Metropolitan Council
Regional Safety Action Plan

Technical Advisory Committee – Aug 7, 2024 (9:00 - 11:00)

Regional Safety Action Plan

General Overview

- **Focus:** Vehicle crashes and bicycle-vehicle crashes with an emphasis on fatalities and serious injuries in MPO planning area
- **Team:** Consultant project with SRF and support from Alta Planning, Safe Streets Research, and Isthmus Engineering
- Technical Advisory Group with representatives from local, state, and federal partners
- Intended to help address requirements for USDOT Safe Streets and Roads for All funding program
- Began May 2023, will finalize this year

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Federal Safe Streets & Roads for All (SS4A) Program

General Overview

- **About:** The Bipartisan Infrastructure Law (BIL) established the new SS4A discretionary program with $5 billion in appropriated funds over the next 5 years.

- **Purpose:** Promote safety; employ low-cost, high-impact strategies; ensure equitable investment; incorporate evidence-based project.

SS4A Funding Opportunities

- **Supplemental Activities**
  - Enhances or Improves and Action Plan
- **Demonstration**
  - Informs Action Plan
- **Implementation Project**
  - Infrastructure improvements

Regional Safety Action Plan Components

- Work with Technical Advisory Group
- Public engagement
- State of the practice review
- Trend summaries by mode
- Create high injury streets identification (including pedestrians)
- Crash Risk Index analysis
- Crash rate analysis
- Review TPP policies and actions for revisions
- Corridor recommendations for further work
- High-level countermeasures
- Programmatic recommendations
- Final report

Public Engagement

Engagement input

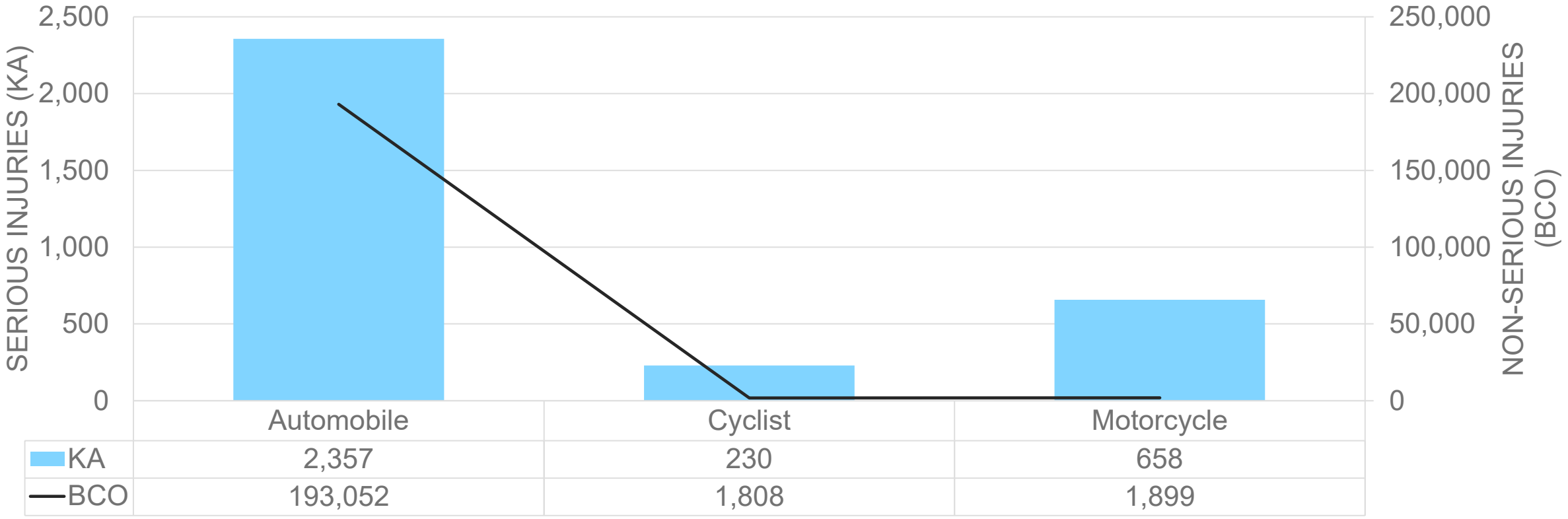
- ***Survey to local agencies*** **-** Open Aug 7 – Sept 15, 2023
  - Sent to 33 agencies
  - Received 7 responses on previous safety engagement
- ***Focus groups*** working with Zan Associates
- Reviewing other equity-focused engagement work for safety-related input
- Engagement Summary Report to be completed end of August

