

FBRMPO Updates

February 2025

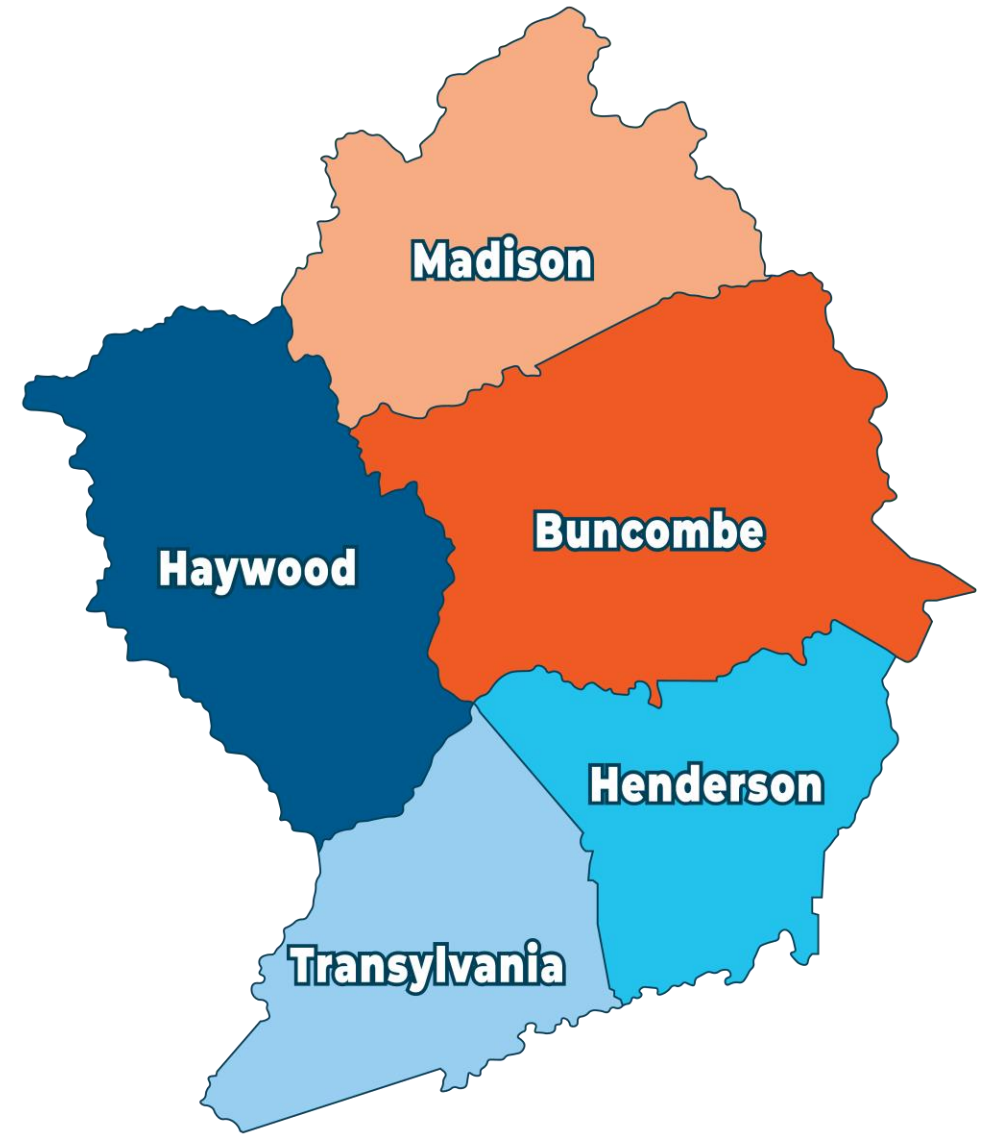


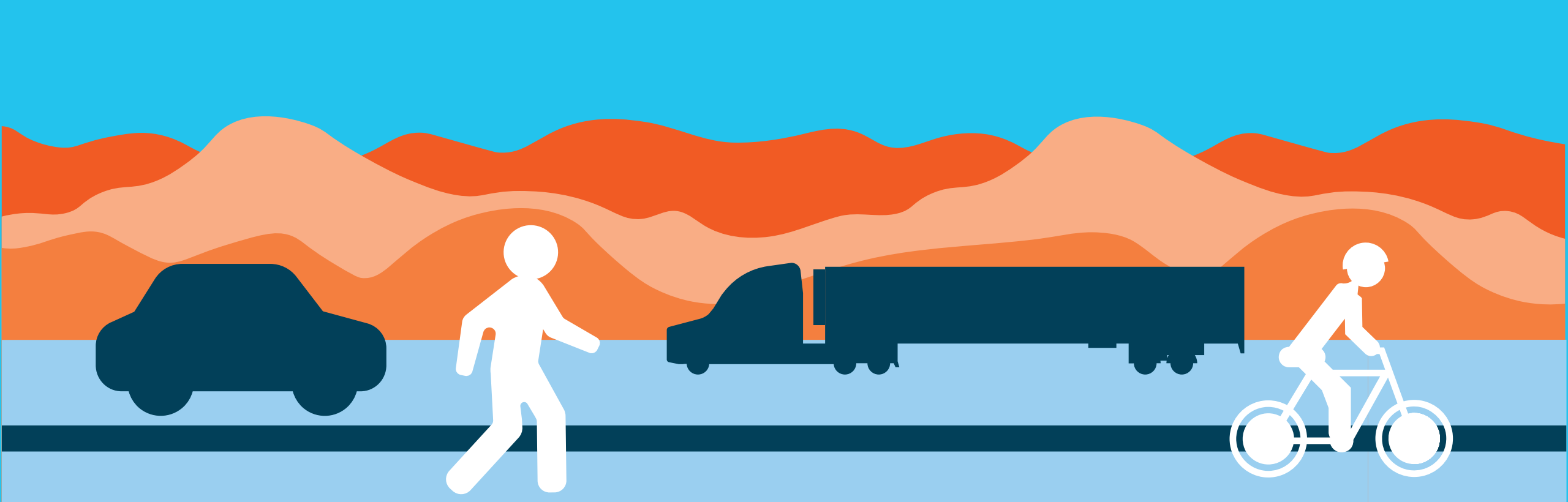
SAFE STREETS FOR WNC

Land of Sky Regional Transportation Safety Action Plan

Agenda

- **Safe Streets for WNC Recap**
 - Safety Planning Process
 - Schedule/ Deliverables to date
- **Review Data Analysis Findings**
 - Goals and Targets
 - Crash Data Review
 - High Injury Network
 - Risk Analysis
 - Socioeconomic Analysis
- **Review Public Engagement Efforts**
 - Leadership Summit
 - Planned Public Engagement
 - Focus Groups
 - Project Website
 - Survey and Countermeasure Visualization
 - County Fact Sheets
- **What's Next**





Safe Streets for WNC Recap



Safety Planning

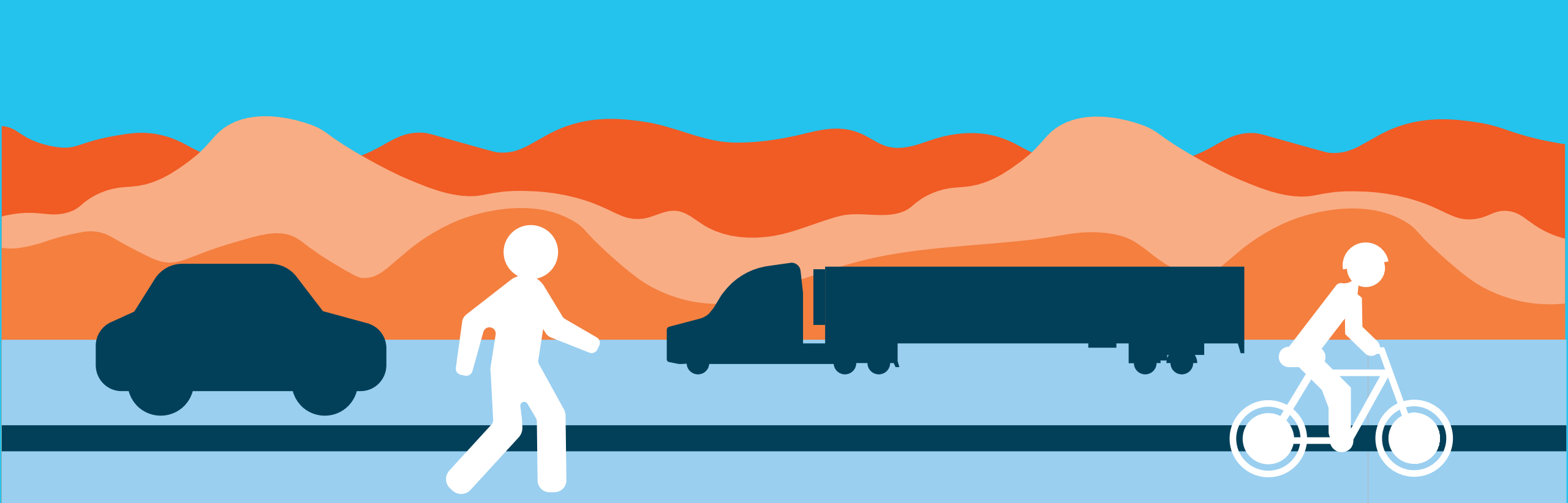
Recap



How do we improve safety?



