ROCKINGHAM PLANNING COMMISSION (RPC)

SAFETY ACTION PLAN

2025

ROCKINGHAM
PLANNING
COMMISSION

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Acknowledgements

This Plan was created by the Rockingham Planning Commission (RPC) Metropolitan Planning Organization (MPO) with input from the Technical Advisory Committee (TAC) in close coordination with New Hampshire Department of Transportation (NHDOT), NH Office of Highway Safety, Federal Highway Administration (FHWA), and VHB. The main funding source for the Plan comes from the United States Department of Transportation (USDOT) "Safe Streets and Roads for All" (SS4A)[1] planning grant under the FY 2022 grant program.

The RPC extends its sincere appreciation to the survey and focus group participants who generously shared their time, thoughts, and feedback. These contributions have been invaluable to the development of this plan.

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[1] USDOT SS4A Program: https://www.transportation.gov/grants/SS4A

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Executive Summary

The Safe Streets and Roads for All (SS4A) grant program, established as part of the Bipartisan Infrastructure Law (BIL) in 2022, allocates $5 billion over five years (2022-2026) to support regional, local, and tribal initiatives aimed at preventing serious injuries and fatalities from roadway crashes. This funding can be used to develop Safety Action Plans or implement project proposals outlined in such plans.

The Rockingham Planning Commission (RPC) was awarded a planning grant from the first round of SS4A to develop regional Safety Action Plans for the four New Hampshire MPOs (NRPC, RPC, SNHPC, and SRPC). These comprehensive plans aim to reduce or eliminate serious injuries and fatalities through data-driven and holistic strategies developed in a transparent and inclusive process. Safety Action Plans include required components and are a prerequisite for applying for SS4A Implementation Grant funding.

A Safety Action Plan is a detailed, data-driven roadmap that outlines specific measures and strategies to enhance transportation safety, reduce crash frequency and severity, and ultimately achieve zero fatalities and serious injuries. It includes a comprehensive analysis of crash data, identification of high-risk locations and behaviors, and targeted interventions. Developed through collaboration with stakeholders such as transportation agencies, law enforcement, public health organizations, and community members, the plan outlines projects, policies, and ongoing communication efforts to foster a shared understanding and responsibility for safety.

The RPC Safety Action Plan focuses on several key areas. Firstly, it involves analyzing safety data and input, where data on reported crashes were scrutinized to identify "hot spots" for historic traffic crashes and determine risk factors leading to serious injury and fatal crashes. Local and regional plans and policies were reviewed to understand the decision-making tools influencing roadway safety projects, and community input was gathered to incorporate the lived experiences of residents, workers, and travelers in the region and surrounding areas. Secondly, the plan determines safety problems and emphasis areas by summarizing the results of data analysis and community input to identify specific safety issues and establish prioritized safety countermeasure recommendations based on road classification. The analysis of crash types and emphasis areas revealed patterns and behaviors that can be addressed through a comprehensive approach, incorporating engineering, enforcement, education, and emergency response.

Lastly, strategies are identified by linking the emphasis areas, according to the development context, with the elements and principles of the Safe Systems approach. Proven safety countermeasures for engineering and infrastructure formed the primary set of strategies, following procedures like the Road Safety Audit method. Additional strategies, including education, enforcement, and data collection, were also considered. Specific actions were identified for each strategy to create an implementation framework, and action items were prioritized for execution in Priority Focus Areas and along the High Injury Network.

The implementation of the plan involves seeking various funding sources for the outlined actions. The RPC region and its partners will strategically align these actions for potential funding through the NHDOT Highway Safety Improvement Program (HSIP), federal discretionary grants such as the Safe Streets for All program, and other state and federal funding sources. Implementing these projects will require ongoing coordination with partners, including NHDOT, NH Department of Safety, Regional Transit Agencies, and local communities. The plan also incorporates performance metrics to monitor ongoing and continuous implementation efforts, centered on reducing or eliminating serious injuries and fatalities from roadway

crashes. These metrics rely on traditional data sources such as reported crashes, supplemented by gathering additional data such as near misses and insights from the experiences of the region residents. Updating this plan every five years is essential to align with the latest NH New Hampshire Strategic Highway Safety Plan (SHSP), new federal and state funding opportunities, and evolving traffic safety issues and priorities.

The ultimate goal of this plan is to achieve zero deaths and serious injuries on our roadways by 2050. By employing a comprehensive and systematic approach, the RPC aims to utilize data-driven methods to identify and implement effective countermeasures aimed at reducing crashes in the RPC region.

Introduction

New Hampshire's Regional Planning Commissions were established by state law in 1969 as advisory bodies formed voluntarily by member communities. The Rockingham Planning Commission (RPC) was created in 1981 from the merger of two smaller commissions. Regional Planning Commissions provide technical planning assistance to communities, promote regional cooperation, and conduct planning in areas such as transportation, land use, water resources, housing, economic development, and emergency management. The RPC is governed by a Board of Commissioners, consisting of volunteer representatives appointed by the 27 member communities' Planning Boards and Boards of Selectmen or City Councils.

The Commission's region consists of 27 of the 37 Rockingham County communities in Southeast New Hampshire. Communities in the RPC region include Atkinson, Brentwood, Danville, East Kingston, Epping, Exeter, Fremont, Greenland, Hampstead, Hampton, Hampton Falls, Kensington, Kingston, New Castle, Newfields, Newington, Newton, North Hampton, Plaistow, Portsmouth, Raymond, Rye, Salem, Sandown, Seabrook, South Hampton, and Stratham. The region has a total population of approximately 196,100. All roadways excluding interstates in this region total approximately 1,985 miles.

The RPC is dedicated to enhancing transportation safety with the goal of eliminating deaths and serious injuries from crashes by 2050. This plan outlines the transportation risks, safety data, and strategies for improving safety across the region. Implementing this plan will enhance transportation safety for residents and visitors alike. Developed with input from various safety partners and stakeholders, this Safety Action Plan represents a continuous effort to make safety improvements. The ultimate goal of this plan is to achieve zero deaths and serious injuries on our roadways.

As stated in the RPC's 2050 Long Range Transportation Plan, safe travel for all road users in everyday and emergency scenarios is a primary goal for the region's transportation system.

What is a Safety Action Plan?

The Safe Streets and Roads for All (SS4A) grant program, established as part of the Bipartisan Infrastructure Law (BIL) in 2022, allocates $5 billion over five years (2022-2026) to support regional, local, and tribal initiatives aimed at preventing serious injuries and fatalities from roadway crashes. This funding can be used to develop Safety Action Plans or implement project proposals outlined in such plans.

A Safety Action Plan is a strategic roadmap designed to enhance safety within a community or organization by identifying risks and outlining specific measures to mitigate them. It begins with a

thorough assessment and analysis of potential hazards, gathering data on crashes and near-misses, and incorporating input from stakeholders to understand safety concerns comprehensively.

The plan sets clear safety objectives and establishes performance indicators to measure progress. It details actionable steps, such as infrastructure improvements, policy changes, training programs, and public awareness campaigns, all within defined timelines. Roles and responsibilities are clearly assigned to ensure coordination and accountability. The plan's execution is continuously monitored to stay on track, with regular performance evaluations to measure effectiveness. Periodic reviews allow for adjustments based on feedback and evolving circumstances.

Need for a Safety Action Plan

Southeastern New Hampshire has a robust highway network that has been strategically developed to support the region's high quality of life, strong economy, and distinct community character. Significant investments continue to be made in maintaining and improving infrastructure systems to support both communities and businesses, and enhance transportation networks to ensure efficient and reliable connectivity across the region. In recent years, the region has begun to focus on increasing non-motorized and public transportation options to help residents adapt to the high cost of energy and to provide alternatives to private vehicle use. This effort aims to improve safety, reduce traffic congestion, lower emissions, and improve overall accessibility.

The Rockingham Planning Commission is dedicated to eliminating fatalities and serious injuries on the roadway network. However, progress on improving transportation safety in the region has been limited, and people of all ages and abilities continue to be killed and seriously injured in roadway crashes. A first step in eliminating fatalities and serious injuries is to conduct a regional safety analysis to better understand the patterns and trends behind the 22,105 crashes, 282 serious injuries, and 65 fatalities that occurred in the region in recent years. Understanding the data highlights the critical need for interventions in areas such as distracted and impaired driving, intersection safety, and protection for vulnerable road users like pedestrians and motorcyclists. The analysis underscores the importance of addressing specific groups, including older and teenage drivers, to enhance overall road safety in the region. The Safety Action Plan pulls together the analysis and appropriate strategies into a cohesive framework that helps the RPC and the local communities identify priorities and facilitate system improvements that help reach the goal of zero fatalities and serious injuries in the region.

Safe System Approach

The Safe System Approach is a holistic and comprehensive strategy for road safety that aims to reduce the risk of severe injuries and fatalities from road traffic crashes. It is based on the understanding that while human error is inevitable, road traffic fatalities and serious injuries are not. It works by building and reinforcing multiple layers of protection to both prevent crashes from happening in the first place and minimize the harm caused to those involved when crashes do occur.

Six Principles form the basis of the Approach:

- Deaths and serious injuries are unacceptable and the elimination of crashes that result in death and serious injuries should be prioritized.

- Humans make mistakes and the transportation system should be designed and operated to accommodate certain types and levels of human mistakes and avoid death and serious injuries when a crash occurs.
- Humans are vulnerable and the transportation system should be designed and operated in a manner that accommodates physical human vulnerabilities.
- Safety is proactive and tools are available to help prevent crashes rather than reacting only when they occur.
- Redundancy is crucial and risk can be reduced by strengthening the system so that when one part fails other parts still protect people.
- Responsibility is shared and all stakeholders are vital to preventing fatalities and serious injuries.

The Five Elements that form the Safe System address every aspect of crash risk:

- Safe Speeds – promote safer speeds in all roadway environments through context appropriate design, education, and enforcement.
- Safe Roads – design roadways to mitigate human mistakes and encourage safer behaviors.
- Safe People – encourage responsible driving and behavior by people who use the roadways.
- Post-Crash Care – Expedite access to post-crash emergency medical care and ensure a safe working environment for emergency responders.
- Safe Vehicles – Expand availability of vehicle systems and features that help prevent crashes and minimize the impacts of crashes on occupants and non-occupants.

Figure 1. Safe System Approach Wheel (FHWA)

Safety for All

Essential to the mission of the RPC is to ensure that safe transportation applies to everyone in the region. The RPC 2023 Regional Housing Needs Assessment, 2050 Long Range Transportation Plan, and Coordinated Human Services Plan all identify and highlight various communities in our region who may face different transportation safety impacts due to factors like vehicle access, age, ability, and income.

For example, crash data analysis for the Safety Action Plan shows that older adults in the region are involved in significantly more crashes than younger drivers. The lack of public transit available for older drivers can be a barrier to safely accessing everyday destinations throughout the region. Additionally, future trends in transportation like the continuing increase in vehicle height and weight could post a greater risk to pedestrians, especially children who are already lower in a driver's field of vision, and people with disabilities. By understanding the demographic groups that are most impacted by certain transportation issues, more strategic and effective planning can take place for safer outcomes.

Improving safety outcomes for everyone in the region also aligns with the RPC's goal of enhancing fair access to jobs, education, healthcare, recreation, commerce, and essential services. Safe, affordable transportation options are a key part of how the RPC strives to reduce cost burdens and expand economic opportunities for all households in the region.

The Justice40 Initiative and ETC Explorer

The now-rescinded Justice40 Initiative was launched in 2021 to confront and rectify decades of underinvestment in disadvantaged communities by channeling resources to those most affected by climate change, pollution, and environmental hazards. To help guide resources to these disadvantaged communities, the Equitable Transportation Community (ETC) Explorer had been developed as part of the Justice40 Initiative to evaluate Census Tracts nationally in the following metrics: Transportation Insecurity, Health Vulnerability, Environmental Burden, Social Vulnerability, and Climate and Disaster Risk Burden. The ETC Explorer was utilized as part of the equity assessment of this Plan to identify the disadvantaged communities within the RPC region.

The process of evaluating Transportation Insecurity, Health Vulnerability, Environmental Burden, Social Vulnerability, and Climate and Disaster Risk Burden involves summing ranked normalized indicators for each component to generate a composite score. This composite score for each component is then percentile-ranked against all other census tracts, both nationally and statewide, through USDOT's National Results and State Results dashboards, respectively.

Census tracts are rated from 0% to 100%, with 0% indicating the least disadvantaged and 100% the most. A census tract is deemed disadvantaged if its overall index score places it at or above the 65th percentile, a cutoff chosen for consistency with the Climate and Economic Justice Screening Tool (CEJST). This percentile threshold was validated through sensitivity analyses for its appropriateness in the Equitable Transportation Community (ETC) Explorer.

To generate an Overall Score, the ranked Component Scores are summed, with Transportation Insecurity given double weight based on feedback from the Request for Information (RFI) process and further sensitivity analyses. This Overall Score is then percentile-ranked again to produce the Final Index Score, allowing a comparative assessment of each census tract's overall disadvantage both nationally and statewide.

This methodology provides comprehensive insights into the interplay of various factors contributing to transportation disadvantage. It offers flexibility in qualifying tracts as disadvantaged and assesses cumulative impacts—combined environmental, social, or economic effects that can be more significant collectively than individually. By focusing on cumulative impacts, communities facing the highest combined burdens can be identified, thereby enabling more targeted and beneficial funding for projects in those areas.

Vision, Mission, & Goal

The MPO TAC endorsed the draft Safety Action Plan, including the Vision, Mission, and Goal below at the March 22, 2025 meeting. The Policy Committee approved the Safety Action Plan at the April 9, 2025 Meeting. By approving the MPO Safety Action Plan, the MPO is committing to the goal of zero roadway fatalities and serious injuries by the dates indicated in the Vision, Mission, and Goal Statements.

Vision

By employing a comprehensive and systematic approach, we will implement data-driven and proven safety measures to reduce crash risks for all road users in the RPC region.

Mission

Encourage and maintain cooperation among private and public stakeholders in implementing the 4 E's strategies—education, enforcement, engineering, and emergency response—to cultivate a safety culture where even one death on RPC region roadways is unacceptable.

Goal

Reduce the number of fatalities and serious injuries by 50% by 2035, working toward 0 by 2050.

Safety Action Plan Approach

RPC implemented the FHWA Local Road Safety Plan (LRSP) process to develop the Safety Action Plan. This approach is a FHWA Proven Safety Countermeasure.

Stakeholder Identification

During this phase of the planning process, the RPC identified additional stakeholders, such as the RPC TAC committee and focus group members, to inform the plan. The leadership team simultaneously pinpointed further data and research topics and developed a vision statement to articulate the local safety culture and desired outcomes for the plan.

Figure 2. Infographic showing the Local Road Safety Plan (LRSP) process (FHWA)

Public Engagement and Data Analysis

Data on reported crashes were analyzed to identify hot spots for historic traffic crashes. Further analysis of these crashes was completed to determine the risk factors most closely correlated with crashes resulting in serious injuries and fatalities. Current local and regional plans and policies were reviewed to identify local roadway safety priorities projects. Community input was gathered to incorporate the lived experiences of residents, social service providers, workers, and travelers using various modes in the RPC region and surrounding areas.

Determining Safety Priorities and Emphasis Areas

The results of data analysis and community input were summarized to identify specific safety issues and to establish prioritized safety countermeasure recommendations based on road classification. The analysis of crash types and emphasis areas revealed patterns and behaviors that can be addressed through a comprehensive approach, incorporating engineering, enforcement, education, and emergency response.

Identifying Strategies and Projects

Strategies were developed by combining public input from the Safety Action Plan survey and focus groups with the data analysis mentioned above, and integration of appropriate elements from the Safe Systems Approach (Page 11).

Evidence-based safety countermeasures for engineering and infrastructure formed the primary set of strategies, following procedures like the Road Safety Audit method. The recommended strategies were further shaped and refined Specific actions were identified for each strategy to create an implementation framework. Action items were prioritized for execution in Priority Focus Areas and along the High Injury Network. This plan will be used to refine strategies and develop specific projects, timelines, and cost estimates.

Plan Implementation

The actions outlined in this plan are strategically aligned for potential funding through the NHDOT Highway Safety Improvement Program (HSIP), federal discretionary grants such as the Safe Streets for All program, and other state and federal funding sources. Implementing these projects will require ongoing coordination between the RPC, NHDOT, RPC member communities and other partners.

Implementation of the Safety Action Plan will be the responsibility of the MPO Policy Committee with the MPO Transportation Advisory Committee taking an advisory role.

THE MPO POLICY COMMITTEE is comprised of representatives from the MPO's twenty-seven member communities; state and federal agencies; and major regional organizations. Commissioners are appointed by their community's legislative body for three-year terms and each holds one vote. Each member community is entitled to between two and four representatives (and votes) based on its population.

THE MPO TRANSPORTATION ADVISORY COMMITTEE (TAC) is an advisory committee composed of single representatives from each member community, regional transit agencies, and state and federal transportation planning partners. Representatives serve 2-year terms and communities generally appoint town planning or public works staff, planning board members, or others interested in transportation

planning. The TAC plays an extensive role in the MPO project prioritization process by setting selection criteria and advising which projects move forward at each stage.

The Regional Safety Action Plan will be implemented through multiple efforts:

MPO Long Range Transportation Plan (LRTP): Updated every five years, the LRTP identifies long-term regional goals, includes all identified transportation project needs, and prioritizes projects based on a set of project selection criteria approved by the MPO. The LRTP includes the MPO System Performance Report which will be expanded to include information and analysis from the Safety Action Plan.

Incorporate the SAP goal into the annual HSIP targets: The MPO establishes annual HSIP targets for fatalities and fatality rates, serious injuries and serious injury rates, and non-motorized fatalities and serious injuries. Beginning with the 2025 targets, the MPO has incorporated the Safety Action Plan goal of a 50% reduction in fatalities and serious injuries by 2035 and elimination of fatalities and serious injuries by 2050 into these targets.

MPO Priority setting for the State Ten Year Plan: Every two years, the state of New Hampshire updates the Ten Year Plan queue of project priorities for implementation by NHDOT. For this process the MPO identifies and submits priorities for projects and safety is a significant consideration.

MPO Participation in the state HSIP Committee: The MPO has a seat on the state Highway Safety Improvement Program (HSIP) advisory committee and aids in identifying and selecting sites for Road Safety Audits and for implementation projects for that program. That committee also provides opportunities for NHDOT Safety Section coordination and collaboration with MPO staff.

MPO Project selection for TAP/CMAQ funding: The MPO prioritizes project proposals for the Transportation Alternatives Program (TAP) and Congestion Mitigation and Air Quality (CMAQ) Program. These funding sources provide opportunities to implement projects that improve bicycle and pedestrian safety.

MPO Studies: The High Injury Network analysis has identified several corridors in the region which would benefit from more focused comprehensive safety analysis and planning.

MPO Technical Support for member community SS4A applications: The MPO will provide data and technical support for communities submitting applications for implementation projects.

Outreach: While continuing to utilize the TAC and Policy committees as a baseline for community and agency input, the interested parties list will be expanded to incorporate those agencies and constituencies identified during the development of the Safety Action Plan.

Future Plan Updates and Evaluation

This plan incorporates performance metrics to monitor ongoing and continuous implementation efforts. These metrics are centered on reducing or eliminating serious injuries and fatalities from roadway crashes. They rely on traditional data sources such as reported crashes, supplemented by gathering additional data such as near misses and insights from the experiences of the region residents. Updating this plan every

five years is essential to align with the latest New Hampshire Strategic Highway Safety Plan (SHSP),[2] new federal and state funding opportunities, and evolving traffic safety issues and priorities.

- Incorporate SAP measures and trends into the system performance report as well as into the annual HSIP targets.
- Discuss safety issues/concerns/trends with the TAC and Policy committees as part of the adoption of annual HSIP targets.
- Continue to work with available crash data to identify trends and hot spots and refine analysis methodologies.
- Continue to work with NH Department of Transportation and NH Department of Safety on updates to the Strategic Highway Safety Plan and related efforts.
- Comprehensively update the Safety Action Plan on a 5 year rotation timed so that resulting projects and policies can be integrated into the next LRTP update

Outreach Efforts

The RPC used several methods of outreach to involve the public in the development of the Safety Action Plan. A dedicated page on the platform Public Input was created, consisting of an online survey and interactive input map. The RPC also organized a sequence of meetings with the project's Steering Committee, the New Hampshire RPC Transportation Technical Advisory Committee (TAC), and focus group meetings with key stakeholders. Focus groups for the plan included bicyclists, motorcyclists, and social service professionals who serve people disproportionately impacted by crash injuries and fatalities, such as older adults.

The collective feedback from these meetings guided the project team's development of a series of recommendations aimed at improving local roadway safety. The contributions from the general public, primarily expressed through the online survey, were critical in capturing a detailed understanding of local experiences and priorities. This engagement was especially valuable as it facilitated input from individuals with disabilities, parents of young children, and those lacking access to private motor vehicles. These groups are often underrepresented in public involvement processes, but offer unique perspectives on roadway safety.

Focus Group Meetings

Three focus-group meetings were conducted to gather input from plan stakeholders. RPC staff facilitated detailed discussions with motorists, pedestrians, bicyclists, motorcyclists, and social service providers located near the region's largest overall crash hot spot in Portsmouth.

The primary objectives of the meetings were to review the Safety Action Plan approach and gain insight on public concerns about local roadway safety. The feedback obtained from these meetings was integrated with the results from the Public Survey.

[2] 2022-2026 New Hampshire Strategic Highway Safety Plan: https://www.dot.nh.gov/sites/g/files/ehbemt811/files/inline-documents/strategic-highway-safety-plan-2022-2026.pdf

Public Webpage

For the Roadway Safety Action Plans, a web page was developed and hosted on the Strafford Regional Planning Commission's website to provide comprehensive information about the Roadway Safety Action Plans. This page includes an overview of the Roadway Safety Action Plans and background on the funding source—USDOT's SS4A program. Graphs were included that presented data on fatal and serious injury crashes over the past five years for each of the four MPOs, based on information from the New Hampshire Department of Transportation. Additionally, the page features details regarding stakeholder and committee meetings. To help community members understand the plan's goals, the web page explains the Safe System Approach to transportation safety and its alignment with New Hampshire's SHSP.

Public Survey

A critical engagement tool used for the Roadway Safety Action Plan included an online survey. The survey featured questions that asked participants to help the project team better understand the public's experiences when walking, driving, bicycling, or using a mobility device within the four Metropolitan Planning Organization regions in New Hampshire. The survey was published and advertised on June 7, 2024, and was open until July 16, 2024. The survey garnered just over 1,000 responses.

Respondents were asked to provide information on their demographics, their typical modes of transportation, and how safe they feel while using different modes of transportation. The survey also included questions about their top road safety concerns related to driver behavior and road conditions, as well as space for respondents to suggest potential safety improvements and share specific safety concerns. A full list of the questions and summary of the answers is available in Appendix A.

In addition to the questions, respondents had the option to add markers to an interactive map to highlight locations within each MPO region where they feel unsafe using specific modes of transportation and ideas where they would like to see safety improvements. Suggestions for potential improvements included road maintenance and condition, pedestrian-friendly infrastructure, expanding bike lanes, addressing traffic congestion, enhancing public transportation, better signage and pavement markings, or other infrastructure ideas provided by respondents. A total of 1007 individuals completed the online survey, with just over 1,700 markers expressing safety concerns and/or ideas for improvements, as shown in Figures 3-6.

Of the 1,729 individual markers placed:

- 809 (47%) related to motor vehicle safety concerns
- 425 (25%) for pedestrian safety
- 334 (19%) for bicycle safety
- 161 (9%) were in the other safety improvement category

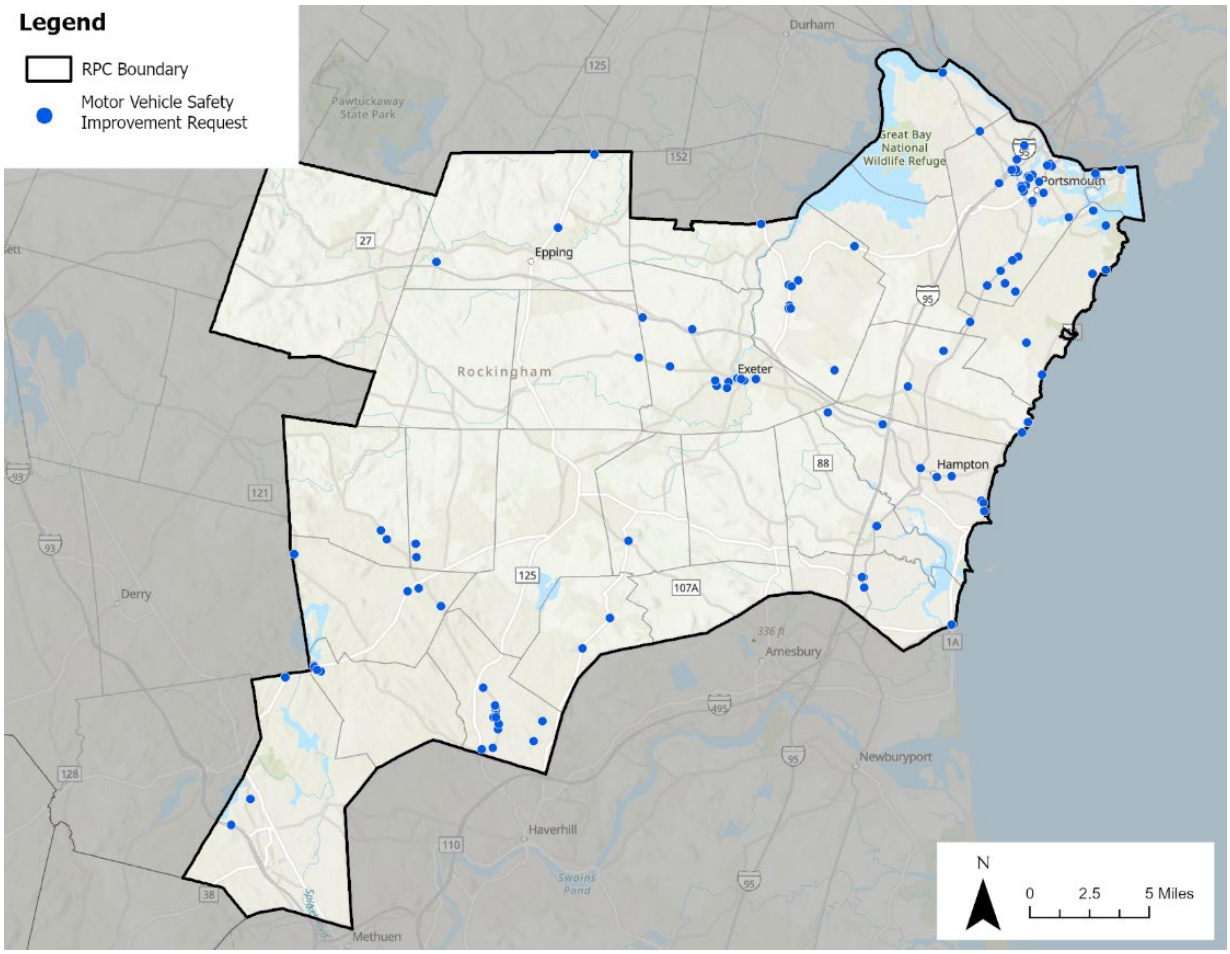


Figure 3: Map of Motor Vehicle Safety Improvement Requests from Survey

Some key takeaways from the motor vehicle safety questions include:

- **Dangerous Intersections:** Survey respondents indicated that intersections in the region can feel dangerous due to poor visibility, high speeds, and confusing layouts.
- **Speeding Issues:** Speeding was one of the most common concerns among the public input received. Respondents suggested reducing speed limits and increasing patrolling of high-speed crash locations and implementing traffic calming measures such as speed bumps and medians.
- **Traffic Signal Improvements:** The responses from public outreach showed support for better traffic signal synchronization and the addition of new traffic signals at busy intersections to improve traffic flow and safety.
- **Roundabouts:** Several respondents suggested adding or improving existing roundabouts to reduce intersection crashes related to human error and reduce congestion.
- **Signage Improvements:** Better signage is needed to guide drivers, especially at confusing intersections and traffic circles. Improved signage can help reduce accidents and improve traffic flow.

