 2A)	Low to Medium	Nevada Commission on Tourism in partnership with NDOT	Identifying where there are gaps in essential resting stops is the first step to developing a network of such stops that would encourage more bicycle		✓			

				touring of the state.				
	NDOT, in partnership with other State, Local and private sector organizations, supports bicycle safety education programs, including disseminating educational materials, providing train the trainer program content, and providing support to agencies hosting trainings. (Objective 4, Strategy 4A)	Medium	Use existing staff at NDOT and local partners such as school districts, advocacy organizations, and towns and cities. May be eligible for Section 402 grant funding.	This recommendation should be initiated in the short-term, but continued indefinitely. NDOT's partners may take a lead role organizing programs and producing materials.	✓				
	Modify NRS 484B.777, which requires bicyclists to ride as far to the right of the roadway as practicable to include the following exceptions: when overtaking and passing another bicycle or vehicle proceeding in the same direction; when approaching a place where a right-turn is authorized; and when doing so would not be safe including but not limited to: fixed or moving objects; parked or moving vehicles; bicycles; pedestrians; animals; surface hazards; or substandard width lanes that make it unsafe to continue along the right-hand curb or edge. (Objective 4, Strategy 4E)	Low	Advocacy organizations in partnership with NDOT and local jurisdictions.	NDOT will continue to work with advocates and local jurisdictions to address legislative issues and needed changes related to bicycling during Nevada's bi-annual legislative sessions.		✓	✓		
	Modify NRS 484B.217 to allow for motorists to cross the double yellow line when passing a slow moving vehicle, to allow motorists to provide the 3 foot clear from a	Low	Advocacy organizations in partnership with NDOT and local jurisdictions.	NDOT will continue to work with advocates and local jurisdictions to address legislative issues and needed changes related to bicycling during			✓		

	bicyclist and cross the yellow line to pass. (Objective 4, Strategy 4E)			Nevada's bi-annual legislative sessions.					
	Modify NRS to allow bicyclists to ride within a sidewalk or crosswalk if they are operating at similar speed and operating characteristics of a pedestrian, and the bicyclist yields to pedestrians. (Objective 4, Strategy 4E)	Low	Advocacy organizations in partnership with NDOT and local jurisdictions.	NDOT will continue to work with advocates and local jurisdictions to address legislative issues and needed changes related to bicycling during Nevada's bi-annual legislative sessions.		✓	✓		
	Increase dissemination of bicycle safety information, as it relates to both motorists and bicyclists by highlighting safety on DMV home page. (Objective 4, Strategy 4F)	Low	Use existing resources within Office of Traffic Safety, DMV, NDOT.	NDOT, the DMV and Office of Traffic Safety should collaborate on additional efforts to disseminate bicycle safety information such as billboards, vehicle registration renewal notifications, bumper stickers that highlight the state's 3-foot passing law, etc.	✓				
Mid-Term	Develop state-specific, and adopt appropriate national design guidelines, standards and specifications. (Objective 3, Strategy 3A)	Medium to High	Use existing NDOT staff resources.	Among the roadway design issues identified by stakeholders where insufficient clearance from rumble strips, lack of signage directing bicyclists on/off freeways and through towns, and lack of on-street facilities such as paved shoulders, bike lanes and shared lane markings.					✓
	Work with Office of Traffic Safety as well as local, regional and state law enforcement agencies in support of enhanced enforcement, of both bicyclists and motorists, related to	Medium	Use existing staff resources within Office of Traffic Safety and local police departments in	Education of enforcement officers and roadway users, and targeted enforcement are critical to improving bicycle safety in Nevada. This recommendation should be initiated in the	✓		✓		

	unsafe and unlawful behaviors. (Objective 4, Strategy 4C)		addition to training resources that are available at low or no cost. May be eligible for Section 402 grant funding.	short-term and continued indefinitely.					
	Provide guidance and technical support to regional and local jurisdictions for developing coordinated bicycle plans that are adopted and endorsed by the Nevada Bicycle and Pedestrian Advisory Board. (Objective 1, Strategy 1A)	High	NDOT, may be eligible for Section 402 grant funding.	Many jurisdictions do not have sufficient internal capacity to develop a bicycle plan. Providing detailed guidance and technical support would encourage jurisdictions to develop plans, and by doing so, put them in a better position to receive funding for bicycle facility improvements.	✓	✓	✓	✓	✓
	Provide guidance to regional and local agencies on the creation of funding mechanisms for bicycle related projects and the identification of available state and federal funding opportunities and programs that are available for bicycle related projects. (Objective 1, Strategy 1D)	Low	Use existing staff resources within NDOT.	State (NDOT) should keep regional and local agencies informed about how it is allocating MAP-21 funds, including eligible projects and application deadlines. The state should also serve as a clearinghouse for other funding-related information, including successful strategies being using by Nevada communities.				✓	
	Define and inventory alternate corridors such as railroad, utility and abandoned highway rights-of-way for bicycling. (Objective 3, Strategy 3C)	High	Using existing staff resources to maintain inventory database. May be eligible for Recreational	Conducting an inventory of alternate corridors will require cooperation of numerous entities, including utility companies, local jurisdictions, and railroads. It will also		✓		✓	

			Trails Program funding under MAP-21 if Governor opts-in to program.	require field analysis in many cases, and the building of a GIS database.					
	Encourage design, engineering, planning and other appropriate staff to complete bicycle facility design training. (Objective 1, Strategy 1C)	Low	Low or no cost webinars, conferences or full-day trainings paid for from NDOT budget. May be eligible for Section 402 funding.	Staff should participate in a training every 3 years at a minimum.	✓			✓	
	Provide leadership on statewide bicycle media campaign, materials and outreach that address proper motor vehicle and bicycle interaction, including building awareness of Nevada's 3-foot bicycle passing law. (Objective 4, Strategy 4B)	Medium	Advocacy organizations in partnership with NDOT and local jurisdictions. Funding may come from state agencies such as NDOT, Office of Traffic Safety, Commission on Tourism and State Health Division. May also be eligible for Section 402.	This recommendation should be initiated in the short-term, and efforts should increase as other encouragement efforts, including bicycle infrastructure improvements, increase.	✓				

	Assist agencies with developing bicycle tourism materials related to road and mountain bicycling, including maps that show destinations and designated routes. (Objective 2, Strategy 2B)	Low	Use existing NDOT staff resources. The Nevada Commission on Tourism could support this effort.	Coordination may need to occur between NDOT and entities such the Nevada Commission on Tourism and Adventure Cycling regarding routes that are most suitable and attractive for cycling so that these routes can more prominently be featured on these organizations' websites and printed materials.		✓			
	Work with health advocates and agencies in promoting bicycling as part of a healthy lifestyle for children and adults, including safe routes to schools. (Objective 1, Strategy 1E)	Low	NDOT in partnership with the State Health Division of the Department of Health and Human Services, local public health agencies and advocates. MAP-21 funding may be available for safe routes to school programs if state decides to allocate funding.	Public Health agencies and advocates are strong allies in the promotion of bicycling as a component of an active lifestyle and bicycle safety. Such agencies should be engaged as partners for organizing bicycle events, media campaigns, and safety trainings.	✓	✓			

	State, regional, and local jurisdictions adopt a policy that all design projects with new roadways or modifications to existing roadways are required to include appropriate bicycle accommodation. (Objective 1, Strategy 1B)	Low	NDOT and regional and local jurisdictions.	A bicycle accommodation policy may be in the form of a Complete Streets policy or routine accommodation policy that ensures that transportation planners and engineers consistently design and operate the entire roadway with all users in mind - including bicyclists – and that there are no missed opportunities for improving the safety of these users.				✓	
Long-Term	Establish new essential resting stops with potable water where there are gaps, i.e., spacing is greater than 25 miles. (Objective 2, Strategy 2A)	Medium to High	NDOT – may be eligible for state allocated portion MAP-21 TA funding if state sets aside funding.	Potential water locations include both public and private sources. In many cases it may be a matter of officially designating existing locations and identifying these locations on maps and with signage.		✓			
	Establish a bicycle infraction diversion program that allows violators of bicycling related infractions (motorists and bicyclists) to complete a training course instead of paying the fee. (Objective 4, Strategy 4D)	Medium to High	Office of Traffic Safety in partnership with local agencies. May be eligible for Section 402 or STP funding.	It is recommended that in the short-term a pilot program be initiated in a local community that is supportive of this approach and the program is initiated based on guidance from existing programs such as Tucson, Arizona and Bend, Oregon. Lessons learned from local pilot program(s) could then be used to inform a statewide program.	✓		✓		
	Establish US Bicycle Routes and regional bicycle routes in Nevada. (Objective 2, Strategy 2C)	Medium	NDOT with support from Adventure Cycling, AASHTO,	Drawing on the resources and technical assistance available from Adventure Cycling and AASHTO, NDOT should develop		✓			

			and local jurisdictions.	criteria for route development, which should include an evaluation the state's policy prohibiting bicycling on interstates within urban areas and identification of alternate routes through these areas.					

8.4 Additional Recommendations Regarding Implementation

This Plan's recommendations are primarily focused on policies, programs, and practices that support bicycling in Nevada and address the 5 E's rather than identifying specific roadway improvements that should be made to make bicycling safer and more comfortable for a wide range of bicyclists. Implementation of this Plan's recommendations will be incremental and will depend on collaboration and cooperation among NDOT districts, local and regional governments, and other agencies and stakeholders. Likely barriers implementing the Plan's recommendations, and suggested solutions include:

- Institutional resistance – changes to policy and practice are proposed or adopted can be met with resistance - whether active or passive. It will be important for all NDOT staff involved in the planning, design, construction, maintenance, and operations of roadways to be introduced to the concept of "complete streets" and to become familiar with the design imperative as presented in the 2012 AASHTO Guide for the Development of Bicycle Facilities, which states:
    - "All roads, streets, and highways, except those where bicyclists are legally prohibited, should be designed and constructed under the assumption that they will be used by bicyclists. Therefore, bicyclists' needs should be addressed in all phases of transportation planning, design, construction, maintenance, and operations."

- Consistency and collaboration among NDOT districts – Nevada is a large state and each NDOT district has its own priorities. It will be important for the three districts to have a unified and consistent approach to implementing the Plan's recommendations and modifying planning, design, construction, maintenance, and operations practices to better accommodate bicyclists. Internal processes that may also be established to ensure consistency among districts should integrate trainings and the dissemination of information related to policies and practices that support bicycling.
- Local and regional cooperation – there are many entities and stakeholders that have a role to play in the successful implementation of this Plan's recommendations. It will be important for NDOT to engage these stakeholders and involve them from the early planning stages of each recommended action, where appropriate. It will also be important for NDOT to be receptive to and aware of local plans and ideas as they relate to improving conditions for bicycling.
- Cooperation from other state agencies – as shown in the table above there are several state agencies that have a role to play in the implementation of the Plan's recommendations. These agencies include the Office of Traffic Safety, Nevada Commission on Tourism, Nevada Division of Health and Human Services, Nevada Department of Motor Vehicles, and likely others. Convening a committee or working group consisting of representatives from each of the agencies and meeting several times a year, or as needed, may be one way to ensure ongoing cooperation and collaboration among these agencies and successful Plan implementation.

APPENDIX

APPENDIX A Statewide Public Meeting Summary

APPENDIX B User Survey and List of Survey Comments

APPENDIX C NDOT 2011 HPMS Submittal

APPENDIX D HPMS Data Exhibits

APPENDIX E Bicycle Crash Data

APPENDIX F Bicycle Crash Exhibits for Non-MPO Areas

APPENDIX A Statewide Public Meeting Summary

PIOCHE/CALIENTE

Meeting Attendees:

- Mayor of Caliente
- City of Caliente: Keith Larson
- Nevada State Parks: Jonathan Brunjes
- Lincoln County: Cory Lytle

Largest Need:

- Path from Caliente to Kershaw Ryan

Biggest Issue:

- NDOT permitting issues for special events

Greatest Asset:

- Great Mountain Bike Trails and State Parks nearby

Additional Information:

- Bicycling in Caliente is growing;
- There are issues between bicyclists and ATV users;
- There is a current SNPLMA project for a path in Caliente; and
- US93 and the railroad are barriers

ELY

Meeting Attendees:

- US Forest Service: Joshua Simpson
- Bureau of Land Management: Tye Petersen
- Local bicyclists

Largest Need:

- Signage to get to bike destinations, specifically mountain biking locations

Biggest Issue:

- Ely is not bike friendly

Greatest Asset:

- Many mountain biking locations that are accessible from Ely

Additional Information:

- There is a need for guidance on developing a bike plan and bike map;
- A bike lane is needed along the 12 mile roadway segment from Ely to McGill; and
- There is a need for bike education

West Wendover

Meeting Attendees:

- No meeting

Additional Information:

- Although a meeting was not held, a field review was completed of West Wendover's existing bicycle facilities
- West Wendover provides bicycle facilities on collector as well as arterial streets, including the arterials Pueblo Boulevard and Florence Way and collector Tibbets Boulevard.
- Future construction programs, such as Wendover Boulevard Enhancement Phase 1 (to be under construction in May), will also include bicycle lanes.
-

ELKO

Meeting Attendees:

- Elko County: Lynn Forsberg, Kim Primeaux, Jeffrey Secord and John Kingwell
- City of Elko: Ryan Limberg
- Elko Daily News: Danielle Switalski and Matt Unrau
- Elko Velo: Jeff White and Stewart Wilson
- Local bicyclists

Largest Need:

- Completing the path from Elko to Lamoille Canyon

Biggest Issue:

- Bike safety

Greatest Asset:

- Ruby Mountains and Lamoille Canyon

Additional Information:

- There is a need for education and enforcement for bicyclists;
- Signage is needed on I-80 indicating that bicycling is permitted;
- There is a need for a local bike map; and
- There is an issue with paths having too many stop signs

WINNEMUCCA

Meeting Attendees:

- Humboldt County: Ben Garrett
- City of Winnemucca: Stephen West
- Mayor of Winnemucca: Di An Putnam
- Nevada Outdoor School: Andy Hart
- Local bicyclists

Largest Need:

- A connected network of bicycle facilities

Biggest Issue:

- Bike safety – specifically US95 has narrow shoulders and heavy traffic

Greatest Asset:

- Local mountain biking

Additional Information:

- The Mayor believes that biking could be a focal point and attract new residents and tourists;
- Goatheads (thorns) are a big issues with bicycling in the area; and
- The bike lane on Grass Valley Road does not get swept enough, which has caused an issue with the chip seal

LOVELOCK

Meeting Attendees:

- City of Lovelock: Pat Rowe
- Pershing County: C.J. Safford
- Local Residents

Largest Need:

- Bike rodeos for children and additional bike parking

Biggest Issue:

- Lack of public support for bicycling

Greatest Asset:

- Paved agricultural roads are a great place to ride

Additional Information:

- Many children walk and bike to school;
- There is no bike parking, and it is especially needed at the pool; and
- It has been years since bike rodeos were held

FALLON

Meeting Attendees:

- Churchill County: Jorge Guerrero and Connie Young
- Churchill County Cyclists: Michelle Oldfield
- Local bicyclists

Largest Need:

- Bike education for the public as well as law enforcement officers

Biggest Issue:

- Lack of shoulders on some state highways; many are narrow with rumble strips

Greatest Asset:

- Flat areas to ride including the “No Hill 100” event

Additional Information:

- It is safer to ride outside of town than in town; and
- Touring cyclists come through the area and need food and restrooms about every 25 miles

FERNLEY

Meeting Attendees:

- City of Fernley: Shari Whalen
- Bikes for Tykes: James Carter
- Fernley BMX
- Local bicyclists

Largest Need:

- Additional education, as well as local and regional facilities

Biggest Issue:

- Increased traffic has significantly reduced the perception of safety within the town of Fernley over the last 15 years

Greatest Asset:

- Numerous bicycling opportunities and support for riders of all ages

Additional Information:

- During the visit, a bike tour was led by Shari Whalen; and
- There is a need to connect Fernley to Wadsworth

YERINGTON

Meeting Attendees:

- No meeting

Additional Information:

- Yerington has an existing bicycle plan adopted by NDOT from 2000.

MINDEN

Meeting Attendees:

- Douglas County: Jeff Foltz and Dirk Goering
- Alta Alpina Cycling Club: Tim Rowe
- Local bicyclists

Largest Need:

- Wider shoulders, additional bike lanes and paths

Biggest Issue:

- Lack of connectivity to Carson City

Greatest Asset:

- Proximity to Lake Tahoe

Additional Information:

- During the visit, there was a driving tour led by Dirk Goering;
- There is a need for a path along Buckeye;
- It has been years since bike rodeos have been held;
- Douglas County has a bike parking code; and
- Douglas County is working to preserve the V&T railroad

PAHRUMP

Meeting Attendees:

- Pahrump Town Manager, Pahrump, Nye County Public Works, Local Cyclist and 3 Local News Organization Representatives

Largest Need:

- Increase information on cycle tourism opportunities

Biggest Issue:

- Lack of bicycle facilities to the north and west of Pahrump

Greatest Asset:

- Dirt roads from Mountain Pass to Pahrump are a great opportunity for mountain bike trails

Additional Information:

- There are lots of bicyclists on roads.
- Supportive of increases to bicycle tourism
- Need bicycle education for youths and adults
- Lots of bicyclists ride at night in dark colors and without reflectors or lights
- Schools routes lack bicycle (or walking) facilities and schools are often many miles from most students.
- Loud group of locals complain about no shoulder on SR 160 to north.

TONOPAH

Meeting Attendees:

- Tonopah Town Board Member and Tonopah Town Clerk

Largest Need:

- Bicycle Tourism Map with all the historical and scenic destinations locally that can be visited by bike

Biggest Issue:

- Lack of space for bicyclists on highway through town and to north and south

Greatest Asset:

- Parallel roads to state highway can get you from one side of town to the other without using state highway.

Additional Information:

- Schools are far away from where the kids live and many steep roads are hard to bike
- Supportive of increases to bicycle tourism
- Need bicycle education for youths and adults
- Lots of bicyclists ride at night in dark colors and without reflectors or lights
- Best chance for local support is to connect bike improvements to tourism and being a betterment to community
- Radar Road is great for bicycling. It is a degrading asphalt road, but virtually no traffic and it is scenic with connections to other roads.

MIDDLEGATE STATION

Meeting Attendees:

- Russell and Freeda Stevenson

Largest Need:

- Increased tourism along Highway 50

Biggest Issue:

- No issues mentioned

Greatest Asset:

- Main route east/west across country and across Nevada with highest volume of loaded bicycle tourists in state
- Great accommodations for bicyclists
-

Additional Information:

- Free camping, showers and kitchen
- Inexpensive historic lodging
- Picnic tables in shade
- Bar and grill
- Food market and gift shop

COLD SPRINGS STATION

Meeting Attendees:

- John Ferreira

Largest Need:

- Increased tourism along Highway 50

Biggest Issue:

- Cyclists that stay at hotel often want everything free and don't always treat property with respect.

Greatest Asset:

- Main route east/west across country and across Nevada with highest volume of loaded bicycle tourists in state.

Additional Information:

- Newly reconstructed, modern construction, nice accommodations
- Inexpensive camping and lodging
- Bar and grill
- Food market and gift shop

AUSTIN

Meeting Attendees:

- Patsy Waits
- Dee Helming (coordinated visit but not able to attend)

Largest Need:

- Increased tourism along Highway 50

Biggest Issue:

- Blind curves along mountain passes to the west

Greatest Asset:

- Main route east/west across country and across Nevada with highest volume of loaded bicycle tourists in state.
- Local community supportive of bicycling

Additional Information:

- Motel lodging available
- Restaurants

APPENDIX B User Survey and List of Survey Comments

Nevada Statewide Bicycle Plan - User Survey

The Nevada Department of Transportation is developing a Statewide Bicycle Plan for the state highway system in Nevada. The project is focusing on policies, programs, legislation and infrastructure that increase safe bicycling in rural communities in Nevada. The intent of this survey is to learn more about people's preferences for bicycling in Nevada. Your input is critical to the success of this plan. The following survey should take no more than 10 minutes to complete and we are accepting responses until Tuesday December 6th.

1. In what county do you live in?

2. On a scale of 1 (most) to 10 (least), how important is improving bicycling to you?

3. Why don't you ride a bike or why don't you ride more often (1 is most important, 9 is least important, with no two items receiving the same ranking)?

	1	2	3	4	5	6	7	8	9
Concerns about being hit by a motorist	○	○	○	○	○	○	○	○	○
No good place to ride	○	○	○	○	○	○	○	○	○
No bicycle parking racks	○	○	○	○	○	○	○	○	○
Weather	○	○	○	○	○	○	○	○	○
Darkness	○	○	○	○	○	○	○	○	○
Destination too far	○	○	○	○	○	○	○	○	○
Need access to car	○	○	○	○	○	○	○	○	○
No change/shower facilities	○	○	○	○	○	○	○	○	○
Do not own a bike	○	○	○	○	○	○	○	○	○

Other (please specify)

4. Did you ride your bicycle to school as a child?

- ○ Yes
- ○ No

5. If you are a parent, do or did your children ride their bicycle to school?

- ○ Yes
- ○ No
- ○ Not Applicable

6. If you answered "No" to Question 4, why not? (1 is most important, 9 is least important)

	1	2	3	4	5	6	7	8	9
Concerns about being hit by a motorist	○	○	○	○	○	○	○	○	○
Concerns about crime/abduction	○	○	○	○	○	○	○	○	○
Walk	○	○	○	○	○	○	○	○	○
No good place to ride	○	○	○	○	○	○	○	○	○
No bicycle parking racks	○	○	○	○	○	○	○	○	○
Weather	○	○	○	○	○	○	○	○	○
Darkness	○	○	○	○	○	○	○	○	○
School too far	○	○	○	○	○	○	○	○	○
Do not own a bike	○	○	○	○	○	○	○	○	○

Other (please specify)

7. Do you ride a bike now? If "No", skip to Question 13.

- ○ Yes
- ○ No

8. Where do you or would you like to ride your bike (Click Here for examples)? (1 is most preferred, 6 is least preferred, with no two items receiving the same ranking)

	1	2	3	4	5	6
On-street bike lanes	○	○	○	○	○	○
On-street shoulder	○	○	○	○	○	○
On-street wide curb lane (shared)	○	○	○	○	○	○
Off-street paths along rivers, utilities, railroads, etc.	○	○	○	○	○	○
Off-street paths along roadways	○	○	○	○	○	○
Residential Streets	○	○	○	○	○	○

Other (please specify)

9. Which response best describes how often you have ridden your bike in the past 3 months?

- ○ 6-7 days per week
- ○ 4-5 days per week
- ○ 2-3 days per week
- ○ 1 day per week
- ○ 3 or less times
- ○ Never (skip to question 16)

10. On your bike rides over the past 3 months, how many miles did you bicycle on average per ride?

- ○ 0 - 5 miles
- ○ 6-15 miles
- ○ 16-30 miles
- ○ 31-60 miles
- ○ 61 or more

11. On your bike rides over the past 3 months, how many times did you ride for the following purposes?

Work	
School	
Errands	
Social	
Exercise	
Other (please specify)	

12. On your bike rides over the past 3 months, what type of group did you bike with? (Select all that apply)

- [ ] Alone
- [ ] With family
- [ ] With Friends
- [ ] With schoolmates
- [ ] Organized Club Ride
- [ ] Organized Events
- [ ] Other (please specify)

13. On your bike rides over the past 3 months, how many people did you bike with most often?

- ○ Alone
- ○ 1-2 other riders
- ○ 3-10 other riders
- ○ More than 10 other riders

14. Do you travel by motor vehicle to your preferred bicycle riding destination?

- ○ Yes
- ○ No

Nevada Statewide Bicycle Plan - User Survey

15. If you answered "Yes" to Question 14, to what destination (park, town, area, etc.)?

16. Which state highways do you bike on or would you like to bike on most often? (Click Here for a map of Nevada; Click Here for maps of Nevada Community Bike Plans).

17. What are the biggest problems for bicycling in Nevada (1 is biggest problem, 8 has the least impact, with no two items receiving the same ranking)?

	1	2	3	4	5	6	7	8
No bike lanes	○	○	○	○	○	○	○	○
Shoulder too narrow	○	○	○	○	○	○	○	○
Need separate path	○	○	○	○	○	○	○	○
Too many cars	○	○	○	○	○	○	○	○
Too many trucks	○	○	○	○	○	○	○	○
Motorists drive too fast	○	○	○	○	○	○	○	○
Gravel/debris	○	○	○	○	○	○	○	○
Riding surface rough	○	○	○	○	○	○	○	○

Other (please specify)

18. What should be done to improve bicycling in Nevada? (1 is most, 10 is least important)

	1	2	3	4	5	6	7	8	9	10
More bike lanes	○	○	○	○	○	○	○	○	○	○
Widen roadway shoulders	○	○	○	○	○	○	○	○	○	○
More paths	○	○	○	○	○	○	○	○	○	○
Road maintenance	○	○	○	○	○	○	○	○	○	○
Educate Motorists	○	○	○	○	○	○	○	○	○	○
Educate Bicyclists	○	○	○	○	○	○	○	○	○	○
Enforce Motorists	○	○	○	○	○	○	○	○	○	○
Enforce Bicyclists	○	○	○	○	○	○	○	○	○	○
More Safe Routes to School Programs	○	○	○	○	○	○	○	○	○	○
Improve legislation	○	○	○	○	○	○	○	○	○	○

Other (please specify)

19. Do you feel your community supports bicycling as a form of transportation?

- Yes
- No

20. Do you feel your local government supports bicycling as a form of transportation?

- Yes
- No

21. In your community have you received training on riding a bicycle?

- Yes
- No

22. Do you think you understand the laws regarding bicycles and vehicles?

- Yes
- No

23. Do you feel law enforcement agencies in your community apply traffic enforcement resources to all roadway users?

- Yes
- No

24. Do you feel law enforcement in your community understands the laws pertaining to bicycles and bicycle – vehicle interaction?

- Yes
- No

25. What additional comments would you like to provide regarding bicycling in Nevada?

26. Voluntary Information. Please provide your email address if you would like updates on this project.

Name:	
Address:	
Address 2:	
City/Town:	
ZIP:	
Email Address:	

27. Do you own a car?

- ○ Yes
- ○ No

28. Do you own a bicycle?

- ○ Yes
- ○ No

Thank You!