SCHEDULE	2024												2025							
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug
Task 1 - Project Management and Coordination																				
Kick Off		•	•																	
Monthly Project Team Meetings			•	•	•	•	•	•			•	•	•	•	•	•	•	•	•	•
Technical Steering Committee Meetings (3)				•				•								•				
Task 2 - Leadership Commitment and Goal Setting																				
Leadership Summits (2)						•												•		
Goal Setting																				
Task 3 - Safety Analysis																				
Crash Analysis																				
HIN and Systemic Analysis																				
Task 4 - Engagement and Collaboration																				
Public Engagement Plan																				
Website and Branding																				
Survey																				
Focus Groups (4)								•••												
Community Outreach Events (6)																				
Task 5 - Equity Considerations																				
Equity Analysis																				
Equity Approaches																				
Task 6 - Policy and Process Changes																				
Policy and Plan Assessment																				
Policy and Plan Recommendations																				
Task 7 - Strategy and Project Selection																				
Strategy and Countermeasure Toolbox																				
Implementation Plan																				
Draft and Final Report																				Adoption
Task 8 - Progress and Transparency																				
Performance Measures																				
Reporting Procedures																				



Review Data Analysis Findings

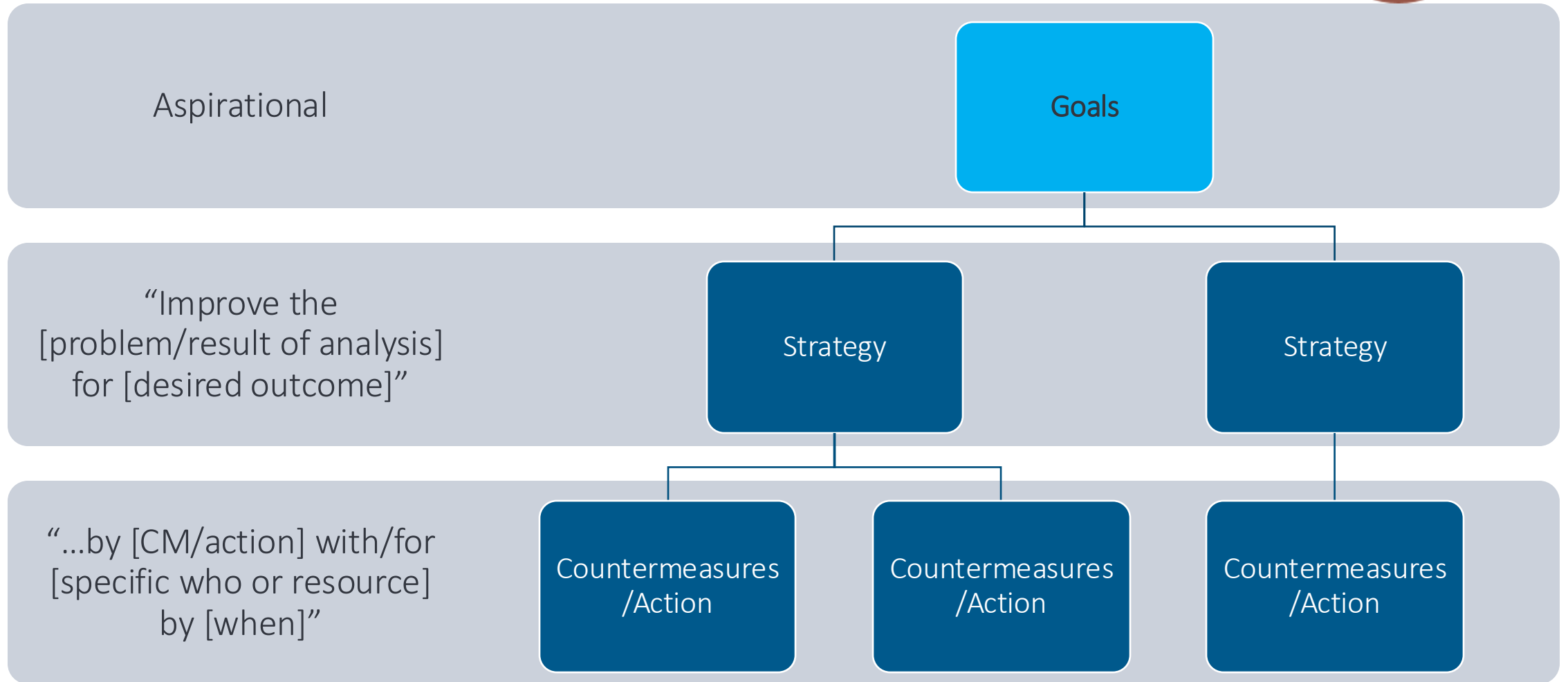


Goals and Targets

Recap



Strategic Framework



Options for FBRMPO Safety Targets

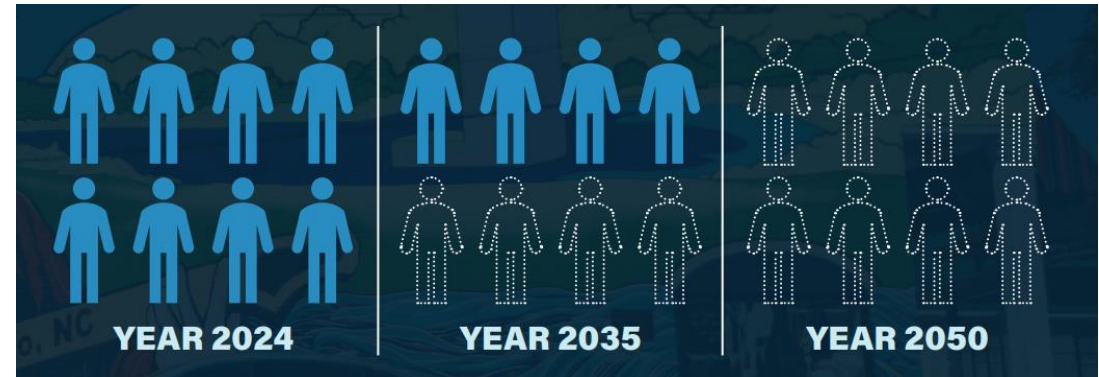
1. Adopt State Targets

OR

2. Realistic

3. Goal-Driven

4. Hybrid



Overarching Safety Goal

Suggested Revisions

- Achieve significant reduction in fatalities and serious injuries on the region's transportation system, **moving towards zero by 20XX**.
 - *Option 1: Align with the SHSP and select 2050.*
 - *Option 2: Be more moderate or aggressive with a different year.*
- **Reduce** fatalities and serious injuries on the region's transportation system **by X% every year until reaching zero**.
 - *Option 1: Set a fixed percentage, like 10%*
 - *Option 2: Select a date for achieving zero and back-calculate the required percent annual decrease.*



