

Vulnerable Road Users Safety Plan



STRATEGIES & ACTIONS

MetroPlan Flagstaff



METROPLAN
GREATER † FLAGSTAFF

Safety Strategies

There are five overarching strategies that MetroPlan will use to work toward the goal of zero deaths and life-changing injuries. These strategies address the fundamental situations in the region that cause VRU crashes, make them more severe, challenge further analysis, and have the ability to prevent the region from moving as quickly as possible on actions. Actions presented in this plan grow out of these strategies to address the causes of crash (street design and dangerous behaviors) and engagement and accountability, along with best practices (Appendix X) to reduce or eliminate serious injuries and fatalities for our most vulnerable road users. Strategies are identified in the actions section with an icon.



Reduce potential for conflict between users

Decreasing the possibility that street users can come into conflict is the first line of defense against crashes. This means providing separate space for people walking, biking, driving and taking transit along the street. At intersections, this may mean separating potentially conflicting movements by time so two parties are not using the same space at the same time.



Slow vehicle speeds

When crashes do occur, they are less serious at slower speeds. Because not all crashes can be avoided, slowing speeds will decrease the severity of injuries and lead to fewer fatalities. Increased speed enforcement and changes to street designs can both help to decrease speeds in the region's roads and streets. Lowered speed limits may also address speeds but must be paired with either enforcement or street design, ideally with both.



Encourage safer practices among people driving, walking, and bicycling

Many crashes result from choices made by street users. Disobeying traffic controls and laws, driving recklessly, and other behaviors may be best addressed through culture change in addition to changes to the streets themselves. Actions in this plan recognize, though, that some unsafe behaviors, such as walking in the street because there are no sidewalks, are the result of poor design that does not accommodate people walking.



Improve data collection and analysis

While this plan is the result of a data-driven process, additional analysis will help further refine and prioritize efforts in the future. Crash data analyzed in this plan only includes police-reported and citizen-reported crashes to the Arizona Department of Transportation (ADOT) and thus misses those crashes when no report was filed. Each report type results in different data collected, and though most fatal and life-changing injury crashes are reported by police, we cannot ensure full coverage. Other data limitations regarding the exact location of crashes (e.g., traveling on a sidewalk versus in the street) and street design features (e.g., number of lanes) prevent additional analyses that could tell a more complete story of the crash cause(s).



Support an institutional commitment to Vision Zero

Getting to zero deaths and life-changing injuries requires a major commitment by the MetroPlan Region and its partners. Actions in this category demonstrate institutional changes that will help the Flagstaff Region reach its goal. This institutional commitment can influence residents' support of the Vision Zero goal and actions to get to zero deaths and life-changing injuries. Public buy-in will be necessary to implement many of the actions listed in this plan.

DRAFT

Actions to prevent deaths and life-changing injuries

Taking Action

Vision Zero requires bold action to reach a bold goal. **Eliminating deaths and life-changing injuries on the transportation system is no small feat.** Reaching that goal will take actions not just from MetroPlan, but also our partners at agencies such as the City of Flagstaff staff in many different departments, Mountain Line Transit, Coconino County, Arizona Department of Transportation (ADOT), school districts, institutions of higher education institutions such as the University of Northern Arizona, civic groups, as well as Flagstaff regional residents and visitors.

The actions presented here were developed with the MetroPlan Technical Advisory Committee. The actions for this plan were drawn from local agencies, partner agencies, civic groups, and the community. The Plan's guiding tenets of being data driven, equitable and accountable will heavily influence the implementation of the actions laid out in this plan.

Many actions will be on-going. Changing the design of the Regions roads and streets is not a one-time step, it must happen consistently over years redesigning existing streets and with construction of new streets. Other actions, may take sustained effort, but they will have a concrete end. **Actions are organized into two time frames: two-year and five-year actions.** These categories mean that a given action can be completed (one-time actions) or started (ongoing actions) within that time frame. This plan will focus on MetroPlan's ability to support and implement actions that are within the organization's control. All other actions will be provided to our local agencies and partners to support the development of new standards and practices to reduce VRU crashes across the region.



Reduce potential for conflict between users



Slow vehicle speeds



Encourage safer practices among people driving, walking, and bicycling



Improve data collection and analysis



Support an institutional commitment to Vision Zero

Street Design












Actions in this area will influence the physical design of the Region’s roads and streets and the process by which street designs are developed and approved. The Region’s roadways are owned by ADOT, Coconino County, and the City of Flagstaff.

Key Implementers

- City of Flagstaff Engineering & Capital Improvements
- City of Flagstaff Community Development
- City of Flagstaff Public Works
- Coconino County Public Works
- Arizona Department of Transportation (ADOT)
- MetroPlan Greater Flagstaff

MetroPlan and the City of Flagstaff is already taking a major step this year to improve the safety of its street design with development and planned adoption of the Safe Streets Master Plan that will provide the City with Street Design Guidelines that recommend features for new streets and retrofits to existing ones.

