TRANSPORTATION ADVISORY BOARD

MEETING OF THE TECHNICAL ADVISORY COMMITTEE

Wednesday | November 6, 2019
Metropolitan Council | 9:30 AM
390 Robert Street North, Saint Paul, MN 55101

AGENDA

I. CALL TO ORDER

II. APPROVAL OF AGENDA

III. APPROVAL OF MINUTES

September 4, 2019 meeting of the TAB Technical Advisory Committee

IV. TAB REPORT

V. COMMITTEE REPORTS

1. Executive Committee (Lisa Freese, Chair)
2. Planning Committee (Jan Lucke, Chair)

   No items
3. Funding & Programming Committee (Paul Oehme, Chair)

   No items

VI. SPECIAL AGENDA ITEMS

1. MnDOT Functional Classification Review (Bobbi Retzlaff and Mark Nelson, MnDOT)
2. Draft Statewide Highway Safety Plan (Brad Utecht, MnDOT)
3. Assessing Urban Quality (Monika Vadali, MPCA)
4. Coordinated Action Plan (Heidi Schallberg, MTS)
5. Regional Solicitation Public Comment Update and Feedback (Steve Peterson and Joe Barbeau, MTS)
6. 2020 Regional Solicitation: Bridge Score Weighting (Steve Peterson and Joe Barbeau, MTS)

VII. AGENCY REPORTS

VIII. OTHER BUSINESS

IX. ADJOURNMENT

Please notify the Council at 651-602-1000 or 651-291-0904 (TTY) if you require special accommodations to attend this meeting. Upon request, the Council will provide reasonable accommodations to persons with disabilities.

Minutes of a Meeting of the
TECHNICAL ADVISORY COMMITTEE
Wednesday, September 4, 2019
9:30 A.M.

Members Present: Lisa Freese, Gina Mitteco, John Doan, Brian Isaacson, Jan Lucke, Elaine Koutsoukos, Steve Peterson, Michael Larson, Adam Harrington, Molly McCartney, Innocent Eyoh, Andrew Emanuele, Bridget Rief, Jen Lehmann, Peter Dahlberg, Danny McCullough, Karl Keel, Ken Ashfeld, Paul Oehme, Michael Thompson, Kim Lindquist, Jennifer Hager, Bill Dermody, Paul Kurtz

1. Call to Order
The meeting was called to order by Chair Lisa Freese at 9:33 a.m.

2. Approval of Agenda
A motion to approve the agenda was made by Mr. Oehme and seconded by Mr. Isaacson. Motion carried.

3. Approval of Minutes
Chair Freese noted that Ms. Lehmann's name was inadvertently omitted from the meeting minutes, and that this will be corrected in the official meeting minutes. A motion to approve the August 7, 2019 TAC minutes was made by Ms. Koutsoukos and seconded by Mr. Ashfeld. Motion carried.

4. TAB Report

TAB Coordinator Elaine Koutsoukos reported on the August 21, 2019 TAB meeting.

5. Committee Reports

A. Executive Committee (Lisa Freese, Chair)
No updated provided.

B. Planning Committee (Jan Lucke, Chair)
The August meeting of the TAC Planning committee was cancelled. As such, no update was provided.

C. Funding and Programming Committee (Paul Oehme, Chair)

2019-37: Scope Change request for Scott County's CSAH 2 and CSAH 91 Roundabout
Mr. Oehme presented this item, noting that the City of Elko New Market was awarded approximately $1.8 million in HSIP funds for program year 2020 as part of the 2016 HSIP solicitation. The award was to fund a roundabout at the intersection of CSAH 2 and CSAH 91. Over the course of the project, the City decided to include additional off-road pedestrian trails in order to close network gaps and preserve existing trail connections. With the changes, the total cost estimate went up to approximately $2.8 million. Additional costs would be entirely covered by local funds.

A motion to approve the request was made by Mr. Thompson, seconded by Mr. Harrington. Motion carried.

2019-38: 2020-2023 TIP Amendment Request for Scott County's CSAH 2 and CSAH 91 Roundabout

Mr. Oehme presented this item, which is a request for an amendment to the Transportation Improvement Program (TIP) to note the changes to the CSAH 2/CSAH 91 Roundabout. The changes are required to be reflected in the TIP.

A motion to approve the TIP amendment was made by Mr. Keel, seconded by Mr. Eyoh. Motion carried.

2019-47: 2020 Highway Safety Improvement Program (HSIP) Application for Release for Public Comment

Mr. Peterson presented this item. He provided background information on the item, noting that the public comment period would start September 23 and end on November 6.

A motion to approve the HSIP for public comment was made by Ms. Koutsoukos and seconded by Mr. Isaacson. Motion carried.

2019-39: 2020 Regional Solicitation: Funding Categories

Mr. Peterson noted that three new funding categories were proposed for the 2020 Regional Solicitation: a Spot Mobility and Safety category; a Bus Rapid Transit (BRT) category; and a Unique Projects set-aside. The Spot Mobility and Safety category would focus on lower-cost intersection projects meant to enhance safety and mobility. The BRT category would provide a program for large BRT projects. The unique project category would guarantee funding for unique project proposals. The total guaranteed funding for this category would be approximately $4.5 million and begin with the 2022 Regional Solicitation.

A motion to approve the item was made by Mr. Eyoh and seconded by Mr. Kurtz. Motion carried.

2019-40: 2020 Regional Solicitation: Modal Funding Ranges

Mr. Peterson presented this item, nothing that the modal funding ranges are proposed to reflect historic ranges with 2.5% proposed to be taken off the top for the Unique Projects category. This action item would approve the funding ranges for the 2020 Regional Solicitation after accounting for the 2.5% set-aside for unique projects.

Mr. Isaacson noted that the current funding levels are based upon historic percentages and not due to any federal requirements. He requested that this be made clearer when presenting the item to the TAB.

A motion to approve the modal funding ranges was made by Mr. Isaacson and seconded by Mr. Keel. Motion carried.

2019-41: 2020 Regional Solicitation: Funding Category Minimum and Maximum Funding Amounts and Inflation Factor

Mr. Peterson presented this item, noting that the TAB requested Council staff to provide multiple maximum and minimum funding amounts to Regional Solicitation project categories. Potential changes include a decrease in the maximum award for Traffic Management Technologies; an increase in Strategic Capacity maximum award; increases to the minimum awards for Transit Modernization and Travel Demand Management; and a decrease in the maximum award for Multiuse Trails and Bicycle Facilities.

Discussion ensued regarding the maximum federal award for the Multiuse Trails and Bicycle Facilities category. TAB is considering options to fund high-priced projects while minimizing the los in number projects. This includes allowing one project in this category at a $5.5 million maximum with a $4 million maximum for all other projects in this category. The Committee chose to recommend a maximum of $4 million or to leave at the current maximum funding level of $5.5 million.

A motion to change the recommended minimum and maximum funding amounts for the Multiuse Trails and Bicycle Facilities was made by Mr. Robjent and seconded by Mr. Isaacson. Motion passed. A motion to approve the funding category minimum and maximum funding amounts for TAB action was made by Ms. Koutsoukos and seconded by Mr. Isaacson. Motion carried.

2019-42: 2020 Regional Solicitation: Weighting of Criteria and Measures

Mr. Peterson presented this item, which includes the scoring weights of some criteria and measures for the 2020 Regional Solicitation. Mr. Peterson noted that these changes were minor and would not significantly alter the scoring from previous solicitations.

A motion to recommend to TAB to adopt the proposed weighting of the criteria and measures was made by Mr. Isaacson and seconded by Mr. Robjent. Motion carried.

2019-43: 2020 Regional Solicitation Application Measures

This item was to recommend to TAB the approval of the overall measures and scoring guidance for application categories in the 2020 solicitation. Mr. Peterson noted a few changes, highlighting the proposed change to the Equity and Housing Performance measures.

A motion to approve the measures was made by Mr. Robjent and seconded by Mr. Kurtz. Motion carried.

2019-44: 2020 Regional Solicitation Policies, Qualifying Criteria, and Project Eligibility

Mr. Peterson presented this item, noting a few of the changes to the policies, qualifying criteria, and project eligibility for the 2020 Regional Solicitation. Major changes include the requirement of an agency to have an ADA Transition Plan and the inclusion of a requirement of snow and ice removal for projects applying to the Multi-use Trails and Bicycle Facilities category.

A motion to recommend approval of the changes was made by Mr. Isaacson and seconded by Mr. Doan. Motion carried.

2019-45: 2020 Regional Solicitation: Guaranteed Funding

This item calls for the continuation of a policy that states that at least one project from each of the five eligible roadway functional classifications be funded as part of the 2020 Regional Solicitation. In addition, the item calls for the guarantee to fund at least one “new market” transit project.

A motion to approve the funding guarantees was made by Mr. Eyoh and seconded by Mr. Robjent. Motion carried.

2019-46: 2020 Regional Solicitation Release for Public Comment

Mr. Peterson presented this item, which requests the release of the Draft 2020 Regional Solicitation package for review and public comment. The public comment period would last from September 23 to November 6, with a revised Regional Solicitation package presented to the TAB on November 20.

A motion to approve the item was made by Ms. Koutsoukos and seconded by Ms. Mitteco. Motion carried.

6. Special Agenda Items

No items.

7. Agency Reports

Ms. Rief of the Metropolitan Airports Commission provided an update on the construction activities at the MSP International Airport, noting that security wait times are longer than normal, and travelers should arrive at the airport at least two hours ahead of a domestic flight and three hours for an international flight.

Ms. McCartney of MnDOT provided a reminder that the Capital Improvements Committee would meet on the following Friday and all are invited to attend.

Mr. Eyoh of MPCA provided an update on the Volkswagen settlement.

Mr. Harrington of Metro Transit noted that there was recently a service change and that the agency had just completed its State Fair service. He also noted that Metro Transit is short of bus operators and encouraged individuals to recommend people to apply for the vacancies.

Ms. Lehmann of STA noted that MVTA is completing a new service that will provide transit from Shakopee to the Golden Triangle area in Eden Prairie and beyond

8. Other Business and Adjournment

The meeting was adjourned at 10:46 am.