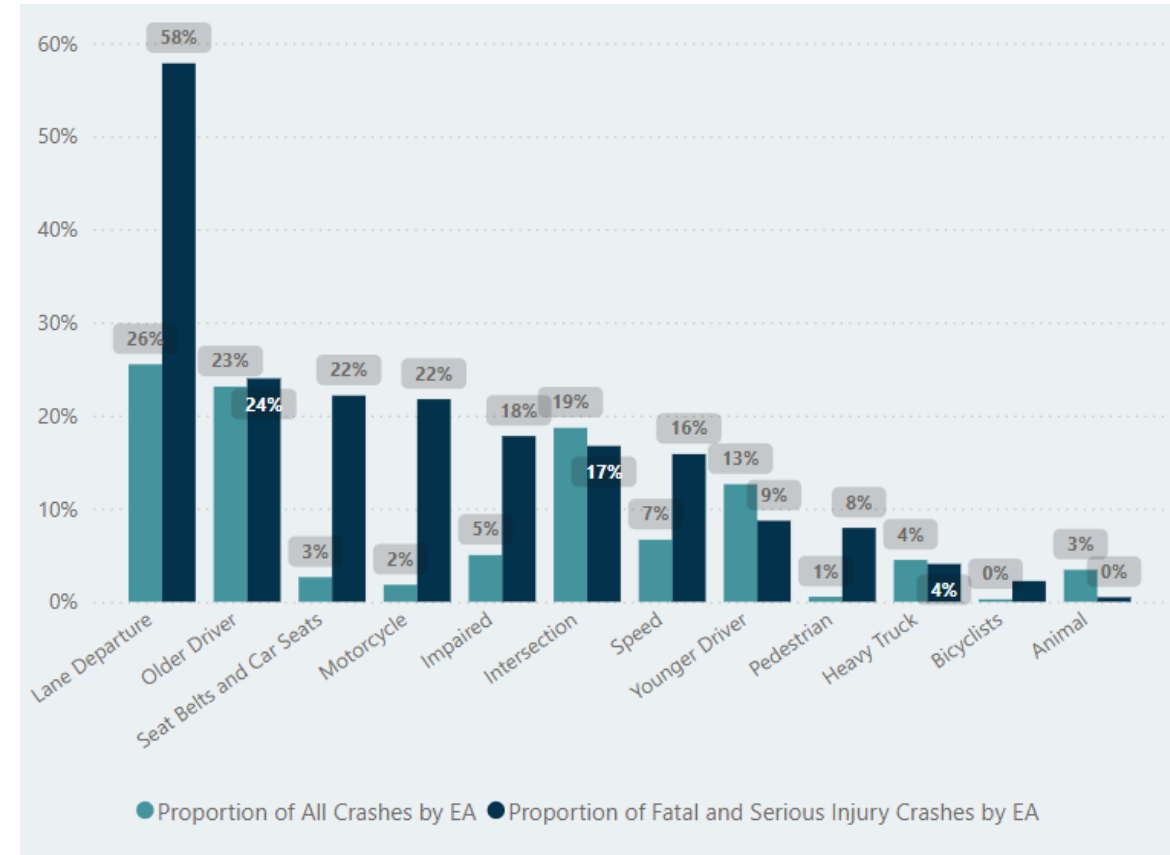
Crash Data Review



Crash Data: Analysis

Proportion of Fatal and Serious Injury Crashes by County

Emphasis Areas	Buncombe	Haywood	Henderson	Madison	Transylvania	Statewide
Animal	0%	0%		2%		1%
Bicyclists	3%	1%	2%		2%	2%
Heavy Truck	3%	7%	5%	6%	1%	5%
Impaired	23%	16%	19%	13%	16%	23%
Intersection	17%	14%	23%	13%	15%	22%
Lane Departure	50%	65%	56%	73%	71%	53%
Motorcycle	19%	27%	18%	32%	31%	14%
Older Driver	21%	28%	22%	22%	30%	17%
Pedestrian	10%	5%	9%	2%	5%	10%
Seat Belts and Car Seats	24%	20%	21%	25%	17%	27%
Speed	14%	20%	13%	18%	20%	18%
Younger Driver	11%	8%	12%	10%	8%	11%



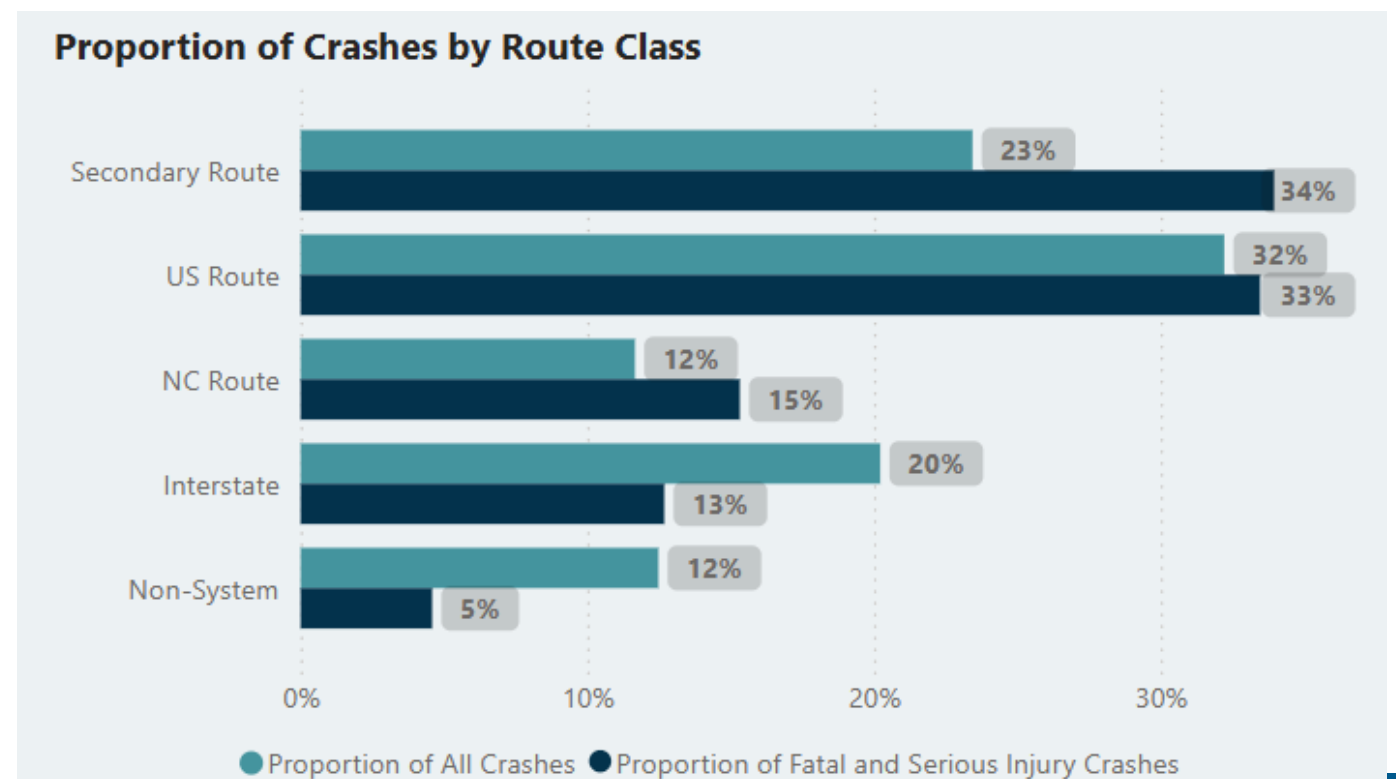
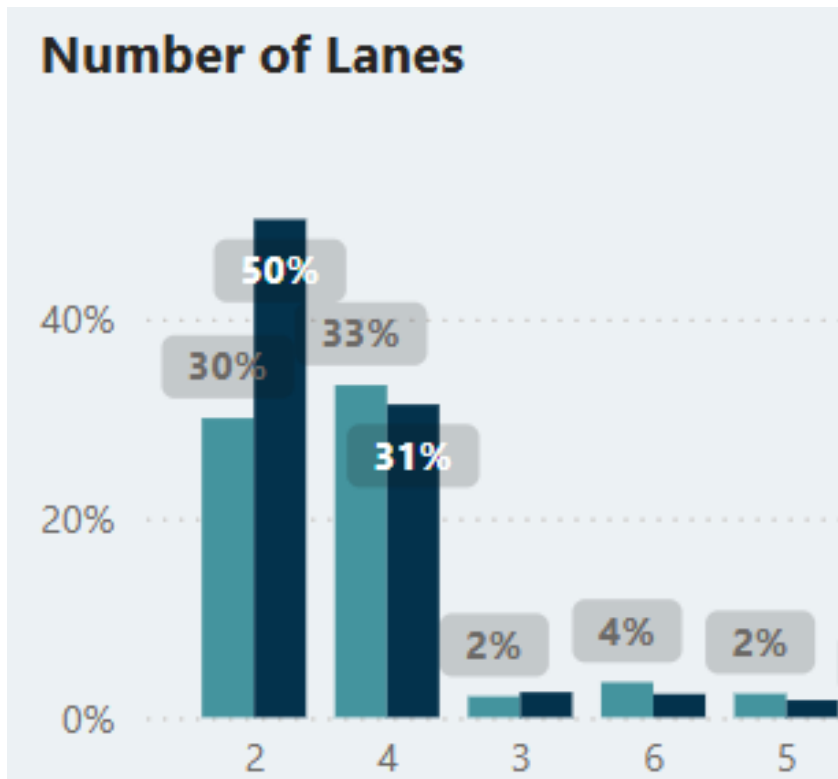
What crash types most often result in serious injury and fatal outcomes?

What physical factors are most often associated with severe and fatal crashes?

What human factors are most often described in severe and fatal crash reports?

Crash Data: Location Analysis

- 76% of all fatal / serious injury crashes occurred in Rural areas
- 53% of all crash types and 67% of bicycle/pedestrian crashes (all severities) occurred in Urban areas.
- 50% of all fatal / serious injury crashes occurred on 2-lane, undivided roads
- 33% of all fatal / serious injury crashes occurred on US Routes, which account for 3% of total mileage
- More than 40% of pedestrian fatal / serious injury crashes occurred on multi-lane roads (majority undivided)





High Injury Network



High Injury Network

What is a HIN?