- **Visibility Issues:** Poor visibility due to overgrown vegetation, parked cars, and inadequate lighting is a common concern among the public. Respondents suggested trimming vegetation, improving lighting, and removing or relocating parking spaces away from intersections and crosswalks to enhance sightlines.
- **Road Maintenance:** roads in poor condition as a potential safety hazard. Roads and bridges in need of maintenance can result in crashes and related public safety concerns.
- **Enforcement of Traffic Laws:** Public input received for the plan indicated a need for better enforcement of traffic laws, including speed limit enforcement, yielding to pedestrians, and obeying traffic signals. Increased police presence and the use of traffic cameras are suggested to deter violations.

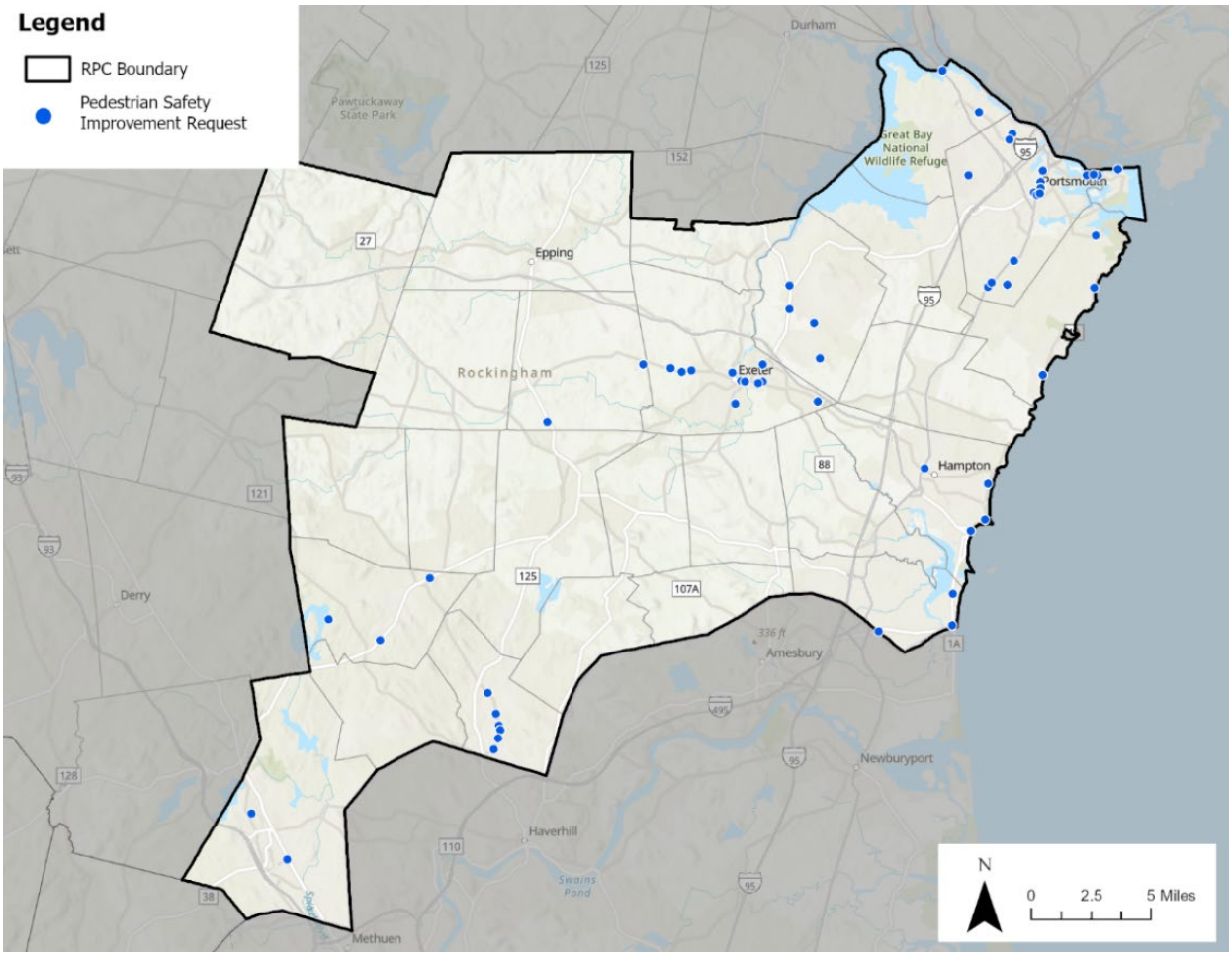


Figure 4: Map of Pedestrian Safety Improvement Requests from Survey

Some key takeaways from the pedestrian input include:

- **Need for More Crosswalks**: There is a significant demand for additional crosswalks in various areas to enhance pedestrian safety.
- **Improved Sidewalks, Winter Maintenance, and Accessibility Enhancements:** Respondents emphasized the need for better-maintained sidewalks, including addressing gaps, repairing existing pathways, and ensuring ADA compliance. Furthermore, maintaining clear sidewalks during winter is crucial for pedestrian safety, as many become impassable due to snow and ice. Additionally, there was frequent reference to enhancing accessibility for individuals with disabilities which includes installing curb ramps and ensuring sidewalks are navigable for wheelchairs.
- **Better Lighting**: Improved lighting at intersections, mid-block crossings and along sidewalks is a common request to ensure pedestrian visibility and safety, especially at night.

- **Traffic Calming Measures**: There were multiple calls for implementing traffic calming measures such as speed bumps, narrower roads, and better signage to slow down vehicles in areas of high pedestrian activity.
- **Pedestrian Signals and Signage**: Enhanced pedestrian signals, including countdown timers and flashing signs, are needed to make crossing streets safer for pedestrians.
- **Addressing Dangerous Intersections**: Specific intersections have been identified as particularly dangerous for pedestrians, requiring immediate modification or redesign.
- **Enforcement of Traffic Laws**: Better enforcement of existing traffic laws, such as no-turn-on-red rules, speed limit enforcement, and yielding to pedestrians at crosswalks, is necessary to improve pedestrian safety.

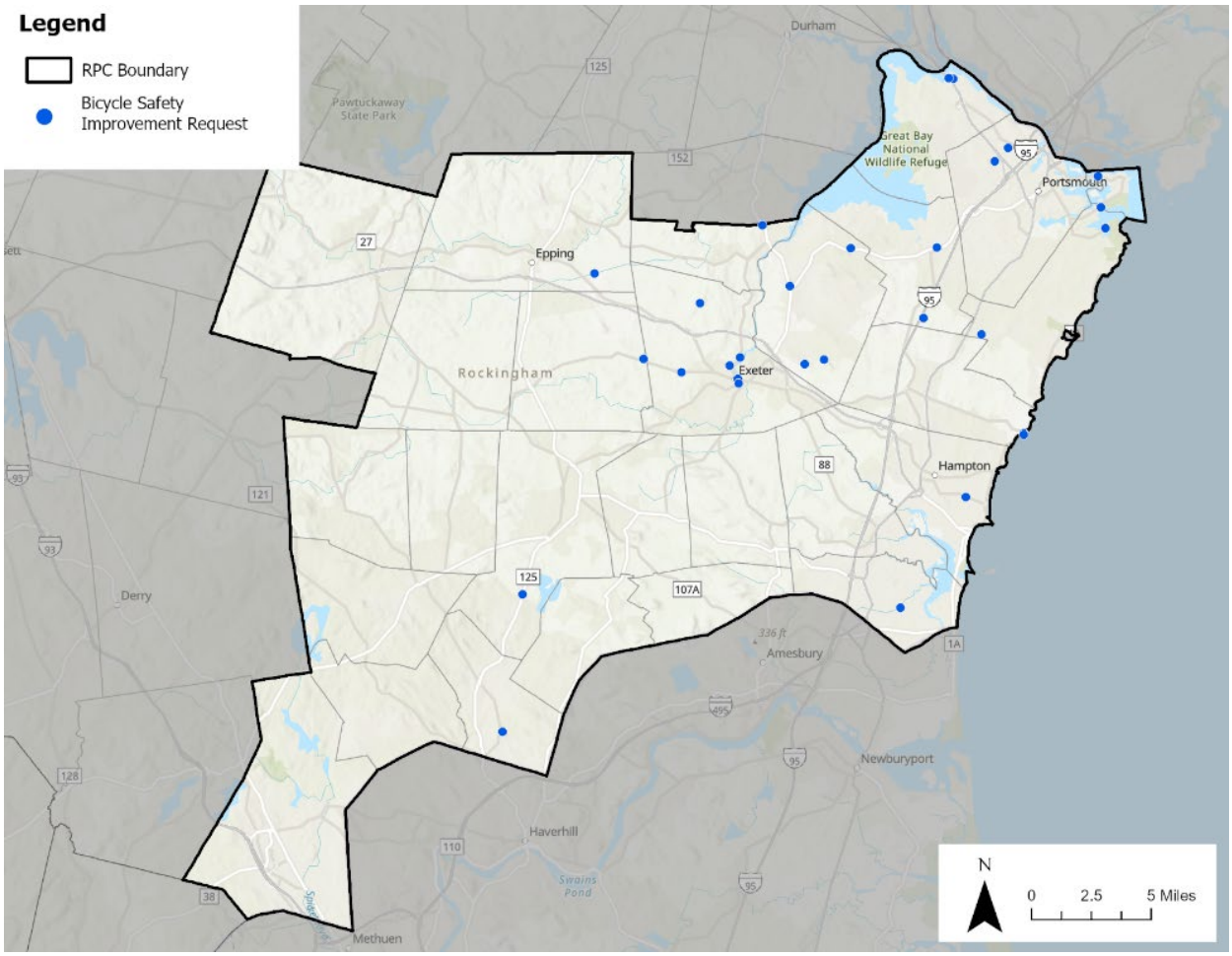


Figure 5: Map of Bicycle Safety Improvement Requests from Survey

Some key takeaways from the bicycle input include:

- **Strong Desire for Protected Bike Lanes**: Many respondents emphasized the need for physically separated bike lanes to ensure cyclist safety, as painted lines alone are not sufficient.
- **Improvement of Existing Infrastructure and Integration with Public Transport:** There were multiple calls for the enhancement and extension of existing bike lanes and trails. In addition, safe access for bicyclists traveling from town to town was identified as a priority. Respondents emphasized the need for better integration of bike lanes with public transport routes to facilitate more seamless multi-modal connections.
- **Traffic Calming Measures**: Several comments suggested implementing traffic calming measures, such as reducing/enforcing speed limits, narrowing lanes, and adding properly designed and placed rumble strips, to make roads safer for people on bicycles. Note that bicyclist safety should be considered when evaluating whether to install rumble strips on narrow shoulders.
- **Education and Enforcement**: Respondents highlighted the need for better education and enforcement of traffic laws for both motorists and cyclists to improve safety and compliance. This also included improved data collection on crashes involving vulnerable road users and better documenting in crash reports when driver distraction was likely a contributing factor, even if there was no citable offense.
- **Visibility and Signage**: Improved signage to alert drivers to the presence of bicyclists and to indicate shared roadways was a common suggestion.
- **Addressing Specific Dangerous Areas**: Many respondents pointed out specific areas that are particularly dangerous for bicycling and need immediate attention, such as busy intersections, roundabouts, and roads with high-speed traffic.
- **Community Engagement and Support**: Encouraging community support and engagement in promoting bicycling as a safe and viable mode of transportation was seen as important.

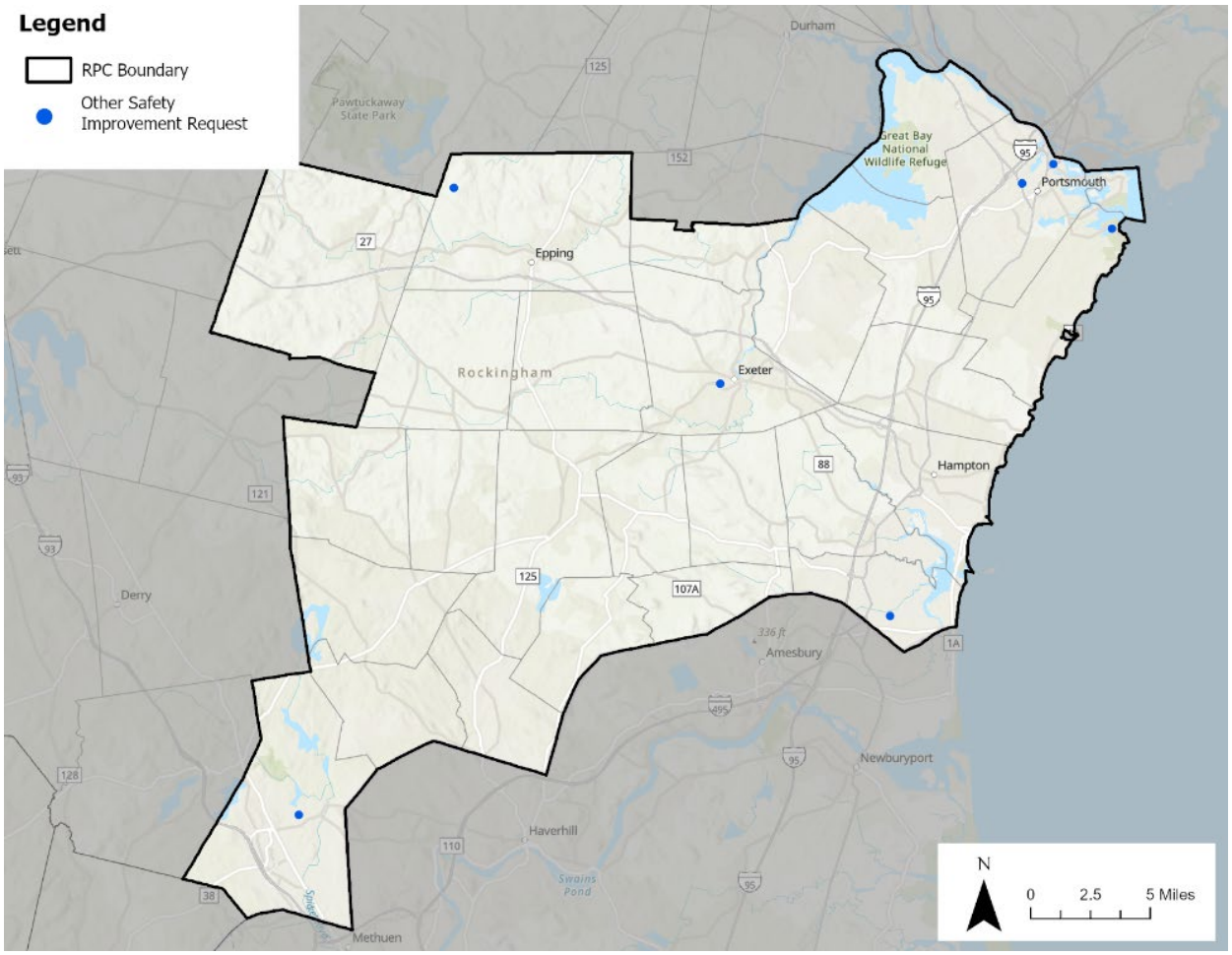


Figure 6: Map of Other Safety Improvement Requests from Survey

Some key takeaways from the other safety input include:

- **Street Lighting**: Participants indicated a need for improved lighting at several intersections and along routes throughout the region to improve visibility and safety for drivers, pedestrians, and cyclists.
- **Secure Bike Parking**: As bike infrastructure expands, secure bike racks can reduce the risk of bike theft and encourage more people to bicycle.
- **Crosswalk Signage**: There is a demand for improved crosswalk signage and closer spacing of crosswalks along higher-volume local roads, near transit facilities, and at intersections to prevent crashes and near misses.
- **Public Transit Expansion**: There was strong support in the public input received for expanding public transit services, including more frequent buses, longer operating hours, and better connectivity between towns to improve safe access for all road users, including those who are unable to drive due to age or health reasons.

- **Traffic Signal Adjustments**: Suggestions included reconfiguring traffic signals during peak hours and implementing adaptive signal timing to improve traffic flow, improve safety for crossing pedestrians and bicyclists, and to reduce roadway hazards related to congestion.
- **Speed Control**: Respondents expressed support for better speed enforcement and traffic calming measures, such as speed bumps and stop signs, to ensure less collisions between vehicles and other roadway users.

Existing Efforts

2022-2026 New Hampshire Strategic Highway Safety Plan

The New Hampshire Strategic Highway Safety Plan (SHSP) is an integral component of the State's Highway Safety Improvement Program (HSIP). This Federal-aid program utilizes funds to implement strategies and countermeasures aimed at reducing fatalities and serious injuries on all public roads. Each State receives HSIP funding and develops a report to indicate how the money will be used on infrastructure related projects that align with the SHSP's Critical Emphasis Areas (CEAs).

The RPC Safety Action plan follows a process similar to the data-driven and multidisciplinary effort to develop the SHSP. In both plans, safety is the top focus, and both have emphasis areas outlining the key crash types and risks, listing specific strategies for addressing the safety problems. Both approaches use the Safe System approach. Through this comprehensive approach, New Hampshire aims to create a safer, more sustainable transportation environment that protects all road users and supports the state's vision of zero traffic-related fatalities and serious injuries.

SHSP Critical Emphasis Areas (CEAs)[3]

Intersections – The junction of two or more roadways.

Roadway Departure – Crashes involving drivers drifting out of their lanes into opposing traffic or off the roadway.

Distracted Driving – Any non-driving activity that a person engages in while driving that causes inattentiveness or distracts them from the primary task of driving. Four main types of distraction are visual, manual, cognitive, and drowsiness.

Impaired Driving – Driving under the influence of alcohol and/or drugs.

Speed and Aggressive Driving – Speeding is driving above speed reasonable and proper for the roadway conditions.

Vehicle Occupant Protection – Vehicle occupant protection is the proper use of seat belts, child safety restraints, and other vehicle safety features that help to avoid or reduce the severity of injuries that might result from a crash.

Older Drivers – Crashes involving drivers aged 65 and older.

Teen Traffic Safety – Crashes involving drivers 18 and under.

Vulnerable Roadway Users (Motorized) – Crashes involving motorcyclists or other motorized vulnerable roadway users (i.e., scooters or Off-Highway Recreational Vehicles [OHRVs]).

Vulnerable Roadway Users (Non-Motorized) – Crashes involving pedestrians (including wheelchair users), bicyclists, and e-bikes.

[3] New Hampshire 2022-2026 Strategic Highway Safety Plan

Local, Regional, and State Plans

Local, regional, and state transportation plans were reviewed for relevance to roadway safety and alignment with Safety Action plan goals and strategies. Plans reviewed included the following:

State Plan Summaries

2022-2026 New Hampshire Strategic Highway Safety Plan (SHSP)

The 2022-2026 New Hampshire Strategic Highway Safety Plan (SHSP) is an ambitious initiative aimed at achieving zero fatalities and serious injuries on state roadways. Focus areas include intersection safety, preventing roadway departures, and mitigating distracted and impaired driving through education and stricter enforcement. The plan also addresses speed management, vehicle occupant protection, and safety improvements for vulnerable road users like pedestrians, cyclists, and motorcyclists. Collaboration with local, regional, and national entities is essential, along with community involvement and stakeholder engagement. The SHSP emphasizes a data-driven, adaptable approach for deploying targeted safety interventions and enhancing regional safety efforts. It provides a valuable framework for regional safety action plans by advocating for prioritizing interventions in high-risk areas based on data analysis. The plan develops targeted strategies for each critical emphasis area, tailored to specific regional needs, ensuring continuous improvement through regular reviews and updates based on new data and feedback.

2022 New Hampshire Highway Safety Plan (HSP)

The New Hampshire Highway Safety Plan (HSP) is a detailed strategy aimed at enhancing the safety of all road users in the state. This plan builds on previous efforts and incorporates updated data and methodologies to address current safety challenges effectively. Developed by the New Hampshire Office of Highway Safety, the plan targets key issues such as speeding, impaired driving, and seatbelt usage, citing increases in speed-related fatalities and impaired driving incidents as critical areas of concern. To address these issues, the HSIP combines education, enforcement, and engineering solutions, including public awareness campaigns, stricter penalties, increased police presence, and roadway improvements. The plan relies on data-driven decision-making to allocate resources effectively, monitor the success of interventions, and make necessary adjustments. Collaboration with local, regional, and national organizations and community involvement is emphasized to align safety efforts and share best practices. Overall, the HSP provides a thorough framework to improve road safety and foster a safer driving environment statewide.

2023 New Hampshire Bicycle and Pedestrian Plan

The 2023 New Hampshire Bicycle and Pedestrian Plan outlines a comprehensive strategy aimed at enhancing the safety and accessibility of active transportation across the state. Building on previous efforts, the plan integrates recommendations from the Strategic Highway Safety Plan (SHSP) and aims to make all modes of travel, including biking and walking, safer and more convenient for users of all ages and abilities. Key elements include addressing pedestrian fatalities, which accounted for 9% of total roadway fatalities between 2015-2019; enhancing infrastructure, and promoting policies such as Complete Streets in various communities. The plan also stresses the importance of developing a network of bike

facilities and addressing gaps in the sidewalk infrastructure to encourage more sustainable and healthy transportation options. Through these measures, the state aims to create a safer and more connected environment for pedestrians and cyclists.

2023 New Hampshire Vulnerable Road User Safety Assessment (VRUSA)

The 2023 New Hampshire Vulnerable Road User Safety Assessment (VRUSA) is a crucial initiative focused on enhancing the safety of pedestrians and bicyclists on the state's roads. This assessment is a critical part of New Hampshire's Highway Safety Improvement Program and primarily aims to reduce the rising number of fatal and serious crashes involving these vulnerable groups through data-driven analysis. Mandated by federal guidelines, the VRUSA identifies high-risk areas and proposes targeted strategies and interventions to address these risks. Key actions include improving road design, increasing public awareness, and fostering collaborations among various stakeholders, including local, regional, and national organizations. The assessment also emphasizes continuous improvement and adaptation based on ongoing data collection and feedback, ensuring that New Hampshire's roads become increasingly safer for non-motorists.

2024 New Hampshire HSIP Implementation Plan

The 2024 New Hampshire Highway Safety Improvement Program (HSIP) Implementation Plan is a targeted initiative mandated due to the state's failure to meet significant safety performance measures in 2022. It focuses on critical areas such as reducing fatalities and improving safety for all road users, especially vulnerable road users like pedestrians and bicyclists, through data-driven efforts. Developed by the New Hampshire Department of Transportation (NHDOT), the plan integrates strategies across education, enforcement, and engineering solutions to address key safety issues including speeding, impaired driving, and inadequate seatbelt usage. Emphasizing collaboration, the HSIP Implementation Plan involves partnerships with local, regional, and national organizations to enhance safety measures and share best practices. This comprehensive approach ensures continuous improvement, guided by regular updates and feedback based on emerging data.

Local & Regional Plan Summaries

2015 Rockingham Planning Commission Regional Master Plan

The 2015 Rockingham Planning Commission (RPC) Regional Master Plan provides a comprehensive framework for the region's development, with a significant emphasis on transportation. The transportation section addresses several critical issues and challenges, such as aligning limited financial resources with the growing needs of the transportation network. The plan emphasizes the preservation, maintenance, and modernization of the existing transportation system, aiming to improve safety and operational efficiency. Key safety takeaways include the implementation of traffic calming measures, enhancement of road infrastructure, and development of pedestrian and bicycle pathways to improve safety for non-motorized users. The plan also integrates "Complete Streets" elements to ensure that streets are designed for safe use by all, regardless of age, ability, or mode of transportation. By following these strategies, the RPC aims to create a safer, more efficient, and sustainable transportation network, while promoting regional collaboration and long-term resilience.

2050 Long Range Transportation Plan

The 2050 Long-Range Transportation Plan (LRTP) developed by the Rockingham Planning Commission is a federally mandated planning document that outlines significant transportation infrastructure improvements for the next 25 years. Covering the Metropolitan Planning Area, the LRTP addresses key areas including automotive, transit, bicycle, pedestrian, and freight transportation. The plan sets specific goals, strategies for achieving them, and performance metrics to monitor progress. Utilizing data-driven analysis and continuous public involvement, the LRTP prioritizes projects designed to enhance regional connectivity, safety, and sustainability. Compliance with federal regulations as per 23 CFR Part 450.324 ensures the plan integrates effectively with broader regional and national transportation strategies. By focusing on land use coordination, multimodal connectivity, and fiscal constraints, the plan aims to develop a comprehensive and resilient transportation network that addresses current conditions and anticipates future needs.

2025-2028 Rockingham Planning Commission Transportation Improvement Program (TIP)

The 2025-2028 Rockingham Planning Commission Transportation Improvement Program (TIP) is a structured, multi-year initiative that presents a prioritized list of transportation projects slated for implementation within the Metropolitan Planning Organization area over four Federal fiscal years (2025-2028). This TIP was officially adopted on March 12, 2025, and is developed collaboratively by the RPC, regional transit agencies, and the New Hampshire Department of Transportation (NHDOT). The TIP focuses on addressing regional transportation needs through projects aimed at enhancing connectivity, safety, and infrastructure for various transportation modes, including automotive, transit, bicycle, and pedestrian paths. It aligns with the broader Long Range Transportation Plan (LRTP) and adheres to federal regulations, ensuring consistency and coordination with the Statewide Transportation Improvement Program (STIP). Regular amendments and updates are incorporated to reflect evolving priorities and regulatory compliance, supported by community and stakeholder engagement to maintain the program's responsiveness to the region's dynamic transportation challenges.