Date	Organization name	Audience	Engagement Activity
6/11/2024	The Arc Minnesota	People living with disabilities	Hybrid Focus Group
6/12/2024	YWCA	Women	In-person Focus Group
6/17/2024	Autism Society of Minnesota	People living with disabilities	Virtual Focus Group
6/24/2024	Pillsbury United Communities: Waite House Neighborhood Center	Latinx	In-person Focus Group (Spanish)
6/29/2024	African Career, Education, and Resources (ACER)	African Americans	Pop-up event
7/1/2024	Banyan Community Center	Latinx	In-person Focus Group (Spanish)
TBD	Women's Initiative for Self Empowerment (WISE)	Women	In-person Focus Group

Crash Data Analysis Summary

- Crash data from 2018-2022
- Analyzed motor vehicle, motorcycle and bicycle crashes
  - Pedestrian crashes were analyzed as a part of the Pedestrian Safety Action Plan
- Key Themes
  - Approximately half of all crashes (58%) took place at an intersection.
  - Approximately three quarters of all crashes (74%) had speeding listed as a contributing factor.
  - Motorcyclists are most likely to be severely injured or killed when involved in a crash (26% of the 2,564 crashes involving a motorcycle resulted in a fatal or incapacitating injury)
  - Cyclists are second most likely to be severely injured or killed when involved in a crash (11% of the 2,038 crashes involving a cyclist resulted in a fatal or incapacitating injury)

Crash Severity by Mode



Serious to non-serious injury Ration	.012	.127	.346

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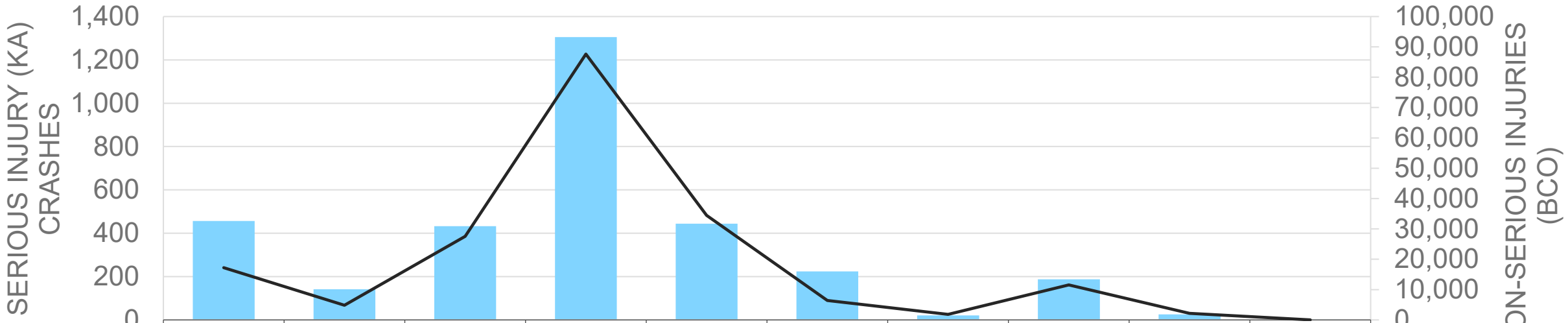
Crashes by County



	Anoka	Carver	Dakota	Henne-pin	Ramsey	Scott	Sher-burne	Wash-ington	Wright	Un-known
KA	457	141	433	1,305	444	224	21	187	26	2
BCO	17,248	4,823	27,582	87,625	34,481	6,439	1,861	11,532	2,154	18
Serious injury crashes per 100,000 residents	124	128	98	104	83	145	21	68	18	--

- Crash data from 2018-2022
- Pedestrian crashes were analyzed as a part of the Pedestrian Safety Action Plan (not included as part of this graph)
- Normalizing by 100,000 residents is just one way to provide context. The results may vary depending on how the crashes are analyzed. Example – by population, centerline miles, etc.