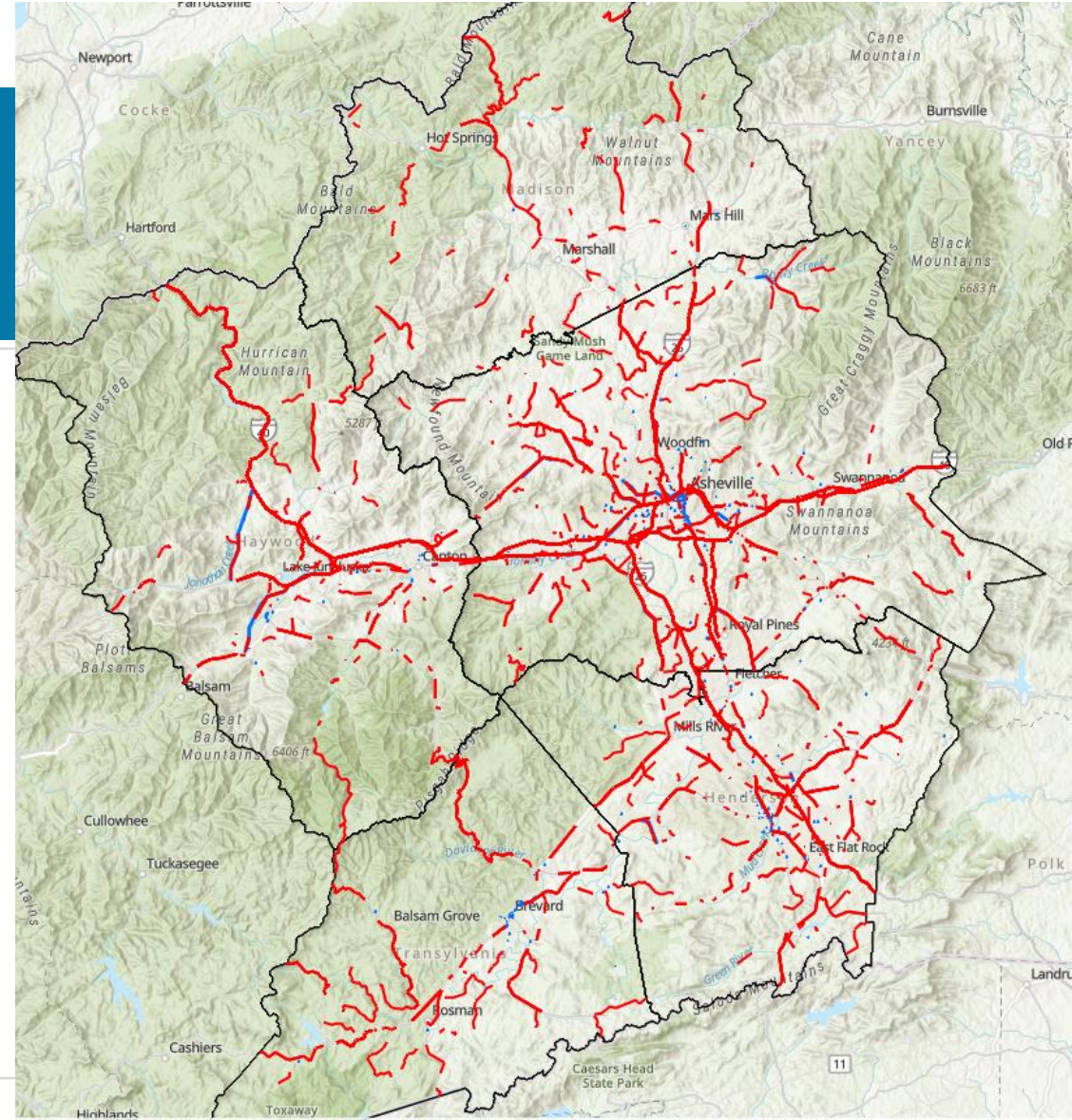
Locations with frequent crashes and with higher severities

Selected for FBRMPO-LOSRPO

- High Injury Network (top 3%)
- High Injury Intersections (top 1%)
- High Injury Bike Ped (Core Plus)
- High Injury Intersections – Bike Ped

How was it created?

- 2016-2023 NCDOT crash data (all severities)
- Geolocation of crashes is best on NCDOT-maintained roads
- Uses equivalent property damage only (EPDO) method to weight locations based on crash cost
- Clipped to intersections and non-intersection segment centerlines
- Percentile scoring (0-100)



High Injury Network

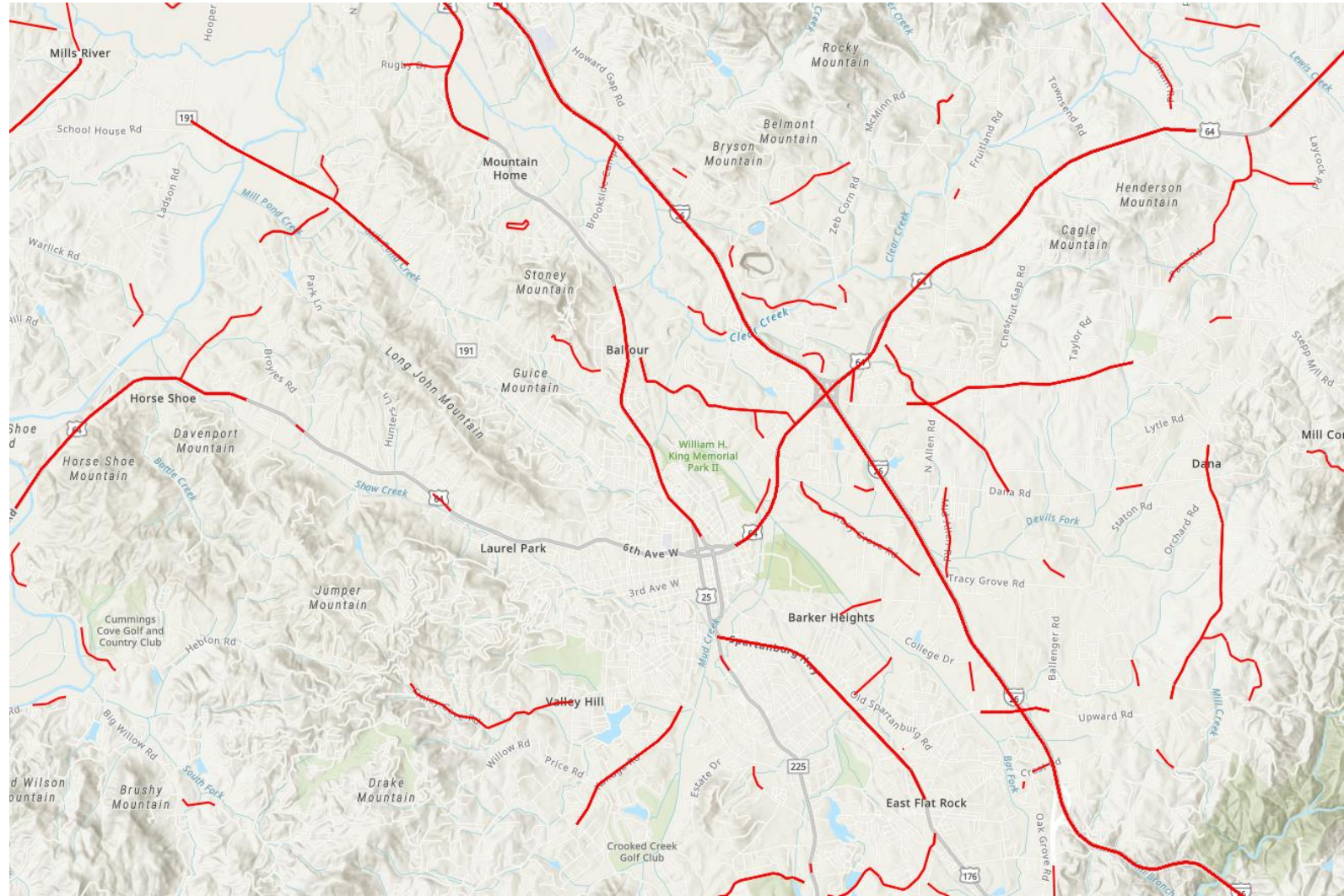
Top 3% of HIN Corridors (All Crashes)

The top 3% of the HIN segments reflects just 7% of the corridor network mileage (759 miles) but represents 76% of the total KA crashes (1190).

410 miles are within an urban area and 330 miles are in a rural area based on the 2020 Census Urban Area boundaries.