TWO-YEAR ACTIONS

-  **SD-1:** Build capital safety infrastructure improvements along the High Crash Network each year. Example: Construction of a median island with additional enhancements to create a safer crossing for pedestrians and/or bicyclists on a wide street.
-   **SD-2:** Implement signal phasing and operational changes for the High Crash Intersections each year. Example: Implement signal timing and phasing modifications or upgrades to reduce crashes and improve safety.
-  **SD-3:** Use assessment of demonstration or pilot projects as proof of concept for safety infrastructure changes on the high crash streets, roads, and intersections.
-  **SD-4:** Prioritize street maintenance (surface and striping) on the high crash streets, roads, and intersections
-   **SD-5:** Prioritize sidewalk infill, inspection and maintenance of sidewalks on the High Crash Streets for People Walking.
-  **SD-6:** Review resurfacing and restriping maintenance projects with the safety of all users in mind.
-  **SD-7:** Integrate Vision Zero into the City’s development review checklist to ensure that public rights-of-way are being designed for the most vulnerable users of our streets.
-   **SD-8:** Review and revise City code governing site design’s interface with the public right-of-way to incorporate safe design standards for all modes and to prioritize safety along the high crash network.



SD-9: Work with ADOT to lower speed limits on the High Crash Network, accompany speed limit changes with street design changes and enforcement, when possible.

FIVE-YEAR ACTIONS



SD-11: Build a database of information on street design features to enable systemic safety analysis.



SD-12: Perform systemic safety analysis to determine street factors associated with crash types for each mode.



SD-13: Conduct safety reviews of the transportation network in school areas. Develop education and engineering recommendations to improve safety for all modes of school travel. Agencies will work together to ensure site planning for schools incorporates traffic safety review prior to siting/opening new, reconstructed or relocated school(s).

Dangerous Behaviors

Actions in this area focus on influencing the behavior and attitudes of people driving, walking and biking in the Flagstaff Region. Combined, these actions address failure to yield, reckless and careless driving, speeding and distraction. Public communications about dangerous behaviors will focus on creating a culture of safety, one where we are all responsible for ourselves and each other's safety on regional streets and roads.

Coconino County Health and Human Services is already addressing additional dangerous behaviors through helmet education and giveaways for vulnerable users, and participation in the SafeKids car seat program.

Key Implementers

- City of Flagstaff Fire Department
- City of Flagstaff Police Department
- City of Flagstaff Public Works
- Coconino County Public Works
- Coconino County Sheriff's Office
- Coconino County Health and Human Services
- Arizona Department of Transportation
- MetroPlan Greater Flagstaff

MetroPlan is in the process of improve transportation safety through awareness, education, and behavior change as part of the "Safe People" Campaign.

TWO-YEAR ACTIONS



DB-1: Increase awareness and support of Vision Zero.



DB-2: Deploy speed reader trailers to increase awareness of speeding and slow vehicle speeds.



DB-3: Install automated enforcement cameras for red light violations on the High Crash Network using a data-driven process. Direct revenue generated by traffic citations directly back to prioritized transportation safety projects.



DB-4: Focus traffic enforcement on the High Crash Network and on behaviors contributing to fatal and serious injury crashes (speeding, failure to yield, aggressive driving, and distracted driving).



DB-5: Develop and implement a social marketing campaign that identifies dangerous behaviors. Include messaging that communicates personal and shared responsibility to keep our community safe.



DB-7: Require training on traffic safety and Vision Zero values for all City and County employees receiving fleet driving permissions. Move toward requirements for defensive driving class.



DB-8: Develop and implement a marketing campaign(s) that promotes defensive skills all road users can learn to increase safety including, but not limited to, 1) increase knowledge of defensive driving and biking skills that teach people how to anticipate other road users' potential movements and 2) increase visibility for people walking and biking. Support with education and distribution of safety equipment such as sunglasses, lights, and reflectors.

FIVE-YEAR ACTIONS



DB-9: Increase number of Full Time Equivalent (FTE) of Flagstaff Police Department Patrol Operations Division so that officers have discretionary time to enforce traffic safety.



DB-10: Provide transportation options and safety information to residents with suspended licenses at the City of Flagstaff Municipal Court and Coconino Courts; traffic court.



DB-11: Purchase speed reader trailers designed for deployment on arterial streets.

Engagement and Accountability

Engagement and Accountability is an action area critical to reducing fatal and life-changing injury crashes in the Flagstaff Region. The region cannot achieve Vision Zero on its own—it will take a community to eliminate all fatalities and life-changing injuries on our streets. A key part of MetroPlan’s work toward Zero will be engaging with the community to ensure that we are aware of our community’s concerns, tapping into their best ideas, and working with them to implement these strategies, leading to our greatest chance of success. To this end, MetroPlan is working to secure long-term funding to support partners agencies by working together to improve traffic safety through education, engineering, and creative outreach. MetroPlan is also committed to partnering with other organizations/departments, including Coconino County Health and Human services, NAU, and the Flagstaff Unified School District, which will enable us to work together to incorporate safety in our culture at every opportunity.