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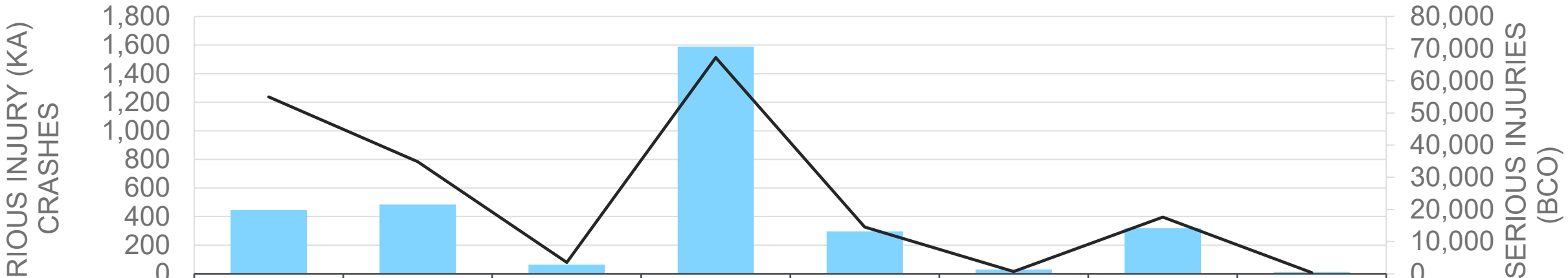
Crashes by Functional Class



	Interstate	Principal Arterial (non-interstate freeway)	Principal Arterial (other)	Minor Arterial	Major Collector	Minor Collector	Local	Unknown
KA	446	484	64	1,589	296	30	318	13
BCO	54,990	34,841	3,511	67,222	14,534	695	17,616	354
KA Crashes per 1,000 Roadway Mi.	69,807	33,142	26,361	13,301	5,093	797	679	--

- Crash data from 2018-2022
- Pedestrian crashes were analyzed as a part of the Pedestrian Safety Action Plan (not included as part of this graph)
- Normalizing by 1,000 roadway miles is just one way to provide context. The results may vary depending on how the crashes are analyzed. Example – by population, centerline miles, etc.

High Injury Street Identification

- ***High injury streets*** are locations where a high number of fatal and serious injury crashes have occurred in close concentration along a corridor or segment.
  - They represent a high priority subset of the region's overall transportation network.
  - They are used alongside other screening and safety analysis tools, like systemic safety analysis, to help prioritize the most urgent traffic safety needs.
- Crash data from 2018-2022

Mode	Threshold	Miles	Severe Crashes	Severe Crashes Per Mile
Pedestrians	12 (Urban Center) & 7 (non-U)	129.3 *(0.7%)*	236 *(39.2%)*	1.82
Bicyclists	5	163.7 *(0.8%)*	104 *(44.3%)*	0.64
Motorcyclists	9	35.8 *(0.2%)*	70 *(12.1%)*	1.96
Motorists	12	129.6 *(0.6%)*	301 *(17.4%)*	2.32
All Modes		**370.7 *(1.8%)***	**968 *(30.8%)***	**2.61**