Miles per county:

- Buncombe – 95 miles
- Haywood – 95 miles
- Henderson – 154 miles
- Madison – 88 miles
- Transylvania – 114 miles



High Injury Network

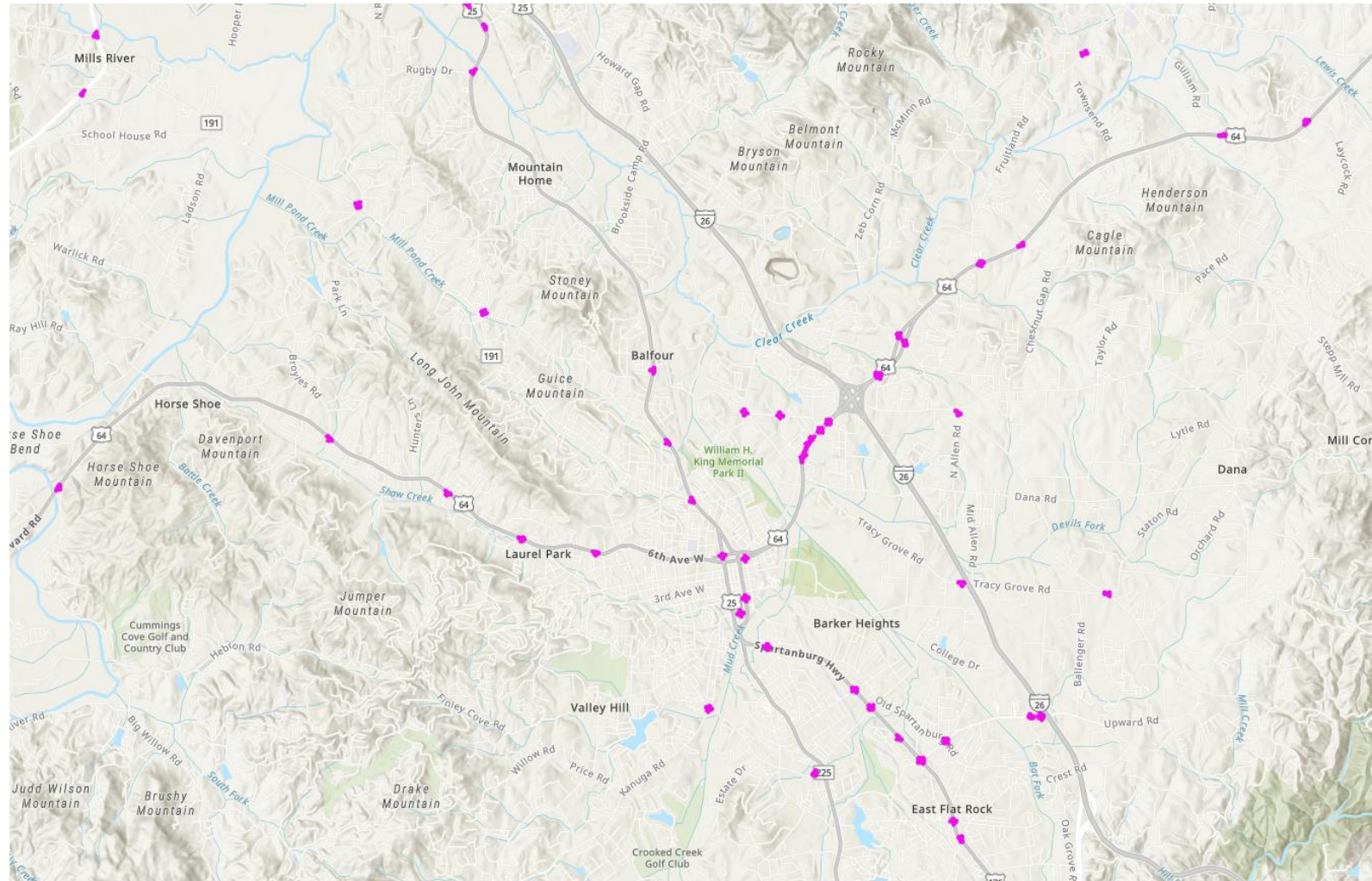
Top 1% of High Injury Intersections (All Crashes)

The top 1% of the HIIN reflects just 1% of the total network intersections (249) but represents 39% of the total KA crashes (288).

223 of the 249 intersections are located within an urban area and 134 intersections are located within municipal boundaries.

Intersections per county:

- Buncombe – 152 intersections
- Haywood – 25 intersections
- Henderson – 63 intersections
- Madison – 3 intersections
- Transylvania – 6 intersections





Risk Analysis



Safe System Approach

- Exposure
Are you expecting more road users or a greater mix of road users?
- Likelihood
Are your countermeasures reducing the likelihood that a certain crash type occurs?
- Severity
Increased kinetic energy (i.e., speed) result in greater injury – where is speed highest?

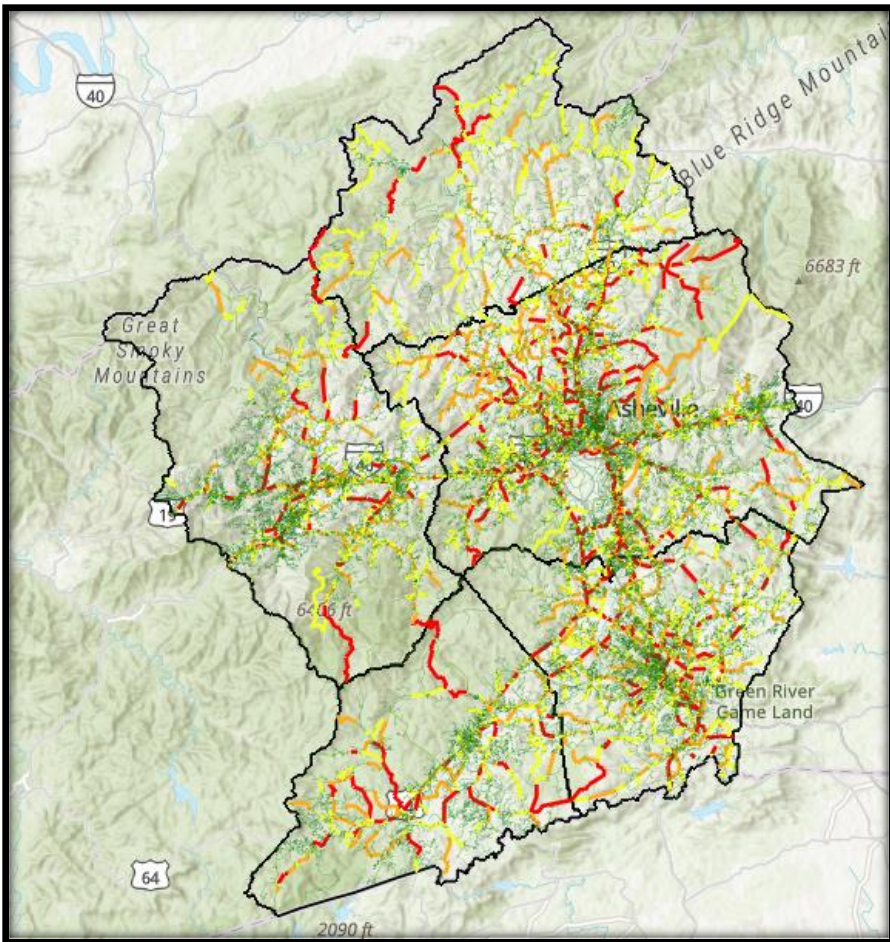
Where do all these factors occur on the network?

Where will they occur in the future?