Prepared by:

David Burns

Seven Metro County Functional Classification Review

DRAFT – for discussion only

Proposed Scope of Work

Task	Activity	Estimated Timeframe
1	Update MnDOT's GIS data to reflect the Council's Minor Arterial classification.	Complete.
2	Update MnDOT's GIS data to reflect major and minor classifications identified in the comprehensive plans. When the Federal Highway Administration updated the functional classification guidelines in 2013, FHWA divided the urban collectors into major and minor categories. As part of the greater Minnesota review, MnDOT worked with the local partners to determine which collectors were major and which were minor. Currently, the majority of collectors in the seven metro counties are classified as major collectors. As part of the comprehensive plan update, communities are required to identify major and minor collectors. Additionally, the collector system of several communities is not reflected in the Council's functional classification data.	Work has begun.
3	Work with FHWA to schedule/provide functional classification training. A two-part training session is scheduled for Thursday, November 21. In the morning session, FHWA will provide an overview of functional classification and some examples of application within the metro area. For those who are interested, FHWA will provide a deeper look at the data and tools in the afternoon session. MnDOT and FHWA are working to identify a second training date during the first week in January. MnDOT is also investigating the option of recording the November training session.	Work has begun.
4	Complete peer review and MPO peer review.	Work has begun.
5	Present findings to the steering committee. Share with the steering committee proposed process to complete the technical review.	1 week
6	Complete technical analysis and prepare draft maps.	10 weeks

Task	Activity	Estimated Timeframe
7	Work with the local partners to review the draft maps. It is anticipated this task will include one-on-one meetings as requested to discuss the draft maps. Work with steering committee in instances when consensus cannot be reached.	26 weeks
8	Prepare draft functional classification maps for final review and share maps with local partners. This review step is to verify all the agreed upon changes are reflected correctly within MnDOT's data.	5 weeks
9	Work with the Metropolitan Council to have the Council approve the changes.	4 weeks
10	Prepare final maps and documentation. Submit approval request to FHWA.	3 weeks
11	FHWA reviews and approves changes.	12 weeks
12	Update MnDOT data.	4 weeks

Factors impacting timeline

Several factors may impact the timeline:

1. Completion of the comprehensive plans. Draft comprehensive plans were due to the Council by December 2018. For the local governments that do not yet have approved 2040 comprehensive plans, MnDOT will use functional classification information identified in draft plans when draft 2040 plans are available.
2. Depth of the technical analysis. Since the greater Minnesota review, new tools such as StreetLight have become available that may assist in the functional classification review.
3. The number of local partners that request/require a printed/electronic map of the proposed changes and availability of TDA staff to assist with map production. GIS data will also be made available.
4. The number of one-on-one meetings requested. Unlike the greater Minnesota review, it is anticipated MnDOT staff will meet with local partners to discuss the proposed changes.
5. Whether an oversight committee is formed. For the greater Minnesota review, an oversight committee was formed to provide a final decision in those instances where MnDOT and the local partner could not reach consensus. For the greater Minnesota review, the committee met twice to make final functional classification decisions.
6. Other staff work efforts such as the update to the Statewide Multimodal Transportation Plan.

Miscellaneous

Peer review: MnDOT is comparing the Council's functional classification to other peer MPOs (such as Seattle) using HPMS data. The purpose is to determine if there are any commonalities/significant differences between the MPOs.

Minnesota MPO review: MnDOT is comparing the Council's functional classification to the other Minnesota MPOs using HPMS data. The purpose is to determine if there are any commonalities/significant differences between the MPOs.

Functional classification 101: FHWA is scheduled to provide functional classification training on November 21, 2019, at the MnDOT Arden Hill Training Center. See task 3 in the proposed scope of work table for details.

Steering committee: MnDOT will create a steering committee. The proposed membership is: 1) county representative, 2) city representative, 3) TAC Planning Chair, 4) MnDOT Metro District Engineer, 5) MnDOT Metro State Aid representative. The committee will serve two roles:

1. Advisory. The committee will provide guidance and feedback on the overall review process such as how to define a local trip compared to a regional trip, means for reaching out to and working with local partners, etc.
2. Oversight. There may be instances when MnDOT and the local partner cannot reach agreement on what the functional classification should be. In those instances, the steering committee will make the final decision.

Project management team: The project management team consists of staff from MnDOT's Office of Transportation System Management, MnDOT Metro District, and the Metropolitan Council.

Communication: MnDOT is identifying ways in which it will keep local partners updated on the status of the review, share the results of the technical analysis and MPO reviews, and discuss the proposed changes.

Seven Metro County Functional Classification Review: FAQs

DRAFT – for discussion only

Q: Why is a functional classification review being done in the seven metro counties?

A: A statewide review was triggered by new functional classification guidelines issued by the Federal Highway Administration in 2013 and by new urban boundaries released by the U.S. Census Bureau in 2012. MnDOT completed the greater Minnesota functional classification review – and FHWA approved the review – in 2015. Due to timing issues with the Thrive MSP 2040 and Transportation Policy Plan updates, the Metropolitan Council requested the seven metro counties be excluded from the statewide review.

Q: Why doesn't MnDOT wait until 2022 when the U.S. Census Bureau releases new urban boundaries? Won't another review be required?

A: Due to the process used for the greater Minnesota review, FHWA has determined MnDOT does not have to undertake a functional classification review for greater Minnesota when the new Census urban boundaries are released. As part of the 2018-2021 STIP approval, FHWA recommended MnDOT "lead an effort to reclassify roads in the metro area in coordination with the Met Council but also work directly with cities and counties where applicable." More recently, FHWA prohibited any changes to arterial classifications in the metro area until a functional classification review is completed. Waiting for the new boundaries to be released may also result in other timing issues.

Q: The counties and cities follow the Metropolitan Council's functional classification guidelines. The counties are within the FHWA guidelines in system percentages. Why does MnDOT need to conduct a review?

A: FHWA has stated a review of the seven metro counties must be completed.

Additionally, until recently, MnDOT did not realize that the Council's data does not include all functionally classified roadways. The Council does not review the collector system. While changes may be made to the collector system, it is at the local community's discretion on whether these changes are brought to the Council for review and approval. MnDOT's functional classification data will be updated to reflect the collector system. A review is required to ensure consistency in how collectors are identified.

MnDOT reports functional classification changes to FHWA annually. As part of the annual report, MnDOT compares the state's classification system to FHWA guidelines. The comparison is made at a statewide level, not a regional or county level. There are instances where a county and/or region is above/below the classification guidelines.

Q: Why doesn't the Council – or the counties – conduct the review? What authority does MnDOT have regarding functional classification?

A: 23 CFR 450.105(b) gives state transportation agencies the primary responsibility for functional classification. FHWA provides guidance and criteria.

Q: Does a change in functional classification affect a county or city's state aid allocation?

A: State aid allocations are not affected by functional classification changes.

Q: Functional classification is a factor in the regional solicitation process, i.e., eligible projects must be classified as an A-minor arterial or higher. How will the functional classification review impact the regional solicitation process?

A: According to 23 USC 101(a)(6), federal-aid highways are all highways except those classified as local or rural minor collector. Federal functional classification guidelines do not identify different types of minor arterials. Metropolitan Council policy has identified different types of minor arterials and limited eligibility to A-minors and principal arterials. The functional classification review will not affect the current and upcoming Regional Solicitation.

Q: Metro counties review functional classification regularly. Counties do not expect to see major changes. If there are major changes, there will be conflict.

A: For the greater Minnesota review, the changes from current (i.e., pre-review) to final FHWA-approved classification were:

- Interstate: No change
- Principal arterial – other freeway/expressway: Increased 83. Miles
- Principal arterial – other: Decreased 221.7 miles
- Minor arterial: Decreased 1.9 miles
- Major collector: Decreased 431.4 miles
- Minor collector: Increased 724.6 miles
- Local: Decreased 156.8

As part of the greater Minnesota review, MnDOT completed a review of the National Highway System. MnDOT identified inconsistencies in how principal arterials were identified in greater Minnesota. The review reclassified principal arterial stubs and principal arterials primarily serving local traffic to a lower classification.

As part of the greater Minnesota review, MnDOT also focused on adding minor collectors to the urban system. This resulted in the reclassification of both major collectors and local roads.

Local partner feedback influenced the final classifications. Based on local partner feedback, the classification originally proposed by MnDOT changed as follows:

- Interstate: No change
- Principal arterial – other freeway/expressway: Increased 2.1 miles
- Principal arterial – other: Increased 59.2 miles
- Minor arterial: Increased 148.8 miles

- Major collector: Increased 48.1 miles
- Minor collector: Decreased 117.5 miles
- Local: Decreased 140.7 miles

MnDOT's review of greater Minnesota focused on data and what the data showed. MnDOT knew there were instances where the data was either missing or incorrect. Local partners added their knowledge of what was actually occurring on the ground when they review the proposed changed. The partners identified segments/areas where a change was needed and explained why the change was needed. Comments were shared between MnDOT and the local partner until consensus was reached.

Q: If the review identifies the need for a Principal Arterial, will MnDOT add the Principal Arterial?

A: Yes, as long as the road is currently functioning as a principal arterial.

Q: How will MnDOT review the functional classification?

MnDOT will perform a desk review of the functional classification. This review is imperfect which is why MnDOT will draft "proposed" changes and look to its local partners to review those proposals.

Two key components of the desk review are traffic volume and spacing. There are instances where traffic volume data is either missing or incorrect. For example, road construction may have influenced a traffic count resulting in either under- or over-reporting of typical volumes. Likewise, new development/redevelopment may have occurred along or near the roadway since the last count.

In terms of spacing, MnDOT will look to see that the system is balanced. As noted in the FHWA's *Highway Functional Classification Concepts, Criteria and Procedures (2013)*, assigning the same functional classification to parallel routes should be avoided whenever possible. The more important route should be assigned the higher classification while the other route(s) should be assigned a lower classification. There are exceptions to spacing, particularly in central business districts.

MnDOT will also look for:

- Instances when functional classification changes at municipal boundaries. Functional classification does not automatically change at a boundary.
- System continuity. In general, this means avoiding "stubs." Not all stubs are eliminated. System continuity is important, however, roadway segments should not be over-classified for the sole reason of system continuity.

.

2020-2024 Strategic Highway Safety Plan

Met Council - TAC

November 6, 2019

What is the SHSP?

The Minnesota Strategic Highway Safety Plan (SHSP):

- Sets direction to reduce traffic fatalities and serious injuries for all roadway users
- Recognizes the complicated relationship between crash types and promotes strategic partnerships to impact safety
- Is informed by data and input from traffic safety professionals and advocates of many disciplines
- Is required by federal law and is updated every five years

Timeline

Step 01

ANALYZE
CRASH DATA

Present summary of crash data analysis

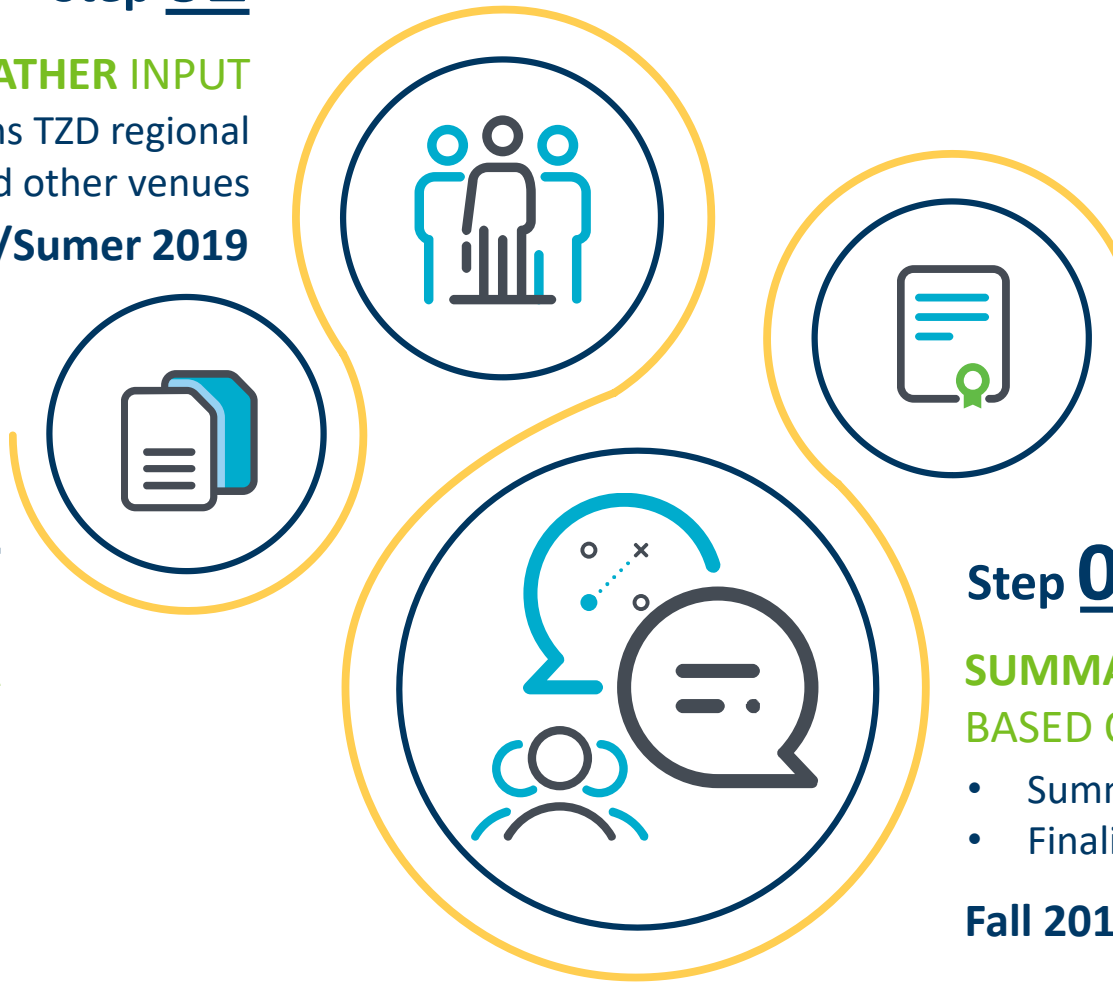
Fall 2018

Step 02

GATHER INPUT

Input sessions TZD regional workshops and other venues

Spring/Sumer 2019



Step 03

SUMMARIZE & STRATEGIZE
BASED ON INPUT

- Summarize input from all outreach activities
- Finalize focus area priorities and strategies