Unified Planning Work Program (UPWP)

The Unified Planning Work Program (UPWP) of the Rockingham Metropolitan Planning Organization outlines the planning priorities and tasks to be addressed within each two-year period (currently 2024-2025), emphasizing a unified approach to transportation planning. Required under the 3Cs (Continuing, Cooperative, Comprehensive) metropolitan planning process, the UPWP ensures compliance with Metropolitan Planning Rules. The document specifies the sources and amount of available funding to achieve these objectives, providing a comprehensive overview of all activities to be undertaken by the MPO, prioritizing projects, and ensuring the development of a safe, reliable, and sustainable transportation network. It integrates planning efforts across different levels of government and community stakeholders, thereby fostering regional collaboration and addressing both state and local transportation needs.

Data Analysis

Background

This Safety Action Plan is driven by data analysis that identified when, where, and how crashes occurred in the Rockingham Planning Commission (RPC) region. Fatal, serious injury, minor injury, possible injury, and property damage only crashes were analyzed for the period of 2018-2022. Non-fatal crash data which is managed by the Department of Motor Vehicles' DMV VISION Crash Records Management System (CRMS) was distributed to the consultant for analysis. The data source for fatal crashes was the federally maintained Fatality Analysis Reporting System (FARS).

For the development of the Safety Action Plan, the RPC analyzed crash data identifying when, where, and how crashes in the RPC region occurred. By analyzing crash data from 2018 to 2022, RPC has identified crash patterns and trends to consider in safety planning efforts. This analysis includes all crash types, from minor incidents to those resulting in serious injuries or fatalities.

Data sources include the Department of Motor Vehicles' Crash Records Management System (CRMS) for non-fatal crashes and the federally maintained Fatality Analysis Reporting System (FARS) for fatal crashes. This Safety Action Plan prioritizes crashes with the most severe outcomes in fatalities, serious injuries, and minor injuries to guide safety improvement recommendations. By aligning with the emphasis areas outlined in the 2022-2026 New Hampshire Strategic Highway Safety Plan (SHSP), RPC can focus its efforts on high-impact locations, policies, and programs for moving towards zero roadway deaths. This coordinated approach supports the long-term goal of eliminating traffic fatalities and serious injuries in the region by 2050.

Key Findings

During the five-year period from 2018 to 2022, the RPC region experienced notable trends in crash severity and contributing factors. There were 65 fatal crashes, 282 resulting in serious injuries, and 2,270 causing minor injuries. Despite a reduction in total crashes during 2020, coinciding with COVID-19 restrictions, the number of serious injury crashes remained high, suggesting that decreased traffic volumes may have led to higher speeds and more severe outcomes. The overall proportion of crashes resulting in fatalities or injuries increased from 11% in 2018 to 13.3% in 2022, underscoring a growing safety concern. The data indicates that roadway departures, speed, aggressive driving, and improper occupant protection were significant factors in fatal crashes, highlighting the need for targeted safety interventions.

The emphasis area analysis further identified key factors in crash occurrences, with Older Drivers, Distracted Driving, and Occupant Protection as the most frequently recorded emphasis areas. Notably, Vulnerable Motorized Users (motorcycles and mopeds) and Vulnerable Non-Motorized Users (bicycles and pedestrians) had the highest rates of fatal, serious, or minor injuries, at 60% and 57%, respectively. These findings emphasize the critical need for strategies targeting specific risky behaviors, such as speeding and aggressive driving, especially among vulnerable road users. Additionally, the overlap between different emphasis areas, such as impaired driving and road departures, illustrates the complex nature of crash causation. Addressing these issues through improved road designs, enhanced

enforcement, and public education could significantly advance efforts to reduce fatal and serious injury crashes by 50% by 2035, and achieve the ultimate goal of zero fatalities by 2050.

General Trends

During the 5-year period from 2018 to 2022, there were 65 fatal crashes, 282 crashes resulting in serious injury, and 2,270 minor injury crashes in the RPC region. Figure 7 shows the trend of fatal, serious, and minor injury crashes.

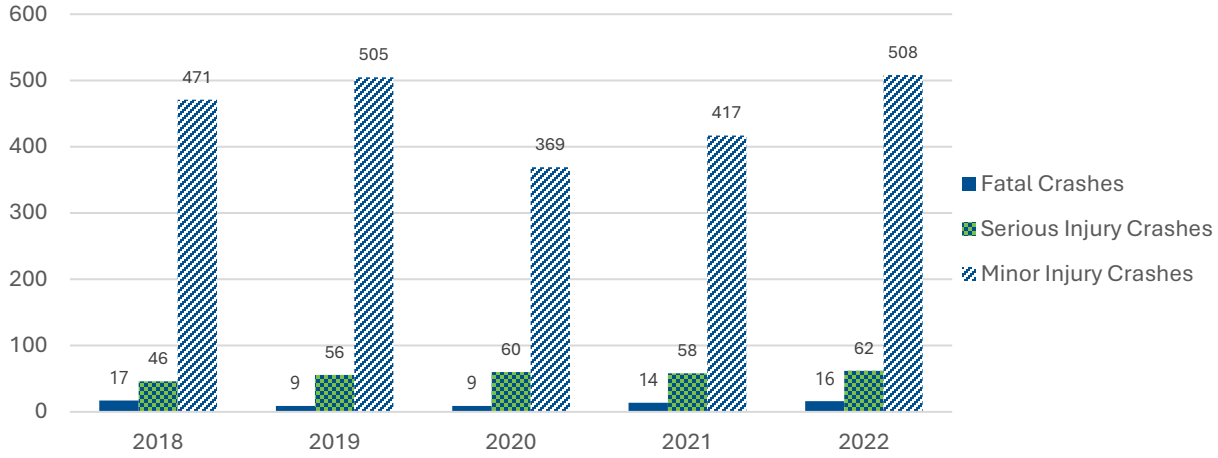
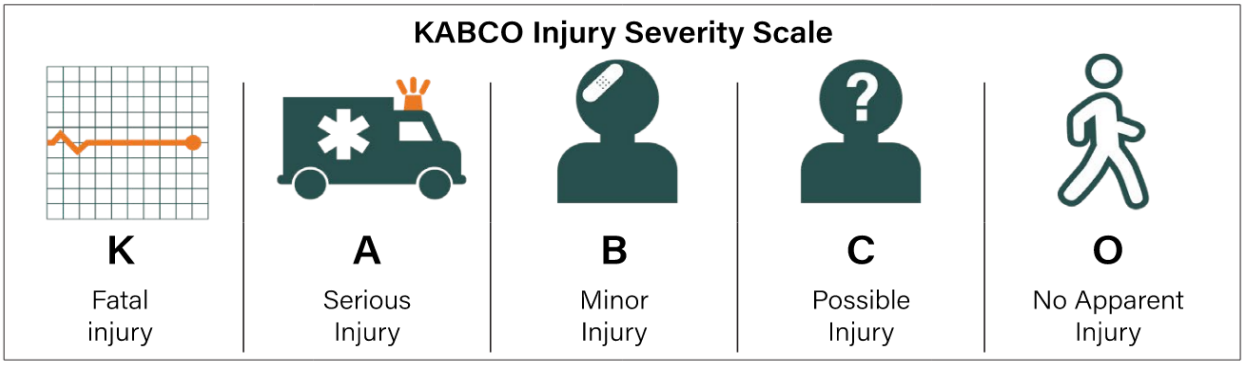


Figure 7: Fatal, Serious, and Minor Injury Crashes by Year, RPC

Table 1 shows the total number of crashes across levels of severity – fatal, serious injury, minor injury, possible injury, and property damage only.[4] Total crashes reached a low in 2020, during the widespread COVID-19 related restrictions. However, the decrease in total crashes did not decrease the number of serious injuries. In fact, during this five-year period, the second highest total for serious injury crashes was recorded in 2020. A potential reason is that as traffic volume decreases, more open roads allow drivers to drive faster, leading to more severe injury outcomes. Over the 5-year period between 2018 and 2022, the overall percentage of crashes that resulted in a fatal, serious, or minor injury[5] increased each year. In 2018, 11% of crashes resulted in fatality, serious injury, or minor injury, but by 2022, the proportion increased to13.3%.

Table 1: Crash Totals by Severity

Crash Severity	2018	2019	2020	2021	2022	Row Total
Fatal	17	9	9	14	16	65
Serious Injury	46	56	60	58	62	282
Minor Injury	471	505	369	417	508	2,270
Possible Injury	192	218	191	168	187	956
Property Damage Only	4,135	4,312	3,036	3,425	3,624	18,532
Column Total	4,861	5,100	3,665	4,082	4,397	22,105



[4] Victims who suffer a serious or minor injury experience broken bones, severe or medium bleeding, unconsciousness, and dislocations. Possible injury involves minimum bleeding, scrapes, and/or bruises. Source KABCO Injury Classification Scale and Definitions – FHWA (chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://highways.dot.gov/media/20141).

[5] The KABCO scale is a functional measure of the injury severity for any person involved in the crash. K-Fatal Injury, A-Suspected Serious Injury, B-Suspected Minor Injury, C-Possible Injury, and O-No Apparent Injury

Emphasis Area Analysis

Table 2 shows the total crashes recorded in the region during the 5-year period from 2018-2022. The emphasis areas are the primary factors involved in New Hampshire crashes as identified in the SHSP. SHSP emphasis areas are listed as rows and broken down by injury severity as columns. Please note that the columns do not add up to the 'Total' shown in the column header as crashes can often involve multiple emphasis areas at once – for example, a crash involving a distracted driver who is speeding and driving while impaired would involve three emphasis areas.

The three emphasis areas with the most crashes in the RPC were:

- Older Drivers (4,514 crashes)
- Distracted Driving (4,341 crashes)
- Occupant Protection (2,387 crashes).

The 'Percent of Emphasis Area Resulting in KAB column in Table 2: Crash Severity by Emphasis Area shows the percent of total crashes for each emphasis area that resulted in a fatal (K), serious (A), or minor (B) injury. The three emphasis areas with the highest occurrence of fatal, serious, and minor injuries are Vulnerable Motorized Users – Motorcycles/Mopeds (60%), Vulnerable Non-Motorized Users – Bikes/Pedestrians (57%), and Speed and Aggressive Driving (28%).

Table 2: Crash Severity by Emphasis Area

SHSP Emphasis Area Crashes	Fatal (K) n=65	Serious Injury (A) n=282	Minor Injury (B) n =2,270	Possible Injury (C) n = 956	Property Damage Only (O) n = 18,532	Percent of Emphasis Area Resulting in KAB	Percent of Total KAB	Row Total
Intersections	14	7	126	62	862	14%	6%	**1,071**
Roadway Departure	38	54	298	115	1,401	20%	15%	**1,906**
Distracted Driving	4	44	527	217	3,549	13%	22%	**4,341**
Impaired Driving	18	50	196	58	752	25%	10%	**1,074**
Speed and Aggressive Driving	26	17	81	12	300	28%	5%	**436**
Occupant Protection	37	68	386	138	1,758	21%	19%	**2,387**
Older Drivers (65+)	20	64	531	217	3,682	14%	24%	**4,514**
Teen Drivers (18 and Younger)	5	11	224	82	1,743	12%	9%	**2,065**
Vulnerable Motorized Users – Motorcycles and Mopeds	16	77	240	48	176	60%	13%	**557**
Vulnerable Non-Motorized Users – Ped/Bikes	8	11	91	16	67	57%	4%	**193**

The three emphasis areas that accounted for the greatest proportion of the 65 fatal crashes during the 5-year period were:

- Roadway Departure (38 crashes, 58%),
- Speed and Aggressive Driving (26 crashes, 40%),
- Occupant Protection (37 crashes, 57%).

Figure 8**Error! Reference source not found.** shows the crash severity outcomes for these three emphasis areas. The large proportion of fatal crashes versus non-fatal crashes indicate that crashes involving roadway departures, speed, aggressive driving, and occupant protection are disproportionately fatal. For instance, Speed and Aggressive Driving was a factor in only 1% of non-fatal Roadway Departure crashes, but 47% of fatal crashes. Similarly, improper occupant protection was a factor in 12% of non-fatal roadway departure crashes, but 47% of fatal crashes. This high level of overlap can be addressed through recommended strategies identified in this plan. Countermeasure strategies that address these emphasis areas can help make significant progress in reaching the target of a 50% reduction in fatal and serious injury crashes by 2035 and 0 fatal and serious injury crashes by 2050.

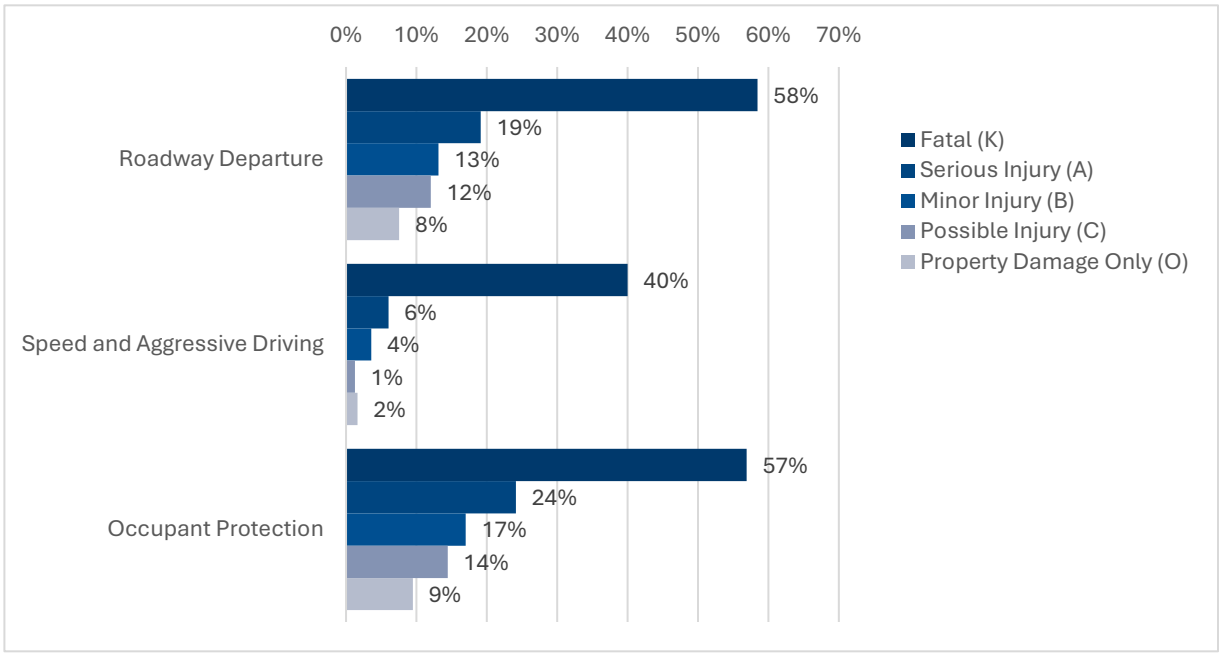


Figure 8: Crash Severity by Emphasis Area for Emphasis Areas with Greatest Proportion of Fatalities

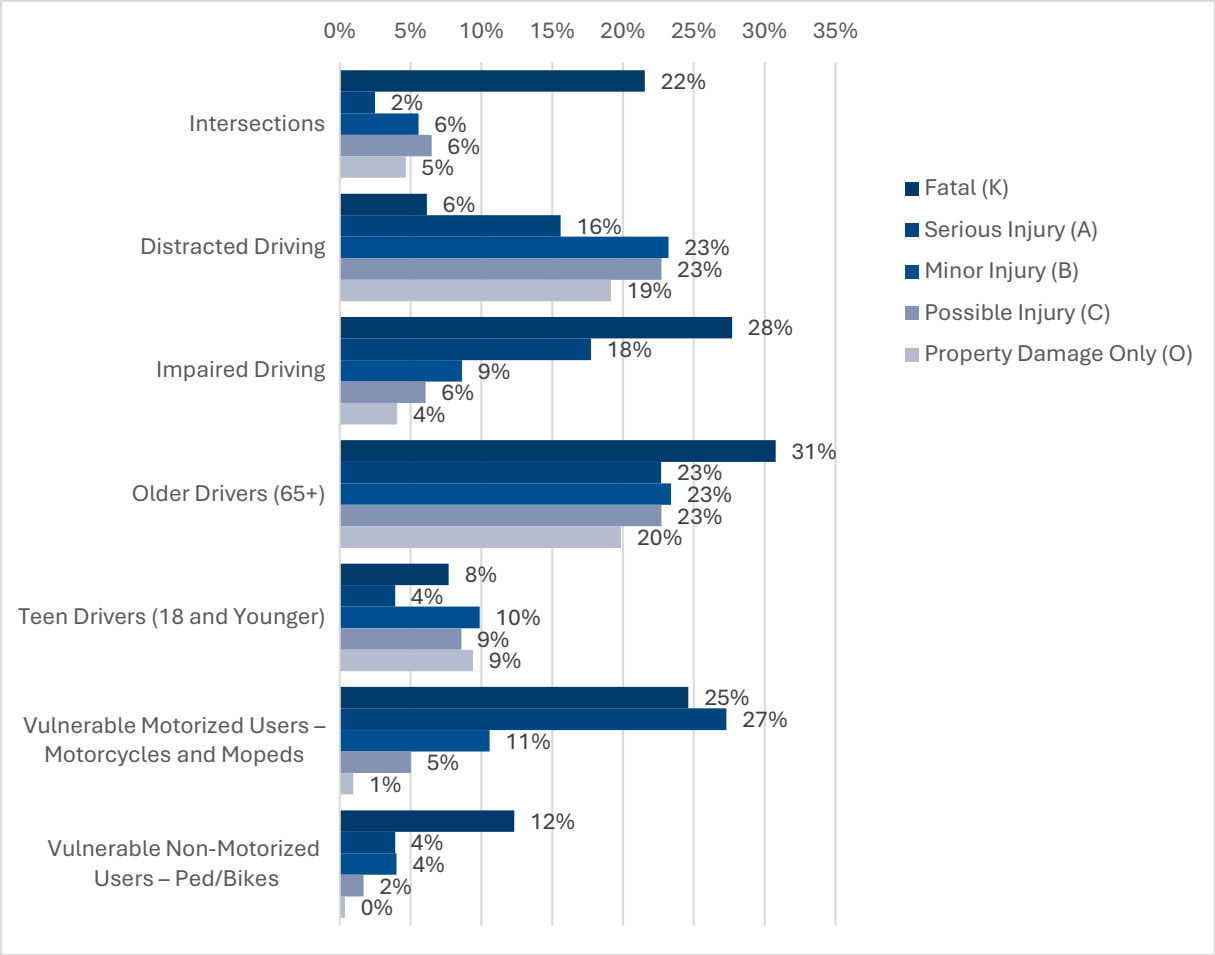


Figure 9: Crash Severity Share by Emphasis Area for Remaining Emphasis Areas

Figure 9Error! Reference source not found. shows the remaining 7 emphasis areas. Teen Drivers are evenly distributed across all crash severities, indicating that crashes related to Teen Drivers are not overrepresented or underrepresented in any severity. Older Drivers are slightly overrepresented in fatal crashes but are otherwise evenly distributed across non-fatal severities. Crashes involving bicyclists and pedestrians (Vulnerable Non-Motorized Users) are overrepresented in fatal crashes, accounting for 12% of fatal crashes, but 4% of serious and minor injury crashes. Vulnerable Motorized Users – Motorcycles/Mopeds are overrepresented in fatal and serious injury crashes, while Distracted Driving is underrepresented in those crash severities. Gathering accurate data on Distracted Driving is difficult, and it is thus believed to be underreported as a contributing factor.

Emphasis Area Highlights

The following section highlights important crash factors for the following five emphasis areas, which represent the three with the highest proportion of fatal crashes and the two vulnerable road user emphasis areas; Roadway Departure, Occupant Protection, Speed and Aggressive Driving, Vulnerable Motorized Users – Motorcycles and Mopeds, and Vulnerable Non-Motorized Users – Bicycles and Pedestrians.

Roadway Departure

- There were a total of 1,906 crashes involving a Roadway Departure during the 5-year period.
- 38 (58%) of the 65 fatal crashes during the 5-year period involved a Roadway Departure.
- Approximately 20% of all Roadway Departure crashes resulted in a fatal, serious, or minor injury.
- Of the 38 fatal Roadway Departure Crashes, 18 (47%) also involved Speed and Aggressive Driving.
- 13 (34%) of the 38 Roadway Departure crashes occurred on a curved roadway.
- 22 (58%) of the 38 Roadway Departure crashes occurred in dark lighting conditions.

Occupant Protection

- There were a total of 2,387 crashes involving improper Occupant Protection during the 5-year period.
- 37 of the 65 fatal crashes (57%) during the 5-year period involved improper occupant protection. During the 5-year period, the average seat belt usage rate was 74% in New Hampshire, and 91% Nationwide[6].
- Approximately 21% of all Occupant Protection crashes resulted in a fatal, serious, or minor injury.
- 11 (30%) of the 37 fatal Occupant Protection crashes involved Impaired Driving.
- The rate of unbelted occupants is higher in the early morning hours (12:00 AM through 5:00 AM).

Speed and Aggressive Driving

- There were 436 crashes involving Speed and Aggressive Driving during the 5-year period.
- 26 (40%) of the 65 fatal crashes during the 5-year period involved Speed and Aggressive Driving.
- 28% of Speed and Aggressive Driving Crashes resulted in a fatal, serious, or minor injury.
- 12 (46%) of the 26 fatal Speed and Aggressive Driving crashes also involved Impaired Driving.
- 62% of fatal crashes involving Speed and Aggressive Driving occurred in dark lighting conditions. Lower traffic volumes in the late evening and early morning hours allow for drivers to reach higher speeds, which leads to more severe injury outcomes in crashes.

[6]Seat Belt Use in 2022 – NHTSA (https://crashstats.nhtsa.dot.gov/Api/Public/Publication/813487)

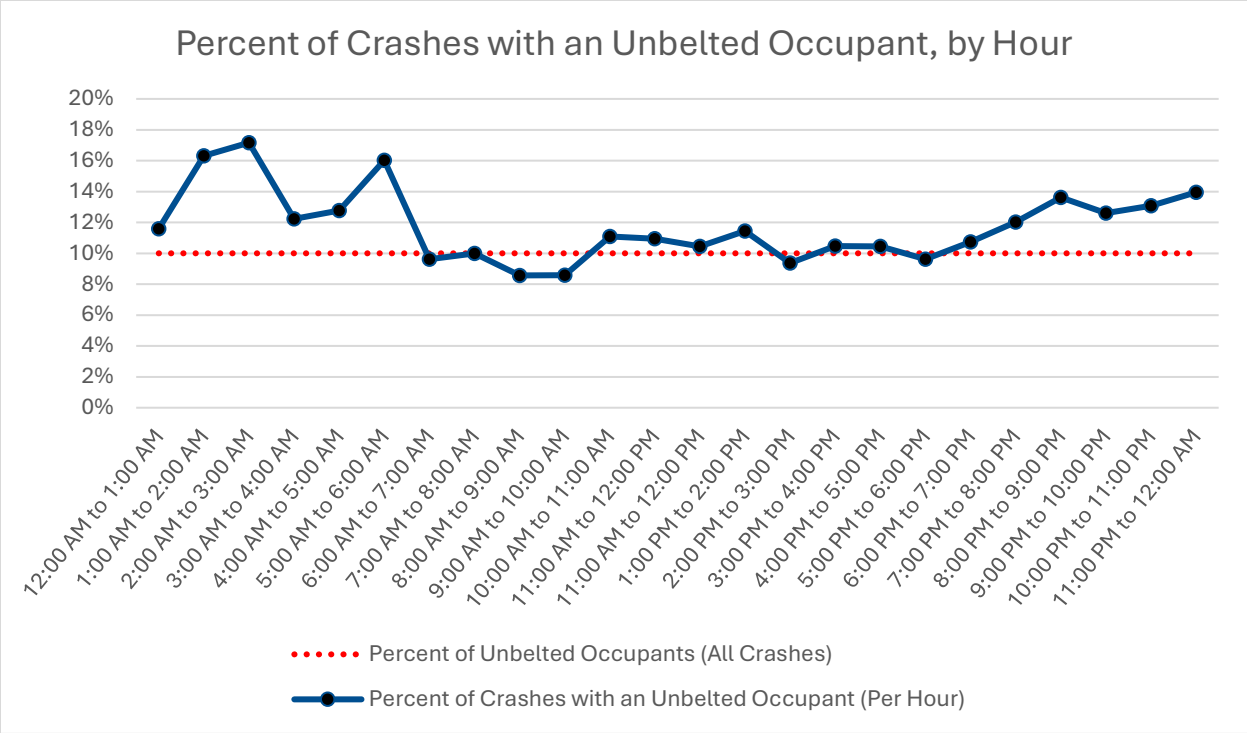


Figure 10: Percent of Crashes with an Unbelted Occupant, By Hour

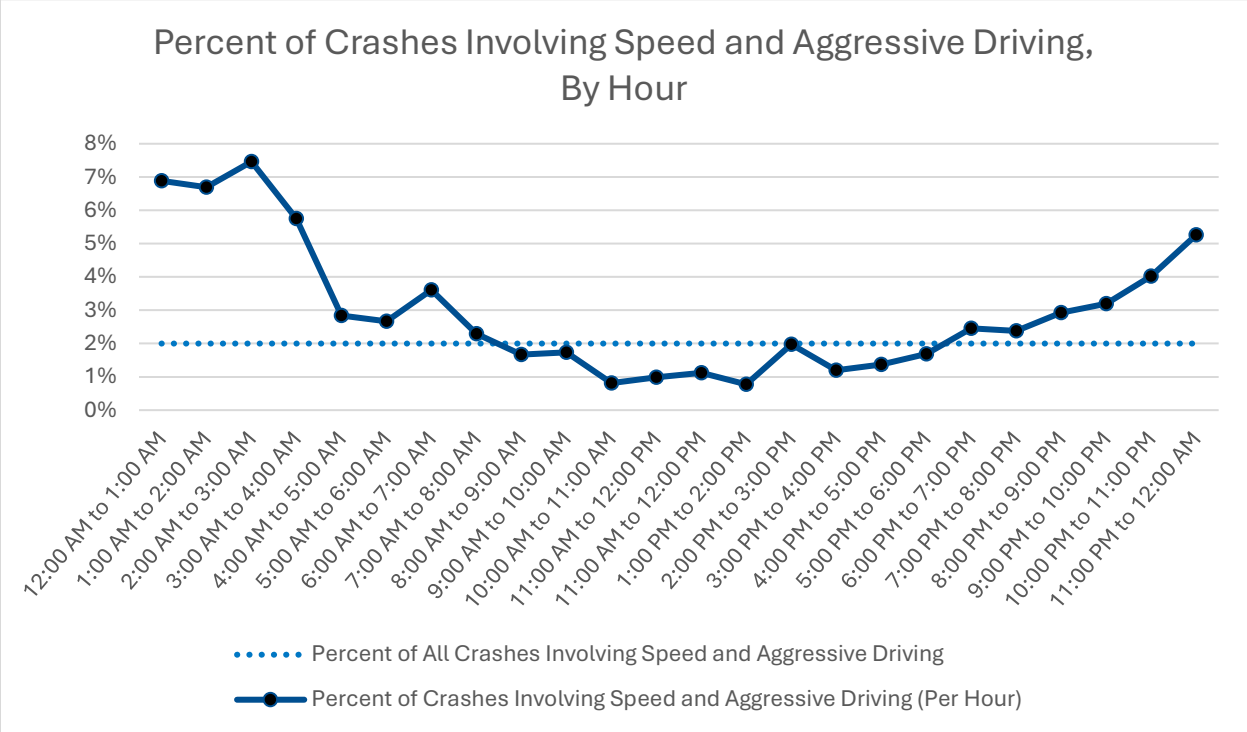


Figure 11: Percent of Crashes Involving Speed and Aggressive Driving, By Hour

Vulnerable Motorized Users – Motorcycle and Mopeds

- There were a total of 557 crashes involving a Vulnerable Motorized User during the 5-year period.
- 16 (25%) of the 65 fatal crashes involved a Vulnerable Motorized User during the 5-year period.
- Approximately 60% of all Vulnerable Motorized User crashes resulted in a fatal, serious, or minor injury. This is the highest rate of all emphasis areas.
- 9 (56%) of the 16 fatal crashes involved riders not wearing a helmet (Occupant Protection). 17% of serious and minor injury crashes involved no helmet usage.
- 8 (50%) of the 16 fatal Vulnerable Motorized User crashes also involved Speed and Aggressive Driving by the operator.
- 8 of the 16 (50%) fatal Vulnerable Motorized User crashes occurred on a Local Road or Street.

