Chapter

2

Section 3:

Safety and Resiliency

NFRMPO's Role

As required by federal legislation, the North Front Range Metropolitan Planning Organization (NFRMPO) has identified its role in regional transportation safety, security, and resiliency. As a planning agency, the NFRMPO acts in an information capacity regarding safety and security of the transportation system in the region. The NFRMPO works with local agencies to ensure information is up-to-date and to make connections or hold trainings when necessary.

A safe and secure transportation system is vital to the movement of people and goods through the region. The NFRMPO fulfills a role in coordinating and promoting transportation safety and security with federal, state, and local government transportation agencies and departments. The NFRMPO supports this objective through planning and programming federal funding for transportation infrastructure and programs. The NFRMPO adopted the following goal as part of the 2050 GOPMT: *Safety – Enhance transportation safety and reduce the number of transportation related fatalities and serious injuries.*

This section provides information on recent safety data trends along with plans and programs related to safety in the region, the state, and nationally. In addition, ongoing and future work is identified to continue to make progress towards reducing fatal and serious injury crashes across the North Front Range region.

Safety

The NFRMPO Planning Council adopted the NFRMPO Safety Vision: Moving Towards Zero Deaths in 2020 recognizing there is no acceptable number or deaths or serious injuries on the road network and outlining action steps to continue to prioritize and enhance safety planning within NFRMPO plans and programs. The action steps outlined in the *Safety Vision* are:

- Continue to prioritize safety in future Calls for Projects;
- Analyze all available crash data to make more informed decisions for safety related projects;
- Integrating the Towards Zero Deaths framework in future planning initiatives;
- Providing regionally specific crash data to compare to statewide crash data when possible; and
- Identifying crash types and characteristics which are most prevalent in the region as well as best practices to mitigate those specific crash types.

As part of the federally required Transportation Performance Management established by FHWA and FTA, the NFRMPO sets the Federally required Highway Safety targets annually. These targets are required to be data driven and not aspirational. The NFRMPO has set these targets since 2018 by supporting the statewide targets, and agreeing to plan and program projects which will contribute to the achievement of these targets. More information about the performance measures and targets are outlined in the System Performance Report later in this chapter. In future years, and as many NFRMPO member communities pursue Vision Zero through safety action plans, the NFRMPO will work to incorporate targets set out by local agencies to reduce fatal and serious injury crashes. Information about these efforts are included in the Moving Forward section of this chapter. The NFRMPO may also consider setting a specific goal and timeline to achieve Vision Zero. Future iterations of the Regional Performance Measures outlined in the GOPMT may also include a safety related target to reflect the

priorities of the NFRMPO region. Ultimately, the NFRMPO and its member communities recognize there are no acceptable number of deaths or serious injuries on the road network and will continuously work toward that goal.

Call for Projects

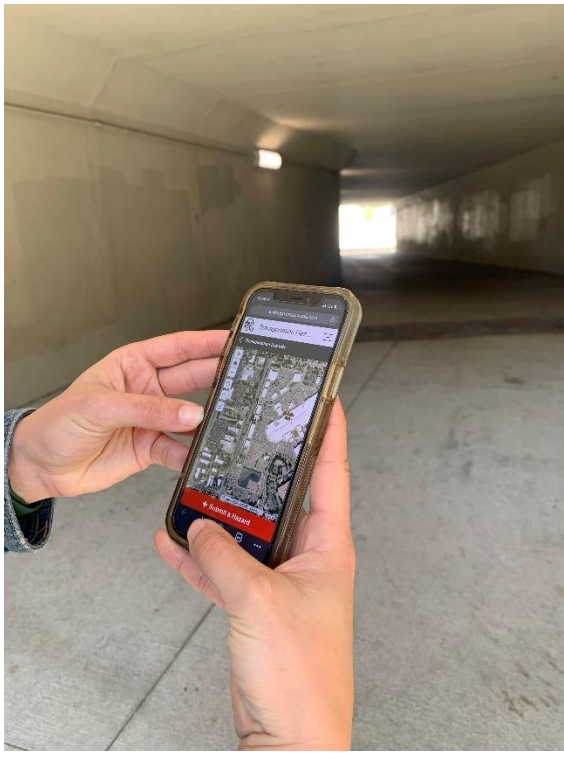
The NFRMPO holds periodic Calls for Projects to award state and federal funding to local agencies in the region for surface transportation projects. The Federal Highway Administration (FHWA) encourages agencies responsible for allocating federal funding to consider roadway safety whenever possible. The NFRMPO has used safety as a prioritization criterion when evaluating project applications. During the 2023 Call for Projects which will be held in late 2023, the NFRMPO will implement a two-tiered approach for safety evaluation by analyzing projects based on crash rates at the project location as well as the implementation of proven safety countermeasures or proactive safety interventions.

Safety Data Working Group

As an implementation of the NFRMPO *Safety Vision*, the NFRMPO created a working group of local agency staff including planners, engineers, geographic information system (GIS) professionals, and partner agencies such as CDOT and FHWA staff. The group convenes periodically to analyze crash data availability and analysis, coordinating efforts for sharing crash data across the region, implementations of crash data in the planning process such as the NFRMPO Calls for Projects, and development of the Bike and Ped Safety Reporter tool.

Bike & Ped Safety Reporter Tool

As part of the implementation of the 2021 Regional Active Transportation Plan, the NFRMPO developed a regional crowdsourced reporting tool to supplement crash data and identify areas in the region where individuals feel unsafe biking, walking, and rolling. Through the Bike and Ped Safety Reporter Tool, members of the public are able to pinpoint locations on an online map where specific hazards are present. Information reported in the tool is shared with the relevant local agency staff to help identify where safety interventions may be implemented. Results from the tool can also be viewed in an online Dashboard where users can track progress of submitted issue.



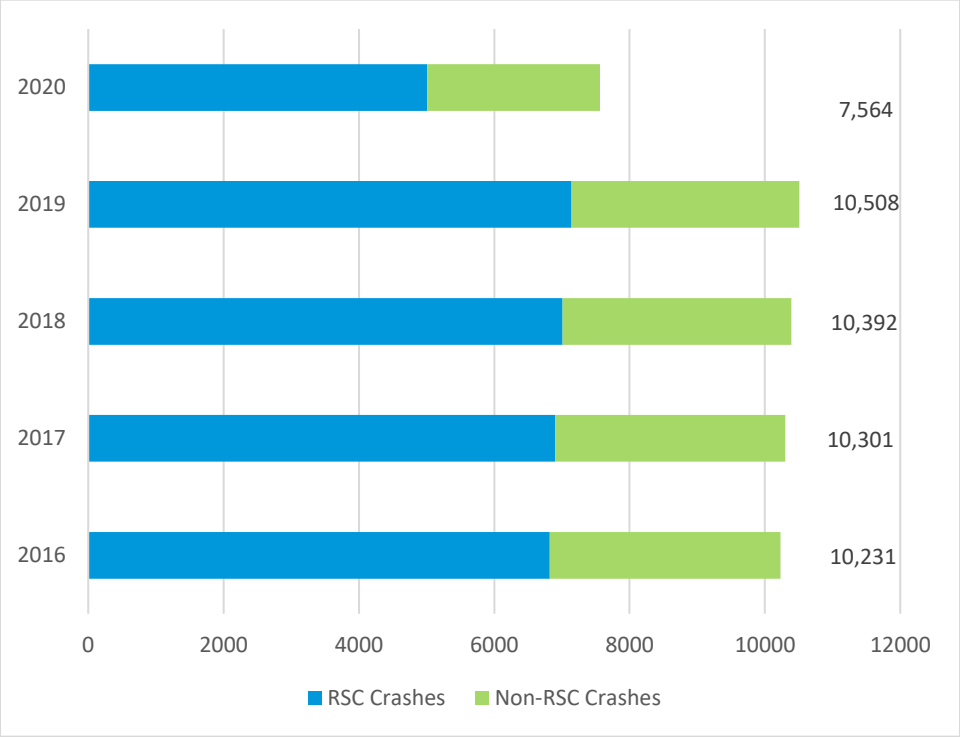
A variety of issues can be reported in the tool, including:

- Accessibility issues;
- Near Misses;
- Poor visibility or lighting;
- Vehicles not yielding the right of way to pedestrians;
- Sidewalk and bike lane obstructions;
- Gaps in bike facilities; or
- Not enough time to cross during a pedestrian signal.