Fall 2019

Step 04

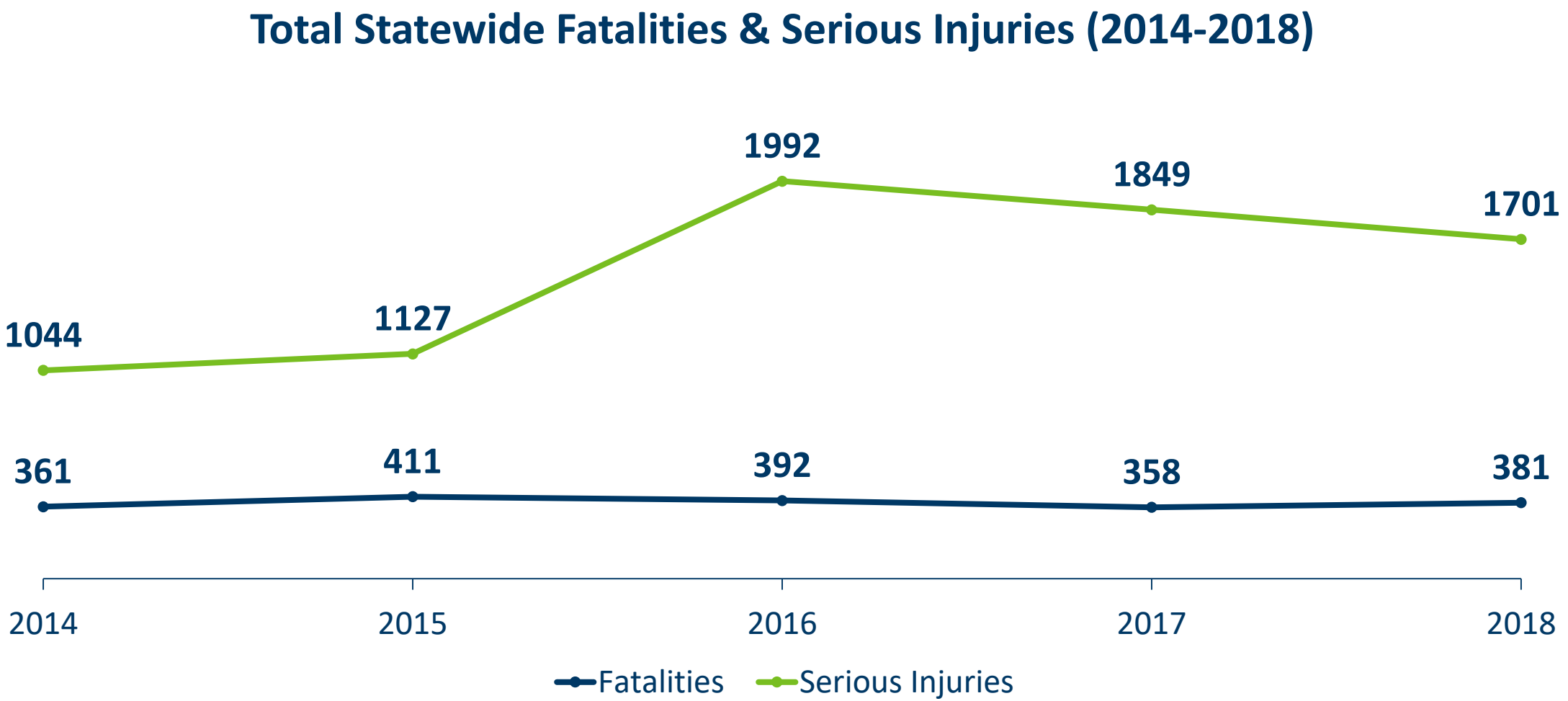
FINALIZE
PLAN

Finalize the SHSP

Early 2020

Statewide Crash Data Review

Statewide Crash Data – Total Crashes



Statewide Crash Data – Summary

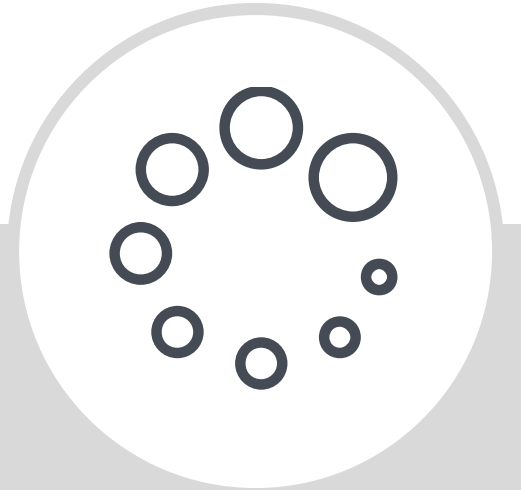
Fatal and Serious Injury Crashes = 8,188 over 5 years

1	Intersections	47%	6	Motorcyclists	17%	12	Head-On	11%
2	Single Vehicle Run off the Road	31%	7	Unbelted Occupants	16%	13	Commercial Vehicles	9%
				Younger Drivers	16%			
3	Impairment	25%	9	Unlicensed Drivers	14%	14	Bicyclists	4%
4	Speed	20%	10	Inattention	13%	15	Work Zones	2%
5	Older Drivers	18%	11	Pedestrians	12%	16	Trains	0.4%

Statewide Crash Data – Trends

TRENDING UP

- Intersections
- Older drivers
- Pedestrians
- Speed
- Unlicensed drivers
- Work zones



STEADY

- Bicyclists
- Commercial vehicles
- Impaired roadway users
- Lane departure (head-on)
- Motorcyclists
- Trains

TRENDING DOWN

- Inattentive drivers
- Lane departure (run-off-the-road)
- Unbelted occupants
- Younger drivers

Stakeholder Outreach

Who is involved?

TZD Leadership Team
(SHSP Steering Committee)

SHSP Project Team

WHO IS INVOLVED?

Traffic safety professionals and advocates

General Public

Traffic Safety Stakeholders

Traffic safety professionals and advocates

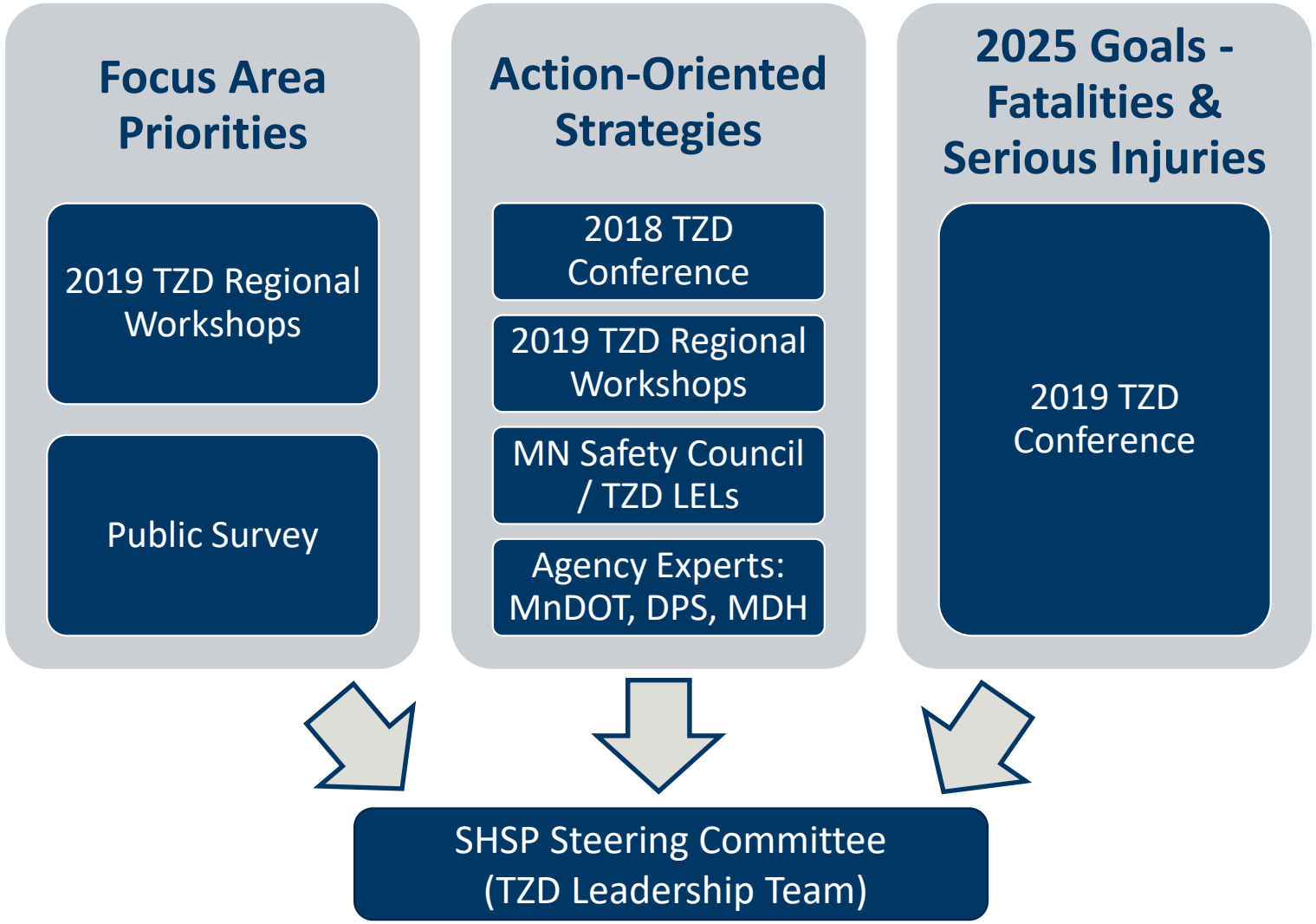
ENGINEERING, EDUCATION, ENFORCEMENT, EMERGENCY MEDICAL & TRAUMA SERVICES, + EVERYONE