Vulnerable Non-Motorized Users – Pedestrians and Bicycles

- The database included a total of 193 crashes involving a Vulnerable Non-Motorized User during the 5-year period, though actual numbers were likely higher these types of crashes are often not reported
- Approximately 57% of all Vulnerable Non-Motorized User crashes resulted in a fatal, serious, or minor injury.
- 8 (12%) of the 65 fatal crashes involved a Vulnerable Non-Motorized User during the 5-year period.
- The 8 fatal crashes occurred on three different road classifications – Minor Arterial (4), Principal Arterial (2), and Local Road or Street (2).
- 171 (89%) of the 193 Vulnerable Non-Motorized User crashes occurred in a non-intersection location. This includes 6 of the 8 fatal crashes, and 10 of the 11 serious injury crashes.
- Approximately 16% of fatal, serious, and minor injury Vulnerable Non-Motorized User crashes involved an older driver, 5% involved a teen driver, and 15% involved a distracted driver.

Crossmatrix Analysis

When a crash occurs, there can be multiple factors that caused the crash. When analyzing crashes to identify trends in emphasis area involvement, we acknowledge the same possibility – there can be an older driver, who is not wearing their seatbelt, and hits a pedestrian. Stated another way, a single crash can involve multiple emphasis areas. Table 3 below shows the overlap between emphasis areas in crashes that resulted in a fatal, serious, or minor injury – the percentages listed are in reference to the emphasis area in the column header. For example, 25% of Impaired Driving crashes also involved a Roadway Departure.

The highest overlap in Table 3 is observed at the intersection of Impaired Driving and Occupant Protection. Approximately 32% of Impaired Driving crashes also involved improper Occupant Protection (unbelted passengers). This overlap indicates that multiple risk-taking behaviors are often factors in a crash. Enhanced enforcement of Impaired Driving, increased outreach in schools, and media campaigns can target the overlap of these risk-taking behaviors. The second highest overlap in Impaired Driving crashes are Roadway Departures, with 25% of Impaired Driving crashes involving a Roadway Departure.

Strategies for addressing Teen Driver safety should emphasize the dangers of distracted driving. While teen drivers were involved in approximately 9% of fatal, serious, and minor injury crashes, 28% of those

crashes involved distracted driving. Distracted driving is believed to be underreported in non-fatal crashes, and therefore the level of involvement may be even higher.

Approximately 22% of people in the RPC are aged 65 or older, however, it is unknown what percent of older people have a driver's license. In the RPC, 24% of fatal, serious, and minor injury crashes involved people aged 65 or older. Older drivers were involved in 31% of fatal, serious, and minor injury intersection crashes during the 5-year period, which is the highest percent overlap for the Older Driver emphasis area. While the aging process affects everyone differently, intersection design should meet the needs of older drivers, which may include installing high-visibility signal backplates, high-visibility signage, and the distribution of educational materials which advise the public on new design elements.

It's also important to note the disparities that are present in the chart. For example, only 8% of Motorcycle and Moped crashes involved Speeding, however, approximately 21% of Speeding involved crashes involved a motorcycle or moped. This suggests that while speeding is not a prevalent problem for all motorcycle or moped involved crashes, speeding crashes that involved a motorcycle or moped operators disproportionately result in a fatal, serious, or minor injury due to their vulnerability and lack of protection. This disparity highlights the point that safety improvements that target a specific problem -- for example road diets to reduce speeding -- can provide an outsized benefit to other goals, like reducing the severity of Motorcycle and Moped crashes.

Percent of 2018-2022 RPC region crashes resulting in fatal, serious, and minor injury crashes (KAB)	*Intersections*	*Roadway Departure*	*Distracted Driving*	*Impaired Driving*	*Speeding*	*Occupant Protection*	*Older Drivers (65+)*	*Teen Drivers (18 and Younger)*	*Motorcycles and Mopeds*	*Bikes and Pedestrians*
Intersections	-	2%	6%	3%	6%	5%	7%	8%	5%	11%
Roadway Departure	4%	-	13%	25%	20%	22%	10%	9%	12%	2%
Distracted Driving	23%	19%	-	12%	3%	23%	20%	28%	13%	15%
Impaired Driving	5%	17%	6%	-	26%	17%	5%	3%	8%	10%
Speeding	5%	6%	1%	12%	-	7%	2%	7%	8%	1%
Occupant Protection	16%	28%	20%	32%	27%	-	17%	17%	13%	8%
Older Drivers (65+)	31%	16%	21%	11%	10%	22%	-	12%	17%	16%
Teen Drivers (18 and Younger)	14%	5%	11%	3%	14%	8%	5%	-	5%	5%
Motorcycles and Mopeds	10%	10%	7%	10%	21%	9%	9%	7%	-	2%
Bikes and Pedestrians	8%	1%	3%	4%	1%	2%	3%	2%	1%	-
Total	**6%**	**15%**	**22%**	**10%**	**5%**	**19%**	**24%**	**9%**	**13%**	**4%**

Table 3: Fatal (K), Serious (A), and Minor Injury (B) Crashes Crossmatrix Analysis

High Degree of Overlap
Moderate Degree of Overlap
Low Degree of Overlap

Systemic Analysis

The systemic analysis for this plan used crash trees to identify multiple factors that are at play in each crash. While the crossmatrix exclusively analyzes emphasis area involvement in crashes, the systemic crash tree analysis incorporates several other data fields that are of interest. For example, road classification, weather conditions, lighting conditions, road curvature, and crash types. The Systemic Analysis is distinguished from the High Injury Network analysis by its inclusion of crashes on all road classifications. The High Injury Network excludes crashes on limited access roadways, such as interstates and freeways. Crash data used to develop the crash trees were retrieved from two different sources, the FARS database for fatal crashes and New Hampshire Statewide crash dataset for all other injury crashes. The FARS database and New Hampshire Statewide crash dataset do not contain the same data categories and information for each crash, therefore it is not possible to create crash trees containing both fatal and injury crashes.

Crash Tree: Crashes Involving Speeding

The crash tree below shows a breakdown of fatal crashes that involved speeding during the 2018-2022 period in Rockingham. The crash tree also includes roadway classification and urban vs rural designation. Of the 26 fatal crashes that involved speeding during the five-year period, 12 (46%) occurred on a Local Road or Street. This finding provides an opportunity for focused speeding enforcement on Local Roads and Streets and may indicate that roadway design on Local Roads and Streets is too welcoming to speeding drivers.

Speeding Involved Fatal Crashes RPC, 2018-2022

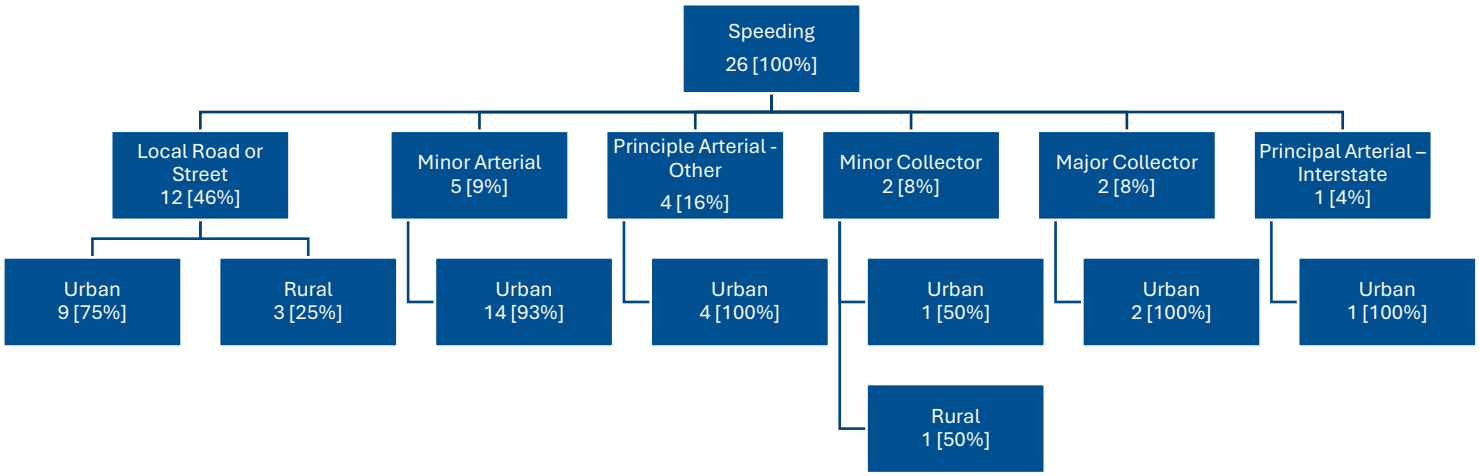


Figure 12: Speeding Involved Fatal Crashes Crash Tree

Speeding Involved Suspected Serious Injury and Suspected Minor Injury Crashes RPC, 2018-2022

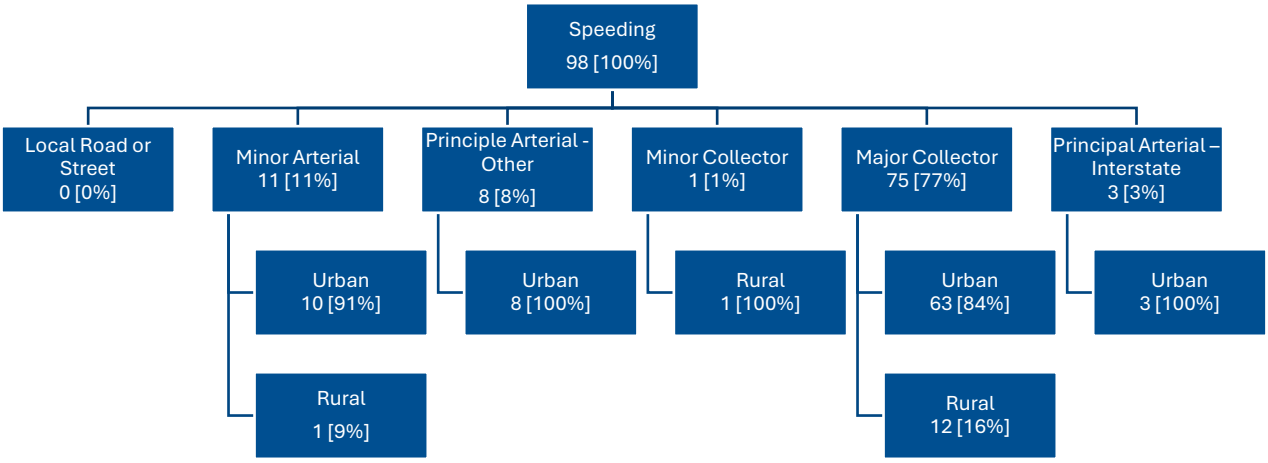


Figure 13: Speeding Involved Suspected Serious Injury and Suspected Minor Injury Crashes Crash Tree

The data on suspected serious and minor injury crashes indicates that a significant portion occurs on major collectors, especially in urban areas, with 75 out of 98 crashes (77%) happening on major collectors, and 63 of these (84%) occurring in urban settings. This underscores that urban major collectors are the primary locations for serious injury crashes related to speeding, with fewer incidents occurring on other road types like minor arterials and principal arterial interstates. In contrast, the data on fatalities related to speeding shows a different distribution. Out of 26 total fatalities, only a small portion occurs on major collectors (2, or 8%), all of which are in urban areas.

The crash tree below shows a breakdown of suspected serious injury crashes that involved speeding during the 2018-2022 period in Rockingham. The crash tree also includes roadway classification and urban vs rural designation. Of the 17 suspected serious injury crashes that involved speeding during the five-year period, 11 (65%) occurred on a Friday, Saturday or Sunday during a non-peak hour. This finding provides an opportunity for focused speeding enforcement at the end of the week and weekends during off peak hour times.

Crash Tree: Pedestrian Involved Crashes

Speeding Involved Suspected Serious Injury Crashes RPC, 2018-2022

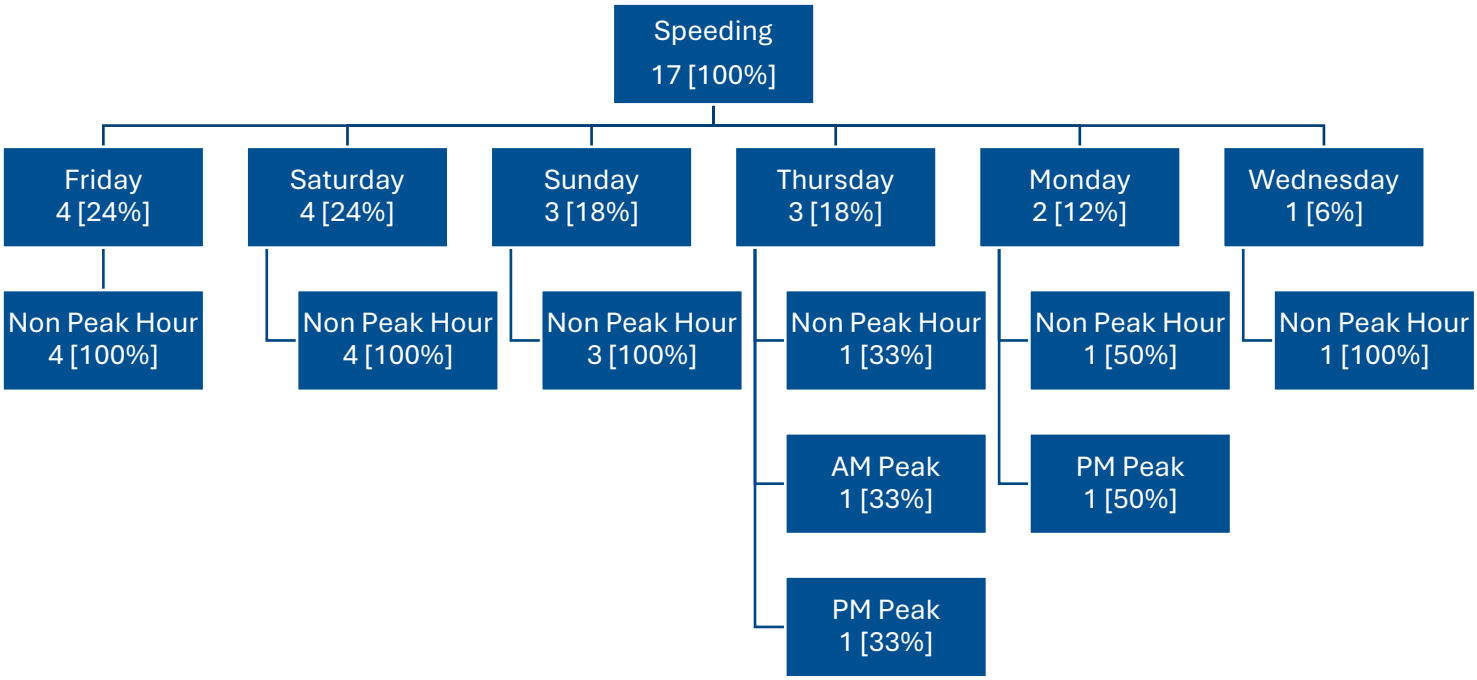


Figure 14: Speeding Involved Suspected Serious Injury Crashes Crash Tree

When analyzing the location of pedestrian involved fatal crashes, the systemic analysis indicated that five of the six crashes occurred away from an intersection, and five of the six occurred during the nighttime. Improving lighting along corridors where pedestrians are common, and introducing mid-block crossings with Pedestrian Refuge Islands where there are long stretches between crosswalks is recommended to encourage the use of safe crossings for pedestrians. Other pedestrian safety infrastructure includes Rectangular Rapid Flashing Beacons (RRFBs) and Pedestrian Hybrid Beacons (PHBs).

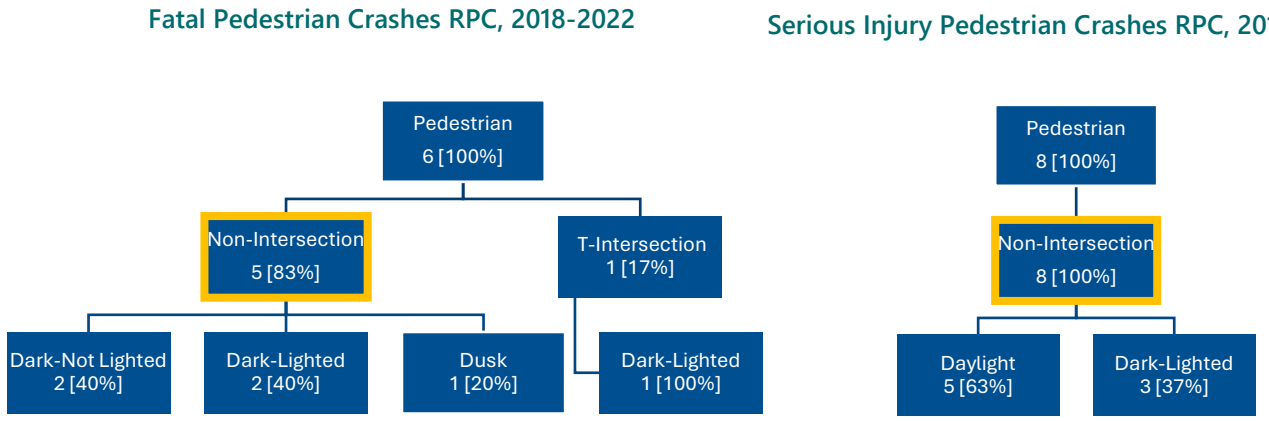


Figure 15: Pedestrian Crashes Crash Trees

Figure 16: Crosswalk Visibility Enhancements (Source: FHWA)

Figure 17: Pedestrian Hybrid Beacon (PHB) (Source: FHWA)

Crash Tree: Location of Fatal Crashes

The following crash tree shows breakdown of fatal crashes, based on whether they occurred at an intersection. Intersections are a natural conflict point since they are the convergence of road users traveling in different directions, however most fatal crashes (78%) occurred away from an intersection. Furthermore, 33 of the 51 non-intersection crashes (65%) did not involve a collision with a motor vehicle. Crash types for those 33 crashes include fixed object crashes (23), rollover crashes (2), pedestrian (5) or bicycle involved crashes (1), falling or jumping from a vehicle (1), and striking a railway car (1). This finding directs focus toward other road design factors, like roadway curvature, pedestrian safety at non-intersection locations, and presence of fixed objects at non-intersection locations. It also indicates that improving intersection safety at four-way intersections, including signal timing and signage and other improvements can help to reduce the number of fatal crashes.

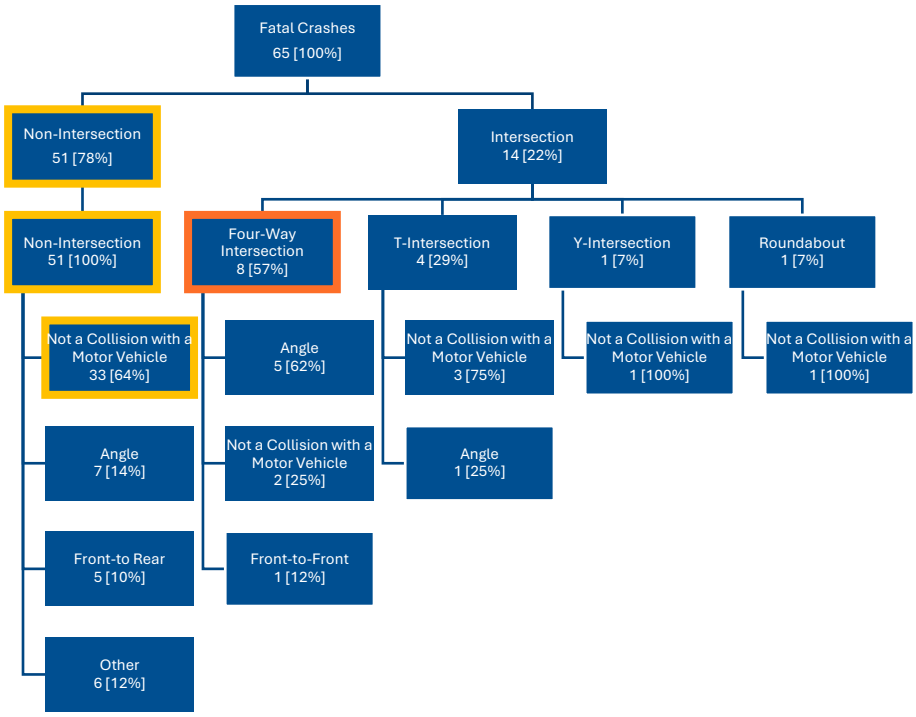


Figure 18: Fatal Crashes Crash Tree

Building on Figure 18, which categorizes fatal crashes by their occurrence at intersections, a crash tree was developed to further break down these crashes by rural and urban environments. The majority of fatal crashes (86%) occurred in urban settings. Of the 65 fatalities, nine (14%) took place in rural areas, and eight of these nine rural fatalities (89%) occurred away from intersections. Additionally, six of those eight non-intersection rural crashes (74%) did not involve another motor vehicle.

In urban settings, 43 out of 56 fatal crashes (77%) happened away from intersections. Among these 43 crashes, 27 (64%) did not involve another motor vehicle. The crash tree demonstrates that fatalities in both rural and urban areas predominantly occur away from intersections and do not involve another vehicle.

These findings support the previous crash tree's conclusions, highlighting the need for countermeasures focused on other road design factors, such as roadway curvature, pedestrian safety at non-intersection locations, and the presence of fixed objects at non-intersection locations.

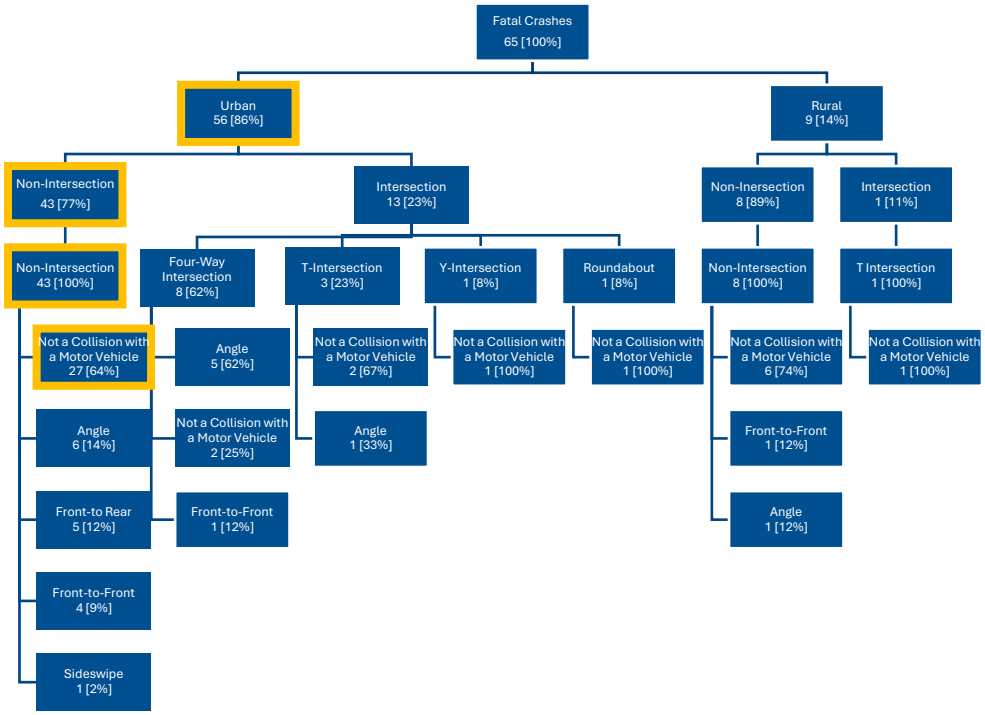


Figure 19: Fatal Crashes Crash Tree (Urban/Rural Split)

Equity Analysis

The U.S. Department of Transportation identifies census tracts that face a cumulative burden as a result of underinvestment in transportation, across five measures: Transportation Insecurity, Climate and Disaster Risk Burden, Environmental Burden, Health Vulnerability, and Social Vulnerability[7]. Census tracts are considered "Transportation Disadvantaged" if the overall index score for a given tract is in the 65th percentile (or higher) when compared to all other U.S. census tracts. Data from the USDOT Equitable Transportation Community (ETC) explorer were analyzed to identify tracts in Rockingham that were considered Transportation Disadvantaged on a nationwide level.

There is one census tract in the RPC that is "Transportation Disadvantaged", tract 1071 in Portsmouth. This census tract faces a high environmental burden, and high social vulnerability (Table 4). Some of the factors that determine environmental burden are toxic release sites proximity, percent of housing stock built before 1980 and impaired surface water. Factors that determine social vulnerability include, percent of population aged 65 and older, limited English proficiency, housing cost burden, and unemployment rate. The RPC as a region, however, scores above the 65th percentile in transportation insecurity, indicating that the region faces transportation insecurity. Tract 1071 is not considered transportation insecure.

Table 4: USDOT Transportation Disadvantaged Index Summary, RPC

Census Tract	Climate & Disaster Risk Burden	Environmental Burden	Health Vulnerability	Social Vulnerability	Transportation Insecurity
Tract 1071	58	89	40	73	56
Average for RPC	22	47	25	23	75

Hot Spot Maps

During the 5-year period, there were 525 total crashes (2%) that occurred in a Transportation Disadvantaged census tract in the RPC. Of those 525 crashes, 68 (13%) resulted in a fatal, serious, or minor injury Figure 20 shows the "hot spots" where there are relatively large concentrations of fatal, serious, and minor injury crashes (in orange) and "cold spots" (in blue) where lower relative concentrations exist. Census tracts that are considered "Transportation Disadvantaged" are shaded gray. The highest concentrations of fatal, serious, and

[7] **Transportation Insecurity** – occurs when people are unable to get to where they need to go to meet the needs of their daily life regularly, reliably, and safely.