Crash Data Trends, 2016-2020

There were 48,996 crashes within the NFRMPO region between the years 2016 and 2020. Approximately 67 percent of crashes occur on the NFRMPO Regionally Significant Corridor (RSC) network as shown in **Figure 2-**.

Figure 2-17: NFRMPO Crashes, 2016-2020



To best assess the condition of roadway safety in the region, and in accordance with the FHWA Safety Performance Management as outlined in the **System Performance Section**, the NFRMPO tracks the number of fatalities and serious injuries which occur on all public roads within the region. The CDOT defines the following crash severities:

- **Fatal:** A fatal injury is any injury that results in a death within 30 days of the crash
- **Serious Injury:** A serious injury crash results in an evident incapacitating injury and is any injury (other than a fatal injury) that prevents the injured person from walking, driving, or normally continuing the activities the person was capable of performing before the injury. Examples include severe lacerations, broken limbs, and skull, chest, or abdominal injuries.
- **Minor crash:** a crash that resulted in no fatalities or serious injuries. Commonly referred to as a property damage only (PDO) crash.

Figure 2-18 shows the total number of fatalities and serious injuries between 2012 and 2020 in the NFRMPO region. The locations of fatal and serious injury crashes from 2016 to 2020 in the North Front Range are identified in **Figure 2-19**.

Figure 2-18: NFRMPO Fatalities and Serious Injuries, 2012-2020

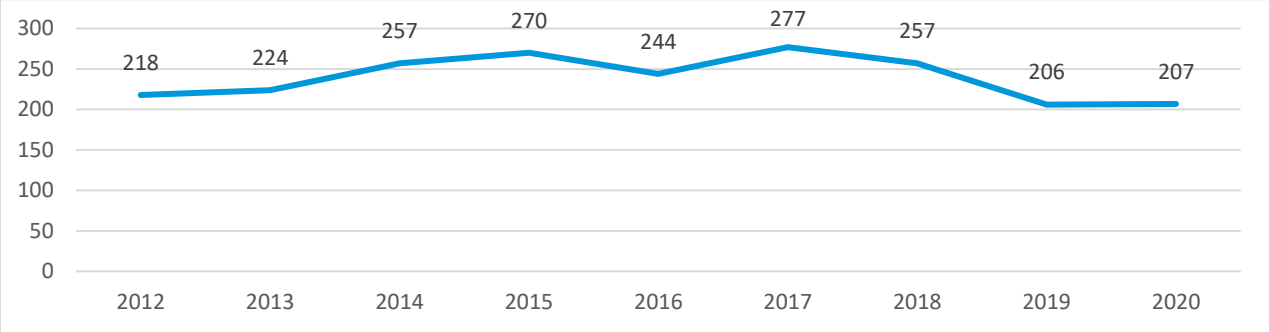
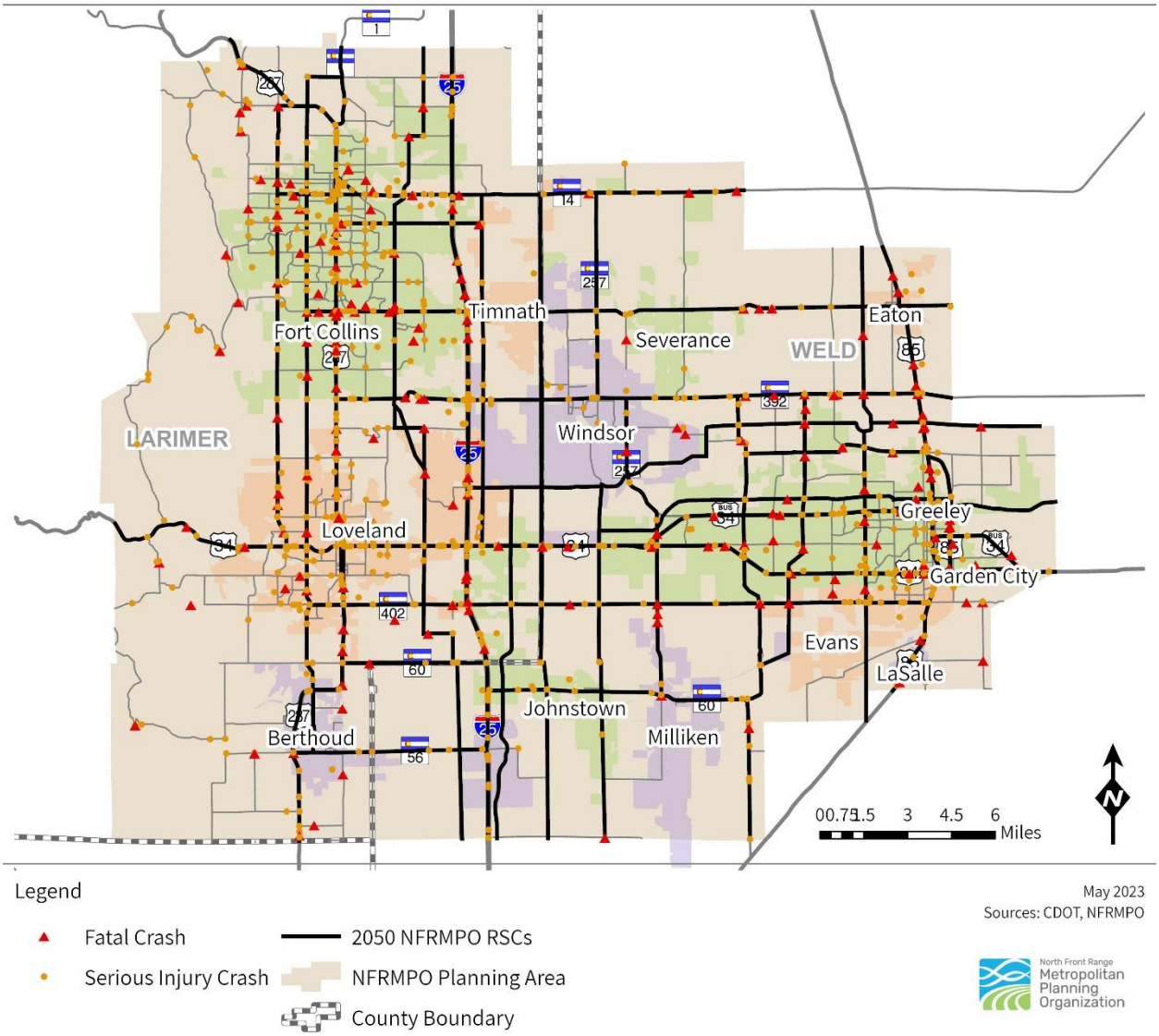
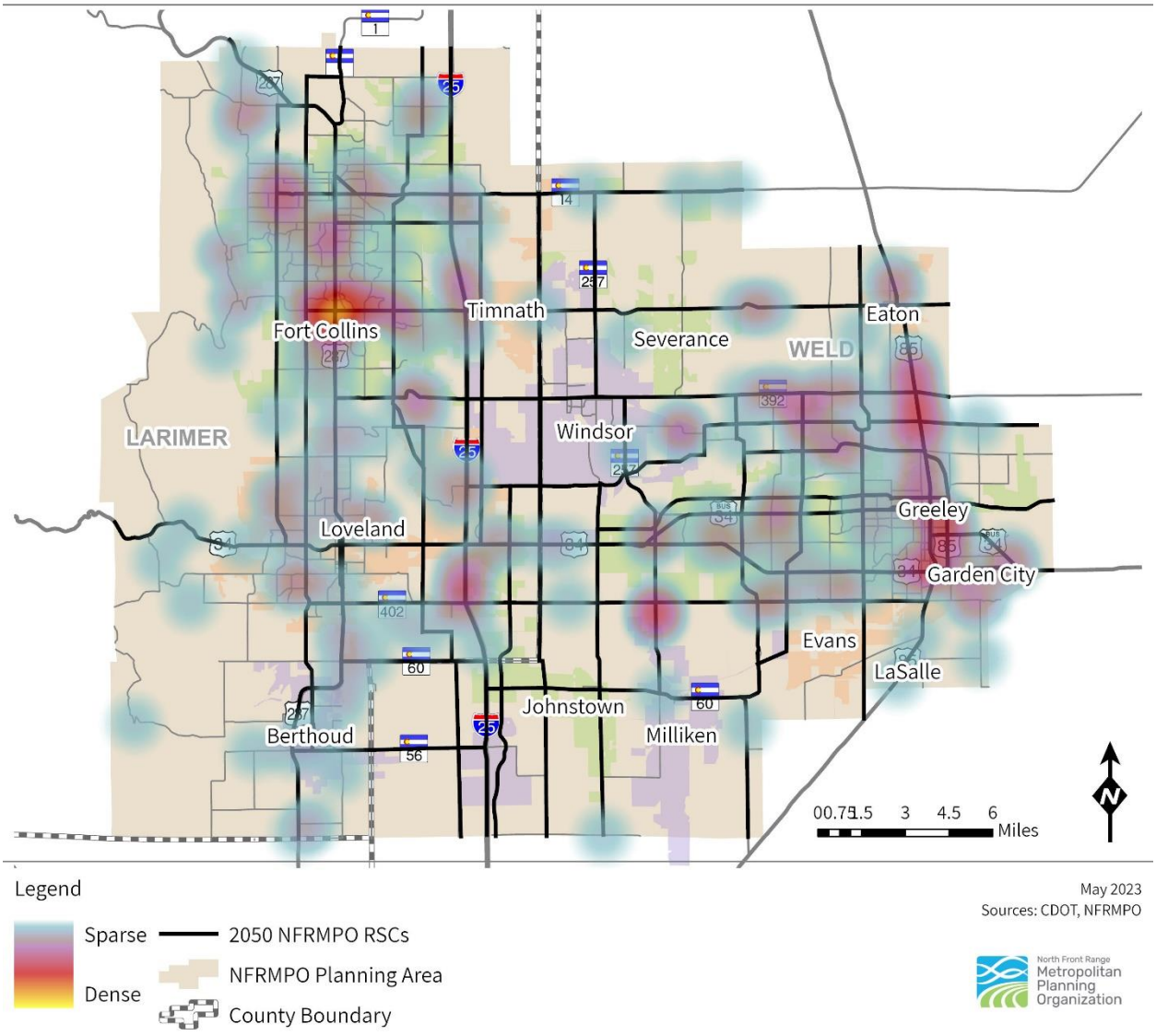


