City of Eureka Transportation Safety Action Plan

January

2024

Updated January 3, 2024 with 2020-2023 collision data.

City of Eureka
Transportation Safety Action Plan

The Mission of the Transportation Safety Action Plan is to make Eureka safe for all modes of transportation.

THE CITY OF
EUREKA
PUBLIC WORKS

Developed in partnership with the City of Eureka Engineering, Public Works, Fire and Police Departments, Eureka City Council, and the City of Eureka Transportation Safety Commission.

INTRODUCTION

The purpose of this Transportation Safety Action Plan (TSAP) is to improve safety for all modes of transportation in the City of Eureka. To achieve this, we are focusing on two goals: **collision reduction** and **quality of life preservation**. The City's collision reduction goal is reasonable and attainable, the areas of emphasis that have been determined are data supported, subsequent strategies are defensible, and future data will be monitored to ensure continuing success.

The preservation of quality of life is a separate goal of this plan, the objective of which is maintaining calm neighborhood traffic. This section of the TSAP identifies traffic calming measures by function, providing a matrix for addressing neighborhood concerns. Requests for reviews of these types of measures will be heard through the Transportation Safety Commission public forum.

The process for achieving the City's goal of improving transportation safety is illustrated in the TSAP Flow Chart, located in Appendix A1.

GOAL 1: REDUCE COLLISIONS

This section identifies the areas of concern where a number of collisions occur within the City, illustrates previous collision data, lists multiple resources used for traffic safety-related guidance, and provides a discussion on how to make implementation of related projects feasible.

OBJECTIVE 1: Implement Collision Reduction Strategies

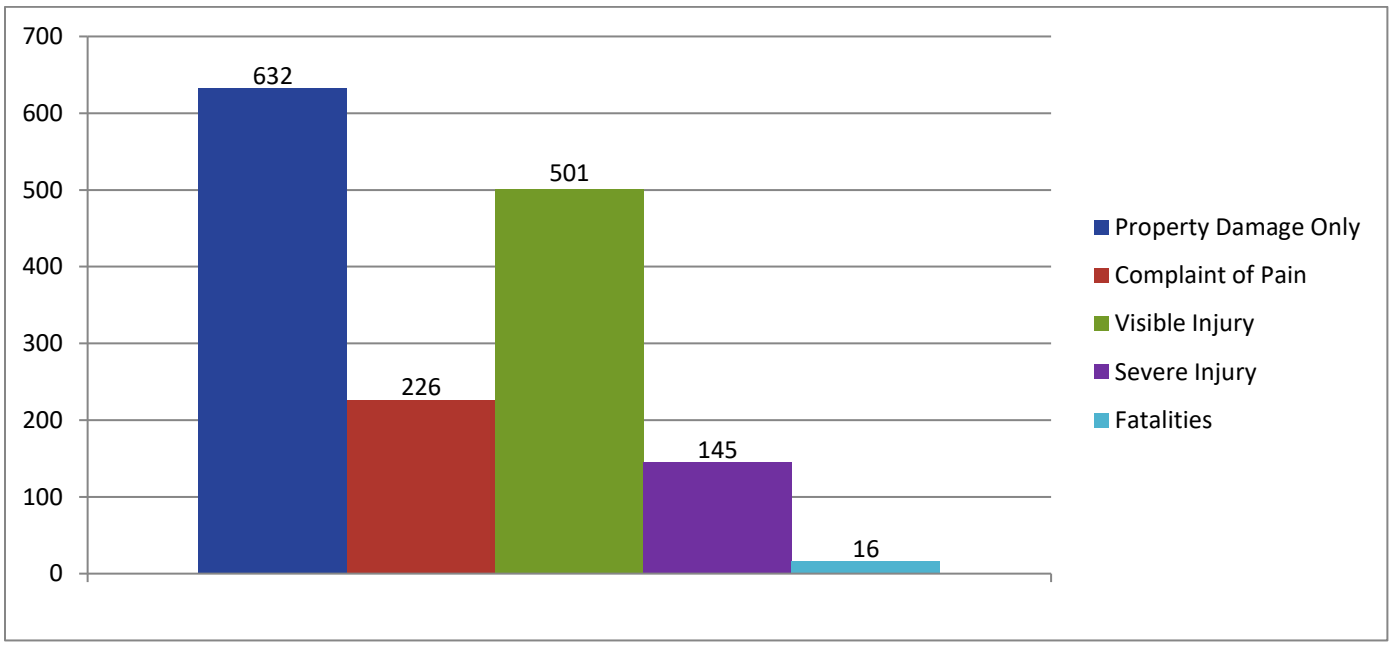
IDENTIFY AREAS OF CONCERN

The City's emphasis areas were selected after receiving public input at Transportation Safety Commission meetings, meeting with the Eureka Police Department, and reviewing collision data collected from January 2020 through December 20.

COLLISION DATA

Collision statistics found in this TSAP are from the California Highway Patrol's Statewide Integrated Traffic Records System (SWITRS) database, which can be accessed at https://iswitrs.chp.ca.gov/Reports/jsp/index.jsp.

Figure 1: Total Collisions by Severity 2020-2023 (including multiple injuries per collision)

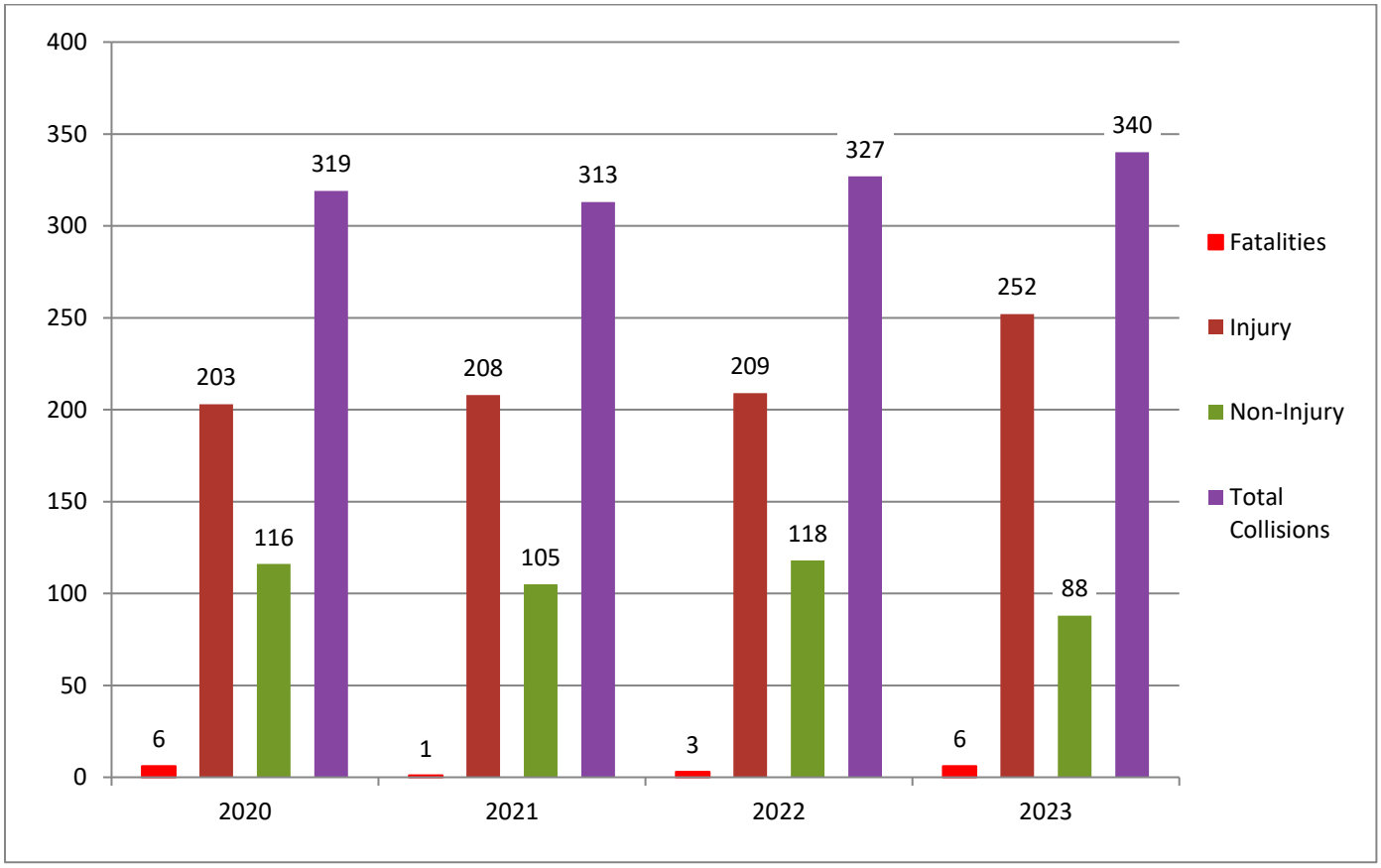


Collisions data within the City of Eureka from 2020 through 2023 include:

- 1,299 reported collisions – an average of 325 per year
- 872 total injuries – an average of 218 per year
- 651 injury collisions (50.1% of total reported collisions)
- 632 Property Damage Only collisions (48.7% of total reported collisions)
- 16 Fatalities (1.2% of total reported collisions)

It should be noted that not all collisions are reported. In collisions where there is minimal damage and no injuries, each party may exchange information without a report being taken. Figures 1 and 2 include all reported collisions, the remaining figures only include injury and fatal collisions.

