

One Region, Focusing on Our Future

PRELIMINARY RECOMMENDED TARGETS FOR SAFETY
NATIONAL PERFORMANCE MEASURES
JANUARY 18, 2018

### Safety National Performance Measures

- Moving Ahead for Progress in the 21st Century Act (MAP-21), enacted in 2012, established National Performance Management Framework
  - Included instructing FHWA to develop safety performance measures and processes for States and MPOs to establish targets
  - Established timeline for States and MPOs to set targets
  - Continued in Fixing America's Surface Transportation (FAST) Act in 2015
- Safety performance measure rules published by Federal Highway Administration in March 2016 which established:
  - Five performance measures (five-year rolling average) for all public roads
  - Data requirements
  - Methodology for determining significant achievement of targets



#### Five Safety Performance Measures

- Number of fatalities
- Rate of fatalities per 100 million vehicle miles travelled (HMVMT)
- Number of serious injuries
- Rate of serious injuries per HMVMT
- Number of non-motorized (pedestrians/bicyclists) fatalities and serious injuries



### Safety Performance Target Setting

- □ Targets are short-term (2 years)
  - Set for following year based on previous year's data
- Targets set annually
- WisDOT established baseline data/performance targets for State
  - Published in 2017 Annual HSIP Report on August 31, 2017
  - 2 percent reduction for fatality-related safety targets and 5 percent reduction for remaining targets

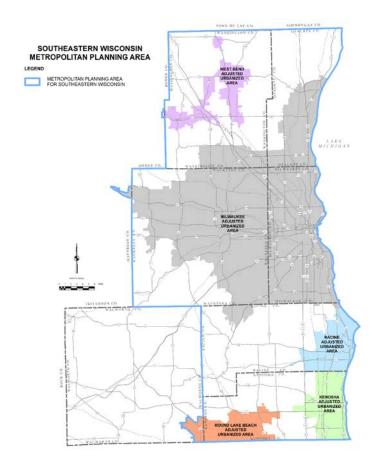
#### YEAR 2014-2018 STATEWIDE BASELINE LEVELS AND TARGETS FOR THE NATIONAL SAFETY PERFORMANCE MEASURES

Performance Measure	Year 2012-2016 Baseline 5-Year Average	Year 2014-2018 Target
Number of Fatalities	567.4	556.1
Fatalities Per 100 Million Vehicle-Miles Travelled	0.936	0.917
Number of Serious Injuries	3,183.0	3,023.9
Serious Injuries Per 100 Million Vehicle-Miles Travelled	5.260	4.997
Number of Non-Motorized Fatalities and Serious Injuries	361.4	343.3



#### Safety Performance Target Setting (continued)

- Commission establishes baseline safety data/targets by February 27, 2018, for same time period as WisDOT
  - Accept State's targets or set own targets
  - Metropolitan Planning Area
  - Commission will report targets in manner agreed to with State
- Commission must document system performance and progress to achieving targets in Regional Plan (VISION 2050)
  - Unlike State, no consequences for not making progress towards targets
  - Commission only needs to demonstrate that our planning processes are meeting Federal requirements



Note: While all of Walworth County is not subject to the MPO planning requirements, it is included within the seven county SEWRPC Region, and as a practical matter included in all regional transportation planning activities.



# Commission Staff Proposal for Incorporation into VISION 2050 Planning Process

- Set separate areawide targets (rather than accepting State targets)
- Set long-range targets to year 2046-2050
  - Set short-term trends for metropolitan planning area based on long-range targets
- Amend long-range targets into VISION 2050
- Monitor annually in Annual Report and on website
- Review and update long-range targets:
  - Every 4 years as part of interim review and update (next to be completed in 2020)
  - Every 10 years as part of major review and update (next to be completed in 2026)



#### **Proposed Process for Establishing Safety Targets**

- Establish baseline data (2012-2016)
- Establish year 2046-2050 targets for Region (including portion of Dodge and Jefferson Counties)
  - Review historical trends
  - Review safety related recommendations (Strategic Highway Safety Plan and VISION 2050)
  - Develop alternative methods for safety targets
    - Alternative rate-related long-range targets based on applying projected VMT to alternatives developed for number of fatalities and number of serious injuries targets
  - Set preliminary recommended targets based on evaluation of alternatives



#### **Baseline Data**

#### YEAR 2012-2016 BASELINE LEVELS FOR THE NATIONAL SAFETY PERFORMANCE MEASURES: SEVEN-COUNTY SOUTHEASTERN WISCONSIN REGION<sup>a</sup>