Figure 2-19: NFRMPO Fatal and Serious Injury Crashes, 2016-2020



Between 2016 and 2020, approximately 70 percent of fatal and serious injury crashes occurred on the NFRMPO RSC network and nearly half of the fatal and serious injury crashes occurred on the highway system. **Figure 2-20** illustrates where the greatest density of fatal and serious crashes has occurred.

Figure 2-20: Heat Map of NFRMPO Fatal and Serious Injury Crashes, 2016-2020



In 2017, the region experienced a higher number of fatalities and serious injuries, including the highest number of fatalities and serious injuries of vulnerable road users (VRUs). A VRU is defined as a person involved in a crash who was not in a motor vehicle or was using a mode of transportation such as walking or biking. **Figure 2-21** shows the number of fatalities and serious injuries by road user type and **Figure 2-22** illustrates the location of VRU involved fatal and serious injury crashes between 2016 and 2020.

Figure 2-21: Fatalities and Serious Injuries by Road User Type, 2012-2020

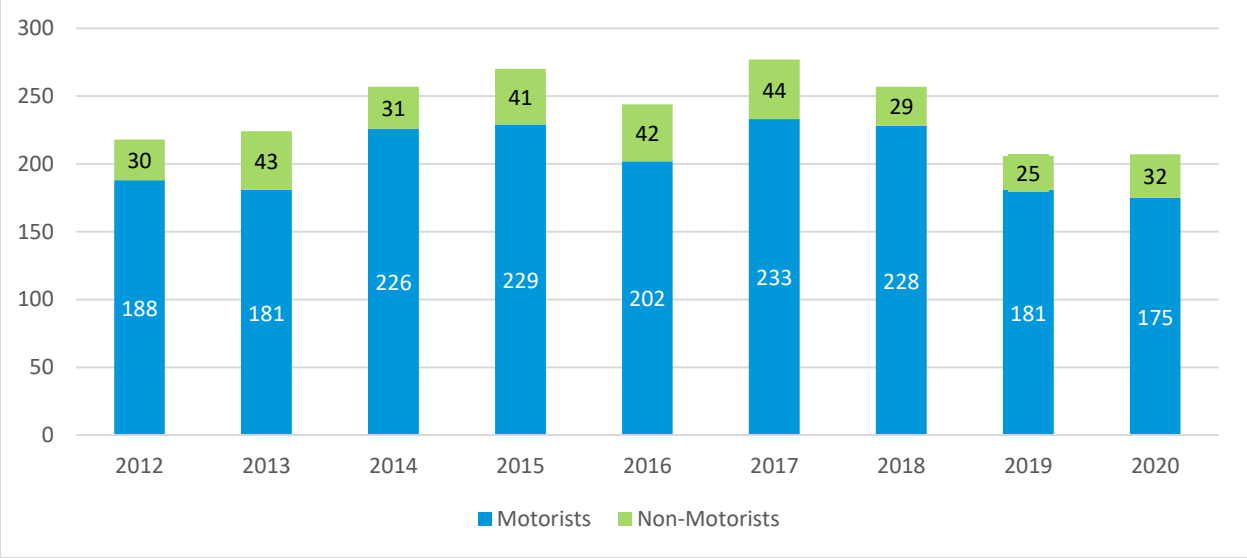
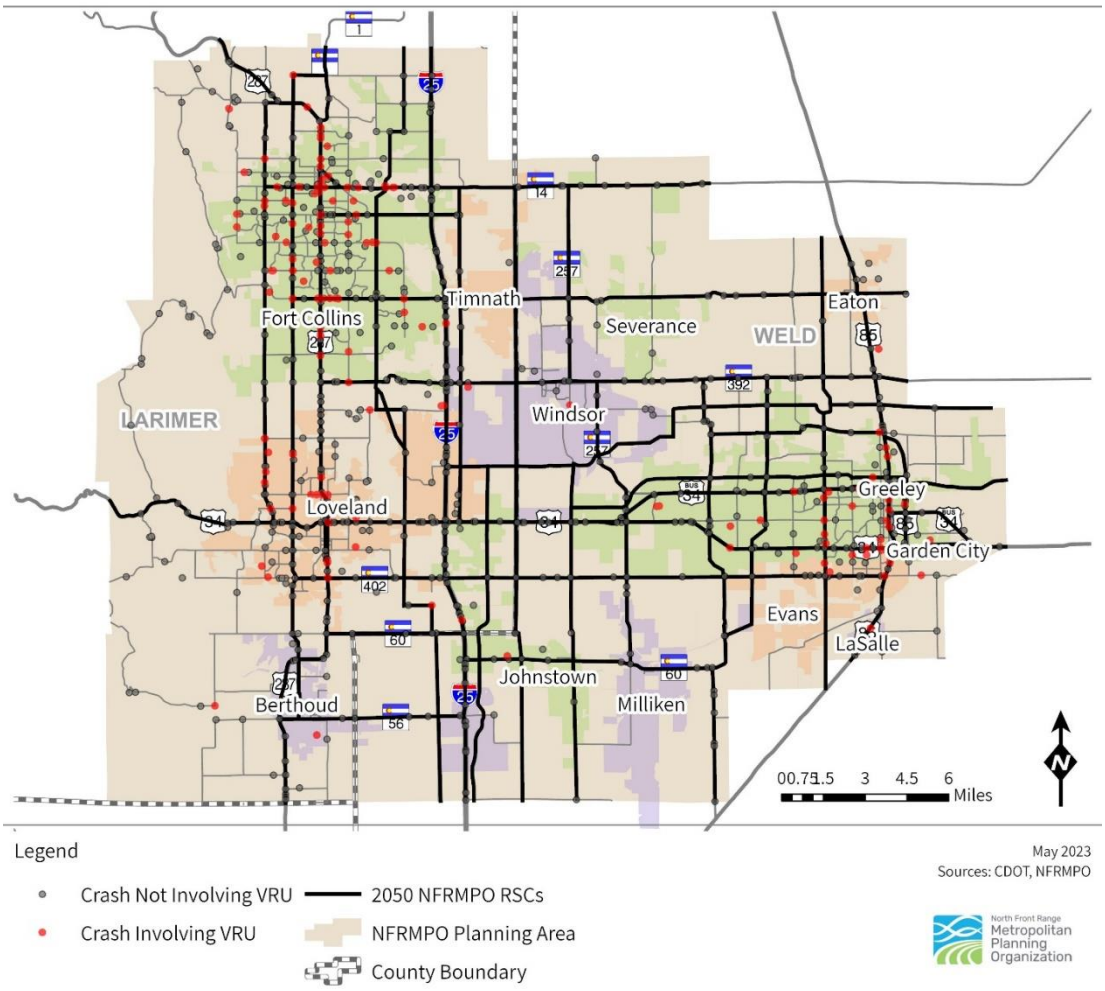


Figure 2-22: NFRMPO VRU Fatal and Serious Injury Crashes, 2016-2020



To evaluate the safety of truck travel within the NFRMPO, the percentage of overall crashes involving trucks was compared against the percentage of truck traffic on the region's top truck routes.

Table 2-6: Truck Traffic (2018) and Truck Crashes (2016-2020)

Roadway	Centerline Miles	2018		Percent Truck Traffic	2016-2020			
		AADT (Truck)	AADT (All Traffic)		Total Crashes	Truck Crashes	Percent Truck Crashes	Truck Crash % > Truck Traffic %
I-25	27.1	7,743	74,250	10.43%	3,645	386	10.59%	TRUE
US287	32.5	915	23,084	3.96%	1,134	83	7.32%	TRUE
US34	34.4	1,525	32,100	4.75%	367	36	9.81%	TRUE
US34 Business	15.5	462	12,848	3.60%	1,634	152	9.30%	TRUE
US85	16.3	1,881	19,331	9.73%	242	14	5.79%	FALSE
US85 Business	4.4	591	12,888	4.59%	634	36	5.68%	TRUE
SH14	14.2	1,413	23,108	6.12%	5230	140	2.68%	FALSE
SH56	7	410	7,425	5.52%	4955	153	3.09%	FALSE
SH60	19.8	420	9,525	4.41%	2019	54	2.67%	FALSE
SH257	18.6	549	8,503	6.46%	832	101	12.14%	TRUE
SH392	21.3	734	11,490	6.39%	579	26	4.49%	FALSE

As shown in **Table 2-6**Table 2-7, I-25, US287, US34, US34 Business, US85 Business and SH257 have greater percentages of truck crashes than overall truck traffic, with US34, US34 Business, and SH257 showing the greatest difference.

