

2025

Nevada County Local Road Safety Plan



High Friction Surface Treatment



Department of Public Works

1/1/2025

INTRODUCTION

Nevada County is committed to improving transportation safety for all users and has developed a Local Road Safety Plan (LRSP) to assist in this effort. The LRSP provides a framework for identifying, analyzing, and prioritizing roadway safety improvements. This framework helps determine prioritized issues, risks, actions, and improvements that can be used to reduce fatalities and serious injuries on the local road network. In fact, LRSPs have been proven to reduce fatalities and enhance safety on local roads in states that have implemented them!

Implementation of the LRSP will improve transportation safety for the county, its people, and its visitors. As part of this ongoing effort, the LRSP was developed with input from several safety partners. Additionally, the plan should be viewed as a living document that can be updated to reflect changing local needs and priorities.

The LRSP includes the elements depicted in Figure 1 provided by the Federal Highway Administration and described below:

- Stakeholder engagement representing the 4E's – engineering, enforcement, education, and emergency medical services as appropriate and including collaboration among municipal, county, State and/or Federal entities to leverage expertise and resources.
- Use of safety data for the identification of target collision severity, factors, types, time of day and location with corresponding recommended proven safety countermeasures.
- Selection of proven solutions.
- Timeline and goals for implementation and evaluation of selected solutions.



Figure 1 – Local Road Safety Plan – Your Map to Safer Roadways

VISION & GOALS

Nevada County's Vision, Mission and Goal for the LRSP mirror those of the California Strategic Highway Safety Plan.

VISION

Nevada County will have a safe transportation system for all users.

GOAL

Toward Zero Fatalities, Every 1 counts.

Mission: Nevada County will ensure a safe and sustainable transportation system for all motorized and non-motorized users on all public roads in Nevada County.

Support for transportation safety is also identified as a priority in several Nevada County documents including the General Plan, the 2015-2035 Regional Transportation Plan, the 2015 Trans-Sierra Transportation Plan, the 2019 Active Transportation Plan which encompasses previous bicycle and pedestrian planning efforts.

SAFETY PARTNERS

Safety partners are a vital resource for acquiring and analyzing data, selecting emphasis areas, developing safety strategies, and implementing the LRSP. The following list of partners would be involved in the implementation of this plan:

- County of Nevada – Board of Supervisors, Sherriff's Office, Public Works Department, and Planning
- Nevada County Transportation Commission (NCTC)
- Incorporated cities within Nevada County – Councils, Public Works, Planning, Police: City of Grass Valley, Nevada City, Town of Truckee
- Caltrans
- Northern Sierra Air Quality Management District
- California Highway Patrol (CHP)
- Federal Highway Administration
- Federal Transit Administration
- US Forest Service
- US Bureau of Land Management
- School Districts
- **CITIZENS!**



Previously, NCTC assisted the Nevada County Public Works Department with hosting the first stakeholder meeting on October 31, 2018. Attendees included representatives from Caltrans, Truckee, Grass Valley and 21 members of the public. At the meeting, a presentation was provided explaining the purpose and objectives of a LRSP, reviewed the initial analyzed data, background information on potential safety issues and identification of initial emphasis areas for the LRSP. Meeting attendees participated in commenting on the emphasis areas. Stakeholder and community engagement will continue to be ongoing to ensure the mission of the LRSP remains priority.

PROCESS

Nevada County has identified the need for safety improvements to the transportation system and has implemented improvements in a systematic way to date. As such, Nevada County has the 3rd lowest fatality rates of all 58 counties in California.

The LRSP was developed by reviewing all the information gathered in the above-mentioned documents, analyzing the latest accident data and recommending proven safety countermeasures with timelines and goals for implementation and evaluation.