Vision Zero will and must continue to be in the public eye for us all to take our part in the shared responsibility of making the Flagstaff Regions streets and roads safer. Actions in this area will continue to communicate the importance of getting to zero deaths and life-changing injuries and will keep Vision Zero visible in the community.

MetroPlan will hold ourselves accountable for our goals, as reflected by the performance measures at the end of this plan. We pledge to update the public on the progress toward our goals via an annual report, providing our community with information about how things are improving, what is coming next, our overall progress toward Zero, and key opportunities to become involved. We look forward to this journey toward Zero together, as a community.

Key Implementers

- City of Flagstaff Fire Department
- City of Flagstaff Police Department
- City of Flagstaff Engineering & Capital Improvements
- Flagstaff Unified School District (FUSD)
- Mountain Line Transit
- Coconino County Health and Human Services
- Coconino County Sheriff’s Department
- Coconino County Community College (CCC)
- Northern Arizona University (NAU)
- Arizona Department of Transportation (ADOT)
- MetroPlan Greater Flagstaff

TWO-YEAR ACTIONS



EA-1: Create an internal Vision Zero team that meets to review traffic crash data, equity data, and traffic safety performance. Task team members to present this data at appropriate meetings (monthly Public Works, Police, and other City meetings).



EA-2: Institutionalize conducting before and after studies of Vision Zero Actions/projects.



EA-3: Develop and provide Vision Zero messaging on an ongoing basis to be delivered to the public, neighborhood groups, stakeholder group meetings as well as partners media interviews.



EA-4: Work with local colleges/universities to create and implement a new walking, biking, driving and transit riding safety campaign for students.



EA-5: Provide targeted outreach and training when adding pedestrian or bicycle facilities to teach street users how to navigate a newly constructed facility.



EA-6: Convene a Vision Zero advisory body comprising Task Force and TAC members on a routine basis during the implementation phase.



EA-8: Develop and publish a Communities of Concern map(s) to guide investments.

FIVE-YEAR ACTIONS



EA-9: Coordinate with EMS/trauma center data to understand locations and magnitude of underreporting of crashes.



EA-10: Develop a Street Ambassador program that empowers neighborhoods to develop safety programs, including using the existing City neighborhood grants program, as well as opening the opportunity to affordable housing communities.



EA-11: Work with ADOT Transportation Safety Division and/or school districts to increase access to driver education for new and young drivers.



EA-12: Work with ADOT to revise crash reporting standards to better inform data analysis.



EA-13: Develop processes and funding opportunities to support the participation of community-based organizations in the development and implementation of Vision Zero-related efforts.



EA-14: Develop multimodal middle and high school level transportation safety education programs that include bicycle and pedestrian safety curriculum as well as transportation options information.



EA-15: Provide bike/walk safety education to most K-8 students during their time with FUSD through the Safe Routes to School Program.



EA-16: Establish a sustainable funding source for Vision Zero infrastructure projects, education efforts and program management.

Measuring Our Progress

Tracking the region’s progress over time is critical to understanding if we’re on pace to meet our goals, and to helping us pinpoint what we can do better in the future. In this vein, we worked with the MetroPlan Technical Advisory Committee to develop key performance metrics for our strategies and actions. We also drew from best practices in performance measures and other key Vision Zero resources to make sure we were holding ourselves to high, yet realistic standards. Along with our partners, we will monitor our progress and produce an annual report for the public

Our overall goal is to reach **zero fatalities and life-changing injuries by 2035**. To measure progress toward this goal, we will monitor the number of people killed or seriously injured on the transportation system. On the way to our 2035 goal, we will aim to decrease deaths and life-changing injuries by **25 percent by 2023** and **50 percent by 2028**, using a rolling average.

An update to the Vision Zero Action Plan will begin in 2023 as we near completion of the two-and five-year goals laid out in this plan.

The following tables demonstrate how we propose to measure our progress toward each of the actions, in support of our overall goal.

The following performance measures were created to help us understand our progress toward eliminating fatalities and life-changing injuries in the Flagstaff Region. There are many actions we need to take over the next few years to help the Region reach Zero. Measuring our progress regarding those actions (via output measures looking at what we've done), as well as how the needle is moving toward zero (via outcome measures looking at the results of our actions) will help us understand our progress toward the overall goal, as well as provide insight into what is working well and what needs more support along the way.

The following has been categorized by MetroPlan and our local agencies. MetroPlan’s adoption of the VRU Safety Action plan will focus on those actions and strategies that MetroPlan can conduct on behalf of our community and partners. Recommendations for the City of Flagstaff and Coconino County are for consideration by the respective agencies and will require additional planning and policy development that is beyond the scope of the VRU safety plan.