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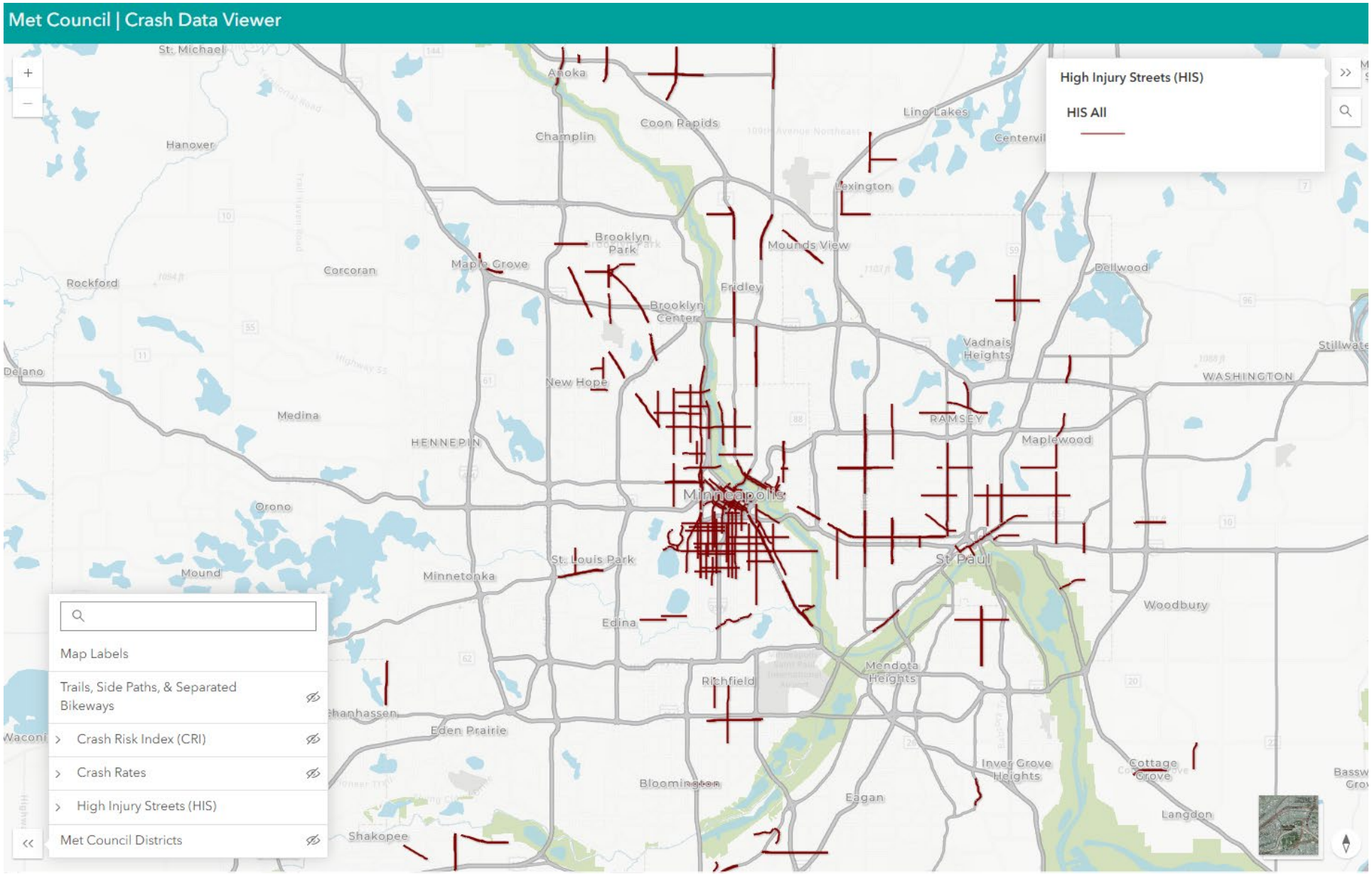
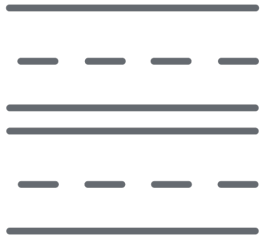
High Injury Street Map