Lead Agencies:
MnDOT, MN Dept of Public Safety, MN Department of Health

TZD Program Stakeholders:
TZD regional workshops and other targeted outreach

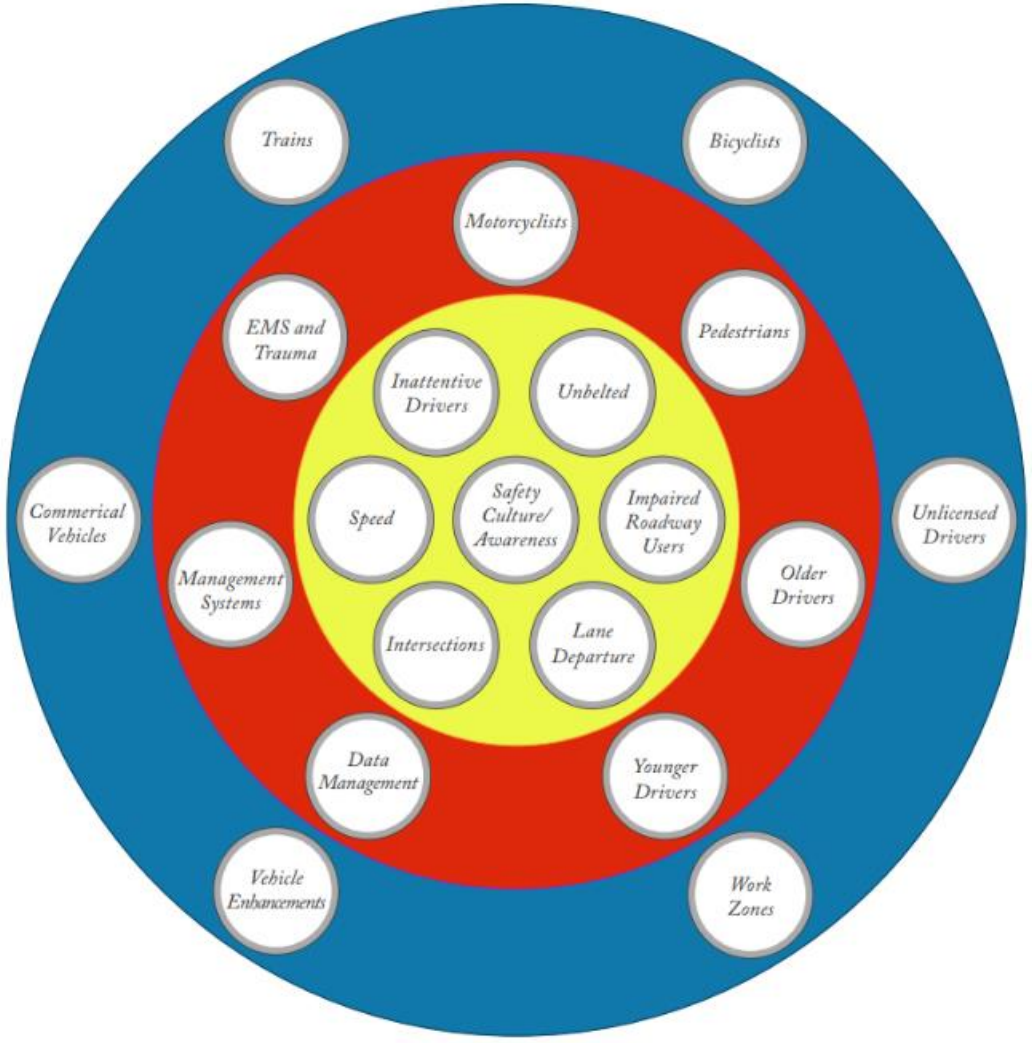
Cities, counties, state patrol, local law enforcement, tribes, MPOs, state agencies, driver education, EMS, advocacy groups, associations, academia, consultants.

Targeted Stakeholder Input



2020-2024 Focus Area Priorities

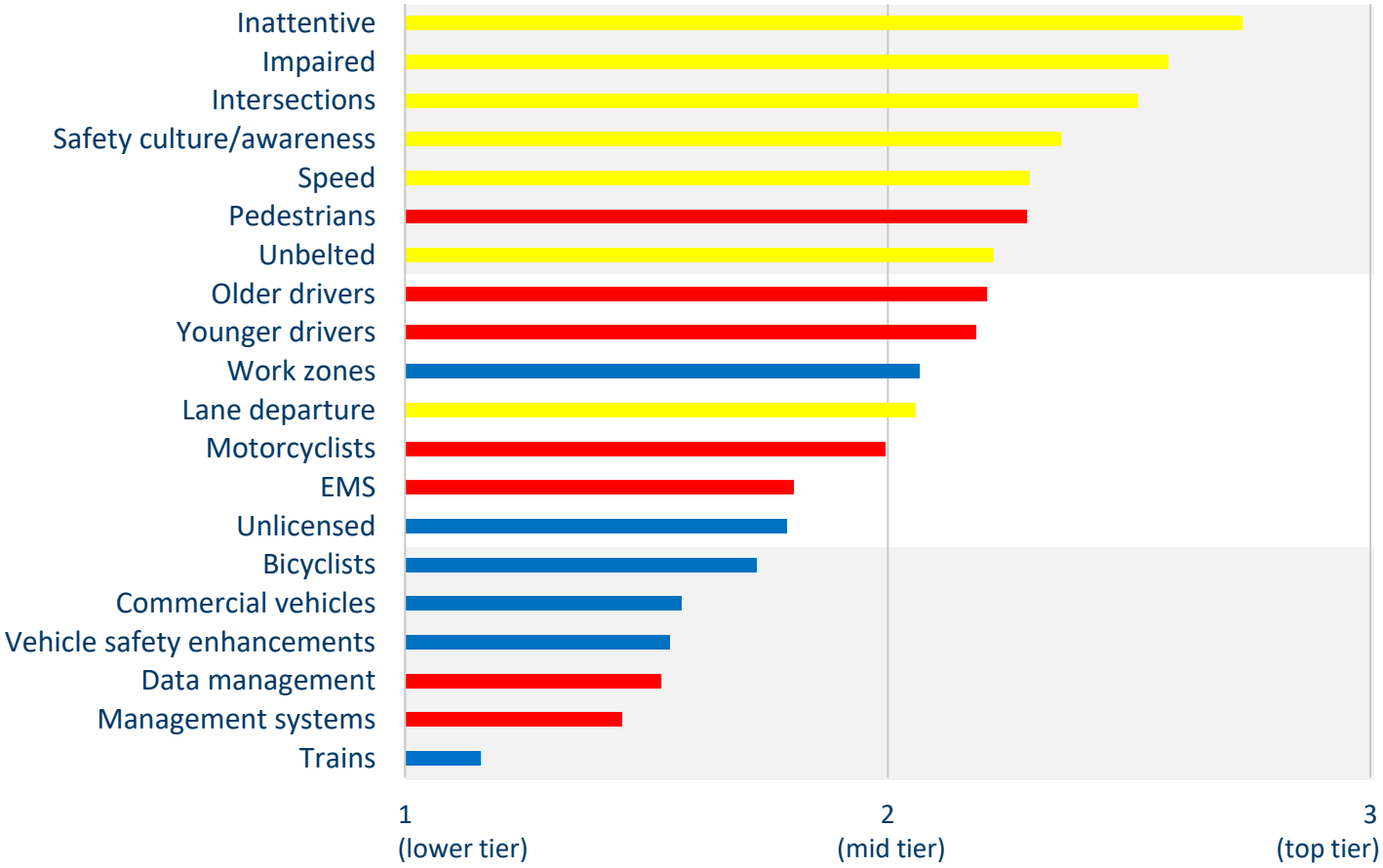
2014-2019 (PREVIOUS) Focus Area Priorities



- Keep all emphasis areas, but identify priorities
- Look at emerging areas – what's next for making a difference?
- Bullseye – Starting point to help identify new framework
- SHSP Steering Committee – reviewed input and determined new framework for 2020-2024 priorities

Input from TZD Workshops – Focus Area Priorities

Average statewide rating by focus area

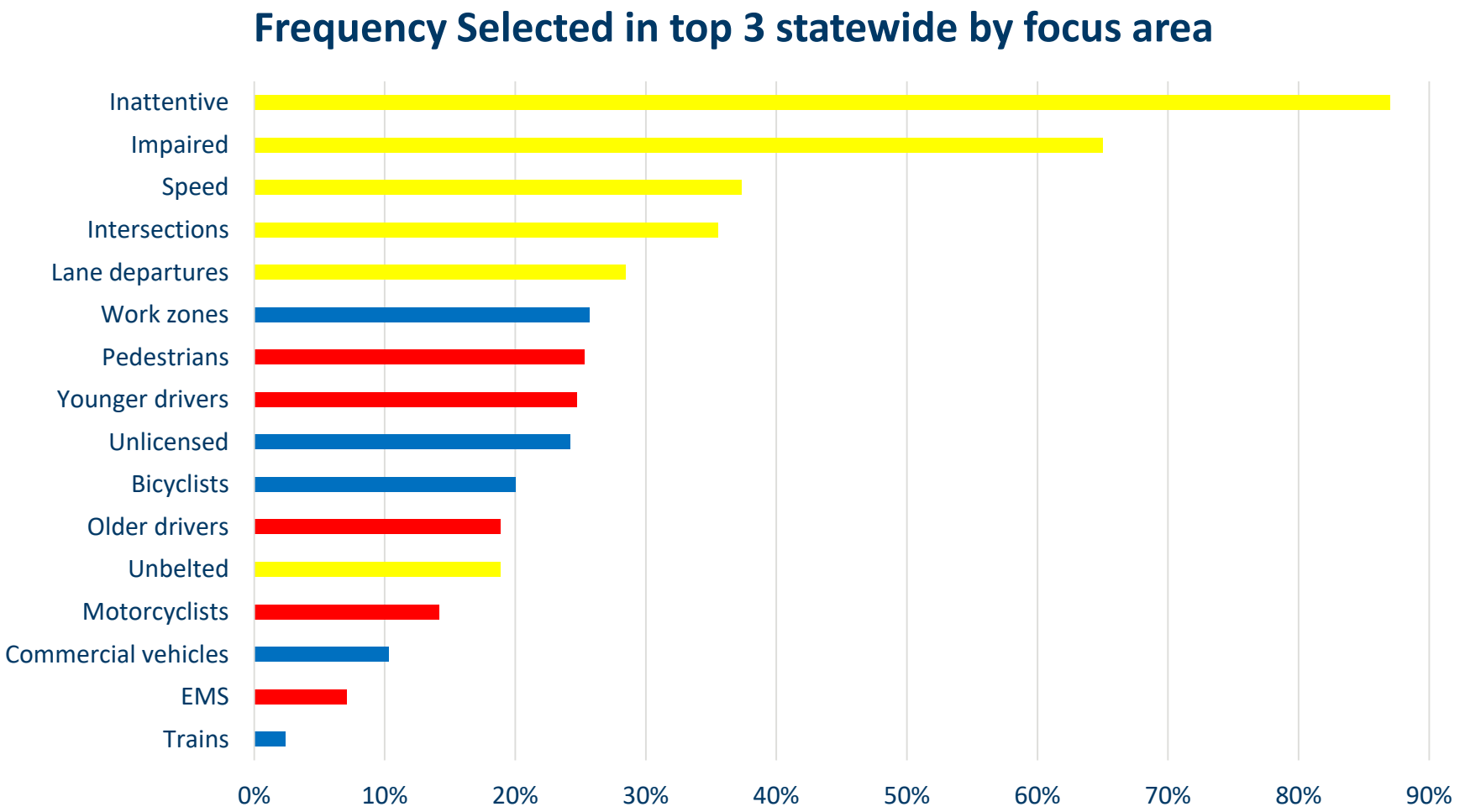


Total participants = 546 respondents; West Central workshop not included

- **Pedestrians** (mid to top)
- **Work zones** (low to mid)
- **Unlicensed** (low to mid)