EXISTING EFFORTS

Additionally, Nevada County has successfully completed several projects in recent years directly related to improvements. These projects include High Friction Surface Treatments, High Visibility Thermoplastic Striping and a Road Safety and Signing Audit project. Upcoming projects include intersection improvements identified in the Local Traffic Mitigation Fee Program and Regional Traffic Mitigation Fee Program as well as additional High Friction Surface Treatments, High Visibility Thermoplastic Striping, Road Safety and Signing Audit project phase 2, guardrail safety audit, Bridge Replacement and Rehabilitation (HPB) project, and replacement identified in the County’s Capital Improvement Plan (CIP).

DATA SUMMARY

To better understand accident rates in Nevada County, road accident data was compared with the state highway system in Nevada County per Caltrans “2021 Collision Data on California State Highways” document. Comparing data from 2021 (latest data available from Caltrans), accident rates on county roads per road mile (0.26 accidents/road mile) are less than on the state highways (5.3 accidents/road mile) in Nevada County.



Nevada County’s collision data is obtained from CHP and loaded into a software program for data analyzation. For this report, crash data from the available past three years, 2020-2022, Speed Zone Study Summary Reports (with speed limits), road maintenance records and citizen complaints were utilized to note any trends. The data does not include roads within the various city limits throughout Nevada County.

The total number of reported accidents on County maintained roads in 2020-2022 equaled 544. In that time, property damage was the primary collision injury severity equating to 65%. Fatalities make up 1% of the collision results between 2020-2022 with zero fatalities in 2022. A full breakdown of collision results is available in Table 1.

	2020	2021	2022	3 yr summary	3 yr %
Collision by Injury Severity					
Fatal	1	2	0	3	1%
Severe Injury	9	9	29	47	9%
Other Visible Injury	31	13	18	62	11%
Complaint of Pain	28	24	24	76	14%
Property Damage Only	133	96	127	356	65%
Total	202	144	198	544	

Table 1 - Collision Severity 2020-2022

Improper turning and unsafe speeds cause 61% of the collisions in Nevada County. Further, driving under the influence accounts for about 17% of collisions. A full breakdown of primary collision factors is available in Table 2.

	2020	2021	2022	3 yr summary	3 yr %
Collision by Primary Collision Factor					
Auto R/W Violation	19	8	18	45	8%
Driving Under Influence	31	33	27	91	17%
Following Too Closely	0	0	0	0	0%
Hazardous Parking	0	0	0	0	0%
Impeding Traffic	0	0	0	0	0%
Improper Passing	2	0	2	4	1%
Improper Turning	91	65	78	234	43%
Not Stated	0	0	0	0	0%
Other	0	0	1	1	0%
Other Hazardous Movement	1	0	1	2	0%
Other Improper Driving	0	0	0	0	0%
Other Than Driver	7	3	9	19	3%
Ped R/W Violation	0	0	0	0	0%
Pedestrian Violation	0	0	0	0	0%
Traffic Signals and Signs	0	1	6	7	1%
Unknown	4	3	7	14	3%
Unsafe Speed	38	23	36	97	18%
Unsafe Starting or Backing	3	3	3	9	2%
Wrong Side of Road	6	5	10	21	4%
Total	202	144	198	544	

Table 2 – Primary Collision Factor 2020-2022

Hitting objects is the primary collision type comprising about 56% of the collisions in Nevada County. Broadside and overturned collisions are the next most common at about 10% each. A full breakdown of primary collision types is available in Table 3.

	2020	2021	2022	3 yr summary	3 yr %
Collision by Collision Type					
Broadside	21	11	21	53	10%
Head-On	8	7	10	25	5%
Hit Object*	114	89	103	306	56%
Not Stated	0	0	0	0	0%
Overturned	24	16	16	56	10%
Rear-Ended	16	8	22	46	8%
Sideswiped	11	7	16	34	6%
Vehicle - Pedestrian	0	0	1	1	0%
Other	8	6	9	23	4%
Total	202	144	198	544	

Table 3 – Primary Collision Types 2020-2022

(*Typically due to roadway departure.)