METROPLAN: ACTIONS & PERFORMANCE MEASURE

RECOMMENDATIONS

Action Area: Street Design

| Action | Timeframe | Lead | Support | Performance Measure | |
|---|--|--------|--|--|---|
| Reduce potential for conflicts between users | | | | | |
| SD-3 | Use assessment of demonstration or pilot projects as proof of concept for safety infrastructure changes on the Vision Zero high crash streets and intersections. | 2-year | MetroPlan | City/County Engineering and Public Works. | Annually, whether demonstration or pilot projects are used as proof of concept for safety infrastructure changes along the Vision Zero Crash Streets and High Crash Intersections |
| Slow Vehicle Speeds | | | | | |
| SD-9 | Work with ADOT to lower speed limits on the High Crash Network, accompany speed limit changes with street design changes and enforcement, when possible. | 2-year | City of Flagstaff, MetroPlan | ADOT, FPD | Annually, number of high-crash segments with reduced speed limits, received street design changes and/or enforcement |
| Improve Data Collection and analysis | | | | | |
| SD-11 | Build a database of information on street design features to enable systemic safety analysis. | 5-year | MetroPlan | City of Flagstaff, Coconino County, ADOT | Whether a systemic safety database was built |
| SD-12 | Perform systemic safety analysis to determine street factors associated with crash types for each mode. | 5-year | City/County Engineering and Public Works | MetroPlan | Whether a systemic safety analysis was performed |
| SD-13 | Conduct safety reviews of the transportation network in school areas. Develop education and engineering recommendations to improve safety for all modes of school travel. Agencies will work together to ensure site planning for schools incorporates traffic safety review prior to siting/opening new, reconstructed or relocated school(s). | 5-year | MetroPlan | City Engineering, Public Works, FUSD, ADOT | Annually, number of school area transportation networks that have received a safety review within the last five years |

Action Area: Dangerous Behaviors

| Action | Timeframe | Lead | Support | Performance Measure | |
|--|--|--------|-----------|--|--|
| Slow Vehicle Speeds | | | | | |
| DB-1 | Increase awareness of Vision Zero. | 2-year | MetroPlan | City, County, Universities/schools | Biennially, percentage of regional residents who take a “traffic safety pledge” and agree to drive without distraction, speeding, or intoxication |
| Encourage Safer Behavior among drivers, pedestrians, and bicyclists | | | | | |
| DB-5 | Develop and implement a social marketing campaign that identifies dangerous behaviors. Including messaging that communicates personal and shared responsibility to keep our community safe. | 2-year | MetroPlan | City of Flagstaff, Coconino County, NAU, FUSD, FPD | 1) Whether a social marketing campaign that identifies dangerous behaviors was a) developed, and b) implemented; 2) whether messaging that communicates personal and shared responsibility to keep community safe was included |
| Support an Institutional Commitment to Vision Zero | | | | | |
| DB- 8 | Develop and implement a marketing campaign(s) that promotes defensive skills all road users can learn to increase safety including, but not limited to, 1) increase knowledge of defensive driving and biking skills that teach people how to anticipate other road users’ potential movements and 2) increase visibility for people walking and biking. Support with education and distribution of safety equipment such as sunglasses, lights, and reflectors. | 2-year | MetroPlan | City of Flagstaff, Coconino County, NAU, FUSD, FPD | 1) Whether a marketing campaign that promotes defensive skills for all road users was a) developed, and b) implemented; 2) whether support was provided in the form of distributed safety equipment |

Action Area: Engagement and Accountability

| Action | Timeframe | Lead | Support | Performance Measure | |
|--|---|--------|-----------|--|--|
| Improve Data Collection and Analysis | | | | | |
| EA-2 | Institutionalize conducting before and after studies of Vision Zero Actions. | 2-year | MetroPlan | City of Flagstaff, Coconino County, ADOT | Percentage of before and after studies of Vision Zero Actions institutionalized, including identification of information necessary to analyze effectiveness of actions |
| EA-8 | Coordinate with EMS/trauma center data to understand locations and magnitude of underreporting of crashes. | 5-year | MetroPlan | Public Works, EMS, County Health | Whether coordination with EMS/trauma center data was completed |
| Encourage safer behavior among drivers, pedestrians, and bicyclists | | | | | |
| EA-3 | Develop and provide Vision Zero messaging on an ongoing basis to be delivered at City public, neighborhood group and stakeholder group meetings, as well as media interviews. | 2-year | MetroPlan | | Annually, number of City a) public, b) neighborhood group, and c) stakeholder group meetings where Vision Zero messaging was delivered |
| EA-4 | Work with local colleges/universities to create and implement a new walking, biking, driving and transit riding safety campaign for students. | 2-year | MetroPlan | NAU, Mountain Line | Whether the City worked with local colleges/universities to a) create and b) implement a new walking, biking, driving and transit riding safety campaign for students |
| EA-5 | Provide targeted outreach and training when adding pedestrian or bicycle facilities to teach street users how to navigate the newly constructed facility. | 2-year | MetroPlan | City of Flagstaff, Coconino County | Whether targeted outreach and training was provided to street users to teach them how to navigate new pedestrian and bicycle facilities |
| EA-10 | Work with ADOT Transportation Safety Division and/or school districts to increase access to driver education for new and young drivers. | 5-year | MetroPlan | ADOT, FUSD, City of Flagstaff | Annually, percentage of new and young drivers who participated in a driver education program |
| EA-11 | Work with ADOT to revise crash reporting standards to better inform data analysis. Work with FPD to implement new data collection methods. | 5-year | MetroPlan | ADOT | 1) Whether crash reporting standards were revised to better capture data necessary for data analysis; 2) Whether |

