THIRD AMENDMENT TO

VISION 2050: A REGIONAL LAND USE AND TRANSPORTATION PLAN FOR SOUTHEASTERN WISCONSIN

ESTABLISHING TARGETS FOR FEDERAL PERFORMANCE MEASURES: TRANSIT ASSET MANAGEMENT, NATIONAL HIGHWAY SYSTEM CONDITION AND PERFORMANCE, FREIGHT PERFORMANCE, AND CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

VISION 2050

One Region, Focusing on Our Future

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RESOLUTION NO. 2019-14

RESOLUTION OF THE SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION AMENDING THE ADOPTED YEAR 2050 REGIONAL LAND USE AND TRANSPORTATION SYSTEM PLAN ("VISION 2050") FOR SOUTHEASTERN WISCONSIN TO INCLUDE TARGETS FOR THE FEDERAL TRANSIT ASSET MANAGEMENT, NATIONAL HIGHWAY SYSTEM, FREIGHT, AND CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PERFORMANCE MEASURES

WHEREAS, pursuant to Section 66.0309(10) of the Wisconsin State Statutes, by Resolution 2016-07, the Southeastern Wisconsin Regional Planning Commission adopted the design year 2050 regional land use and transportation system plan documented in SEWRPC Planning Report No. 55, *VISION 2050: A Regional Land Use and Transportation System Plan for Southeastern Wisconsin*; and

WHEREAS, a National performance management framework was created by the Moving Ahead for Progress in the 21st Century Act (MAP-21) of 2012, and continued in the Fixing America's Surface Transportation Act (FAST Act) of 2015, which included the establishment of safety-related performance measures and target setting; and

WHEREAS, as part of implementation of the National performance management framework created by MAP-21, the U.S. Department of Transportation Federal Transit Administration developed and published regulations (effective on the 1st day of October 2018) for transit operators and metropolitan planning organizations (MPOs) to establish targets for performance measures related to transit asset management (TAM); and

WHEREAS, as part of implementation of the National performance management framework created by MAP-21, the U.S. Department of Transportation Federal Highway Administration developed and published regulations (effective on the 20th day of May 2019) for States and metropolitan planning organizations (MPOs) to establish targets for performance measures related to National Highway System (NHS) condition and performance, freight performance, and congestion mitigation and air quality improvement (CMAQ); and

WHEREAS, pursuant to the regulations promulgated by the U.S. Department of Transportation Federal Transit and Highway Administrations, the Commission, as the designated MPO for the five urbanized areas in Southeastern Wisconsin, is required to establish targets for the TAM, NHS, freight, and CMAQ performance measures and report those targets in VISION 2050; and

WHEREAS, the Fiscally Constrained Transportation Plan, as amended, and transportation improvement program have been determined to conform with the 2006 24-hour fine particulate standard and the existing State of Wisconsin Air Quality Redesignation and Maintenance Plan for the year 2006 24-hour fine particulate standard, the 1997 eight-hour ozone standard and the existing State of Wisconsin Maintenance Plan for the 1997 eight-hour ozone standard, the 2008 eight-hour ozone standard and the existing State of Wisconsin Attainment Plan for the 2008 eight-hour ozone standard, and the 2015 eight-hour ozone standard and the budget tests described in 40 CFR 93.109 and 40 CFR 93.118 as required by the Federal Clean Air Act Amendments of 1990; and

WHEREAS, the Advisory Committee on Regional Transportation Planning endorsed the TAM, NHS, freight, and CMAQ-related performance targets for the Southeastern Wisconsin metropolitan planning area and seven-county region, as documented in a SEWRPC report entitled, *Third Amendment to VISION 2050: A Regional Land Use and Transportation Plan for Southeastern Wisconsin, Establishing Targets for Federal Performance Measures: Transit Asset Management, National Highway System Condition and Performance, Freight Performance, and Congestion Mitigation and Air Quality Improvement*.