Approximately 60% of all collisions in Nevada County occur during the day. A full breakdown of primary collision times of day is available in Table 4.

	2020	2021	2022	3 yr summary	3 yr %
Collision by Injury Severity					
Day	122	75	128	325	60%
Dusk - Dawn	8	5	9	22	4%
Dark	72	64	61	197	36%
Unknown	0	0	0	0	0%
Total	202	144	198	544	

Table 4 – Primary Collision Times of Day 2020-2022

The 2019 Local Road Safety Plan dataset included 927 collisions between 2015-2017, while the current dataset contained 544 collisions from 2020-2022. There was a 59% decrease in collisions within Nevada County from the initial 2019 LRSP to the current study. This decrease in collisions is attributed to varying factors including, but not limited to:

- Projects were successfully implemented within Emphasis Areas identified in the 2019 LRSP.
- The COVID Pandemic occurred during the current dataset years, 2020-2022, resulting in fewer vehicles on the roadways equating to fewer collisions.

Collision data should continue to be analyzed to determine trends and to implement targeted solutions to combat collision activity.

Nevada County collision locations are also mapped to identify concentrated areas of concern, see Figure 2 below.

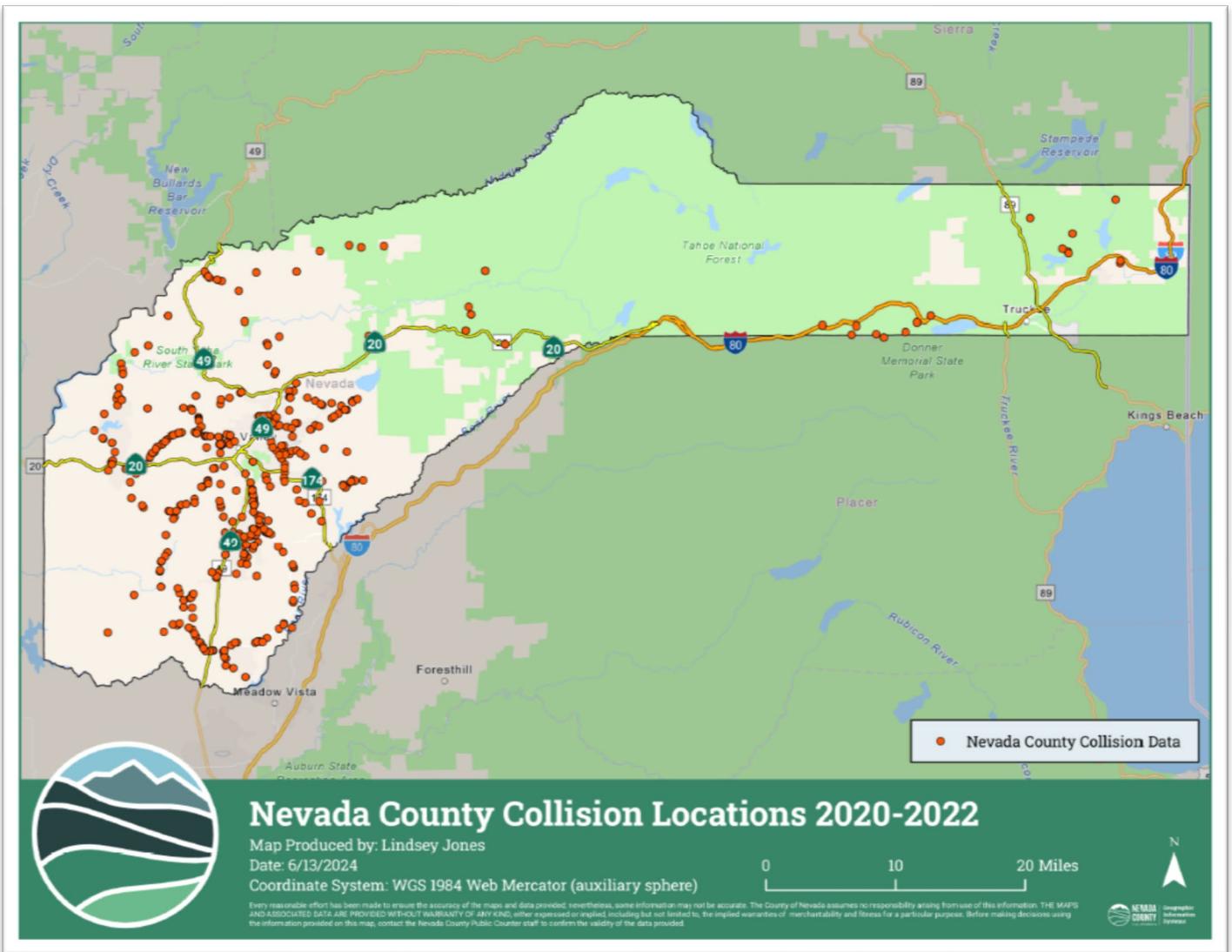


Figure 2 – Nevada County Collision Locations, 2020-2022

The following intersections are where the majority of intersection related collisions occurred between 2020-2022:

- 1) Rough and Ready Highway at Ridge Road
- 2) Dog Bar Road at Cole Way
- 3) Norlene Way at Lawrence Way
- 4) Pleasant Valley Road at Lake Wildwood Drive
- 5) Wheeler Acres Road at Dog Bar Road (N)

The following road segments have the highest concentration of collisions between 2020-2022:

- 1) Wolf Road – Katy Lane to Eaglestone Road
- 2) Auburn Road – Godfrey Lane to Bixler Place
- 3) McCourtney Road – Thoroughbred Loop (N) to Wells Drive
- 4) Lime Kiln Road – Maggie Lane to Duggans Road
- 5) Penn Valley Drive – Pheasant Lane to Horton Street

Intersection collision locations and the highest road segment collision locations are also mapped to determine if certain areas of concern exist. See Figure 3 below.