As discussed in **Chapter 1**, the region has extensive railroad trackage operated by BNSF Railway, Union Pacific Railroad (UPRR), and Great Western Railway (GWR). Across the region there are 268 at-grade railroad crossings. **Table 2-7** lists the crashes at the at-grade crossings between 2016 and 2020 as well as non-motorist incidents not at designated crossings. Over the five-year period, there were 17 rail related incidents including five fatalities and six injuries.

Table 2-7: Rail Related Incidents, 2016-2020

Crossing ID	Railroad	County	City	Street	Date	Fatalities	Injuries	Crossing Protection
804854P	UPRR	Weld	Eaton	Collins Avenue	3/20/2016	-	-	Gates, Standard Flashing Light Signal, Audible, Cross Bucks
N/A	BNSF	Larimer	Fort Collins	BNSF Near Pitkin St	6/26/2016	1	-	Not At Crossing
N/A	BNSF	Larimer	Loveland	BNSF Near Garfield Ave	11/15/2016	1	-	Not At Crossing
804852B	UPRR	Weld	Eaton	WCR 72	12/4/2016	-	1	Stop Signs, Cross Bucks
804855W	UPRR	Weld	Eaton	E 5th Street	2/22/2017	1	-	Stop Signs, Cross Bucks
245150L	BNSF	Larimer	Larimer	LCR 52	9/6/2017	-	-	Gates, Standard Flashing Light Signal
804846X	UPRR	Weld	Weld	WCR 66	10/26/2017	-	-	Gates
245120U	GWR	Weld	Greeley	WCR31 (59th Avenue)	12/10/2017	1	-	Cross Bucks, Other
804855W	UPRR	Weld	Eaton	5th Street	2/6/2018	1	-	Stop Signs, Cross Bucks
804848L	UPRR	Weld	Weld	WCR 70	4/12/2018	-	-	Stop Signs, Cross Bucks
N/A	BNSF	Larimer	Fort Collins	BNSF Between Laurel St and	6/29/2018	-	1	Not At Crossing

				Elizabeth St				
N/A	BNSF	Larimer	Fort Collins	BNSF Near Mountain Avenue	1/24/2019	-	1	Not At Crossing
245124W	GWR	Weld	Greeley	35th Avenue	1/26/2019	-	-	Cross Bucks, Other
245124W	GWR	Weld	Greeley	35th Avenue	3/1/2019	-	-	Cross Bucks, Other
N/A	BNSF	Larimer	Fort Collins	BNSF Between Laurel St and Elizabeth St	11/15/2019	-	1	Not At Crossing
245120U	GWR	Weld	Greeley	59th Avenue	1/11/2020	-	1	Cross Bucks, Other
245038A	BNSF	Larimer	Loveland	4th Street	3/6/2020	-	1	Gates, Standard Flashing Light Signal, Cross Bucks

Transit Safety

In 2017, the Federal Transit Administration (FTA) released the National Public Transportation Safety Plan required under MAP-21 and the FAST Act. The goal of the Plan is to improve the safety of all public transportation systems that receive Federal transit funds. The National Public Transportation Safety Plan identifies safety performance criteria for all modes of public transportation, defines "state of good repair" (SOGR), identifies minimum safety performance standards for public transportation vehicles and minimum safety standards to ensure the safe operation of the system, and a safety certification training program.