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|---|--|--------|-----------|------|---|
| | | | | | EPD implemented new data collection methods |
| EA-13 | Develop multimodal high school level transportation safety education programs that include bicycle and pedestrian safety curriculum as well as transportation options information. | 5-year | MetroPlan | FUSD | Whether high school level transportation safety education programs were revived |
| EA-14 | Provide bike/walk safety education to most K-8 students during their time with FUSD through the Safe Routes to School Program. | 5-year | MetroPlan | FUSD | Percentages of schools providing bike/walk education |
| Support an institutional commitment to Vision Zero | | | | | |
| EA-7 | Develop and publish a Communities of Concern map(s) to guide investments | 2-year | MetroPlan | | Whether a Communities of Concern Map was developed and published |

The following section used the same metrics as above but has applied them to the City of Flagstaff and Coconino County. Both the City and County have unique crash trends that will have different needs to address trends and behaviors. However, the following are items that can assist both the City and County in pursuing and prioritizing transportation safety plans, policies, and projects. The following are considerations for our partner agencies for future transportation safety plans.

CITY OF FLAGSTAFF: ACTIONS & PERFORMANCE MEASURES FOR CONSIDERATIONS

Action Area: Street Design

| Action | Timeframe | Lead | Support | Performance Measure | |
|---|--|--------|-------------------|--|--|
| Reduce potential for conflicts between users | | | | | |
| SD-1 | Build capital safety infrastructure improvements along the High Crash Network each year. Example: Construction of a median island with additional enhancements to create a safer crossing for pedestrians and/or bicyclists on a wide street. | 2-year | City of Flagstaff | City Engineering and planning, ADOT, public works | Annually, number and total cost of capital safety improvements-built a) along corridor segments and b) at intersections in High Crash Network |
| SD-2 | Implement signal phasing and operational changes for the High Crash Intersections each year. Example: Implement signal timing and phasing modifications or upgrades to reduce crashes and improve safety. | 2-year | City of Flagstaff | City Engineering and planning, ADOT, public works | Annually, number of phasing and operational changes implemented a) along the High Crash Network and b) at High Crash intersections |
| SD-4 | Prioritize street maintenance (surface and striping) on the high crash streets and intersections. | 2-year | City of Flagstaff | City/County Engineering, Public works, ADOT | Annually, the percentage of total street maintenance that was completed along the High Crash Network |
| SD-5 | Prioritize sidewalk infill, inspection, and maintenance of sidewalks on the High Crash Streets for People Walking. | 2-year | City of Flagstaff | City/County Engineering and Public Works | Annually, linear feet of sidewalk infill constructed, number of sidewalk inspections and number of sidewalk repairs on the High Crash Streets for People Walking |
| SD-6 | Review resurfacing and restriping maintenance projects with the safety of all users in mind. | 2-year | City of Flagstaff | City/County Engineering, Public works, ADOT | Percentage of resurfacing and restriping projects that address safety of all users |
| SD-7 | Integrate Vision Zero into the City's development review checklist to ensure that public rights-of-way are being designed for the most vulnerable users of our streets. | 2-year | City of Flagstaff | City/County Engineering, Community Development, Public works, ADOT | Whether Vision Zero was integrated into the City's development review checklist |

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|---|--|--------|--|-----------|--|
| SD-8 | Review and revise City code governing site design's interface with the public right-of-way to incorporate safe design standards for all modes and to prioritize safety along the high crash network. | 2-year | City of Flagstaff | MetroPlan | a) Whether the City code was revised to incorporate safe design standards for all modes: and b) whether safety was explicitly prioritized in proximity to the High Crash Network |
| Slow Vehicle Speeds | | | | | |
| SD-9 | Work with ADOT to lower speed limits on the High Crash Network, accompany speed limit changes with street design changes and enforcement, when possible. | 2-year | City of Flagstaff, MetroPlan | ADOT, FPD | Annually, number of high-crash segments with reduced speed limits, received street design changes and/or enforcement |
| Improve Data Collection and analysis | | | | | |
| SD-12 | Perform systemic safety analysis to determine street factors associated with crash types for each mode. ¹ | 5-year | City/County Engineering and Public Works | MetroPlan | Whether a systemic safety analysis was performed |