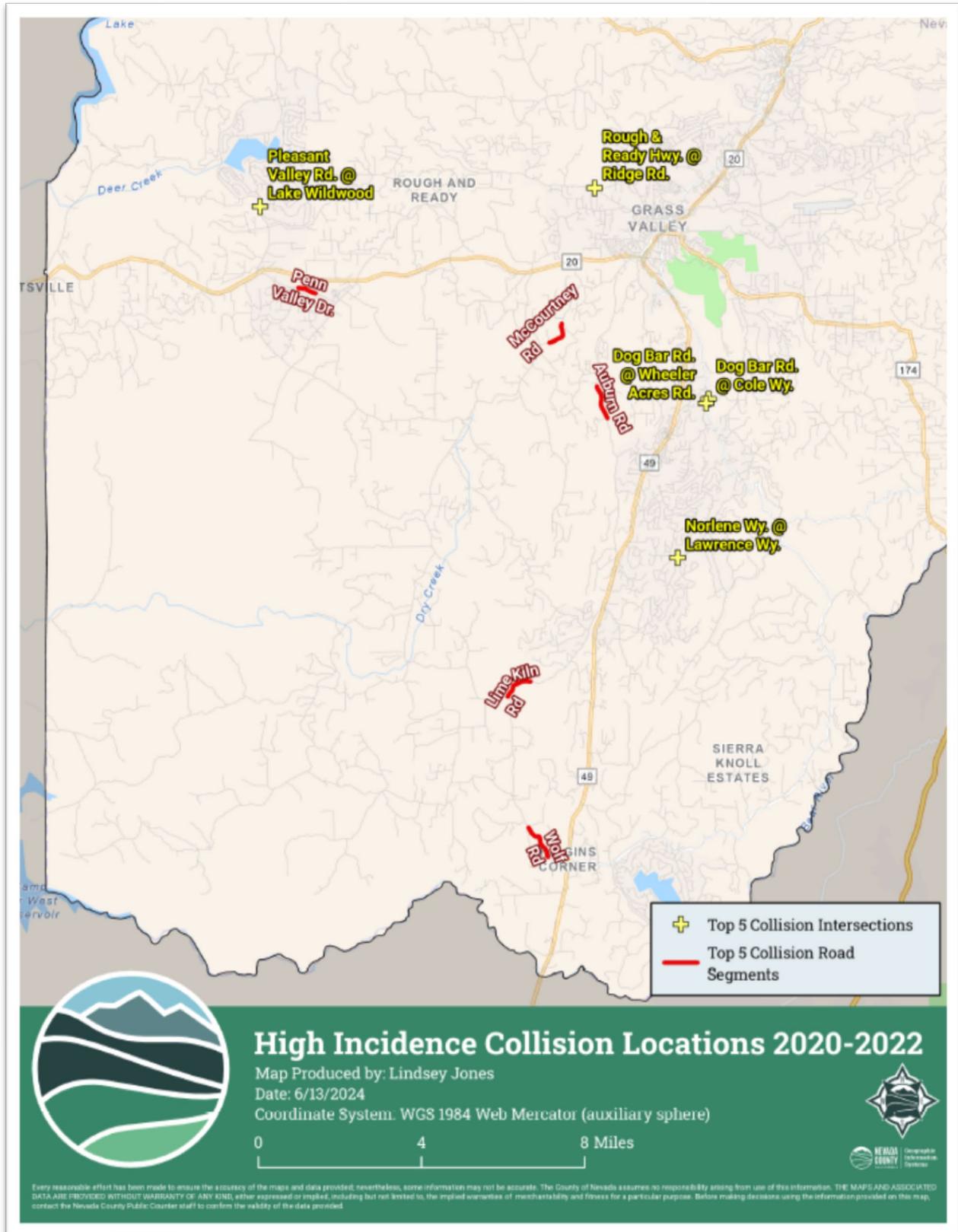


Figure 3 – High Incidence Collision Locations, 2020-2022

EMPHASIS AREAS

The following emphasis areas describe priority issues where there are opportunities to improve based on crash data from the past three years, 2020-2022, Speed Zone Study Summary Reports (with speed limits), road maintenance records and citizen complaints. While the development of the emphasis areas is the primary purpose of the LRSP, additional improvements as requested by the stakeholders and others should also be considered and addressed.



Emphasis Area 1: Improper Turning, Broadside Collisions and Overturns

- Improper turning is cited as the top primary collision factor between 2020 and 2022. Broadside collisions and overturned vehicles are cited as the second and third highest collision types. These collision types are related.
- These types of collisions typically occur at intersections or at intersections with driveways.

Goal for Emphasis Area 1:

- Many of the identified areas throughout Nevada County will be addressed during the next phase of the Road Safety and Signing Audit project. The addition and/or revision of signage at key locations has been shown to lower collision rates since implementation in previous years.
- Roadside vegetation management will continue to be implemented to improve sight distances at intersections.

Strategy for Emphasis Area 1: Reduce Improper Turning Movements, Broadside Collisions and Overturns with low cost safety countermeasures.

Action 1.1: Improve signage. Project locations are determined by evaluating crash data, Speed Zone Study Summary Reports (with speed limits), road maintenance records and citizen complaints. Nevada County Public Works is the primary implementer of this strategy. Funding for this project will be with Highway Safety Improvement Program (HSIP) funds. Road Safety and Signing Audit (RSSA) projects could continue phase planning with additional award of HSIP funds and should also consider the installation of deer crossing signs where appropriate.