- **Lane departure** (top to mid)
- **Data management** (mid to low)
- **Management systems** (mid to low)

Input from Public Survey – Focus Area Priorities



Total survey respondents = 2,636

Survey did not ask about:

- Traffic safety culture and awareness
- Vehicle safety enhancements
- Data management
- Management systems

2020-2024 SHSP: New Focus Area Groupings

- **CORE** – These focus areas are currently important and will continue to be important
  - Highly connected to other focus areas
  - Will have specific strategies in the SHSP
- **STRATEGIC** – These focus areas were mid or lower tier priorities in the previous SHSP but are increasing in importance
  - Increasing crash trends, the need for more or new strategies, demographic changes, social and political importance, and geographic differences
  - Will have specific strategies in the SHSP

2020-2024 SHSP: New Focus Area Groupings

- **CONNECTED** – These focus areas are important but don't rise to the level of Core or Strategic
  - Will not have specific strategies identified in the SHSP
  - Will still be addressed in the SHSP through connections to Core and Strategic focus areas
- **SUPPORT SOLUTIONS** – These focus areas are supporting tools and services that contribute to traffic safety
  - Will not have specific strategies identified in the SHSP
  - Strategies identified for other focus areas may include these elements

2020-2024 focus area priorities

Core

- Inattentive drivers
- Impaired roadway users
- Intersections
- Speed
- Lane departure
- Unbelted vehicle occupants

Strategic

- Older drivers
- Pedestrians
- Younger drivers
- Work zones
- Commercial vehicles
- Motorcyclists

Connected

- Unlicensed drivers
- Bicyclists
- Trains

Support Solutions

- Traffic safety education & awareness
- EMS & trauma systems
- Vehicle safety enhancements
- Data management
- Management systems

Action-Oriented Strategies

Strategies Gathered at TZD Workshops

Small Group Activity at Workshops

- Brainstormed strategies in specific focus area groups
- Selected top 3-5 strategies per small group
- Some were more specific tactics

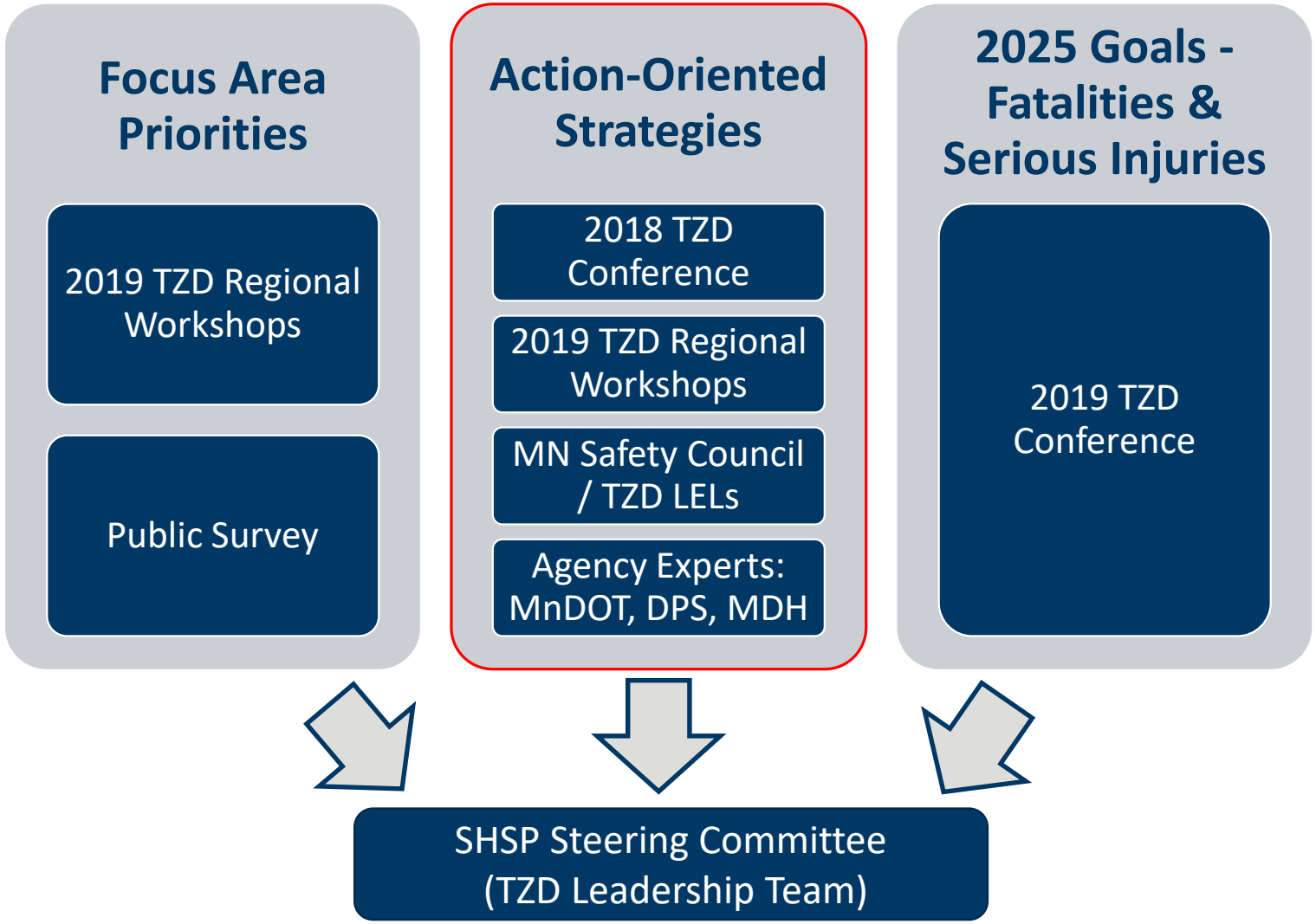
Compiled Workshop Strategies

- Grouped similar strategies and tactics together
- To show ideas suggested most often

Activity with Steering Committee (TZD Leadership Team)

- Reviewed all strategies generated at workshops
- Selected “must-dos” for the SHSP

Blending Input from Stakeholders and Agency Experts



Action-Oriented Strategies

Format

- **Strategy:** High level strategy that conveys a broader objective.
- **Tactics:** Actions to accomplish the strategy.

Example

- **Strategy 1:** Design roadways to reduce the frequency and severity of lane departure crashes
  - T1.1 Install rumble strips and mumble strips on centerlines and edges of roads, especially along two-lane roadways
  - T1.2 Install improved pavement markings, such as wet reflective edge stripes and wider markings
  - T1.3 Maintain clear zones to reduce obstructions and fill in drop-offs on high speed corridors

Prioritizing Strategies and Tactics

- TZD Leadership Team identified two type of priorities
- Year 1 Priority Tactics
  - Items not being done now but a commitment to start
  - Summary action plans
  - 35 Tactics in 11 Focus Areas + Traffic Safety Culture
    - None in Lane Departure
- 5-Year Priority Strategies
  - Will receive extra attention over the life of the SHSP
  - 12 Strategies in 11 Focus Areas
    - None in Commercial Vehicles

Implementation

- Strategies/Tactics are the backbone to implementing the SHSP
- How Your Agency Can Implement the SHSP
  - Incorporate relevant strategies/tactics into your **PLANS**
  - Incorporate relevant strategies/tactics into your **POLICY**
  - Incorporate relevant strategies/tactics into your **PROJECTS/PROGRAMS**

SHSP Contact Information

Brad Utecht

Transportation Planning Director
Bradley.Utecht@state.mn.us

(651) 366-4835

Traffic Safety Culture		
On-going	TSC.1 Share fatal and serious injury crash report details with multi-disciplinary review committees. Encourage localities without a review committee to form a multi-disciplinary group.	
	TSC.2 Increase coordination and collaboration efforts between zero-fatality programs in the state.	
Years 1-2	TSC.3 Restart the Traffic Safety Culture committee. Initial projects may include participation in the Montana traffic safety culture pooled fund study and expanding the Park Rapids pilot project to other regions.	*
	TSC.4 For school-based health educators and school resource officers, develop and distribute updated age-appropriate informational resources on safe behaviors while walking/bicycling in or near roadways and while riding in passenger vehicles.	
	TSC.5 Initiate data collection and analysis to identify high priority traffic safety risks facing underserved communities.	*

* Year 1 Priority Tactic

++ 5 Year Priority Strategy

Core Focus Areas

Inattentive Drivers

Strategy 1: Improve education and awareness about inattentive driving	
On-going	T1.1 Increase education about inattentive driving and provide background data and statistics that highlight the dangers of inattentive driving. Educate on other distractions in addition to cell-phone use related to inattentive driving. Provide education to people of all ages (not just teen drivers). *
	T1.2 Increase education on drowsy driving and provide background data and statistics on the dangers of drowsy driving. Enumerate in education materials the warning signs of drowsy driving and offer prevention tactics to avoid drowsy driving.
Years 1-2	T1.3 Increase funding to create and distribute messaging and resources for education on inattentive driving.
Strategy 2: Provide more enforcement and legislative actions to lower inattentive driving rates	++
Years 1-2	T2.1 Increase the use of high-visibility law enforcement presence to target distracted drivers. Evaluate funding levels and provide more funding for enforcement efforts if appropriate. *
	T2.2 Encourage judges to reduce leniency in sentencing distracted driving offenders. *
	T2.3 Update penalties for distracted driving violations that result in death or serious injury.
Strategy 3: Support the advancement of technology improvements and road design to reduce the impact of inattentive driving	
On-going	T3.1 Encourage use of cell phone settings and apps that limit incoming distractions while driving. Encourage insurance companies to offer incentives for drivers to use these settings or apps.
	T3.2 Encourage the use of existing motor vehicle technology designed to reduce distracted driving crashes, such as lane departure warning alerts, forward collision warning alerts, and automatic braking.
Years 3-5	T3.3 Support the transition to emerging motor vehicle technology to reduce human error, such as autonomous vehicles.