Environmental Burden – includes variables measuring factors such as pollution, hazardous facility exposure, water pollution, and the built environment.

Social Vulnerability – a measure of employment, educational attainment, poverty, housing tenure, access to broadband, and housing cost burden.

Health Vulnerability – assesses the increased frequency of health conditions that may result from exposure to air, noise, and water pollution, as well as lifestyle factors such as poor walkability, car dependency, and long commute times.

Climate and Disaster Risk Burden – reflects sea level rise, changes in precipitation, extreme weather, and heat which pose risks to the transportation system.

For more information, please visit the USDOT Equitable Transportation Community (ETC) Explorer – Understanding the Data - https://experience.arcgis.com/experience/0920984aa80a4362b8778d779b090723/page/Understanding-the-Data/

minor injury crashes during the 5-year period were in Portsmouth and Salem. Other areas of high concentration were in Seabrook, Epping, Greenland, Plaistow, and Hampton.

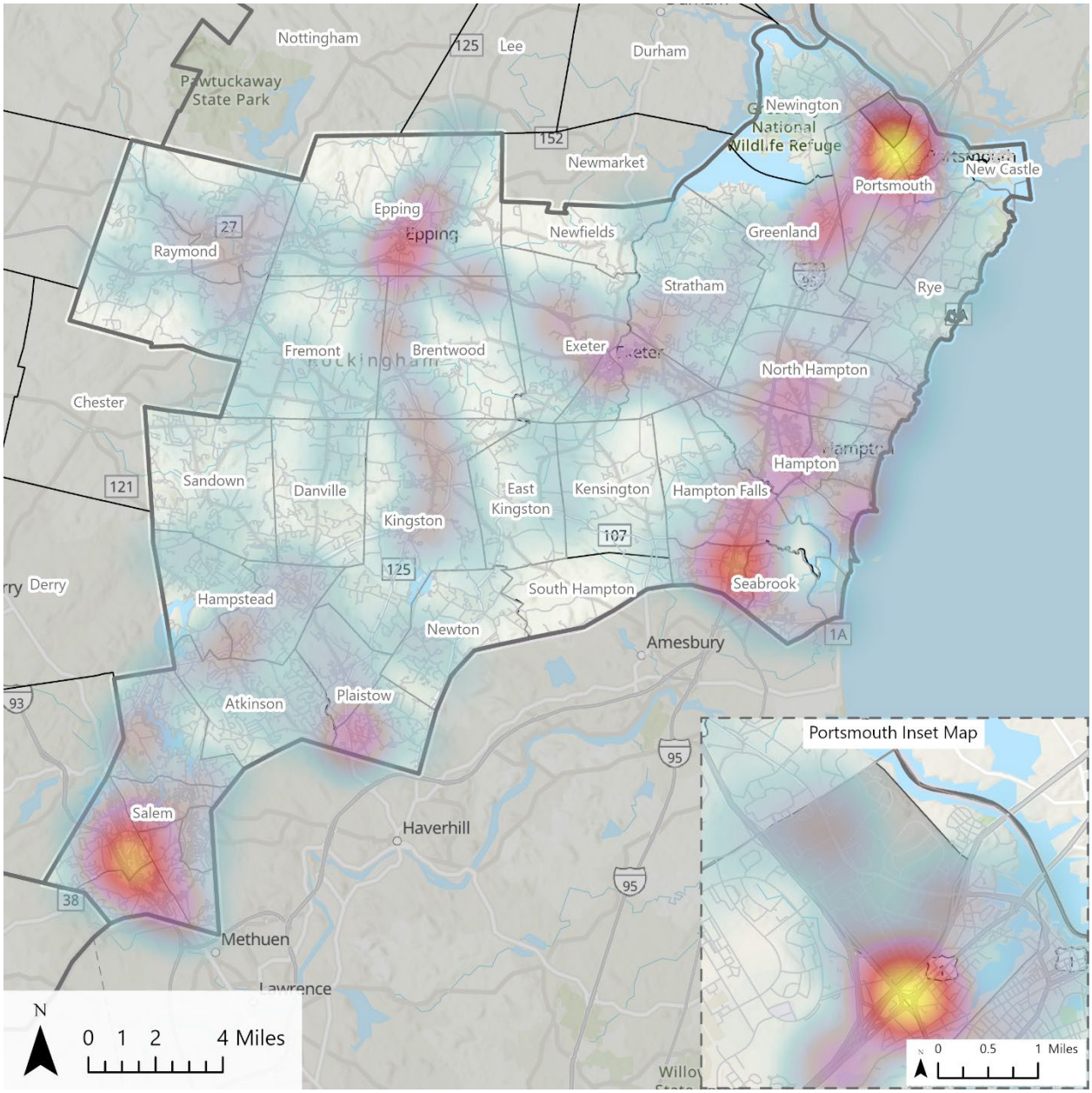


Figure 20: Fatal, Serious, and Minor Injury Hot Spots

High Injury Network

Figure 21 shows the High Injury Network (HIN) corridors for the RPC region. The High Injury Network analysis identifies a subset of roads in the RPC where a high proportion of fatal, serious, and minor injury crashes occur. The analysis identifies which road each fatal, serious, or minor injury crash occurred on, and attributes each crash to the correlating roadway segment. Crashes with geographic (XY) coordinates that are greater than 100 feet from a road, and crashes occurring on limited access highways (ex: interstates) were excluded from this analysis. Crashes on limited access roads were excluded to focus improvement recommendations on roads which are maintained by local governments.

Each roadway segment must be at least a half mile in length and have at least six fatal, serious, or minor severity crashes to qualify for the analysis. Crashes are multiplied by the crash cost values shown in Table 5 and divided by the length of the roadway segment. Segments are then ranked from 1 to 50 based on the highest to lowest crash cost scores.

Table 5: Crash Costs for New Hampshire (Source: Crash Costs for Highway Safety Analysis, FHWA)

Crash Severity	Crash Cost
Fatal or Serious Injury	$1,328,148
Minor Injury	$111,200

There were a total of 2,322 fatal, serious, and minor injury crashes over the 5-year period in the RPC region. On the 50 corridors included in analysis, there were 811 fatal, serious, and minor injury crashes. In total, the High Injury Network makes up only 7% of the road network in the RPC region but accounts for 35% of fatal, serious, and minor injury crashes. The 47 miles of Principal Arterial roads (such as NH 101, 125, 111, etc.) on the HIN make up 70% of all Principal Arterial roads in RPC. The 38 miles of Minor Arterial (such as Ocean Boulevard, Market Street, NH 33) make up 46% of all Minor Arterial roads. Combined, Principal Arterial and Minor Arterials are the road class for 66% of HIN crashes. The rows in Table 6 are organized by road classification hierarchy, where Interstates typically carry high volumes of traffic at high speeds, and local roads typically carry lower volumes at the lowest speeds.

Table 6: HIN Summary by Road Classification

Road Classifications	Total Eligible Crashes	Total Miles	HIN Crashes	% HIN Crashes	HIN Miles	% HIN Miles
Interstate*	210	64	0	0%	0	0%
Principal Arterial - Other Freeways and Expressways	251	79	0	0%	0	0%
Principal Arterial - Other	428	68	385	40%	47	31%
Minor Arterial	398	82	234	37%	38	44%
Major Collector	391	206	127	15%	29	22%
Local	535	1,199	59	8%	14	4%
No Functional System**	75	245	0	0%	0	0%
Grand Total	**2,322**	**1,975**	**811**	**100%**	**129**	**100%**

*Note that many roads classified as Interstate were excluded from this analysis since they are considered limited access highways.

** Roads with no functional classification either lack classification identifying data or are private roadways.

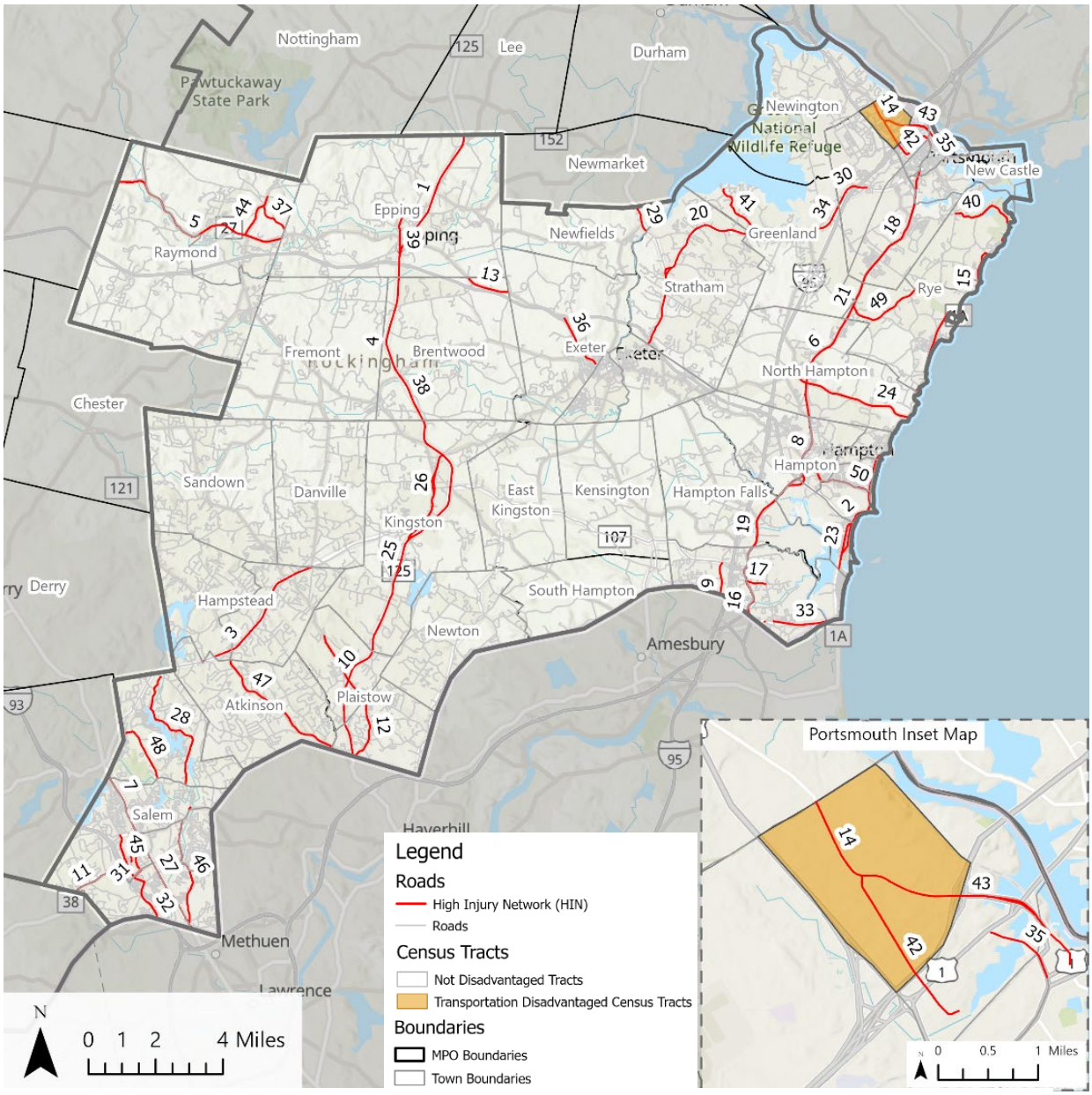


Figure 21: High Injury Network and Disadvantaged Census Tracts

Census Data Overrepresentation Analysis

Additional analysis compared Transportation Disadvantaged census tracts with census tracts for key underserved populations. These census tracts show areas where there are higher populations than the rest of the RPC region for the following demographic groups:

- Black, Indigenous, and People of Color (BIPOC) populations
- Persons with a disability
- Persons aged 65 and older
- Persons in poverty
- Zero vehicle households
- Households with limited English proficiency

This analysis identifies overrepresented populations on a region wide scale, helping to provide the basis for certain safety countermeasure recommendations. For example, areas where poverty rates are higher would benefit from countermeasures that emphasize safety for alternative, less expensive modes of transportation like transit, walking, and bicycling. Areas with Limited English Proficiency should provide educational materials and conduct transportation safety outreach in languages other than English. Census tracts with high rates of disabled persons should conduct public outreach to identify the needs of the community and employ appropriate safety countermeasures.

BIPOC Populations

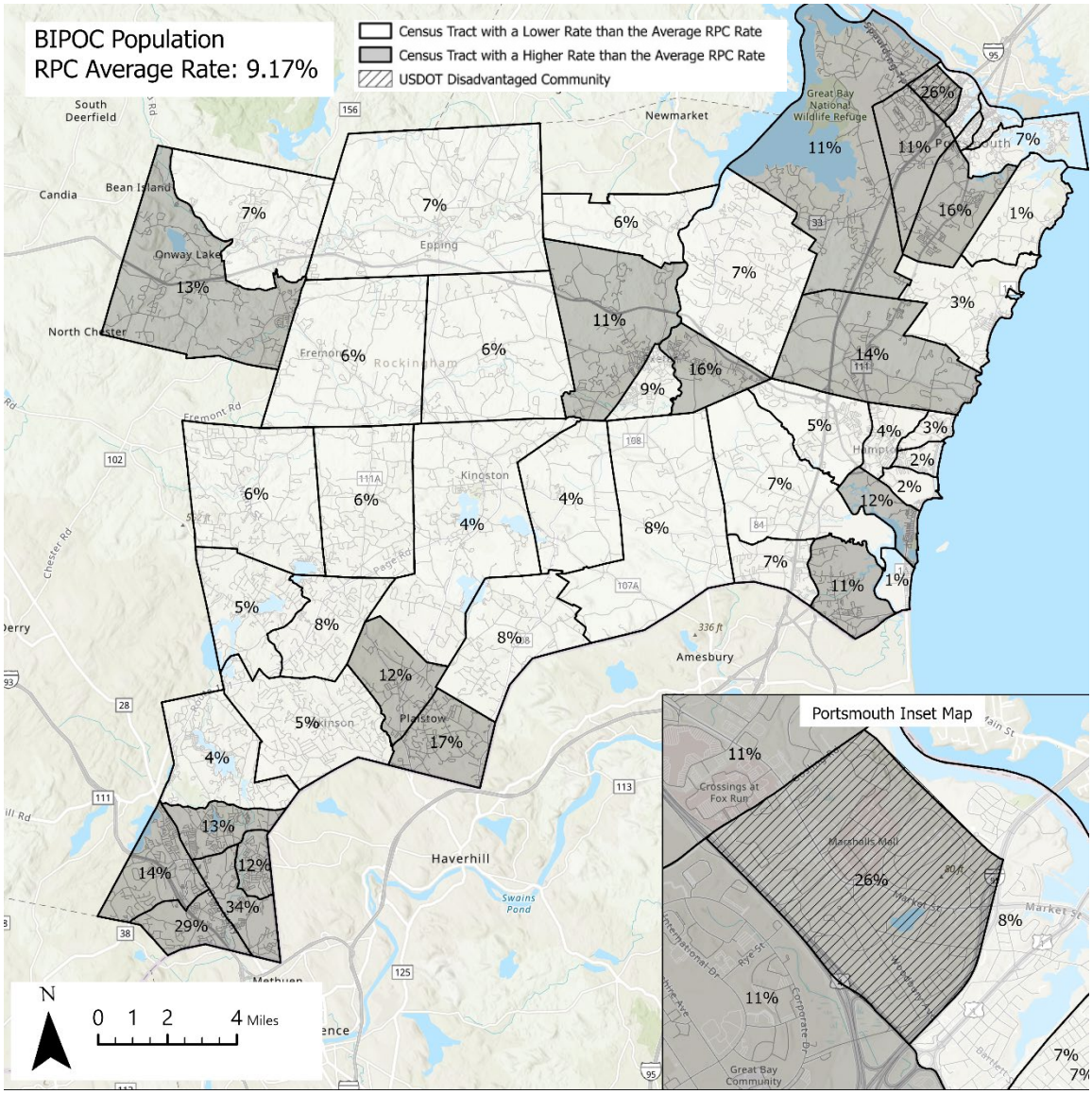


Figure 22: BIPOC Populations by Census Tract

The region wide average for people who identify as Black, Indigenous, or a person of color is approximately 9%. There are several census tracts throughout the region where BIPOC account for 25% to 33% of the census tract population. Approximately 29% of people in tract 1003.02 and 34% of people in tract 1004.01 (both in Salem) identify as Black, Indigenous, or a person of color. Approximately 26% of people in tract 1071 (Portsmouth), which is a Transportation Disadvantaged tract, identify as Black, Indigenous, or a person of color.

Persons with a Disability

The region wide disability rate is approximately 11%. While most census tracts that have a higher disability rate are still within 5% of the region wide average, a census tract in Kingston (tract 1051) and a tract in Seabrook (tract 630.01) have rates of approximately 18%.

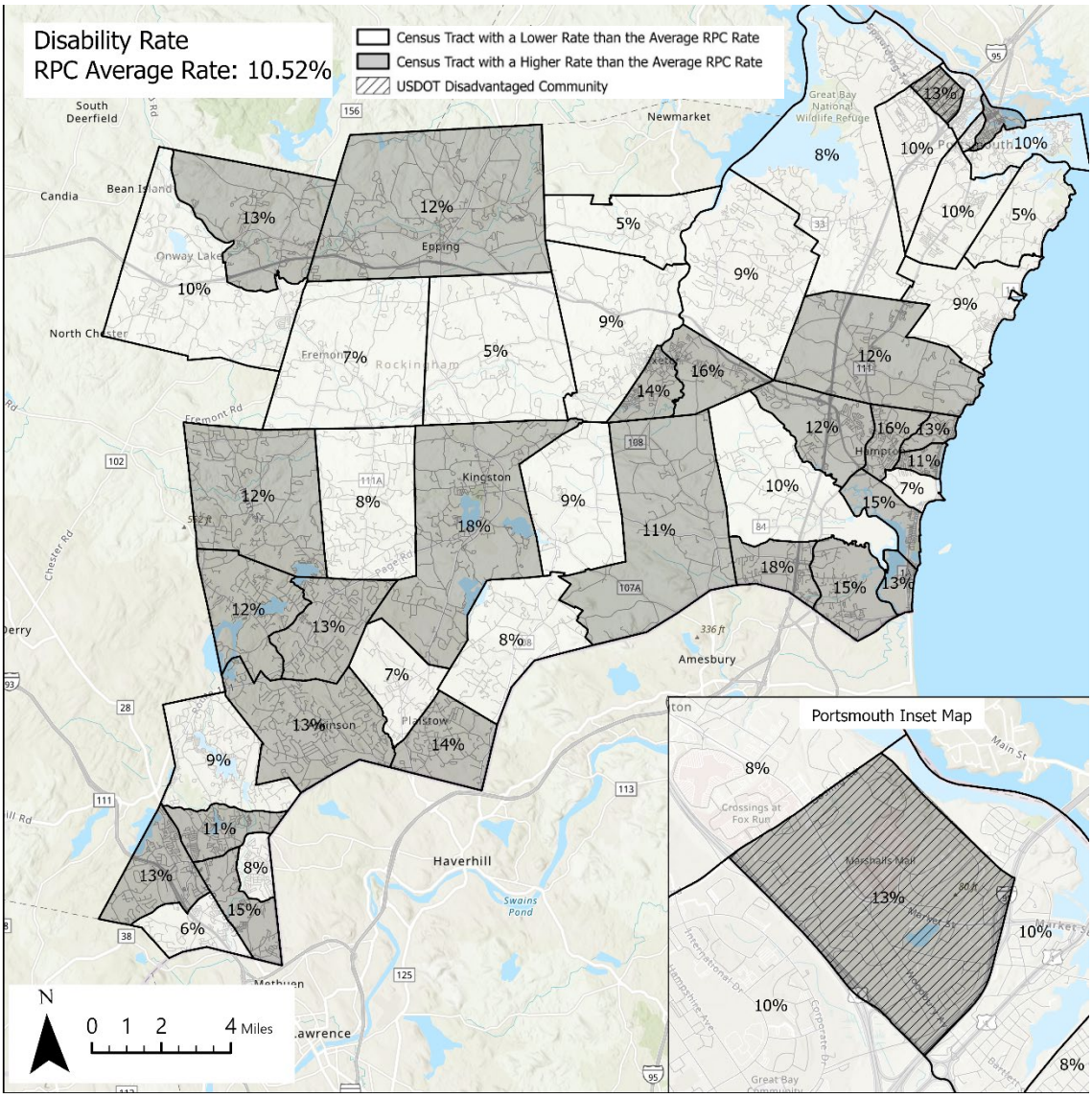


Figure 23: Persons with a Disability by Census Tract

Limited English Proficiency

The region wide rate of people with limited English proficiency is approximately 1%. Census tracts 1003.02 and 1004.01 (both in Salem) have the two highest rates in the RPC region, with rates of 7% and 9% respectively. Tract 1071 (Portsmouth) has the third highest rate, at 6% -- this tract is Transportation Disadvantaged. Ensuring that educational materials for road and transportation safety are available in languages other than English is important for bridging the language barrier.

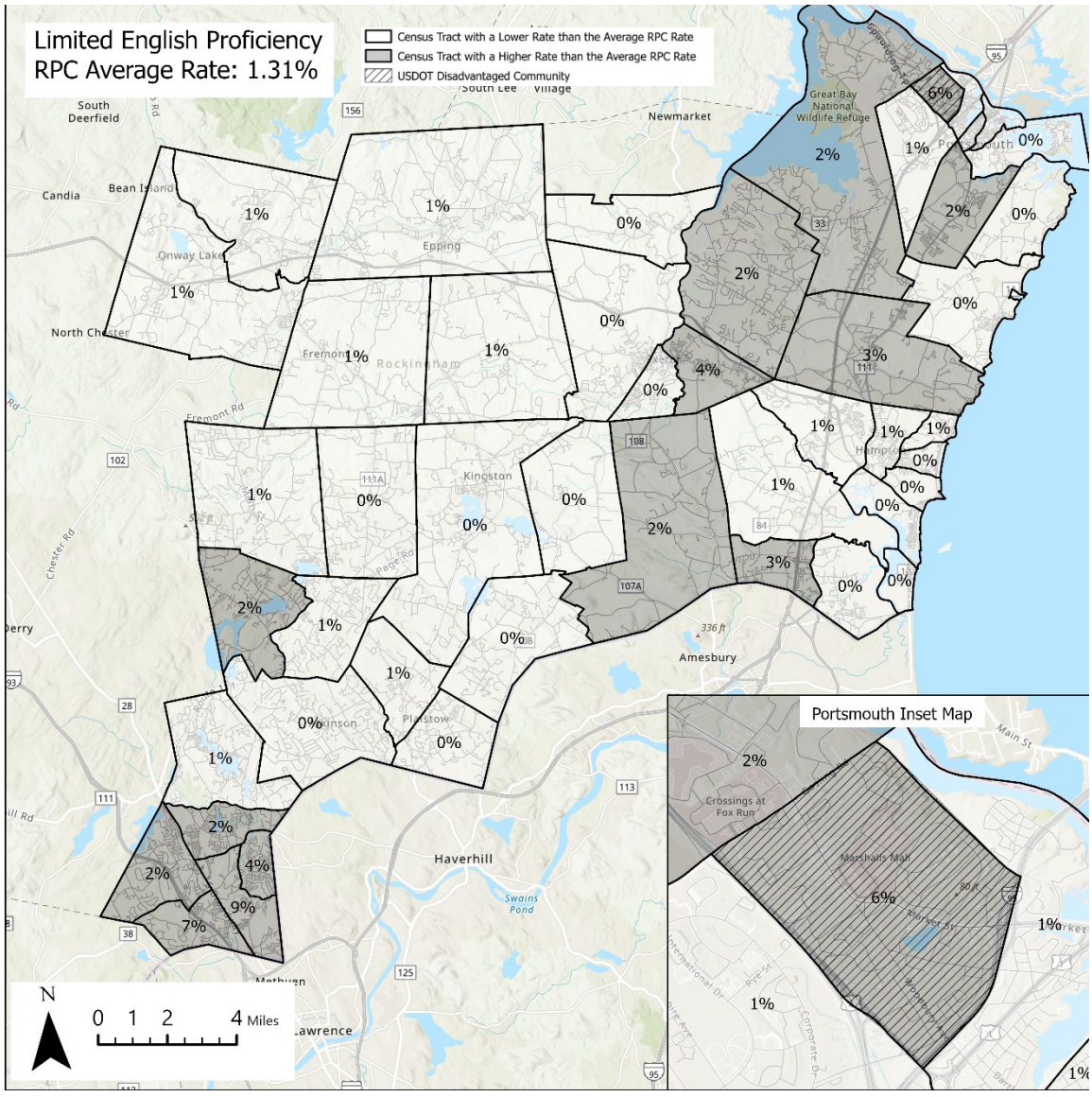


Figure 24: Limited English Proficiency by Census Tract

Persons Aged 65 and Older

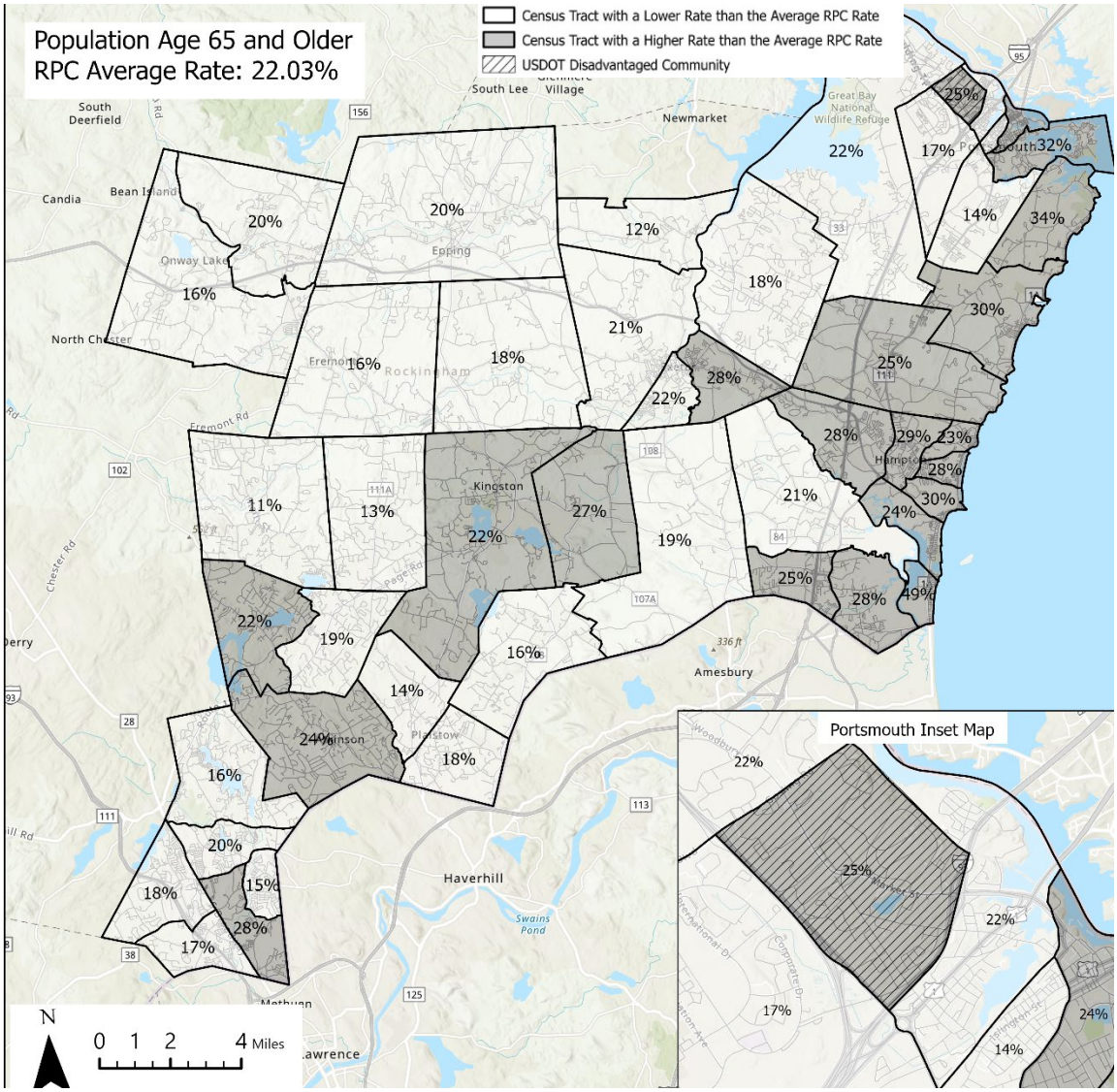


Figure 25: Persons Aged 65 and Older by Census Tract

Approximately 22% of people are aged 65 and older in the Rockingham Planning Commission region. Tract 630.04 in Seabrook has the highest percent of residents aged 65 and older. Many of the census tracts with higher rates of people aged 65 and older are on coastal census tracts. As we age, we can become more susceptible to injury, reaction time can become slower, and safe driving abilities can be reduced. It's important to note that, while everyone ages, aging does not affect everyone's abilities in the same ways. When considering safety improvement countermeasures, RPC may offer older driver education programs and consider how the needs of older drivers differ from other driver groups in the region.