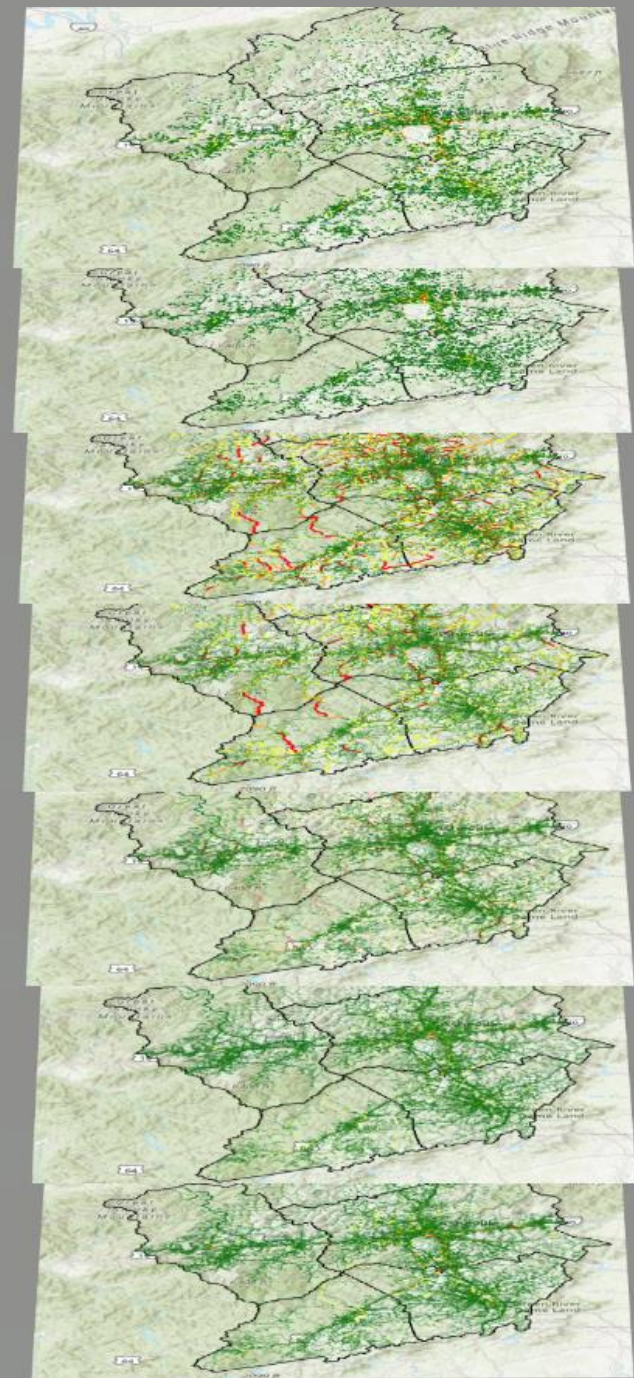


High-Risk Areas

- Lane Departure Risk Analysis



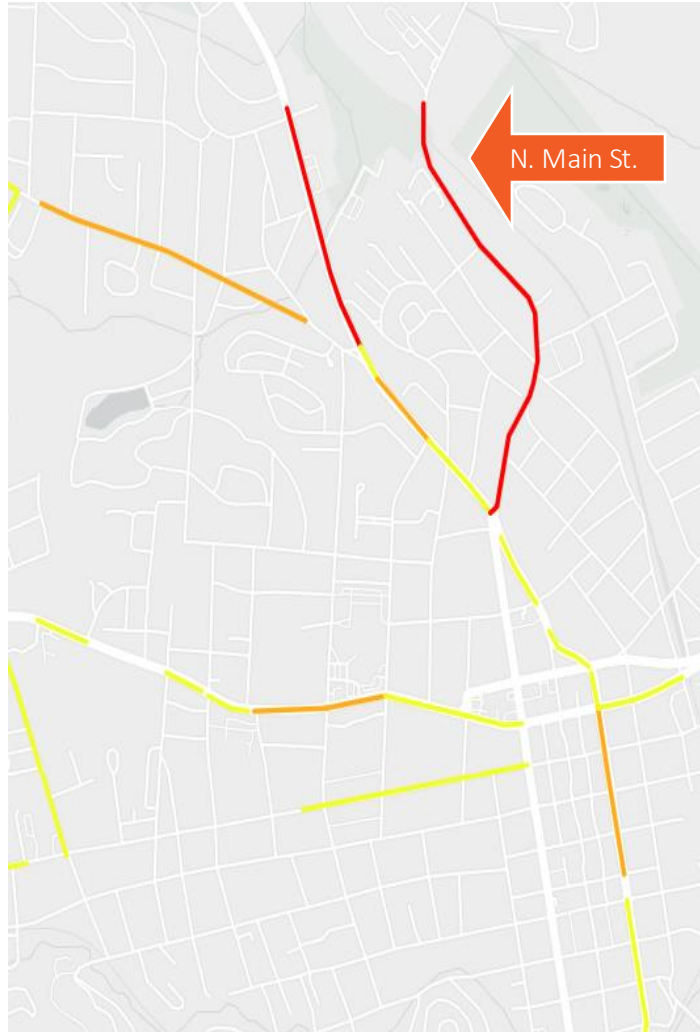
- Intersection
- Intersection Bike/Ped
- Lane Departure
- Motorcycle
- Speed
- Bike
- Ped



BICYCLIST

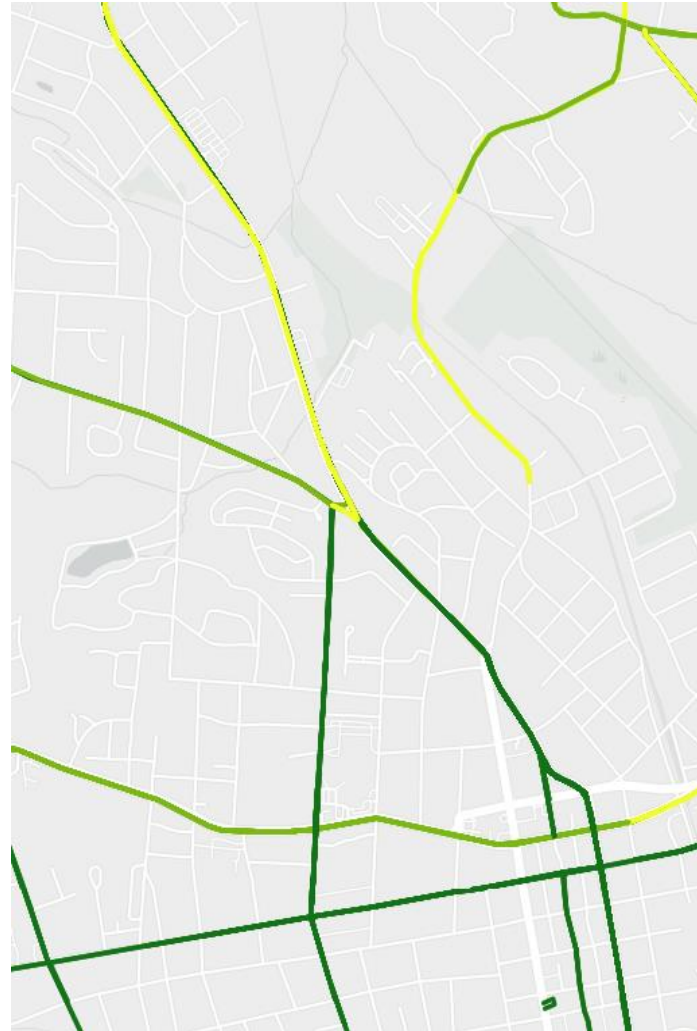
Likelihood (Risk)

(Ex: Bicyclist Crash Risk Analysis)



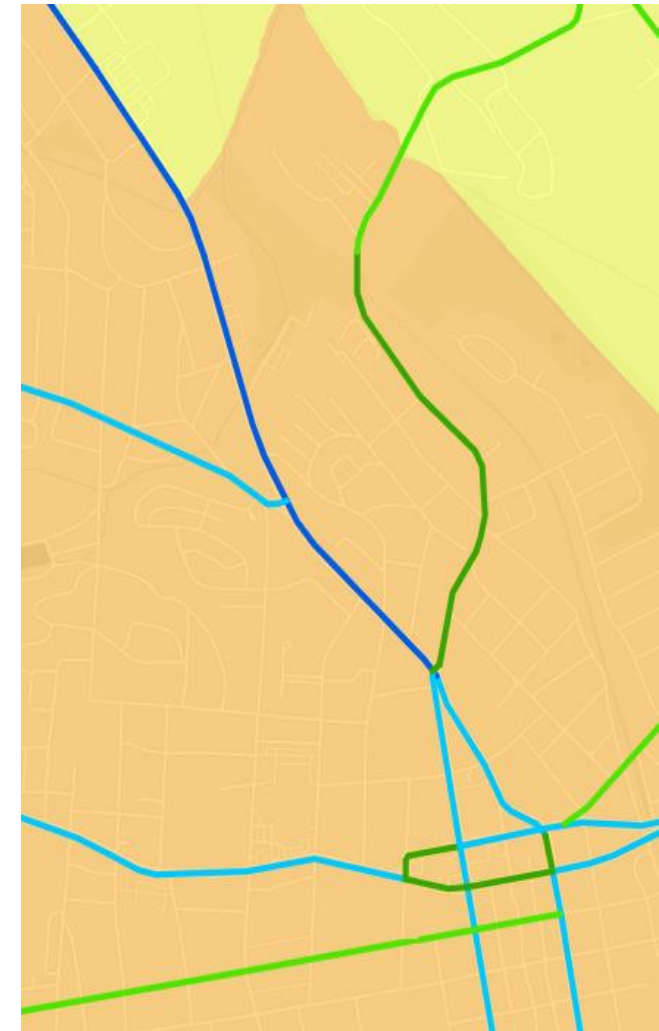
Severity

(Speed)



Exposure

(Context and Volume)