Impaired Roadway Users

Strategy 1: Increase public awareness to reduce impaired driving		
On-going	T1.1 Increase public awareness of the dangers of impaired driving through media campaigns to target issues and high-risk driver groups identified through crash data analysis and market research.	
	T1.2 Use full range of print, digital, broadcast and electronic material distribution methods for public awareness purposes.	
	T1.3 Tailor messaging to emphasize personal responsibility so all drivers know that even a little impairment can be dangerous.	
	T1.4 Include evidence-based information about the effects of drugs other than alcohol on driver impairment. Improve data collection and analysis for impaired driving offenses related to drugs other than alcohol.	
Years 1-2	T1.5 Develop a uniform public complaint reporting form for use in a "*See Something, Say Something*" initiative to identify suspected habitually impaired drivers and to identify alcohol retailers that serve underage persons.	
Strategy 2: Support community-based initiatives to keep impaired drivers off the road		
On-going	T2.1 Promote expansion and use of safe ride home options.	
Years 1-2	T2.2 Implement best practice models of privately-sponsored public transit safe ride programs.	
	T2.3 Develop a template for community-based Place of Last Drink (POLD) data collection and analysis.	*
	T2.4 Identify and implement successful approaches to partnering with alcohol retailers and servers to prevent over-serving and to reduce alcohol sales to underage persons. Increase community-based efforts to prevent alcohol consumption by underage persons.	
	T2.5 Expand availability of Responsible Beverage Server Training (RBST) to all counties.	*
Years 3-5	T2.6 Identify and pilot test best practice models of effective, cost efficient alcohol retailer-based safe ride home programs.	
++ **Strategy 3: Provide funding, training and technology for impaired driving law enforcement**		
On-going	T3.1 Conduct high-visibility, coordinated statewide impaired driving enforcement events linked with paid and earned media. Identify areas with high rates of impaired driving to prioritize enforcement efforts.	
	T3.2 Conduct locally coordinated Driving While Impaired (DWI) saturation patrols. Use the Office of Traffic Safety (OTS) DWI Dashboard to identify high risk locations and time periods for impaired driving crashes.	
	T3.3 Identify and pilot test promising technology for roadside detection of suspected use of drugs other than alcohol.	
	T3.4 Increase Advanced Roadside Impaired Driving Enforcement (ARIDE) and Drug Recognition Expert (DRE) training opportunities for law enforcement personnel.	
Years 1-2	T3.5 Encourage law enforcement agencies to establish zero tolerance guidance for officers when encountering suspected impaired drivers.	
	T3.6 Compile baseline county-specific data on drug-related crashes, DWI-Drug citations, and chemical test results for tetrahydrocannabinol (THC) and other drugs.	*

Impaired Roadway Users

Strategy 4: Improve DWI law, adjudication process, and post-conviction sanctions to deter impaired driving

On-going	T4.1 Identify and support legislative solutions that strengthen the DWI law and make it more effective at deterring impaired driving and reducing repeat offenses.
Years 1-2	T4.2 Convene a NHTSA Safety Program Assessment of the OTS Impaired Driving Program to identify strengths, weaknesses and opportunities for improvement. *
	T4.3 Study the effectiveness of screening and brief intervention techniques for DWI offenders.
Years 3-5	T4.4 Provide supplemental funding for counties interested in establishing DWI post-conviction Victim Impact Panels.
	T4.5 Establish more DWI Courts.

Intersections

++	**Strategy 1: Improve safety through intersection roadway design changes and alternative intersections**	
	On-going	T1.1 Increase education and public outreach about alternative intersection designs and how to use them. Support data-driven solutions, and explore ways to communicate the safety benefits of alternative intersections.
		T1.2 Incorporate transit, bicyclists, and pedestrians in intersection design. Provide facilities to accommodate people walking, rolling, and bicycling to limit conflicts with vehicles.
	Years 1-2	T1.3 Design intersections to lower crossing conflict points, manage access points, and reduce the number of severe crashes at intersections. Apply alternative design to intersections with a high frequency of severe crashes or systemic risk factors. *
		T1.4 Apply alternative intersection designs on a corridor level approach.
	Strategy 2: Improve corridor and signalized intersection safety through intersection traffic design and signal timing	
	On-going	T2.1 Improve signal timings at signalized intersections. Update signalized corridor timing, coordination, and phasing to reduce stops.
	Years 1-2	T2.2 Improve the visibility of vehicles and pedestrians at intersections with lighting and unobstructed sightlines.
		T2.3 Improve signing and pavement markings. Incorporate technologies and proven countermeasures as appropriate.
		T2.4 Provide leading pedestrian intervals to improve pedestrian safety where appropriate. Consider installing blank out signs to restrict turns where appropriate during pedestrian intervals.
++	**Strategy 3: Update planning policy**	
	Years 1-2	T3.1 Reduce over-building the roadway and apply performance-based practical design based on existing demand and safety risks.
		T3.2 Facilitate coordination between state, regional, and local agencies for intersection projects. Participate with all user groups so the project fits the community.
		T3.3 Support improvements with a data-driven approach by linking high-crash intersections and corridors with design-related issues. *
	Years 3-5	T3.4 Research enhanced analytics and data collection for intersection-based crashes to be used for future safety decisions.
	Strategy 4: Increase education and enforcement of red light running	
	On-going	T4.1 Increase red-light running enforcement. Identify locations with high rates of red light running to focus enforcement on. Use technology to assist with enforcement such as blue light alert systems and enhanced red-light cameras (i.e., camera-assisted enforcement).
		T4.2 Increase public awareness of risks associated with red light running. Crashes caused by red light running at signalized intersections can involve pedestrians and bicyclists, in addition to other vehicles.
	Years 1-2	T4.3 Identify locations with high rates of red light running to target enforcement. *
	Years 3-5	T4.4 Encourage legislative changes to allow automated red-light enforcement cameras.

Speeding

Strategy 1: Increase education and awareness about safe speeds and aggressive driving	
On-going	T1.1 Increase education efforts about the dangers of speeding and aggressive driving, especially among younger drivers. Utilize data and statistics along with a case study narrative to deliver the point effectively.
	T1.2 Increase media messaging to spread awareness that unsafe speed kills.
	T1.3 Use education and messaging to change culture of normalized excessive speeding.
++ **Strategy 2: Utilize enforcement to reduce speeding**	
On-going	T2.1 Increase high visibility enforcement to reduce speeding. Provide more funding to law enforcement to support additional speed reduction efforts.
Years 1-2	T2.2 Utilize speed camera-assisted enforcement as appropriate. Place signs in areas with the speed cameras to notify drivers of their presence.
	T2.3 Encourage legislative changes to allow for automated speed enforcement. *
Years 3-5	T2.4 Improve the data management of speed-related crashes. Educate law enforcement to update MnCrash once crash reconstruction is complete.
Strategy 3: Improve road design and speed limit signing	
Years 1-2	T3.1 Use geometric elements and traffic calming techniques to design roads for appropriate speeds. Utilize road diets where appropriate. *
	T3.2 Use appropriate speed limits that account for roadway design, traffic, land use, and context.
	T3.3 Install dynamic speed feedback signs , preferably with geometric improvements, to gain compliance with speed limits where speeds/crashes are an issue.
Years 3-5	T3.4 Implement variable speed limits to account for changing driving conditions. Encourage legislative changes to allow for regulatory variable speed limits.

Lane Departure

++ **Strategy 1: Design roadways to reduce the frequency and severity of lane departure crashes**	
On-going	T1.1 Install rumble strips and mumble strips on centerlines and edges of roads, especially along two-lane roadways, to tactically warn drivers if their vehicles leave the desired travel area.
	T1.2 Install improved pavement markings, such as wet reflective edge stripes and wider (i.e. 6" instead of 4") markings.
	T1.3 Maintain clear zones to reduce obstructions and fill in drop-offs on high speed corridors. Maintain a clear down-slope if within a clear zone. Maintain traversable driveways and embankments to reduce stopping or rolling hazards.
	T1.4 Design improved geometry for highway curves to reduce the chance of vehicles exiting the roadway (where low-cost treatments are ineffective).
	T1.5 Install median cable barrier along divided highways with narrow medians or center buffers with tubular delineators along two-lane highways.
Years 3-5	T1.6 Install delineators along high volume, high risk corridors to assist drivers, especially in inclement weather or nighttime conditions.
Strategy 2: Evaluate new safety features	
Years 1-2	T2.1 Support the use of existing automated driving assist systems that assist drivers maintain their lane.
Years 3-5	T2.2 Support long-range planning efforts to prepare for the emergence of highly automated vehicles to leverage the safety benefits to reduce human error
	T2.3 Implement ITS dynamic warning signs and other ITS technologies to reduce lane departure at locations with a sustained crash pattern.

Unbelted Occupants

Strategy 1: Increase public awareness to improve the use of seat belts and child restraints		
On-going	T1.1 Increase public awareness of the high risk associated with failure to wear seat belts and transporting children without proper restraints through paid and earned media campaigns targeting high-risk driver groups as well as underserved communities.	
	T1.2 Tailor messaging so all drivers understand their liability for ensuring all passengers are properly restrained.	
	T1.3 Build strong partnerships with the medical community and insurance providers to increase public understanding of the risk of increased injury severity for failure to wear seat belts or to properly restrain children.	
Years 1-2	T1.4 Conduct data-driven analysis to bring awareness about the risk of increased injury severity for not being properly restrained in a traffic crash.	*
	T1.5 Identify best practice models of employer-based workplace policies on seat belt use.	
	T1.6 Identify best practice models of effective school and community-based outreach methods that target teen drivers. Incorporate results in teen-focused TZD events and materials.	
++ **Strategy 2: Provide funding and training for seat belt law enforcement**		
On-going	T2.1 Conduct high visibility statewide seat belt enforcement events linked with paid and earned media.	
Years 1-2	T2.2 Evaluate crash data to identify locations and time periods at greatest risk of unrestrained vehicle occupants.	*
	T2.3 Increase supplemental funding for localized seat belt saturation enforcement details that target known high risk locations and time periods.	
	T2.4 Encourage law enforcement agencies to establish zero tolerance guidance for officers when encountering suspected unbelted drivers. Conduct outreach to courts to encourage consistent adjudication of seat belt and child passenger seat citations.	
	T2.5 Update Occupant Protection Usage and Enforcement (OPUE) curriculum for law enforcement officers.	
Strategy 3: Improve seat belt and child passenger safety law and training programs		
On-going	T3.1 Convene a NHTSA Safety Program Assessment of the OTS Occupant Protection Program to identify strengths, weaknesses and opportunities for improvement.	
Years 3-5	T3.3 Add training on the importance of proper use of child passenger safety seats to driver education curriculum standards.	
	T3.4 Increase funding support for outreach training to families, caregivers and child care professionals on the proper use of child safety restraints.	

Strategic Focus Areas

Older Drivers

++	**Strategy 1: Increase public awareness of the safety risks faced by older drivers**	
Years 1-2	T1.1 Identify best practice examples that promote self-regulation of driving behavior and self-awareness of declining physical and cognitive abilities.	
	T1.2 Develop and distribute updated informational resources on safe driving behaviors and alternative modes of travel for social service organizations, medical professionals, and families of at-risk drivers.	
	T1.3 Develop educational resources focused on alternative intersection and roadway design concepts and practices.	
	T1.4 Update informational resources for law enforcement, medical professionals and families of at-risk drivers on assessing a person's fitness to drive.	*
	T1.5 Increase the promotion of DVS-approved crash prevention/defensive driving courses for drivers age 55 or older. Promote the use of *CarFit* programs to promote self-awareness of safety, comfort and mobility needs.	*
	T1.6 Work with medical professionals to educate patients on base-line cognitive abilities required for driving.	
	Strategy 2: Evaluate fitness to drive	
Years 1-2	T2.1 Design and implement a roadside evaluation protocol for law enforcement to determine fitness to drive for drivers of all ages.	*
	T2.2 Identify best practices in age-appropriate vision screening.	
	T2.3 Evaluate patterns and trends of crashes involving potential deficiencies in driver fitness.	
Years 3-5	T2.4 Identify and encourage legislative changes that establish tests for base-line cognitive and physical abilities required for driving.	
	Strategy 3: Improve traffic design to benefit older drivers	
On-going	T3.1 Continue to research and implement best practices for traffic signage and pavement markings to improve legibility and visibility.	
	Strategy 4: Improve alternative transportation options	
Years 1-2	T4.1 Increase funding to make community-based mobility alternatives more accessible, especially in rural areas.	