Figure 2: Annual Collisions by Severity 2020-2023



Over the past 20 years of data (1999-2019), there has been an average of 2.9 fatalities per year, with over 60% of those collisions involving pedestrians or bicyclists. Also, over the same time period, 29% of all collisions occurred on the State Highway. These collisions involved 56% of fatal, 33% of injury, and 27% of property damage only collisions reported. Of the pedestrian and bicycle collisions, 34% occurred on the State Highway, consisting of 60% of fatal, 34% of injury, and 26% of property damage only collisions reported.

Figure 3: Primary Collision Factors for 2020-2023 Injury Collisions

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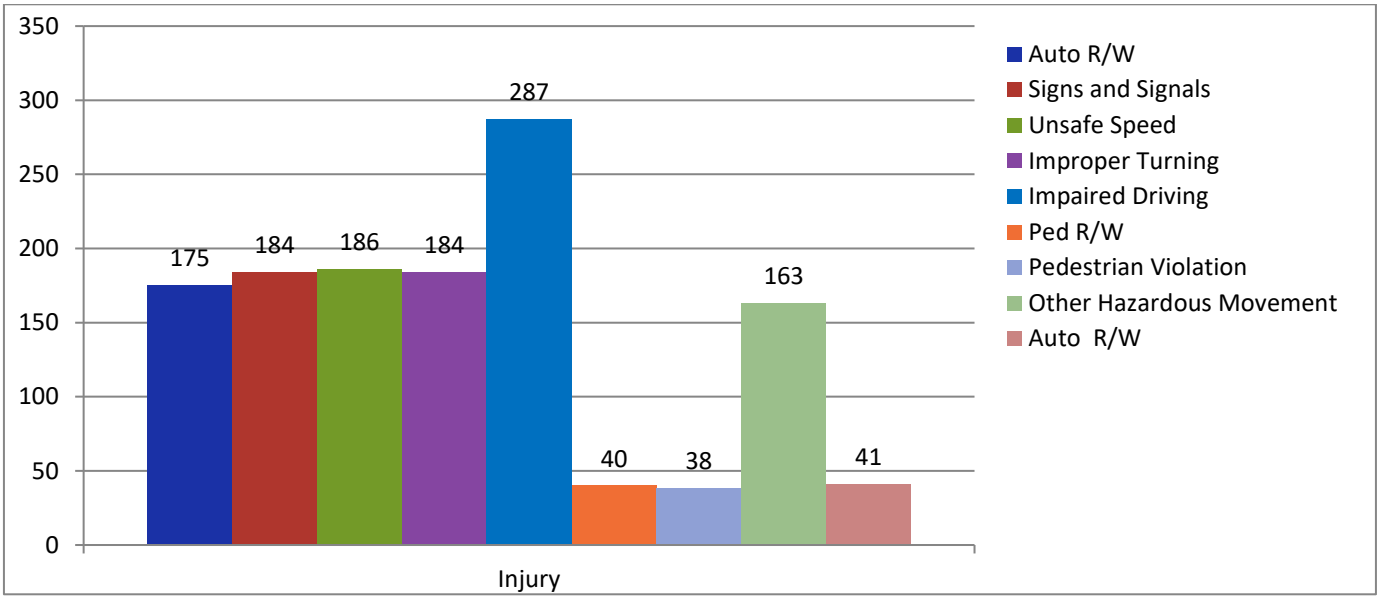
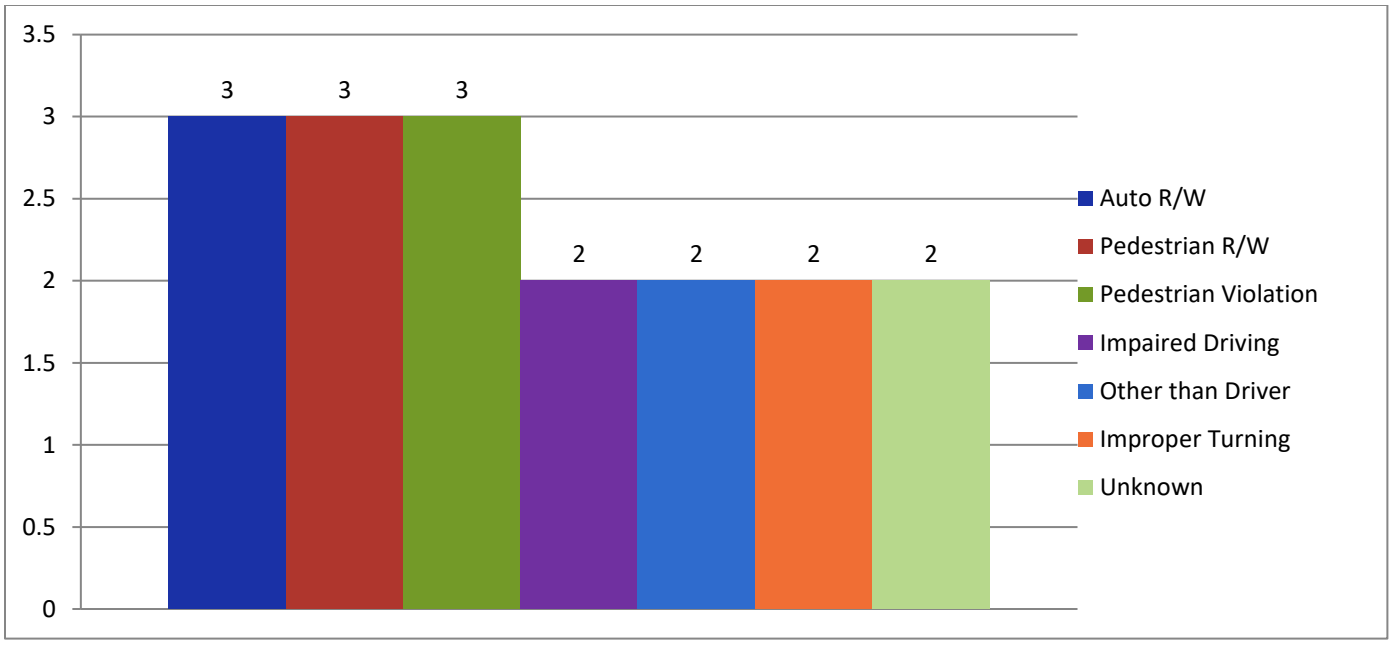


The most frequent primary collision factors for injury crashes between 2020 and 2023 were auto right-of-way violations, traffic sign and signal violations, and unsafe speed (which includes following too close and rear end collisions). Improper Turning, pedestrian right-of-way violations, impaired driving, and pedestrian collisions made up the bulk of the remaining collisions. The other/unknown column includes unsafe lane change, unsafe starting or backing, and unknown or unstated violations among others. High incident locations for injury and fatal collisions can be seen in Figure 7.

Figure 4: Primary Collision Factors for 2020-2023 Fatal Collisions



The primary collision factors for fatal crashes were: auto right-of-way (3), pedestrian right-of-way (3), pedestrian violation (3) - this is in cases where the officer felt the pedestrian was at fault, impaired driving (2), other than driver (2), Improper Turning (2), and unknown (2). Locations of fatal collisions can be seen in Figures 7-9.