In May 2018, the FTA issued the Public Transportation Safety Program final rule, formally adopting the Safety Management Systems (SMS) approach to safety. As part of the final rule, the FTA can enforce compliance with Federal transit safety law. Consequences for noncompliance include mandating how funds be spent, withholding funds, and imposing restrictions on a transit agency's operations.

Each local transit agency was tasked to create their own Public Transportation Agency Safety Plan (PTASP) with corresponding performance measures and targets by July 2020. These plans are required to include methods for identifying and evaluating safety risks throughout all elements of the system; strategies to minimize the exposure of the public, personnel, and property to hazards and unsafe conditions; a process and timeline for conducting an annual review and update of the Plan; performance targets based on the safety performance criteria and SOGR, assignment of an adequately trained safety officer reporting to the general manager; and a comprehensive staff training program for the operations personnel and personnel directly responsible for safety. Performance measures and targets included in the PTASPs are outlined in **Chapter 2: System Performance Report** of the 2050 RTP.

The Colorado Association of Transit Agencies (CASTA) partners with CDOT in use of the State's apportioned Rural Transit Assistance Program (RTAP) program. These funds are used for safety and training courses at the spring and fall CASTA conferences. In addition, CASTA is piloting a Professional Transit Driver Certification (PTDC) program, which will focus on defensive driving, Passenger Assistance Security and Safety (PASS), First Aid/CPR, safety, emergency and evacuation procedures, and workplace violence among other topics.

Congestion Management Process (CMP)

Congestion, defined as the build-up of vehicles on certain portions of the transportation system resulting in travel speeds that are slower than 'free flow' speeds[14], is closely related to transportation safety. Congestion is one of the major contributors to crashes within the region while, in turn, crashes are one of the major contributors to congestion. To address congestion, the region uses the systematic process identified in the Congestion Management Process (CMP). The CMP is updated with the same frequency as the RTP and was most recently updated in 2023.

One of the major functions of the CMP is to guide the project selection process for the TIP. As federally required, any project proposed for inclusion in the TIP that adds general-purpose lanes must demonstrate demand and operational management strategies are insufficient to satisfy the need for additional capacity unless the project addresses an established bottleneck or is a safety improvement. If a roadway expansion project is deemed necessary, the CMP must identify all regional demand and operational management strategies to maintain the functional integrity and safety of the project into the future.

The 2023 CMP incorporates the goals and performance measures adopted for the 2050 RTP as many of the performance measures are directly related to congestion. The objectives of the 2023 CMP build

[14] Traffic Congestion and Reliability: Trends and Advanced Strategies for Congestion Mitigation. https://ops.fhwa.dot.gov/congestion_report/chapter2.htm. (Accessed 6/20/2023).

from the goals in the 2050 RTP. The objectives highlight the need to achieve multiple outcomes simultaneously with a constrained set of financial resources. The following objectives guide the 2023 CMP:

- Optimize the transportation system;
- Reduce congestion;
- Improve travel time reliability;
- Increase the availability of viable travel options;
- Enhance transportation equity; and
- Improve safety.

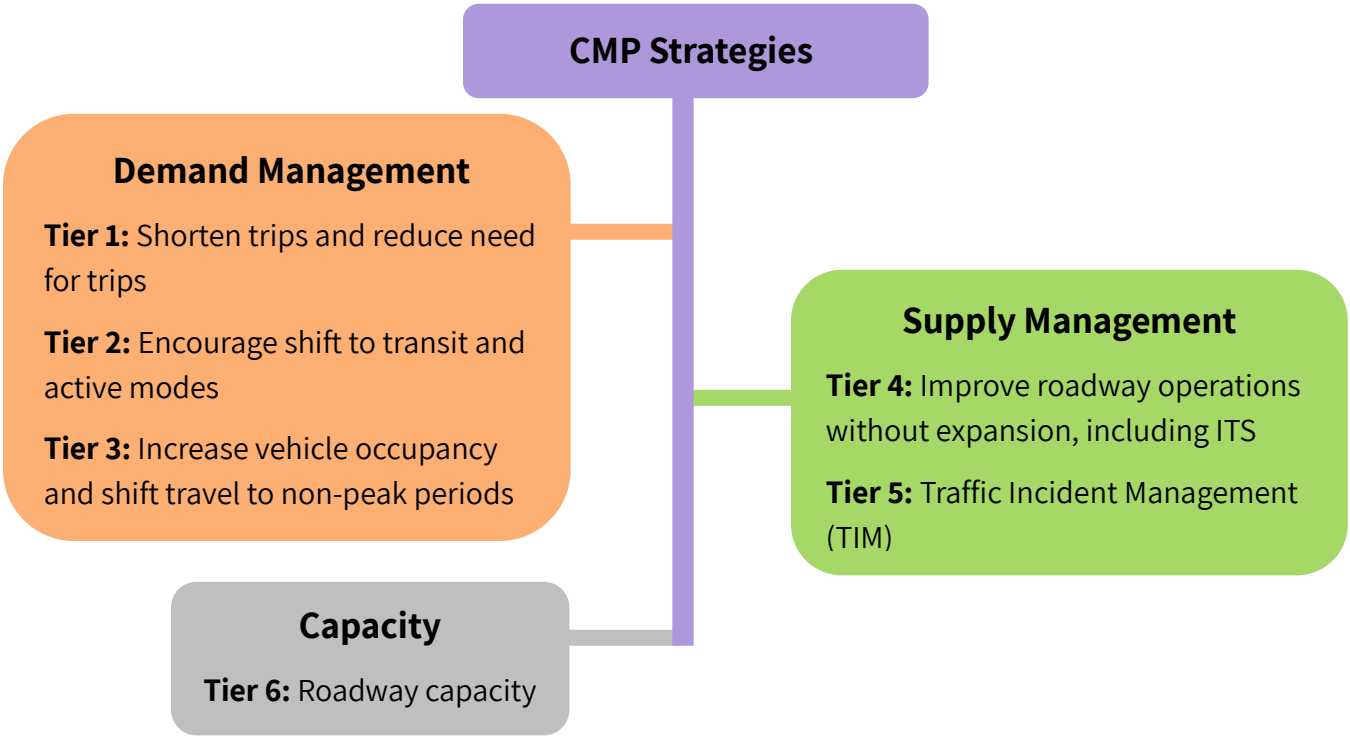
These objectives have related performance measures as shown in **Table 2-8.**

Table 2-8: 2023 CMP Performance Measures

Performance Measure	Description
Travel Time Index	Ratio of average peak travel time to an off-peak (free-flow) standard. A value of 1.5 indicates that the average peak travel time is 50% longer than off-peak travel times.
VMT per Capita	Miles traveled by vehicles in a specified region over a specified time period. Calculated per person for all trips.
Travel Time Reliability	Measures non-recurring delay for all vehicles by comparing the 80th percentile travel time to the median (50th percentile) travel time. A value of 1.5 or higher indicates the segment is not reliable. A corridor may be congested, but reliable if the congestion is consistent.
Truck Travel Time Reliability	Measures non-recurring delay for trucks by comparing the 95th percentile travel time to the median (50th percentile) travel time. A value of 1.5 or higher is considered unreliable.
Number of Crashes	The number of collisions involving one or more vehicles.
Transit Ridership per Capita	The number of unlinked trips per resident within each provider's service area. Measuring per capita helps account for population growth.
Percent of non-single occupant vehicle commuter trips	Percent of all commute trips completed by any mode other than SOV, including by transit, bicycle, walking, or carpooling.
Percent of devices connected by fiber on RSCs	Percent of devices connected with fiber-optic cables used for transportation management purposes.
Peak Hour Excessive Delay on NHS in Fort Collins UA	Annual hours of excessively delayed travel per capita, with excessive delay defined as travel time at 20 miles per hour or 60% of the posted speed limit travel time, whichever is greater, between 6 a.m. and 10 a.m. and 3 p.m. to 7 p.m. weighted by vehicle volumes and occupancy.