Pedestrians	
++ **Strategy 1: Increase education and awareness for drivers and pedestrians**	
On-going	T1.1 Conduct a high profile pedestrian education campaign with increased media coverage targeted at drivers and pedestrians. Include curriculum on *Walk! Bike! Fun!* and *Vision Zero* programs in addition to current laws.
	T1.2 Promote pedestrian-related laws in an easy-to-understand manner for public outreach.
Years 1-2	T1.3 Develop local/community partnerships like advocacy groups and parent-teacher organizations. Create local strategies in partnership with underserved communities and communities with high pedestrian demand.
	T1.4 Promote *Safe Routes to School* guidelines about education, encouragement, engineering, enforcement, evaluation, and equity.
Strategy 2: Improve design and maintenance for pedestrian safety	
On-going	T2.1 Establish policies with all agencies to maintain pedestrian facilities for all four seasons, including proper snow and ice removal. Expedite maintenance of sidewalks to deter people from walking in the road.
	T2.2 Provide appropriate crossing time at signalized/active crossings. Consider timing strategies to better accommodate pedestrian needs.
Years 1-2	T2.3 Design roads and facilities for pedestrians, such as sidewalks, mid-block breaks, and bump outs. Identify areas with inadequate pedestrian facilities that could be improved. Provide the appropriate number of safe pedestrian crossings to accommodate pedestrian needs. *
	T2.4 Design for appropriate road capacity to reduce crosswalk length and crosswalk conflicts. Utilize road diets (4-lane to 3-lane conversions) where appropriate. *
	T2.5 Install proper signing at crosswalks and evaluate current signing standards. Increase the use dynamic signing options at mid-block crossings where there are high volumes of pedestrian traffic. Promote the use of advance stop bars and/or yield lines at all crosswalks.
	T2.6 Improve lighting around pedestrian facilities to increase pedestrian visibility. *
Years 3-5	T2.7 Evaluate passive pedestrian detection technology.
Strategy 3: Promote policy changes that impact pedestrian safety	
On-going	T3.1 Increase funding for pedestrian facilities.
Years 1-2	T3.2 Improve pedestrian volume data collection to identify trends and numbers for health, law, plans, and policies.
	T3.3 Develop pedestrian plans and *Complete Streets* plans at local levels.

Younger Drivers

Strategy 1: Increase public awareness to improve the safety of younger drivers		
Years 1-2	T1.1 Develop age-appropriate teen and young adult-focused content for the annual *Toward Zero Death* conference. Provide funding to supplement the cost of a cohort of teens and young adults to attend the conference.	*
	T1.2 Evaluate teen driver-involved crash reports to determine if seat belt use varies under different circumstances. Incorporate findings into driver education curriculum and public information initiatives focused on younger drivers.	
	T1.3 Increase public awareness of provisions in the Graduated Driver Licensing law for younger drivers.	
	T1.4 Increase outreach programs to teenagers to educate on teen-driver safety. Conduct a teen-focused *Toward Zero Deaths* (TZD) summit.	*
Years 3-5	T1.5 Translate the *Minnesota Driver's Manual* into Hmong, Russian, Somali and Vietnamese for use by teens and adults with limited English proficiency to reinforce safe driving habits after earning a driver license.	
++ **Strategy 2: Improve driver education and the Graduated Driver License law**		
Years 1-2	T2.1 Review the current driver education program and identify ways to strengthen and improve it.	*
	T2.2 Evaluate the suitability of driver education simulations currently in use.	
	T2.3 Evaluate the long term driving performance of drivers who complete local option driver improvement (traffic school) classes in lieu of paying fines related to traffic offenses.	
	T2.4 Evaluate the first 3-year driving performance of young drivers who were subject to updated Graduated Driver License (GDL) requirements that began in 2015.	
	T2.5 Review current GDL law to identify ways to strengthen and improve it. Encourage legislative changes that reduce the risk of harm to younger drivers, including driver education requirements and parental supervision elements of the GDL law.	*

Work Zones

++	**Strategy 1: Reduce speeding within work zones**	
On-going	T1.1 Use appropriate enforcement to reduce speeding and distracted driving in work zones, especially during peak travel periods. Develop and deploy strategies to best enforce work zones.	
	T1.2 Increase visible enforcement presence, possibly with decoy squad cars. Increase funding for additional law enforcement resources.	
Years 1-2	T1.3 Encourage legislative changes to legalize automated camera enforcement in work zones.	*
	T1.4 Install automated/enhanced speed enforcement or camera-assisted enforcement in work zones.	*
	T1.5 Install dynamic speed feedback signs to alert drivers if they are speeding.	
	T1.6 Evaluate travel speeds within work zones to apply appropriate speed limits. Incorporate "Workers Present" speed limits in work zones during times when workers are present.	
Years 3-5	T1.7 Apply physical or geometric features to calm traffic in work zones.	
Strategy 2: Incorporate work zone notifications and education		
On-going	T2.1 Increase public education and training for driving in work zones. Create greater public awareness about moving over for disabled vehicles, law enforcement, construction, etc. (*Ted Foss Law*).	
	T2.2 Apply consistent and appropriate warning signs in advance of work zones, especially when workers are present.	
Years 1-2	T2.3 Use advance warning signs / DMS boards for changing work zone conditions, travel times, and incidents within work zone.	
Years 3-5	T2.4 Establish best practices of radar-based audible and visible warning systems to warn workers of speeding vehicles. Consider installing warning systems within work zones.	
Strategy 3: Use innovative work zone planning techniques		
Years 1-2	T3.1 Change traditional work schedules based on traffic trends. Avoid closing lanes when excessive queuing could occur.	
	T3.2 Use full road closures to avoid traffic conflicts and to accelerate work where appropriate.	
	T3.3 Maintain accessible pedestrian routes with Alternative Pedestrian Routes (APR) and Temporary Pedestrian Access Routes (TPAR) and provide clear bicycle detour routes. Protect pedestrian routes if they are detoured into the roadway.	
Years 3-5	T3.4 Work with phone applications or develop an application to distribute work zone alerts when vehicles approach work zones.	
Strategy 4: Design safer work zones		
Years 1-2	T4.1 Increase separation between workers and vehicles with lane shifts, crossovers, barriers, or other techniques.	
	T4.2 Install vision screens to limit gawker effect.	*
	T4.3 Use automated flagger devices or temporary signals to limit exposure between vehicles and workers.	
	T4.4 Consider work zone intrusion notification systems, such as (portable) rumble strips.	*

Commercial Vehicles

Strategy 1: Improve enforcement for commercial vehicles	
On-going	T1.1 Improve enforcement of unsafe commercial vehicles and their operators, and provide training for local law enforcement focused on commercial vehicles.
Years 1-2	T1.2 Encourage more effective communication about motor vehicle enforcement between law enforcement agencies and commercial vehicle enforcement personnel.
	T1.3 Provide additional law enforcement at commercial vehicle inspection sites to assist with driver impairment checks. *
Years 3-5	T1.4 Require agriculture trucks follow commercial vehicle inspection requirements. *
Strategy 2: Improve the network of commercial vehicle rest areas	
Years 3-5	T2.1 Provide additional truck parking facilities along highways. Increase the efficiency of existing truck parking spaces. Provide additional information systems to inform truck drivers of available spaces.
	T2.2 Coordinate with commercial properties along highways to support auxiliary truck parking. Evaluate using an insurance pool to mitigate liability concerns with property owners.
Strategy 3: Increase education on commercial vehicle safety	
On-going	T3.1 Increase outreach to underserved communities on licensing requirements.
Years 1-2	T3.2 Provide more public awareness for blind spot dangers for trucks, such as the *No* Zone campaign.
	T3.3 Support education for truck drivers and mechanics about the federal *Whistleblower Protection Act*. Encourage reporting of companies that pressure employees to break federal commercial vehicle laws, including hours of service limits.
	T3.4 Educate trucking association members on work zone safety.
Strategy 4: Support new vehicle technology	
Years 3-5	T4.1 Study the potential safety implications of truck platooning technology, wherein multiple commercial vehicles travel in close proximity to each other.

Motorcyclists

Strategy 1: Increase public awareness and education to improve motorcycle safety		
On-going	T1.1 Develop and distribute updated informational resources on safe driving behaviors by motorcycle drivers and passengers, emphasizing both legal requirements and best practices. Coordinate with motorcycle community groups to educate riders on safe riding techniques and self-protection.	
Years 1-2	T1.2 Develop and distribute updated informational resources on sharing the road with motorcycles, emphasizing the need for vigilance at intersections.	*
	T1.3 Encourage experienced motorcycle riders to take the OTS Intermediate Rider Course as refresher training.	
	T1.4 Evaluate motorcycle crash patterns and trends. Incorporate the findings into driver education curriculum and public information initiatives.	
	T1.5 Include injury outcome data analysis and other evidence-based information about the risk of increased injury severity for motorcycle riders not wearing head protection when involved in a traffic crash.	
	T1.6 Work with motorcycle dealerships to sell right-sized bikes and to encourage rider training to buyers.	
	T1.7 Identify best practices in rider education content and delivery mechanisms for incorporation into Minnesota rider education programming.	
++	**Strategy 2: Improve motorcycle safety-related policies**	
Years 1-2	T2.1 Convene a NHTSA Safety Program Assessment of the OTS Motorcycle Safety Program to identify strengths, weaknesses and opportunities for improvement.	*
	T2.2 Evaluate the first 3-year driving performance of motorcycle drivers who complete the Basic Rider Course to identify Minnesota-specific topics that need greater emphasis in the Motorcycle Safety Foundation curriculum.	
	T2.3 Review current legislation to identify opportunities to encourage legislative changes (such as universal helmet law) that reduce the risk of harm to motorcycle riders.	*
Years 3-5	T2.4 Identify and remove barriers to obtaining a motorcycle endorsement.	
Strategy 3: Improve highway design and maintenance policies		
Years 1-2	T3.1 Improve highway work zone signage policy and practice to increase motorcyclists' awareness of temporary road conditions.	
	T3.2 Update roadway pavement maintenance priorities to emphasize remedying conditions particularly difficult for motorcyclists.	
Years 3-5	T3.3 Design motorcycle forgiving infrastructure along routes with high motorcycle traffic.	

MINNESOTA POLLUTION CONTROL AGENCY

2020

Assessing Urban Air Quality

What does this project do?

Urban areas have many sources of air pollution. Increasingly, urban residents are concerned about the effects of air pollution on human health. Understanding small-scale differences in air pollution is essential to minimizing exposure to harmful air pollutants, particularly among vulnerable populations such as children and the elderly.

The 2017 LCCMR recommended and Legislature appropriated $700,000 to install new, high-tech low-cost sensors, or monitors, in St. Paul and Minneapolis. These monitors can measure multiple types of harmful air pollution at once, and can sense small-scale differences in various air pollutants.

What work has been done so far?

- A network of 44 air quality sensors installed across St. Paul and Minneapolis.
- These sensors monitor fine particles, ozone, nitric oxide, nitrogen dioxide, sulfur dioxide and carbon monoxide.
- There is at least one monitor in each ZIP code in these two cities, and some larger ZIP codes have more than one monitor.
- In St. Paul, most of the air quality monitors are placed on light poles in school parking lots.
- In Minneapolis, these sensors are located on Xcel energy wooden light poles in neighborhoods.
- Data measured by the monitors is collected at MPCA and displayed on our website.

What questions will be answered by this project?

- Are there differences in pollution concentrations between zip codes in the urban core?
- Are there specific areas with unusually high concentrations?
- Are there similar patterns of high pollution concentrations across zip codes as high asthma hospitalization rates?

What are the expected outcomes?