Nevada Statewide Bicycle Plan - User Survey

If you answered "Yes" to Question 14, to what destination (park, town, area, etc.)?

answered	*189*
skipped	*587*

Number	Response Text
1	Tahoe
2	Tahoe Rim Trail
3	Park
4	Park
5	City Hall
6	Trail netrwork
7	The mountains - near Markleeville
8	Work due to darkness
9	Vehicle parking area
10	I prefer to ride in the Franktown area/Washoe Valley
11	Foothill Road
12	Work
13	Rural biking areas
14	Area
15	Bloody Shins Trail
16	Death Valley
17	Moscow Mountain Idaho
18	Fernley City Hall
19	Designated trails
20	Bike trail head
21	Peavine Mountain Bike Trails or anything in Tahoe
22	Hidden Valley Regional Park
23	Galena State Park, Stampede Resevoir, Peavine Mountain, Washoe, Carson City
24	In town for training- out of town for orginized events
25	Trails
26	Mountains
27	Truckee River Bike Path
28	Mayberry
29	Sierraville
30	Trailheads, Parks
31	Not one specific location
32	Rim trail, Alpine County, Pine Nut Mountains
33	Riding areas
34	Yes for riding Mtn bike and no for commuting
35	Park,town,mountains
36	I bike around a lake that we have a house at, most often
37	Varies
38	Park
39	Coffee shop
40	Tahoe
41	Trail Heads
42	Aggreed upon meeting location with friends
43	Work, shopping, dining
44	Work
45	Mountain park
46	Reno
47	Work
48	Lamoille Highway bike lane
49	Mayberry park, Reno

Number	Response Text
50	Various reno locations, for exercise
51	Lamoille Canyon Elko County would be the best. Boise Id is #1
52	Jacks Valley area
53	Work
54	Park in safe area to start ride
55	Commuter parking at bottom of Kingsbury Grade
56	Douglas Co. - Jacks Valley Road
57	Mt. Rose
58	Roy gomm school, park on mayberry by river
59	Trailhead
60	Genoa, NV
61	Ride strats: parks, schools etc
62	Genoa Foothill and Waterloo & Buckeye road area Gardnerville
63	Markleeville
64	Peavine
65	Shopping center
66	Town
67	Wherever group decides to meet-it changes
68	Trails
69	To low traffic area
70	Mountain Biking in the Sierras
71	Near a low traffic area
72	South reno
73	Las Vegas ....east and South east region
74	Out of town traffic congestion
75	Donner Summit, Verdi Loop
76	McCarren & Mayberry or 395 & Jacks Valley Rd
77	Sparks NV, California
78	Sometimes I rode to the start; sometimes I drove
79	Town
80	Mountain biking trails
81	Mt. bike trails
82	Sacramento, MarinCounty
83	Work
84	Park
85	Mountain bike trailhead
86	Too many to mention...when I lived to CA, I had better access to good riding, so I biked to all rides. I bike from home to Reno area rides, but because not all riding is safe I may drive to locations like Genoa for a good ride.
87	Work = school
88	Rock Park
89	To work south side of reno
90	Area
91	Work
92	Mayberry park
93	Galena trails, TRT
94	Park
95	Trails, e.g. Tahoe Rim Trail, Hole in the Ground, etc.
96	Part of town with bike paths
97	Truckee River Trail, Idlewild, Tahoe Bike Trail, Franktown Road
98	To work
99	Steamboat Ditch, Truckee River Bike trail,
100	Ditch trailhead/park
101	Carson City and Washoe Valley

Number	Response Text
102	Park
103	Trail head or a mtn pass
104	Lake Mead
105	Work
106	Good Roads, Off road riding area
107	Rancho San Rafael
108	Work
109	West Washoe Valley (i.e. Franktown Road), North Douglas (i.e. Jacks Valley Road)
110	Reno
111	Truckee CA
112	Mayberry and mcCarran
113	Area
114	Outside of busy residential area
115	Town
116	Area of town or to a specific ride.
117	Trails
118	Idlewild
119	Peavine, Hidden Valley, Auburn
120	Work
121	A school or business meeting place
122	Black Rock City
123	MTB Trails
124	Park
125	Park
126	Carson valley
127	Safe bike riding area in mtns
128	To Carson City
129	Work
130	To friends', to start of organized ride, etc.
131	Gym
132	Friends house
133	Work
134	Highway
135	Work
136	Thomas Creek Trail
137	Mountain Bike Trails
138	Park
139	Town
140	Mountain biking trails
141	The bike path in Spring Creek
142	Bowers, Plumb Ln & Sharon Way
143	Genoa,NV
144	To flat area to start
145	Off road area
146	Genoa
147	Mountain biking trails
148	Washoe valley
149	Off street path - Camp Richardson
150	Kingsbury grade and Foothill
151	State Park
152	Mayberry Park
153	Parks
154	Emigrant Trail in Truckee, CA

Number	Response Text
155	To mountain bike trailheads on kingsbury, spooner, and south lake tahoe
156	Mountain trails
157	Rancho San Rafael park
158	Work
159	Foothill Rd. Douglas County
160	Sacramento american river trail, to Tahoe City trail, and locally to train
161	Pine Nut (Ruenstroth area)
162	Leppy Hills Trail
163	Park
164	Parking by road
165	Town
166	Many
167	Work in town
168	Work (UNR)
169	Foothill Road
170	Red Rock
171	Bike Path on Lamoille Highway
172	Spring Creek Bike Path
173	Lamoille
174	Out of city limits with less traffic
175	Local bike shop
176	Rural roads
177	Trucky river route
178	Town
179	Work
180	Marina
181	Trail head for bike path
182	Park, Bike Friendly areas
183	Lamoille Canyon
184	Carlin
185	Work
186	Town
187	Various backcountry road/trail locations
188	Washoe Valley
189	I commute by bike, but I also ride recreationally. So, if you are talking about my favorite recreation biking location, they are in Tahoe.

Nevada Statewide Bicycle Plan - User Survey

Which state highways do you bike on or would you like to bike on most often?

answered	*419*
skipped	*357*

Number	Response Text
1	I80
2	SR 227 Past Palace Parkway up to Lamoille Canyon
3	159, 93, 15
4	US 95
5	Shurz Hwy, Fallon to Carson City, Fallon to Fernley
6	Douglas County we must have bike friendly route between Ranchos and Gardnerville!
7	Hwy 50/ Hwy 50 Alt
8	I-50, I-80 ,I-227, I-117
9	Hwy 50
10	341, 431
11	State Hwy 156, 157,158,160
12	359 and 95
13	28, 50, 395
14	Hwy 341 and Jacks Valley Road
15	28, 341, 443, 431, 50 (Spooner), Old Hwy 40
16	95, 359
17	Hwy 95
18	I've ridden across the state, from Utah to California. Highways 50 and 95 and several
19	Highway 95, 359 in Mineral County
20	395, between Gardnerville and Carson
21	88, 208, 395, 4, 89,
22	88
23	88, Foothill Rd, Centerville Lane
24	50
25	Hwy 395, Hwy 50
26	This survey is not very user friendly.
27	None
28	Highway 399
29	I-80
30	SR 227, SR 228
31	Hwy 28/50 Tahoe / Hwy 50 across Nevada / Hwy 206 / Hwy 208 / Hwy 722 / Hwy 376
32	Hwy 50,Hwy 93, Cave Lake Road, Duck Creek Road
33	395, 50
34	443, 341, 395, 50
35	50, 95 A
36	None
37	US50, US395
38	50, 28, 564, 147
39	None
40	US 50
41	Eastern Avenue and Flamingo road to UNLV in Clark County.
42	160 &160S
43	SR 828, US 95A, Hwy 50
44	50, 95
45	341
46	50, 93, 895
47	Mostly Highway 88; I like Kingsbury and Spooner Summit (for Nevada highways).
48	395 & 50
49	US 80

Number	Response Text
50	Anything with less traffic. 395 through Pleasant Valley would be nice once the new 580
51	Highways 50, 395
52	95A and Fernley Main Street
53	431, 341, 28, 50, 206, 447, 446, 445
54	The McCarran Boulevard ring in Washoe County, SR 430 (Virginia Street) which has
55	Old 395,Pyramid Hwy, Old Hwy 40, 431
56	395, 88, 4, 89, 40, 341
57	208, 339
58	HWY 50 and HWY 395
59	Mostly out south to Washoe Valley and Northwest to Verdi
60	Verdi
61	SR-28, HWY-50, SR-207
62	SR431, Hwy 50
63	395, 88, 207, 50
64	80, 395, 50, 431
65	US50
66	445
67	395,88, 756
68	Foothill Road
69	Do not ride on state highways. Only ride in town/on pavement for commuting purposes.
70	N/A
71	Unable to read map details. US 93, Hwy. 225
72	SR-206
73	No highways, they are too dangerous.
74	395
75	Hwy 50 and 395
76	Highway 395, 80 , 50 , Carson City Mt Rose Highway gigrad
77	HWY 395 and HWY 50
78	Hwy 50 between Carson City and Dayton, NV
79	395
80	None
81	431, 341, 28, 50
82	Old 395
83	431, 341,395
84	Highway 40, Mayberry
85	395, I-80, 431, 341, 89, 267
86	None if i can avoid it. Occasionally Mtn City Hwy when i cant avoid it and sometimes
87	4
88	SR 28, SR 207, US 50
89	Mt Rose Highway, HWY 28, HWY 50, 395.
90	Hwys. 395 and 50 proximal to Carson City, NV
91	Highways mostly to unsafe. Stick to the dirt for the most part, unless in Carson City.
92	Hwy 50
93	Hwy 395 and Hwy 50
94	There is no state highway I would want to bike ON. Alongside or parallel to, all of them.
95	I-80
96	395
97	?
98	50
99	We ride Reno to Verdi frequently We ride Reno to Markleville, CA (Grover Hot Springs)
100	Mt Rose Hwy, Hwy to Virginia City
101	US-395 through Reno
102	341
103	None

Number	Response Text
104	Highway 50 and 395 south to Carson City
105	431, 341, 425, 650
106	Highway 395, Highway 88
107	Highway 28, 431, 341,
108	28, 341, 431 ,50, Old 395 Washow Valley
109	Lamoille highway
110	Old 40
111	I would like to bike on I-80 east of Sparks
112	395
113	SR227
114	SR227 Elko Co. Lamoille Canyon US 93 Elko Co. Wells to Jackpot Wells NV Angle Lake
115	431, 341, 50
116	US395. US50. NV341, NV431, NV28, NV513, NV531
117	I would LOVE to bike Tahoe.
118	Jack's Valley Road, Foothill, Franktown Road, East Washoe Lake
119	I-80, SR227, SR225, SR228, SR229 Highway 50
120	225, 227, 228
121	Hwy 395 from Reno to Carson City through Pleasant Valley. Presently it is too
122	Highway 28
123	50, 28, 431, 341, 395
124	SR 431
125	None
126	50
127	Verdi loop, Geiger grade
128	80, 395
129	395, 50, 80
130	Don't like to bike on the hwy, but have to
131	431 and 341
132	SR 28, SR 431, SR341
133	Hwy 40, S. Meadows, 395 North
134	360, 773,264, 395
135	I would like to ride the Hwy 395 corridor from South Douglas County to Carson City, but
136	395, I80
137	None
138	SR 159 & 160
139	395, 50
140	Mtn City Highway; old Hwy 40 in Elko
141	SR 227
142	227, 225, 229, 93 Southfork and North Fifth to SnoBowl
143	395
144	395, 50W, 429
145	None
146	225, 229
147	395 towards Washoe Lake, Mount Rose Highway
148	None
149	431, 395, 341, 50, 28
150	US 93
151	431, 341, 395
152	Boulder Highway
153	N/A Intracity only
154	395 south to Carson City
155	395 south Reno to Carson City, 431 Mt Rose highway Reno to Incline Village, 341
156	Hwy 50, Hwy 341, Hwy 431
157	395

Number	Response Text
158	80, 50
159	431
160	395, 50, Foothill, Jacks Valley Rd, 207, 206, 88, East Valley, Pine Nut Rd, Genoa Ln,
161	341, 431, 395
162	395 South from Reno, 431, 341, 50, 88,93
163	Would like to ride from Tahoe to Reno
164	None that I no of. I ride on the least traveled roads I can.
165	40, 431
166	Hwy 50
167	267, 50, 88
168	Hwy 50 East
169	I-89, Hwy 50, Hwy 395
170	207, 50, 28
171	Hwy 50 and 395
172	Hwy 395
173	431, 341, 28
174	Old US 40, 395, 431,341,
175	Hwy 95, 140, 50, 395, 443,
176	Pyramid
177	395, 341, 431, 28, 50
178	395
179	445
180	Mcarran in Reno, I80, 395
181	I-80 to Truckee, Mt Rose, Giger Grade, 395,
182	None - I'd like to see more separate paths for bicycles, especially for mountain bikes.
183	I would like to see more trail/bike paths created. I am a big fan of the idea to create a
184	Hwy 50
185	395 S of Reno
186	395
187	395
188	No access to map. Reno more bike paths
189	395 through Plesant Valley
190	None
191	341 Geiger Grade, 431 Mt Rose
192	158
193	395
194	431, 341
195	395, 88, 207, 50, 206, 28, 89, 338, 208
196	None really
197	431 (Mount Rose Highway)
198	431, 341, 89, 50
199	341, 431, 28
200	Geiger Grade, Mt Rose Highway, West 4th Street, Spooner, 395 between Reno and
201	395, 341, 445
202	Too dangerous on all highways,plus too much car pollution
203	50, 60, 93
204	395, old 395, 341, 206, 88, 28, 50
205	Pyramid Hwy to Lake Pyramid and I-80 to Truckee; the bike path on Odddie should
206	Hwy 28
207	None
208	88
209	SR 431, SR 341, 28
210	SR 431, SR 341, SR 445
211	SR341, SR431, US50

Number	Response Text
212	None so far
213	Hwy 50 Dayton to Carson City
214	Rt 4, Mesa Park
215	28, 395, 80, 341, 431, 50
216	I-80
217	50, 395, 431, 341 and would like to ride other highways in NV as we have some pretty
218	Tahoe
219	Bus. 395 (North Virginia street)
220	Rt. 50, Dayton to Carson City
221	Mt. Rose Hwy, Gieger Grade, 395
222	Virginia St. (Old Highway 395)
223	341, 431, 28,98,206,395,50,95,95a
224	28, 50, 431, 206, 395
225	395
226	Nevada and California
227	Highway 159, Lakeshore Drive
228	395
229	McCarran Blvd loop, Mt Rose Highway
230	Carson City Designated Bike Path - Ormsby Blvd, Ash Canyon, Kings Canyon west of
231	207, 50, 395, 88, 28
232	Virginia Street North and South 395
233	395, 50, 341, 431, 28
234	US50, SR341
235	U.S. 395, Highway 50. (Carson to Fallon, Lahoughton Resiviour), Mt. Rose Highway,
236	I-80, I-395
237	4th street Verdi loop, Arlington south to Lakeside loop, bike path along river, sometimes
238	SR431, SR341
239	80, 395
240	Franktown Road Eastlake Blvd.
241	395 near Reno
242	50
243	395, 50, 28, 431, 80, 445, 206, 88
244	Mt Rose Highway, Gieger Grade, Plumb Lane out to Macceren needs to be widened for
245	After the new freeway segment is completed for 395 between Reno and Carson City, I
246	395,431, 341, 50
247	50, 395, 341
248	431, 395, 28, 89, 50
249	Highway 431 between trails
250	Pyramid Hwy., Mt Rose Hwy, US 395 south.
251	431, 28, 50
252	341, 431, 28, 395 from Boardertown to North Virginia St., 395 from Mt. Rose Hwy
253	There are few if any safe Nevada State highways to ride.
254	None
255	431, 341
256	Pyramid
257	88, 50, 28
258	HYW 50
259	I-80 from Sparks to Fernley
260	US40
261	US95
262	50
263	None
264	Hwy 28, 207
265	395, 431, 341, 28, 445, 443

Number	Response Text
266	Highways 28 and 50 around Lake Tahoe
267	50 or 395 or 28
268	50, 395, 28, 341
269	Hwy 88
270	River Mtn Loop is a lifesaver to get to work, Ride on Nevada Highway, Lakeshore Drive
271	US-50
272	SR 28
273	N/A
274	Hwy 395
275	Hwy 50, Hwy 95, Hwy 93, Hwy 6, and Hwy 375.
276	395, 50, 88
277	508, 889
278	US 50, NV 28
279	Hwy 50
280	Hwy 88
281	Not on hiways!
282	Hwy 28
283	SR 227 (Lamoille) and Lamoille Canyon
284	U.S. 50
285	I80, 50
286	88
287	580
288	395 and 50
289	431, 341, 395
290	Those in Douglas County primarily.
291	395 between Minden and Carson City
292	395, 88, 206
293	431, 341, 28, 50, Kingsbury, 395 N to Border Town, Pyramid Lake Highway; 395 S
294	SR431, 395 south of Reno through Pleasant Valley
295	None
296	SR 227
297	All highways connecting population centers like the Reno-to-Virginia City-to-Carson City
298	395
299	395, 341, 431, 28, 50
300	395, 88
301	Everything except Interstate routes and other Freeways and Expressways.
302	208, 395, 207
303	Kingsbury Grade, Spooner Summit (Hwy 50), Old 395 in Washoe Valley
304	Hwy 88, Hwy 395, Hwy 89
305	Hwy 395 in Pleasant Valley
306	395
307	Hwy 28, Hwy 50,
308	50A
309	Would like to see routes throughout the city of Carson, and also a way to safely ride
310	206
311	Hwy 88, Hwy 395, SR. 267 (Kingsbury)
312	395
313	Jacks Valley Rd
314	395, 50, 28
315	US 395 and H 88
316	395, 50
317	Near 395
318	Highway 50
319	Hwy 206

Number	Response Text
320	None
321	Douglas County
322	206
323	395, 50, Jacks Valley to Genoa to Woodsfords
324	207, 206
325	NV88, NV757, NV206, NV207, US395, US50
326	Hwy 28, Hwy 50
327	395 & 88 So. Of Carson City, 395 No. Of Carson City Hwy. 50 West (Spooner), Hwy. 50
328	50, 28, 206,395
329	395, Jacks Valley, and Franktown Road
330	206, 207, 88
331	395 and 50
332	SR 206
333	Hwy 50
334	SR 28 and SR 50
335	206
336	50, Kingsbury Grade
337	50, 28
338	Anywhere with a view
339	28, 395
340	Hwy 50 and 395
341	I don't want to bike on state highways, they are too dangerous
342	431
343	SR 207, US 50, SR 28
344	N/A
345	West Wendover area
346	None
347	88
348	Not on highway.
349	SR 206
350	Wendover Boulevard
351	State Route 88; State Rte 89; 207 - Kingsbury Grade; US Hwy 50; US Hwy 395
352	SR207, 50
353	207
354	U.S 93A
355	US 395, Muller, Jacks Valley Rd
356	Highway 395
357	NV 206, NV 576, NV 88
358	206 (Foothill Road)
359	I395, 267
360	Vista in Sparks
361	80, 395, and Pyramid Lake Highway
362	227
363	50
364	ALL
365	I don't bike on state highways, but I would like to.
366	US 50
367	95N, Jungo Road, Grass Valley Road, Winnemucca Blvd.
368	395, 88, Foothill Road, Kingsbury, 50
369	Farm District Road in Fernley. If there was a bike path on Farm District Road and then
370	40, 395, 207, 341, 89
371	None listed here
372	160, 161
373	227

Number	Response Text
374	227
375	159
376	341, 431, 395, 50
377	227
378	227
379	50
380	95A, 50Alt, 80
381	157, 158, 159, 160
382	None
383	95A, 446
384	227 has a bike path. I do not ride on any others because it is to dangerous.
385	Highway 50,95
386	Lamoille Hyw (can't read the map to give number)
387	95A-50
388	Lamoille Hwy, 12 St bridge
389	395 & 50
390	None, I would like a bike path in and around Ely.
391	227, 535
392	Hwy 50, Hwy 95
393	Mountain City Highway
394	Lamoille Highway, Mountain City Highway, SR 278, Highway 50
395	SR 227
396	None
397	SR 227 & SR 229
398	228, 225, 227, 229
399	None
400	None, only residential.
401	93, 50
402	227
403	50
404	225
405	Hyw 50, Sheckler Rd., Allen Rd., Hyw 95
406	50, 80, 95
407	Hwy 50 East & West, Alt 50,
408	88, 50
409	None
410	Nevada 317 and Hwy 93
411	Safe bike places to ride with my kids
412	SR 225, 227, 229, 231, 488; US 93, US 50
413	US 95 Alternate
414	50 N, 95A
415	None. Too dangerous - speeds too high, usually not enough shoulder.
416	HWY 93
417	80, 225, 227, 228, 50, 305, 140, 93, 95, 230, 231, 232, 341, 431, 278, 378
418	US93, US50, US79
419	None

Nevada Statewide Bicycle Plan - User Survey

What additional comments would you like to provide regarding bicycling in Nevada?

answered	*256*
skipped	*520*

Number	Response Text
1	Safe bike paths would ensure that more people would ride who normally wouldn't, and this would help the obesity epidemic, traffic congestion, and the consumption of gas.
2	Bike lanes legitimizes this mode to the motoring public. Build it and they will use it
3	More bike paths and lanes please!
4	I love bicycling, but do not currently own a bike. Bike lanes on major streets would be great for motorists and bicyclists.
5	Just do whatever you can to make it safer on the road for bicyclists. Still frequent instances of cars passing too close, yelling, making obscene gestures, etc.-- making it dangerous.
6	Needs to be equal responsibility between cars and bikes. The bike actuated warning light at Cave Rock tunnels on Hwy 50 is a great idea.
7	Yes, biking is so cool.
8	Would love to see more bike lanes.
9	Experience varies by county. Having ridden across the state, shoulder width and conditions vary from county to county. Some are great; some poor to dangerous. Beautiful state to ride across--plan to do again soon but a bit riskier crossing some counties than others.
10	Great State for bicycling.
11	Lead by example. People start biking because they see others doing it and it makes them comfortable with the idea of riding in new places.
12	The right side of the white line is narrow and full of trash and debris making cycling very unsafe.
13	Let's do what we can! Bicycle commuting builds stronger, more fit, tighter knit communities and a greener earth.
14	Badly need bike lanes! Constantly getting motorists passing too fast and too close.
15	More paved bike paths needed in town and along Carson River to Gardnerville. And more unpaved mountain bike trails needed close to town.
16	I feel the bike lanes in Washoe County (specifically Reno/Sparks) are an afterthought. I've observed temporary traffic signs placed in bike lanes, lots of gravel/debris in bike lanes, overgrown trees/shrubs overhanging in bike lanes and poor signage/disappearing bike lanes. Sad.
17	Both motorists and cyclists are the problem - anger problems and belief cars own the road -- and cyclists who break laws and ride in manners that anger motorists.
18	I have resided here for 30 years not much progress. Thanks for the survey take care. I am not afraid to ride on any street surfance and I obey the rules of the road- thanks
19	None
20	Appreciate Nevada's awareness and concern for Bicyclists and other roadway users including recent legislation.
21	Rural areas are left out.

Number	Response Text
22	Most of our bike trffic is groups traveling Hwy 50 and with the narrow shoulders and rumble strips it forces the riders to be in the main paths on the hwy which endangers the riders and motorist when facing oncoming traffic. Either a wider shoulder designated for bicyclist or a sperate path along side the highway would be ideal.
23	Question 24, I'm not sure, actually I would like to see more education offered to urban cyclists, and that education being offered to new cyclists, encouraging them. I believe, as things are in NV now, it's not obvious for a non-cyclist to learn what it takes to start bicycle commuting if they were to decide to do this.
24	Bicycle to work & school should be encouraged and made more convenient through legislation and improved bicycling routes.
25	Would like a safer family Recreation via Bikes for the Family and would love the ability for our Children to Ride to school!
26	Law enforcement should cite bicyclists who run stop signs and otherwise ignore the laws.
27	Roads are too narrow for safety
28	This is the best state in the country for biking. we are blessed with off road and highways for bikes. the people in cars could be nicer to us. I personally get harrassed at least once a week by a car load of teenagers
29	More enforcement of Bike Riding infractions is needed to quell their superior attitude. Motorcycles pay a fee to support their training etc. Licensing and taxing bike riders over 16, to pay for bike training and road improvements.
30	So cool to have more bike paths.
31	Road cycling in Nevada is great and I have no problem with that for the most part, but riding with my son is **VERY** scary. Even our wide residential streets are sketchy, mostly because the motorists have no idea what to do with cyclists on the road. We have just a few routes we take to school and the park, etc., but we would ride everywhere if there was a safer way to do it. I would LOVE to see recreational paths like they have in parts of South Lake.
32	For the most part, in my area, I think bicycling is becoming more understood and more people are doing it. I do feel as more bikes are on the road more motorist have a bad attitude about it. But this is why we need more education and more safe roads so that we are fare to riders and drivers!
33	I think we need to be supportive of bike events that draw people to the state. It's not much but in this economy, every little bit helps.
34	Treating bikes like motorized vehicles makes as much sense as treating kayaks like powered boats: there's really no comparison. Applying motor vehicle rules and codes often means cyclists violate one law to comply with another, and it's often not safe for the bike and aggravating for the motorist. Bikes should be able to legally use crosswalks, and to coast through nonsignalized intersections that are otherwise clear, as they can in Idaho. The goal of bicycling legislation should be to foster safe, predictable behavior by cyclists, with flexibility that makes it an inviting and encouraging alternative to driving.
35	Making progress very slowly and it's been an uphill battle but at least we're making progress!
36	I see bicyclists who take dirt roads and & ride off the shoulder in order to commute safely. I would ride to work if it were not hazardous to my welfare based on the route I would have to take to get to & from work.
37	Please re train all police officers actually all city, state and other gov agencies to realize that bikes have the right of way.

Number	Response Text
38	Police in Reno and various Sheriffs are blatantly against bicyclists and do nothing to vehicles that harass or threaten cyclists, and do not issue citations for vehicle wrong-doing to cyclists.
39	NV is a beautiful place to bike and if there were more bike lanes to ride and a person could feel safer I think they would ride more often.
40	Love the road diet program in Washoe County. It is helping!
41	MTB, no cars! Drivers don't know laws, and are in too big of a hurry to care
42	I commuted via bicycle for over a year because my car broke down and I could not afford to fix it. Now I carpool, because it's too cold to ride. I'm getting my car fixed, but still plan to commute on my bike when it warms up. Unfortunately, the only route to work is along highway 208, which has no paved shoulder, and the gravel shoulder is banked, and doesn't feel safe enough for me to ride on.
43	With budgets the way they are I doubt we'll see new bike paths or lanes, unless there is some grant money perhaps. At a minimum, keep road shoulders in good repair and keep lane markings (bike lanes) well marked.
44	Many cyclists ride inappropriately (2-3 abreast) and act as though the are above the law and many motorists have a poor attitude regarding bicycles-(some for good reason) Combined- this is a problem. We need to change the culture.
45	Bicycling is great for exercise, transportation, etc. It's important to foster safe and healthy means of transportation for citizens of all ages.
46	Roads like Mt. Rose Hywy need a shoulder or repave old mt. rose Hywy - no save way to ride to Tahoe - maybe I80 corridor needs bike trail or pave Doug Valley road
47	Shoulder width and quality is major on secondary highways (rumble strips can make a shoulder unusable). In urban areas dedicated bike paths are nice, but often are not interconnected and are not as useful for effective transportation, just recreation. Both are important. Cyclists need to be educated on laws/rules, but more critical for automobile drivers since they are far more dangerous of the two.
48	Our area is truly a cycling mecca not only for tourism but also for health and local recreation. More bike lanes on busy streets will go a long way in promoting Nevada as a bike-friendly state. I lived in Portland, OR and this was the main issue up there. More bike lanes and stop lights accommodating bikes brings an implied awareness to cyclists.
49	This is a great state for bicycling. There is a lot of work to do as most cyclists and motorist are ignorant of how to coexist with safety as the priority. The state's bicycle infastructure is the same as it's motoring infastructure. Bike improvements need to be considered for all new tranportation projects.