Action Area: Dangerous Behaviors

| Action | Timeframe | Lead | Support | Performance Measure | |
|----------------------------|---|--------|-------------------|-------------------------|---|
| Slow Vehicle Speeds | | | | | |
| DB-2 | Deploy speed reader trailers to increase awareness of speeding and slow vehicle speeds. | 2-year | City of Flagstaff | FPD, ADOT, public works | 1) Annually, the percentage of hours when signs are deployed. 2) Whether recorded speeds decrease over duration of a given deployment |
| DB-9 | Increase number of Full Time Equivalent (FTE) of Flagstaff Police Department Patrol Operations Division so that officers have discretionary time to enforce traffic safety. | 5-year | City of Flagstaff | FPD, Public Works | Number of arterial speed reader boards purchased |
| DB-12 | Purchase speed reader trailers designed for deployment on arterial streets. | 5-year | City of Flagstaff | FDP, Public Works | Number of arterial speed reader boards purchased |

¹ MetroPlan relies on data provided by local agency partners. MetroPlan can create spatial and tabular to house the systemic safety analysis but will rely on partners for the most up to date data to maintain the analysis over time.

Reduce Potential for Conflicts Between Users

| | | | | | |
|------|---|--------|-------------------|-------------------------|---|
| DB-3 | Install automated enforcement cameras for red light violations on the High Crash Network using a data-driven process. Direct revenue generated by traffic citations directly to funding safety infrastructure projects. | 2-year | City of Flagstaff | FPD, ADOT, public works | 1) Annually, percentage of intersections on the Vision Zero High Crash Network identified as having a high number of crashes related to disregarding traffic signal with automated enforcement cameras for red light violations 2) Annually, number of injury crashes occurring at a) each high crash intersection, b) within a quarter-mile radius, stratified by whether or not automated enforcement is present |
| DB-4 | Focus traffic enforcement on the High Crash Network and on behaviors contributing to fatal and serious injury crashes (impaired driving, speeding, failure to yield, aggressive driving, and distracted driving). | 2-year | City of Flagstaff | FPD | Annually, 1) Percentage of HCN streets receiving regular traffic enforcement. 2) percentage of tickets pertaining to behaviors contributing to fatal and serious injury crashes (speeding, failure to yield, aggressive driving) versus less serious infractions, both a) overall and b) specifically in the HCN; 3) Percentage of campaigns including enforcement effort notification |

Support an Institutional Commitment to Vision Zero

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|-------|--|--------|-------------------|---------------------|--|
| DB-7 | Require training in traffic safety and Vision Zero values for all City/County employees receiving fleet driving permission. Move toward the requirement for defensive driving class. | 2-year | City of Flagstaff | | Annually, 1) percentage of City employees with fleet driving permissions trained in traffic safety and Vision Zero values in the last five years; 2) percentage of City employees with fleet driving permissions who have participated in a defensive driving class in the last five years |
| DB-11 | Provide transportation options and safety information to residents with suspended licenses and at City of Flagstaff/Coconino County traffic court. | 5-year | City of Flagstaff | ADOT MVD, MetroPlan | Whether information on transportation options was provided a) to residents with suspended licenses, b) at Flagstaff Community Court/ traffic court |

Action Area: Engagement and Accountability

| Action | Timeframe | Lead | Support | Performance Measure | |
|--|---|--------|-------------------|----------------------------------|--|
| Improve Data Collection and Analysis | | | | | |
| EA-1 | Create an internal Vision Zero team that meets to review traffic crash data, equity data, and traffic safety performance. Task team members to present this data at appropriate meetings (monthly BAC, PAC, Transportation Commission, Police, and other City agency meetings). | 2-year | City of Flagstaff | Public Works, FPD, MetroPlan | 1) Number of internal Vision Zero team meetings occurring to review traffic crash data, equity data, and traffic safety performance; 2) number of meetings where team members presented this data. |
| EA-2 | Institutionalize conducting before and after studies of Vision Zero Actions. | 2-year | City of Flagstaff | MetroPlan | Percentage of before and after studies of Vision Zero Actions institutionalized, including identification of information necessary to analyze effectiveness of actions |
| EA-8 | Coordinate with EMS/trauma center data to understand locations and magnitude of underreporting of crashes. | 5-year | City of Flagstaff | Public Works, EMS, County Health | Whether coordination with EMS/trauma center data was completed |
| Encourage safer behavior among drivers, pedestrians, and bicyclists | | | | | |
| EA-3 | Develop and provide Vision Zero messaging on an ongoing basis to be delivered at City public, neighborhood group and stakeholder group meetings, as well as City media interviews. | 2-year | City of Flagstaff | MetroPlan | Annually, number of City a) public, b) neighborhood group, and c) stakeholder group meetings where Vision Zero messaging was delivered |
| EA-5 | Provide targeted outreach and training when adding pedestrian or bicycle facilities to teach street users how to navigate the newly constructed facility. | 2-year | City of Flagstaff | MetroPlan | Whether targeted outreach and training was provided to street users to teach them how to navigate new pedestrian and bicycle facilities |
| EA-9 | Develop a Street Ambassador program that empowers neighborhoods to develop safety programs, including using any existing City neighborhood/community grants program. | 5-year | City of Flagstaff | City Manager's Office | 1) Whether a Street Ambassador program that promotes traffic safety in neighborhoods and along high crash corridors was developed; Annually, number of a) neighborhood and b) high |