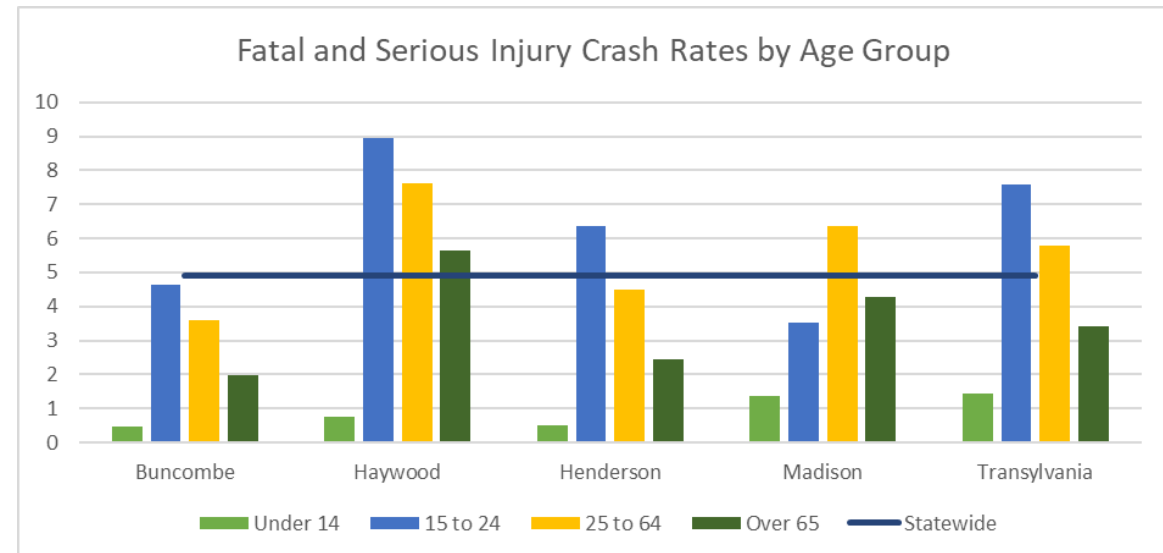
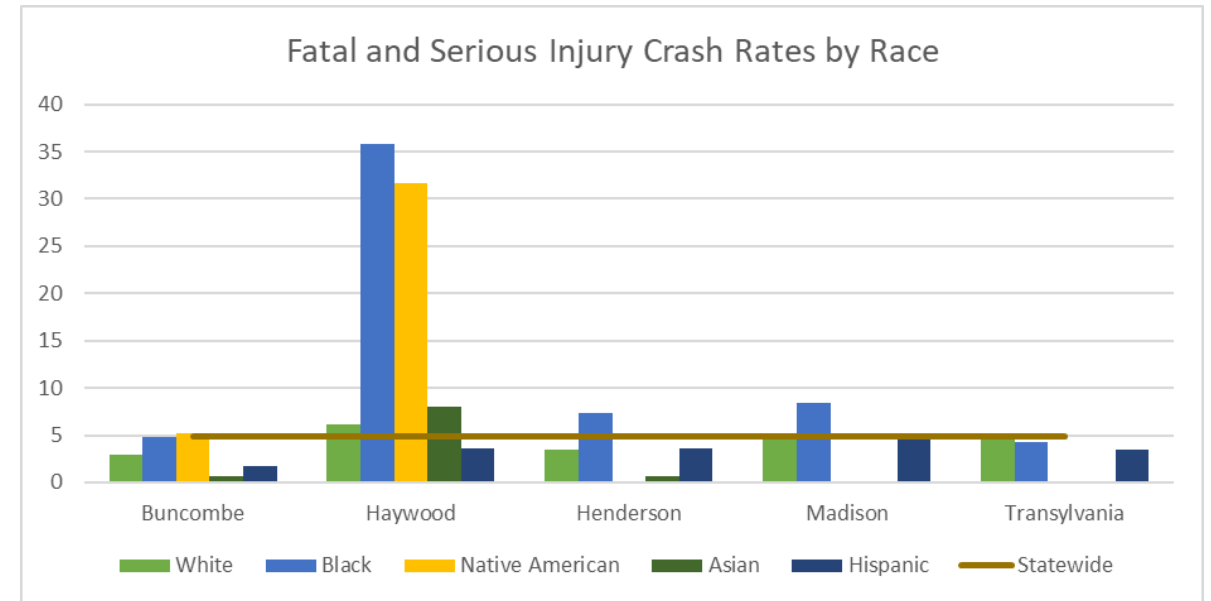
Socioeconomic Analysis



Who is most impacted by serious injury and fatal crashes?

Fatal and serious injury crash rates per:

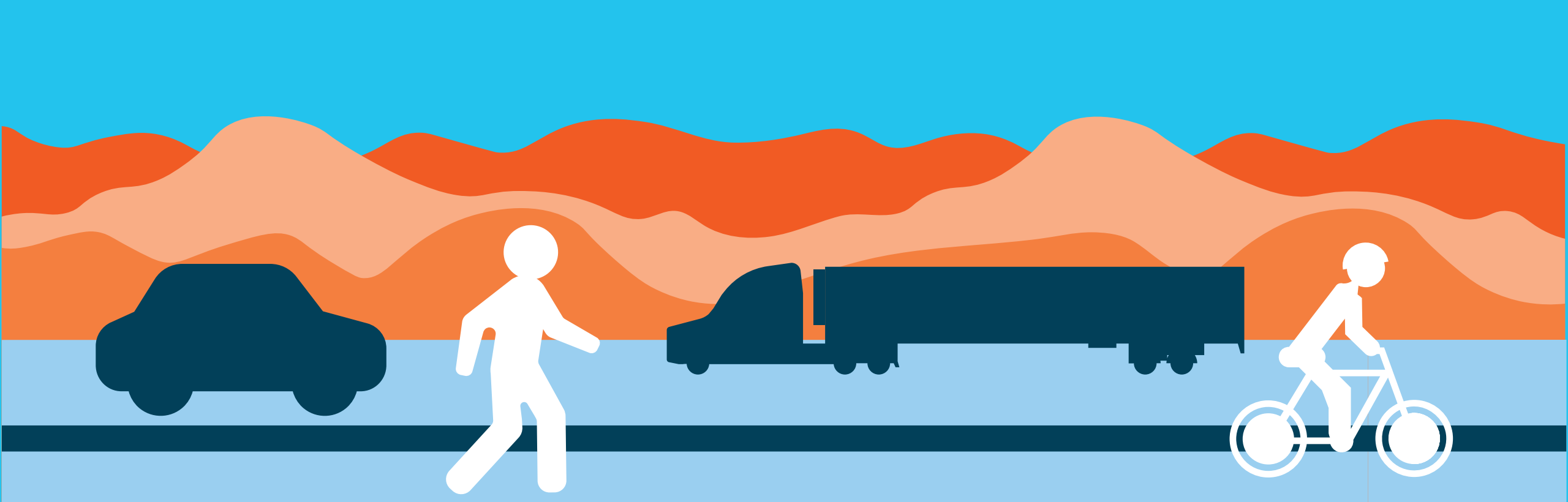
- Race
- Age groups
- Gender
- By county and compared with state



WNC Emphasis Areas: Over-Representation

Emphasis Area(s)	Race	Age	Gender
Lane Departure	Black; Native American	15-24; 25-64	Male
Older Driver	White; Black	65+	Male
Impaired Driving	Black; Native American	15-24; 25-64	Male
Intersection	Black	15-24; 25-64	Male
Heavy Truck	Black, Asian	15-24; 25-64	Male
Speed	Black; Native American; Hispanic	15-24; 25-64	Male
Motorcycle	White; Black	25-64	Male
Pedestrian	Black; Hispanic	15-24; 25-64	Male
Bicycle	White	15-24; 25-64	Male

- Black populations are most over-represented in regional fatal and serious crash rates (all crash types) compared with regional populations and statewide crash rates.
- Household income may be the best indicator of geographic disparity in fatal and serious injury crashes in the region.
- Persons aged 65+ are the fastest-growing age group in the region – expected to increase by more than 160% over the next 25 years. Older Driver crashes are most fatal or severe when involving left-turns, collisions with fixed objects or head-on crashes.
- Bicyclist, Heavy Truck, Intersection, Lane Departure, Motorcycle, and Speed-related fatal and serious injury crashes are increasing fastest in the region.