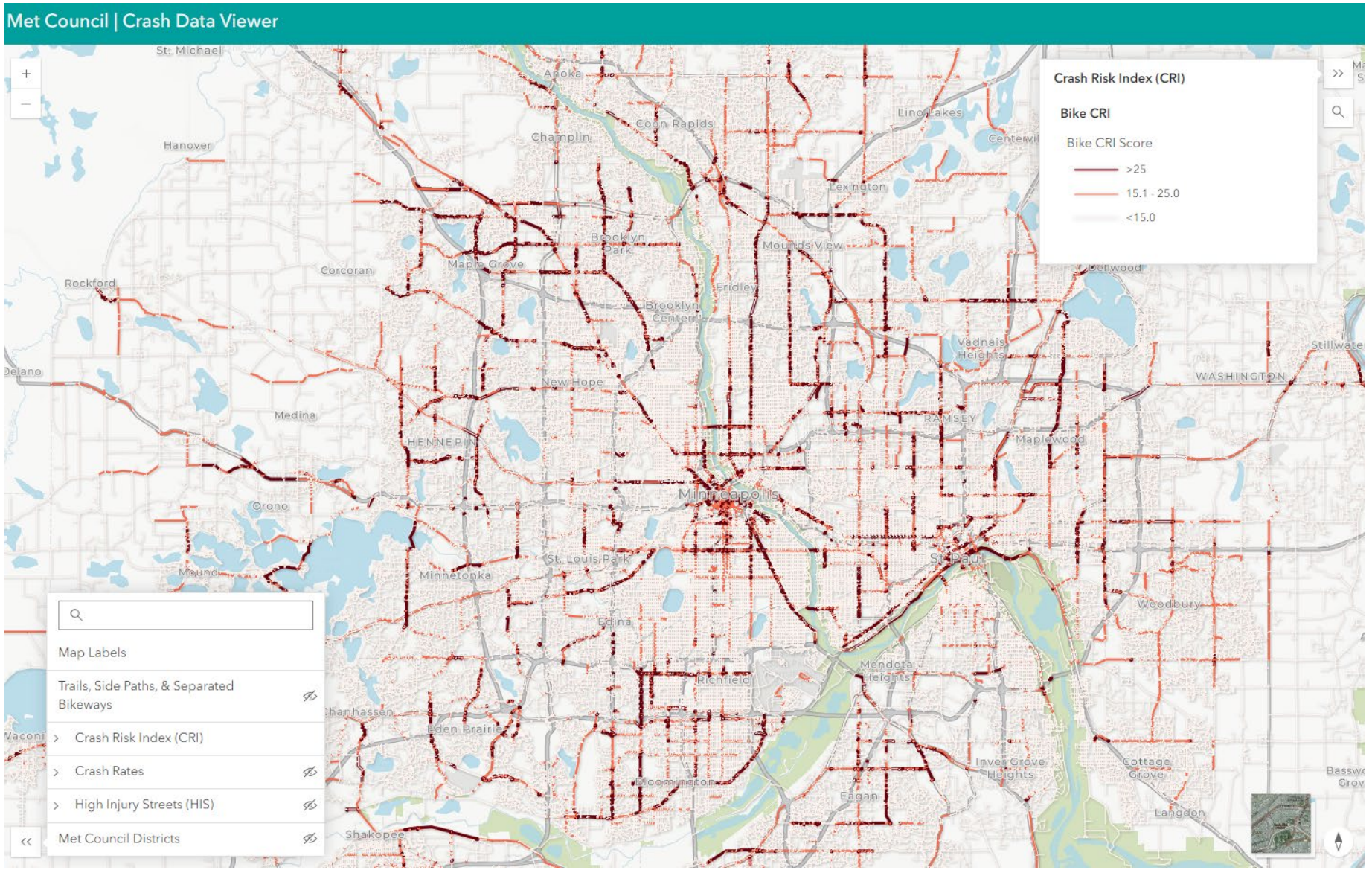


Crash Risk Index (CRI) Analysis

- Identify road segments and intersections with high-risk characteristics for bicycles and motor vehicles.
- The CRI analysis uses crash history to determine high-risk roadway characteristics but, unlike the HIS, it is **not** a reflection of where crashes have been happening.
- Process:
  - Add context to crashes
  - Compare crash contexts
  - Calculate severe crash risk
  - **Result:** CRI analysis factors
    - Average Annual Daily Traffic (AADT)
    - Number of Lanes
    - Posted Speed



Crash Rate Index (CRI) Map



Crash Rate Analysis

- The crash rate analysis shows road segments with a high number of crashes when compared to traffic volumes.
  - MNDOT Vehicle Average Annual Daily Traffic (AADT)
  - Replica Bike Trips
- Highlights road segments with concerning crash **rates** that may point to an underlying issue.

$$\text{Crash rate per 100 million vehicle miles traveled} = \frac{(C \times 100{,}000{,}000)}{(V \times 365 \times N \times L)}$$