	Year				5-Year	
Performance Measure	2012	2013	2014	2015	2016	Average
Number of Fatalities	162	125	145	150	179	152.2
Fatalities Per 100 Million Vehicle-Miles Travelled	1.039	0.789	0.926	0.931	1.080	0.953
Number of Serious Injuries	898	834	745	716	798	798.2
Serious Injuries Per 100 Million Vehicle-Miles Travelled	5.758	5.265	4.759	4.444	4.813	5.008
Number of Non-Motorized Fatalities and Serious Injuries	183	168	151	165	169	167.2

<sup>&</sup>lt;sup>a</sup>Includes the portion of Jefferson County within the Milwaukee urbanized area and the portion of Dodge County within the West Bend urbanized area.

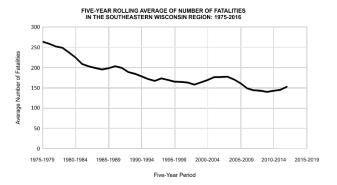
- About 25 percent of the State's fatalities and serious injuries (about 25 percent of State's VMT)
- About 45 percent of the State's non-motorized fatalities and serious injuries (about 35 percent of State's population)
- Reduction in crashes in Region would contribute to State achieving its targets

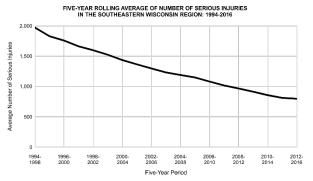


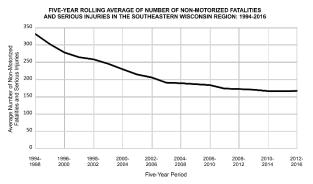
#### **Historic Trends**

- Fatalities (1975-2016)
  - Long-term decline
  - Fluctuated since 1998 (overall slight decline)
  - Short-term increase since 2013
- Serious Injuries (1994-2016)
  - Steady long-term decline
  - Exception between 2011 and 2016
- Non-motorized fatalities and serious injuries (1994-2016)
  - Long-term decline
  - Flatter decline since 2003
- Reductions accomplished based on past efforts in reducing crashes









### Strategic Highway Safety Plan

- Framework for all State planning and programming related to reducing fatalities and serious injuries
- Last updated in 2017 and covers years 2017-2020
- Identifies types of crashes to be emphasized over the next four years (for example: distracted drivers, intersection crashes, speed-related crashes, alcohol/drug-related crashes)
- Recommends measures and policies to address each of the emphasized crash types (engineering, enforcement, and education)



#### **VISION 2050 Safety Recommendations**

- Recommendations for reducing crashes, including fatalities and serious injuries
- Regional Safety ImplementationPlan
  - Assist State and local governments in identifying priority corridors and intersections
- Future crash estimates did not take into account long-term trend

- Minimize total traffic crashes
- Minimize crashes involving fatalities and serious injuries
- Minimize bicycle and pedestrianrelated crashes
- Reduce conflicts between automobiles and public transit
- Reduce vehicle traffic conflicts with traffic engineering measures, including:
  - Freeway modernization
  - Congestion mitigation
  - Alternative intersections
  - Access management standards
- Regional Safety Implementation Plan
- Difficult to estimate without rigorous analysis of crash benefits of project and system-level improvements
- Regional Safety Improvement Plan could assist in estimating

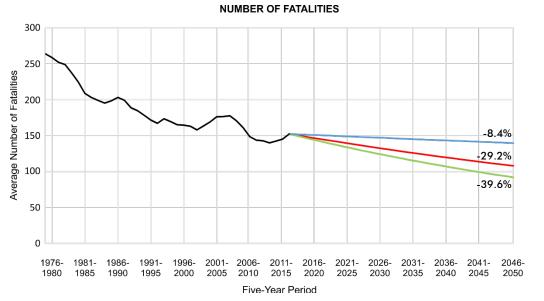


#### Alternative Methods to Develop Safety Targets

- □ Goal: meet aspirational nature of VISION 2050, while recognizing effectiveness of past efforts to reduce crashes
- Three Alternative target-setting methods developed
  - Based on State targets
  - Based on long-term trends
  - Based on short-term trends