Public Engagement

Review and Efforts

Leadership Summit

June 4, 2024

Over 40 participants from across the region

Themes included the following:

- Consistency in data
- Funding for implementation
- Human behaviors and choices
- Communication and policy
- Leadership priorities
- Public education



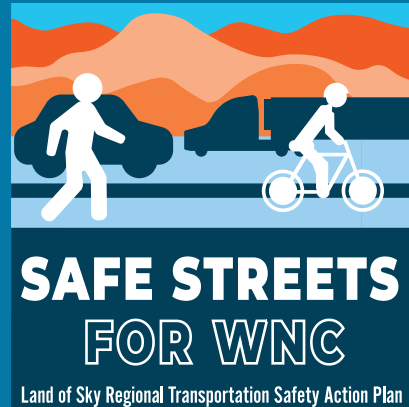
Public Engagement Approach (pre-September 2024)



COMMUNITY LEADERSHIP

Technical Steering
Committee Meetings
(3)

Leadership Summits
(2)



PROMOTIONS

Project Brand
Website / Updates
Promotional Materials



COMMUNITY OUTREACH

Focus Groups (4)
In-Person Outreach
Events (4)
Online Outreach
Events (2)
Online Survey (1)

COMMUNITY ENGAGEMENT

Over 200+ People Engaged



Meetings
with the
Steering
Committee



In-Person
Drop-In
Event

DOCUMENTATION

Community
Engagement Plan –
Continually
Community
Engagement Summary

Public Engagement Approach (Revised)



COMMUNITY LEADERSHIP

Technical Steering
Committee Meetings
(2 of 3)

Leadership Summits
(1 of 2)



PROMOTIONS

- ✓ Project Brand
- ✓ Website / Updates
- ✓ Promotional Materials



COMMUNITY OUTREACH

- ✓ Focus Groups (3)
- In-Person Outreach
Events (1)
- Webinars (2)
- ✓ Online Survey (1)

COMMUNITY ENGAGEMENT

Over 200+ People Engaged



Meetings
with the
Steering
Committee



In-Person
Drop-In
Event

DOCUMENTATION

- ✓ Community
Engagement Plan –
Continually

Community
Engagement Summary

Focus Groups



Event Name	Date	Takeaways/Ideas	Attendees
Post-Crash Care	8/5/24	Education campaigns; whole blood administration; rapid tow; speed control.	Highway patrol, police, emergency services.
Safer People	8/13/24	Targeted outreach; drivers ed; funding for promotion and marketing; media training.	Communications staff, public health, drivers ed, safe routes to schools.
Safer Speeds / Safer Roads	8/19/24	Road diets; Secondary Road Safety Program; speed management tools; NCDOT policies; land use and development.	Planning, engineering, public works.
All Partners	March 2025	Share top 5 data takeaways and key countermeasures; work session; ask for survey promotion support.	All partners engaged in project process.

Project Website

<https://frenchbroadrivempopo.org/safe-streets-for-wnc-regional-safety-action-plan/>

Safe Streets for WNC – Regional Safety Action Plan

Home / Safe Streets for WNC – Regional Safety Action Plan

What is Safe Streets for WNC?



The French Broad River MPO and Land of Sky RPO are excited to introduce The Safe Streets for WNC Safety Action Plan. The plan is a comprehensive initiative dedicated to creating safer and more accessible roadways for everyone. Funded through the Safe Streets for All grant program through the IIJA Infrastructure Bill, the plan focuses on reducing roadway crashes, improving pedestrian and cycling infrastructure, and promoting responsible driving habits. By using the [Safe Systems Approach](#), we aim to create innovative roadway design solutions, and foster community engagement. The plan

aims to make our streets safer, more inclusive, and conducive to healthy, active lifestyles. Join us in transforming our region into a place where everyone can navigate safely and confidently.

Countermeasure Visualizations

- <https://storymaps.arcgis.com/stories/09460cffd47e451dafd21b5d48c7394e>

What's the Problem? What are the Potential Safety Solutions?

This online resource describes some priority safety problems facing the five-county region and potential strategies for improving safety.

The screenshot displays a digital story map interface. At the top, a navigation bar includes links for 'Introduction', 'Pedestrian', 'Bicyclist', 'Speed', 'Intersection', 'Lane Departure', 'Take the Survey!', and 'Contact Info & Glossary'. The main content area features a 3D perspective view of a five-lane urban roadway with a central double yellow line and two lanes on each side. A text box overlaid on the image states: "This five-lane urban roadway lacks places for people to walk alongside the road, cross the road, and be seen in dark conditions. All these factors contribute to pedestrian safety concerns." To the right, a 'Pedestrian' section shows a progress bar and statistics: "47 Fatal and 38 Serious Injury crashes in the 5-county region from 2018-2023." Below this is a 'GLOSSARY' section titled 'Pedestrian Countermeasures' with four items:

Countermeasure	Description
Sidewalk	A paved path alongside roads for pedestrian use, enhancing their safety by separating them from vehicular traffic.
High Visibility Crosswalks and Signs	Crosswalks and accompanying signage designed with bright, reflective materials to make them more noticeable to drivers, improving pedestrian safety.
Street Lighting at Crossings	Improved lighting at pedestrian crossings to increase visibility for both pedestrians and drivers, reducing the likelihood of nighttime accidents.
Pedestrian Countdown Signal Heads	Traffic signals that display a "WALK" symbol and a countdown timer to inform pedestrians of the remaining time to safely cross the street.

Survey



Online Survey and Interactive Site

Take our Survey Below!



Roadway Safety Community Survey

1. On a scale of 1 to 5, how important is roadway safety to you?

(Use the slider to select your choice)

1 (Not Important) 5 (Extremely Important)

2. Below is a list of potential safety issues that relate to **driving conditions** in our region. Please rank how you perceive each issue.

(Move each option to your preferred rank or assign a number using the drop-down menu)

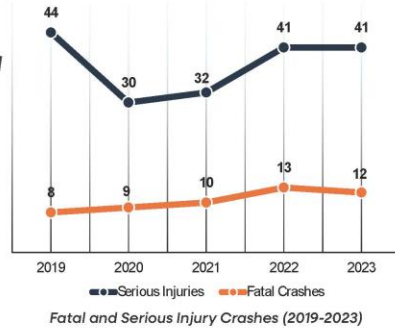
County Fact Sheets

Haywood County Transportation Safety Action Plan Fact Sheet



DID YOU KNOW THAT BETWEEN 2019 AND 2023 IN HAYWOOD COUNTY,

there has been **7,461** reported crashes occurred on local and state roadways. Of those crashes, **more than 230 people** were killed or seriously injured.



Interstates, US routes, and NC routes represent about **8%** of the roadway network in Haywood County, but **more than 69%** of fatal and serious crashes occurred on these roads



INTERSTATES, U.S., AND N.C. ROUTES

MOST DEATHS AND SERIOUS INJURIES CAN BE PREVENTED IF WE FOCUS ON ...

- Keeping vehicles in the lane
- Decreasing drug and alcohol impairment
- Motorcycle crashes
- Using seat belts and child car seats
- Improving routes and crossings for pedestrians, bicyclists and motorcyclists
- Slowing vehicle speeds

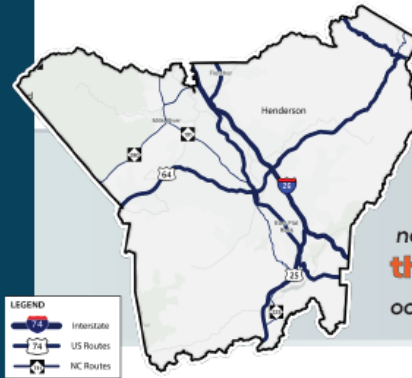
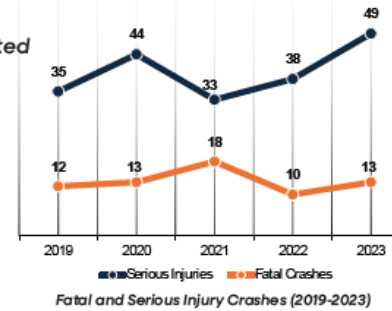


Henderson County Transportation Safety Action Plan Fact Sheet



DID YOU KNOW THAT BETWEEN 2019 AND 2023 IN HENDERSON COUNTY,

there has been **15,583** reported crashes occurred on local and state roadways. Of those crashes, **more than 260 people** were killed or seriously injured.



Interstates, US routes, and NC routes represent about **6%** of the roadway network in Henderson County, but **more than 50%** of fatal and serious crashes occurred on these roads



INTERSTATES, U.S., AND N.C. ROUTES

MOST DEATHS AND SERIOUS INJURIES CAN BE PREVENTED IF WE FOCUS ON ...

- Keeping vehicles in the lane
- Decreasing drug and alcohol impairment
- Motorcycle crashes
- Using seat belts and child car seats
- Improving routes and crossings for pedestrians, bicyclists and motorcyclists
- Slowing vehicle speeds



What's Next

Promote countermeasure visualizations and survey

Revisit public engagement opportunities

Summarize themes from outreach

Identify safety goals for region

Develop preliminary crash reduction framework and safety project types

Host Technical Steering Committee

Prepare for Spring – Summer Leadership Summit

Questions?

Thank you

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