Figure 5: Parties Involved in Injury and Fatal Collisions from 2020-2023

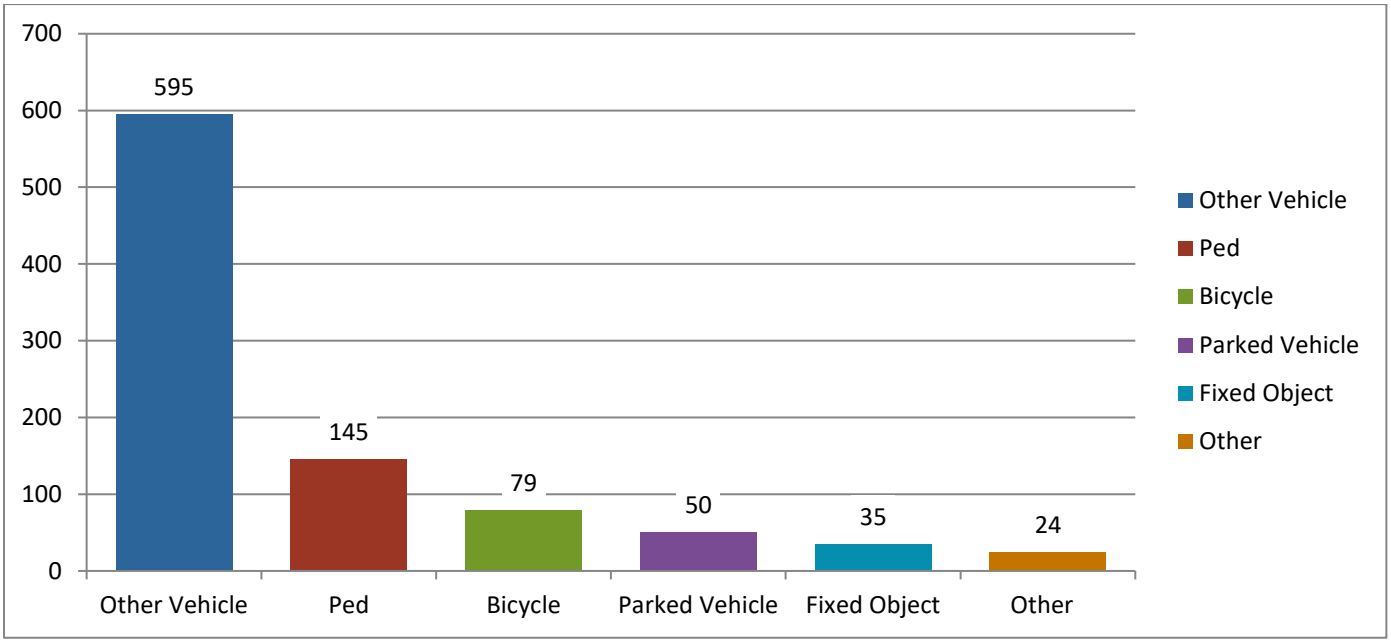
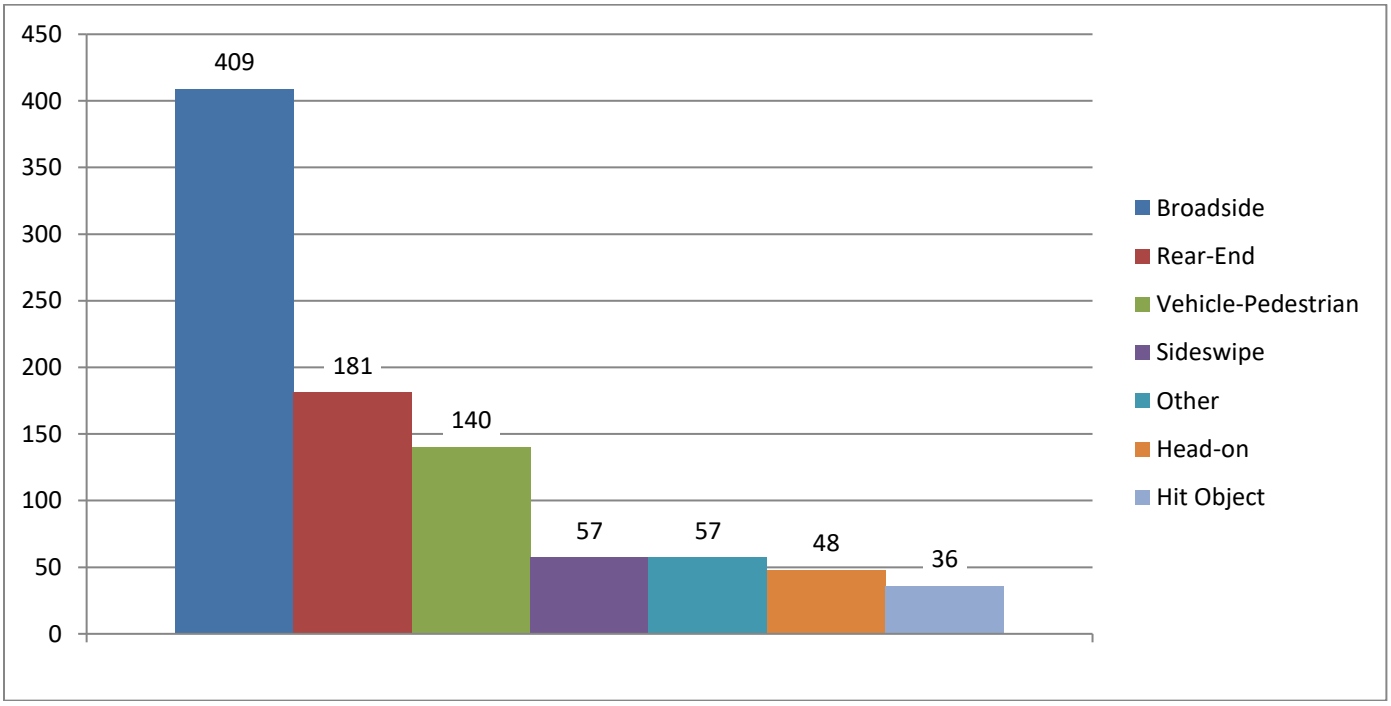


Figure 5 shows the parties involved in collisions with the at-fault vehicle resulting in injuries and fatalities between 2020 and 2023.

Figure 6: Injuries and Fatalities by Collision Type



The types of collisions involving injury and fatalities are primarily broadside, rear-ends and vehicle-pedestrian type collisions.