RESOLUTION NO. 2019-14

NOW THEREFORE, BE IT HEREBY RESOLVED:

FIRST: That in accordance with 23 CFR 450.336(a), the Southeastern Wisconsin Regional Planning Commission hereby certifies that the regional land use-transportation planning process is addressing the issues of the metropolitan planning area, and is being conducted in accordance with all applicable Federal laws, regulations, and requirements, including:

1. 23 U.S.C. 134, 49 U.S.C. 5303, and this subpart;
2. In nonattainment and maintenance areas, Sections 174 and 176 (c) and (d) of the Clean Air Act, as amended (42 U.S.C. 7504, 7506 (c) and (d)) and 40 CFR part 93;
3. Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d-1) and 49 CFR part 21;
4. 49 U.S.C. 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity;
5. Sections 1101(b) of the FAST Act (Pub. L. 114-357) and 49 CFR Part 26 regarding the involvement of disadvantaged business enterprises in USDOT funded projects;
6. 23 CFR part 230, regarding the implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts;
7. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 *et seq.*) and 49 CFR Parts 27, 37, and 38;
8. The Older Americans Act, as amended (42 U.S.C. 6101), prohibiting discrimination on the basis of age in programs or activities receiving Federal financial assistance;
9. Section 324 of title 23 U.S.C. regarding the prohibition of discrimination based on gender; and
10. Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) and 49 CFR part 27 regarding discrimination against individuals with disabilities.

SECOND: That the year 2050 regional land use and transportation system plan, being a part of the master plan for the physical development of the Region and set forth in SEWRPC Planning Report No. 55, *VISION 2050: A Regional Land Use and Transportation System Plan for Southeastern Wisconsin*, published in July 2016, and as amended on the 20th day of June 2018 and on the 5th day of December 2018, be hereby amended to include targets for the Federal TAM, NHS, freight, and CMAQ performance measures identified in Tables ES.1, ES.2, ES.3, and ES.4 attached hereto.

THIRD: That a true, correct, and exact copy of this resolution should be forthwith distributed to each of the local legislative bodies of the governmental units within the Region entitled thereto and to such other bodies, agencies, or individuals as the law may require or as the Commission or its Executive Committee or its Executive Director at their discretion shall determine and direct.

The foregoing resolution, upon motion duly made and seconded, was regularly adopted at a meeting of the Southeastern Wisconsin Regional Planning Commission held on the 19th day of June 2019, with the vote being 16 ayes; 0 nays.

RESOLUTION NO. 2019-14

Charles L. Colman, Chairman

ATTEST:

Kevin J. Muhs, Deputy Secretary

Table ES.1
Year 2050 Regional Targets for Transit Asset Management (TAM), National Highway System (NHS) Condition, NHS and Freight Reliability, and Traffic Congestion-Related Congestion Mitigation and Air Quality Improvement (CMAQ) Performance Measures

Performance Measure Areas	Performance Measures	Regional Baseline (2017) Data	Regional Year 2050 Targets
	FTA TAM Measures		
Rolling Stock	Percentage of revenue vehicles that have either met or exceeded their useful life benchmark	21.6	< 10
Equipment	Percentage of non-revenue vehicles and equipment that have either met or exceeded their useful life benchmark	--[a]	< 20
Facilities	Percentage of support facilities within an asset class, rated below 3 on condition reporting system	--[a]	0
	Percentage of passenger facilities within an asset class, rated below 3 on condition reporting system	--[a]	0
	Percentage of parking facilities within an asset class, rated below 3 on condition reporting system	--[a]	0
Fixed Guideway	Percentage of segments that have performance restrictions	--[a]	0
	FHWA NHS Condition Measures		
Condition of Interstate Pavement	Percentage of Lane-Miles in Good Condition	59.0	≥ 64.9
	Percentage of Lane-Miles in Poor Condition	4.6	≤ 4.1
Condition of Non-Interstate NHS	Percentage of Lane-Miles in Good Condition	18.9	≥ 20.8
	Percentage of Lane-Miles in Poor Condition	6.6	≤ 5.9
Condition of NHS Bridges (including interstate bridges)	Percentage of Bridge Deck Area in Good Condition	58.0	≥ 63.8
	Percentage of Bridge Deck Area in Poor Condition	1.3	≤ 1.2
	FHWA NHS and Freight Reliability Measures		
NHS Travel Time Reliability	Percent of Person-Miles Traveled on the Interstate NHS that are Reliable	84.5	≥ 85.5
	Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable	90.8	≥ 95.2
Freight Movement on the Interstate System	Freight Reliability Index	1.49	≤ 1.64
	FHWA CMAQ Measures		
Traffic Congestion[b]	Peak Hour Excessive Delay (PHED) Per Capita	8.96	≤ 7.84
	Percentage of Non-Single Occupancy Vehicles	20.3[c]	≥ 21.2