The innovative monitoring approach of this program is replicable, and will achieve three objectives:

- Improve understanding of air pollution variability within densely populated areas. This information will be used to evaluate pollution reduction opportunities, and to compare with data on population vulnerability and health outcomes.
- Evaluate the use of new technologies in air pollution sensors as an innovative, cost-effective monitoring strategy.
- Expand the availability of ambient air quality data to inform decisions, especially regarding public health improvement opportunities.

What are the health impacts of these air pollutants?

Pollutants	Sources	Health effects	Environmental effects
Sulphur Dioxide (SO2)	• Industry, coal fired power plants • Burning of high Sulphur fuels	• Respiratory illness • Cardiovascular illness	Precursor to acid rain – damages lakes, rivers, plants, buildings
Nitrogen Oxides (NOX)	• Industry • Vehicles	• Respiratory illness • Cardiovascular illness	Nitrogen deposition leading to over fertilization and eutrophication
Particulate matter	• Industry • Vehicles	• Penetrate into lungs, asthma • Finer particles can enter bloodstream	Affects Visibility and AQI
Carbon Monoxide (CO)	• Vehicles	• Headaches • Fatigue	Contributes to formation of smog
Ozone (O3)	• Secondary formation from reactions of Nitrogen oxides and VOCs	• Respiratory illness • Eye and throat irritant	Reduced crop production and forest growth. It is a smog precursor

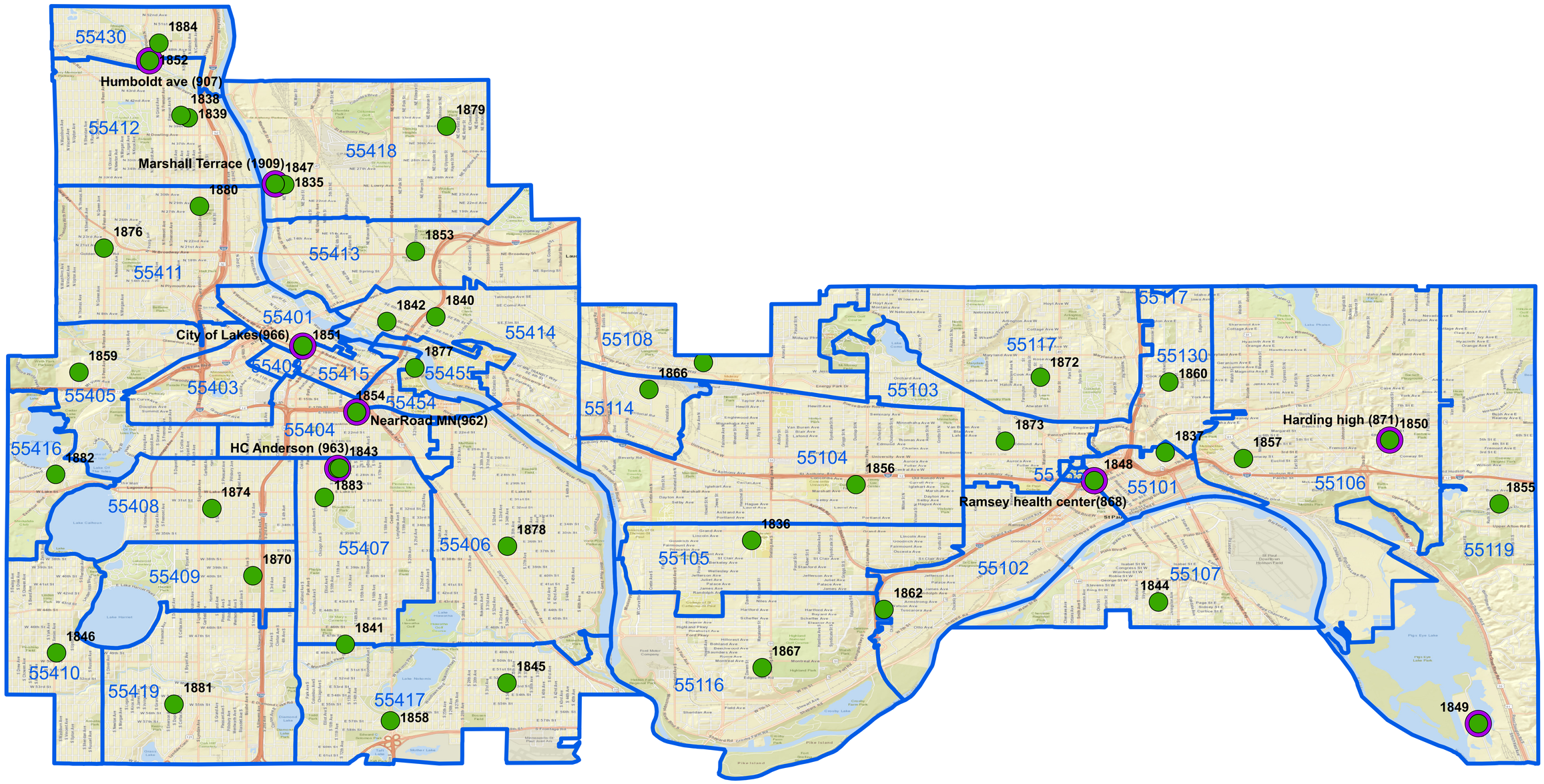
Contact:

Dr.Monika Vadali
MPCA Environmental Research Scientist
Phone: 651 757 2776
Email: monika.vadali@state.mn.us
Website: www.pca.state.mn.us/urbanair

Assessment of Urban Air Quality

(ENTRF, M.L. 2017 LCCMR Grant)

Study Area - Minneapolis / St. Paul



Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

0 0.75 1.5 3 4.5 6 Miles

N

Public Transit and Human Services Transportation Coordinated Plan Update

Presented to Transportation Advisory Committee

November 6, 2019

METROPOLITAN COUNCIL

Plan Purpose

- Plan for improving transportation services for older adults and people with disabilities in the 7-county region
- Increase coordination among services
- Federally-required plan
- Supports other planning done at county and state levels

METROPOLITAN COUNCIL

Plan Application

- Guide federal funding investments in projects that improve mobility for older adults and people with disabilities
- MnDOT runs statewide application process for FTA Section 5310 funding
- Funds can be used for projects such as

- purchasing vehicles
- providing non-profit shuttle services
- improved accessibility such as sidewalks or accessible pedestrian signals
- mobility management

METROPOLITAN COUNCIL

2019 Plan Update

- Steering Committee helped to inform and guide the plan update
- Stakeholder workshop held to identify current needs and strategies
- Involved the Council's Transportation Accessibility Advisory Committee

METROPOLITAN COUNCIL

2019 Plan Structure

- Demographics
- Existing Conditions
- Needs Assessment
- Strategies

Primary Service Barriers

1. Lack of adequate funding
2. Lower service levels
3. Limited same-day service
4. Service fragmentation
5. Challenges of using fixed-route transit
6. Limited awareness

METROPOLITAN COUNCIL

Three Main Categories of Strategies

The plan includes strategies to address the identified barriers in three main areas:

1. Coordinate and Consolidate Transportation Services and Resources
2. Mobility Strategies
3. Community, Training, and Organizational Support

METROPOLITAN COUNCIL

Draft Plan Schedule

- Draft plan posted online for public review & comment: By 11/12
- Public review & comment period: 45 calendar days minimum
  - Comment period concurrent with TAC/TAB committee process
- Info presentations to stakeholder groups about the public comment period
- Council committee process: Nov 2019 – Jan 2020
- Final Council approval, pending comments/changes: Jan 2020

METROPOLITAN COUNCIL

Questions?

Heidi Schallberg, Senior Planner

Heidi.Schallberg@metc.state.mn.us

651-602-1721

Information Item

DATE:	October 25, 2019
TO:	Technical Advisory Committee
PREPARED BY:	Joe Barbeau, Senior Planner (651-602-1705) Steve Peterson, Manager (651-602-1819) Elaine Koutsoukos, TAB Coordinator (651-602-1717)
SUBJECT:	2020 Regional Solicitation: Bridge Scoring Weighting

In recent months, TAB has discussed whether there is a need to dedicate a minimum amount of funding to the Bridges application category of the Regional Solicitation. The draft application that was released for public review removed the $10 million minimum for the bridge application category so that this application category was consistent with the other four roadway applications, which have no minimum set-asides. The maximum award for a bridge project is proposed to stay at $7 million.

At the October 17, 2019, TAB meeting, staff shared an analysis of past bridge funding through the Regional Solicitation. As part of this discussion, TAB requested TAC feedback on whether the number of points awarded for the condition of the bridge was adequate to make sure that the "worst" bridges were being selected for funding.

At 300 points, the bridge sufficiency rating measure is worth more points than any measure in the five roadways categories (only usage in the two transit categories is worth more). At 400 points (bridge sufficiency rating and load-posting), no criterion in any funding category is valued as much as Infrastructure Condition is in the Bridge category. However, keeping in other scoring measures like multimodal and cost effectiveness helps ensure that bridge projects meet other Transportation Policy Plan goals too.

Table 1 shows the draft weighting for the Bridge application category. In addition, as part of the qualifying requirements, bridge rehabilitation projects must have a sufficiency rating less than 80 and bridge replacement projects must have a sufficiency rating of less than 50. The bridge must also be classified as structurally deficient or functionally obsolete.

Eight bridge applications were submitted in the 2018 Regional Solicitation. The ranked order of the projects based solely on bridge sufficiency rating was nearly identical to the ranked order of the projects based on total score. Only the 3rd and 4th highest projects flipped when comparing the two lists. This suggests that bridge sufficiency rating is one of the primary drivers of the total score and the projects that are selected. This finding is consistent with sensitivity analysis produced after the 2018 funding cycle (see Table 2).

TABLE 1: Scoring Measures and Point Values proposed for the 2020 Regional Solicitation.

Criteria and Measures	Points	%
1. Role in the Regional Transportation System and Economy	**195**	**18%**
Measure A - Distance to the nearest parallel bridge	100	
Measure B - Project Location Relative to Jobs, Manufacturing, and Education	30	
Measure C - Regional Truck Corridor Tiers	65	
2. Usage	**130**	**12%**
Measure A - Current daily person throughput	100	
Measure B - Forecast 2040 average daily traffic volume	30	
3. Equity and Housing Performance	**100**	**9%**
Measure A - Benefits and outreach to disadvantaged populations	50	
Measure B - Housing Performance Score/ affordable housing connection	50	
4. Infrastructure Condition	**400**	**36%**
Measure A – Bridge Sufficiency Rating	300	
Measure B – Load-Posting	100	
5. Multimodal Elements and Existing Connections	**100**	**9%**
Measure A - Transit, bicycle, or pedestrian project elements and connections	100	
6. Risk Assessment	**75**	**7%**
Measure A - Risk Assessment Form	75	
7. Cost Effectiveness	**100**	**9%**
Measure A – Cost effectiveness (total points awarded/total project cost)	100	
Total	**1,100**	

TABLE 2: Sensitivity Analysis for Bridge Application Category in 2018 Regional Solicitation

#	Measure	Max Pts	Rank Change	Cross fund Line	St. Dev
4A	Sufficiency rating	**300**	**5**	**1**	**61**
1A	Distance to Parallel	100	2	0	33
4B	Load-posting	100	0	0	46
7	Cost Effectiveness	100	2	**1**	36
2A	Throughput	100	3	0	24
5	Multimodal	100	3	0	32
6	Risk Assessment	75	0	0	10
3B	Housing	70	0	0	22
1C	Heavy Commercial	65	0	0	5
2B	Forecast ADT	30	3	0	7
1B	Connection to Jobs	30	3	**1**	11
3A	Equity	30	0	0	10