In addition, Public Works will continue with replacing signs as needed including street name signs and could specifically focus on the following intersections based on collision data for Emphasis Area 1:

Intersections

- 1) Rough and Ready Highway at Ridge Road
- 2) Pleasant Valley Road at Lake Wildwood Drive
- 3) Dog Bar Road at Cole Way

Action 1.2: Improve sight distance at intersections. Roadside vegetation management should continue and be expanded upon. Nevada County has also worked with the Nevada County Fire Safe Council who received a California Fire Safe Council grant including funding for work on county roads. Fire Safe Communities have been and will continue conducting roadside vegetation management in areas throughout Nevada County. Additional grant funds should be applied for in the future for roadside vegetation management.

The Public Works Department has vegetation management projects currently grant funded and either in implementation or in design. The Ingress/Egress Fire Safety Project was conducted in 2022 with efforts continuing into 2023, as well as ongoing vegetation management work under the CDBG Vegetation Management Grant. The FEMA Brush Clearing Right-of-Way Safety Project is currently in design, which will target the reduction of hazardous vegetation while enhancing public safety and the effectiveness of fire suppression along critical evacuation routes.

In addition, Public Works could specifically focus on vegetation removal at the following intersections and road segments based on collision data for Emphasis Area 1:

Intersections:

- 1) Dog Bar at Cole Way
- 2) Pleasant Valley Road at Lake Wildwood Drive
- 3) Lime Kiln Road at Bald Hill Road
- 4) Lime Kiln Road at Duggans Road

Road segments

- 1) Wolf Road – Katy Lane to Eaglestone Road
- 2) Auburn Road – Godfrey Lane to Bixler Place
- 3) McCourtney Road – Thoroughbred Loop to Wells Drive
- 4) Lime Kiln Road – Maggie Lane to Duggans Road

Action 1.3: Continue the Annual Road Rehabilitation Project. This project is a 5-year road maintenance and rehabilitation plan throughout the County. The project is phased for construction from 2024-2028.

Action 1.4: Construct intersection control at Ridge Road and Rough and Ready Highway. This project is designed with a tentative construction start of 2025.

Emphasis Area 2: Unsafe Speeds, Object Impact and Rear-End Collisions

- Unsafe speed is cited as the second highest primary collision factor between 2020 and 2022 and object impact and rear-end collisions are cited as top collision types.
- These types of collisions typically occur on wider roads throughout the County. Unsafe speeds typically result in rear-end collisions and object impact. Object impact could be animals in the roadways, vegetation, private property or road signage on the side of the road.

Goal for Emphasis Area 2:

- Many of the identified areas throughout Nevada County have been and will continue to be addressed during the next phases of the Road Safety and Signing Audit project.
- Consider pavement speed limit marking, gateway treatments to communities and/or traffic calming measures.
- Suggested increase of enforcement in areas of high speed. California Highway Patrol is the primary implementer of this strategy.
- Utilize the speed radar trailer upon request.
- Increase public education on the dangers of speeding and driving distracted. Engage Stakeholders such as CHP, NCTC, local business and educational organizations.

Strategy for Emphasis Area 2: Reduce speeding, which will reduce object impact and rear-end type collisions with low cost safety countermeasures, enforcement and education.

Action 2.1: Improve signage. Project locations are determined by evaluating crash data, Speed Zone Study Summary Reports (with speed limits), road maintenance records and citizen complaints. Nevada County Public Works is the primary implementer of this strategy. Funding for this project will be with Highway Safety Improvement Program (HSIP) funds. Road Safety and Signing Audit (RSSA) projects have been completed and will continue phase planning with additional award of HSIP funds.

In addition, Public Works will continue with replacing signs as needed including street name signs and could specifically focus on the following intersections based on collision data for Emphasis Area 2:

Intersections

- 1) Rough and Ready Highway at Ridge Road
- 2) Pleasant Valley Road at Lake Wildwood Drive
- 3) Dog Bar Road at Cole Way

Action 2.1: Increase enforcement. Enforcement locations are determined by evaluating crash data, Speed Zone Study Summary Reports (with speed limits) and citizen complaints. California Highway Patrol is the primary implementer of this strategy.