Number	Response Text
50	I would really, really love to see a pro-cycling public campaign. Something regarding going green also. You only need to look as far as cycling forums, jerseys, etc to see lots of great ideas. Public perception of cycling HAS to change before we see major improvement. Anything the public has a say in will be shot down because there is such a huge anti-cycling attitude. That needs to be changed. There was a photo of a billboard circulating around the internet. I don't know what city it was in but Reno needs to follow their idea. It said 'You are not sitting in traffic. You ARE traffic. ---Ride your bike.' Cyclists more often than not own cars also. We pay taxes just like everyone else. We are trying to live healthier and be healthier. Did you know TWELVE bikes can park in the same amount of space as one car? Wow. How about installing more bike racks in populated areas? How about pushing cycling as a healthy and greener alternative? One less car. Burn calories, not gas. Thank you for listening and thank you for the survey and your concerns. I appreciate it.
51	Rural nevada has narrow roads especially minden/gardnerville. Making it easier to get to town on a bicycle from places such as the ranchos would be good. The bridges on sr 756 are hazardous.
52	Leave conditions as they are. Moneys would be better spent on roadway improvements for motorized vehicles.
53	Bicycles are NOT a vehicle. They should be kept off the hiways. If they start being registered, licensed, and taxed, then maybe they should be allowed on the hiways. Too much of our taxes are being spent on a frivolous plaything.
54	In rural communities the pull of the motorvehicle is very strong. It will take more than just a bike plan and a handful of locals who want more bike paths to get anything remotely close to being done. Education of the community at large should be primary the rest will follow once enough people understand the value of the bicycle and the potential resources.
55	I think most motorists resend bicyclists on the road. I am honked and yelled at all the time, but impatient drivers.
56	Nevada is a beautiful place to ride. I'd love it to be safer.
57	It appears this questionnaire is about road bicycling, but I didn't know that until I was half way through this. It also seems to be geared toward commuting for work or errands. If people start into this thinking that you're including training rides for long distance, or riding mtn bikes, then some of your answers might get skewed. Please be more specific about the kind of riding you want to know about before people start the survey.
58	Police cannot be everywhere. Vehicle drivers don't think about the consequences of a 6000 pound vehicle against a 20 pound bike. Drivers are more concerned about saving 10 seconds that they are about bike rider safety.
59	I think Nevada should promote bicycling in all aspects - recreational, work, school. We are a nation of very FAT people and encouraging bicycling and providing a safe environment in which to ride could well help reduce those numbers.

Number	Response Text
60	First the rules are AWEFUL! I have had probably over 50 near misses of cars almost hitting me while driving with the flow of traffic. I prefer to ride against the flow of traffic now that I tow a beloved 2yr old boy with me. I prefer to watch out for my own butt. Its safer that way. I travel mostly in town with him when I can to save on gas and help our budget. please give us our own lanes where you can. Its safetest. Also Elko redid 5th st. and its horrible every two blocks you have to swerve out into traffic to avoid the curbs. Can you fix that crazyness? Please call me and ask questions if you have anymore or want a more detailed explanation of something. I am a 3rd generation Elkoan. I love my town and want to improve it for my son.
61	Bicycling in Carson City is actually pretty good. More multi-purpose (no motorized anything) would be wonderful. I've had minimal issues with motor vehicle in Carson City compared to other cities in which I've biked. Given competing demands for funding and the anti-tax, anti-green politics of Nevada I feel NDOT and the city have done a great job.
62	On two past occasions when motorists have hit me (with an object hurled from their vehicle) law enforcement has failed to respond. Cyclists in situations such as these are then required to either wait in the elements, or seek shelter, which is often not available near the scene of accidents.
63	More inclusion on safe cycling in the NV Drivers license manual for vehicle operators would help immensely in creating awareness of safer cycling and driving. Wider shoulders and occasionally sweep them (shoulder debris often causes cyclists to need to 'take the lane' for safety). More "Share the Road" signs and/or signs indicating cyclists often on roadway (especially near blind curves). A hotline whereby cyclists can report agressive vehicle behavior (bottles getting thrown at, etc.) and vehicles can report unsafe cyclists (running stop lights, etc.). STRICT enforcement of no texting and driver.
64	Consider bicycling a standard form of transportation rather than simply a hobby or recreational exercise.
65	Allow more dirt trails to be constructed
66	Bicycle & Ped improvements are relatively low cost imrpovements that significantly impove the quality of life for all communities and these improvments should be pursued and implemented much more rigorously. Especially today in our current economic recession.
67	Bicyclists should observe all traffic laws. However, at some intersections, traffic lights with sensors will change only when a car or truck is waiting, forcing bicyclists to either wait a very long time when there is little traffic, or to cross against a red light.
68	We need more pathways and trails to keep the cyclists away from autos.
69	The majority of car and especially pickup truck drivers seem to take pleasure in harassing bicyclists, but also some bicyclists need education as to how to better share the road - they also need to obey traffic laws
70	"Share the Road" program should aply equally to bicyclists - I've seen countless traffic violations (stop signs ignored being the most frequent) as well as weaving in and out of traffic.
71	Law enforcement is generally good but they need more manpower and emphasis on enforcement.
72	Provide better education to bycylist about riding bikes, or make them pass tests similar to DMV to save lives. Be visible to all trucks and cars at all times, stop at stop signs, and give turn signals!!Ride the bike with a sound offense and defense plan all the time.

Number	Response Text
73	Nevada is a beautiful state, and if there were more bike lanes, tourists would come and spend money here and more people could use a bike instead of a car to go to work or run errands.
74	Downtown Reno: Many bike riders do not follow rules, ie,going the wrong way, not stopping for lights, riding through crosswalks when it suits them. no inforcement causing drivers to see all riders as bad.
75	Need more challenging mountain bike paths (longer) in the back country. Need bike paths for road bikes which are off the roadway.
76	I think before the community begins to enforce so-called bicycle traffic laws, other traffic users need to look at bicycles as an equally important user on the road, if not more special, just because they are more susceptible. I don't think bicycle users should be exempt from traffic laws but I know a lot of them just don't know any better. We don't have to obtain a license to ride a bike but yet we can be ticketed for an offense that many people didn't know existed. There have also been many occasions where bicyclists would like to follow the law but simply cannot due to safety concerns, like riding on the sidewalk. I think the number one issue with bicycles is the attitude and education about bicyclists and that should be dealt with first and foremost.
77	Drivers run stop signs and lights all the time usually while talking on the phone or texting. Drivers rarely stop for pedestrians in cross walks, as well. They drive to close to cyclists and usually honk horns and yell out the car windows harassing the cyclists.
78	Mandate minimum bike lanes or wide shoulders to be added beyond white line on all highway construction projects(ie. repaving, new or improvements)
79	The few bike paths that they have had in Elko have been taken over by parking areas
80	Really need to start enforcing basic speed for vehicles in residential and where people often ride bikes.
81	More government advocation encouraging bicycling, seems to be more of an attitude from local/state government of supporting what is popular rather than an actual encouragement.
82	Why do we chip seal bike lanes and parking lanes? Waste of money! If chip sealing has to be done to the whole roadway surface then we should use a softer chip or no chips because they never get driven on and stay rough FOREVER!
83	The volume of trucks driving on SR 28 between Incline Village and US 50 is excessive and should be stopped. Often they are traveling from Truckee/N Tahoe to Carson City and could take I-80 and US 395 but they do not. SR 28 is not appropriate for thru trucks.
84	Eliminate unused and unnecessary cattle guards. i.e. Mogal & Silva ranch road
85	I see way too many bicyclists breaking road laws. Using both road and sidwaks at intersections cutting in front of or in vehicle areas of roads not yielding to normal traffic.
86	I'd like to see more off-road bike paths and trails. I'd also like to see the State promote bicycling for tourism.

Number	Response Text
87	I'm one of the odd ducks who don't own a car. I added an electric motor to my bike and I use it for my transportation needs. I work out of my house, so I don't need to commute to work, just for errands. I love the fact that Reno is a small town and everything is within a 5-10 mile ride or so. My biggest complaints are: * there's nowhere to lock bikes up that's secure at most stores around town; * I get lots of flats because of crap in bike lanes that does not seem to get cleaned up very often. * there are stretches along many streets (eg., So. Virginia) with no sidewalk or bike lane, just a skinny shoulder and dirt; these should be fixed. * the city could do a better job of trimming back trees/shrubs that hang out over sidewalks (or requiring land owners to do so); you should not have choose between getting whacked in the head or body with tree limbs or big shrubs vs. getting off the sidewalk and into the street to avoid it. (I've seen pedestrians on the sidewalks walk into the street to go around trees and shrubs blocking the path! This is silly.) The most dangerous thing I've encountered is at spots where there's no sidewalk at an intersection (with side-streets), where drivers just sort of go wherever they want when they're turning right. They don't pay attention to where either bikers or pedestrians might be going. You have to be just as aware of drivers when on a bike as when when in a car; they just don't pay attention. People will creep around a corner turning right and never look to the right to see if there's anybody there. They'll block the crosswalk, sidewalk, and almost be up on the curb. (Some big pickup trucks DO roll up on the curb!) U-Turns can also be a problem -- I've had drivers make U-Turns right at me, and they'll miss me by inches. I don't know why they feel they need to cross 3-4 lanes to make a U-Turn, but I've often witnessed them hitting the sidewalk or nearly hitting a fence while turning. Also, while making both U-Turns and Left turns, drivers seem to totally ignore bike lanes -- they'll often swing as wide as they can and go into the far bike lane, accelerating as they come out of the turn and not be in a hurry to get OUT of the bike lanes. How about adding some bumpy things along bike lanes for 50 feet past an intersection to discourage drivers from driving in them when making wide left turns?
88	In some cases, it seems safer to ride against the flow of traffic on residential streets so you can see what's coming at you.
89	Need to promote /encourage bicycling as a means of transportation. Would help w/ traffic, roads, parking etc.
90	We have seen improvements over the years. We need to keep the forward momentum and make bicycling safer for all.
91	Attempt to reduce the stigma associated with biking.
92	I think that while this is important there are much more important things to prioritize above creating a bicycle path. There are plenty in Spring Creek and Elko. They would only get used 4 - 5 months out of the year, weather permitting.
93	I'd like to see better education and some sting operations enforcing the new 3 foot law. lower speed limits on surface streets with automated ticketing cameras to enforce lower speeds.
94	Cars don't know what to do when they see a bike. Many drivers do very dangerous things, thinking they are helping the cyclist. Drivers don't know what a cyclist is likely to do due to "morons on bikes" that ride the wrong way, etc.
95	All new construction should require bicycle lanes. Elko had a major reconstruction project that made bicycle riding more dangerous than it was previously with no options left but to ride on the sidewalk.

Number	Response Text
96	We have a great state for cycling. Our weather is good nearly every day, and the opportunities for riding are numerous. Thanks for all the efforts to make riding safer.
97	We just need people to be aware and do the right thing, both cyclists and motorists. Wide shoulders help too!
98	Install the rumble strips along bike lanes to alert drivers when they drift into the bike lane.
99	Both drivers and cyclists need to learn a bit more respect and to value our ability to be out there together.
100	Enforcement of no parking laws with respect to vehicles illegally parking in bike lanes. A treat as a yield STOP sign law for cyclists.
101	Cyclists need to be ticketed more often for not following the rules of the road. These cyclists upset vehicle users, which threatens the law abiding cyclists.
102	I would like the plan to include changing the 395 corridor through pleasant valley from Reno to Washoe Valley to 1 lane each way, with a center turn lane. There should be a developed bike lane system in place. The American River Bikeway in Folsom is a good model. It would be safer and a tourist draw.
103	I love the bike lanes, just wish some of them didn't end so suddenly. Wish more people felt comfortable bicycling in Nevada.
104	Cyclists should be allowed to treat stops signs as yield signs.
105	Get the police on bikes
106	No. 23 & 24 difficult to answer. Some are bicycle advocates; some are not.
107	Would like more roads with bike lanes or shoulders, which would enhance safety.
108	I ride across Nevada every year on Hwy 50 and am so tired of having to dodge to rumble strips or ride out in the traffic lanes, even when the sholder is about 18" wide. because it is filled with bumps
109	Educating both motorists and bicyclists is very important. On a local road that I ride 8-10 times a week (each way), the roadway was recently cut from two lanes (each way) to one lane (each way) using the extra space to add generous bike lanes in each direction. Despite the paths being wide enough to safely ride two abreast WITHIN THE LANE, i routinely see cyclists riding two and three abreast while claiming the traffic lane, forcing cars into the center turning lane. Even though the city was generous enough to give us cyclists a safe travel corridor, cyclists still feel entitled enough to force traffic into dangerous passes, creating a great deal of animosity and aggression towards us that want to share the road. I'm sure these same cyclists though, wouldn't mind motorists utilizing the bike lanes in order to drive two abreast, would they?
110	I don't like riding on the roads where the bike lanes are 2" wide. It would be nice to have bike lanes or paths.
111	Tremendous opportunities to increase bicycling
112	I would like to see motorists as well as cyclists sited for reckless driving and riding. In these days of high gas prices I think it would make sense to encourage more people to ride bikes when the weather permits.
113	Education is always the key, and then enforcement for those that do not follow the laws, motorists or cyclists. Distractions while on the road on a bike or in a car are bad, be it cell phones, music, head phones, food etc.
114	I see a small percentage of bicyclists causing problems for drivers, a MUCH larger % of motorists causing problems for bicyclists.
115	Stop lights and stop signs are designed for cars, not bikes. For bikes, stop lights should be treated as 4 way stops and stops signs should be treated as yields. It is more efficient maks sense.

Number	Response Text
116	Since I do much of my riding on mountain roads wider, well-maintained shoulders would be most helpful. West side of Mt Rose hiway is great.
117	I always wear bright clothing so I can be seen. I signal to others what I'm doing and where I'm turning so I don't surprise others on the road.
118	How about a mountain bike trail that is all off-road, and encircles Reno in the surrounding mountains and foothills? Like the Tahoe Rim Trail around Lake Tahoe, this trail could attract visitors to Reno and help enhance Reno's image as a destination for recreation. The hills around Reno are a great place to ride.
119	As a person who rides a bike 5 - 10,000 miles a year and ridden in most states, I feel that Nevadans are generally fairly tolerant of cyclists, but uneducated. In the Reno area, there has been a big push for safer cycling. I think that this community is moving in the right direction. For nine months of the year, it is very easy to move around this community without using a car.
120	Number one concern is people texting and talking on cell phones while driving.
121	The river path from Rock Park to around Idle Wild park is a great way to go east and west of town. I can't think of any good way to go north and south.
122	Wider shoulers for riding in areas of busy traffic. Also, law enforcement more aggressive enforcing against aggressive motorists who intimidate bikers. Create rider friendly areas to funnel cyclist through.
123	Could you do something about the wind?
124	Both motorists and cyclist need to be able to share the road
125	I appreciate everything that is done to improve safety for bicyclists on the local roads.
126	Cycling is most effective in the cities (Vegas, Reno, Sparks, Henderson, etc). Clear bike lanes and education/promotion to the voter is the key. Nevada is 300+ sunny days a year. No reason more people could not ride their bike more!
127	Thanks for huge improvements over the last several years! More improvements can always be made, but encouraging road sharing on both sides is very important.
128	Need to emphasize that bicycle riders are good for community. That they have roadway responsibilities and rights.
129	Educate motorists, cyclists (esp kids) and law enforcement. And build more bike lanes and paths!
130	I see some bike riders riding the wrong way and not obeying rules--especially in downtown Reno area. Bicycle law can be "fuzzy" when it comes to signals and where a cyclist should go at busy intersections. Some of us roll right up front and some get behind motor vehicles---not sure which is "within" the law. I generally do what I feel is safe for me at the time. I looked it up online at the state website--and it's not very clear.
131	The attitude of automobile drivers is what needs changing.Unless they ride, they are not aware enough of cyclists and their safety. They focus on their rights as drivers.
132	Nevada should adopt the Idaho "rolling stop" law.

Number	Response Text
133	This survey is unclear. On one hand it seems to be a general survey about cycling, but on the other hand, the questions all seem to be slanted toward bicycle commuting. I am an avid cyclist, but I really can't comprehend the push toward bicycle commuting because it is only feasible to a very small segment of our community. To be able to commute by bike, you can't have children because you are required by law to pick your kids up from school in 45 min. if they are sick (can't do that on a bike), you have to work at an office with a shower (not too many of those), you can't have a job where you are required to visit clients throughout the day unless your employer provides a vehicle. I would like the focus to be on street sweeping (especially shoulders) because it doesn't take much debris to flatten a tire with 120 lb of pressure, wider shoulders on highways (I don't need a separate lane), and education of motorists (most motorists don't seem to understand that a bike is a moving vehicle and is therefore afforded the same rights as a car).
134	Cops on bikes constantly breaking the law.
135	Thanks for the effort!
136	I think Reno is doing a far better job lately - the new bike lanes are wonderful and seem to be popular and successful.
137	Very grateful for the recent bike lanes and laws! Great job, keep up the work. More bike lanes to make it easier to get north south Plumas etc.
138	Lots of great old trails and railroad beds that cris-cross various parts of Nevada that would make great "Rails-to-Trails" projects
139	A very common problem is motorists driving in bicycle lanes especially when preparing to turn right. One of my children when taking their driving test was even instructed by the examiner to drive in the bike lane to prevent other vehicles from passing on the right before a right turn. Another one of my children was instructed to never do this by one of the driving examiners. There is a problem when the DMV cannot even uniformly enforce driving rules on their tests. Motorists need to understand their vehicles are essentially weapons when compared to bicycles or pedestrians. Road rage directed at bicyclists is rampant. I have had motorists swerve at me, throw things at me, and honk or yell trying to get me to crash. This is in town, riding appropriately in a bike lane on a road that is plenty wide where I am not impeding traffic in any way shape or form.
140	Increase awareness and make it accessbile to more people.
141	I had an instance this summer where an angry motorist drove his vehicle at me trying to run me over on the way to work. He was in a rush to get his daughter to a softball game on Idylwild. I called the police as he was quite offensive and dangerous to me and other motorists. I called the reno police who showed up and commented on the fact that the fellow was angry and abusive and they could tell who caused the problem, but they had another call to attend to so they where going to leave with just giving him a warning. I now know I have to be physically injured by a motorist or hit to have my local police do anything about it. This is on par with other local police departments I have worked with over the years. Including being hit by a drunk driver (rear ended while commuting). The police had the license # and everything in this situation to and promised me they where headed to his home next to see if he was intoxicated. They never did go as they had another call. So this is what I have come to expect from the police as far as enforcing the law when it comes to motorist/ cyclist situations. Reno police don't impress me much anyway so it goes with territory.

Number	Response Text
142	We need to do a MUCH better job of promoting cycling to community members as a cost-effective, healthy alternative to motorized transportation, and then work to remove barriers to cycling (i.e. safety, access). We also need to educate motorists about cyclist's rights and do a better job of apprehending and prosecuting motorists who threaten or injure vulnerable highway users. Hopefully the "Three Feet, Please" law will help with this. We also need to promote the benefits (tourism dollars, improved health, etc...) of cycling/mountain biking to local governments to garner support for cycling projects and leverage transportation dollars to improve cycling infrastructure.
143	Cycling is a great way to get people out of cars and riding to work. Not to mention the benefits from exercise and the health, weight lost .
144	We need to educate motorists and cyclists alike on laws pertaining to cycling/sharing the road. We need more enforcement of safe driving in our state - not just for cyclists but for all users of our roadways. Roads need to be cleaner for users to improve safety - cyclists will ride to the far right and out of traffic if the shoulders and bike lanes are passable - many are not. Community needs to be more accepting of cyclists - there will be more of us as gas prices increase and there are more looking to save money and improve health.
145	Hitting someone on a bike should carry a heavier penalty see the case of Rhonda who was hit by someone in an SUV who was texting when they hit her, not sure if the driver had any repercussions, please consult with Reno Wheelmen on this important topic
146	New and existing roadways should have 2 to 3 feet of pavement between the fog line and the edge of the pavement for safe bicycle travel.
147	Public needs to be educated about cell phone use;3 ft passing; and vulnerable users traffic laws AND enforcement needs to be consistent throughtout the state.
148	Reno should look at a complete restructure of its roads for bikes. If we could get more people on bikes that can ride safe Reno would be a much nicer place to live. Nothing like riding a bike around the river downtown. It is a good start. Look at Davis CA.
149	I really encourage the development of more bike-friendly communities. Cycling is a healthy, environmentally friendly mode of transportation that benefits everyone in the community, but it's still a challenge in the Reno area. I applaud the Reno City Council for their efforts to build more bike lanes and slow traffic.
150	Bicycling does not get improved by increasing relationship to legislation
151	My primary concern is unattentive drivers. This makes me select my routes very carefully. It would be great to have a central resource describing cycling friendly routes. I also believe there is very little community recognition of cyclist's rights to use roadways for transportation, fittness, and sporting competitions.
152	Questions 17&18 They are making great improvements in these areas.
153	More cleaning of gravel from the shoulders.
154	If we want Nevada to be considered bike friendly we have to improve safe riding here.
155	My answers pertain to my use of my bicycle. In real life I ride an electric scooter to work every day so in that way I am also a user of bike lanes and deal with cycling problems every day.
156	I don't ride on the road. Mountain bikers would like more and better trails - especially nice single track deep in the woods - away from cars, noise and the congestion of the city.
157	We don't need "offical bike lanes". Just give us a decent shoulder to ride on!
158	I approve of the increased attention that has been/is being paid to the bicycling community in norther Nevada in recent years. Please continue this effort.

Number	Response Text
159	The driving culture remains anti-bicycles. Education and enforcement needs to stepped up to change the culture.
160	Police in Reno have the attitude that the driver has the right of way, many times in asking them they let the driver go without any warning....Educate the police forces and start a campaign showing the rights of riders and the reasons for riding WITH traffic, not against.
161	I know for a fact that law enforcement "officers" do NOT care about cyclists rights. I have heard them say that bicycles do not belong on the road. Such ignorance!!!
162	A little extra space on the shoulder is better than nothing if a full-blown bike lane cannot fit. WATCH out where rumble strips are placed--next to traffic, not in the middle of the shoulder.
163	#19, "Supports" is too strong. Most of community gives it no thought or just tolerates
164	This survey should be written by a qualified linguist with a bicycling background.
165	This survey is poorly written and difficult to understand.
166	Thank you to City of Reno for the Mayberry Corridor; but please to not always include a disparaging comment ("Sometimes they are their own worst enemy", Mayor Bob). Someone run over by a truck in a bike lane ("Bikers should always watch where they are going").
167	Beautiful place to ride, Nevada could be marketed as a worldwide riding destinaion for tourism.
168	I would like to see paths extended alongside the beltways (like what was suppose to happen with the 215 in LV) Parts of it were done, but it is spotty. Also, more connectiveness with bike routes to major bus routes and locations for commuting. Extend the River Mtn Loop over to Henderson, Green Valley..even to the west part of town. If it is safe, we will ride it.. But not on those crazy roads in Las vegas.. I love my life and kids too much to risk my life and not coming home to my children.
169	We need a bike path along Lake Tahoe, up and over Spooner Summit from south shore!
170	Before moving to Nevada a bicycle was my only mode of transportation. Here, it's too scary to ride most places: to get to work/school/shopping/etc. I have to cross the road too many times, don't have adequate bike lanes/paths/shoulders, am too close to traffic, etc. It's just not a safe transportation option.
171	I believe it is growing. It seems as though legislators are helpng. Let's keep it going!
172	Very excited about more bikeways around Lake Tahoe
173	When resurfacing roadways, spend a little extra money for bicycle lanes
174	I think we need more emphasis on urban recreational riding, rather than transportation to work/school/market.
175	Pave more road. Clean up the ones we have (shoulders are usually filled with glass etc.) Make more bike paths
176	I have been buzzed by law enforcement while riding on a shoulder so I don't feel they understand the current laws nor do they enforce them well. I would ride 2-3x more (especially to work and for errands) if there were safe routes and cyclists weren't regularly hit (often killed) by motorists in Reno.
177	NCOT needs to significantly increase its support for and promotion of 'bicycling in Nevada' as a visitor attraction. That effort will result in the public support of improved bike legislation and state-wide usage.

Number	Response Text
178	Need more governmental support at all levels for bicycling and walking as transportation modes. NDOT needs to take bicycling and walking seriously, at the top management level. Funding needs to be more than barely adequate. All local governments should have bicycle and pedestrian advisory boards to their RTC.
179	I believe that the abilty for cars and bikes to understand how to interact with eachother is going to be a long and hard battle to overcome, as long as they are sharing the same roadway.
180	We must place a higher priority on education and improvement of bicycle lanes.
181	I know how to ride a bike, but I'd like for my wife and children to feel better about using one for transportation in town. Texting is a big problem for bike safety. Personally I'd like to see more mountain bike trails.
182	Vehicle right turns at signaled intersections pose the greatest danger for cyclists and pedestrians. I cannot trip the signal in the through lane, but when I go to the pedestrian switch at the corner, motorists routinely ignore or do not see me when they are turning right.
183	Connect cycling to heatlh benefits, create more cycling events in communities, require helmets for all riders, educate vehicle drivers about the effect of a two ton piece of metal on an unprotected human body
184	Thank you for your efforts, we all will be healthier and happier if we could ride our bikes more often, and drive our cars less.
185	Helmets! Helmets! Helmets! We have good trails for mountain bike riding but it doesn't take long before you have riden all the various routes over and over. Additional trails that are accessible without having to drive to them would be great. When I first started riding I had a hard time identifying where to ride. Detailed and accessible maps and improved trail markers would improve mountain biking in NV.
186	Concerned about blatant aggression by motorist towards cyclists and runners.
187	The biggest problem I have is too narrow of bike lanes and all roads don't have bike lanes. When I am biking, I may be on a roadway then the bike lane may all of a sudden end. I usually ride around town for work and errands. I have had several vehicles come so close to me that I would have been able to reach out and grab their rear view mirror. It's quite scary.
188	Thanks for putting together a Statewide Bicycle Plan.
189	Your 1-8 rating system for certain questions is complicated and annoying. Other questions force a YES/NO answer, when more shades of gray are required. Q16 - you want me to look at a map?? - I thought this was going to be quick and easy..... Just connect the trails!!! How bout a bridge over carson river connecting Stephanie way area to carson area so we don't have to go on the highway at all?
190	We have an amazing environment for cycling in our community. I would applaud any assistance to making it a more bicycle friendly community, and encouraging to children to ride bicycles.
191	Bike paths please!
192	Off road trails are the best way to bike, unpaved is good for mountain biking.
193	Make bicycling a safe way of transportation, particularly for schoolchildren.
194	Education is the key along with safer roads. Need to crack down on speeders.

Number	Response Text
195	1) NDOT needs to install more round-abouts to allow cyclists to cross busy roads that divide communities (the on on NV88 is a perfect model) and advocate their use with municipalities. 2) The recent permanent de-surfacing of all lanes of NV88 from Minden to the California border is a major setback for encouraging high school students to ride to school and for cyclists traveling between Carson/Minden and the Ranchos. (It's also really bad for fuel efficiency for cars and trucks using this roadway. Only the oil companies and car/bicycle repair shops are benefiting from this stunning ruination of a previously excellent roadway.)
196	I think there should be a crackdown on Bicyclist who do not obey the traffic laws, especially in and around the Cities. I know the Police have better things to do, but if you want motorist to respect Bicyclist, Then they need to be ticketed for violations same as motorist.
197	This is a beautiful place to ride, educating bicyclists and motorists would make everyone safer on the road.
198	The recent improvements around Reno are fantastic (Road diets and more bike lanes). These will make average people more likely to get out by bike. State level changes are harder. Rural Nevadans don't know what to make of someone on a bicycle. Separate paths might be the answer if they are less expensive than expanded shoulders and/or marked lanes. The real key is not to let NDOT put rumble strips on every rural road! They force us even further into the lane!! I'd love to volunteer if you need help. Please feel free to contact me.
199	Bicycling in Nevada, on and off road, has huge tourist potential because Nevada is so beautiful, and therefore probable economic return on investment if bikeways are improved. Just go ride between Truckee and Tahoe city on a summer weekend. There are a ton of bicycling tourists. Support the Tahoe Pyramid bike trail.
200	More prosocution and stronger punishments for bicycling infractions for BOTH motorist and cyclists.
201	I would like to ride my bicycle to work but I don't feel that it is safe. There is not enough shoulder on the roadways to provide enough room for bicycles and vehicles. Bicyclists in our area do not obey the "Rules of the Road". They seldom stop at stop sighs and display rude behavior toward vehicles, such as taking up entire lanes and inhibiting the flow of traffic.
202	I answered #23 for the SF bay area. There is little enforcement of laws for bicyclists OR motorists. Nevada seems fairly even-handed in my experiences in the Tahoe basin (Stateline to Incline)
203	Bike lanes on every single highway first, then paths.
204	Bike lanes that go in between lanes when the right lane is for cars to turn right are misunderstood by motorists and are not signed consistently. Most motorists do not yield to bikes in these lanes and usually try to cut bikes off.
205	People that are biking or walking across the state have a hard time because of no shoulders to drive on
206	Geiger Grade, SR 341, is not safe for bicyclists and I encounter a dangerous bicycle/vehicle situation almost every day. The road either needs a much wider shoulder or be restricted.
207	Washoe County has made many improvements in the last couple of years in terms of infrastructure and aceptance of cyclists; the rest of the state is also slowly seeing improvement
208	Need better education programs to riders and to schools
209	It appears to be a popular activity.