Strategies to manage congestion are identified in the 2023 CMP and are categorized by Demand Management, Supply Management, and Capacity and are broken down into six tiers as illustrated in **Figure 2-23**.

Figure 2-23: CMP Strategy Categories and Tiers



Many CMP strategies coincide with the FHWA Proven Safety Countermeasures and help the NFRMPO make progress toward achieving safety goals. Strategies identified in the 2023 CMP that coincide with safety countermeasures are identified as such.

Moving Forward

The United States Department of Transportation (USDOT) adopted the National Roadway Safety Strategy (NRSS) in January 2022. The NRSS describes major actions which can be implemented to make a meaningful difference in roadway safety by implementing the Safe Systems Approach.

The Safe Systems approach is comprised of five key principles:

1. **Death and Serious Injuries are Unacceptable** - While no crashes are desirable, the Safe System Approach prioritizes the elimination of crashes that result in death and serious injuries since no one should experience either when using the transportation system.
2. **Humans Make Mistakes** - People will inevitably make mistakes and decisions that can lead or contribute to crashes, but the transportation system can be designed and operated to accommodate certain types and levels of human mistakes and avoid death and serious injuries when a crash occurs.

3. **Humans Are Vulnerable** - People have physical limits for tolerating crash forces before death or serious injury occurs; therefore, it is critical to design and operate a transportation system that is human-centric and accommodates physical human vulnerabilities.
4. **Responsibility is Shared -** All stakeholders – including government at all levels, industry, nonprofit/advocacy, researchers, and the public – are vital to preventing fatalities and serious injuries on our roadways.
5. **Safety is Proactive** - Proactive tools should be used to identify and address safety issues in the transportation system, rather than waiting for crashes to occur and reacting afterwards.
6. **Redundancy is Crucial** - Reducing risks requires that all parts of the transportation system be strengthened, so that if one part fails, the other parts still protect people.[15]

As illustrated in **Figure 2-24**, there are five objectives to implementation of the Safe Systems approach: Safer People, Safer Roads, Safer Vehicles, Safer Speeds, and Post Crash-Care.

Figure 2-24: Illustration of the Safe Systems Approach

The Safe Systems approach is implemented from national to local agencies as a wholistic approach to reducing fatal and serious injury crashes. The following section outlines some of the work being undertaken in the region around safety planning.

CDOT Strategic Transportation Safety Plan

In 2015 the Colorado Department of Transportation (CDOT) announced the Moving Colorado Towards Zero Deaths initiative which was carried forth into the 2020-2023 Colorado Strategic Transportation

[15] National Roadway Safety Strategy (2022), https://www.transportation.gov/sites/dot.gov/files/2022-02/USDOT-National-Roadway-Safety-Strategy.pdf. Accessed 6/7/2023

Safety Plan (STSP). The vision of the STSP is "The future of Colorado is zero deaths and serious injuries so all people using any transportation mode arrive at their destination safely"[16]. The STSP includes several strategies to advance transportation safety planning in the state and help Colorado become a national leader in safety. The STSP identifies a target to reduce roadway fatalities and serious injuries by 15 percent between 2020 and 2023.

Fort Collins Vision Zero Action Plan

In 2023, the City of Fort Collins adopted the first Vision Zero Action Plan[17] in the region. The plan identifies strategies which can be implemented over the next ten years to achieve Vision Zero by 2032 and eliminate transportation related fatalities and serious injuries. The plan focuses on vulnerable users, or people using the transportation system outside of a motor vehicle including riding a motorcycle, using a wheelchair, walking, biking, or using micro mobility devices. The five main goals of the plan are:

- Support mode shift to reduce motor vehicle trips;
- Prioritize safer speeds and multimodal places;
- Promote a culture of traffic safety;
- Increase data transparency and partnerships; and
- Center equity.

Safe Streets and Roads for All

The Safe Streets and Roads for All (SS4A) federal discretionary grant program was created through the Infrastructure Investment and Jobs Act (IIJA) which will award $5B over five years to initiatives that eliminate roadway deaths and serious injuries[18]. Two NFRMPO local agencies received awards to develop safety action plans during the first round of grant awards: the City of Greeley and Larimer County. Additional NFRMPO local agencies may apply for grants to develop safety action plans during the 2023 notice of funding opportunity. Safety Action plans created through the SS4A program identify projects and strategies to address transportation safety in the region and allow for local agencies to apply for implementation (or construction) funding from the SS4A program in future years.

[16] 2020-2023 Colorado Strategic Transportation Safety Plan, April 6, 2023.
[17] Fort Collins Vision Zero Action Plan (2023), https://www.fcgov.com/traffic/files/vision-zero-action-plan-2023.pdf?1681490393, Accessed 6/16/2023
[18] Safe Streets and Roads for All (SS4A), https://www.transportation.gov/grants/SS4A, Accessed 5/18/2023

Resiliency

The NFRMPO has an informational role in planning for the resiliency of the transportation system. The Colorado Resiliency Office defines resiliency as "the ability of communities to rebound, positively adapt to, or thrive amidst changing conditions or challenges — including human-caused and natural disasters — and to maintain quality of life, healthy growth, durable systems, economic vitality, and conservation of resources for present and future generations."[19]