Figure 26 shows all crashes involving an older driver that resulted in a fatal, serious, or minor injury. These crashes are overlaid on census tracts with a higher-than-average rate of residents who are aged 65 or older (as also shown in Figure 25). Census tract labels are not shown to prioritize the clarity of the crash data.

Approximately 40% of older driver crashes resulting in a fatal, serious, or minor injury occurred in a shaded census tract, compared to 39% of fatal, serious, and minor injury crashes involving all age groups.

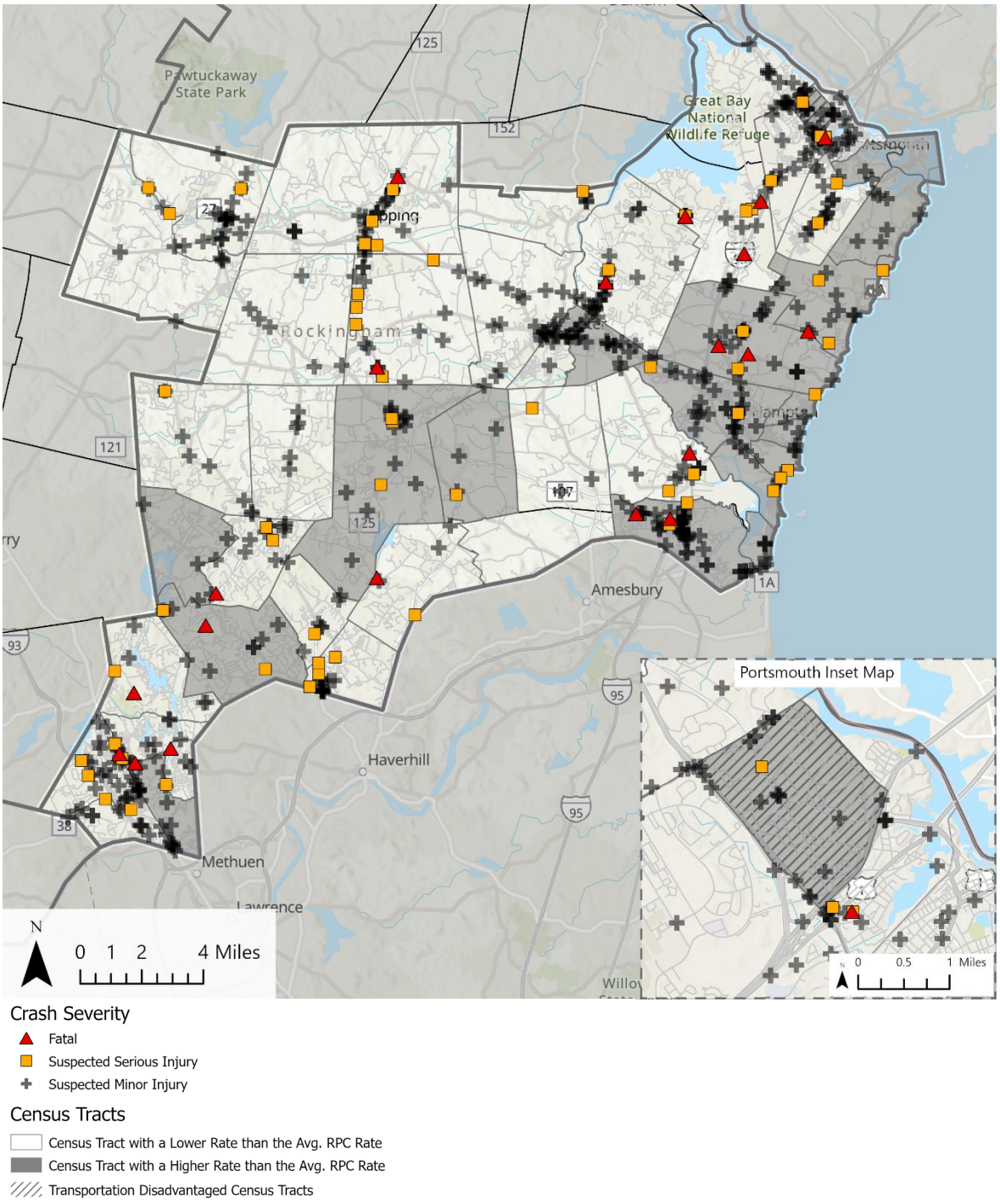


Figure 26: Older Driver Crashes Overlaid on Tracts with a Higher-than-Average Rate of Persons Aged 65 or Older, RPC

Persons in Poverty

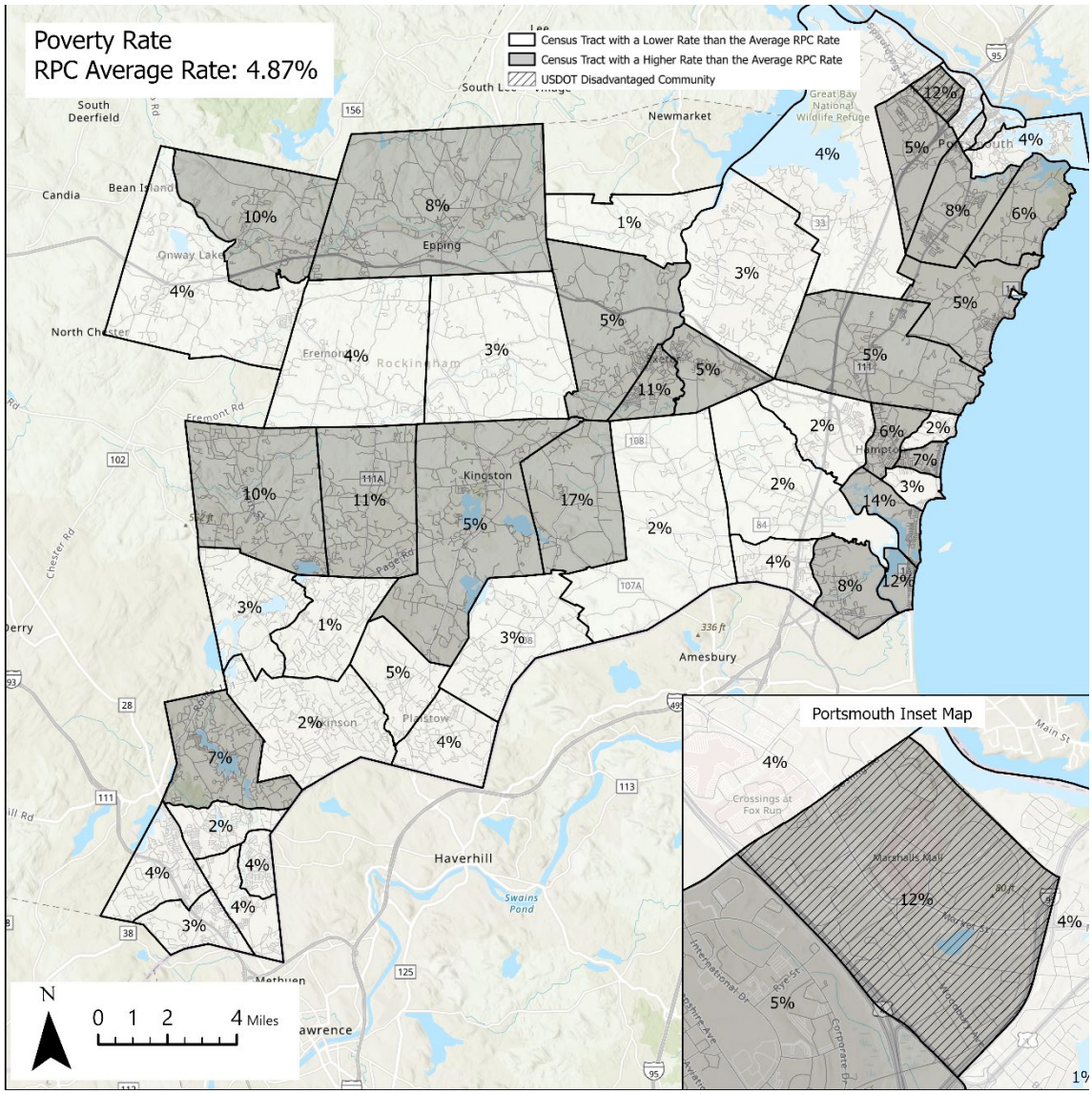


Figure 27: Persons in Poverty by Census Tract

The region wide poverty rate is approximately 5%. The four census tracts with the highest poverty rates are tract 620 (17%, East Kingston), tract 650.08 (14%, Hampton), and tracts 1071 (12%, Portsmouth) and 630.04 (12%, Hampton). Countermeasure recommendations in census tracts with higher rates of poverty should be selected with the consideration that households in poverty are more likely to use transportation modes other than cars for some or all of their trips. Countermeasures should emphasize providing safety for pedestrians, bicyclists, and transit users.

During the 5-year period, approximately 47% of all fatal, serious, and minor injury crashes occurred in census tracts where the poverty rate was higher than the RPC region average – in comparison, 45% of possible injury and property damage only crashes occurred in these census tracts, indicating a slight overrepresentation of

higher injury outcomes. Approximately 46% of bicycle and pedestrian crashes with a fatal, serious, or minor injury also occurred in census tracts where the poverty rate was higher than the RPC region average.

Zero Vehicle Households

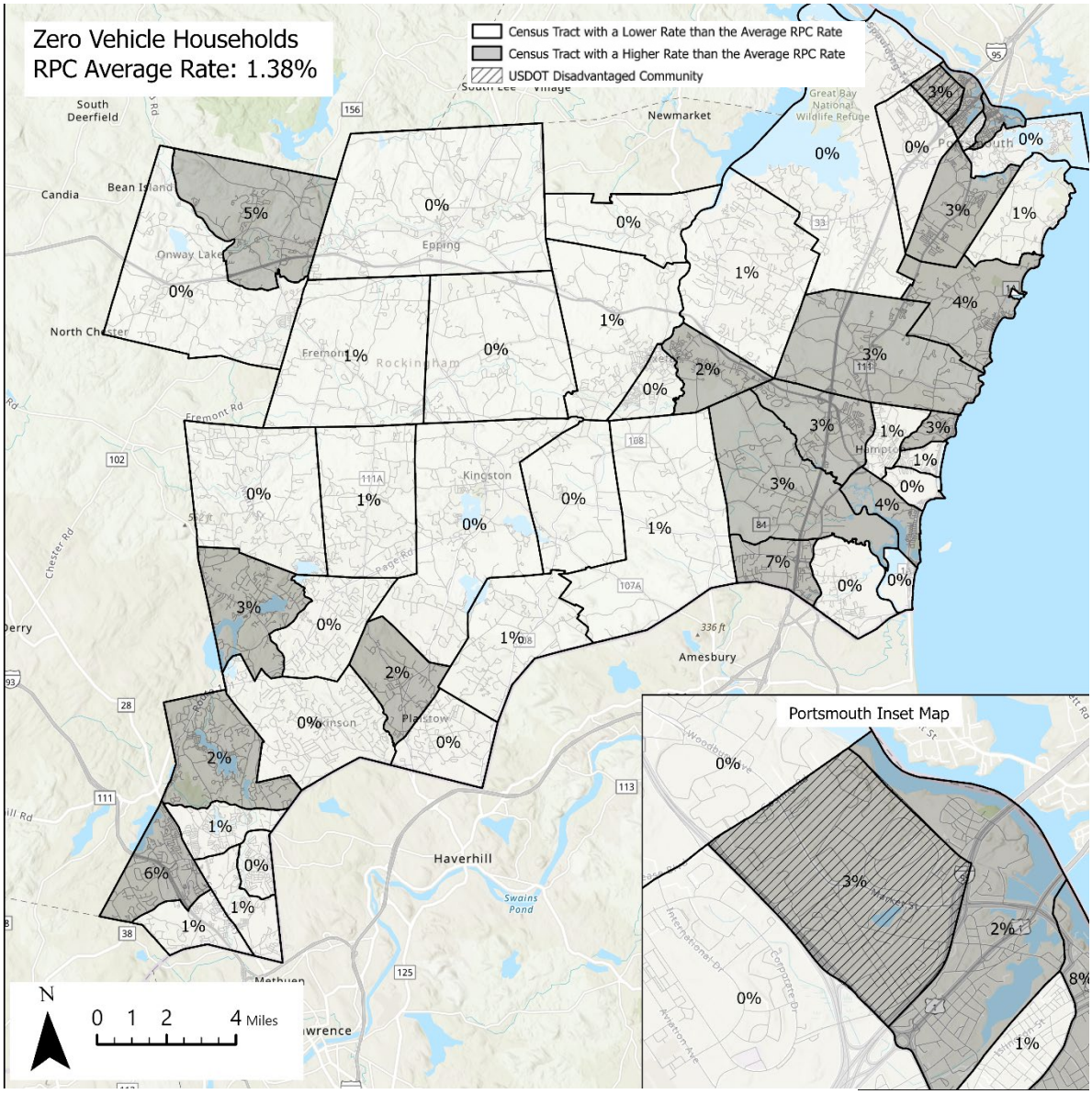


Figure 28: Zero Vehicle Households by Census Tract

Zero vehicle households are households that do not have access to at least one vehicle. The rate of zero vehicle households in RPC is approximately 1%. The rate of zero vehicle households is highest in tracts 630.01 (7%, Seabrook), 1003.01 (6%, Salem), and 550.02 (5%, Raymond). During the 5-year period, approximately 35% of all crashes occurred in a census tract where a higher-than-average amount of households do not have access to at least one vehicle. Bicycle and pedestrian crashes resulting in a fatal, serious, or minor injury were slightly overrepresented in these census tracts, accounting for 36% of such crashes (Figure 29).

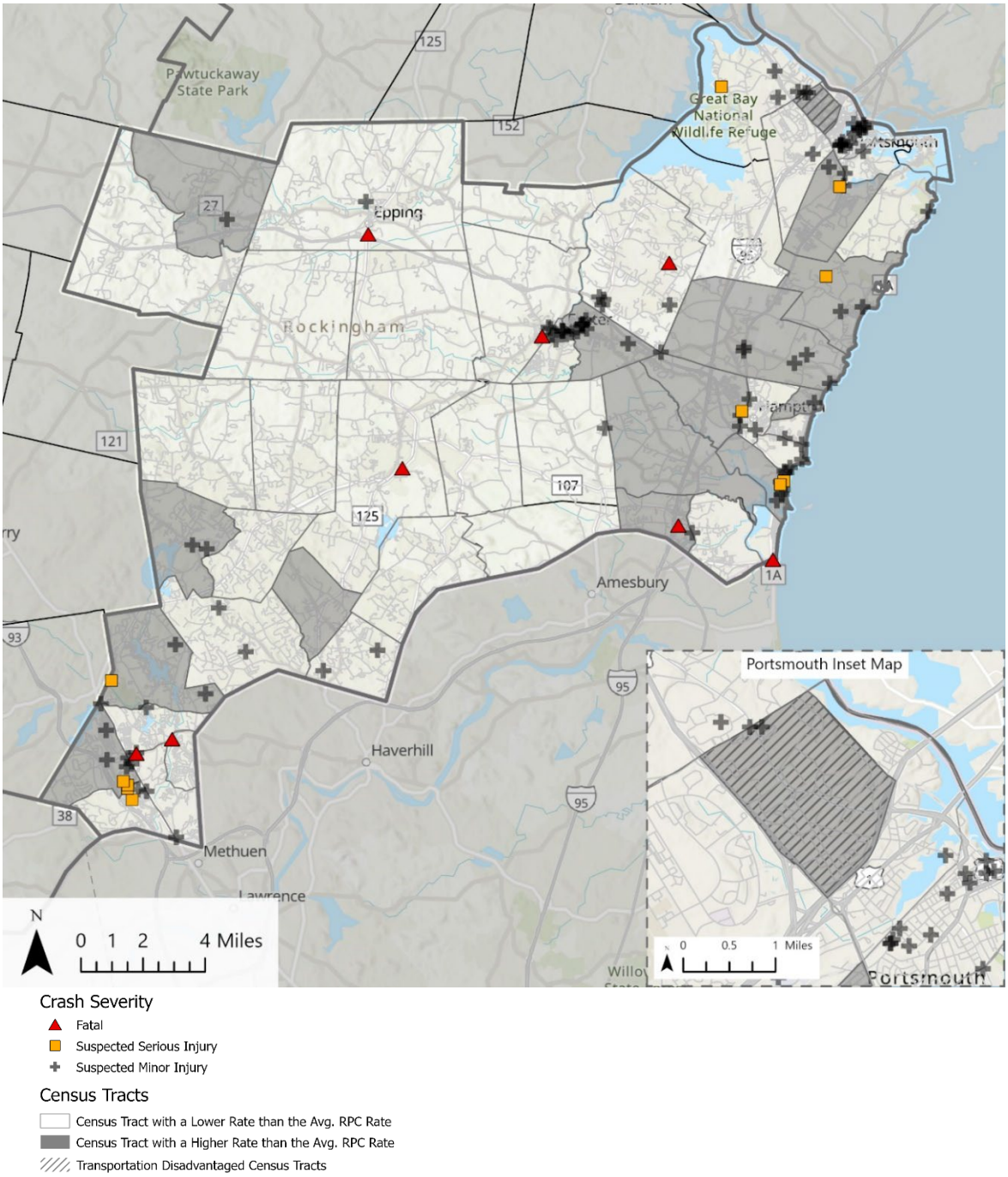


Figure 29: Bicycle and Pedestrian Crashes Overlaid on Higher-than-Average Rate of Zero Vehicle Households, RPC

Prioritization of Safety Countermeasure Improvements

The following safety recommendations are categorized based on roadway functional classification and crash emphasis area. The recommendations have also been prioritized based on which crash emphasis areas contribute to the greatest share of fatal, serious, and minor injury crashes in the region.

Prioritization by Road Classification

The following section provides safety countermeasure recommendations that are prioritized by road classification, in the following order:

1. **Major Highways *(Principal and Minor Arterial Roads)*** Principal and minor arterial roads are higher-volume highways intended for statewide and interstate travel. Principal arterial roads in the region include NH Route 4, NH 101 and NH 125. Minor arterial roads include NH 108 and NH 111. While bicycle and pedestrian travel on some minor arterials like NH 108 is legal and fairly common, principal arterial roads primarily serve vehicle travel at higher speeds. These roads are typically owned by the Federal Highway Administration or NHDOT.
2. **Collector roads.** Collector roads typically accommodate a lower traffic volume connection between arterial and local roads. For example, NH 27 is a collector road that connects NH 101, a principal arterial, to local roads in Epping, Exeter, Brentwood, and Raymond. This makes NH 27 a more suitable route for some vulnerable road users like bicyclists who seek lower volume connections between downtowns and local roads, such as Watson Road in Exeter. These roads are most often owned by NHDOT or other state agencies.
3. **Local roads.** Local roads are owned by municipalities and typically include residential streets, side streets, and other lower volume town roads. These roads provide access to local residences and businesses.

Principal Arterial: NH 125, Plaistow, NH

Collector: NH 27 (Epping Road), Exeter, NH

Local: Main Street, Newmarket, NH

Figure 30: Representative Roadways by Classification

Roadway classifications are prioritized in the plan based on how frequently that classification was found on the High Injury Network (HIN). During the 2018-2022 period, 40% (385) of fatal, serious, and minor injury crashes that occurred on the HIN were on Principal Arterial roads, and 37% (234) were on Minor Arterial roads. Approximately 15% occurred on Collector roads, and 8% occurred on Local roads. Limited access roads -- which include interstates (such as I-95), freeways, and expressways – were excluded from the high injury network analysis and are excluded from this prioritization. The order in which the road classifications are presented also follows road hierarchy principles: Arterial roads typically carry the highest volume of traffic and provide access to commercial activity centers while being disconnected from dwellings. Collector roads and local roads each carry lower traffic volumes, and are less connected to commercial activity, and provide more direct access to neighborhoods.

Each road classification is presented with two or more example corridors from the HIN that are representative of corridors with the same classification. Examples of infrastructure focused countermeasure recommendations are then provided. These countermeasure recommendations are not exhaustive. Please see the Strategy Tables section for a complete list of actions that may be taken to reduce fatal, serious, and minor injuries.

Arterial Roads

Street Name:	HIN Rank	City	From Street	To Street
Calef Highway (NH 125)	1	Epping	Brentwood Border	Lee Hill Road

Road Classification: Minor Arterial

Context: Two-lane undivided to four-lane divided scenic commercial, recreational, and residential street with high pedestrian traffic.

Countermeasure Recommendations:

- Lane narrowing/striping edge lines
- Speed feedback signs
- Rectangular Rapid Flashing Beacons (RRFBs)
- Pedestrian Hybrid Beacons (PHBs)
- Bicycle lanes
- Crosswalk visibility enhancements
- Road diets
- Improve lighting along roadways
- Install/repair sidewalks where necessary

Street Name:	HIN Rank	City	From Street	To Street
Route 111	3	Hampstead		

Road Classification: Principal Arterial

Context: Rural/Two-Lane Arterial

Countermeasure Recommendations:

- Center/edge line rumble strips
- Enhanced delineation for horizontal curves
- Clear zone management
- Systemic stop-controlled improvements
- Lane narrowing/striping edge lines
- Speed feedback signs

Collector Roads

Street Name:	HIN Rank	City	From Street	To Street
Route 27	5	Raymond	Dudley Road	Prescott Road

Road Classification: Collector Road

Context: Regional collector ranging from two lane rural design with shoulders to two lane small town commercial activity.

Countermeasure Recommendations:

- Enhanced delineation for horizontal curves
- Center/edge line rumble strips; note that bicycle safety should be considered when determining where to install these.
- Clear zone maintenance
- Improve lighting along roadways
- Speed feedback signs
- Transverse rumble strips where speeds drop in towns

Street Name:	HIN Rank	City	From Street	To Street
Route 286	33	Seabrook	Washington Street	Ocean Boulevard

Road Classification: Two Lane Collector Road

Context: Low-density residential connector with passing zones

Countermeasure Recommendations:

- Center/edge line rumble strips; note that bicycle safety should be considered when determining where to install these.
- Clear zone maintenance
- Systemic stop-controlled improvements
- Lane narrowing/striping edge lines
- Speed feedback signs
- Access management

Street Name:	HIN Rank	City	From Street	To Street
Atlantic Ave	24	North Hampton	Hobbs Road	Ocean Boulevard

Road Classification: Two Lane Collector Road

Context: Suburban Residential

Countermeasure Recommendations:

- Enhanced delineation for horizontal curves
- Clear zone management
- Systemic stop-controlled improvements
- Improve lighting along roadways
- Speed feedback signs
- Center/edge line rumble strips; note that bicycle safety should be considered when determining where to install these.

Local Roads

Street Name:	HIN Rank	City	From Street	To Street
Batchelder	9	Seabrook	Dexter Drive	Route 107

Road Classification: Local Road

Context: Low density industrial, medium density residential

Countermeasure Recommendations:

- Center/edge line rumble strips
- Clear zone management
- Systemic stop-controlled improvements
- Lane narrowing/striping edge lines
- Speed Feedback Signs
- Widen paved shoulders
- Enhanced delineation for horizontal curves

Street Name:	HIN Rank	City	From Street	To Street
Railroad Ave	17	Seabrook	Lafayette Road	Centennial Street

Road Classification: Local Road

Context: Low density residential

Countermeasure Recommendations:

- Appropriate speed limits for all users
- Improve lighting along roadways
- Enhanced delineation for horizontal curves
- Clear zone management
- Speed feedback signs
- Centerline/edge line rumble strips

Prioritization by Emphasis Area

The following section prioritizes safety countermeasure recommendations based on emphasis area involvement. The chosen emphasis areas were overrepresented in fatal, serious, and minor injury outcomes.

Safety recommendations that are based on road classification versus recommendations based off of emphasis area involvement can be seen as two sides of a coin. While prioritizing roads based on road classification is a proactive systemic approach which focuses on entire corridors, analyzing crash outcomes for emphasis area involvement is more of a reactive approach.

Prioritizing safety countermeasures which address emphasis areas which are overrepresented in fatal, serious, and minor injuries will result in the greatest reductions in more severe injury outcomes.