Figure 7: High Incidence Locations for Fatal Collisions: 2020-2023

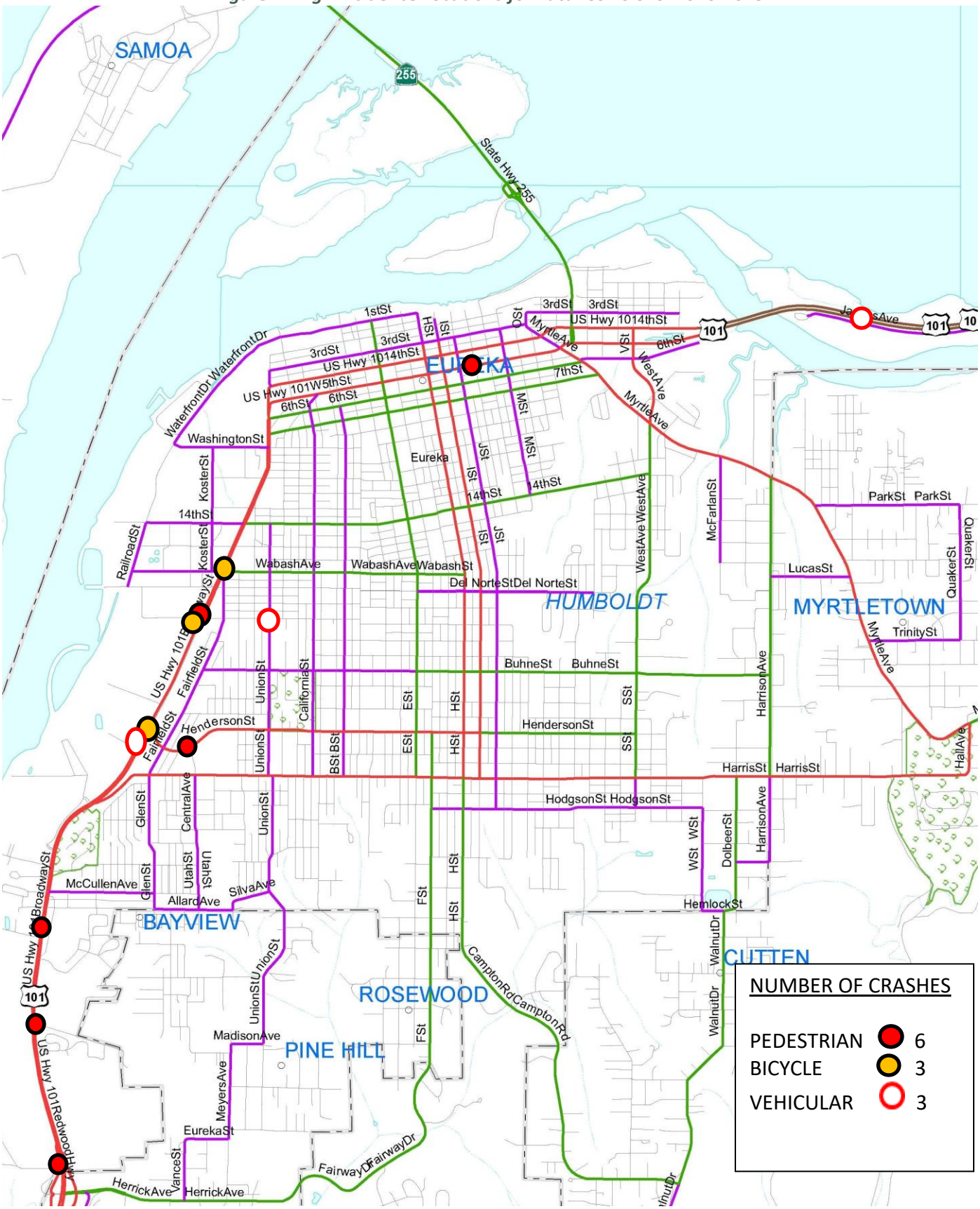


Figure 8: High Incidence Locations for Bicycle Collisions: 2020-2023

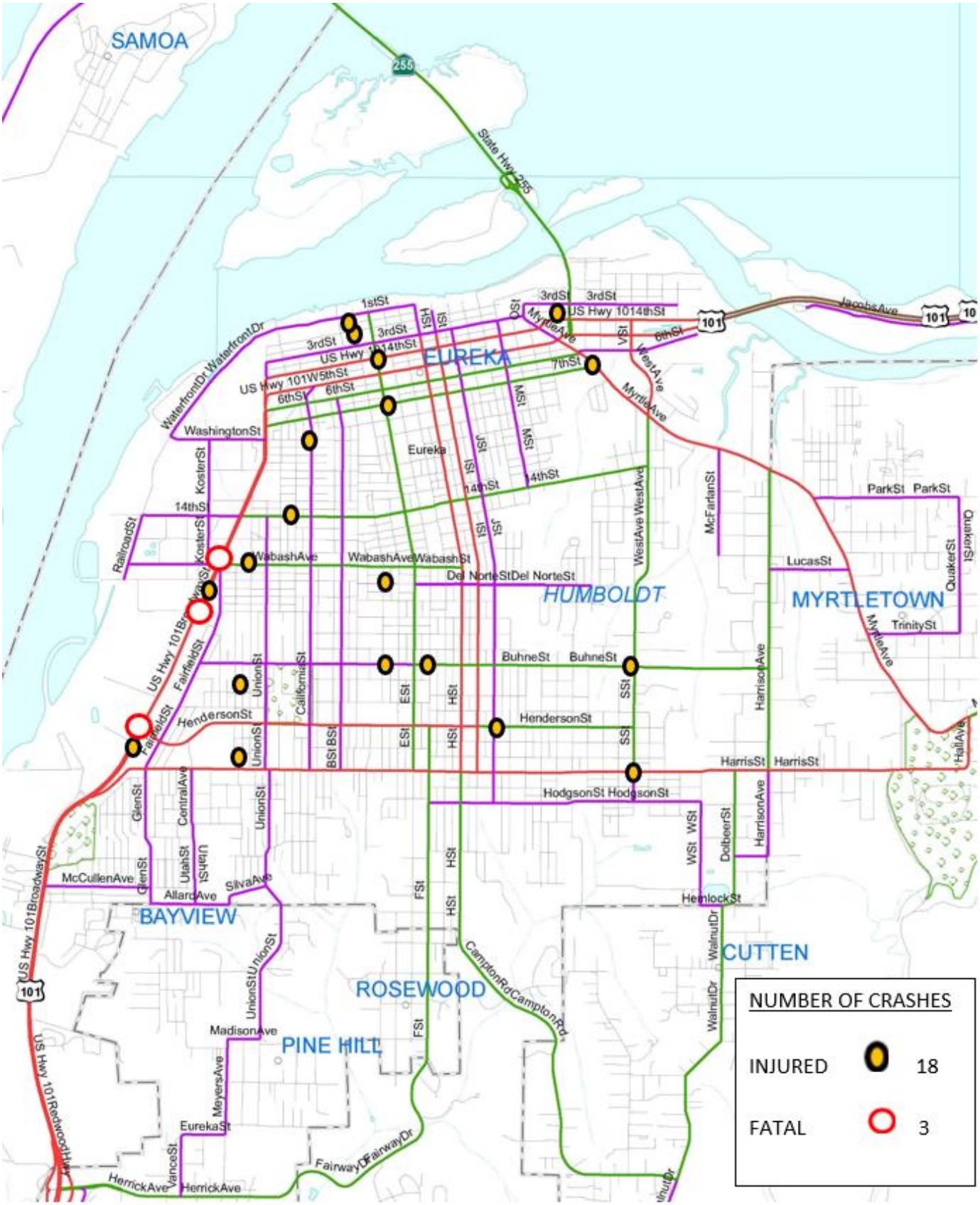
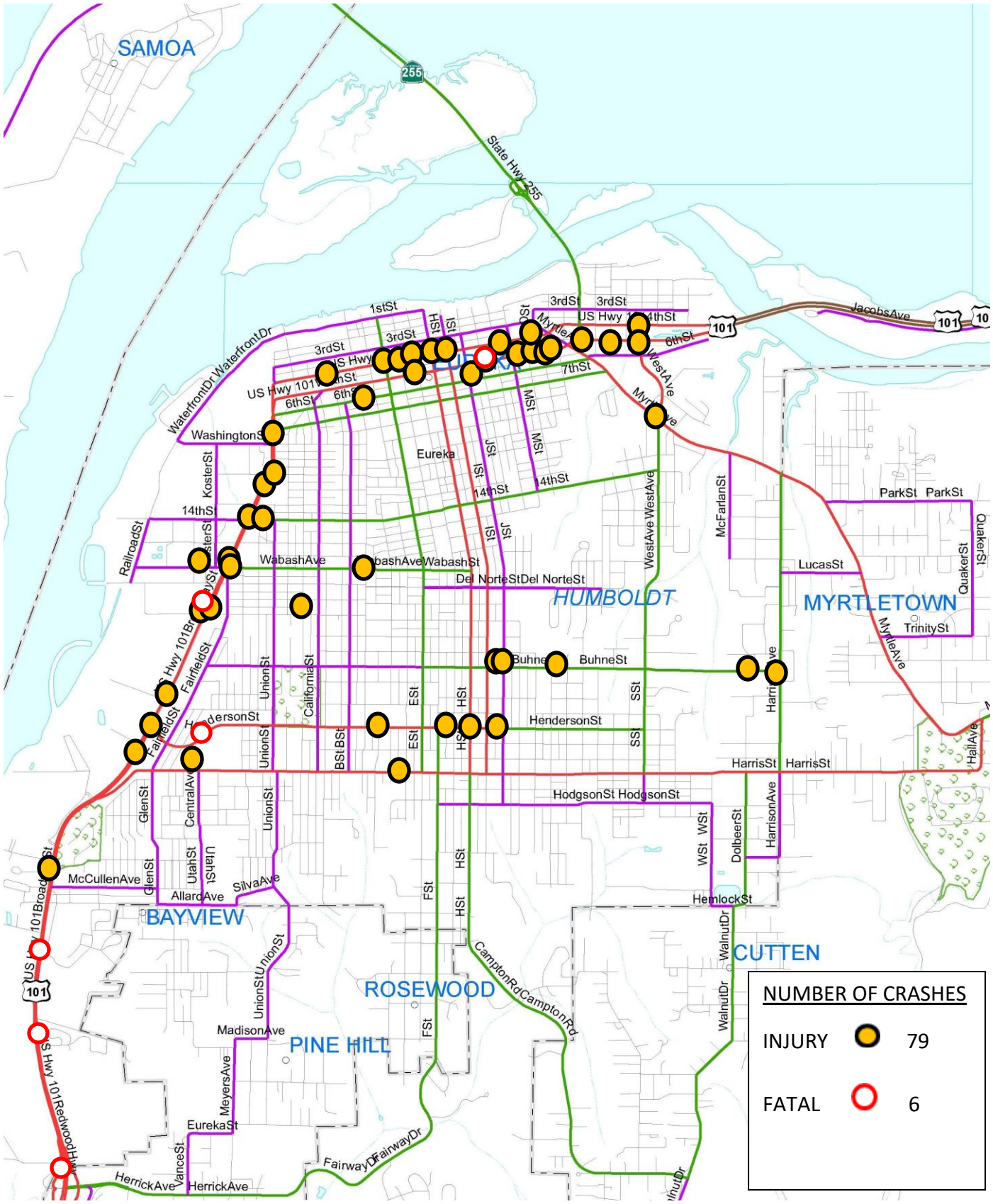


Figure 9: High Incidence Locations for Pedestrian Collisions: 2020-2023



By reviewing Primary Collision Factors, Injury and Fatal Collision Numbers, and Collision Type, the emphasis areas for the City of Eureka have been determined to be:

1. Aggressive Driving resulting in broadside and rear-end type collisions. These collisions are generally caused by speeding, following too close, or taking unnecessary risks.
2. Distracted Driving leading to running stop signs and signals and resulting in broadside collisions.
3. Impaired Driving has caused 12.5% of fatalities over the past five years and may also be involved in many of our hit-and-run type of collisions.
4. Non-motorized road users include pedestrians and bicyclists. As can be seen from the data, pedestrians and bicyclists can be the victim or the cause of these collisions.
5. Quality of Life issues are associated with feeling safe when using our street system whether you are a motorist, bicyclist, pedestrian or other road user.