CHP may specifically focus increased enforcement at the following intersections and road segments based on collision data for Emphasis Area 2:

Intersections

- 1) Rough and Ready Highway at Ridge Road
- 2) Dog Bar Road at Cole Way
- 3) Norlene Way at Lawrence Way
- 4) Pleasant Valley Road at Lake Wildwood Drive
- 5) Wheeler Acres Road at Dog Bar Road (N)

Road segments

- 1) Wolf Road – Katy Lane to Eaglestone Road
- 2) Auburn Road – Godfrey Lane to Bixler Place
- 3) McCourtney Road – Thoroughbred Loop (N) to Wells Drive
- 4) Lime Kiln Road – Maggie Lane to Duggans Road
- 5) Penn Valley Drive – Pheasant Lane to Horton Street

Action 2.2: Utilize speed radar trailers. Speed radar trailer placement on roads can temporarily assist in lowering speeds. Nevada County Public Works is the primary implementer of this strategy.

Public Works may specifically focus speed radar trailer placement (when not being used at other locations throughout the county) at the following intersections and road segments based on collision data for Emphasis Area 2:

Intersections

- 1) Rough and Ready Highway at Ridge Road
- 2) Dog Bar Road at Cole Way
- 3) Norlene Way at Lawrence Way
- 4) Pleasant Valley Road at Lake Wildwood Drive
- 5) Wheeler Acres Road at Dog Bar Road (N)

Road segments

- 1) Wolf Road – Katy Lane to Eaglestone Road
- 2) Auburn Road – Godfrey Lane to Bixler Place
- 3) McCourtney Road – Thoroughbred Loop (N) to Wells Drive
- 4) Lime Kiln Road – Maggie Lane to Duggans Road
- 5) Penn Valley Drive – Pheasant Lane to Horton Street
- 6) Magnolia Road – Spring Ranches Road to Adamson Drive

Action 2.3: Educate the public. Increase public education efforts regarding the dangers of speeding and driving distracted. California Highway Patrol is the primary implementer of this strategy.

Emphasis Area 3: Driving Under the Influence

- Driving under the influence (DUI) is cited as the third highest primary collision factor between 2020 and 2022.

Goal for Emphasis Area 3:

- Increase public education of the dangers of DUI.
- Increase DUI checkpoints. California Highway Patrol is the primary implementer of this strategy.

Strategy for Emphasis Area 3: Educate the public on the dangers of DUI and increase enforcement.

Action 3.1: Educate the public. Public education regarding the dangers of DUI could be increased. California Highway Patrol is the primary implementer of this strategy but may want to work with the Nevada County Public Health Department on future funding and engagement opportunities.

Action 3.2: Increase enforcement. The number of DUI checkpoints implemented in a year could be increased. California Highway Patrol is the primary implementer of this strategy.

CHP may specifically place DUI checkpoints near the following intersections and road segments based on collision data for Emphasis Area 3:

Intersections

- 1) Rough and Ready Highway at Ridge Road
- 2) Dog Bar Road at Cole Way
- 3) Pleasant Valley Road at Lake Wildwood Drive

Road segments

- 1) Auburn Road – Godfrey Lane to Bixler Place
- 2) Wolf Road – Katy Lane to Eaglestone Road
- 3) Rough and Ready Road – Awesome Hill Road to Ironclad Road



EVALUATION & IMPLEMENTATION

The LRSP is a living document that is recommended to be updated every three years in order to utilize the latest data and detect trends. Collision data can be used to evaluate the success of the plan. The Nevada County Department of Public Works will be the primary department responsible for updating the LRSP and may host annual stakeholder meetings to discuss implementation of the plan and strategies for each emphasis area.

APPENDIX A
Comments from Stakeholder Meeting