Roadway departure

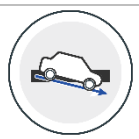
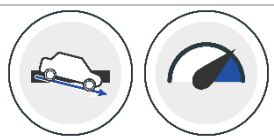
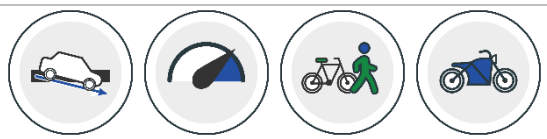
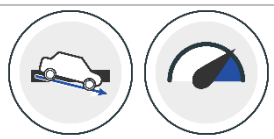
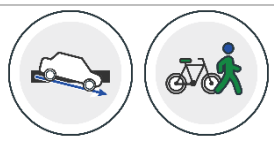
Speeding and aggressive driving

Occupant protection (seat belt usage)

Impaired driving

Vulnerable motorized users (motorcycles and mopeds)

Vulnerable non-motorized users (pedestrians and bicyclists)

Countermeasure	Context	Emphasis Area Addressed
Enhanced delineation for horizontal curves	All contexts	
Improve lighting along roadways	All contexts	
Transverse rumble strips	Suburban, rural	
Centerline and edge line rumble strips	Suburban, rural	
Clear zone management	Suburban, rural	
Appropriate speed limits for all users	All contexts	
Road diets	All contexts	
Speed feedback signs	All contexts	
Widen/pave shoulders	Suburban, rural	
Install Safety Edge[SM] treatment	Suburban, rural	
High Friction Surface Treatment	Suburban, rural	

Countermeasure	Context	Emphasis Area Addressed
Speed humps/tables	Urban, suburban, low speed rural	
Adopt an adult seat belt law	All contexts	
Promote seat belt education campaigns	All contexts	
Adopt a motorcycle helmet law	All contexts	
Conduct high visibility enforcement	All contexts	
Medians and Pedestrian Refuge Islands	Urban, suburban	
Leading Pedestrian Interval	Urban, suburban, rural	
Rectangular Rapid Flashing Beacons (RRFBs)	Urban, suburban	
Crosswalk Visibility Enhancements	Urban, suburban, rural	
Bike Lanes	Urban, suburban	

Strategy Tables

Emphasis Area: Intersections

Emphasis Area Objective: Reduce the frequency and severity of intersection crashes.

Success Metric: Reduce the number of intersection crashes by 50% by 2035.

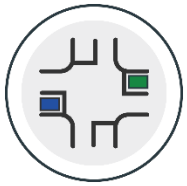


Table 7: Intersections

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 1.1: Systemic application of low-cost countermeasures at intersections										
1.1.1	Reduce left-turn conflicts by reconfiguring intersections with roundabouts, restricted crossing U-turns (RCUT), or median U-turns (MUT).	Municipalities, NHDOT	Number of sites	All areas	Urban, Suburban	Safer Roads	HSIP, Federal Discretionary, Municipalities	CMF: 0.8	High	Medium
1.1.2	Improve intersection signage and lighting to improve intersection visibility.	Municipalities, NHDOT	Number of sites	All areas	All areas	Safer Roads	NHDOT District, Municipalities	CMF: 0.881 (nighttime)	High	Medium
1.1.3	Add left-turn, right-turn, or center turn lanes at intersections where speeds are too high to turn safely to or from a roadway.	Municipalities, NHDOT	Number of sites	All areas	All areas	Safer Roads	Federal Discretionary, Municipalities	CMF varies	Medium	Medium
1.1.4	Convert intersections at town gateways to roundabouts to slow speeds.	Municipalities, NHDOT	Number of sites	All areas	All areas	Safer Roads	Federal Discretionary, Municipalities	CMF: 0.473	High	Long
1.1.5	Separate left turn lanes and implement protected left turn signal phases.	Municipalities, NHDOT	Number of sites	All areas	All areas	Safer Roads	NHDOT District, Municipalities	CMF: 0.78	High	Medium
1.1.6	Implement systemic application of multiple low-cost countermeasures at stop-controlled intersections.	Municipalities, NHDOT	Number of sites	All areas	All areas	Safer Roads	NHDOT District, Municipalities	CMF varies	High	Short

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
1.1.7	Install transverse rumble strips in advance of intersections. Ensure proper outreach has been conducted and coordinate with NHDOT where required.	Municipalities, NHDOT	Number of sites	All areas	Rural	Safer Roads	NHDOT District, Municipalities	CMF: 0.903 (rural)	Low	Medium
1.1.8	Prohibit Right-Turn-On-Red and install accompanying signage at locations with high volume pedestrian conflicts.	Municipalities, NHDOT	Number of sites	All areas	Urban, Suburban	Safer Roads	NHDOT District, Municipalities	CMF varies	Medium	Short
Strategy 1.2: Improve data collection and analysis practices that relate to intersection safety.										
1.2.1	Perform roadway safety audits on priority intersections or corridors to further identify those roadway features and user behaviors that contribute to severe crashes and select the appropriate countermeasures.	Municipalities, NHDOT	Locations analyzed	All areas	All areas	All	HSIP, Federal Discretionary, Municipalities	N/A	High	Medium
1.2.2	Develop a process to inventory intersection data including traffic volumes, roadway attributes, and traffic asset data for use in traffic safety evaluations.	Local and State Police, Municipalities, NHDOT	Locations analyzed	N/A	All areas	All	HSIP, NHDOT Bureau of Traffic	N/A	Low	Long
Strategy 1.3: Enhance enforcement activity to address intersection safety.										
1.3.1	Conduct highly publicized and visible enforcement of priority intersections.	State Police, Local Police	Number of hours	All road types	All areas	Safer Road Users	Municipal or State Police	N/A	Medium	Short

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 1.4: Educate drivers on how to navigate new forms of traffic control (e.g., flashing yellow arrow, roundabouts) and train designers and planners on best practices.										
1.4.1	Partner with agencies, including the DMV and Drivers Education Schools to develop and market material (e.g., videos, flyers, online material, Public Service Announcements [PSAs]) through various channels, such as social media, town websites, newsletters, email, and chamber of commerce meetings.	Municipalities, NHDOT, NHOHS	Number of clicks	All areas	All areas	Safer Road Users	HSIP, Municipal or State Police, Nonprofit Advocacy Groups	N/A	High	Short
1.4.2	Conduct training with road designers and planners on best practices to address intersection safety.	Municipalities, NHDOT	Number of trainings	All areas	All areas	Safer Road Users	FHWA Technical Assistance	N/A	High	Short
1.4.3	Install signage at high-pedestrian volume locations where Right-Turns-on-Red are permissive alerting drivers to watch for pedestrians.	Municipalities, NHDOT	Number of locations	All areas	Urban, Suburban	Safer Road Users	NHDOT District, Municipalities	N/A	High	Short

Emphasis Area: Roadway Departure

Emphasis Area Objective: Reduce the frequency and severity of roadway departure crashes.

Success Metric: Reduce the number of roadway departure crashes by 50% by 2035.

Table 8: Roadway Departure

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 2.1 Implement engineering countermeasures to reduce roadway departure crashes.										
2.1.1	Install centerline or edge line rumble strips. Ensure appropriate outreach has been conducted.	Municipalities, NHDOT	Number of corridors	Major collectors and rural minor arterials	Rural, Suburban	Safe Roads	HSIP, Municipalities	CMF: 0.8 (rural)	Medium	Short
2.1.2	Widen and/or pave shoulders in areas where there is a specific safety need to provide drivers with a recovery area and to increase physical space between drivers and people walking & biking in the shoulder.	Municipalities, NHDOT	Number of corridors	Major collectors and rural minor arterials	Rural, Suburban	Safe Roads	HSIP, Municipalities	CMF dependent on shoulder width	Medium	Long
2.1.3	Install Safety Edge^{SM} when resurfacing roadways.	Municipalities, NHDOT	Number of corridors	Major collectors and rural minor arterials	Rural, Suburban	Safe Roads	HSIP, Municipalities	Not in CMF Clearinghouse	High	Long
2.1.4	Pre-treat road surface and improve road clearance during snow events.	Municipalities, NHDOT	Number of corridors	Major collectors and rural minor arterials	Rural, Suburban	Safe Roads	NHDOT District, Municipalities	Not in CMF Clearinghouse	High	Medium
2.1.5	Install or widen retroreflective pavement markings on center lines and edge lines.	Municipalities, NHDOT	Number of corridors	Major collectors and rural minor arterials	Rural, Suburban	Safe Roads	NHDOT Bureau of Traffic, Municipalities	CMF: 0.877 (rural)	High	Short

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
2.1.6	Provide enhanced curve delineation, such as chevrons and pavement markings in accordance with MUTCD criteria.	Municipalities, NHDOT	Number of corridors	Curves on Major collectors and rural minor arterials	Rural, Suburban	Safe Roads	NHDOT District, Municipalities	CMF: 0.725 (non-intersection)	Medium	Short
2.1.7	Use High Friction Surface Treatment (HFST) to increase traction through sharp curves prioritizing according to crash rate.	Municipalities, NHDOT	Number of corridors	Major collectors and rural minor arterials	Rural, Suburban	Safe Roads	NHDOT District, Municipalities	CMF: 0.529	Medium	Long
2.1.8	Improve lighting along roadways.	Municipalities, NHDOT	Number of corridors	Major collectors and rural minor arterials	Rural, Suburban	Safe Roads	NHDOT District, Municipalities	CMF: 0.68	Medium	Medium
2.1.9	Install median barriers along high-speed corridors with a history of front-to-front collisions	Municipalities, NHDOT	Number of corridors	Major collectors and rural minor arterials	Rural, Suburban	Safe Roads	NHDOT District, Municipalities	CMF: 0.57 (fatal crashes)	Medium	Medium
Strategy 2.2 Implement countermeasures and strategies that reduce the frequency or severity of work zone crashes.										
2.2.1	Ensure installation of proper sign package, pavement markings, and flagger operations per the Manual on Uniform Traffic Control Devices (MUTCD).	Municipalities, NHDOT	Number of work zones	All areas	Rural, Suburban	Safe Roads	NHDOT District, Municipalities	Not in CMF Clearinghouse	High	Short
2.2.2	Promote safety training efforts/programs for work zone personnel and Traffic Incident Management (TIM) responders.	Municipalities, NHDOT	Number of work zones	All areas	Rural, Suburban	Safe Roads, Safe Road Users	NHDOT Safety Section, Municipalities, Trade Associations	N/A	Low	Medium

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
2.2.3	Implement variable speed limits at work zones.	Municipalities, NHDOT	Number of work zones	All areas	Rural, Suburban	Safe Roads	NHDOT Bureau of Traffic, Municipalities	CMF: 0.92 (urban); 0.684 (rural)	High	Short
2.2.4	Implement temporary pavement markings and pavement conditions during construction.	Municipalities, NHDOT	Number of work zones	All areas	Rural, Suburban	Safe Roads	Include in Project Scope of Work Where Applicable.	N/A	Medium	Short
2.2.5	Temporary transverse rumble strips.	Municipalities, NHDOT	Number of work zones	All areas	Rural, Suburban	Safe Roads	Include in Project Scope of Work Where Applicable.	CMF: 0.66 (urban and suburban)	High	Short
Strategy 2.3: Implement educational efforts to address roadway departure safety.										
2.3.1	Education involving driving responsibly during winter weather on website/PSAs.	Municipalities, Local and State Police, Schools, Drivers Education	Number of hours	All areas	All areas	Safe Road Users	HSIP, Municipal or State Police, Nonprofit Advocacy Groups	N/A	Low	Ongoing
2.3.2	Use traffic simulator at education events.	Municipalities	Number of events	All areas	All areas	Safe Road Users	Municipal or State Police	N/A	Low	Ongoing
2.3.4	Educate drivers about vehicle mechanical failures by promoting vehicle maintenance and upholding annual safety inspections	Municipalities, Local and State Police	Number of hours	All areas	All areas	Safe Road Users, Safe Vehicles	NH DMV	N/A	Low	Ongoing
2.3.5	Conduct training on roadway departure crash engineering mitigation approaches.	Municipalities, Local and State Police	Number of hours	All areas	All areas	Safe Road Users	FHWA Technical Assistance	N/A	Low	Short
Strategy 2.4: Enhance enforcement activity to address roadway departure safety.										
2.4.1	Increase the number of hours of impaired and speed-related driving enforcement.	State and Local Police	Number of hours	All road types	Rural, Suburban	Safer Road Users	Municipal or State Police	★★★★	High	Ongoing

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
2.4.2	Increase enforcement of excessive driving speed with an emphasis on winter weather driving.	State and Local Police	Number of hours	All areas	Rural, Suburban	Safer Road Users	Municipal or State Police	★★★★	High	Ongoing
Strategy 2.5: Improve data collection and analysis practices that relate to roadway departure safety.										
2.5.1	Train staff and others on data collection and analysis techniques to improve the quality of information available to explain the reasons for and results of crashes	Municipalities, Local and State Police	Number of hours	All areas	All areas	Safer Road Users	FHWA, NHDOT, Regional and Municipal Agencies	N/A	Low	Short
2.5.2	Continue to share data with safety partners to inform knowledge of prevailing issues, including UTVs/ATVs.	Municipalities, Local and State Police	Number of partnerships	All areas	All areas	Safer Road Users, Safe Vehicles	FHWA, NHDOT, Regional and Municipal Agencies	N/A	High	Ongoing
2.5.3	Perform roadway safety audits on priority corridors to further identify those roadway features and user behaviors that contribute to severe crashes and select the appropriate countermeasures.	Municipalities, NHDOT	Number of RSAs	All areas	All areas	All	HSIP	N/A	High	Medium

Emphasis Area: Distracted Driving

Emphasis Area Objective: Reduce the frequency and severity of distracted driving crashes.

Success Metric: Reduce the number of distracted driving crashes by 50% by 2035.

Table 9: Distracted Driving

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 3.1: Implement educational efforts to address distracted driving.										
3.1.1	Develop and implement a Distracted Driving Action Plan to advocate for attentive driving.	State, County, and Local Police	Number of hours	All areas	All areas	Safe Road Users	NHTSA, NHDOS OHS	N/A	Medium	Long
3.1.2	Encourage awareness programs addressing distracted driving. Conduct at least one annual public service announcement by OHS about distracted driving. Reach out to schools to encourage youth to be advocates for attentive driving. Involve the Injury Prevention Center to find ways to involve and partner with schools. Conduct an annual AAA campaign with PSAs that focus on impairment and distraction. Work with the public information officer at the OHS to develop specific messages for different demographics.	State, County, and Local Police. Engage social scientist on message framing.	Number of hours	All areas	All areas	Safe Road Users	NHTSA, NHDOS OHS, Municipal or State Police, Nonprofit Advocacy Groups	N/A	Medium	Medium

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
3.1.3	Create a coalition against distracted driving. The coalition's goal will be to support legislation, and further education efforts. Identify additional members for the distracted driving task force. Identify additional types of organizations/agencies for inclusion on the task force. Conduct at least six meetings annually for the distracted driving task force. Involve more community organizations.	State, County, and Local Police; Municipalities	Number of hours	All areas	All areas	Safe Road Users	NHTSA, NHDOS OHS, Municipal or State Police, Nonprofit Advocacy Groups	N/A	High	Medium
Strategy 3.2: Enhance enforcement activity to address distracted driving.										
3.2.1	Target periods of enforcement with local/State collaboration (e.g., AM and PM times).	State, County, and Local Police	Number of hours	All areas	All areas	Safe Road Users	NHDOS OHS, Municipal or State Police	★★★★	High	Ongoing
3.2.2	Work with legislature and courts to maintain or strengthen distracted driving legislation through education and advocacy. Place topic on Traffic Safety Commission agenda annually. Continue to advocate for maintaining current law. Review current penalties related to hands-free law and identify potential adjustments.	State, County, and Local Police; Municipalities	Number of hours	All areas	All areas	Safe Road Users	NHDOS OHS, Municipal or State Police	N/A	High	Long

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
3.2.3	Identify opportunities involving vehicle-to-infrastructure technology which help to provide drivers information on current status of surrounding infrastructure. Advocate for continued improvement in-vehicle electronics and safety systems to reduce the distraction they may present to the driver.	Municipalities	Number of partnerships	All areas	All areas	Safe Vehicles	This seems to be a national-level issue.	N/A	Low	Long
Strategy 3.3: Improve data collection and analysis practices that relate to distracted driving.										
3.3.1	Work with law enforcement agencies to develop procedures to better identify any role played by driver distraction and consistently record that information on crash reports, regardless of whether that distraction is a citable offense	State, County, and Local Police	Changes to data collection processes	All areas	All areas	Safe Road Users	NHDMV, Municipal or State Police	N/A	High	Medium
3.3.2	Research tools for law enforcement to determine if a motorist was using an electronic device.	State, County, and Local Police	List of potential tools and selection of preferred tool.	All areas	All areas	Safe Road Users	Municipal or State Police	N/A	High	Medium

Emphasis Area: Impaired Driving

Emphasis Area Objective: Reduce the frequency and severity of impaired driving crashes.

Success Metric: Reduce the number of impaired driving crashes by 50% by 2035.

Table 10: Impaired Driving

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 4.1: Implement educational efforts to address impaired driving.										
4.1.1	Conduct Advanced Roadside Impaired Driving Enforcement (ARIDE) training to train law enforcement officers to observe, identify, and articulate the signs of impairment.	State, County, and Local Police	Number of hours	All areas	All areas	Safe Road Users	NHTSA, NHDOS OHS	N/A	Medium	Long
4.1.2	Consult with Drug Recognition Experts on best practices to address impaired driving.	State, County, and Local Police	Number of hours	All areas	All areas	Safe Road Users	NHTSA, NHDOS OHS, Municipal or State Police	N/A	Low	Long
4.1.3	Conduct STOP DWI Program to coordinate local efforts that address impaired driving.	State, County, and Local Police	Number of program events	All areas	All areas	Safe Road Users	NHTSA, NHDOS OHS, Municipal or State Police	N/A	Medium	Long

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
4.1.4	Encourage collaboration between local, county, and State police to proactively address the dangers of impaired driving. Engage community-based organizations to reach at-risk populations starting with one community and expand to additional communities. Identify top-five at-risk communities in the State and focus activities at these locations.	State, County, and Local Police	Number of CBOs engaged	All areas	All areas	Safe Road Users	NHTSA, NHDOS OHS, Municipal or State Police, Nonprofit Advocacy Groups	N/A	High	Medium
4.1.5	Promote programs that educate the public about the risk and consequences of impaired driving. Post on the OHS' social media sites for the annual Drive Sober or Get Pulled Over Campaign. Host press conferences for the public for the Drive Sober or Get Pulled Over Campaign. Create flyers summarizing risks of impaired driving and distribute to DMV locations and high schools.	State, County, and Local Police, Local Agencies	Number of hours	All areas	All areas	Safe Road Users	NHTSA, NHDOS OHS, Municipal or State Police, Nonprofit Advocacy Groups	N/A	Low	Medium

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 4.2: Enhance enforcement activity to address impaired driving.										
4.2.1	Conduct Publicized sobriety checkpoints. Note that the police must follow a protocol that includes judicial authorization for the checkpoint and an advance public notice. Work with Police Departments to explore the possibility of distributing personal breathalyzers to higher-risk groups.	State, County, and Local Police	Number of locations	All areas	All areas	All	NHTSA, NHDOS OHS, Municipal or State Police	★★★★★	High	Short
4.2.2	Conduct High visibility saturation patrols. Coordinate across local jurisdictions.	State, County, and Local Police	Number of events	All areas	All areas	Safe Road Users	Municipal or State Police	★★★★	High	Short
4.2.3	Incorporate additional field sobriety testing, breathalyzer training, and DRE training into both the part-time and full-time police academies. Identify opportunities to incorporate breathalyzer and DRE training.	State, County, and Local Police	Number of trainings	All areas	All areas	Safe Road Users	NHDOS OHS	N/A	High	Short
4.2.4	Continue targeted patrols and implement all-hours patrols using drug recognition experts (DREs). Engage community-based organizations to reach at-risk populations starting with one community and expand to additional communities. Identify top-five at-risk communities in the State and focus activities at these locations.	State, County, and Local Police	Number of hours	All areas	All areas	Safe Road Users	Municipal or State Police	N/A	High	Short

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
4.2.5	Develop and promote public health initiatives in collaboration with law enforcement and healthcare providers to provide free or reduced-cost breathalyzers and rideshare or transit vouchers to individuals with substance use disorders, thereby reducing the incidence of impaired driving in at-risk populations.	State, County, and Local Police	Number of hours	All areas	All areas	Safe Road Users	Municipal or State Police, Municipal Funds	N/A	Medium	Medium
Strategy 4.3: Improve data collection and analysis practices that relate to impaired driving.										
4.3.1	Perform roadway safety audits on priority corridors to further identify roadway features as well as drinking establishment locations that combined with impaired driving that contribute to severe crashes and select the appropriate countermeasures.	Municipalities, NHDOT	Number of RSAs	All areas	All areas	All	HSIP	N/A	High	Medium
4.3.2	Improve collection and use of impaired driving data for effective enforcement. Produce annual mapping that illustrates crash and citation locations related to Impaired Driving incidents.	Municipalities, State and Local Police		All areas	All areas	Safer Road Users	NHDOS OHS, NHDOT Safety Section	N/A	High	Medium

Emphasis Area: Speed and Aggressive Driving

Emphasis Area Objective: Reduce the frequency and severity of speed and aggressive driving crashes.

Success Metric: Reduce the number of speed and aggressive driving crashes by 50% percent by 2035.

Table 11: Speed and Aggressive Driving

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 5.1: Implement engineering countermeasures to reduce speeding and speed-related crashes and implement roadway designs that are self-enforcing.										
5.1.1	Set appropriate speed limits based on the use of appropriate and evolving engineering practices.	Municipalities	Number of roads	Major collectors and rural minor arterials	All areas	Safe Roads, Safe Speeds	NHDOT Bureau of Traffic, Municipalities	N/A	High	Medium
5.1.2	Expand the use of context-specific advisory speed signs to advise motorists where traveling at the posted speed is ill-advised.	Municipalities	Number of locations	Major collectors and rural minor arterials	All areas	Safe Roads, Safe Speeds	NHDOT Bureau of Traffic, Municipalities	CMF: 0.87	High	Short
5.1.3	Introduce variable speed limits for high temporal speeding events.	Municipalities	Number of sites	During morning and evening commutes on major collectors and rural minor arterials	All areas	Safe Roads, Safe Speeds	NHDOT Bureau of Traffic, Municipalities	CMF: 0.71 (urban)	High	Short
5.1.4	Increase the use of Radar Speed Feedback Signs to notify drivers of their speeds.	Municipalities	Number of sites	Major collectors and rural minor arterials	All areas	Safe Roads, Safe Speeds, Safe Road Users	NHDOT Bureau of Traffic, Municipalities	CMF: 0.95 (rural)	High	Short

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
5.1.5	Reduce lane widths through re-striping to encourage slower speeds.	Municipalities	Number of sites	Major collectors and rural minor arterials	All areas	Safe Roads, Safe Speeds	NHDOT District, Municipalities	CMF dependent on width reduction	High	Short
5.1.6	Install transverse rumble strips to encourage lower speeds. Conduct appropriate outreach in advance of installation.	Municipalities	Number of sites	All roads	All areas	Safe Roads, Safe Speeds	HSIP, Municipalities	CMF: 0.66 (urban and suburban)	Low	Medium
5.1.7	Install traffic calming countermeasures that provide vertical deflection (e.g., speed humps or raised crosswalks) and horizontal deflection (e.g., chicanes, center islands, or traffic circles) to lower speeds on local roadways.	Municipalities	Number of sites	Local roadways	All areas	Safe Roads, Safe Speeds	HSIP, Municipalities	CMF Varies	Low	Medium
Strategy 5.2: Implement educational efforts to address speed-related safety.										
5.2.1	Work with Judicial Outreach Liaisons to encourage judicial respect for and support of speeding citations. Develop a handout and presentation for Judicial Outreach Liaisons highlighting dramatic differences in survival rates for vulnerable users when hit by cars traveling at speeds at 20 mph vs. 30 mph vs. 40 mph. Work with Judicial Outreach Liaisons to explore transitioning to an income-based fine system.	Municipalities	Number of distributions	All areas	All areas	Safe Road Users, Safe Speeds	Municipalities	N/A	High	Short

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
5.2.2	Educate the public of the dangers and consequences of speeding. Participate in campaigns like NHTSA's "Obey the Sign or Pay the Fine" and "Stop Speeding Before it Stops You". Illustrate the difference in travel speeds with respect to braking distance and crash survivability. Consult with professionals on effective message framing.	Municipalities, State and Local Police	Number of hours	All areas	All areas	Safe Road Users, Safe Speeds	NHTSA, NHDOS OHS	N/A	Low	Medium
5.2.3	Engage Law Enforcement Liaison in coordinating initiatives that address speeding.	Municipalities, State and Local Police	Number of hours	All areas	All areas	Safe Road Users, Safe Speeds	NHDOS OHS	N/A	High	Medium
Strategy 5.3: Enhance enforcement activity to address speed-related safety.										
5.3.1	Coordinate with Enforcement Officers to prioritize enforcement of locations with a history of speed-related crashes.	Municipalities, State and Local Police	Number of hours	All roads	All areas	Safer Road Users	Municipal or State Police	N/A	High	Short
5.3.2	Use Radar Speed Feedback Signs to notify drivers of reduced speed limits.	Municipalities	Number of locations	All roads	All areas	Safe Roads, Safe Speeds, Safe Road Users	NHDOT Bureau of Traffic, Municipalities	CMF: 0.95	High	Short

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
5.3.3	Advocate for the legalization of automated safety cameras to address speed.	Municipalities, State and Local Police	Number of locations	All roads	All areas	Safe Roads, Safe Speeds, Safe Road Users	Municipalities	N/A	High	Medium
Strategy 5.4: Improve data collection and analysis practices that relate to speed-related safety.										
5.4.1	Maintain a database of location of all speeding related tickets and crashes to find speeding corridors.	Municipalities, State and Local Police	Conducted or not	All areas	All areas	Safe Speeds	NHDMV, Municipal or State Police	N/A	Medium	Medium
5.4.2	Incorporate the needs of all users when setting speed limits and use data to inform the selection of the speed limit.	Municipalities, State and Local Police	Conducted or not	All areas	All areas	Safe Speeds	NHDOT Bureau of Traffic, Municipalities	N/A	High	Medium
5.4.3	Compile data related to driver speed. Consider publicly sharing TomTom data.	Municipalities, State and Local Police	Conducted or not	All areas	All areas	Safe Speeds	Municipalities	N/A	High	Medium

Emphasis Area: Vehicle Occupant Protection

Emphasis Area Objective: Reduce the frequency and severity of vehicle occupant protection compliance rates.

Success Metric: Reduce the number of crashes that cite a lack of vehicle occupant protection as a contributing factor by 50% by 2035.