[a] *Transit operators will begin reporting this data to the National Transit Database for year 2018 conditions.*

[b] *Per the regulations, traffic congestion-related CMAQ targets are to be established for only urbanized areas having a population over 1 million and contain a non-attainment or maintenance area for a pollutant criteria under the National Ambient Air Quality Standards. In Southeastern Wisconsin, only the Milwaukee urbanized area meets these conditions. As such, Commission staff proposed that preliminary recommended year 2050 congestion-related targets be established only for the Milwaukee urbanized area.*

[c] *Only year 2016 data was available at the time of the development of the baseline data for this measure. As such, year 2016 data was used to represent the required year 2017 baseline data.*

Source: WisDOT and SEWRPC

Table ES.2
Short-Term Targets for Transit Asset Management (TAM), National Highway System (NHS) Condition, and NHS and Freight Reliability Performance Measures

Federal Transit Administration Targets

Performance Measure Areas	Performance Measures	Metropolitan Planning Area		Seven-County Region	
		Baseline (2017) Data[a]	Year 2018 Targets[b]	Baseline (2017) Data[a]	Year 2018 Targets[b]
Rolling Stock	Percentage of revenue vehicles that have either met or exceeded their useful life benchmark	21.6	< 30	21.6	< 30
Equipment	Percentage of non-revenue vehicles and equipment that have either met or exceeded their useful life benchmark	--	< 30	--	< 30
Facilities	Percentage of support facilities within an asset class, rated below 3 on condition reporting system	--	< 15	--	< 15
	Percentage of passenger facilities within an asset class, rated below 3 on condition reporting system	--	0	--	0
	Percentage of parking facilities within an asset class, rated below 3 on condition reporting system	--	0	--	0
Fixed Guideway	Percentage of segments that have performance restrictions	--	0	--	0

Federal Highway Administration Targets

Performance Measure Areas	Performance Measures	Metropolitan Planning Area		Seven-County Region	
		Baseline (2017) Data	Year 2021 Targets[c]	Baseline (2017) Data	Year 2021 Targets[c]
FHWA NHS Condition Measures					
Condition of Interstate Pavement	Percentage of Lane-Miles in Good Condition	61.1	≥ 61.8	59.0	≥ 59.7
	Percentage of Lane-Miles in Poor Condition	4.4	≤ 4.3	4.6	≤ 4.5
Condition of Non-Interstate NHS	Percentage of Lane-Miles in Good Condition	17.6	≥ 17.8	18.9	≥ 19.1
	Percentage of Lane-Miles in Poor Condition	6.8	≤ 6.7	6.6	≤ 6.5
Condition of NHS Bridges (including interstate bridges)	Percentage of Bridge Deck Area in Good Condition	58.3	≥ 59.0	58.0	≥ 58.7
	Percentage of Bridge Deck Area in Poor Condition	1.3	≤ 1.3	1.3	≤ 1.3
FHWA NHS and Freight Reliability Measures					
NHS Travel Time Reliability	Percent of Person-Miles Traveled on the Interstate NHS that are Reliable	83.9	≥ 81.9	84.5	≥ 81.9
	Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable	90.9	≥ 91.2	90.8	≥ 91.2
Freight Movement on the Interstate System	Freight Reliability Index	1.54	≤ 1.72	1.49	≤ 1.72

[a] *Only data on revenue vehicles is available for the year 2017. Transit operators will begin reporting data for the other performance measures in 2019 to the National Transit Database for year 2018 conditions.*

[b] *It is proposed that future short-term targets (beyond 2018) for these performance measure be based on the year 2018 target until additional Federal and State funding become available for transit capital projects.*