IDENTIFY STRATEGIES FOR AREAS OF CONCERN

Strategies for addressing the chosen areas of concern are traffic management measures that adhere to local, state, and federal standards, rules and regulations. Operating in compliance with standards established on the local, state or national level makes the City's actions defensible in court, offers a proven standard by which to make the effort of traffic calming more seamless, and offers a systematic approach to traffic solutions. The following is a list of some of the applicable local, regional, state, and federal standards, rules and regulations:

- City of Eureka General Plan
- City Council Strategic Visioning Plan
- City of Eureka Streetlight Policy
- City of Eureka Sidewalk Resolution No. 6219
- City of Eureka Municipal Code, Title VII: Traffic Code
- Eureka's Neighborhood Traffic Calming Plan
- Regional Bicycle Plan (HCAOG)
- Regional Pedestrian Plan (HCAOG)
- Regional Trails Plan (HCAOG)
- Regional Transportation Plan (HCAOG)
- Manual on Uniform Traffic Control Devices (MUTCD), CA supplement
- California Streets and Highways Code
- Caltrans Traffic Manual
- Caltrans Highway Design Manual
- Caltrans Standard Plans and Specifications
- California Vehicle Code (CVC)
- Americans with Disabilities Act (ADA)
- American Association of State Highway and Transportation Officials (AASHTO)
- Institute of Transportation Engineers (ITE) Manual
- Federal Highway Administration (FHWA) policies and guidelines

*For transportation safety plans to be effective, care must be taken to include elements of **EDUCATION, ENFORCEMENT**, and **ENGINEERING**; the building blocks of traffic safety.*

SECURE FUNDING

The City of Eureka has been very successful in obtaining federal highway safety grant funding for a number of traffic safety improvements. The City will continue to apply for this type of outside funding when possible. Additional funding may be available from the general fund, gas tax, and traffic enforcement fines and fees.

IMPLEMENT STRATEGIES

As funding becomes available, traffic safety strategies will be implemented. The City Council must approve staff and TSC recommended expenditures prior to construction bidding for all capital improvement projects. City staff constructed projects are approved through work order to the Public Works Department. Focused traffic enforcement is approved as funding and staff is available. The Traffic Safety Projects List, Appendix A2, provides a listing of completed, on-going, and future projects both within and outside of the City's jurisdiction. Those projects outside the City's jurisdiction have been completed (or are being completed) in partnership with the State, County, and the bicycling community. Each project is cross-referenced to its emphasis area.

SUPPORT AND ENCOURAGE PARTNERSHIPS

The City of Eureka works closely with other agencies to improve traffic safety for all forms of transportation in and around the City. Examples of these partnerships include: Safe Routes to Schools Eureka Task Force, Humboldt Bay Bicycle Commuters Group, Caltrans, Humboldt County, HCAOG, Greater Eureka Area Travel Demand Model TAG, and the newly created Senior Action Coalition.

As seen in the Projects List, partnerships with the State and County have resulted in the completion of several projects and continued collaboration is essential.

OBJECTIVE 2 – Sustain a Successful Program

SET A COLLISION REDUCTION GOAL

A reasonable, attainable, and effective goal has been set at 2% per year for 10 years.

ASSESS RESULTS

Annual collision data similar to the data presented here will be brought to the TSC, along with any completed traffic safety projects for review and assessment.

REVISE PLAN

Based on the review and comparison of annual collision data and results of completed projects, emphasis areas and collision reduction strategies may be revised.

GOAL 2: PRESERVE QUALITY OF LIFE

This section discusses the Transportation Safety Commission roll in the Neighborhood Traffic Calming Program and the Traffic Calming Toolbox Matrix used in selecting suitable safety measures.

OBJECTIVE 1 – Calm Neighborhood Traffic

TRANSPORTATION SAFETY COMMISSION

The Transportation Safety Commission was created to champion the implementation of the adopted transportation objectives of the Eureka City Council. These objectives include enhancement of the City's neighborhoods through traffic calming measures, promoting safe and efficient flow of traffic, and encouraging alternative modes of transportation. The TSC will oversee the Neighborhood Traffic Calming Program (NTCP). Neighborhood

representatives will bring their traffic issues to the TSC, who will work with the neighborhood groups to identify the appropriate solution from the Traffic Calming Toolbox Matrix, located in Appendix A4.

TRAFFIC CALMING TOOLBOX MATRIX

The Traffic Calming Toolbox Matrix contains a collection of traffic calming devices and measures, with specific purposes for addressing traffic concerns on residential streets. The various tools within the toolbox are chosen for appropriateness, acceptability, and suitability and include components of education, enforcement, and engineering. The Traffic Calming Toolbox Matrix is included in the City of Eureka's Neighborhood Traffic Calming Program document, which is supplemental to the Transportation Safety Action Plan.

FUNDING

Funding for traffic calming measures may be available from federal highway safety grants, the general fund, gas tax or private sources.

IMPLEMENTATION

Solutions will be implemented as funding and staff are available.

REFERENCES

More information can be found at the following websites:

City of Eureka: http://www.ci.eureka.ca.gov/

Humboldt County Association of Governments (HCAOG): http://www.hcaog.net/

Caltrans: http://www.dot.ca.gov/hq/LocalPrograms/

FHWA: https://www.fhwa.dot.gov/

APPENDIX

A1: TSAP FLOWCHART
A2: TRAFFIC SAFETY PROJECTS LIST
A3: EMPHASIS AREAS/STRATEGIES/GOALS
A4: TRAFFIC CALMING TOOLBOX MATRIX
A5: ENFORCEMENT STATISTICS/ACTIVITIES
A6: ECONOMIC COSTS OF COLLISIONS