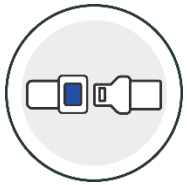


Table 12: Vehicle Occupant Protection

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 6.1: Strengthen seatbelt laws										
6.1.1	Advocate for the adoption of an adult seat belt law and a motorcycle helmet law.	Municipalities, Medical Providers, Safety Groups	Adoption of the law	All areas	All areas	Safer Road Users	Private Entities, Nonprofit Advocacy Groups	N/A	High	Ongoing
Strategy 6.2: Educate residents on seatbelt laws and the importance of using a seatbelt										
6.2.1	Work closely with New Hampshire's Teen Driving Program to increase teen seat belt usage through education campaigns	Municipalities, School Districts	Number of campaigns	All areas	All areas	Safer Road Users	NHTSA, NHDOS OHS, Nonprofit Advocacy Groups	★★★	Low	Long
6.2.2	Support the enforcement of child restraint laws by conducting mobilization efforts.	State Police, County Sheriff, Cities, Local Police	Number of events	All areas	All areas	Safer Road Users	NHDOS OHS, Municipal or State Police	★★★★★	Low	Long
6.2.3	Partner with corporate stakeholders and other available education resources to promote increased occupant protection	Municipalities, Major Employers	Number of partnerships	All areas	All areas	Safer Road Users	Private Entities, NHDOS OHS, Municipal or State Police	★★★	Low	Long

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
6.2.4	Provide child restraint educational programs and information to parents, guardians, caregivers, and medical personnel (e.g., the New Hampshire Pediatric Society). Partner with schools and annually send a newsletter detailing education programs. Market through social media infant seat checks available at local police, fire, and EMS stations.	Municipalities, School Districts	Number of engagement events	All areas	All areas	Safer Road Users	NHTSA, NHDOS OHS, Nonprofit Advocacy Groups	N/A	Low	Long

Emphasis Area: Older Drivers

Emphasis Area Objective: Reduce the frequency and severity of crashes involving older drivers.

Success Metric: Reduce the number of crashes involving older drivers by 50% by 2035.

Table 13: Older Drivers

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 7.1: Implement engineering countermeasures to reduce older road user crashes.										
7.1.1	Implement countermeasures from the FHWA Older Driver Highway Design Manual: Increase size and letter height of roadway signs, width of striping, and use retro-reflective signal back-plates; improved signage and acuity, clarity; senior center signage; advance signage.	NHDOT, Municipalities	Number of locations	All areas	All areas	Safer Roads, Safer Road Users	HSIP, Federal Discretionary, Municipalities	CMF varies	High	Short
7.1.2	Train staff on the use of the Older Driver Highway Design Manual reference.	NHDOT, Municipalities	Number of trainings	All areas	All areas	Safer Roads, Safer Speeds, Safer Road Users	FHWA Technical Assistance	N/A	High	Long
Strategy 7.2: Implement educational efforts to address older road user safety.										
7.2.1	Implement the CarFit program to promote continued safe driving and mobility among older drivers by focusing attention on safety, comfort, and fit.	Municipalities, State Bureau of Adult & Aging Services (BAAS)	Locations analyzed	All areas	All areas	Safer Vehicles	NHTSA, NHDOS OHS, Nonprofit Advocacy Groups	N/A	Low	Medium

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
7.2.2	Work with the state to create a license renewal policy and a referral system to identify older drivers who should not be driving.	State, Bureau of Adult & Aging Services (BAAS)	Adoption of policy	All areas	All areas	Safer Road Users	NHDMV	★★	High	Medium
7.2.3	Conduct AARP Smart Driver program to help drivers over 55 refresh their driving skills.	Cities, Bureau of Adult & Aging Services (BAAS)	Number of programs	All areas	All areas	Safer Road Users	Nonprofit Advocacy Groups	★★★★	Medium	Medium
7.2.4	Conduct Coffee with Cops campaign to build relationships between road users and law enforcement.	Cities, Local Police, Bureau of Adult & Aging Services (BAAS)	Number of campaign events	All areas	All areas	Safer Road Users	Municipal or State Police	N/A	Low	Long
Strategy 7.3: Provide alternative means of transportation for older drivers so they do not need to be behind the wheel.										
7.3.1	Work with local agencies, transit and paratransit agencies to provide transportation assistance programs that assist seniors who cannot drive.	Municipalities, Transportation Agencies	Programs offered	All areas	All areas	Safer Vehicles	Transit Agencies, NHDOT, Municipal	N/A	Medium	Medium
7.3.2	Expand transit access in underserved communities.	Municipalities, Transportation Agencies	Programs offered	All areas	All areas	Safer Vehicles	Transit Agencies, NHDOT, Municipal	N/A	Medium	Medium

Emphasis Area: Teen Traffic Safety

Emphasis Area Objective: Reduce the frequency and severity of crashes involving teen drivers.

Success Metric: Reduce the number of crashes involving teen drivers by 50% by 2035.

Table 14: Teen Traffic Safety

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 8.1: Implement engineering countermeasures to reduce crashes involving young drivers.										
8.1.1	Improve lighting and visibility of signage.	Municipalities	Number of lighting fixtures installed		All areas	Safe Roads	HSIP, SS4A	CMF varies	High	Medium
8.1.2	Upgrade appropriate existing signs and pavement markings (e.g., retroreflective signs, reflective strips on signposts, add flashing lights to existing signs).	Municipalities	Number of upgrades		All areas	Safe Roads	HSIP, SS4A	CMF varies	High	Short
Strategy 8.2: Implement educational efforts to address younger road user safety.										
8.2.1	Implement awareness campaign to promote safe driving habits by young drivers, including staying alert, using a seat belt, driving at appropriate speeds, not driving distracted.	Municipalities, County Sheriff, Local Police	Number of	All areas	All areas	Safe Road Users	Municipalities, SS4A	N/A	Medium	Long
8.2.2	Increase parental involvement in teen driving and training by maintaining a web-based parent toolbox for educational information and other links to resources. Include an emphasis on driving as a responsibility rather than simply a right.	Municipalities	Number of clicks	All areas	All areas	Safe Road Users	Municipalities, SS4A	★★★	Medium	Short

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
8.2.3	Target educational outreach to novice teen drivers by continued educational outreach to high schools, peer to peer educational outreach materials, and educational material to include in drivers' education courses on vehicle maintenance and inspection for young drivers. Promote and encourage funding opportunities through State, local, and private entities for driver's education classes to allow greater access for all students. Advocate for defensive driving courses for young drivers.	Municipalities, School Districts	Number of events, number of promotional materials given out	All areas	All areas	Safe Road Users	Municipalities, SS4A	N/A	Medium	Medium
Strategy 8.3: Enhance enforcement activity to address younger road user safety.										
8.3.1	"Increase enforcement of driving laws. Advocate for the integration of speed-restriction technology in automobiles.	Municipalities, County Sheriff, Local Police	Number of hours	All areas	All areas	Safer Road Users	NH DMV	N/A	High	Medium
8.3.2	Enforce graduated licensing laws.	Municipalities, County Sheriff, Local Police	Number of hours	All areas	All areas	Safer Road Users	NH DMV	★★	High	Short
Strategy 8.4: Improve data collection and analysis practices that relate to younger road user safety.										
8.4.1	Evaluate age-related crashes to determine contributing factors in crashes involving young drivers.	Municipalities	Adoption of practice	All areas	All areas	Safer Road Users	Municipalities, SS4A	N/A	High	Medium

Emphasis Area: Vulnerable Road Users Motorized: Motorcycles and Mopeds

Emphasis Area Objective: Reduce the frequency and severity of crashes involving motorized vulnerable road users.

Success Metric: Reduce the number of crashes involving motorized vulnerable road users by 50% by 2035.

Table 15: Vulnerable Road Users Motorize: Motorcycles and Mopeds

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 9.1: Implement engineering countermeasures to reduce vulnerable user crashes.										
9.1.1	Install signing to make motorists aware of OHRVs in regions where OHRVs are prevalent, and particularly in those regions where they are permitted to operate on public roads. Partner with existing clubs where possible.	Municipalities	Number of signs installed	All roads	Rural, Suburban	Safe Roads, Safe Road Users	HSIP, SS4A, NHDOT District, Municipalities	N/A	High	Short
Strategy 9.2: Implement internal and external educational efforts to address vulnerable user safety.										
9.2.1	Create a pamphlet of what has changed in laws over the last 20 years to be given to drivers when they renew their license. Potentially work with the state DMV to produce this pamphlet.	Municipalities	Number distributed	All areas	All areas	Safe Road Users	NHDOT District, Municipalities	★★	Low	Varies
9.2.2	Focus the messaging and outreach to motorcyclists aged 45 years and older, including rules of the road, impairment issues, and distraction.	Municipalities	Number of hours	All areas	All areas	Safe Road Users	NHDOT District, Municipalities	N/A	Medium	Medium
9.2.3	Encourage and incentivize defensive driving courses for new motorcycle drivers.	Municipalities	Number of attendees	All areas	All areas	Safe Road Users	NHDOT District, Municipalities	★★	Medium	Varies

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
9.2.4	Renew and refresh campaigns emphasizing benefits of helmet use. Advocate for the adoption of helmet requirement laws.	Municipalities	Number of campaigns	All areas	All areas	Safe Road Users	NHDOT District, Municipalities	N/A	High	Medium
9.2.5	Increase use of news media and social media to draw attention to training and safe motorcycle operation.	Municipalities	Number of clicks	All areas	All areas	Safe Road Users	NHDOT District, Municipalities	N/A	High	Long
Strategy 9.3: Improve data collection and analysis practices that relate to vulnerable user safety.										
9.3.1	Perform roadway safety audits on priority corridors to further identify those roadway features and user behaviors that contribute to severe crashes and select the appropriate countermeasures.	Municipalities	Number of RSAs	All areas	All areas	All	NHDOT District, Municipalities	N/A	High	Medium
9.3.2	Develop a process to inventory motorcycle and moped data including traffic volumes, roadway attributes, and traffic asset data for use in traffic safety evaluations.	Municipalities	Adoption of new process	All areas	All areas	Safe Roads	NHDOT District, Municipalities	N/A	High	Medium

Emphasis Area: Vulnerable Road Users Non-Motorized: Pedestrians and Bicyclists

Emphasis Area Objective: Reduce the frequency and severity of crashes involving non-motorized vulnerable road users.

Success Metric: Reduce the number of crashes involving non-motorized vulnerable road users by 50% by 2035.

Table 16: Vulnerable Road Users Non-Motorized: Pedestrians and Bicyclists

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 10.1: Implement engineering countermeasures to reduce vulnerable user crashes.										
10.1.1	Prioritize pedestrian and trail crossing improvement and installation projects. Improve road geometry (narrow lanes, reduce curb radii, provide refuge islands, bike lanes) and signs, signals, and pavement markings at pedestrian and trail crossing locations. Provide a comprehensive regional network of multi-use trails that is separated from traffic.	Municipalities	Number of crossings installed each year	Locations with high pedestrian volumes	All areas	Safe Roads	HSIP, SS4A, NHDOT District, Municipalities	CMF dependent on improvements	High	Medium
10.1.2	Improve road geometry (narrow lanes, reduce curb radii, provide refuge islands, bike lanes) to improve pedestrian and bicyclist safety.	Municipalities	Number of improvements implemented	All areas	All areas	Safe Roads	HSIP, SS4A, NHDOT District, Municipalities	CMF dependent on improvements	High	Dependent on improvements
10.1.3	Implement sidewalk, trails, and lighting infrastructure improvements. Protect pedestrian spaces by installing permanent bollards.	Municipalities	Number of improvements implemented	All areas	All areas	Safe Roads	HSIP, SS4A, NHDOT District, Municipalities	CMF dependent on improvements	High	Dependent on improvements
10.1.4	Install pedestrian hybrid beacons.	Municipalities	Number of improvements implemented	Pedestrian crossings	All areas	Safe Roads	HSIP, SS4A, NHDOT District, Municipalities	CMF: 0.883 (urban and suburban)	Medium	Medium

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
10.1.5	Institutionalize complete streets practices by adopting a complete streets policy and corresponding approach for all federally funded transportation projects. Integrate strategies for compact urban development and transit-oriented development (TOD) to enhance urban safety and sustainability. Coordinate with land use policies to align transportation planning with sustainable urban design, promoting safer and more connected environments.	Municipalities	Number of improvements implemented	All areas	All areas	Safe Roads	HSIP, SS4A, NHDOT District, Municipalities	CMF dependent on improvements	High	Ongoing
10.1.6	Work with local jurisdictions to improve early and frequent coordination with municipal residents and staff to identify needed safety improvements and align them with upcoming Notice of Funding Opportunities.	Municipalities	Amount of funding received	All areas	All areas	Safe Roads	HSIP, SS4A, NHDOT District, Municipalities	N/A	Low	Long
10.1.7	Coordinate regional and local land use policies to encourage context-oriented street design, multimodal integration, and transit-oriented development (TOD) to improve road safety and connectivity.	Municipalities	Number of policies adopted	All areas	All areas	Safe Roads	Municipalities	N/A	Low	Long

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 10.2: Implement internal and external educational efforts to address vulnerable user safety.										
10.2.1	Develop consistent pedestrian and bicyclist safety outreach materials such as print materials and messaging for social and other media types as well as schools. Re-establish a dedicated pool of funding for local Safe Routes to School planning efforts that connect neighborhoods to schools.	Municipalities	Number of students walking and rolling to school	All areas	All areas	Safe Road Users	Safe Routes to School, Municipalities, Non-Profits	★★	Medium	Short
10.2.2	Create age-appropriate safety curriculum (pre-drivers ed), which would include vehicular passenger, pedestrian, and bicycle safety for middle and high-school students.	Municipalities, Schools, Bike/Ped Groups	Number of events	All areas	All areas	Safe Road Users	Safe Routes to School, Municipalities, Non-Profits	★★★	Low	Medium
10.2.3	Work with State police and local law enforcement to develop and implement in-service training for officers on bicycle and pedestrian laws and enforcement techniques.	Municipalities, and State, County, and Local Police	Number of hours	All areas	All areas	Safe Road Users	NHDOT District, Municipalities	N/A	Medium	Medium

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
10.2.4	Create and disseminate educational materials to promote awareness of bicycles, pedestrians, and e-bikes. Partner with agencies to develop and air PSAs on the rights and responsibilities of non-motorized users and drivers in their interactions, including 3-foot law, 4-foot law, and 5-foot law as dependent on speed. Create education materials on the 3-foot rule, 4-foot rule, and 5-foot rule. Continue outreach to encourage the use of bicycle helmets.	Municipalities, NHDOT, NHOHS, NSCNH	Number of hours	All areas	All areas	Safe Road Users	NHDOT District, Municipalities	N/A	Low	Short
10.2.5	Expand consideration of vulnerable roadway users' needs in infrastructure design and funding. Continue to provide staff training on current best practices for safe pedestrian and bicycle design in roadway infrastructure projects. Work with engineers and planners to use the LTS concept to design, construct, and maintain roadway infrastructure for vulnerable road users.	Municipalities, NHDOT	Number of new considerations	All areas	All areas	Safe Road Users	Municipalities	N/A	High	Medium

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
Strategy 10.3: Improve data collection and analysis practices that relate to vulnerable user safety.										
10.3.1	Perform roadway safety audits on priority corridors to further identify those roadway features and user behaviors that contribute to severe crashes and select the appropriate countermeasures.	Municipalities, NHDOT	Number of RSAs	All areas	All areas	All	NHDOT District, Municipalities	N/A	High	Medium
10.3.2	Develop a process to inventory pedestrian and bicyclist data including traffic volumes, roadway attributes, and traffic asset data for use in traffic safety evaluations.	Municipalities, NHOHS, NHDOT	Adoption of new process	All areas	All areas	Safe Road Users	NHDOT District, Municipalities	N/A	High	Medium
10.3.3	Develop and implement a method (e.g., bicycle level of traffic stress) for using these data as criteria for Improving performance-based planning by incorporating bicycle level of traffic stress to reduce injury and fatality rates for non-motorized users. Provide access to level of traffic stress (LTS) results and access to Strava data and use the combination to close gaps in the network.	Municipalities, NHDOT, MPOs	Adoption of new process	All areas	All areas	Safe Roads, Safe Road Users, Safe Speeds	NHDOT District, Municipalities	N/A	High	Medium
10.3.4	Use CRP funding to support regional and statewide ped/bike data collection efforts: integrating ped/bike with routine traffic volume counts, equipment purchase, acquisition of cell phone probe data.	Municipalities	Number of projects	All areas	All areas	Safe Roads, Safe Road Users, Safe Speeds	Municipalities, CR	Municipalities, CRP	High	Short

Number	Action	Proposed Lead Agency (and partners)	Activity Performance Metric	Application	Land Use Context	Safe System Element	Potential Funding Sources	Rating	Priority	Implementation Time Frame
10.3.5	Increase pedestrian and bicycle safety-focused coordination with State and local agencies on data collection, data sharing, and enforcement. Improve collection, use, and analysis of data needed for pedestrian and bicycle safety and programming. Develop an interagency effort to better document crash injuries among non-motorized road users combining crash reports with hospital patient data.	Municipalities, NHDOT, NHDOS	Adoption of new process	All areas	All areas	Safe Road Users, Post-Crash Care	NHDOT District, Municipalities	N/A	High	Medium

Implementation Resources

This Safety Action Plan equips RPC with a solid foundation to initiate safety improvement strategies. Various funding opportunities are available depending on the specific actions planned. RPC may seek state or federal funding to support additional planning efforts, implement safety infrastructure projects, or enhance multimodal transportation options. By identifying and understanding its safety needs through this plan, RPC is well-positioned to pursue a range of specialized grant programs.

U.S. Department of Transportation Transit, Safety, and Highway Funds – Pedestrian and Bicycle Funding Opportunities

This detailed table includes potential eligibility for pedestrian and bicycle activities and projects under U.S. DOT surface transportation and funding programs.
https://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding/funding_opportunities.pdf?u=092922

New Hampshire Highway Safety Improvement Program (HSIP)

This is the core Federal-aid program with the purpose of achieving significant reductions in traffic fatalities and serious injuries. This includes infrastructure-related projects, selected and justified by proven data-driven approaches. The program currently has $9,000,000 available annually and the Project Selection Process is a data-driven process that consists of three steps starting with an eligibility determination, then prioritization of selected projects, and finally optimization of the prioritized list of eligible projects within the annual budget. Some funding is utilized to conduct Road Safety Audits (RSAs) which examine crash locations to identify short, medium, and long-term improvements that can improve safety at the site. This is done in conjunction with the HSIP committee consisting of NHDOT staff, FHWA staff, MPO, RPC and a Local agency representative.
https://www.dot.nh.gov/about-nh-dot/divisions-bureaus-districts/highway-design/highway-safety-improvement-program-hsip

Safe Streets and Roads for All (SS4A) Grant Program

This is a five-year grant program that funds regional, local, and tribal initiatives through grants to prevent roadway deaths and serious injuries. After completing Planning projects applicants can pursue Demonstration and Implementation projects. With the completion of the Regional Safety Action Plan, communities within RPC can also apply directly for Demonstration and Implementation projects.
https://www.transportation.gov/grants/SS4A

Transportation Alternatives Program

The goal of the federally funded Transportation Alternatives Program (TAP) is to provide choices for non-motorized users that are safe, reliable, and convenient. TAP grants often help fund on and off-road bike and pedestrian facilities. TAP grants are currently awarded by NHDOT on a four-year cycle, provide up to 80% of project funding, and require a local match in most cases.
https://www.dot.nh.gov/projects-plans-and-programs/programs/transportation-alternatives-program

Active Transportation Infrastructure Investment Program (ATIIP)

The Active Transportation Investment Program (ATIIP) is a new competitive grant program created by Section 11529 of the Bipartisan Infrastructure Law enacted as the Infrastructure Investment and Jobs Act (Pub.L.117-58) to construct projects to provide safe and connected active transportation facilities in active transportation networks or active transportation spines.

FHWA will award Planning and Design grants for eligible applicants to develop plans for active transportation networks and active transportation spines. Projects seeking Planning and Design grants must have planning and design costs of at least $100,000 to be eligible.

FHWA will award Construction grants to eligible applicants to construct projects to provide safe and connected active transportation facilities in an active transportation network or active transportation spine. Projects seeking Construction grants must have total costs of at least $15 million to be eligible.
https://www.fhwa.dot.gov/environment/bicycle_pedestrian/atiip/

Recreational Trails Program

Recreational Trails Program (RTP) is a competitive grant program that offers funding for quality public trail projects throughout New Hampshire. Limited grants are available for motorized, non-motorized and diversified trails. Eligible projects include maintenance and restoration of existing trails, purchase and lease of trail construction and maintenance equipment, construction of new trails, development and rehabilitation of trailside and trailhead facilities and trail linkages. RTP funds come from the Federal Highway Trust Fund and the program in New Hampshire is administered by the Bureau of Trails under the NH Department of Natural & Cultural Resources.
https://www.nhstateparks.org/find-parks-trails/find-trails-maps-clubs/grants/recreational-trails-program

Congestion Mitigation & Air Quality (CMAQ)

CMAQ is a Federal program, administered by the NHDOT Bureau of Planning and Community Assistance, that specifically provides financial assistance for air quality improvement and congestion mitigation projects. Project may include transit investments, and infrastructure improvements that improve traffic flow. They also fund transportation-focused bicycle and pedestrian improvements that will result in a reduction in single-occupant vehicle travel. CMAQ grants are currently awarded by NHDOT on a four-year cycle, provide up to 80% of project funding and usually require a local match.
https://www.dot.nh.gov/projects-plans-and-programs/programs/congestion-mitigation-and-air-quality-cmaq-program

Better Utilizing Investments to Leverage Development (BUILD) Grant Program

BUILD is a federally funded grant program that provides grants for surface transportation infrastructure projects with significant local or regional impact. The eligibility requirements of BUILD allow project sponsors, including state and local governments, counties, Tribal governments, transit agencies, and port authorities, to pursue multi-modal and multi-jurisdictional projects that are more difficult to fund through other grant programs. The program is previously known as the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) and Transportation Investment Generating Economic Recovery (TIGER) discretionary grant programs.

https://www.transportation.gov/BUILDgrants

Safe Routes to School

This initiative aims to make it safer and easier for students from kindergarten to 12th grade to walk and bike to school. Established in 2005, it focuses on improving infrastructure, such as sidewalks, crosswalks, and bike lanes, and promoting safety education and community engagement. The program seeks to reduce traffic congestion, enhance student safety, and encourage physical activity, contributing to healthier communities. It involves collaboration between schools, local governments, and community organizations to create a supportive environment for students and families. This program was codified in the Bipartisan Infrastructure Law (23 U.S.C. 208) however no funding was provided.

https://www.fhwa.dot.gov/environment/safe_routes_to_school/

Strengthening Mobility and Revolutionizing Transportation (SMART) Grant Program

The Strengthening Mobility and Revolutionizing Transportation (SMART) Grant Program is a federally funded initiative established under the Bipartisan Infrastructure Law. It provides $100 million annually from 2022 to 2026 to fund demonstration projects that utilize advanced smart community technologies to improve transportation efficiency and safety. The program is divided into two stages: Stage 1 focuses on planning and prototyping, while Stage 2 supports the implementation of successful projects. Eligible public sector agencies, including state and local governments, can apply for these grants to address real-world transportation challenges through innovative technology solutions.

https://www.transportation.gov/grants/SMART

Coordination and Evaluation

In addition to securing funding, successfully implementing a safety action plan by an MPO requires close coordination among various stakeholders, including local governments, transit agencies, law enforcement, public health officials, and community organizations, to ensure broad input and backing. Moving the plan from planning to implementation is essential to reduce fatalities and serious injuries in the region. This section provides a process to guide implementation of the plan and evaluate success.

It is crucial to maintain active communication channels through regular meetings, workshops, and updates to align goals and strategies among all parties. Additionally, develop educational programs to inform stakeholders about safety best practices and emphasize the importance of incorporating safety into transportation planning.

Data Collection and Evaluation

Assessment of the plan will encompass both process and outcome evaluations. Process evaluation will entail examining each action in the plan to determine if progress has been achieved. Outcome evaluation will focus on assessing the impact of the activities. For certain projects, such as those specific to particular sites, it is relatively simple to gauge the safety impact by comparing pre-construction and post-construction crash statistics. In other cases, multiple activities may collectively influence changes in crash frequency. For instance, a reduction in impaired driving crashes might result from a combination of educational and enforcement initiatives. Due to the interconnected nature of various safety activities in the region, fatalities and injuries will be used as the benchmark for annual progress in each emphasis area. The RPC will utilize crash data gathered by regional police departments and managed by the NHDOT for outcome evaluations. Additionally, changes in traffic volumes, crash severity, and crash characteristics will offer valuable insights into the effectiveness of safety countermeasures. The RPC will build upon the foundational analysis of the initial plan and enhance it with new data. For evaluating process outcomes, the RPC will collect information on metrics such as activities conducted, projects completed, and people engaged. An annual report summarizing the process and outcomes of the various strategies and actions will be produced, aligning with the annual compilation of crash data and will be incorporated into the annual HSIP target setting process and MPO System Performance Report.

Public Reporting

The Regional Safety Plan Committee (RSPC) should be established to support the plan's goals and implementation process. This internal committee, comprising members from within the RPC area, can offer valuable advice and assistance for the action items outlined in the safety action plan. If an RSPC cannot be assembled, dedicating a portion of the Transportation Advisory Committee (TAC) meetings discussing the safety action plan can serve as an effective alternative. This includes reviewing crash statistics, assessing the implementation status of actions, recommending the re-ordering of safety priorities, and identifying potential funding opportunities to support the implementation of strategies and actions. Additionally, the committee will coordinate with NHDOT, NHDOS, and the other NH MPOs to ensure alignment with the State's safety priorities. Feedback from the committee will be incorporated into the annual progress report.

Public Education and Awareness

The RPC will keep the public informed about the plan's implementation via public meetings organized by the RSPC/TAC and through regular updates on the RPC's website, where the report and any related analysis will also be posted. Periodic messages will be shared on RPC's website and social media channels to remind the public about roadway safety and to announce notable upcoming events or projects. Additionally, RPC may conduct surveys periodically to gauge public awareness of the plan's implementation and to gather feedback on emerging roadway safety issues.

Integration with the Plan

The RPC acknowledges that some strategies in the plan may require several years for full implementation, and the benefits, such as a reduction in fatal and serious injury crashes, may not be immediately apparent. The plan is considered a living document and will undergo continuous review. Similar to the New Hampshire Strategic Highway Safety Plan, a comprehensive update is expected to be completed every five years, or as deemed necessary by the RPC. However, updates to individual strategies and actions may occur more frequently to reflect ongoing progress and any new policies that influence implementation. The RPC will take the lead in updating the plan, with support from various stakeholders, the New Hampshire MPO Transportation Advisory Committee, and the RPC Policy Committee. Feedback from public reporting and engagement activities will be integrated into these updates. Additionally, updates to the Safety Action Plan will be integrated into the processes for the Long Range Transportation Plan, the Ten Year Plan project prioritization process, the Congestion Management Process, and the tracking of safety performance metrics in the System Performance Report.

Contact

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