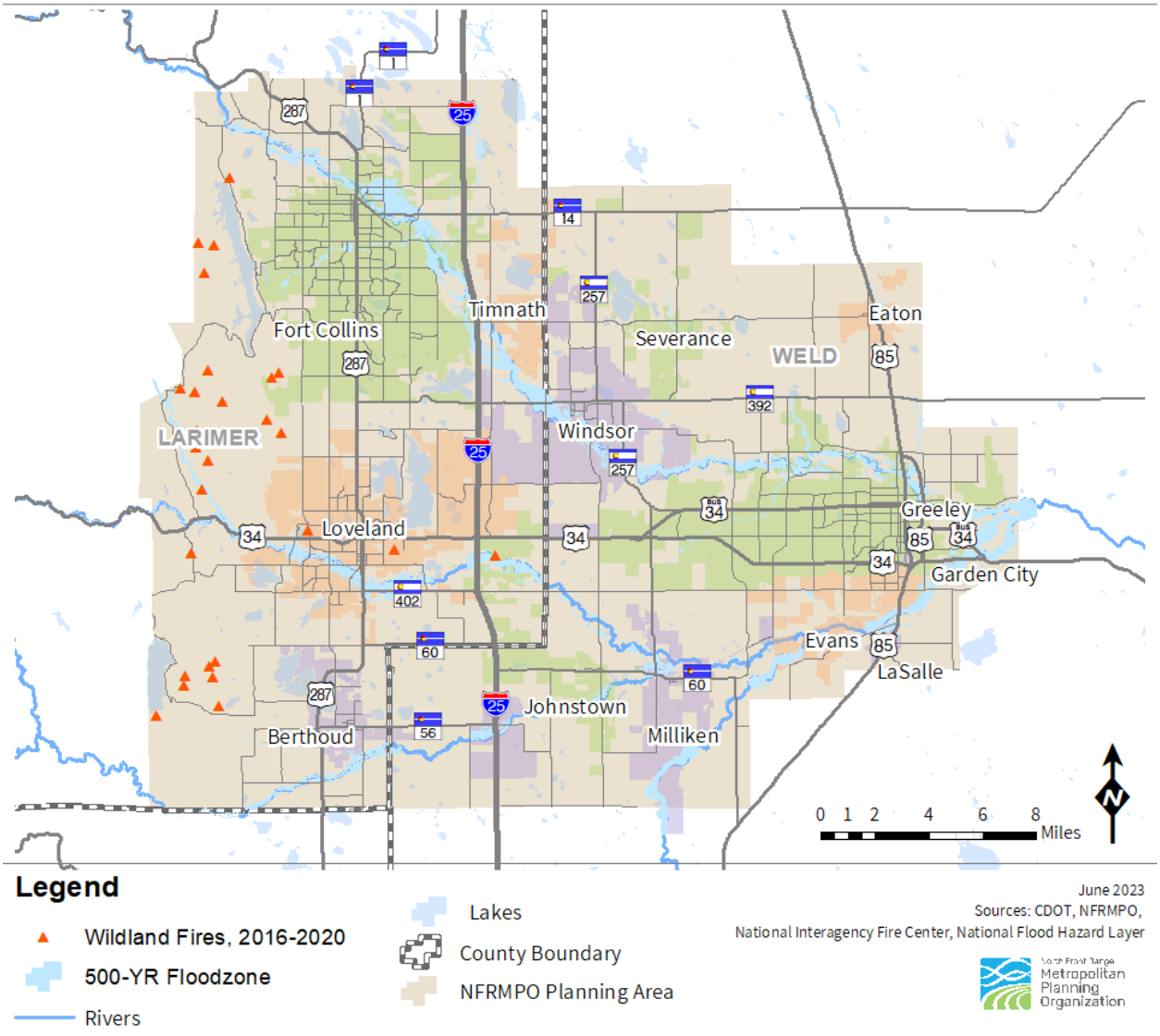
Examples of environmental risks identified in the regional Hazard Mitigation Plans (HMP) include biological hazards; earthquakes; extreme weather; fires; floods, hazmat; and tornadoes. Additional transportation security incidents may include trespassing, vandalism, or terrorism.

The North Front Range region is susceptible to a wide range of natural hazards, including snowy and icy road conditions, wildfires, flooding, tornadoes, high winds, hail, and more. Parts of the region receive an average of 47 inches of snow annually, which can stick to roads and create dangerous driving conditions. Heavy flooding can cause significant damage to transportation infrastructure and strain vulnerable parts of the system. The 2013 floods alone resulted in $4B in damage to roads, bridges, and other infrastructure and property across the state, including $280M on US34, and has taken years to replace or repair. Communities within or near designated floodplains are most susceptible to flood risks.

Figure 2-25 illustrates the NFRMPO communities located near 500-year flood plains along with fire locations between 2016 and 2020.

[19] 2020 Colorado Resiliency Framework, https://static1.squarespace.com/static/5fd3ae01f8f3aa3014a8069a/t/60beac4c8ff8cb6a2171ea1d/1623108705479/Framework_Electronic.pdf, Accessed 6/20/2023

Figure 2-25: Wildland Fires (2016-2020) and 500-Year Flood Zones in the NFRMPO



Wildfires within the region may pose a significant risk to people and property, but even fires outside the region can have a significant impact on our air quality. Wildfires across the West during the summer of 2020 significantly increased the concentration of particulate matter in the air. Increased concentrations of PM may cause or exacerbate respiratory health problems and reduce visibility.

Lasting effects of wildfires can also have an impact on the transportation system including flood risk in burn areas. The Cameron Peak Fire, which burned from August 13 to December 2, 2020 and burned over 200,000 acres in Larimer County. Risks include an increased likelihood of flooding resulting in damage to public and private infrastructure.[20] Areas around the Poudre River watershed experienced common

[20] Cameron Peak Fire Risk Assessment, 2021. https://www.larimer.org/sites/default/files/uploads/2021/cpf_risk_assessment_overview_5.24.2021.pdf, (Accessed 6/20/2023).

occurrences of debris flow, flash flooding, and washed-out roads during the summer of 2021 following the Cameron Peak Fire.[21]

CDOT Resilience Program

The CDOT Resilience Program was created to assess the risks and prepare the transportation system in advance of threats including floods, high winds, avalanches, rockfall, and other unavoidable threats. The CDOT Resilience Program helps plan for adverse events to ensure the transportation system is better equipped to withstand and quickly recover from events when they happen, while also ensuring the public can continue to access homes, businesses, schools, and hospitals.[22]

CDOT created a criticality index of the state highway system to better prioritize the most critical roadways in the state.

> *Criticality is a measure of the importance of an asset to the resilience of the system, and by extension, to the success of CDOT in carrying out its mission of delivering service to travelers.*[23]

Criticality is based on six criteria:

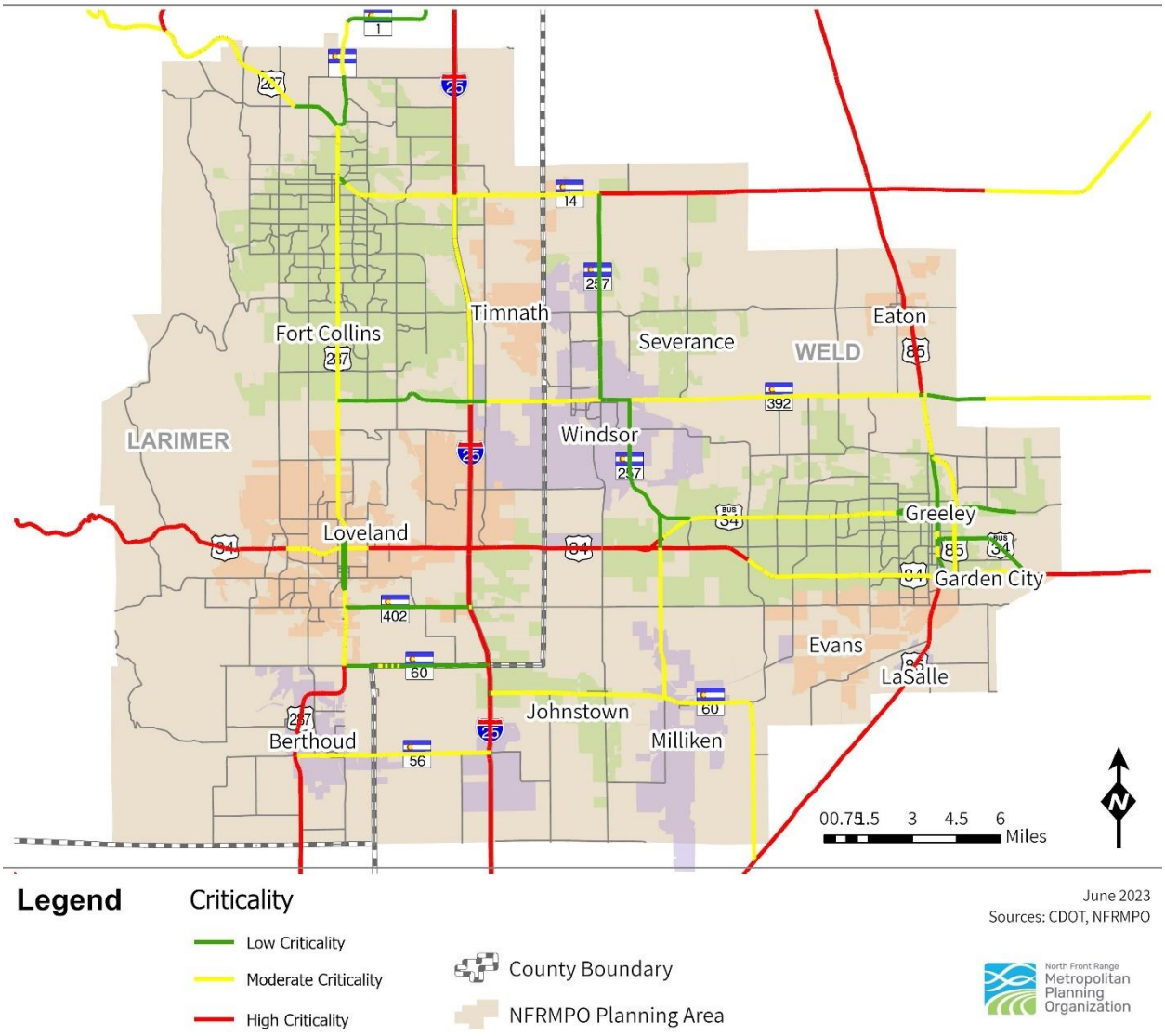
1. Average Annual Daily Traffic (AADT);
2. Association of American State Highway and Transportation Officials (AASHTO) Roadway Classification factor;
3. Freight value per Ton;
4. Tourism dollars;
5. Social Vulnerability Index; and
6. System Redundancy.