Number	Response Text
210	In Douglas County, we need more bike lanes and bike racks. Probably the biggest issue for me is the lack of bike racks. I can't ride anywhere because there is no place to lock up the bike and all the town boards around here think there is no need because people don't lock there bikes. They do not understand that bikes are expensive nowadays and get stolen.
211	With regard to 12. In your community have you received training on riding a bicycle? I don't know that it is or is not available. I see no need to receive training on "riding" a bicycle, as I don't ride one. However, I hope the schools are teaching this. With regard to 14. Do you feel law enforcement agencies in your community apply traffic enforcement resources to all roadway users? I will add this might be due in part to lack of funds.
212	Need to make Nevada a more bicycle friendly destination and encourage cycling for transportation and recreation.
213	Bicyles should NOT be on the roads, Its just asking for trouble
214	Law enforcement in Douglas county is nazilike and courts are even worse so dont bring them into it at all they make everything worse.
215	Bicycling safely in Nevada has been a long time coming.
216	In Douglas County, we need a safe bicycle lane along Foothill Road and Genoa Lane.
217	Texting while driving is the scariest current problem for cyclists.
218	I feel it is an extremely positive and important form of transportation for our community.We need to make it more accepted.
219	If it was safer and there was better access, people would ride more.
220	Cars are the center of all transportation in Reno. I live very close to where I work, and I bike often. I have been nearly ran down several times. There are SOME bike lanes, but not enough. Even around UNR there are few places to safely bike. How can this be?
221	I believe that educating motorists about how to safely share the road with cyclists will help them understand the laws and avoid hitting people riding there bikes. A lot of drivers just don't know how to share the road, or they don't understand what a cyclist is doing on the road so they honk and act very aggressively towards a person who is actually obeying traffic laws on his/her bike. Cyclists also need to be safe and aware of laws, wear helmets, stop at stop lights etc... Also! I think that this city needs to make BIKE LANES a priority when developing new areas and when renovating older neighborhoods. If you build bike lanes into the infrastructure of this town you will promote a healthier lifestyle by giving SPACE to bikes as well as cars. The bike lanes in down town Reno on California Street/Arlington were AWESOME. You put bike lanes on the streets and you make a statement that says "We're a progressive town who is aware of the importance of cycling as an alternative means of transportation." By integrating bike lanes into the streets you're sending a message to your citizens that says, "We want to keep you safe, give you space, and make motorists aware of your rights to use the road too." Sure, a bike lane won't solve all the problems, but it will be a vital step towards making this city more bike friendly. I own a car, but I also ride my bike as much as I can, to school at UNR, to work downtown, to friends' houses, to bars, to shows, to the store...everywhere....I love it, and I want more people to ride their bikes to experience the fun, free feeling of pedaling down a road.
222	I really wish that in order to ride a bike you had to get a certificate and that when you get your driving license that you have to take a bike portion. I am pretty sure that I know the rules, but so many bicyclists break the rules, mo

Number	Response Text
223	Unfortunately, less friendly to bike in CA and usually a ride will include travel into and out of CA. Hassled by law enforcement in CA and never in NV.
224	I started riding my bicycle late summer, and realize that even the places I thought would be too far to ride were just 15 minutes away on the bicycle. The town is great for using the bycicle for transportation.
225	I spent some time in Japan last year and was amazed at how much bicycles are used for transportation. The motorists are very aware of bicyclists and pedestrians. I think for safety we really need to have the separated path. I don't know that Nevadans are that aware of bicyclists/pedestrians. When I was riding this past summer in Utah, I felt very safe for the most part on the Provo River Trail. The only caution there was underpasses would attract homeless people. The Provo River Parkway trail is amazing. http://www.utahmountainbiking.com/trails/provorvr.htm It goes through the city, and into the canyon. It was so sad coming back to Fernley and trying to ride here again. Dodging cars is just scary on Farm District Road. I see Nevada's children not getting much exercise at school with the elimination of Physical Education classes. If they had a safe route to school, that could help them get some needed exercise in their day. I am excited that this survey is being taken, and I hope that we will see more paths created to make Nevada's communities more bike/walk friendly.
226	Could we educate the children in schools about bike riding safely, following traffic laws, at least once a year during a health class or P.E.
227	Laws on bicyclists are NEVER enforced in Winnemucca
228	I would like to see law enforcement stepping up enforcement for cyclists and motorists who do not obey rules of the road - especially as the two groups are concerned.
229	More paths and bike lanes would be a large improvment
230	Even know the roads are paved, they are too dusty. No bicyle lanes. Motorists driving with burger in one hand or a cell phone.... sometimes both... my husband has been hit twice in Washoe County, once on Geiger Grade by a motor home with the mirror sticking out and the other time on highway 395 in pleasant valley, he almost died. Both times he was in the bike lane. Winnemucca is worse.
231	It would be really nice to have some good bike trails and places to ride our bikes.
232	Bicycling is a great activity. More bike paths would be great. I have traveled to Oregon to take advantage of superior bike trails/oportunities.
233	The vehicle taxes (licensing and fuel) help pay for roads. Bike riders pay NOTHING and yet think they own the damn roads. Most fail to yeild to motorized vehicles and pedestrians. I have been cut off by more bike riders then vehicles here in Elko. Require them to regesture the bikes and law enforcement should start ticketing those bike riders that do not obey the laws.
234	The questions were a little challenging - I think community forums are a great way to get a feel for the community perspective. Unfortunately, I was not able to attend the Fernley meeting. Thank you for making the effort.
235	I perfer to ride my bike facing trafic so I can see what is coming at me. I think this is the way the law should be, if a bike lane is not provided.
236	Chipsealed roadways with no shoulder combined with oblivious motorists make for a terrifying cycling experience. Cyclists lose 100% of the time on that one. We need wide, maintained shoulders because the motorists aren't going to change.
237	I think education would be greatly helpful and safer for riders. A few designated streets in Elko would make travel on bikes easier.
238	It's a dangerous place to ride, but I continue to ride.

Number	Response Text
239	With the cold weather in northern Nevada, the only safe option for bicyclist is to have a separated path to protect them from vehicles on icy roads.
240	We need bike paths in rural Nevada for bicycling and walking. Rural Communities in Utah have them and they are fantastic. Having a bike path in Ely would encourage people to move here and enhance our economy!
241	Not enough room to go around cyclists on mountainous portions of Highway 50, which is used by cyclists ALL SUMMER.
242	Need family friendly paths that do not require being in the mountains
243	The theory, "build them and they shall come", applies to wider roads, more bike lanes and paths will lead to more people commuting on their bikes and taking more cars off the road which lead to less gas used, more energy savings, and eventually a savings for the state.
244	Eklo has so much potential to improve in the bicycling industry. It could be a large source of revenue to expand our bicyling. We also need a better bike shop, our current one (T Rex) is very poor and has a pretty negative reputation and poor customer service. I know this doesnt apply to this forum, but there are 0 mountain bike specific trails around Elko. The only thing to bike on is the jeep and 4 wheeler roads around the area. Both Winemucca and Battle Mountain have a mountain bike trail system that attracts people to come and ride. With the beauty and terrain around Elko, mountain bike trails would be a large improvement to the tourist market that just passes through Elko on their way to Reno to ride mountian bike trails.
245	In my opinion bike paths are very nice for certain types of riders. Those who ride with young families, elderly, and the like can take advantage of them as their speed is generally under 15mph. Bike paths are multi-use facilities, walkers, skaters and the like can also use them. Most people will fall into these classifications at times throughout their lives. I think they work best in an urban environment, or as connectors between closely positioned communities. Widened shoulders or multi-use lanes work best for cyclists trying to get somewhere or for training purposes and they are probably less expensive to build and maintain. This benefit is probably at the expense of use to walkers, skaters, and others.
246	You might want to look into the potential for mountain bike touring on many of the remote dirt roads across Nevada. There are only a few of us now. But it's so damn fun, that probably won't last for long. If you have questions; go ahead and call me at 775-235-7557
247	Having a bike lane in town would be nice, but putting a separate path down Farm district would invite lots more of the community to bike/run/walk exercise!!!
248	We are way behind. We need to get ideas from Salt Lake City. We often ride there. It is safer. The City gives a free bike rack to any business who requests one. They have many bike lanes and stripes to indicate bikers have the right of way.
249	There are some roads that are unsafe for bicyclist and they need should not be allowed on these roads (ex. 225 N out of Elko). There are too many trucks and vehicles on this road which makes it unsafe for all involved when cyclist are on this road. There is no shoulder.
250	We need more bike paths. We need the existing lines in the road ways clearly marked a lot of them are very worn.
251	Definitely need wider shoulder pavement if there are no bike paths available!!!!
252	More education needs to happen in our schools about bike safety. more bike lane or paths need to be installed in residential areas and around schools. Go to Corvallis, Or to see how they integrated bicycle safety into their community.

Number	Response Text
253	Would like to have Northern Nevada recognized at a wonderplace to both live and visit for cyclists
254	Education, enactment, enforcement and FUNDING
255	We need attitudes, education, engineering, enforcement, facilities, and community/government support and advocacy for cycling.
256	Bike lanes and more room to create a pleasant and safe experience and safe routes to school for kids.

APPENDIX C NDOT 2011 HPMS Submittal

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
1263 S. Stewart Street
Carson City, Nevada 89712

BRIAN SANDOVAL
Governor

SUSAN MARTINOVICH, P.E., *Director*

In Reply Refer to:

September 30, 2011

Wesley Rutland-Brown
Federal Highway Administration
650 Capital Mall St 4-100
Sacramento, CA 95814

RE: Nevada's 2011 HPMS data submittal

Dear Mr. Rutland-Brown

Per our conversation, I am formally putting in writing a summarization of what Nevada was able to accomplish in this year's first go round with the new HPMS format.

The biggest hurdle that we faced this year was establishing new sample locations in a reasonable time frame to allow our data partners to collect and provide information in those locations. We worked very hard but lost an enormous amount of time trying to solve our AADT data. By the time we could announce our sample locations several of our data partners had already begun collecting data to meet their own program deadlines.

Overall we were able to submit a road network, along with the 5 geo referenced data items which include rural/urban, functional class, through lanes, aadt, and facility type. We established 520 samples and provided a majority of data items required on them. We completed most of the required summary data in the HPMS 8.0 software. Attached is a summary of our accomplishments. With a few limitations on some pavement data items we should be in full compliance next year.

Sincerely,

Steven Jackson
Federal Programs Manager

Attached: 2011 HPMS Submittal Summary

cc: Tracy Larkin-Thomason, Assistant Director of Planning, NDOT
David Manning, Roadway Systems Chief, NDOT
Jodi Swirczek, HPMS Coordinator, NDOT

Nevada's 2011 HPMS submittal

The following summarizes the data items and tables we were able to submit this year, the amount of data submitted and some minor explanation under Comments.

Data Type	Full Extent	Sample	Comments	
F System	Yes		Functional Class will be provided as one of the 5 data items defining samples	
Urban Code	Yes		Urban Code will be provided as one of the 5 data items defining samples	
Facility Type	Yes		Facility Type will be provided as one of the 5 data items defining samples	
Structure Type	No	No	There are no structure types that are entirely on a bridge, tunnel or causeway	
Access Control	Yes	Yes	provided where applicable	
Ownership	No	No	Nevada will comply with this item for the 2012 submittal	
Through Lanes	Yes		Through Lanes will be provided as one of the 5 data items defining samples	
HOV Type	Yes		provided where applicable	
HOV Lanes	Yes		provided where applicable	
Peak Lanes		Yes	Provided on all of the samples submitted	
Counter Peak Lanes		Yes	Provided on all of the samples submitted	
Turn Lanes Right		Yes	Provided on all of the samples submitted	
Turn Lanes Left		Yes	Provided on all of the samples submitted	
Speed Limit		Yes	Provided on all of the samples submitted	
Toll Charged	Yes		Provided where applicable	
Toll Type	Yes		Provided where applicable	
Route Number	Yes		Provided where applicable	
Route Signing	Yes		Provided where applicable	
Route Qualifier	Yes		Provided where applicable	
Alternative Route Name	Yes		Provided where applicable	
AADT	Yes		AADT will be provided as one of the 5 data items defining samples	
AADT Single Unit		Yes	Provided on Samples only	
PCT Peak Single Unit		Yes	Provided on Samples only	
AADT Combination		Yes	Provided on Samples only	
PCT Peak Combination		Yes	Provided on Samples only	
K Factor	No	No	K factors will be provided next year	
Dir Factor	No	No	D factors will be provided next year	
Future AADT	No	No	Future AADT's will be provided next year	

Data Type	Full Extent	Sample	Comments	
Signal Type		Yes	Provided on most samples, our data providers from Washoe RTC failed to provide us any information and we are researching small urban areas statewide.	
Pct Green Time		Yes	Provided on most samples, our data providers from Washoe RTC failed to provide us any information and we are researching small urban areas statewide.	
Number Signals		Yes	Provided on all of the samples submitted	
Stop Signs		Yes	Provided on all of the samples submitted	
At Grade Other		Yes	Provided on all of the samples submitted	
Lane Width		Yes	Provided on all of the samples submitted	
Median Type		Yes	Provided on all of the samples submitted	
Median Width		Yes	Provided on all of the samples submitted	
Shoulder Type		Yes	Provided on all of the samples submitted	
Shoulder Width R		Yes	Provided on all of the samples submitted	
Shoulder Width L		Yes	Provided on all of the samples submitted	
Peak Parking		Yes	Provided on all of the samples submitted	
Widening Obstacle		Yes	Provided on all of the samples submitted	
Widening potential		Yes	Provided on all of the samples submitted	
Curve Information	Yes		Submitted Full Extent on approximately 90% of the road network but did not meet the format required for sample sections. We will be in compliance next year.	
Terrain Type			Provided on all of the samples submitted	
Grade Information	Yes		Submitted Full Extent on approximately 90% of the road network but did not meet the format required for sample sections.	
PCT Passing Sight			Provided on all of the samples submitted	
IRI	Yes	Yes	Provided full extent on the state maintained system in 1 mile increments and provided aggregated values on 422 of the sample sections	
PSR		Yes	Provided aggregated values on 422 of the sample sections	
Surface Type	Yes	Yes	Provided full extent on the state maintained system on 490 of the sample sections	
Rutting			Provided Values on 422 of the sample sections	
Faulting			We will work towards compliance for next year	
Cracking Percent			Provided values on 195 of the sample sections	
Cracking Length			Provided values on 195 of the sample sections	
Year Last Improvement			Provided values on 195 of the sample sections	
Year Last Construction	No	No	We will work towards compliance for next year	
Last Overlay Thickness	No	No	We will work towards compliance for next year	
Thickness Rigid	No	No	We will work towards compliance for next year	
Thickness Flexible	No	No	We will work towards compliance for next year	

Data Type	Full Extent	Sample	Comments	
Base Type	No	No	We will work towards compliance for next year	
Base Thickness	No	No	We will work towards compliance for next year	
Climate Zone	No	No	We will work towards compliance for next year	
Soil Type	No	No	We will work towards compliance for next year	
County Code	No	No	We will work towards compliance for next year	

Meta Data Table

The Meta Data Table was submitted in full compliance.

Summary Tables

State wide Summaries

Information in the Statewide Summaries has been completed.

Vehicle Summaries

Vehicle Summaries was submitted in full compliance.

Urban Area Summaries

Information in the Urban Area Summaries is complete.

County Summaries

Information on County Summaries is complete.

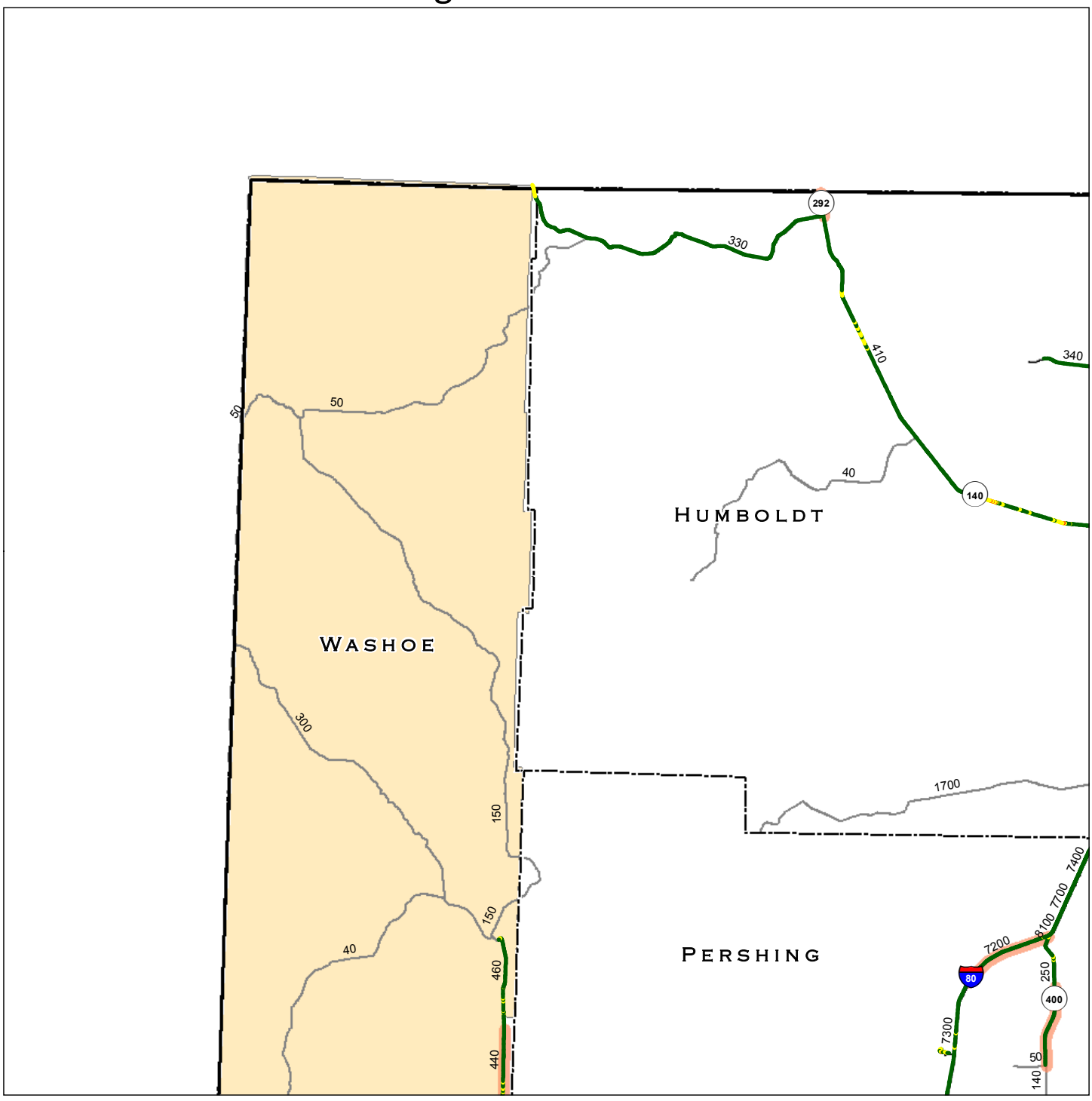
Note: when combining local miles (from a non geospatial source) along with the data supplied to HPMS having higher functional levels than local, the two data sources may not match the overall "Statewide Certification".

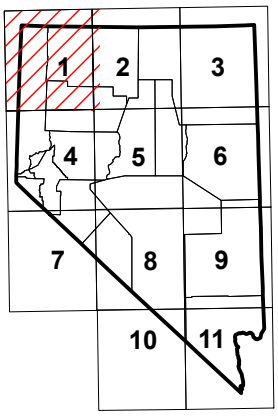
NAAQS

We were told this was low priority, None submitted this year.

APPENDIX D HPMS Data Exhibits

Existing Conditions





Legend

Percent Grade	Shoulder Width
0.0 - 2.4	0 to 2 ft
2.5 - 6.4	3 to 4 ft
6.5 or greater	Greater than 4 ft

500 Average Annual Daily Traffic

County Boundary

MPO Boundary

0 5 10 20 30 40 Miles

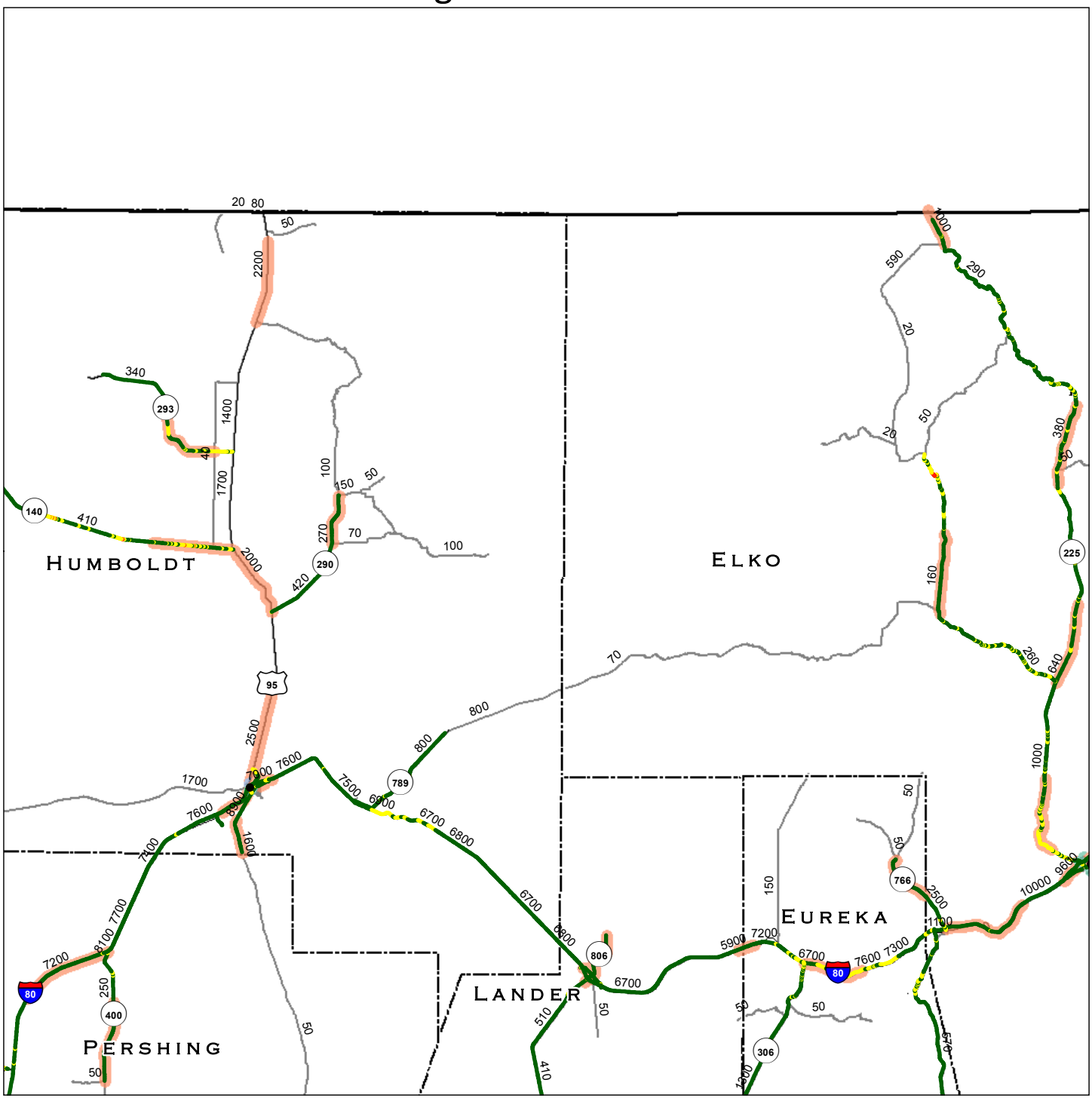
N

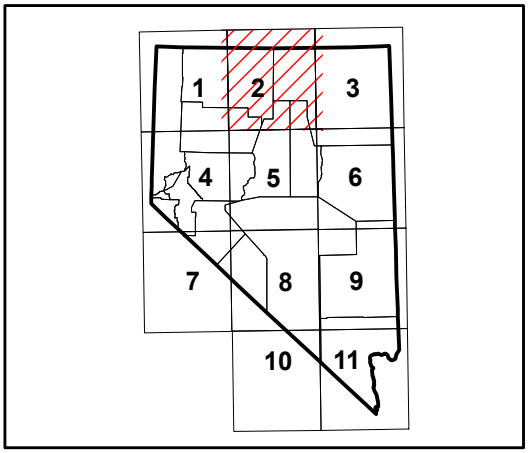
Map 1

NEVADA DOT

Kimley-Horn and Associates, Inc.