Figure 10: Transportation Safety Action Plan Flowchart

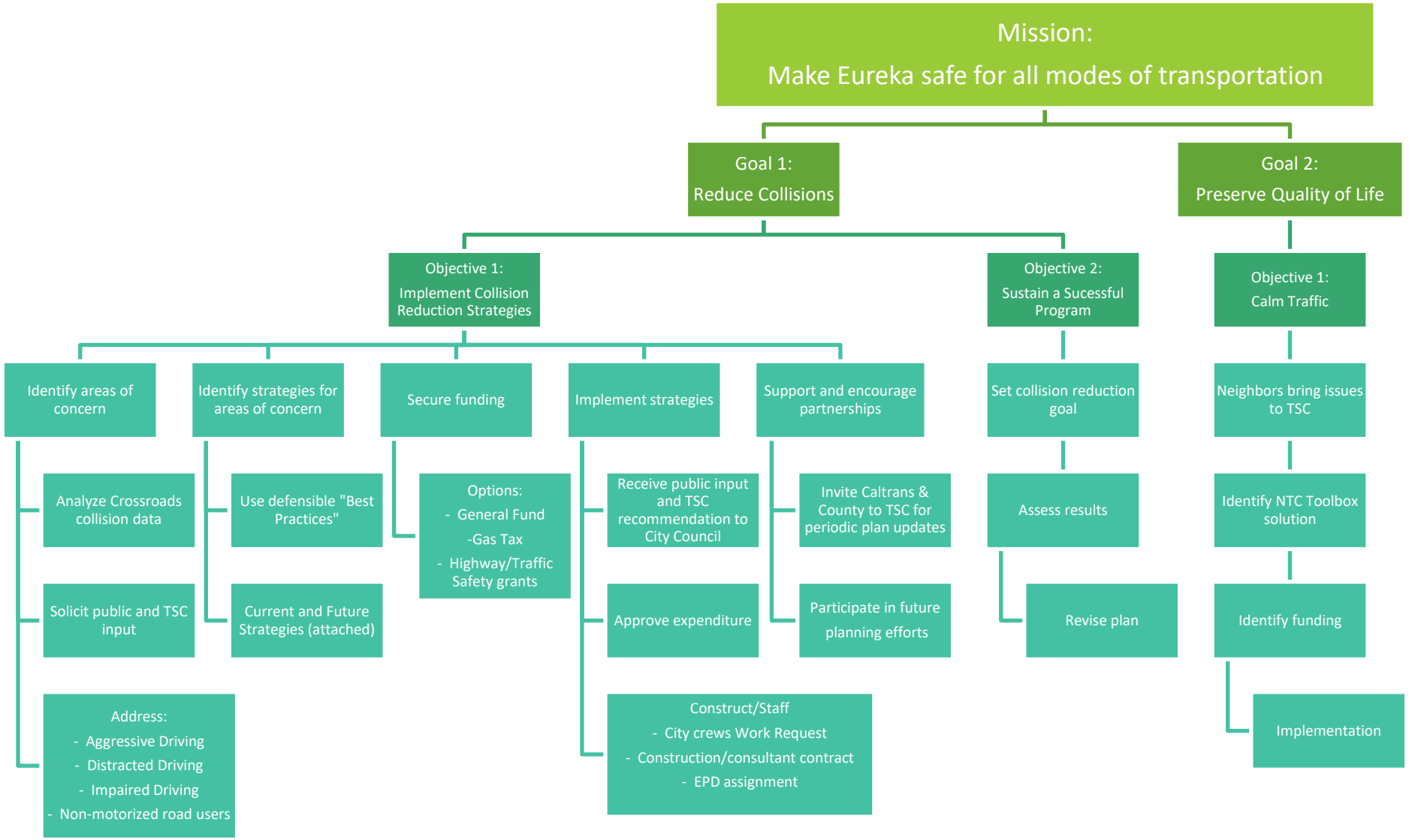


Table 1: List of Traffic Safety Projects

	Location	Description	Date	Intended Benefit	Funding Source	Result	Aggressive Driving	Distracted Driving	Impaired Driving	Non-motorized Users	Quality of Life
COMPLETED PROJECTS											
CITY/COUNTY	Harrison Avenue	In-roadway pedestrian sign	2012	Pedestrian safety	Shared cost	Alternative sought due to need for too frequent replacement					
CITY/COUNTY	Allard Avenue	SR2S sidewalk infill	2013	Pedestrian safety	Local gas tax	Joint effort allowed for overall cost reduction					
CITY/HBBCA	Downtown/Old Town	Bike rack installations	On-going	Increase cycling	City crews	Increased bike parking					
CITY/CALTRANS	Broadway at Wabash	Temporary road closure	2013	Data collection & analysis	Caltrans	TBD Possible permanent road closure & signal installation at Broadway & Hawthorne					
CITY/CALTRANS	Broadway at 5th St	Rumble-type bumps	2013	Lane delineation, (parked car) collision reduction	Caltrans	Sound not excessive, crash reduction					
CITY	Fairway Drive	Guardrail installation	2013	Reduce run-off-the-road collisions	Gas tax	Collision reduction					
CITY	Campton Road	Guardrail installation	2010	Reduce run-off-the-road collisions	HSIP federal grant	Injury collision reduction					
CITY	Harris at Dolbeer	Pedestrian activated signs, beacons	2010	Pedestrian safety	Prop 1B	Positive feedback					
CITY	Harris at Dolbeer	Median striping & channelizers	2009	Reduce right angle collisions	ARRA funding	Injury collision reduction					
CITY	All signalized intersections	Increase signals to 12"	2013	Reduce red light running	Prop 1B	Collision reduction					
CITY	H & I Street Corridor	New school zone crosswalks & FYG signage & markings	2013	Pedestrian safety	Staff budget	Positive feedback					
CITY	H & I Street Corridor	Fog line striping	2013	Reduce parked car collisions	Gas tax (surfacing project)	Positive feedback, increased on-street parking use, collision reduction TBD					
CITY	H & I Street Corridor	Install 35 mph signs	2013	Increase number of radar speed sign locations	City crews	Positive feedback					
CITY	Harris at E, F, & S Sts	Protected left turn signals	2013	Reduce right angle collisions	HSIP federal grant	Injury collision reduction					
CITY	Myrtle & 6th	Pedestrian refuges & lighted signs and beacons	2009	Pedestrian & motorist safety	Caltrans	Injury collision reduction & positive pedestrian feedback					
CITY	Myrtle & 7th	Pedestrian refuges	2008	Pedestrian & motorist safety	STIP	Positive pedestrian feedback					
CITY	7th Street	Striped bike lanes, lane width reduction	2007	Traffic calming & BL	STIP	No speed reduction, positive cyclist feedback					
CITY	Harris Street	Striped bike lanes, lane width reduction	2011	Traffic calming & BL	ARRA & Gas tax	No speed reduction, positive cyclist feedback					
CITY	Harris at E and F	Audible pedestrian signals	2013	Pedestrian safety	Prop 1B	Positive vision impaired pedestrian feedback					
CITY	14th & F Sts	Larger STOP signs	2012	Reduce right angle collisions	City crews	Collision reduction					
CITY	Dolbeer & W Sts	Raised crosswalks	2010	Pedestrian safety & traffic calming	SR2S State funds	Reduced speeds, positive pedestrian feedback					
CITY	W Street at zoo	In-pavement lights	2008	Pedestrian safety	Gas tax	Improved motorist yielding to pedestrians					
CITY	West Ave at Tydd	In-pavement lights	2008	Pedestrian safety	Gas tax	No motorist yielding improvement, system being replaced & median installed					
CITY	Harris at K St	In-pavement lights	2010	Pedestrian safety	Prop 1B	Positive pedestrian feedback					
CITY	Henderson & Spring	Pedestrian activated signs, beacons	2011	Pedestrian safety	Prop 1B	Positive pedestrian feedback					
CITY	S Street at Zane	Pedestrian activated signs, beacons	2008	Pedestrian safety	Gas tax	Improved motorist yielding to pedestrians					
CITY	S Street at Zane	Painted 'No Parking' areas near crosswalk	2017	Pedestrian safety	Staff time	Improved sight visibility, pedestrian safety					
CITY	Various	Increased red zone at intersections & driveways	On going	Pedestrian & motorist safety	City crews	Improved sight visibility					
CITY	EHS J Street	Increased passenger loading zone	2013	Reduce double parking	City crews	Improve congestion					
CITY	Harris & Central	New signal	2011	Reduce collisions, pedestrian safety	Prop 1B	No overall improvement, positive feedback					

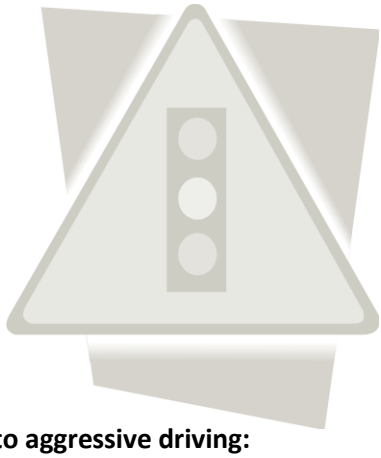
Table 1: List of Traffic Safety Projects - Continued

	Location	Description	Date	Intended Benefit	Funding Source	Result	Aggressive Driving	Distracted Driving	Impaired Driving	Non-motorized Users	Quality of Life
CITY	Broadway & Vigo	New signal	2020	Pedestrian safety	General Fund	No overall improvement, positive feedback	■	■		■	
CITY	Harris & Harrison	New LT pockets	2012	Reduce collisions, signal coordination	Prop 1B	Collision reduction	■				
CITY	Wabash & E Sts	Install crosswalk markings	2013	Pedestrian safety	City crews	Positive feedback				■	
CITY	Fairway Drive	Install curve warning sign	2012	Reduce collisions	City crews	Radar speed sign installed, collision reduction	■	■			
CITY	East Avenue	Install 15 mph signs	2012	Traffic calming	City crews	Positive feedback	■				■
CITY	Truesdale at Broadway	Relocated "LT Only" sign & arrow	2012	Motorist safety	City crews	Collision reduction, improved enforcement					
CITY	2nd & C Streets	Install 4-way stop	2011	Motorist safety	City crews	Collision reduction, less driver confusion	■			■	
CITY	6th Street at C St	Install 25 mph signs	2011	Traffic calming	City crews	Positive feedback	■				■
CITY	CA between Del Norte & Sonoma	Install "Senior Citizen Facility" & pedestrian signs	2010	Pedestrian safety	City crews	Positive feedback				■	■
CITY	2nd Street at I St	Install 25 legend	2010	Traffic calming	City crews	Positive feedback	■				■
CITY	Dolbeer n/o Harris	Install 25 legends	2009	Traffic calming	City crews	Positive feedback	■				■
CITY	14th w/o H St	Reduced speed limit to 25 mph	2009	Aid speeding enforcement	Staff budget		■				■
CITY	School zones	Replace crosswalk signs with FYG signs	2011	Pedestrian safety	Prop 1B	Positive feedback				■	■
CITY	City-wide	DUI checkpoints	On-going	Reduce impaired driving	OTS grant	DUI arrests			■		
CITY	City-wide	Overtime traffic enforcement	On-going	Reduce distracted driving, red light running, high incident location collisions	OTS grant	Increased police presence, tickets	■	■	■		
CITY	West Avenue	Median and bulb-outs	2014	Pedestrian safety	HSIP federal grant	TBD	■	■	■	■	■
CITY	All signalized intersections	Emergency Vehicle Prevention Equip	2014	Emergency response, motorist safety	HSIP federal grant	TBD, positive feedback	■	■			
CITY	All signalized intersections	Countdown pedestrian signals & ADA push buttons	2015	Pedestrian safety	HSIP federal grant	TBD				■	
CITY	All signalized intersections	Red light running fine signs	2014	Reduce red light running	EPD	TBD	■				
CITY	Signal retiming	Optimize signal software & hardware	2015	Imp traffic flows, pedestrian safety	Staff time	TBD	■			■	
CITY	Dolbeer at WA Elementary School	Replace & relocate sidewalk	2014	Pedestrian safety	TE funds	Positive feedback				■	■
CITY	B, Buhne, California, Campton, Dolbeer, E, Glen, H, Harrison, I, M, Myrtle, 7th and Union Streets	Posted speed limits reduced by 5 mph	2015	Updated Engineering and Traffic Survey allows for continued use of radar for speed enforcement	Staff time	Slower traffic resulting from traffic improvements and enforcement to date	■			■	■
CITY	City-wide	Pedestrian Safety Campaign	2015	Pedestrian safety	OTS grant application	TBD	■	■		■	■
CITY	Buhne & Harrison	Flashing yellow left turn signal upgrade	2015	Improved traffic flow, pedestrian safety	Gas tax	Positive feedback Improved operations		■		■	■
CITY	Del Norte & J Streets	Installed flashing stop signs on J Street at Del Norte Street	2017	Motorist awareness, collision reduction, pedestrian safety	EHS, staff time	Positive feedback Improved stop compliance- TBD		■		■	■
CITY	City-wide	Reduced speed limit in school zones	2017	Improved pedestrian safety	Gas tax	Positive feedback Speed reduction-TBD		■		■	■
CITY	Buhne & H, Buhne & I, Harris & E, Harris & F	Flashing yellow left turn signal upgrade	2018	Improved traffic flow, pedestrian safety	Gas tax	Positive feedback Improved operations		■		■	■
CITY	Signalized intersections on H & I Streets	Upsized signal poles to include additional overhead signals, installed detectable warning surfaces	2018	Motorist and pedestrian safety	HSIP	Positive feedback Reduced collisions- TBD		■		■	
CITY	Eureka's waterfront	Constructed trail along Eureka's waterfront	2018	Increase biking & walking, bicyclist & pedestrian safety		Increased bicycling & pedestrian use Positive feedback				■	■
CITY	City-wide	Bus stop improvements (sidewalk replacement, detectable warning surfaces, bus shelters)	On-going	Pedestrian safety	Gas tax	Positive feedback				■	■
CITY	City-wide	Sidewalk improvements (new sidewalk, sidewalk replacement)	On-going	Pedestrian safety	Gas tax	Positive feedback				■	■
CITY	1st & F, 2nd & F, 3rd & G	Converted intersections to all-way stops	2019	Motorist and pedestrian safety	Staff time	Positive feedback				■	