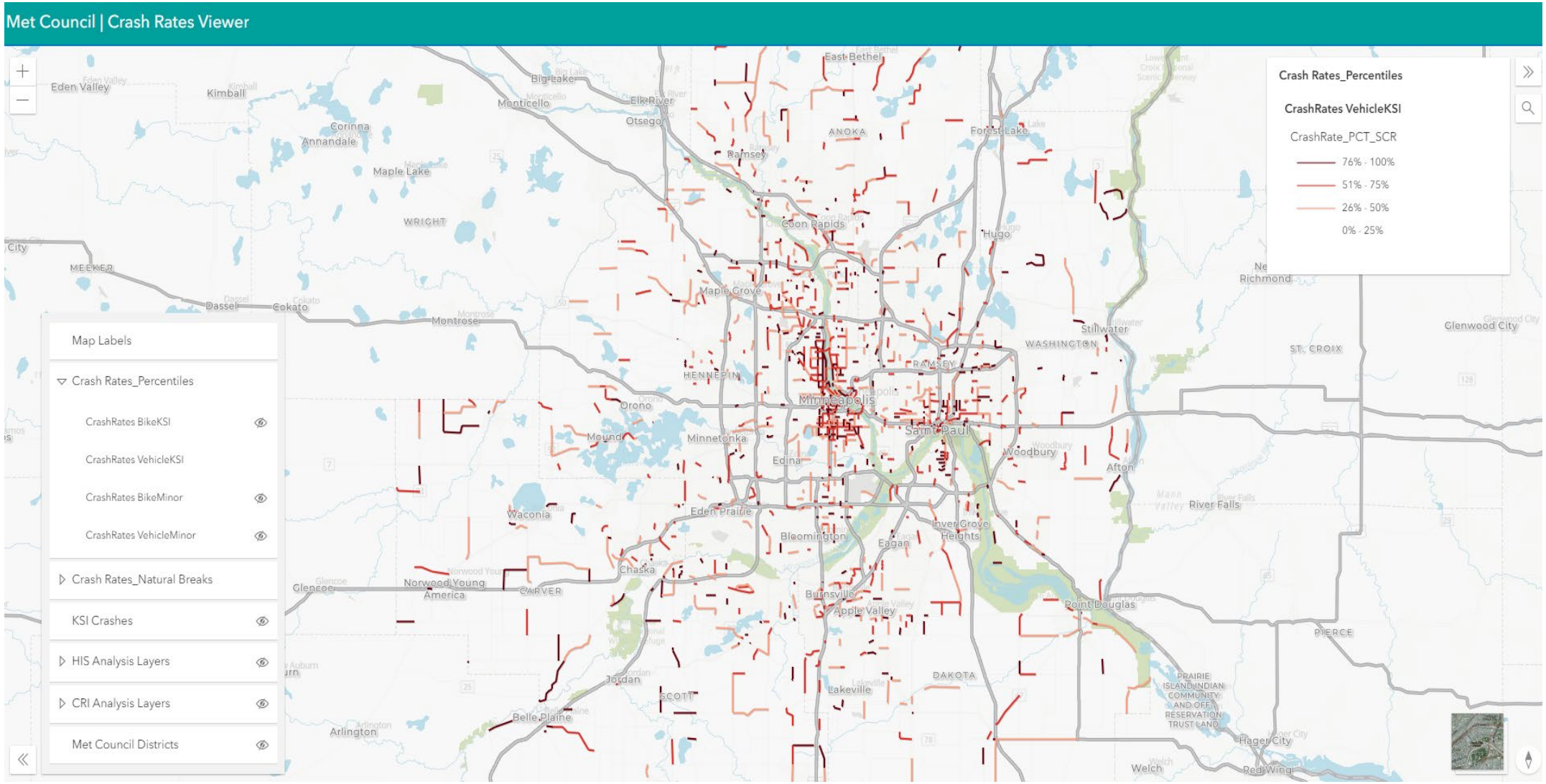
C = Number of crashes in the study period

V = Traffic volumes using average annual daily traffic (AADT) volumes

N = Number of years of data

L = Length of the roadway segment in miles

Crash Rate Analysis Map



Recommend Corridors for Further Work

- Regional priority lists -
  - **Priority 1** Existing High-Risk Corridor and Intersection List (identifies the top 25)
  - **Priority 2** Proactive High-Risk Corridor and Intersection List (identifies the top 25)

- County priority lists –
  - **Priority 1** Existing High-Risk Corridor and Intersection List (identifies up to 10)
  - **Priority 2** Proactive High-Risk Corridor and Intersection List (identifies up to 10)

Identify Potential Countermeasures

In Progress

- ***Deliverable:*** A “toolbox” of potential safety countermeasures for the Met Council/communities to tackle regional and local traffic safety issues.
- ***Goal of the Risk Assessment:*** develop a list of proven safety countermeasures that directly correlate to the causes of severe crashes.
- ***Next Steps:*** Review draft

Programmatic Recommendations

In Progress

- Programmatic recommendations related to the Regional Solicitation, HSIP Solicitation, and other ways the Council can move the needle on safety.
  - Strategies will include time ranges and project prioritization criteria for SS4A compliance.
  - Strategies will consider outputs from both this Regional Safety Action Plan and the Pedestrian Safety Action Plan.

- ***Goal of the Programmatic Recommendations:*** develop strategies that help the region work toward a safety target of zero traffic deaths.

- ***Next Steps:*** In progress. Still developing draft strategies.

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Thank you!