[c] *Based on the final recommended year 2050 targets.*

Source: WisDOT and SEWRPC

Table ES.3
Short-Term Peak Hourly Excessive Delay Targets and Non-Single Occupancy Vehicle Targets for the Milwaukee Urbanized Area

Performance Measure	Year 2017 Baseline Data	2-Year Target (2019)[a]	4-Year Target (2021)[a]
Annual Hours of Peak Hour Excessive Delay (PHED) Per Capita	8.96	N/A[b]	≤ 8.60
Percent of non-SOV Travel	20.3[c]	≥ 20.2	≥ 20.1

[a] *Per regulations, this target was established jointly by the WisDOT and the Commission.*

[b] *The Commission and WisDOT are not required to establish two-year targets as part of the initial target setting for this performance measure.*

[c] *Only year 2016 data was available at the time of the development of the baseline data for this measure. As such, year 2016 data was used to represent the required year 2017 baseline data.*

Source: U.S. Census American Community Survey, WisDOT, and SEWRPC

Table ES.4
Short Term Emission Reduction Targets for the Region[a]

Performance Measure	2014-2017 Baseline Data	2018-2019 Target	2018-2021 Target
Reduction in VOC (kg/day)	41.268	≥ 10.860	≥ 27.032
Reduction in NOx (kg/day)	109.545	≥ 83.316	≥ 137.350
Reduction in $PM_{2.5}$ (kg/day)	3.291	≥ 7.797	≥12.096

[a] *Baseline data and targets for the emission reduction-related CMAQ performance measures are the same for the Metropolitan Planning Area and seven-county Region*

Source: WisDOT and SEWRPC

THIRD AMENDMENT TO

A REGIONAL LAND USE AND TRANSPORTATION
PLAN FOR SOUTHEASTERN WISCONSIN

ESTABLISHING TARGETS FOR FEDERAL PERFORMANCE MEASURES: TRANSIT ASSET MANAGEMENT, NATIONAL HIGHWAY SYSTEM CONDITION AND PERFORMANCE, FREIGHT PERFORMANCE, AND CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT

Prepared by the
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U.S. Department of Transportation
Federal Highway Administration
Federal Transit Administration

WISCONSIN DEPARTMENT OF TRANSPORTATION

WISCONSIN DEPT. OF NATURAL RESOURCES

WISCONSIN DEPARTMENT OF ADMINISTRATION

June 2019

EXECUTIVE SUMMARY

The Moving Ahead for Progress in the 21st Century Act (MAP-21), enacted in 2012, created a national performance management framework that established uniform performance measures and target setting to, in part, create a consistent nationwide process for monitoring the effectiveness of Federal transportation investments. As part of implementing the national performance management framework, metropolitan planning organizations (MPOs), like the Commission, are to establish transit and highway targets for performance measures under the following categories:

- Transit Asset Management (TAM)
- National Highway System (NHS) Bridge and Pavement Condition
- NHS and Freight Reliability
- Congestion Mitigation and Air Quality Improvement (CMAQ)

Under the national performance management framework, the Commission is required to establish performance targets for the Region's Metropolitan Planning Area (MPA), or the Milwaukee urbanized area for two CMAQ related measures. The TAM targets are established annually, and the NHS, freight, and CMAQ targets are established every four years. While the Commission is required to establish targets for these measures and plan and program for achievement of those targets, there are no consequences should those targets not be met. In addition, the performance targets established for the Region are required to be incorporated into VISION 2050—the year 2050 regional land use and transportation plan completed in 2016.

In January 2017, the Milwaukee County Transit System (MCTS), the largest transit operator in the Region, established targets for the TAM performance measures. Similarly, in May 2018, the Wisconsin Department of Transportation (WisDOT) established statewide targets for the NHS, freight, and CMAQ performance targets, in coordination with the State's metropolitan planning organizations (MPOs), including the Commission. Per the regulations, the targets for the two congestion-related CMAQ performance measures were jointly established by WisDOT and the Commission for the Milwaukee urbanized area.

The following describes the process used by the Commission in developing the TAM, NHS, freight, and CMAQ performance targets for Southeastern Wisconsin, and preliminary and final recommended targets for meeting the national performance management requirements and inclusion in VISION 2050.