Post-fire debris flow runs onto SH 14
Image credit: *Coalition for the Poudre River Watershed*

Figure 2-26 illustrates the criticality index of the state highway system in the NFRMPO region.

[21] Recovery Efforts for the Cameron Peak Fire, 2021. https://storymaps.arcgis.com/stories/66393e20dd674741b43d024a2f2d9188. (Accessed 6/20/2023).
[22] CDOT Resilience Program, 2021. https://codot.gov/programs/planning/cdot-resilience-program (Accessed 6.20/2023).
[23] Resilience in Colorado, 2021. https://storymaps.arcgis.com/stories/8e576e78ac664b32b059ef1fe83a92fe. (Accessed 6/20/2023).

Figure 2-26: Criticality Index of the State Highway System in the NFRMPO Region



COtrip

COtrip is an online map and mobile app which provides travelers with statewide, real time information about Colorado roads including roadway conditions, traffic incidents, construction, and weather alerts and conditions. COtrip is a useful tool to help roadway users be prepared when traveling around the state.

View the website or download the app at https://www.cotrip.org/

PROTECT

The Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT) grant program was created by the Bipartisan Infrastructure Law (BIL) and provides funding for projects to ensure the resilience of surface transportation projects against natural hazards including climate change, extreme weather events, and natural disasters. The PROTECT program includes opportunities for local and regional agencies to apply funding to complete a Resilience Improvement Plan (RIP). In addition to the planning funding, there is also competitive and formula funding for agencies to implement projects to further resilience projects. Within the PROTECT program, a RIP may include the following elements:

- Planning, predesign, design, or development of data tools to simulate transportation disruption scenarios, including vulnerability assessments;
- Technical capacity building to facilitate the ability of the State to assess the vulnerabilities of its surface transportation assets and community response strategies under current conditions and a range of potential future conditions;
- Or evacuation planning and preparations[24].

Emergency Management

Larimer County and Weld County Offices of Emergency Management provide information and resources to people who live, work, and spend time within the region. These offices provide information on how to plan and prepare for emergencies, respond to emergencies, mitigate against hazards, and recovery from hazards and disasters.

Table 2-9 Table 2-9 shows resources for each county and the State related to Emergency Management.

[24] Bipartisan Infrastructure Law Fact Sheets, Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT), 2023. https://www.fhwa.dot.gov/bipartisan-infrastructure-law/protect_fact_sheet.cfm. Accessed 7/7/2023.

Table 2-9: Resources for Emergency Management

Larimer County	Emergency Preparedness Guide, 2023 - The Emergency Preparedness Guide provides information on how to be ready for emergencies and education on hazards in Larimer County.	https://www.larimer.gov/sites/default/files/uploads/2023/em_prep_guide_final_04.26.2023.pdf
	Larimer County Hazard Mitigation Plan, 2021 – The Larimer County Multi-Jurisdictional Hazard Mitigation Plan analyzes the Counties vulnerabilities to all hazards including natural and human caused to minimize impacts to people, property, and critical facilities.	https://drive.google.com/file/d/1D7l-eWuaScqIHD6GzMngY7PtLPyCpAtC/view
Weld County	**Emergency Preparedness Guide, 2018 –** The Emergency Preparedness Guide provides an overview of disaster information and tips on how to get on emergencies plans for all types of hazards.	English – https://www.weld.gov/files/sharedassets/public/departments/office-of-emergency-management/documents/english-oem-emergency-preparedness-guide.pdf Spanish – https://www.weld.gov/files/sharedassets/public/departments/office-of-emergency-management/documents/spanish-oem-emergency-preparedness-guide.pdf
	Hazard Mitigation Plan, 2021 – The Hazard Mitigation plan is designed to proactively reduce the risk of hazards facing Weld County.	https://www.weld.gov/files/sharedassets/public/departments/office-of-emergency-management/documents/haz.-mitigation-plan/weld-hazard-migitation-plan-2021.pdf
Statewide	**READYColorado** – Colorado's source for preparedness information and tips on natural, technological, and human caused hazards.	https://dhsem.colorado.gov/info-center/readycolorado
	COEMERGENCY – An incident specific resource for Coloradans during disasters	http://www.coemergency.com/

Security

USDOT defines a transportation security incident as one resulting in a significant loss of life, environmental damage, transportation system disruption, or economic disruption in a particular area. Examples of environmental security issues identified in the regional Hazard Mitigation Plans (HMP) include biological hazards; earthquakes; extreme weather; fires; floods, hazmat; and tornadoes. Overall transportation security incidents may include trespassing, vandalism, or terrorism. Local agencies prepare for the incidents and risks depending on the services they provide. **Table 2-10** is a reference for local and partner agencies and includes websites or other contact information for current information.

Table 2-10: Security Contact Information

Park N Rides	Colorado Department of Transportation	
Transit Agencies	Berthoud Area Transportation System (BATS)	Contact phone: (970) 344-5816
	Bustang (CDOT)	Contact phone: 800-900-3011
	City of Loveland Transit (COLT)	Contact Phone: (970) 962-2700
	Greeley Evans Transit (GET)	Contact Phone: (970) 350-9287
	Transfort	Contact Phone: (970) 221-6620 Website:
Volunteer Transportation Service Providers	Senior Alternatives In Transportation (SAINT)	Contact Phone: (970) 223-8604
	60+ Ride	Contact Phone: (970) 352-9348
	RAFT	Contact Phone: (970) 532-0808
Vanpool Service	VanGo™ Vanpool Service	Contact Phone: (800) 332-0950
Railroad Security	BNSF Railway	Contact phone: (800) 795-2673
	Union Pacific Railroad (UPRR)	Contact phone: (888) 870-8777
	Great Western Railway of Colorado (GWR)	Contact phone: (303) 398-4500
Airport Transportation Security	Greeley-Weld County Airport	Contact Phone: (970) 336-3000
	Northern Colorado Regional Airport	Contact Phone: (970) 962-2850