Existing Conditions





Legend

Percent Grade	Shoulder Width
0.0 - 2.4	0 to 2 ft
2.5 - 6.4	3 to 4 ft
6.5 or greater	Greater than 4 ft

500 Average Annual Daily Traffic

County Boundary

MPO Boundary

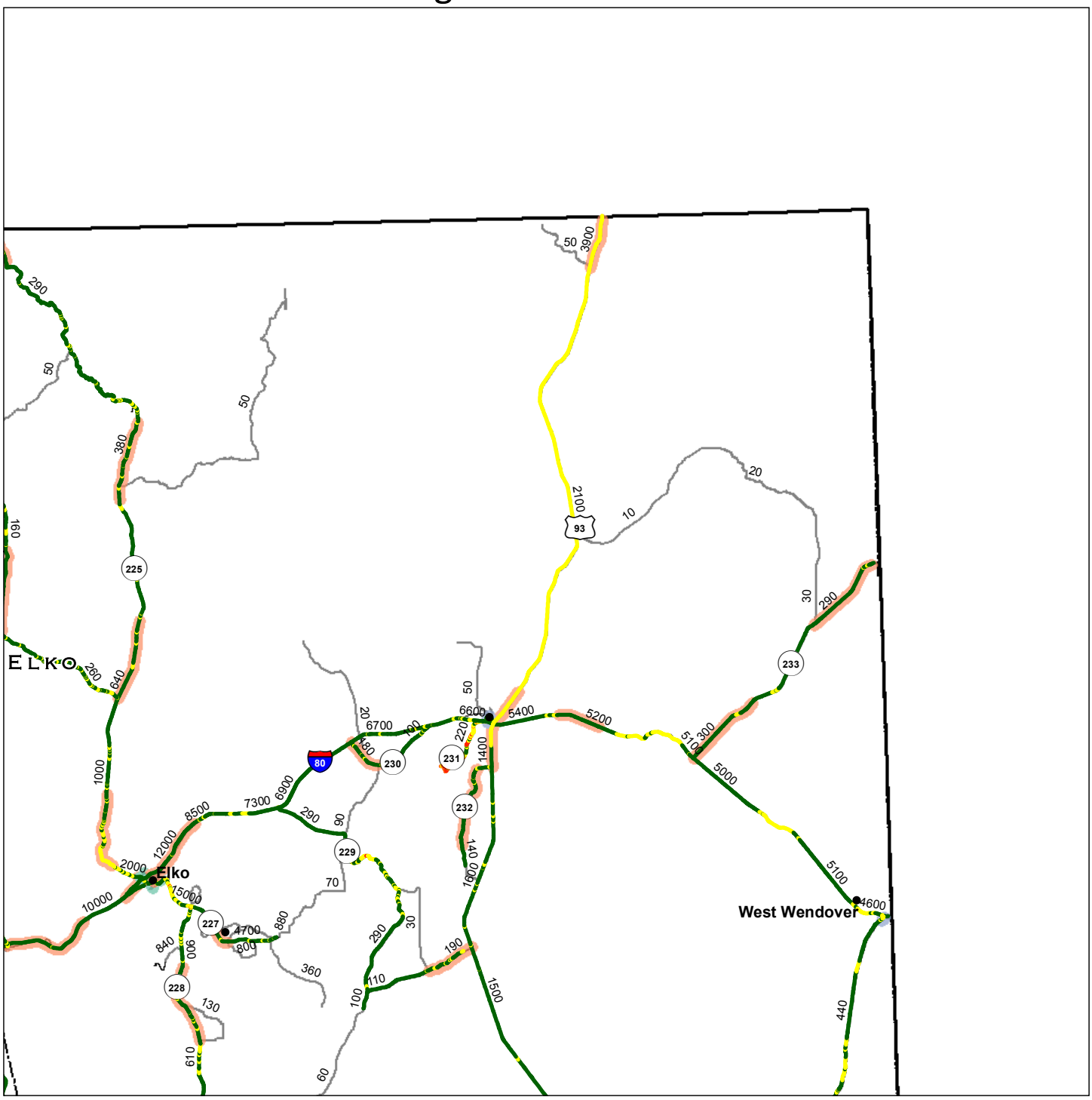
0 5 10 20 30 40 Miles

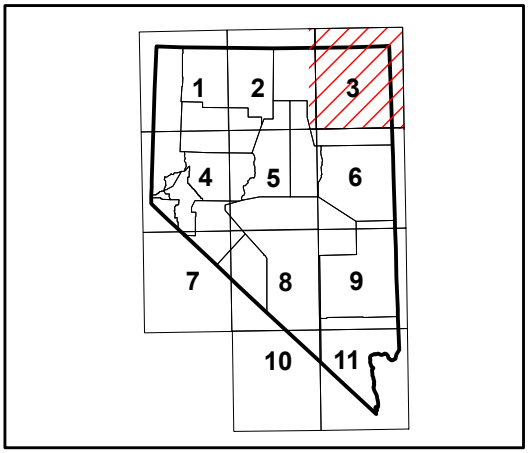
Map 2

NEVADA DOT

Kimley-Horn and Associates, Inc.

Existing Conditions





Legend

Percent Grade	Shoulder Width
0.0 - 2.4	0 to 2 ft
2.5 - 6.4	3 to 4 ft
6.5 or greater	Greater than 4 ft

500 Average Annual Daily Traffic

County Boundary

MPO Boundary

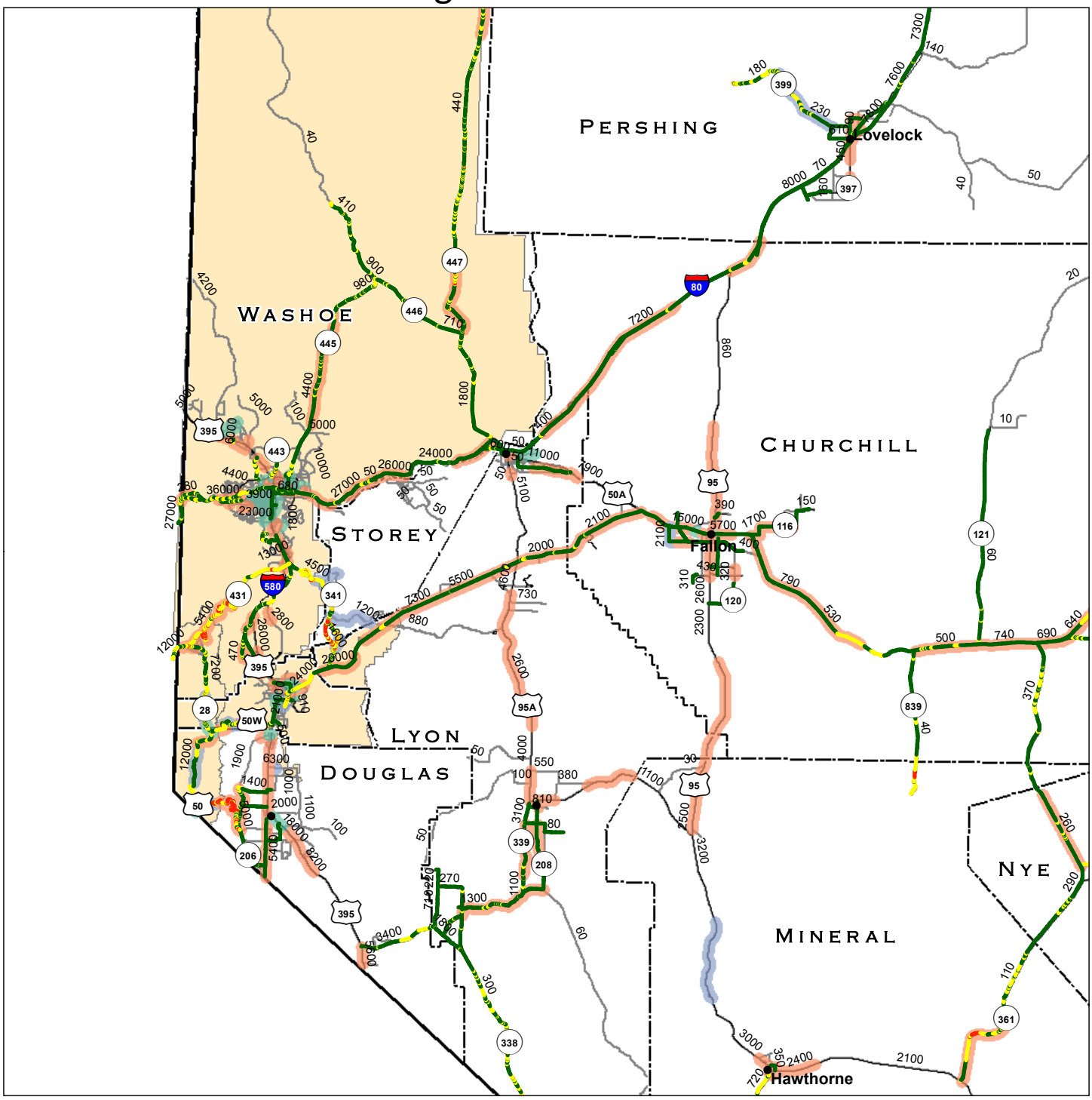
0 5 10 20 30 40 Miles

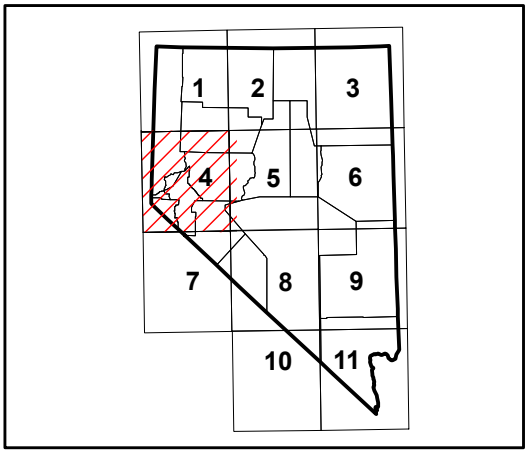
Map 3

NEVADA DOT

Kimley-Horn and Associates, Inc.

Existing Conditions





Legend

Percent Grade
- 0.0 - 2.4
- 2.5 - 6.4
- 6.5 or greater

Shoulder Width
- 0 to 2 ft
- 3 to 4 ft
- Greater than 4 ft

- County Boundary
- MPO Boundary
- 500 — Average Annual Daily Traffic

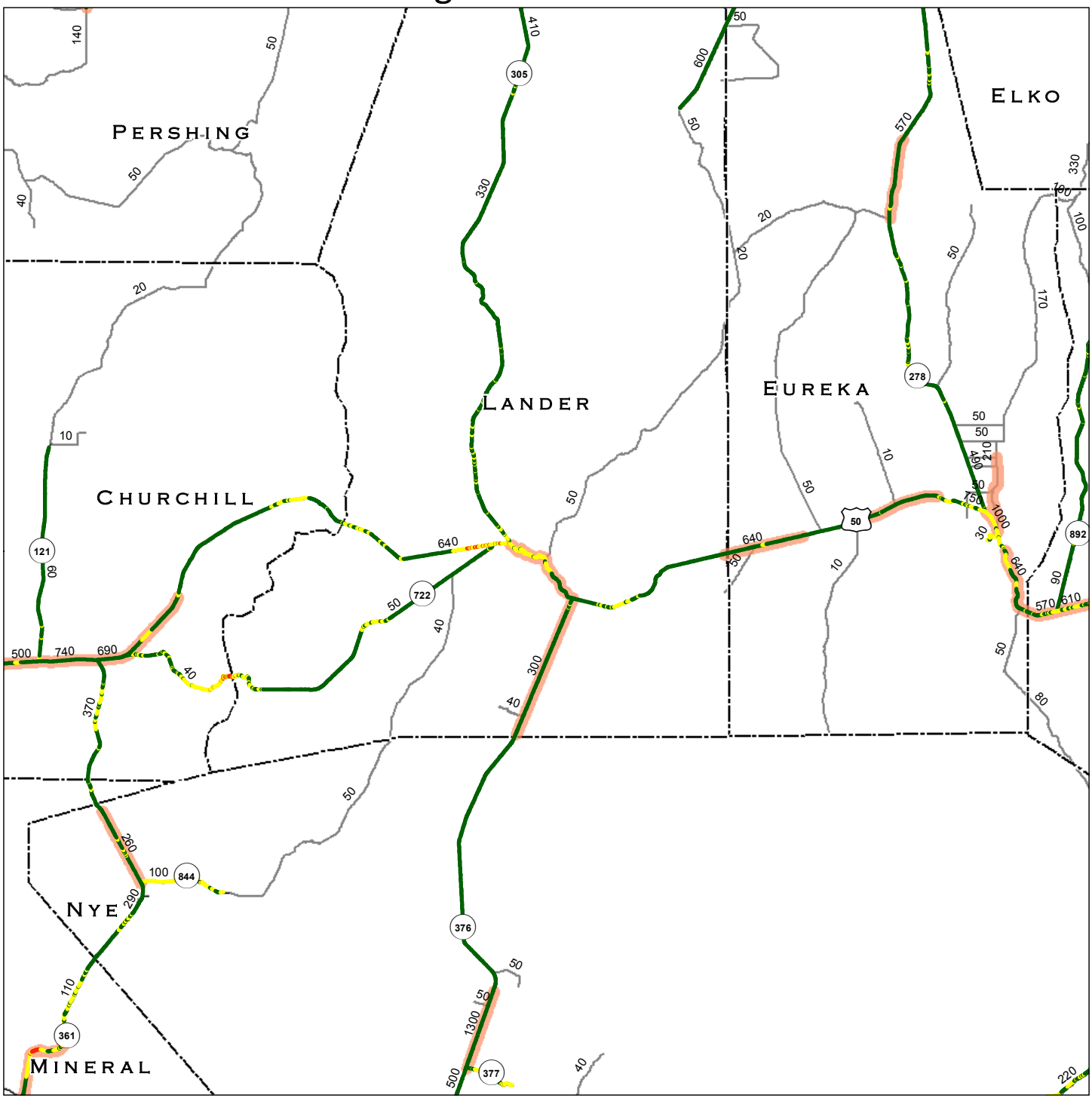
0 5 10 20 30 40 Miles

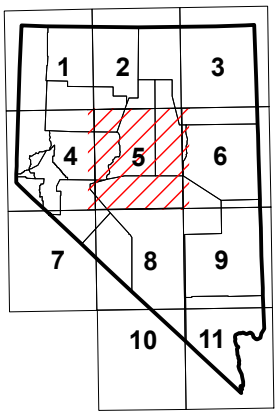
Map 4

NEVADA DOT

Kimley-Horn and Associates, Inc.

Existing Conditions





Legend

Percent Grade
- 0.0 - 2.4
- 2.5 - 6.4
- 6.5 or greater

Shoulder Width
- 0 to 2 ft
- 3 to 4 ft
- Greater than 4 ft

- County Boundary
- MPO Boundary
- 500 Average Annual Daily Traffic

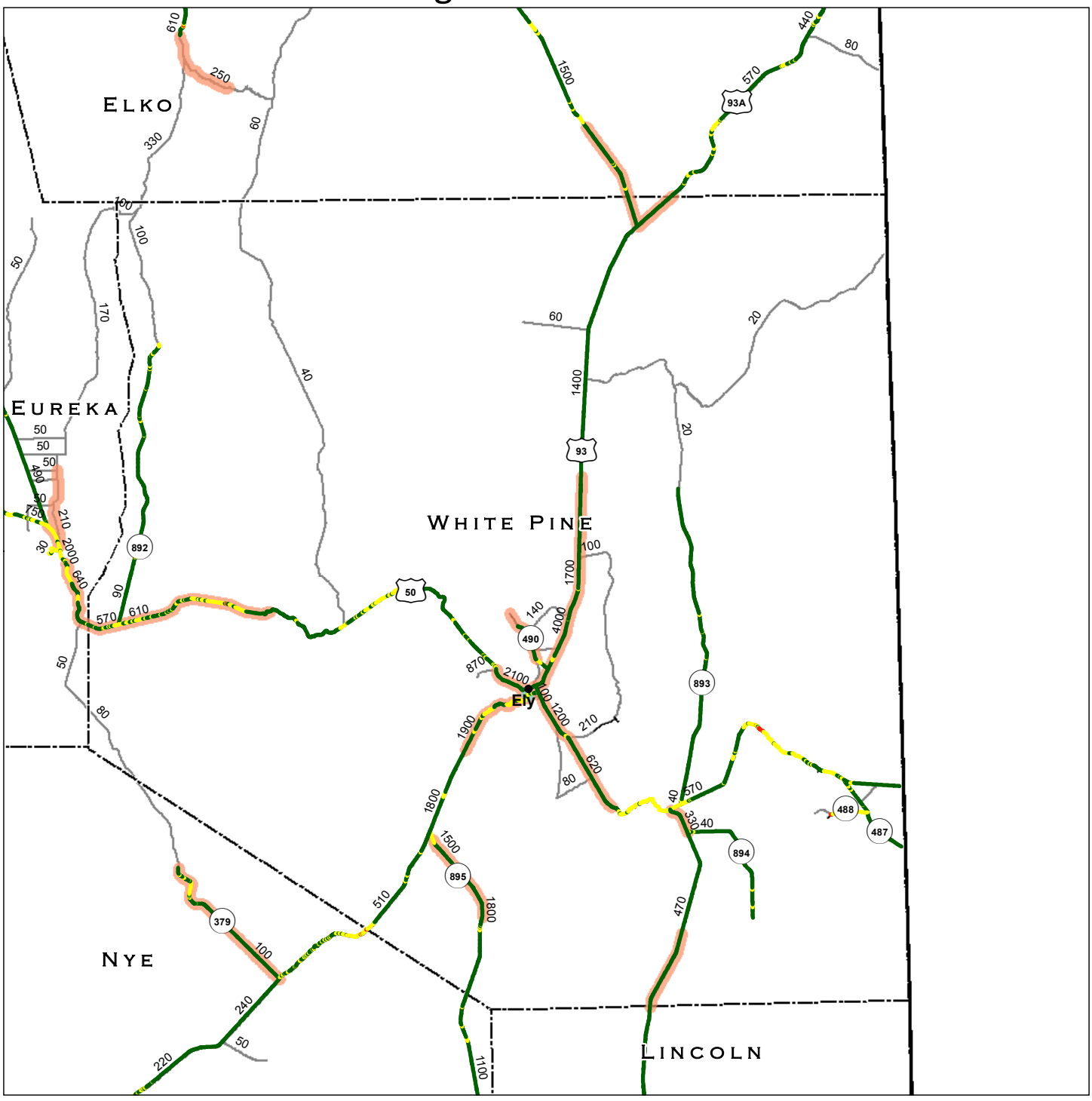
0 5 10 20 30 40 Miles

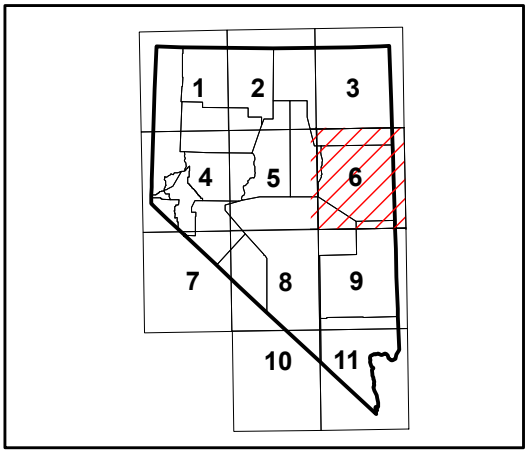
Map 5

NEVADA DOT

Kimley-Horn and Associates, Inc.

Existing Conditions





Legend

Percent Grade	Shoulder Width
0.0 - 2.4	0 to 2 ft
2.5 - 6.4	3 to 4 ft
6.5 or greater	Greater than 4 ft

County Boundary

MPO Boundary

500 Average Annual Daily Traffic

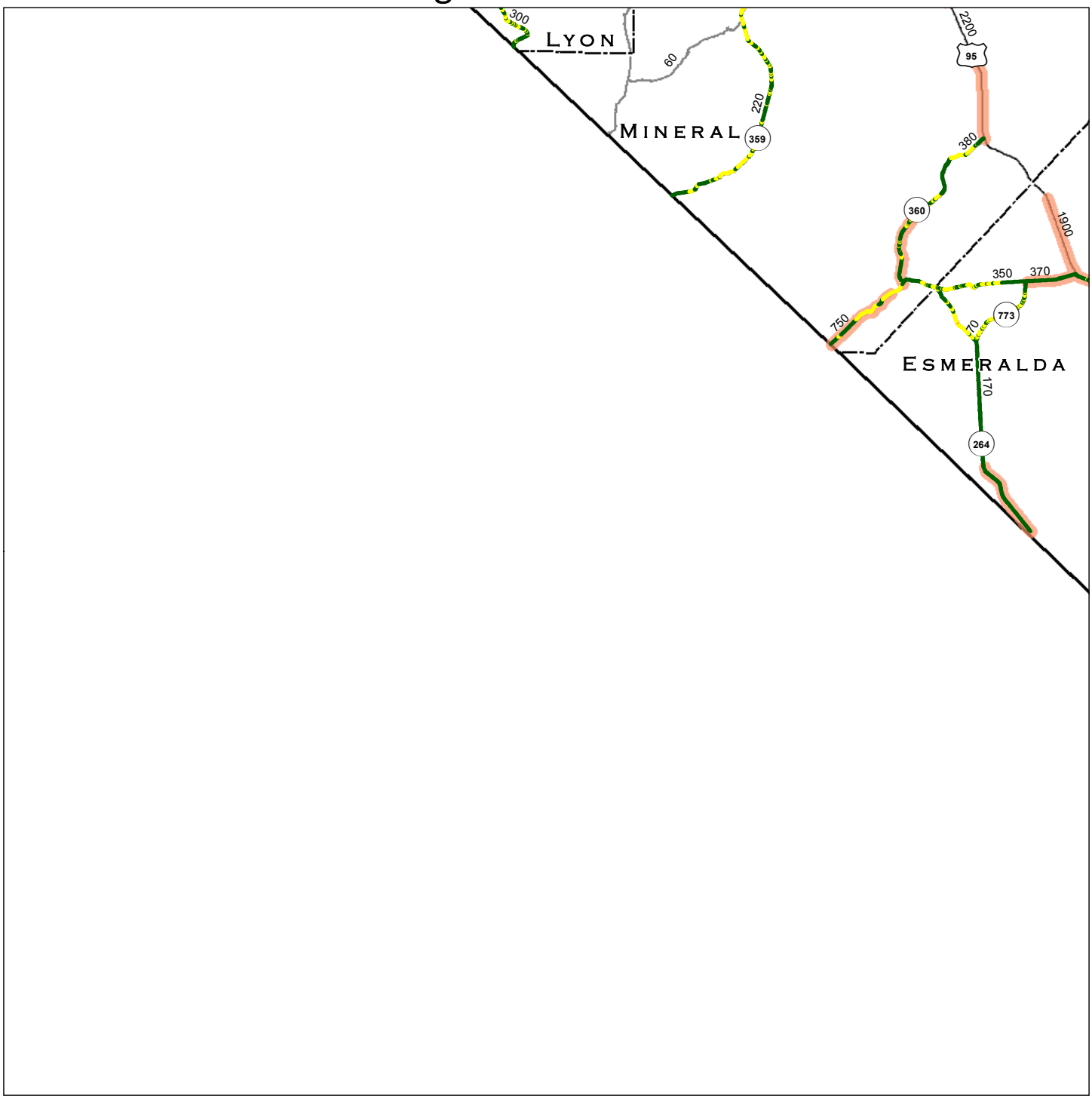
0 5 10 20 30 40 Miles

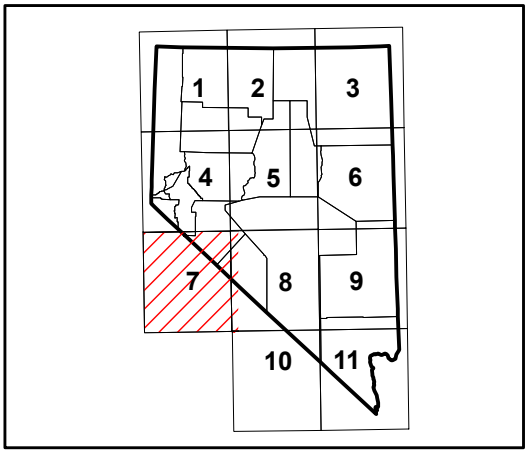
Map 6

NEVADA DOT

Kimley-Horn and Associates, Inc.

Existing Conditions





Legend

Percent Grade
- 0.0 - 2.4
- 2.5 - 6.4
- 6.5 or greater

Shoulder Width
- 0 to 2 ft
- 3 to 4 ft
- Greater than 4 ft

- County Boundary
- MPO Boundary

500 Average Annual Daily Traffic

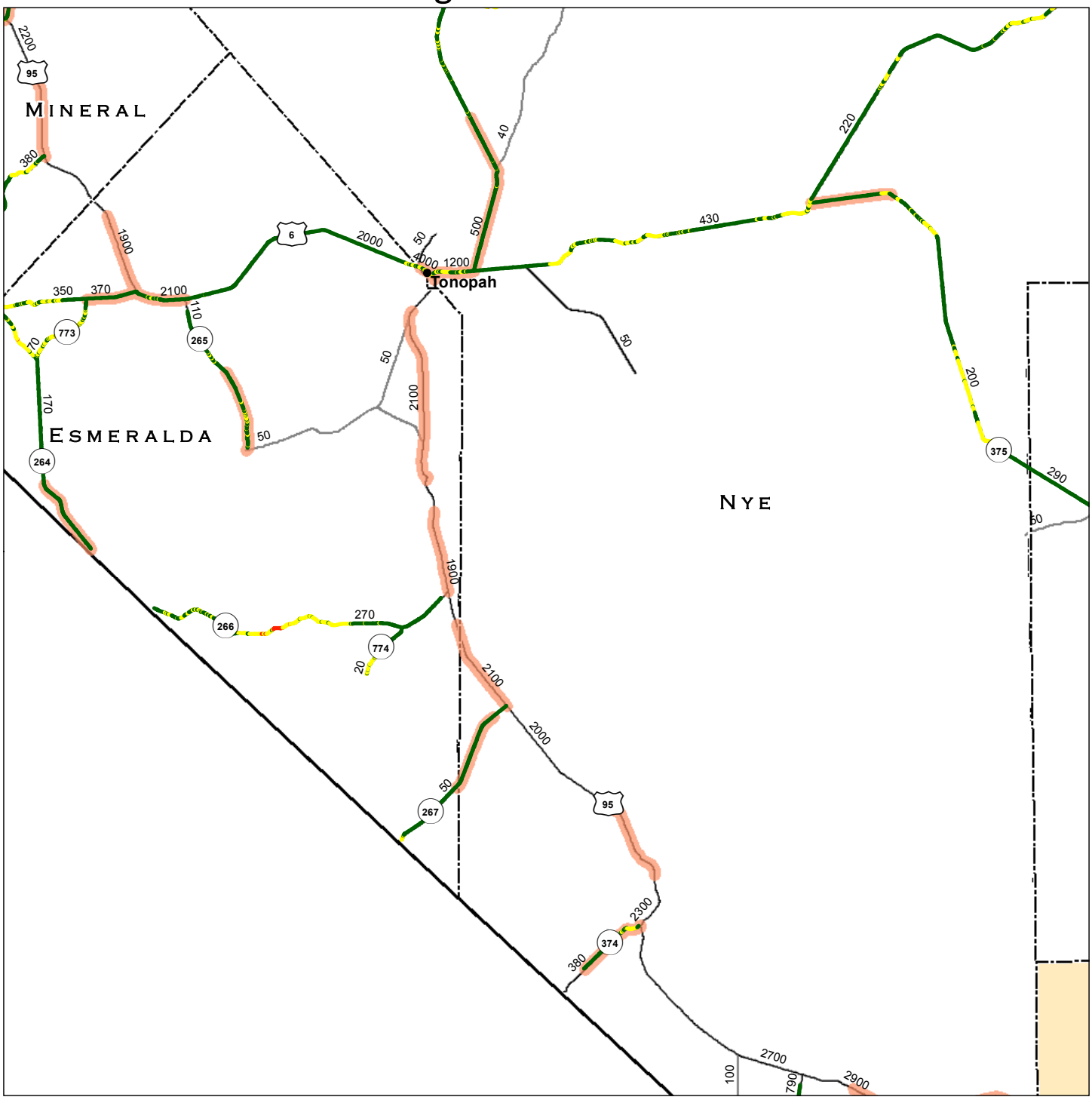
0 5 10 20 30 40 Miles

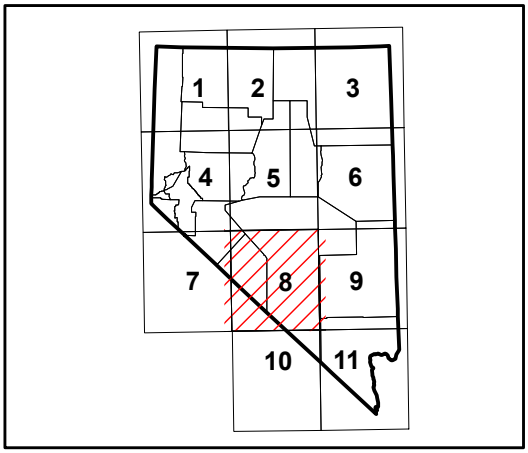
Map 7

NEVADA DOT

Kimley-Horn and Associates, Inc.