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|---|---|--------|-------------------|-----------|--|
| | | | | | crash corridor traffic safety events run by the volunteer Street Ambassador program |
| EA-11 | Work with ADOT to revise crash reporting standards to better inform data analysis. Work with FPD to implement new data collection methods. | 5-year | City of Flagstaff | ADOT, FPD | 1) Whether crash reporting standards were revised to better capture data necessary for data analysis; 2) Whether FPD implemented new data collection methods |
| EA-12 | Develop processes and funding opportunities to support the participation of community-based organizations in the development and implementation of Vision Zero-related efforts. | 5-year | City of Flagstaff | MetroPlan | Number of community leaders and organizations supported to participate in Vision Zero-related efforts |
| Support an institutional commitment to Vision Zero | | | | | |
| EA-6 | Convene a Vision Zero advisory body comprising Task Force and TAC members on a routine basis during the implementation phase. | 2-year | City of Flagstaff | | Annually, number of Vision Zero advisory body meetings |
| EA-15 | Establish sustainable funding source for Vision Zero infrastructure projects, education efforts and program management | 5-year | City of Flagstaff | MetroPlan | Annually, number of dollars allocated toward a) Vision Zero infrastructure projects, b) education efforts, and c) program management |

COCONINO COUNTY: ACTIONS & PERFORMANCE MEASURES FOR CONSIDERATIONS

Action Area: Street Design

| Action | Timeframe | Lead | Support | Performance Measure | |
|---|--|--------|-----------------|---|--|
| Reduce potential for conflicts between users | | | | | |
| SD-1 | Build capital safety infrastructure improvements along the High Crash Network each year. Example: Construction of a median island with additional enhancements to create a safer crossing for pedestrians and/or bicyclists on a wide street. | 2-year | Coconino County | County Engineering and planning, ADOT, public works | Annually, number and total cost of capital safety improvements-built a) along corridor segments and b) at intersections in High Crash Network |
| SD-2 | Implement signal phasing and operational changes for the High Crash Intersections each year. Example: Implement signal timing and phasing modifications or upgrades to reduce crashes and improve safety. | 2-year | Coconino County | County Engineering and planning, ADOT, public works | Annually, number of phasing and operational changes implemented a) along the High Crash Network and b) at High Crash intersections |
| SD-4 | Prioritize street maintenance (surface and striping) on the high crash streets and intersections. | 2-year | Coconino County | County Engineering and planning, ADOT, public works | Annually, the percentage of total street maintenance that was completed along the High Crash Network |
| SD-5 | Prioritize sidewalk infill, inspection, and maintenance of sidewalks on the High Crash Streets for People Walking. | 2-year | Coconino County | County Engineering and Public Works | Annually, linear feet of sidewalk infill constructed, number of sidewalk inspections and number of sidewalk repairs on the High Crash Streets for People Walking |
| SD-6 | Review resurfacing and restriping maintenance projects with the safety of all users in mind. | 2-year | Coconino County | County Engineering, Public works, ADOT | Percentage of resurfacing and restriping projects that address safety of all users |
| SD-7 | Integrate Vision Zero into the County's development review checklist to ensure that public rights-of-way are being designed for the most vulnerable users of our streets. | 2-year | Coconino County | County Engineering, Community Development, Public works, ADOT | Whether Vision Zero was integrated into the City's development review checklist |

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| SD-8 | Review and revise City code governing site design's interface with the public right-of-way to incorporate safe design standards for all modes and to prioritize safety along the high crash network. | 2-year | Coconino County | MetroPlan | a) Whether the City code was revised to incorporate safe design standards for all modes: and b) whether safety was explicitly prioritized in proximity to the High Crash Network |
| Slow Vehicle Speeds | | | | | |
| SD-9 | Work with ADOT to lower speed limits on the High Crash Network, accompany speed limit changes with street design changes and enforcement, when possible. | 2-year | Coconino County | ADOT, County Sheriff | Annually, number of high-crash segments with reduced speed limits, received street design changes and/or enforcement |
| Improve Data Collection and analysis | | | | | |
| SD-12 | Perform systemic safety analysis to determine street factors associated with crash types for each mode. | 5-year | Coconino County | MetroPlan | Whether a systemic safety analysis was performed |

Action Area: Dangerous Behaviors

| Action | Timeframe | Lead | Support | Performance Measure | |
|---|---|--------|-----------------|-----------------------------|---|
| Slow Vehicle Speeds | | | | | |
| DB-2 | Deploy speed reader trailers to increase awareness of speeding and slow vehicle speeds. | 2-year | Coconino County | Sheriff, public works, ADOT | 1) Annually, the percentage of hours when signs are deployed. 2) Whether recorded speeds decrease over duration of a given deployment |
| DB-12 | Purchase speed reader trailers designed for deployment on arterial streets. | 5-year | Coconino County | Sheriff, Public Works | Number of arterial speed reader boards purchased |
| Reduce Potential for Conflicts Between Users | | | | | |
| DB-3 | Install automated enforcement cameras for red light violations on the High Crash Network using a data-driven process. Direct revenue generated by traffic citations directly to funding safety infrastructure projects. | 2-year | Coconino County | Sheriff, public works, ADOT | 1) Annually, percentage of intersections on the Vision Zero High Crash Network identified as having a high number of crashes related to disregarding traffic signal with automated enforcement cameras for red light violations |