Process for Establishing Targets
Given the requirement to include the short-range target-setting process into VISION 2050, a long-range plan, it was determined that long-term regional targets should be established, as appropriate, for the TAM, NHS, freight, and CMAQ performance measures. The establishment of the short-term targets for the metropolitan planning area, as required as part of the national performance measure framework, was based on the long-term regional targets.

With respect to establishing long-term TAM, NHS, freight, and CMAQ targets, the following process was used:

1. Baseline data for each of the measures was developed for the Region, plus those portions of Jefferson and Dodge Counties within the metropolitan planning area.

2. The methodologies used by transit operators and WisDOT to establish their targets were reviewed.

3. Historical regional trends, as available, of the performance measures were reviewed.

4. The relevant recommendations of VISION 2050 and other State and regional plans were reviewed to determine their potential effect on the performance measures in the Region.

5. Based on the evaluations of the historical trends and the review of relevant recommendations of VISION 2050 and other plans, preliminary recommended year 2050 targets for each performance measure were developed for inclusion in VISION 2050.

More details on the process used to establish the TAM, NHS, freight, and CMAQ performance targets for the Region can be found in the remainder of this document.

Preliminary Recommended Targets for TAM, NHS, Freight, and CMAQ Performance Measures
Preliminary recommended year 2050 regional targets for the TAM, NHS, freight, and CMAQ performance measures were proposed for incorporation into VISION 2050. The short-term congestion related CMAQ targets for the Milwaukee urbanized area were jointly established by WisDOT and the Commission. As the emission reduction-related CMAQ targets are based on the estimated emissions reductions due to implementation of future projects, only short-term targets were established. The preliminary recommended regional targets proposed for the TAM, NHS, Freight, and CMAQ performance measures, along with the process to establish the targets, were reviewed and endorsed by the Commission's Advisory Committee on Regional Transportation Planning at a meeting held on March 28, 2019, and were presented for review and comment by the public from April 10, 2019, through May 9, 2019. Five comments were received prior to or during the public review and comment period. The comments received, and Commission staff responses, are documented in Appendix C of this report. The targets were approved as part of VISION 2050 by the Advisory Committee via a postcard vote, and by the Commission on June 19, 2019.

Final Recommended Targets for TAM, NHS, Freight, and CMAQ Performance Measures
The final recommended year 2050 regional target for the TAM, NHS, freight, and CMAQ performance measures are shown on Table ES.1. Table ES.2 shows the proposed short-term TAM, NHS, and freight targets for both the Region's MPA and the seven-county Region. Table ES.3 shows the short-term congestion-related CMAQ targets for the Milwaukee urbanized area as jointly established by WisDOT and the Commission. Table ES.4 shows the short-term emission reduction-related CMAQ targets for the Region. As these performance measures are based on this estimated emission reductions due to implementation of future projects, only short-term targets were established. In addition, the emission reduction-related CMAQ targets for the Metropolitan Planning Area and the Region are the same.

Reporting and Monitoring of Performance Targets
The TAM, NHS, freight, and CMAQ targets will be reported and monitored in the transportation system performance section of the Commission's Annual Plan Implementation Report and on its website. The regional long-term targets will be reviewed and potentially updated every four years as part of the interim regional plan updates and every 10 years as part of the major regional plan updates.

Table ES.1
Year 2050 Regional Targets for Transit Asset Management (TAM), National Highway System (NHS) Condition, NHS and Freight Reliability, and Traffic Congestion-Related Congestion Mitigation and Air Quality Improvement (CMAQ) Performance Measures