Existing Conditions





Legend

Percent Grade
- 0.0 - 2.4
- 2.5 - 6.4
- 6.5 or greater

Shoulder Width
- 0 to 2 ft
- 3 to 4 ft
- Greater than 4 ft

- County Boundary
- MPO Boundary
- 500 Average Annual Daily Traffic

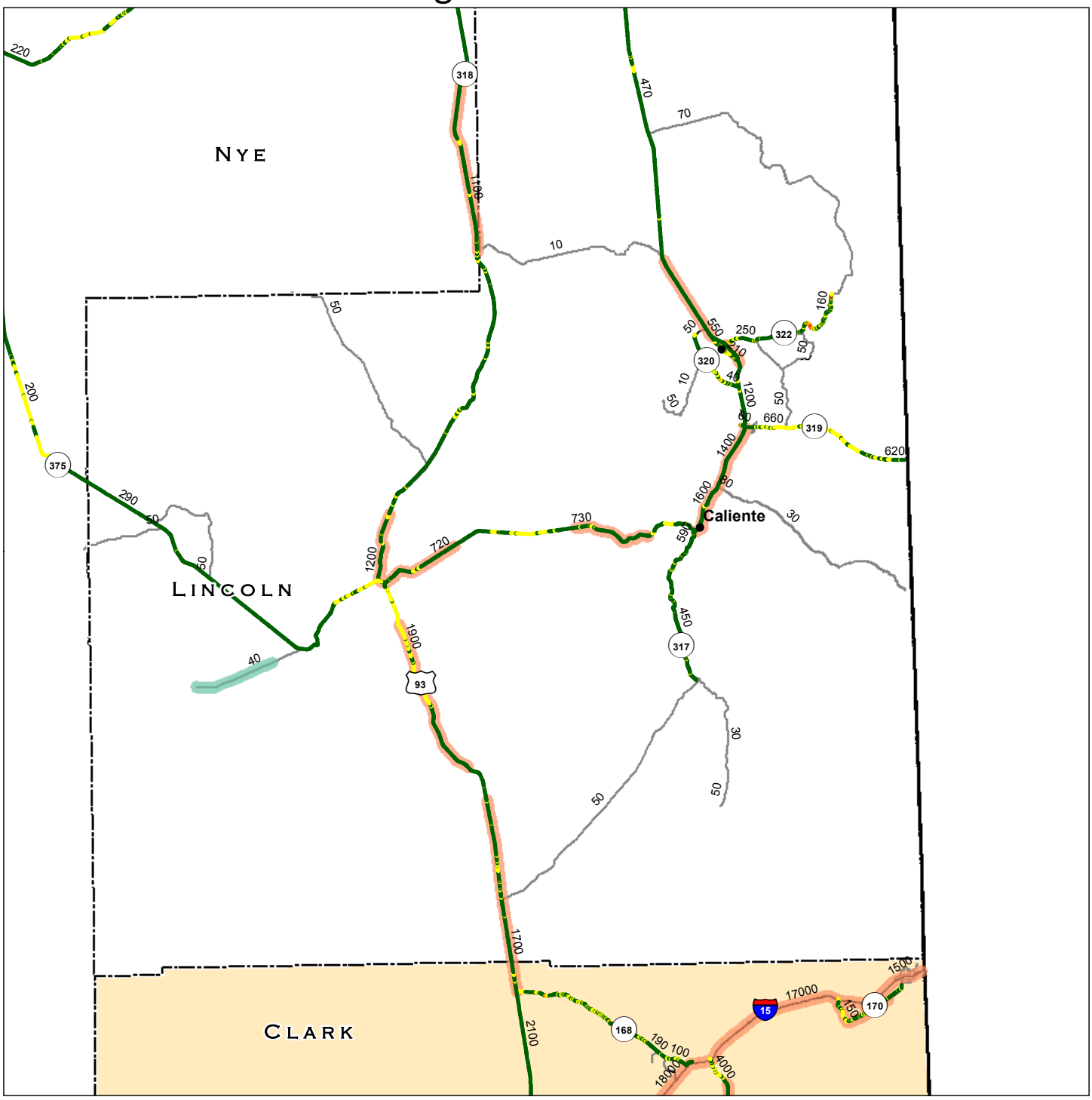
0 5 10 20 30 40 Miles

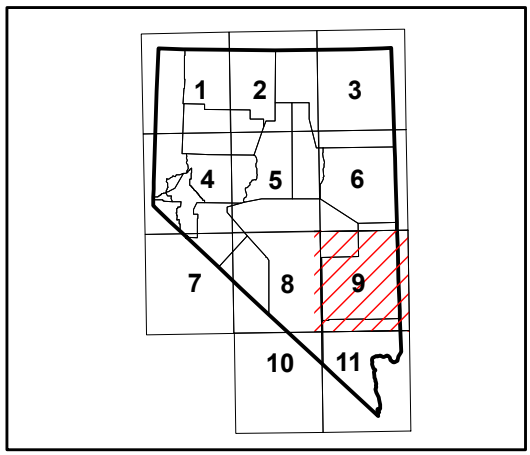
Map 8

NEVADA DOT

Kimley-Horn and Associates, Inc.

Existing Conditions





Legend

Percent Grade	Shoulder Width
0.0 - 2.4	0 to 2 ft
2.5 - 6.4	3 to 4 ft
6.5 or greater	Greater than 4 ft

County Boundary

MPO Boundary

500 Average Annual Daily Traffic

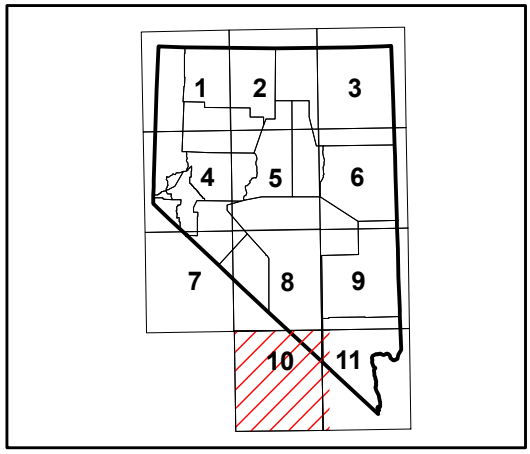
0 5 10 20 30 40 Miles

Map 9

NEVADA DOT

Kimley-Horn and Associates, Inc.

Existing Conditions



Legend

Percent Grade	Shoulder Width
0.0 - 2.4	0 to 2 ft
2.5 - 6.4	3 to 4 ft
6.5 or greater	Greater than 4 ft

500 Average Annual Daily Traffic

County Boundary

MPO Boundary

0 5 10 20 30 40 Miles

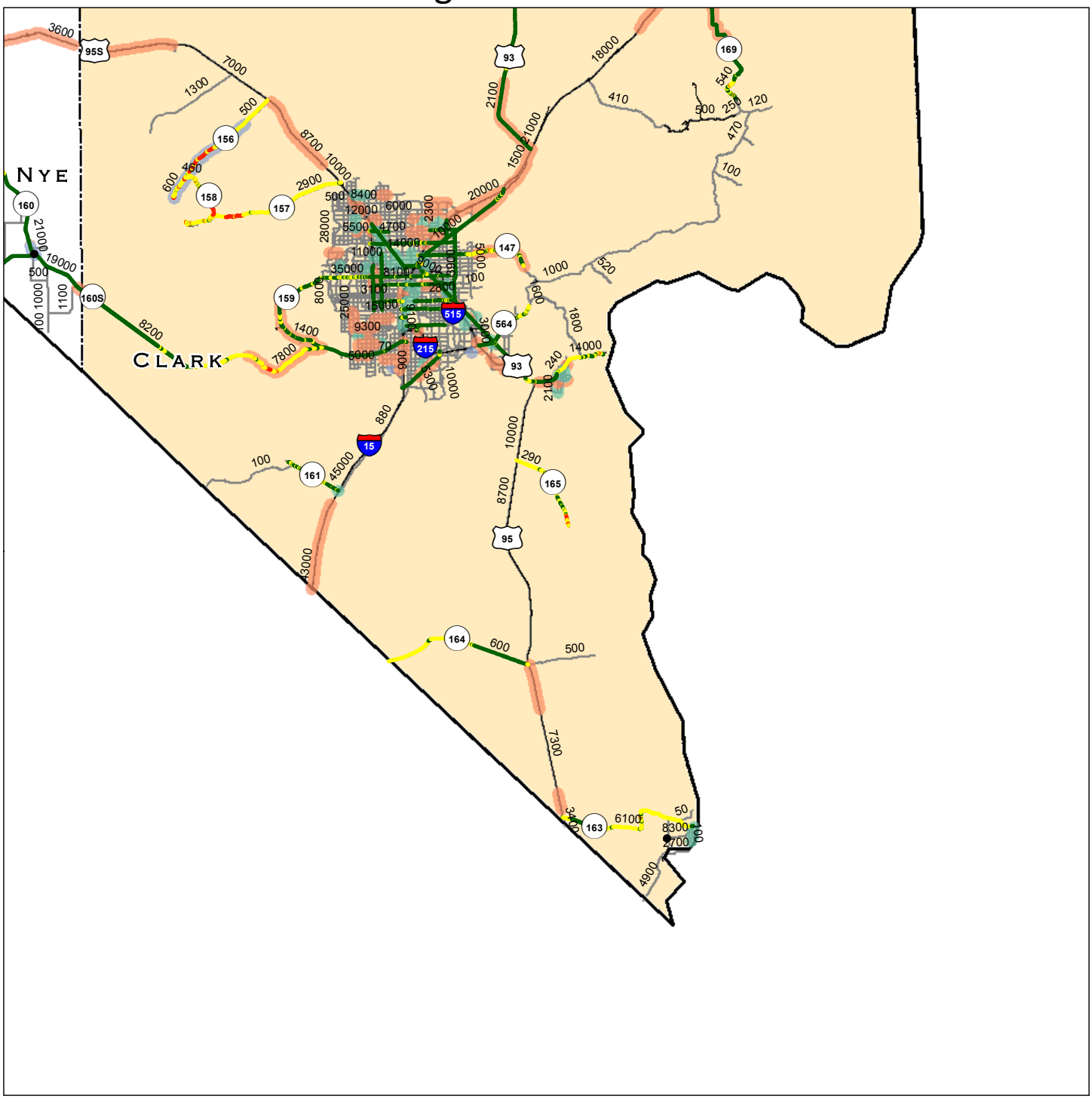
N

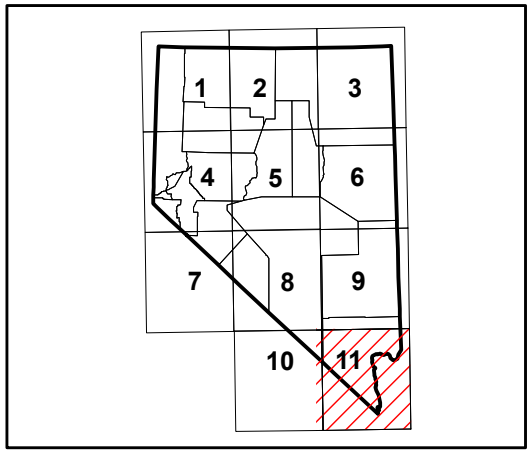
Map 10

NEVADA DOT

Kimley-Horn and Associates, Inc.

Existing Conditions





Legend

Percent Grade	Shoulder Width
0.0 - 2.4	0 to 2 ft
2.5 - 6.4	3 to 4 ft
6.5 or greater	Greater than 4 ft

500 Average Annual Daily Traffic

County Boundary

MPO Boundary

0 5 10 20 30 40 Miles

Map 11

NEVADA DOT

Kimley-Horn and Associates, Inc.

APPENDIX E Bicycle Crash Data

NEVADA TRAFFIC CRASHES 2007-2009

PREPARED BY THE
NEVADA DEPARTMENT OF TRANSPORTATION
SAFETY/TRAFFIC ENGINEERING DIVISION
IN COOPERATION WITH THE NEVADA DEPARTMENT OF MOTOR VEHICLES, NEVADA DEPARTMENT OF PUBLIC SAFETY,
AND STATE AND LOCAL LAW ENFORCEMENT AGENCIES

Brian Sandoval
Governor

Susan Martinovich, P.E.
Director

NEVADA DOT

THE GREAT SEAL OF THE STATE OF NEVADA
ALL FOR OUR COUNTRY

TABLE OF CONTENTS

NEVADA TRAFFIC CRASHES
2007- 2009

SUSAN MARTINOVICH, P.E. DIRECTOR
NEVADA DEPARTMENT OF TRANSPORTATION
1263 S. STEWART STREET CARSON CITY, NEVADA 89712

THIS BOOK IS AVAILABLE ON THE NDOT WEB SITE UNDER DOCUMENTS, NEVADA TRAFFIC CRASHES. TO OBTAIN HARD COPY OF THIS BOOK AT A $25.00 COST PLEASE CALL 775-888-7468 THANK YOU

INTRODUCTION

The purpose of this publication is to provide the Nevada Department of Transportation (NDOT), the Nevada Department of Motor Vehicles (DMV), the Nevada Department of Public Safety (DPS), and other State and Local authorities with information on Nevada's traffic crash problems. The Nevada Traffic Crash Book is a multiyear publication; 2007-2009 and was solely produced from data extracted from NDOT's Crash Analysis System. Throughout this book, where possible, the data displays 2007 – 2009 comparisons and where data is too complex only the most current year is displayed. The fatal crash data represented within may not be consistent with data produced from the Fatal Analysis Reporting System (FARS). The two systems were developed independently and are used for different purposes.

This document was prepared by personnel of the Safety Division of NDOT; however, the publication and the statistics therein would not be possible if it were not for the dedicated men and women of Nevada's state and local law enforcement agencies who respond to the scene of the 58,000 plus traffic crashes annually on Nevada's streets and highways. After they treat the injured and secure the scene, they methodically and professionally record the facts on a traffic crash report form.

The culmination of their efforts then becomes the facts and statistics you see reflected in this publication. We appreciate and respect their work. In addition to recording the facts, they provide information necessary for problem identification. Problem identification drives the planning of specific enforcement, engineering, and education efforts, which can be applied to decrease the number and severity of crashes on our streets and highways. Subsequently, lives can be saved, injuries prevented, and property damage and economic loss can be significantly reduced.

Since 2004, data collected is based on the Federal Model Minimum Uniform Crash Criteria (MMUCC). Using the new MMUCC data standards, data can be analyzed more effectively from state to state and at the national level. Using the MMUCC data definitions, collision is defined as two vehicles coming together. Where non-collision is indicated, this collision type involves one vehicle running off roadway, collision with fixed object or involving a non-motorist.

ACKNOWLEDGEMENTS

The Safety Engineering, Analysis Unit, of the Nevada Department of Transportation would not be able to produce this report without the fine work of the following individuals who were responsible for the coding and analysis of all our crash data for this publication. We wish to express our heartfelt thanks to each of you and keep up the good work!

Data Input Staff

Jennifer Hartley
Matt Banes

Crash Analysis Staff

Kim Stalling
Jenny Hartley
Grahame Ross, GIS Specialist
Theresa Anrig, Retired 2009
Rick Towner, Retired 2010

Special Gratitude to our other providers of data and information including:

The Nevada Department of Transportation – Planning
The Nevada Department of Transportation – Cartography
The Nevada Department of Transportation – Imagery
The Nevada Department of Public Safety, following divisions:
The Office of Traffic Safety & Records and Technology Division

In addition, we wish to acknowledge the men and women working in law enforcement and public safety agencies that are responsible for the production of all crash data in the field. We rely on their accurate completion and local input of crash reports and without their attention to detail we would be unable to maintain a meaningful database.

Holiday Influences

From 2007 to 2009, Thanksgiving Day weekend with a three-year total of 7 fatalities, Martin Luther King day with 6 and 4th of July with 5 were the three deadliest holiday periods. Followed next by Presidents Day and Veterans' Day with 4 each recorded over the three-year period.

Pedestrians/Bicycle

Between 2007 and 2009, there were 2,668 pedestrian collisions. As a result, 3,353 people were injured and 143 lost their lives. In 529 or 17.7% of the collisions, the pedestrians were crossing improperly and 295 or 9.8% darted into roadway. The number of pedestrian fatalities decreased from 52 in 2007 to 35 in 2009. In 2007 Nevada ranked 7th in pedestrian fatalities, 2008 5th and in 2009 Nevada fell to 19th.

Between 2007 and 2009, there were 1568 bicycle collisions. As a result, 1,435 people were injured and 23 lost their lives. In 270 or 17.2% of the collisions, the bicyclist was crossing improperly and 267 or 17.2% were on the wrong side of the roadway. The number of bicycle fatalities decreased from 10 in 2007 to 6 in 2009.

Effect on Economy

Over a billion dollar loss resulted from highway deaths and injuries in Nevada. The total estimated economic loss (based on national figures) resulting from traffic collisions in Nevada for the year 2009 is $1.809 billion.

EXECUTIVE SUMMARY

Although Nevada's crash rate per 100 million vehicle miles has been reduced in the past 10 years, Nevada still ranks among the top ten states with the highest crash rates in the nation. Nevada is the seventh largest state in size and remains 35th in population. More than 2.4 million people reside in our state with 55.8% located in urban areas and 44.2% living in rural communities. The growing population in Nevada and heavy tourism traffic are reflected in the trends and statistics presented herein.

Decrease in Accidents, Injuries and Fatalities

During the 2009 calendar year there was 53,151 traffic collisions – 34,456 were property damage only (PDO); 18,472 were injury producing; and 223 were fatal. This reflects a 8.4% decrease in overall collisions from the total 58,065 recorded in 2008. Injury collisions decreased by 6.34. Fatal collisions decreased 26.64% with 223 in 2009 and 304 in 2008. There was also a decrease in fatalities. That percentage decreased by 25%. In 2009, there were 243 traffic deaths, 324 recorded in 2008.

Rates Per 100 Million Vehicles

Nevada's crash rate per 100 million vehicle miles for fatal, injury and total collisions continues to decrease. In 2000 the fatal crash rate was 1.49, and in 2009 only 1.07, a decrease of 28.1%. Nevada's injury crashes followed a similar pattern with a 2000 rate of 104.99 and a 2009 rate of 88.33 – a decrease of 15.86%.

Counties

The four counties with the most crashes in 2009 were Clark County with 77.99% of the total, Washoe County with 13.59%, Carson City with 1.72% and Elko County with 1.44%. Storey County had the least crashes with only 50 or .09% for the entire year. Clark County led the state in fatal, injury and property damage crashes with 61.4%, 81.8% and 76% respectively. Washoe County experienced the next highest numbers with 7.6%, 11.2% and 14.8% respectively. Clark County fatalities decreased by 57 from 2008 to 143 traffic deaths. Washoe County's fatalities decreased from the previous year from 34 to 20 traffic deaths.

Fatal Collisions

The top three collisions types in a fatal collision are: Angle Collision, Non Collision, and Rear-end. Vehicle factors contributing to fatal collisions are Failure to keep in proper lane, Exceeding Speed Limit and Failure to Yield. Driver factors contributing to fatal collisions are Had been Drinking, Fell asleep/fatigued and Other improper driving.

Injury and Property Damage Only (PDO) Collisions

The top three collision types in an injury collision: Rear-end, Angle and non-collision. For both injury and property damage only collisions the vehicle factors contributing were failure to yield right of way, following too close and other improper driving. Driver factors were had been drinking and inattention/distracted and other improper driving. Notably of all the, inattention-distracted factors identified, cell phone use represented 10.2% up from 9.2% in 2006. This data relies on mostly on self-reported behavior from the driver, or witness statements.

2009 NEVADA HIGHWAY CRASH QUICK FACTS TRAFFIC CRASHES			
	2007	**2008**	**2009**
*FATAL CRASHES	341	304	223
INJURY CRASHES	21219	19,700	18,472
PROPERTY DAMAGE CRASHES	40693	38,061	34,456
TOTAL CRASHES	62254	58,065	53,151
ALCOHOL CRASHES			
FATAL ALCOHOL CRASHES	95	90	72
INJURY ALCOHOL CRASHES	2,208	2,055	1865
PERCENT OF TOTAL FATAL CRASHES ALCOHOL INVOLVED	27.9%	29.6%	32.3%
PERCENT OF TOTAL INJURY CRASHES ALCOHOL INVOLVED	10.4%	10.4%	10.1%
TRAFFIC CASUALTIES			
*TOTAL FATALITIES	373	324	243
TOTAL INJURIES	31,202	28,887	27,297
TOTAL ALCOHOL FATALITIES	104	98	78
TOTAL ALCOHOL INJURIES	3,524	3,153	2846
PERCENT OF TOTAL FATALITIES ALCOHOL INVOLVED	27.9%	30.2%	32.1%
PERCENT OF TOTAL INJURIES ALCOHOL INVOLVED	7.6%	7.6%	7.9%
OCCUPANTS			
DRIVER FATALITIES (includes Motorcycle)	231	198	143
PASSENGER FATALITIES	77	60	58
NON-OCCUPANTS			
PEDESTRIAN FATALITIES	52	56	35
PEDESTRIAN INJURIES	1,141	1,360	843
PEDALCYCLIST FATALITIES	10	7	6
PEDALCYCLIST INJURIES	465	395	572
DEMOGRAPHICS			
POPULATION	2,718,337	2,738,733	2,711,205
VEHICLE MILES TRAVELED (IN MILLIONS)	22,199,806,751	21,021,848,431	21,046,860,603
NEVADA'S FATAL CRASH RATE PER 100 MILLION VMT	1.54	1.45	1.07
NATIONAL FATAL CRASH RATE PER 100 MILLION VMT	1.24	1.13	1.06

FATAL/FATALITY DATA AS REPORTED TO FARS.

****DOES NOT INCLUDE UNKNOWN***

2007-2009 STATEWIDE BICYCLE & PEDESTRIAN COLLISION TOTALS BY COUNTY AND YEAR

PEDESTRIAN

COUNTY	2007				2008				2009			
	TOTAL INJURY COLLISION	TOTAL INJURIES	TOTAL FATAL COLLISIONS	TOTAL FATALTIES	TOTAL INJURY COLLISION	TOTAL INJURIES	TOTAL FATAL COLLISIONS	TOTAL FATALTIES	TOTAL INJURY COLLISION	TOTAL INJURIES	TOTAL FATAL COLLISIONS	TOTAL FATALTIES
CARSON	9	9			13	13			6	13	2	2
CHURCHILL	2	2			5	5			3	3		
CLARK	712	926	38	38	733	1062	43	43	612	664	25	25
DOUGLAS	5	8			6	6			9	9		
ELKO	5	5	1	1	7	7	1	1	5	5		
ESMERALDA												
EUREKA												
HUMBOLDT	1	1			2	2						
LANDER	1	1			1	1						
LINCOLN												
LYON	4	4			1	1	1	1	1	1	2	2
MINERAL												
NYE	3	3	1	1	1	2	2	2	2	2		
PERSHING												
STOREY					1	1			7	17		
WASHOE	166	182	12	12	164	260	9	13	117	129	6	6
WHITE PINE												
TOTAL	908	1141	52	52	934	1360	56	60	762	843	35	35

BICYCLE

COUNTY	2007				2008				2009			
	TOTAL INJURY COLLISION	TOTAL INJURIES	TOTAL FATAL COLLISIONS	TOTAL FATALTIES	TOTAL INJURY COLLISION	TOTAL INJURIES	TOTAL FATAL COLLISIONS	TOTAL FATALTIES	TOTAL INJURY COLLISION	TOTAL INJURIES	TOTAL FATAL COLLISIONS	TOTAL FATALTIES
CARSON	12	12			11	12			6	6		
CHURCHILL	5	6			5	5	1	1	3	3		
CLARK	320	341	6	6	243	250	6	6	421	432	5	5
DOUGLAS	4	4			6	6			9	9		
ELKO	1	1			3	3			4	4		
ESMERALDA												
EUREKA												
HUMBOLDT					2	2						
LANDER												
LINCOLN												
LYON	1	1			1	1			4	4		
MINERAL												
NYE			1	1					2	2		
PERSHING												
STOREY					1	1						
WASHOE	86	99	3	3	111	115			106	112	1	1
WHITE PINE												
TOTAL	429	464	10	10	383	395	7	7	555	572	6	6

INJURIES/FATALITIES MAY INCLUDE VEHICLE OCCUPANTS

BICYCLE COLLISIONS
BY ACTION AND SEVERITY

2007

BICYCLIST ACTION	TOTAL COLLISION	INJURY COLLISION	TOTAL INJURIES	FATAL COLLISION	TOTAL FATALITIES
Entering or crossing specified location	408	358	387	4	4
Walking, running, jogging, playing, cycling	43	28	28	4	4
Standing	22	18	23	2	2
Not reported	14	8	8	1	1
Approaching or leaving vehicle	12	10	12	0	0
Other	5	5	5	0	0
Working in Roadway	2	2	2	0	0
TOTAL	506	429	465	11	11

2008

BICYCLIST ACTION	TOTAL COLLISION	INJURY COLLISION	TOTAL INJURIES	FATAL COLLISION	TOTAL FATALITIES
Entering or crossing specified location	320	277	287	4	4
Walking, running, jogging, playing, cycling	60	55	57	1	1
Standing	17	13	13	2	2
Other	15	14	14	0	0
Not reported	14	12	12	0	0
Approaching or leaving vehicle	9	9	9	0	0
Playing or working on vehicle	1	1	1	0	0
Unknown	1	1	1	0	0
Working in Roadway	1	1	1	0	0
TOTAL	438	383	395	7	7

2009

BICYCLIST ACTION	TOTAL COLLISION	INJURY COLLISION	TOTAL INJURIES	FATAL COLLISION	TOTAL FATALITIES
Entering Crossing	324	299	307	3	3
Walking Running Playing Cycling	232	221	238	3	3
Other Action	29	26	27	0	0
Approaching/Leaving Vehicle	7	6	6	0	0
Playing/Working on Vehicle	3	3	3	0	0
Unknown	2	2	2	0	0
Standing	1	1	1	0	0
TOTAL	598	558	584	6	6

TOTAL COLLISIONS INCLUDE PROPERTY DAMAGE ONLY CODED COLLISIONS / MORE THAN ONE FACTOR CAN BE SELECTED PER COLLISION

BICYCLE COLLISIONS
BY FACTOR AND SEVERITY

2007

BICYCLIST FACTORS	TOTAL COLLISION	INJURY COLLISION	TOTAL INJURIES	FATAL COLLISION	TOTAL FATALITIES
Wrong side of road	91	78	82	1	1
Improper crossing	83	73	78	1	1
Darting	49	40	43	2	2
Failure to obey traffic signs, signals, or officer	36	32	38	1	1
Failure to yield right of way	30	27	28	1	1
Not visible (dark clothing)	19	15	22	1	1
Inattentive (talking, eating, etc.)	7	6	6	0	0
Lying and/or illegally in roadway	2	0	0	0	0
TOTAL	317	271	297	7	7