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|---|---|--------|-----------------|-----------|--|
| | | | | | 2) Annually, number of injury crashes occurring at a) each high crash intersection, b) within a quarter-mile radius, stratified by whether or not automated enforcement is present |
| DB-4 | Focus traffic enforcement on the High Crash Network and on behaviors contributing to fatal and serious injury crashes (impaired driving, speeding, failure to yield, aggressive driving, and distracted driving). | 2-year | Coconino County | Sheriff | Annually, 1) Percentage of HCN streets receiving regular traffic enforcement; 2) percentage of tickets pertaining to behaviors contributing to fatal and serious injury crashes (speeding, failure to yield, aggressive driving) versus less serious infractions, both a) overall and b) specifically in the HCN; 3) Percentage of campaigns including enforcement effort notification |
| Support an Institutional Commitment to Vision Zero | | | | | |
| DB-7 | Require training in traffic safety and Vision Zero values for all County employees receiving fleet driving permission. Move toward the requirement for defensive driving class. | 2-year | Coconino County | | Annually, 1) percentage of City employees with fleet driving permissions trained in traffic safety and Vision Zero values in the last five years; 2) percentage of City employees with fleet driving permissions who have participated in a defensive driving class in the last five years |
| DB-11 | Provide transportation options and safety information to residents with suspended licenses and at Coconino County traffic court. | 5-year | Coconino County | MetroPlan | Whether information on transportation options was provided a) to residents with suspended licenses, b) at the county traffic court |

Action Area: Engagement and Accountability

| Action | Timeframe | Lead | Support | Performance Measure | |
|--|--|--------|-----------------|--|--|
| Improve Data Collection and Analysis | | | | | |
| EA-1 | Create an internal Vision Zero team that meets to review traffic crash data, equity data, and traffic safety performance. Task team members to present this data at appropriate meetings (monthly Board, Transportation Commission, Police, and other county agency meetings). | 2-year | Coconino County | Public Works, Sheriff dept., MetroPlan | 1) Number of internal Vision Zero team meetings occurring to review traffic crash data, equity data, and traffic safety performance; 2) number of meetings where team members presented this data. |
| EA-2 | Institutionalize conducting before and after studies of Vision Zero Actions. | 2-year | Coconino County | MetroPlan | Percentage of before and after studies of Vision Zero Actions institutionalized, including identification of information necessary to analyze effectiveness of actions |
| EA-8 | Coordinate with EMS/trauma center data to understand locations and magnitude of underreporting of crashes. | 5-year | Coconino County | EMS, County Health | Whether coordination with EMS/trauma center data was completed |
| Encourage safer behavior among drivers, pedestrians, and bicyclists | | | | | |
| EA-3 | Develop and provide Vision Zero messaging on an ongoing basis to be delivered at City public, neighborhood group and stakeholder group meetings, as well as City media interviews. | 2-year | Coconino County | MetroPlan | Annually, number of City a) public, b) neighborhood group, and c) stakeholder group meetings where Vision Zero messaging was delivered |
| EA-5 | Provide targeted outreach and training when adding pedestrian or bicycle facilities to teach street users how to navigate the newly constructed facility. | 2-year | Coconino County | MetroPlan | Whether targeted outreach and training was provided to street users to teach them how to navigate new pedestrian and bicycle facilities |
| EA-11 | Work with ADOT to revise crash reporting standards to better inform data analysis. Work with FPD to implement new data collection methods. | 5-year | Coconino County | ADOT, FPD | 1) Whether crash reporting standards were revised to better capture data necessary for data analysis; 2) Whether FPD implemented new data collection methods |

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|---|---|--------|-----------------|-----------|--|
| EA-12 | Develop processes and funding opportunities to support the participation of community-based organizations in the development and implementation of Vision Zero-related efforts. | 5-year | Coconino County | MetroPlan | Number of community leaders and organizations supported to participate in Vision Zero-related efforts |
| Support an institutional commitment to Vision Zero | | | | | |
| EA-6 | Convene a Vision Zero advisory body comprising Task Force and TAC members on a routine basis during the implementation phase. | 2-year | Coconino County | | Annually, number of Vision Zero advisory body meetings |
| EA-15 | Establish sustainable funding source for Vision Zero infrastructure projects, education efforts and program management | 5-year | Coconino County | MetroPlan | Annually, number of dollars allocated toward a) Vision Zero infrastructure projects, b) education efforts, and c) program management |

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