Performance Measure Areas	Performance Measures	Regional Baseline (2017) Data	Regional Year 2050 Targets
	FTA TAM Measures		
Rolling Stock	Percentage of revenue vehicles that have either met or exceeded their useful life benchmark	21.6	< 10
Equipment	Percentage of non-revenue vehicles and equipment that have either met or exceeded their useful life benchmark	--[a]	< 20
Facilities	Percentage of support facilities within an asset class, rated below 3 on condition reporting system	--[a]	0
	Percentage of passenger facilities within an asset class, rated below 3 on condition reporting system	--[a]	0
	Percentage of parking facilities within an asset class, rated below 3 on condition reporting system	--[a]	0
Fixed Guideway	Percentage of segments that have performance restrictions	--[a]	0
	FHWA NHS Condition Measures		
Condition of Interstate Pavement	Percentage of Lane-Miles in Good Condition	59.0	≥ 64.9
	Percentage of Lane-Miles in Poor Condition	4.6	≤ 4.1
Condition of Non-Interstate NHS	Percentage of Lane-Miles in Good Condition	18.9	≥ 20.8
	Percentage of Lane-Miles in Poor Condition	6.6	≤ 5.9
Condition of NHS Bridges (including interstate bridges)	Percentage of Bridge Deck Area in Good Condition	58.0	≥ 63.8
	Percentage of Bridge Deck Area in Poor Condition	1.3	≤ 1.2
	FHWA NHS and Freight Reliability Measures		
NHS Travel Time Reliability	Percent of Person-Miles Traveled on the Interstate NHS that are Reliable	84.5	≥ 85.5
	Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable	90.8	≥ 95.2
Freight Movement on the Interstate System	Freight Reliability Index	1.49	≤ 1.64
	FHWA CMAQ Measures		
Traffic Congestion[b]	Peak Hour Excessive Delay (PHED) Per Capita	8.96	≤ 7.84
	Percentage of Non-Single Occupancy Vehicles	20.3[c]	≥ 21.2

[a] *Transit operators will begin reporting this data to the National Transit Database for year 2018 conditions.*

[b] *Per the regulations, traffic congestion-related CMAQ targets are to be established for only urbanized areas having a population over 1 million and contain a non-attainment or maintenance area for a pollutant criteria under the National Ambient Air Quality Standards. In Southeastern Wisconsin, only the Milwaukee urbanized area meets these conditions. As such, Commission staff proposed that preliminary recommended year 2050 congestion-related targets be established only for the Milwaukee urbanized area.*

[c] *Only year 2016 data was available at the time of the development of the baseline data for this measure. As such, year 2016 data was used to represent the required year 2017 baseline data.*

Source: WisDOT and SEWRPC

Table ES.2
Short-Term Targets for Transit Asset Management (TAM), National Highway System (NHS) Condition, and NHS and Freight Reliability Performance Measures

Federal Transit Administration Targets

Performance Measure Areas	Performance Measures	Metropolitan Planning Area		Seven-County Region	
		Baseline (2017) Data[a]	Year 2018 Targets[b]	Baseline (2017) Data[a]	Year 2018 Targets[b]
Rolling Stock	Percentage of revenue vehicles that have either met or exceeded their useful life benchmark	21.6	< 30	21.6	< 30
Equipment	Percentage of non-revenue vehicles and equipment that have either met or exceeded their useful life benchmark	--	< 30	--	< 30
Facilities	Percentage of support facilities within an asset class, rated below 3 on condition reporting system	--	< 15	--	< 15
	Percentage of passenger facilities within an asset class, rated below 3 on condition reporting system	--	0	--	0
	Percentage of parking facilities within an asset class, rated below 3 on condition reporting system	--	0	--	0
Fixed Guideway	Percentage of segments that have performance restrictions	--	0	--	0

Federal Highway Administration Targets

Performance Measure Areas	Performance Measures	Metropolitan Planning Area		Seven-County Region	
		Baseline (2017) Data	Year 2021 Targets[c]	Baseline (2017) Data	Year 2021 Targets[c]
FHWA NHS Condition Measures					
Condition of Interstate Pavement	Percentage of Lane-Miles in Good Condition	61.1	≥ 61.8	59.0	≥ 59.7
	Percentage of Lane-Miles in Poor Condition	4.4	≤ 4.3	4.6	≤ 4.5
Condition of Non-Interstate NHS	Percentage of Lane-Miles in Good Condition	17.6	≥ 17.8	18.9	≥ 19.1
	Percentage of Lane-Miles in Poor Condition	6.8	≤ 6.7	6.6	≤ 6.5
Condition of NHS Bridges (including interstate bridges)	Percentage of Bridge Deck Area in Good Condition	58.3	≥ 59.0	58.0	≥ 58.7
	Percentage of Bridge Deck Area in Poor Condition	1.3	≤ 1.3	1.3	≤ 1.3
FHWA NHS and Freight Reliability Measures					
NHS Travel Time Reliability	Percent of Person-Miles Traveled on the Interstate NHS that are Reliable	83.9	≥ 81.9	84.5	≥ 81.9
	Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable	90.9	≥ 91.2	90.8	≥ 91.2
Freight Movement on the Interstate System	Freight Reliability Index	1.54	≤ 1.72	1.49	≤ 1.72