2008

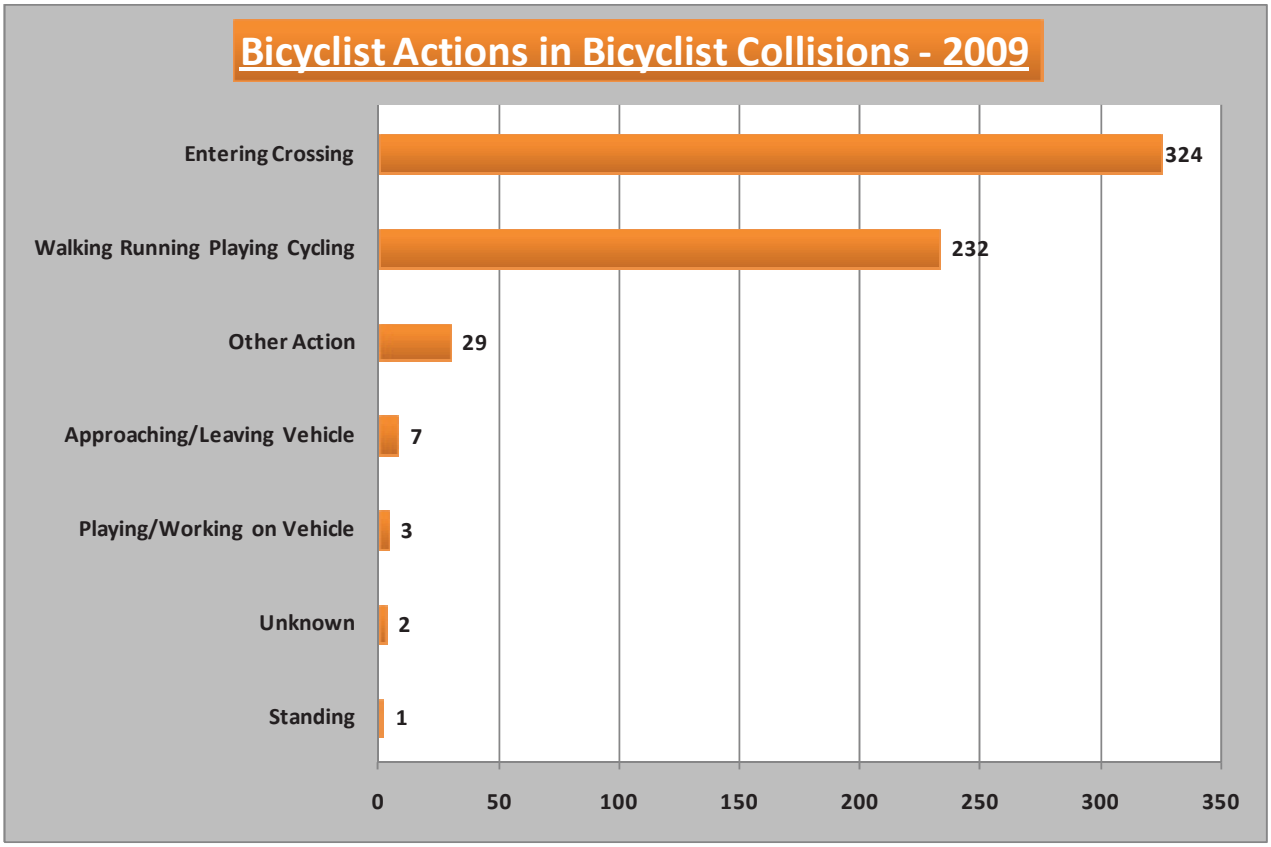
BICYCLIST FACTORS	TOTAL COLLISION	INJURY COLLISION	TOTAL INJURIES	FATAL COLLISION	TOTAL FATALITIES
Improper crossing	87	78	80	1	1
Wrong side of road	73	57	59	0	0
Darting	33	27	27	2	2
Failure to obey traffic signs, signals, or officer	32	31	32	0	0
Failure to yield right of way	30	27	29	0	0
Not visible (dark clothing)	14	13	13	0	0
Inattentive (talking, eating, etc.)	9	7	7	0	0
Lying and/or illegally in roadway	1	0	0	1	1
TOTAL	279	240	247	4	4

2009

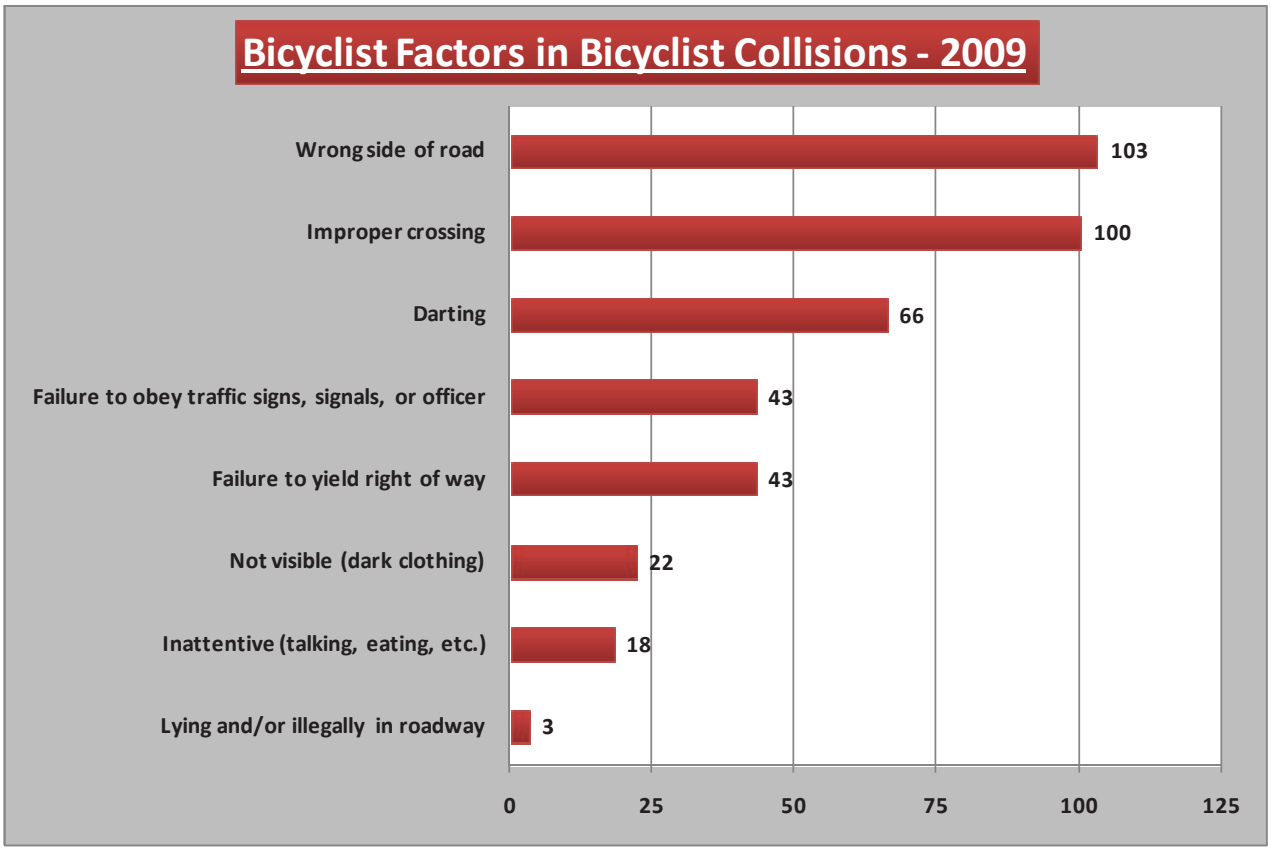
BICYCLIST FACTORS	TOTAL COLLISION	INJURY COLLISION	TOTAL INJURIES	FATAL COLLISION	TOTAL FATALITIES
Wrong side of road	103	96	101	0	0
Improper crossing	100	91	93	1	1
Darting	66	59	62	0	0
Failure to obey traffic signs, signals, or officer	43	42	42	1	1
Failure to yield right of way	43	39	41	0	0
Not visible (dark clothing)	22	20	20	0	0
Inattentive (talking, eating, etc.)	18	16	16	0	0
Lying and/or illegally in roadway	3	3	3	0	0
TOTAL	398	366	378	2	2

TOTAL COLLISIONS INCLUDE PROPERTY DAMAGE ONLY CODED COLLISIONS / MORE THAN ONE FACTOR CAN BE SELECTED PER COLLISION

Bicyclist Actions in Bicyclist Collisions - 2009



Bicyclist Factors in Bicyclist Collisions - 2009

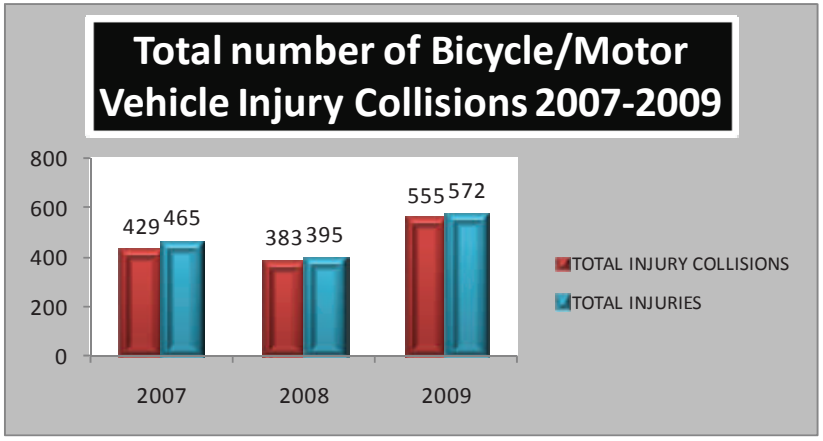


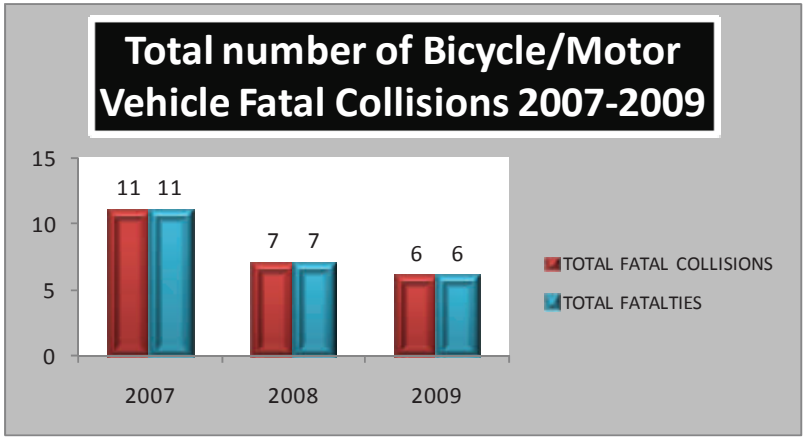
TOTAL COLLISIONS INCLUDE PROPERTY DAMAGE ONLY CODED COLLISIONS / MORE THAN ONE FACTOR CAN BE SELECTED PER COLLISION

2007-2009 STATEWIDE BICYCLE COLLISION TOTALS BY MONTH AND YEAR

INJURIES/FATALITIES MAY INCLUDE VEHICLE OCCUPANTS

	2007				2008				2009			
MONTH	TOTAL INJURY COLLISIONS	TOTAL INJURIES	TOTAL FATAL COLLISIONS	TOTAL FATALITIES	TOTAL INJURY COLLISIONS	TOTAL INJURIES	TOTAL FATAL COLLISIONS	TOTAL FATALITIES	TOTAL INJURY COLLISIONS	TOTAL INJURIES	TOTAL FATAL COLLISIONS	TOTAL FATALITIES
JANUARY	24	27	2	2	20	23	0	0	29	29	0	0
FEBRUARY	29	31	1	1	19	19	0	0	43	43	0	0
MARCH	47	57	3	3	25	26	1	1	44	46	1	1
APRIL	34	36	0	0	32	33	0	0	57	62	0	0
MAY	34	40	1	1	35	35	0	0	59	60	1	1
JUNE	35	37	1	1	32	34	1	1	51	51	3	3
JULY	21	23	1	1	26	28	1	1	57	60	1	1
AUGUST	24	25	1	1	33	35	2	2	52	54	0	0
SEPTEMBER	57	57	1	1	37	37	0	0	60	63	0	0
OCTOBER	62	65	0	0	68	69	2	2	56	57	0	0
NOVEMBER	49	54	0	0	35	35	0	0	35	35	0	0
DECEMBER	13	13	0	0	21	21	0	0	12	12	0	0
TOTAL	429	465	11	11	383	395	7	7	555	572	6	6





STATEWIDE INJURY AND FATAL BICYCLE COLLISIONS BY DAY AND TIME

2007

THE INJURY TOTAL MAY REFLECT INJURIES THAT HAVE OCCURRED IN THE VEHICLE AS WELL AS WITH THE PEDESTRIAN

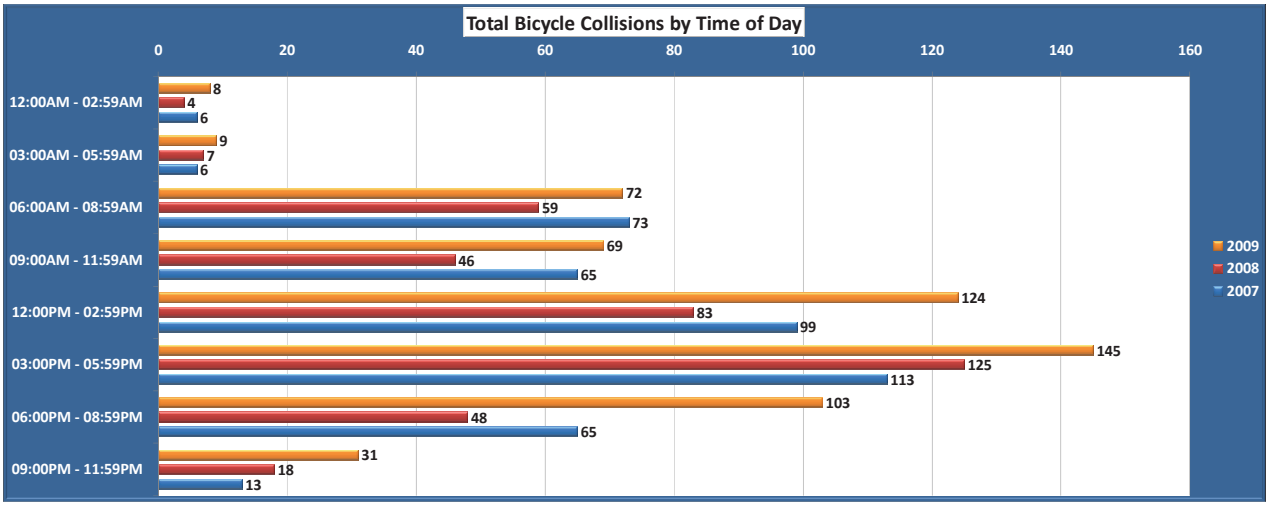
TIME	TOTAL INJURY & FATAL	SUNDAY		MONDAY		TUESDAY		WEDNESDAY		THURSDAY		FRIDAY		SATURDAY	
		INJURY	FATAL	INJURY	FATAL	INJURY	FATAL	INJURY	FATAL	INJURY	FATAL	INJURY	FATAL	INJURY	FATAL
12:00AM - 02:59AM	6	1	0	0	0	1	0	0	0	1	0	1	0	2	0
03:00AM - 05:59AM	6	0	0	0	0	1	0	3	0	1	0	1	0	0	0
06:00AM - 08:59AM	73	2	0	11		22	0	8	0	10	0	16	0	4	0
09:00AM - 11:59AM	65	7	0	6	1	6	0	3	1	9	0	18	1	11	2
12:00PM - 02:59PM	99	3	0	14	0	14	0	22	1	14	0	21	0	10	0
03:00PM - 05:59PM	113	11	0	12	0	18	0	21	0	21	0	21	0	9	0
06:00PM - 08:59PM	65	6	1	6	0	13	0	10	0	11	2	10	0	6	0
09:00PM - 11:59PM	13	2	0	4	0	1	1	0	0	1	1	1	0	2	0
TOTAL	440	32	1	53	1	76	1	67	2	68	3	89	1	44	2

2008

TIME	TOTAL INJURY & FATAL	SUNDAY		MONDAY		TUESDAY		WEDNESDAY		THURSDAY		FRIDAY		SATURDAY	
		INJURY	FATAL	INJURY	FATAL	INJURY	FATAL	INJURY	FATAL	INJURY	FATAL	INJURY	FATAL	INJURY	FATAL
12:00AM - 02:59AM	4	1	0	0	0	0	1	0	0	0	0	1	0	1	0
03:00AM - 05:59AM	7	0	0	1	0	2	0	0	0	0	0	2	0	2	0
06:00AM - 08:59AM	59	3	0	9	0	9	0	13	0	7	1	14	0	3	0
09:00AM - 11:59AM	46	0	0	6	0	11	0	9	0	4	0	4	0	11	1
12:00PM - 02:59PM	83	6	0	14	0	10	0	13	0	13	0	13	1	13	0
03:00PM - 05:59PM	125	14	0	16	0	23	0	19	1	20	0	17	0	15	0
06:00PM - 08:59PM	48	3	0	9	0	7	0	6	1	7	1	5	0	9	0
09:00PM - 11:59PM	18	1	0	3	0	3	0	2	0	2	0	3	0	4	0
TOTAL	390	28	0	58	0	65	1	62	2	53	2	59	1	58	1

2009

TIME	TOTAL INJURY & FATAL	SUNDAY		MONDAY		TUESDAY		WEDNESDAY		THURSDAY		FRIDAY		SATURDAY	
		INJURY	FATAL	INJURY	FATAL	INJURY	FATAL	INJURY	FATAL	INJURY	FATAL	INJURY	FATAL	INJURY	FATAL
12:00AM - 02:59AM	8	2	0	1	0	0	0	1	0	1	0	1	0	2	0
03:00AM - 05:59AM	9	1	0	2	0	2	0	0	0	0	0	1	0	2	1
06:00AM - 08:59AM	72	4	0	8	0	16	0	13	0	11	0	14	0	5	1
09:00AM - 11:59AM	69	8	0	10	0	10	0	12	0	10	0	14	0	5	0
12:00PM - 02:59PM	124	10	0	19	0	19	0	20	0	24	1	20	0	10	1
03:00PM - 05:59PM	145	14	0	27	1	21	0	21	0	21	0	29	0	11	0
06:00PM - 08:59PM	103	9	0	14	0	12	0	20	0	19	1	8	0	20	0
09:00PM - 11:59PM	31	4	0	3	0	5		2	0	2	0	7	0	8	0
TOTAL	561	52	0	84	1	85	0	89	0	88	2	94	0	63	3



BICYCLE INJURIES BY COUNTY, AGE AND GENDER

2007

COUNTY	1-15		16-20		21-25		26-35		36-45		46-55		56-65		66+		UNKNOWN	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
CARSON	1			1							2						8	
CHURCHILL	1																3	2
CLARK	8	3	1		3	1	2		3	1	3		1				46	269
DOUGLAS	1																2	1
ELKO																	1	
ESMERALDA																		
EUREKA																		
HUMBOLDT																		
LANDER																		
LINCOLN																		
LYON																	1	
MINERAL																		
NYE																	1	
PERSHING																		
STOREY																		
WASHOE	6	1	2	2	1	2	3	1	3		7		1				12	58
WHITE PINE																		
TOTAL	17	4	3	3	4	3	5	1	6	1	12	0	2	0	0	0	74	330

2008

COUNTY	1-15		16-20		21-25		26-35		36-45		46-55		56-65		66+		UNKNOWN	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
CARSON	1				3				2				1				3	2
CHURCHILL					1						1					1	2	
CLARK	28	4	9	1	5	3	4	3	14	1	9	1	3		4		128	33
DOUGLAS			1														3	2
ELKO	1												1				1	
ESMERALDA																		
EUREKA																		
HUMBOLDT	1																1	
LANDER																		
LINCOLN																		
LYON	1																	
MINERAL																		
NYE																		
PERSHING																		
STOREY			1															
WASHOE	9	3	4	1	4	4	9	1	2	1	5		2		1		59	10
WHITE PINE																		
TOTAL	41	7	15	2	13	7	13	4	18	2	15	1	7	0	5	1	197	47

2009

COUNTY	1-15		16-20		21-25		26-35		36-45		46-55		56-65		66+		UNKNOWN	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
CARSON	2		2				1				1							
CHURCHILL			1				1		1									
CLARK	109	29	45	6	33	9	42	4	56	6	50	10	17	1	14		1	
DOUGLAS	1	1			1		1		2			1	2					
ELKO	2		1							1								
ESMERALDA																		
EUREKA																		
HUMBOLDT																		
LANDER																		
LINCOLN																		
LYON	1	1							1	1								
MINERAL																		
NYE	1								1									
PERSHING																		
STOREY																		
WASHOE	13	3	12	3	4	18	9	1	16	4	11	2	8	2	6			
WHITE PINE																		
TOTAL	129	34	61	9	38	27	54	5	77	12	62	13	27	3	20	0	1	0

BICYCLE FATALITIES BY COUNTY, AGE AND GENDER

2007

COUNTY	1-15		16-20		21-25		26-35		36-45		46-55		56-65		66+		UNKNOWN	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
CARSON																		
CHURCHILL																		
CLARK							1								1		5	
DOUGLAS																		
ELKO																		
ESMERALDA																		
EUREKA																		
HUMBOLDT																		
LANDER																		
LINCOLN																		
LYON																		
MINERAL																		
NYE																	1	
PERSHING																		
STOREY																		
WASHOE									1		1				1			
WHITE PINE																		
TOTAL	0	0	0	0	0	0	1	0	1	0	1	0	0	0	2	0	6	0

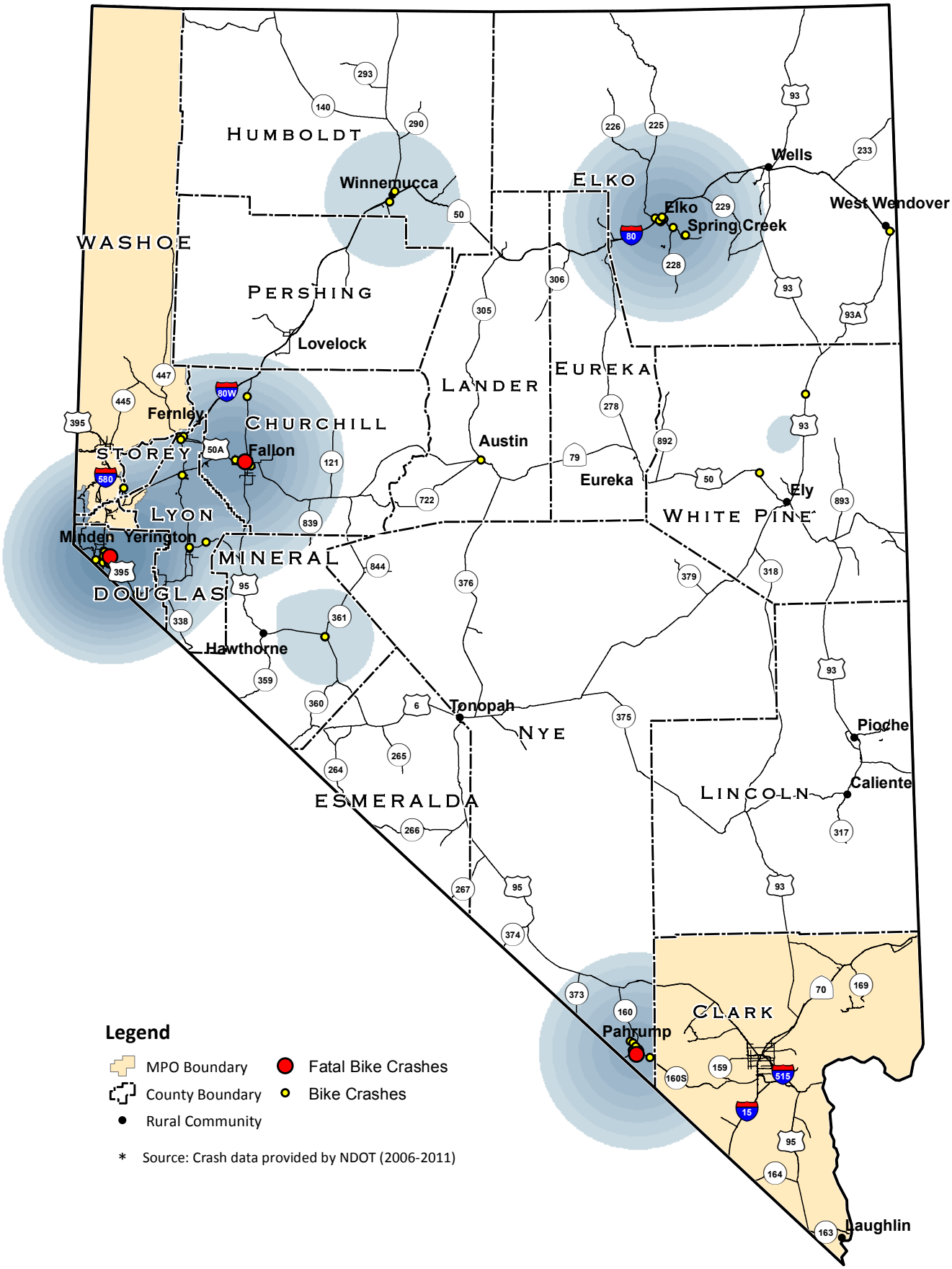
2008

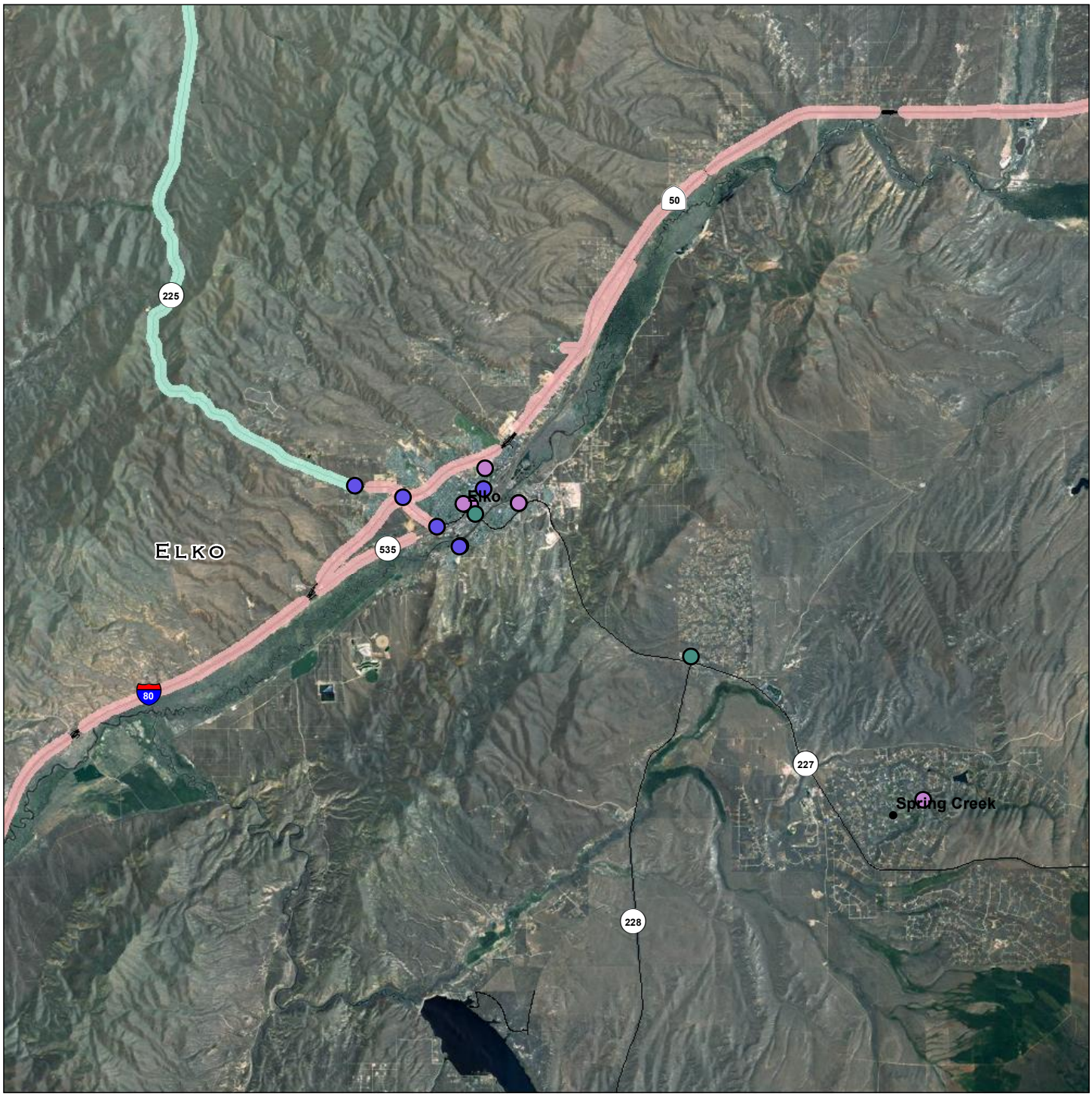
COUNTY	1-15		16-20		21-25		26-35		36-45		46-55		56-65		66+		UNKNOWN	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
CARSON																		
CHURCHILL																		1
CLARK			1								1						3	1
DOUGLAS																		
ELKO																		
ESMERALDA																		
EUREKA																		
HUMBOLDT																		
LANDER																		
LINCOLN																		
LYON																		
MINERAL																		
NYE																		
PERSHING																		
STOREY																		
WASHOE																		
WHITE PINE																		
TOTAL	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	3	2