Table 1: List of Traffic Safety Projects - Continued

	Location	Description	Date	Intended Benefit	Funding Source	Result	Aggressive Driving	Distracted Driving	Impaired Driving	Non-motorized Users	Quality of Life
CITY	25 locations throughout the City	A combination of bulb-outs, curb ramps, crosswalk markings, rapid flashing beacons, and detectable warning surfaces	2019	Pedestrian safety	HSIP	Positive feedback					
CITY	City-wide	Replaced worn and damaged regulatory and warning signs	2020	Motorist/pedestrian awareness and safety	HSIP	Positive feedback Collision reduction-TBD					
CITY	Waterfront Drive	Connected Waterfront Drive between H and I Streets, added pedestrian and bike access	2020	Improved traffic flow, pedestrian and bike safety	STIP/ENFF	Positive feedback Increased use					
CITY	City-wide	Replace worn/existing and install new centerline striping	On-going	Motorist safety	Gas tax	Positive feedback					
CITY/CALTRANS	Hawthorn, Fairfield, Wabash	Reconfigured Fairfield to one-way between Wabash & Del Norte, installed new signal at Broadway & Hawthorn, converted Hawthorn & Fairfield to all-way stop	2020	Improved traffic flow, pedestrian safety		Improved crossings and operations					
FUTURE PROJECTS											
CITY	25 locations throughout the City	A combination of new sidewalk, bulb-outs, curb ramps, crosswalk markings, flashing stop signs, radar speed feedback signs, audible pedestrian buttons, rapid flashing beacons, and detectable warning surfaces	2019	Pedestrian safety	HSIP	To be constructed in 2021					
CITY	C Street	Bulb-outs, sharrows, rapid flashing beacons	TBD	Traffic calming & bike boulevard	TBD						
CITY	M Street	Bulb-outs, sharrows, rapid flashing beacons	TBD	Traffic calming & bike boulevard	TBD						
CITY	14th & E, Henderson & E, Henderson & F, Harris & E, Harris & F, 6th and E, 7th & E,	Replace existing pedestal-mounted signals with new mast arm and pole-mounted signals, new protected turn lane and signal phasing at Buhne & S	TBD	Improved traffic flow and motorist safety	TBD						
CITY	6th and 7th Streets	New crosswalk markings, bulb-outs, and pedestrian crossing signage	TBD	Pedestrian Safety	TBD						
CITY	H & I Streets	Bulb-outs, striped bike lanes, lane reduction	TBD	Traffic calming & BL	TBD						
CITY	Between Tydd Street and southern City Limits near zoo	"Bay to Zoo Trail" Construct new pedestrian & bike trail	TBD	Increase biking & walking, bicyclist & pedestrian safety	TBD						
CITY/CALTRANS	South End Broadway	South Gateway	TBD	Traffic calming & pedestrian safety	TBD						
CITY/CALTRANS	Broadway	"Broadway Multimodal" Pedestrian, bike, and vehicle improvements	TBD	Traffic calming, pedestrian and bike safety	TBD						
CALTRANS	4th & 5th Sts	Pedestrian Safety Study	TBD	Pedestrian safety	TBD						

EMPHASIS AREA 1: AGGRESSIVE DRIVING



TARGET GOAL BY 2031
20% Reduction in Injury and Fatal Collisions

Aggressive driving refers to the operation of a motor vehicle in a selfish, bold, and pushy manner without regard for the rights and safety of other road users. Aggressive behaviors like traveling at unsafe speeds, following too close, disobeying signs and signals, making improper lane changes, failure to yield, disregard for traffic controls, or taking other unnecessary risks can result in broadside and rear-end type collisions.

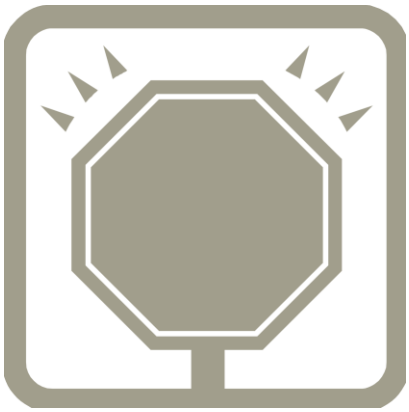
Current strategies to reduce fatal and injury collisions related to aggressive driving:

- Police enforcement
- Guardrail
- Radar speed signs
- Protected left turn signalization
- Curve warning signs
- Speed limit reduction
- Optimized signal timing
- Red light running fine signs
- "No Parking" zone at intersections
- Warranted four-way stop

Future additional strategies to reduce fatal and injury collisions related to aggressive driving:

- Red light running cameras
- Increased fine rate
- Flashing yellow signal arrows
- Education/safety campaign
- Increased police enforcement
- Increase length of "No Parking" zone at intersections

EMPHASIS AREA 2: DISTRACTED DRIVING



TARGET GOAL BY 2031
20% Reduction in Injury and Fatal Collisions

Distracted driving is the act of driving while engaged in other activities that take the driver's attention away from the road. Distractions while driving can be separated into three distinct groups: visual, manual, and cognitive. Visual distraction involves taking one's eyes off the road, while manual distraction involves taking one's hands off the wheel. Cognitive distraction occurs when an individual's focus is not directly on the act of driving and his/her mind "wanders".

Distractions influenced by technology, especially text messaging or talking on the phone, can require a combination of visual, manual, and cognitive attention from the driver, thus making these types of distractions particularly dangerous. All distractions compromise the safety of the driver, passengers, bystanders, and those in other vehicles. Broadside collisions due to red light running and failure to stop at stop signs are often the result of driving distracted.

Current strategies to reduce fatal and injury collisions related to distracted driving:

- Improved lane delineation
- Channelizers
- Larger traffic signals
- Larger STOP signs
- Police enforcement of cell phone use
- Red light running fine signs

Future additional strategies to reduce fatal and injury collisions related to distracted driving:

- Red light running cameras
- Increased fine rate
- Education/safety campaign
- Increased police enforcement

EMPHASIS AREA 3: IMPAIRED DRIVING

TARGET GOAL BY 2031
20% Reduction in Injury and Fatal Collisions

Per the US Department of Transportation, 30 people in the US die in motor vehicle crashes that involve an alcohol-impaired driver, every day. This amounts to one death every 48 minutes. People who drink and drive put everyone on the road in danger. In the City of Eureka, impaired driving has resulted in the second highest number of fatalities over the past five years and may also be involved in many of our hit-and-run type of collisions.

Current strategies to reduce fatal and injury collisions related to driving while impaired:

- Police enforcement
- STEP grant enforcement
- DUI checkpoints

Future additional strategies to reduce fatal and injury collisions related to driving while impaired:

- Education
- Increased police enforcement
- Increase number of DUI checkpoints

EMPHASIS AREA 4: NON-MOTORIZED ROAD USERS

TARGET GOAL BY 2031
20% Reduction in Injury and Fatal Collisions

Non-motorized road users include pedestrians and bicyclists. Multi-lane, one way streets pose a particular challenge to pedestrians and cyclists in Eureka. Many bicycle collisions occur due to wrong way riding on one way streets. Enforcement of cyclists, pedestrian, and motorist's behaviors will help to improve road safety. As can be seen from the data, pedestrians and cyclists can be the victim or the cause of these types of collisions.