[a] *Only data on revenue vehicles is available for the year 2017. Transit operators will begin reporting data for the other performance measures in 2019 to the National Transit Database for year 2018 conditions.*

[b] *It is proposed that future short-term targets (beyond 2018) for these performance measure be based on the year 2018 target until additional Federal and State funding become available for transit capital projects.*

[c] *Based on the final recommended year 2050 targets.*

Source: WisDOT and SEWRPC

Table ES.3
Short-Term Peak Hourly Excessive Delay Targets and Non-Single Occupancy Vehicle Targets for the Milwaukee Urbanized Area

Performance Measure	Year 2017 Baseline Data	2-Year Target (2019)[a]	4-Year Target (2021)[a]
Annual Hours of Peak Hour Excessive Delay (PHED) Per Capita	8.96	N/A[b]	≤ 8.60
Percent of non-SOV Travel	20.3[c]	≥ 20.2	≥ 20.1

[a] *Per regulations, this target was established jointly by the WisDOT and the Commission.*

[b] *The Commission and WisDOT are not required to establish two-year targets as part of the initial target setting for this performance measure.*

[c] *Only year 2016 data was available at the time of the development of the baseline data for this measure. As such, year 2016 data was used to represent the required year 2017 baseline data.*

Source: U.S. Census American Community Survey, WisDOT, and SEWRPC

Table ES.4
Short Term Emission Reduction Targets for the Region[a]

Performance Measure	2014-2017 Baseline Data	2018-2019 Target	2018-2021 Target
Reduction in VOC (kg/day)	41.268	≥ 10.860	≥ 27.032
Reduction in NOx (kg/day)	109.545	≥ 83.316	≥ 137.350
Reduction in $PM_{2.5}$ (kg/day)	3.291	≥ 7.797	≥12.096

[a] *Baseline data and targets for the emission reduction-related CMAQ performance measures are the same for the Metropolitan Planning Area and seven-county Region*

Source: WisDOT and SEWRPC

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INTRODUCTION

The Moving Ahead for Progress in the 21st Century Act (MAP-21), enacted in 2012, created a national performance management framework that established uniform performance measures and target setting to, in part, establish a consistent nationwide process for monitoring the effectiveness of Federal transportation investments. This framework was continued in the Fixing America's Surface Transportation Act (FAST Act) enacted in 2015. As part of implementing the national performance management framework established by MAP-21 and the FAST Act, the Federal Transit Administration (FTA) developed regulations for transit operators and metropolitan planning organizations (MPOs), like the Commission, to annually establish targets for performance measures related to transit asset management (TAM). Similarly, the Federal Highway Administration (FHWA) developed regulations requiring States and MPOs to establish targets every four years for performance measures related to the National Highway System (NHS) condition and performance, freight performance on the Interstate system, and Congestion Mitigation and Air Quality Improvement (CMAQ). Table 1 shows the specific performance measures under these categories.

The performance targets established for the Region are required to be incorporated into VISION 2050—the year 2050 regional land use and transportation plan completed in 2016. Subsequent updates to VISION 2050 (every four years as part of interim plan updates and every 10 years as part of major updates) will also need to include a monitoring of the achievement of the targets. In addition, the regional transportation improvement program (TIP) is required to include a description of how the projects programmed in the TIP promote the achievement of the performance targets. While the Commission is required to establish TAM, NHS, freight, and CMAQ targets and plan and program for achievement of those targets, there are no consequences—unlike for the State[1]—should those targets not be met.