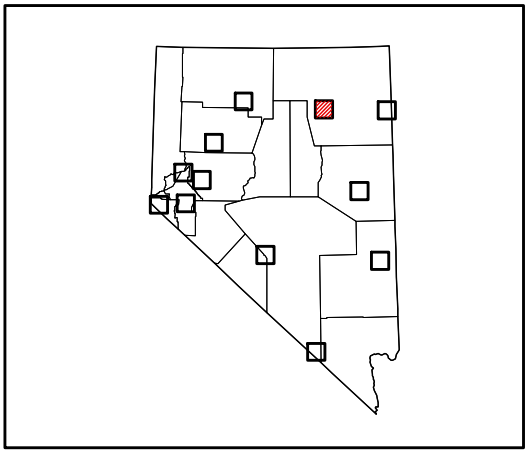
2009

COUNTY	1-15		16-20		21-25		26-35		36-45		46-55		56-65		66+		UNKNOWN	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
CARSON																		
CHURCHILL																		
CLARK	1								1		3							
DOUGLAS																		
ELKO																		
ESMERALDA																		
EUREKA																		
HUMBOLDT																		
LANDER																		
LINCOLN																		
LYON																		
MINERAL																		
NYE																		
PERSHING																		
STOREY																		
WASHOE							1											
WHITE PINE																		
TOTAL	1	0	0	0	0	0	1	0	1	0	3	0	0	0	0	0	0	0

APPENDIX F Bicycle Crash Exhibits for Non-MPO Areas


HUMBOLDT
Winnemucca
WASHOE
PERSHING
Lovelock
CHURCHILL
Fernley
Fallon
STOREY
LYON
Minden
Yerington
MINERAL
DOUGLAS
Hawthorne
LANDER
Austin
ELKO
Elko
Spring Creek
Wells
West Wendover
EUREKA
Eureka
Ely
WHITE PINE
NYE
Tonopah
Pioche
Caliente
LINCOLN
ESMERALDA
CLARK
Pahrump
Laughlin
Legend
MPO Boundary
County Boundary
Rural Community
Fatal Bike Crashes
Bike Crashes
* Source: Crash data provided by NDOT (2006-2011)





Legend

- County Boundary
- US Prioritized Bicycle Corridor
- US Alternative Bicycle Corridor
- MPO Boundary

Bicyclist Movement

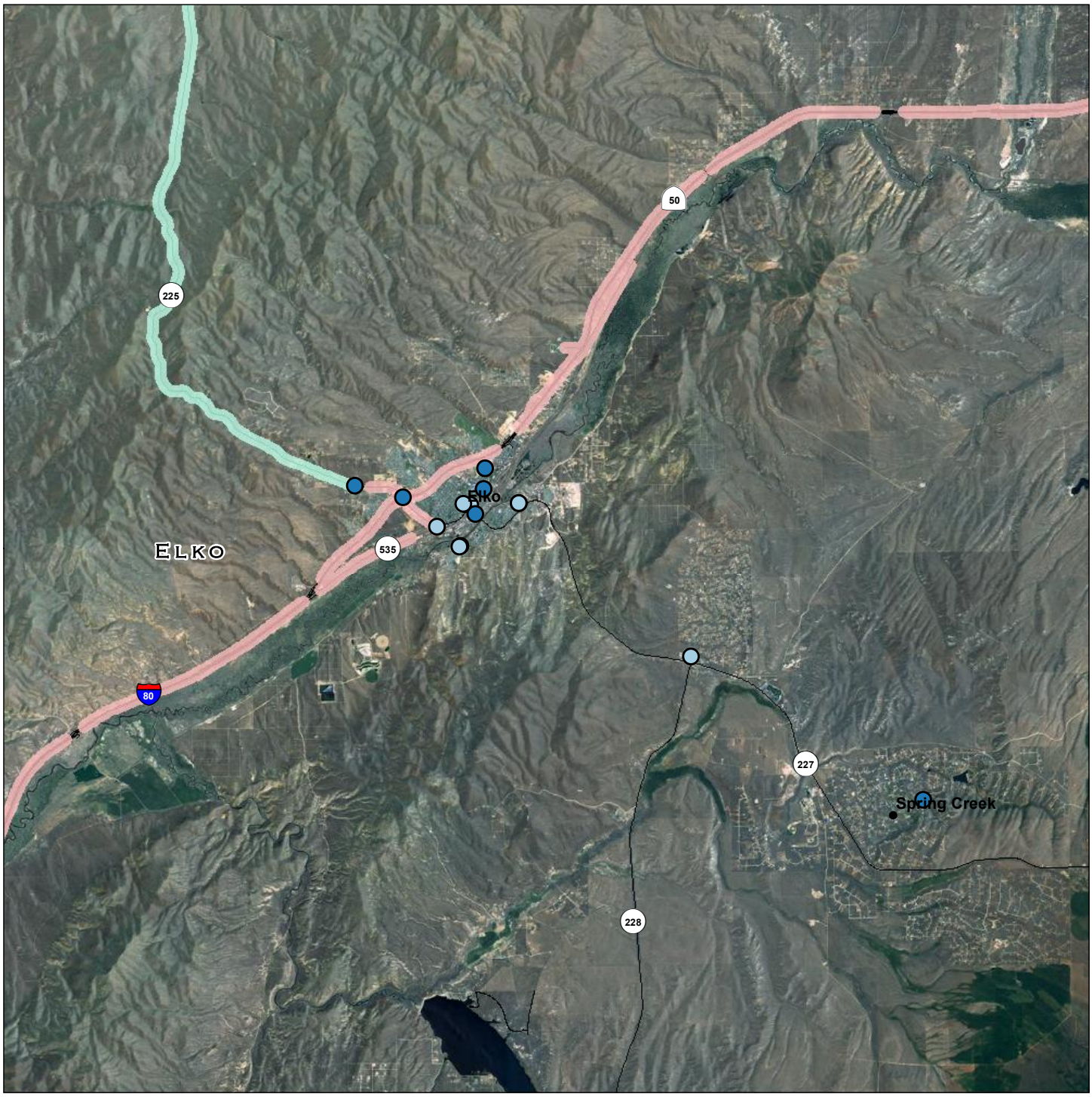
- Going Straight
- Passing
- Stopped
- Turning Left
- Turning Right

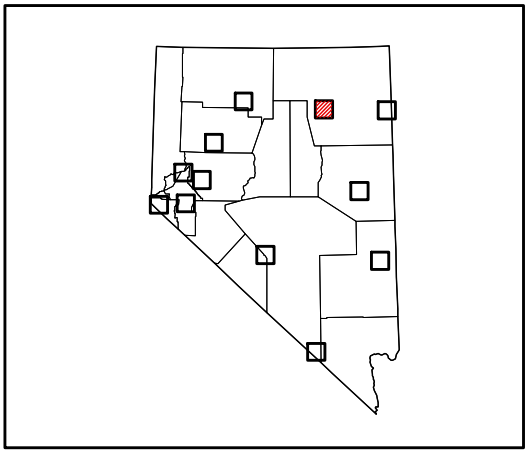
0 1.5 3 6 Miles

Elko

NEVADA DOT

Kimley-Horn and Associates, Inc.





Legend

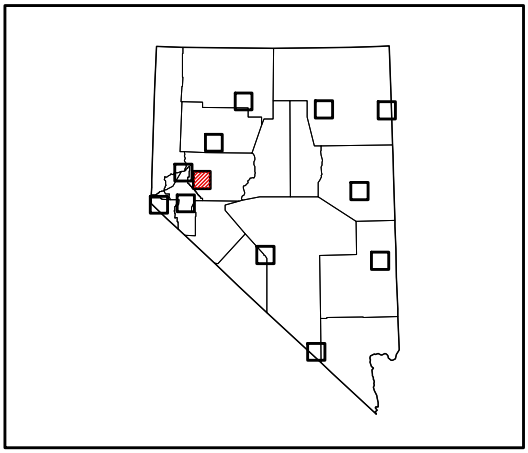
- County Boundary
- US Prioritized Bicycle Corridor
- US Alternative Bicycle Corridor
- MPO Boundary
- Angle
- Non-Collision
- Rear-End
- Sideswipe

Elko

0 1.5 3 6 Miles

NEVADA DOT

Kimley-Horn and Associates, Inc.



Legend

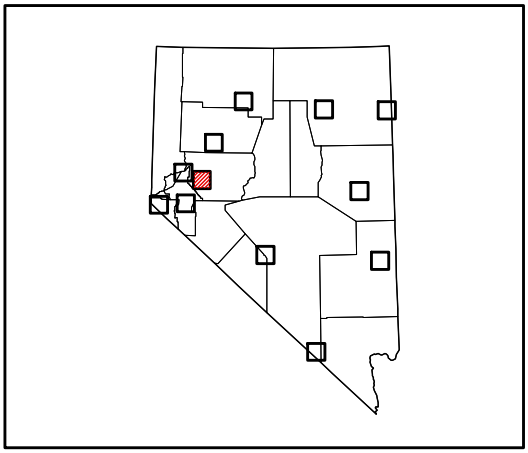
- County Boundary
- US Prioritized Bicycle Corridor
- US Alternative Bicycle Corridor
- MPO Boundary
- Angle
- Non-Collision
- Rear-End
- Sideswipe

Fallon

0 1.5 3 6 Miles

NEVADA DOT

Kimley-Horn and Associates, Inc.



Legend

- County Boundary
- US Prioritized Bicycle Corridor
- US Alternative Bicycle Corridor
- MPO Boundary

Bicyclist Movement

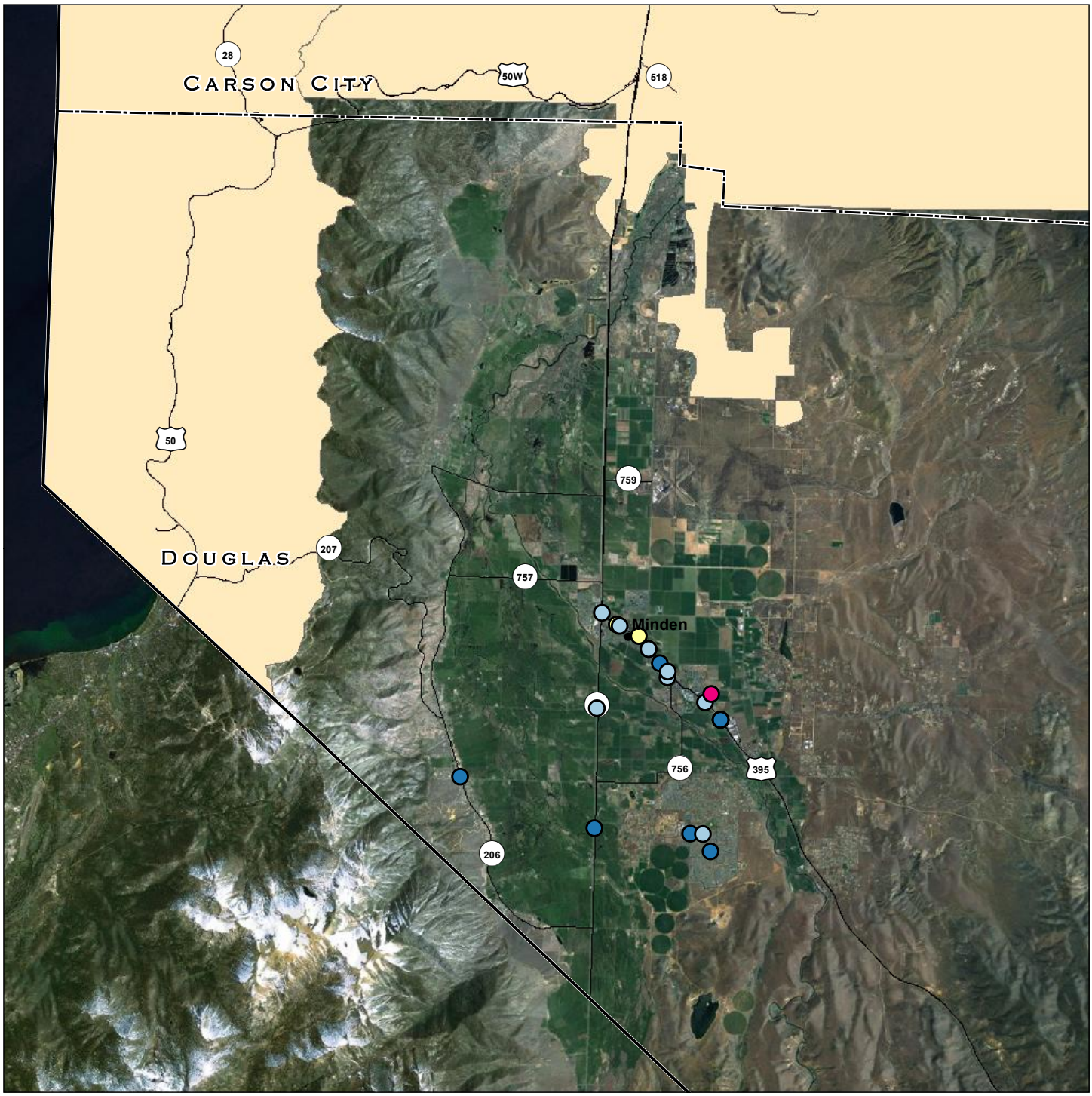
- Going Straight
- Passing
- Stopped
- Turning Left
- Turning Right

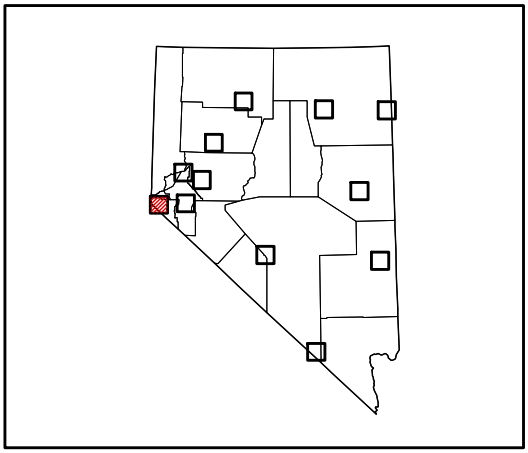
0 1.5 3 6 Miles

Fallon

NEVADA DOT

Kimley-Horn and Associates, Inc.





Legend

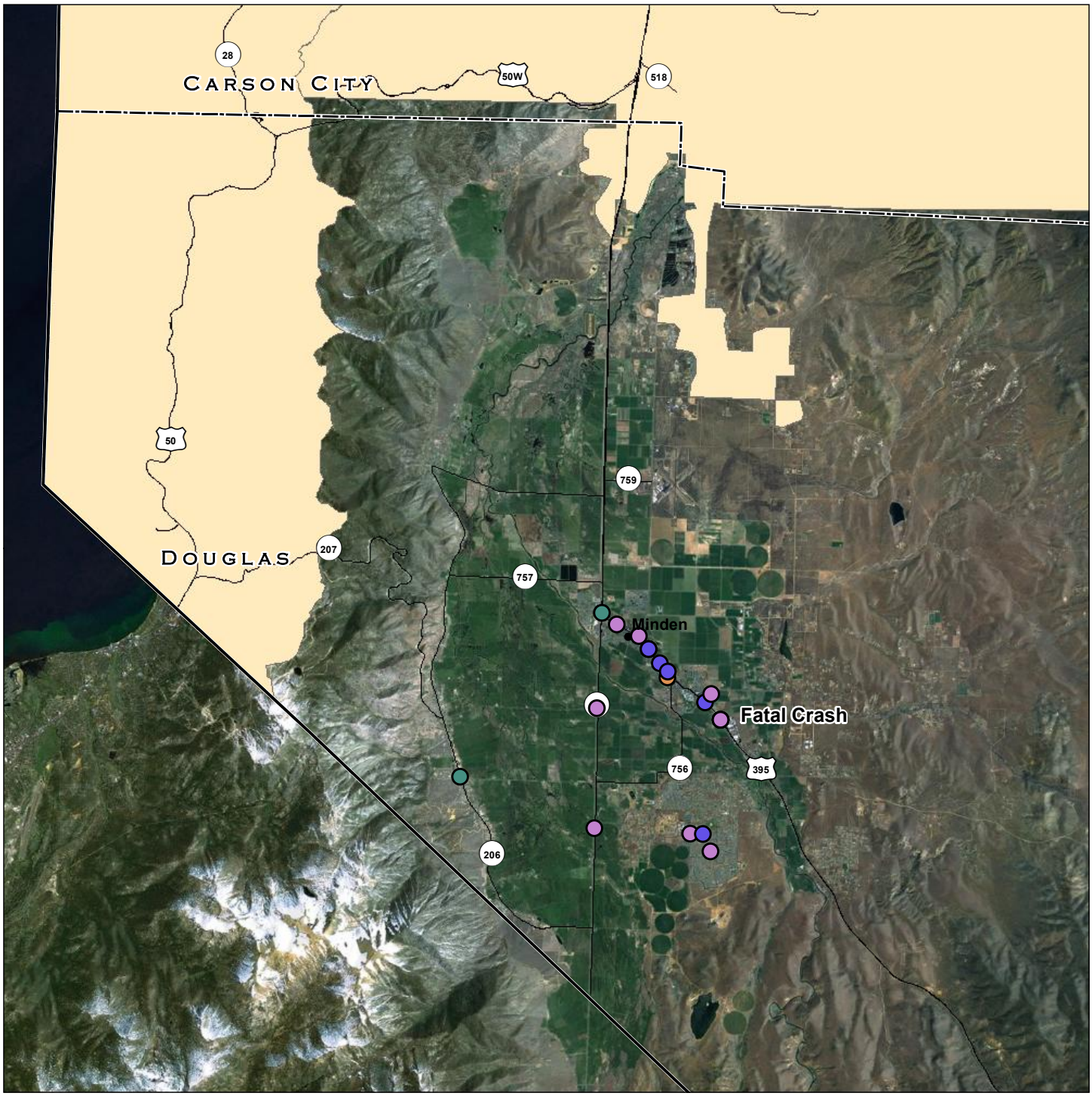
- County Boundary
- US Prioritized Bicycle Corridor
- US Alternative Bicycle Corridor
- MPO Boundary
- Angle
- Non-Collision
- Rear-End
- Sideswipe

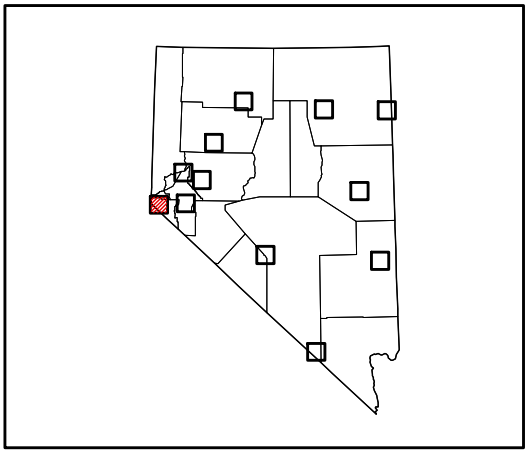
Minden

0 1.5 3 6 Miles

NEVADA DOT

Kimley-Horn and Associates, Inc.





Legend

- County Boundary
- US Prioritized Bicycle Corridor
- US Alternative Bicycle Corridor
- MPO Boundary

Bicyclist Movement

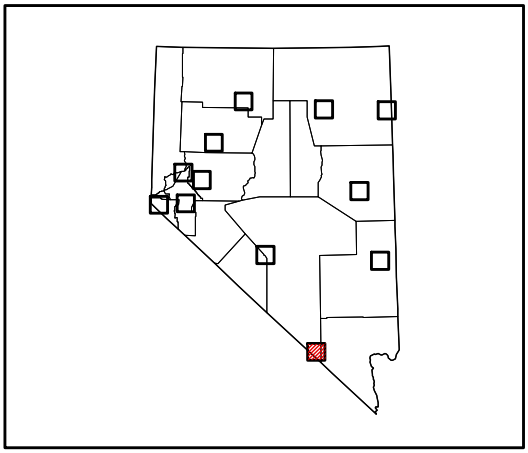
- Going Straight
- Passing
- Stopped
- Turning Left
- Turning Right

0 1.5 3 6 Miles

Minden

NEVADA DOT

Kimley-Horn and Associates, Inc.



Legend

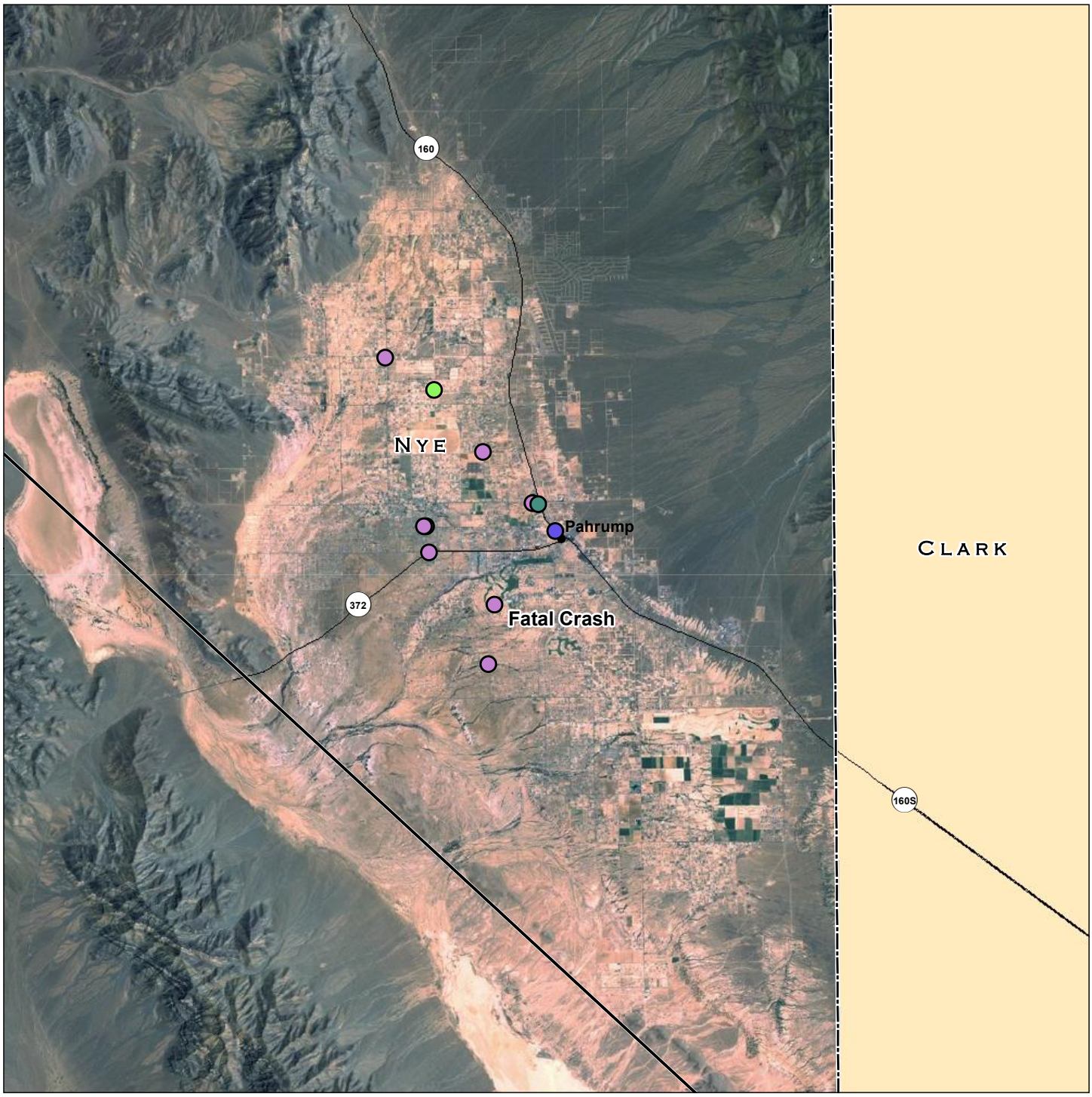
- County Boundary
- US Prioritized Bicycle Corridor
- US Alternative Bicycle Corridor
- MPO Boundary
- Angle
- Non-Collision
- Rear-End
- Sideswipe

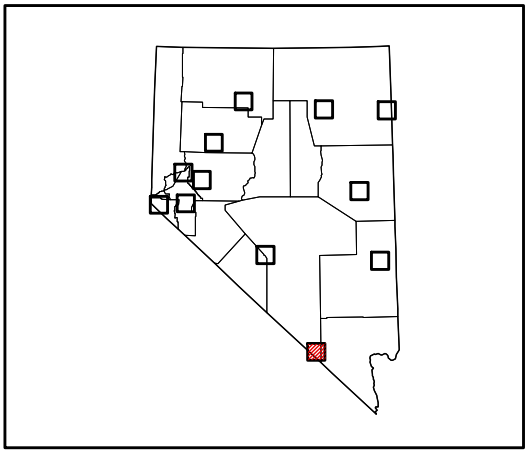
Pahrump

0 1.5 3 6 Miles

NEVADA DOT

Kimley-Horn and Associates, Inc.





Legend

- County Boundary
- US Prioritized Bicycle Corridor
- US Alternative Bicycle Corridor
- MPO Boundary

Bicyclist Movement

- Going Straight
- Passing
- Stopped
- Turning Left
- Turning Right

0 1.5 3 6 Miles

Pahrump

NEVADA DOT

Kimley-Horn and Associates, Inc.