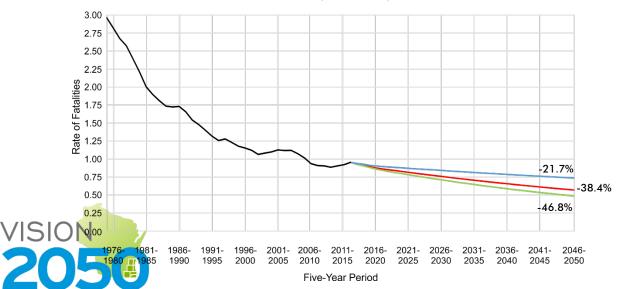
# Alternative Safety Targets 2046-2050 – Fatality Related Performance Measures



 Commission staff preliminarily recommends Alternative 2 (based on long-term trend)



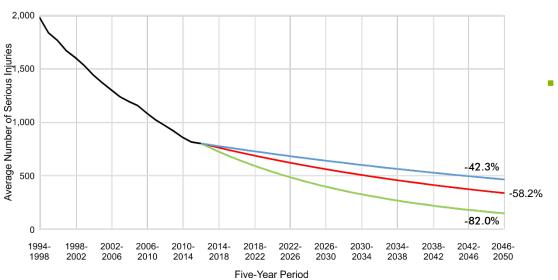




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# Alternative Safety Targets 2046-2050 – Serious Injury Related Performance Measures

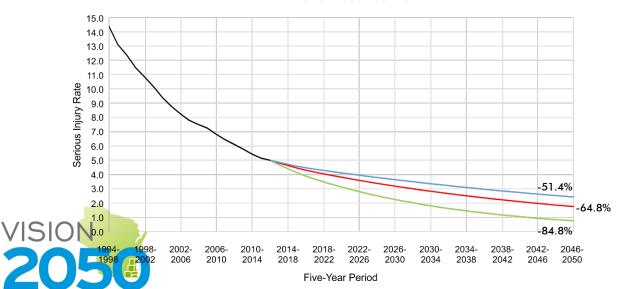




Commission staff preliminarily recommends Alternative 2 (based on long-term trend)

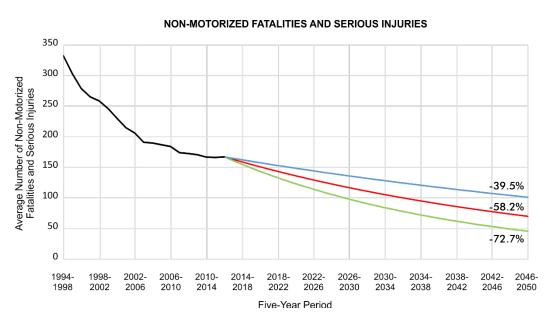


#### **RATE OF SERIOUS INJURIES**



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# Alternative Safety Targets 2046-2050 – Non-Motorized Related Performance Measures



 Commission staff preliminarily recommends Alternative 2 (based on long-term trend)





#### Preliminary Recommended 2046-2050 Targets

Performance Measure	2012-2016 Baseline Data	Preliminary Recommended 2046-2050 Target	Percent Change from 2012-2016 Base Year
Number of Fatalities	152.2	91.9	-39.6
Fatalities Per 100 Million Vehicle-Miles Travelled	0.953	0.485	-46.8
Number of Serious Injuries	798.2	144.1	-82.0
Serious Injuries Per 100 Million Vehicle-Miles Travelled	5.008	0.762	-84.8
Number of Non-Motorized Fatalities and Serious Injuries	167.2	45.7	-72.7

- □ To assist in achieving safety targets, Commission will initiate work on Region Safety Implementation Plan (RSIP)
  - Include estimating crash reduction benefits of RSIP recommendations



## Resulting 2014-2018 Targets

	Metropolitan l	Planning Area	Seven-County Region		
Performance Measure	2012-2016 Baseline Data	Resulting 2014-2018 Target	2012-2016 Baseline Data	Resulting 2014-2018 Target	
Number of Fatalities	137.2	133.2	152.2	147.7	
Fatalities Per 100 Million Vehicle-Miles Travelled	0.887	0.869	0.953	0.905	
Number of Serious Injuries	743.8	672.5	798.2	721.7	
Serious Injuries Per 100 Million Vehicle-Miles Travelled	4.829	4.390	5.008	4.420	
Number of Non-Motorized Fatalities and Serious Injuries	161.0	149.2	167.2	154.9	



### **Next Steps of TPM Target Setting**

- Inclusion in VISION 2050
  - Public Comment (February 2018)
  - Advisory Committee Vote on Revised Draft (March 2018)
  - Commission Meeting (March 2018)
- Short-term targets
  - Commission's Executive Committee (February 15<sup>th</sup>)





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QUESTIONS?

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