Current strategies to reduce fatal and injury collisions related to pedestrians and bicyclists:

- In-roadway pedestrian signs
- Sidewalk infill
- Pedestrian activated signs and lights
- Crosswalk warning signs and markings
- High visibility crosswalk markings
- Pedestrian refuges/medians
- Raised crosswalks
- Striped bike lanes
- "Share the Road" signs and sharrows
- Sidewalk bulb outs
- Countdown pedestrian signals
- Police enforcement

Future additional strategies to reduce fatal and injury collisions related to pedestrians and bicyclists:

- Bike boulevards
- Pedestrian only roads (pedestrian mall?)
- HAWK crosswalk signals
- Increased police enforcement
- Pedestrian enforcement "stings"
- Bike "Ride with Traffic" signs

EMPHASIS AREA 5: QUALITY OF LIFE

TARGET GOAL BY 2031
Preserve and Enhance the Quality of Life
through Neighborhood Traffic Calming Measures

Neighborhood traffic calming conveys the desires of residents who wish to maintain peaceful and people-friendly streets within their neighborhoods by minimizing or eliminating undesirable impacts caused by motorists. The City of Eureka's Neighborhood Traffic Calming Program aims to facilitate the maintenance and enhancement of elements characteristic of livable communities, which include elements that support security and safety, the sense of home and privacy, and the feeling of community identification.

Current strategies for neighborhood quality of life preservation:

- Reduced speed limits, install signs and legends
- Prima facie speed limit signs (25 mph)
- Street trees
- Street lighting
- Marked crosswalks
- On-street parking management
- Police drive-bys
- Sight distance improvements

Future strategies for neighborhood quality of life preservation:

- Neighborhood Traffic Calming Plan (NTCP)
- NTCP Traffic Calming Countermeasures

TRAFFIC CALMING TOOLBOX MATRIX

Neighborhood Concern	Performance Objective	LEVEL I: Education	LEVEL I: Police Presence	LEVEL I: Radar Speed Feedback Signs	LEVEL I: Police Enforcement	LEVEL II: Speed Limit Signs	LEVEL II: Speed Limit Pavement Legends	LEVEL II: Parking Prohibition	LEVEL II: Warning Signs	LEVEL II: Neighborhood Signs	LEVEL II: High Visibility Crosswalk Markings	LEVEL II: Street Lighting	LEVEL II: Street Trees	LEVEL II: Flashing Beacons	LEVEL II: Pedestrian Activated Signs/Lights	LEVEL II: Gateway/Entry Treatments	LEVEL III: Turn Restrictions	LEVEL III: Speed Humps	LEVEL III: Raised Crosswalk	LEVEL III: Bulb-out	LEVEL III: Median	LEVEL III: Chicanes	LEVEL III: Half Street Closure (one way)	LEVEL III: Full Street Closure	LEVEL III: Striping / Markings	LEVEL III: Traffic Circles	LEVEL III: Roundabouts
Speeding																											
	Reduce speeding	P	•	•	•	•	•		•	•			•					•	•	•	•	•	•	•	•	•	•
Collisions																											
	Reduce motorist collisions	•	•	P	•			•	•			•		•									•	•	•	•	•
	Reduce pedestrian collisions	•	•		•			•	•		•	•	•	•	•	P	•		•	•	•					•	•
	Reduce bicyclist collisions	•	•		•				•	•		•				P							•	•	•	•	•
Pedestrian Safety																											
	Shorten street crossing distance															P			•	•	•				P		P
	Improve motorist yielding behavior	•	•		•				•	•	•	•		•	•	P			•	•	•				P	P	P
	Improve visibility								•		•	•			•	P			•	•	•				P		P
Bicycle Safety																											
	Improve bike facility															P					P		•	•	•		P
	Improve motorist yielding behavior	•	•		•				•	•						P									•		P
Traffic Volumes																											
	Reduce cut-through traffic					•	•			•							•	•	•	P	P	•	•	•	P	•	
Quality of Life/Esthetics																											
	Beautification									P		P	•			•				P	P	P	P	P		•	P
	Increase property values											P	•			•							P	P		P	
On-street Parking																											
	Reduce parked car collisions		P		P			•												P		P			•		
	Cost Range	$	N/A	N/A	N/A	$	$	$	$	$	$	$	N/A	$$	$$	$$-$$$	$	$$	$$	$$	$$-$$$	$$	$$	$$	$-$$	$$$	$$$
	Local Street	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	Collector Street	•	•	•	•	•	•	•	•		•	•	•	•	•											•		•
	Arterial Street	•	•	•	•	•	•	•	•		•	•	•	•												•		•
	NTCP Page No.	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

$ = Less than $5,000
$$ = $5,000-$10,000
$$$ = $10,000-$50,000

P = Possible

ENFORCEMENT STATISTICS/ACTIVITIES

CITATION STATISTICS

Table A2-1: Citations for Violations 2015 - 2019

	Auto R/W	Unsafe Speed	Signs & Signals	Improper Turning	Impaired Driving/ DUI	Pedestrian R/W	Pedestrian Violation	Cell phone / Text
2015	17	293	244	16	233	1	180	348
2016	14	225	217	18	146	5	145	234
2017	26	254	218	23	180	1	86	230
2018	14	498	104	16	158	9	152	88
2019	11	786	102	12	213	3	60	192

Citation numbers (from the California Vehicle Code, CVC) used for comparisons:

Auto R/W (right-of-way): 21801A, 21801B, 21802A, 21802B, 21804A
Unsafe speed: 22350
Signs & signals: 21453A, 21453B, 21453C, 21461A, 22450A
Improper turning: 21658A, 22107
Impaired driving/DUI: 23152A, 23152B, 23152C, 23152D, 23152E, 23153A, 23153B
Pedestrian R/W (right-of-way): 21950A, 21951
Pedestrian Violation: 21950B, 21954A, 21955, 21956A
Cell phone/text: 231235A, 23123A

The number of assigned traffic officers per year:

- 2015 – 2 officers, 1 sergeant
- 2016 – 2 officers through March, 1 officer through August (unit was dissolved at this time)
- 2017 – 0
- 2018 – 0
- 2019 – 0

TRAFFIC ENFORCEMENT ACTIVITIES

Selective Traffic Enforcement (STEP) grant activities include:

- DUI equipment, enforcement, checkpoints, and warrant sweeps
- High collision intersection patrol (red light, speed, and right-of-way yielding enforcement)
- Other primary collision factor violation enforcement (unsafe lane change, following too close, etc.)
- Special daytime motorcycle patrols
- Speed enforcement and motorcycle equipment purchased
- Court stings
- Specialized training (field sobriety testing, roadside impaired driving, drug recognition)
- Every 15 Minutes events
- Impaired driver offender classes

COST OF MOTOR VEHICLE COLLISIONS

ACCIDENT COSTS

This information is provided by the Federal Highway Administration (FHWA), the National Safety Council and the Center for Disease Control.

Estimates of accident costs vary significantly, but two methods currently in use are an economic cost framework and a comprehensive cost framework. The economic cost is the tangible monetary cost that includes the costs to the motorists, insurance companies, and medical providers. Comprehensive cost analysis adds the costs society is willing to pay to prevent injury and loss of life. This includes values of lost quality of life associated with deaths and injuries in addition to economic costs. FHWA recommends that comprehensive costs be used by State and local highway and safety agencies to determine motor vehicle accident costs for benefit-cost analysis.

Table A5-1: Average Comprehensive Cost by Injury Severity, 2018

Collision Type	Dollar Loss
Death	$10,855,000
Disabling	$1,187,000
Evident	$327,000
Possible injury	$151,000
No injury observed	$50,000

Source: National Safety Council: Costs of Motor-Vehicle Injuries (https://injuryfacts.nsc.org/all-injuries/costs/guide-to-calculating-costs/data-details/)

The Eureka Police Department's collision reports indicate injury collisions only if reported at the scene of the collision and no further distinction is made regarding injury type like shown above. Cost estimates for this analysis assumes that all injury types fall under the category of "Evident" injury.

Table A5-2 shows the comprehensive costs in collisions using these cost estimates for the years 2015 through 2019.

Table A5-2: City of Eureka Comprehensive Costs, 2015-2019 Traffic Collisions

	Collision Type						
	Fatal		Non-incapacitating Injury		Property Damage Only		Total Dollar Loss
Year	Number	Cost	Number	Cost	Number	Cost	
2015	2	$21,710,000	174	$56,898,000	240	$12,000,000	$90,608,000
2016	3	$32,565,000	163	$53,301,000	213	$10,650,000	$96,516,000
2017	7	$75,985,000	194	$63,438,000	243	$12,150,000	$151,573,000
2018	4	$43,420,000	185	$60,495,000	229	$11,450,000	$115,365,000
2019	0	$0	197	$64,419,000	161	$8,050,000	$72,469,000

While it is difficult to assign a numerical value to a potential life changing event like a severe collision involving an incapacitating injury or death, the tables above show the economic and societal costs associated with these types of collisions in Eureka. Not shown in the data are the human costs; the loss of the ability to continue life as before the incident (for both the victim and the party at fault), the loss of a child, the loss of a brother or sister, the loss of a mate, or the loss of a dear friend. When these incidents occur, life is changed beyond numerical value.