In January 2017, the Milwaukee County Transit System (MCTS), the largest transit operator in the Region, established targets for the TAM performance measures. Similarly, in May 2018, the Wisconsin Department of Transportation (WisDOT) established statewide targets for the NHS, freight, and CMAQ performance targets, in coordination with the State's metropolitan planning organizations (MPOs), including the Commission. Per the regulations, the targets for the two congestion-related CMAQ performance measures were jointly established by WisDOT and the Commission for the Milwaukee urbanized area.[2]

Based on the regulations, the Commission is required to establish one-year targets for the TAM performance measures and four-year targets for the NHS, freight, and CMAQ performance measures for the Region's metropolitan planning area (MPA), as shown on Map 1. Except for the two congestion-related CMAQ performance measures, the Commission can either choose to accept the targets established by the State (and plan and program to achieve the State targets) or establish its own targets (and plan and program to achieve the areawide targets), with the Commission being permitted to choose to accept WisDOT's targets for some of the measures and establish its own targets for the remaining measures.[3]

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[1] *Should it be determined by FHWA that significant progress—meeting target and/or exceeding baseline year data—was not achieved for any of the statewide NHS and freight performance targets, WisDOT would be required to include in their next performance report (completed biannually) a description of actions WisDOT will take to achieve such targets. Additionally, there are minimum performance requirements for the pavement condition of the statewide Interstate system—5 percent in poor condition—and for the statewide condition of bridges on the NHS—10 percent in poor condition. Not meeting these minimum requirements would affect the flexibility the State has in utilizing certain Federal funds by requiring a portion of those funds be utilized to contribute to meeting the minimum requirement. There are currently no consequences for the State for not meeting the CMAQ targets and for the transit operators for not meeting the TAM targets.*

[2] *Per the Federal regulations, targets for the two congestion-related performance measures—the peak hourly excessive delay and the non-single occupancy vehicle performance measures—are to be calculated only for urbanized areas having a population over one million that contain within its boundary all or a portion of a non-attainment or maintenance area for the National Ambient Air Quality Standard. For such urbanized areas, the State and the relevant MPOs are to jointly establish the same targets for these two performance measures. In Southeastern Wisconsin, the congestion-related targets need to be established only for the Milwaukee urbanized area jointly by WisDOT and the Commission.*

[3] *This was included in the regulation to recognize that some MPOs may not have the resources to establish their own targets for all of the performance measures.*

Table 1
Transit Asset Management, National Highway System, Freight, and Congestion Mitigation and Air Quality Transportation Performance Measures Developed by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA)

Performance Measure Areas	Performance Measures
FHWA National Highway Performance Program (NHPP)	
Condition of Pavements on the Interstate System	Percentage of Pavement of the Interstate System in Good Condition Percentage of Pavement of the Interstate System in Poor Condition
Condition of Pavements on the National Highway System (NHS) Excluding the Interstate	Percentage of Pavement of the Non-Interstate NHS in Good Condition Percentage of Pavement of the Non-Interstate NHS in Poor condition
Condition of Bridges on the NHS	Percentage of NHS Bridges Classified as in Good Condition Percentage of NHS Bridges Classified as in Poor Condition
Performance of the Interstate System	Percentage of the Person-Miles Traveled on the Interstate that are Reliable
Performance of the NHS Excluding the Interstate	Percentage of the Person-Miles Traveled on the Non-interstate NHS that are Reliable
FHWA National Highway Freight Program (NHFP)	
Freight Movement on the Interstate System	Freight Reliability Index
FHWA Congestion Mitigation and Air-Quality Improvement Program (CMAQ)	
On-Road Source Emissions	Estimate of Emission Reductions for Projects Funded by CMAQ
Traffic Congestion	Peak Hour Excessive Delay (PHED) Per Capita Percentage of Non-Single Occupancy Vehicles
FTA Section 53 Funding (including Sections 5307, 5310, 5311, 5337, and 5339)	
Transit Asset Management	Percentage of Revenue Vehicles At or Exceeding the Useful Life Benchmark (ULB) Percentage of Vehicles and Equipment At or Exceeding the ULB Percentage of Facilities Exceeding the Transit Economic Requirements Model (TERM) Scale Percentage of Track Segments Having Performance Restrictions

Source: Federal Highway Administration, Federal Transit Administration, and SEWRPC

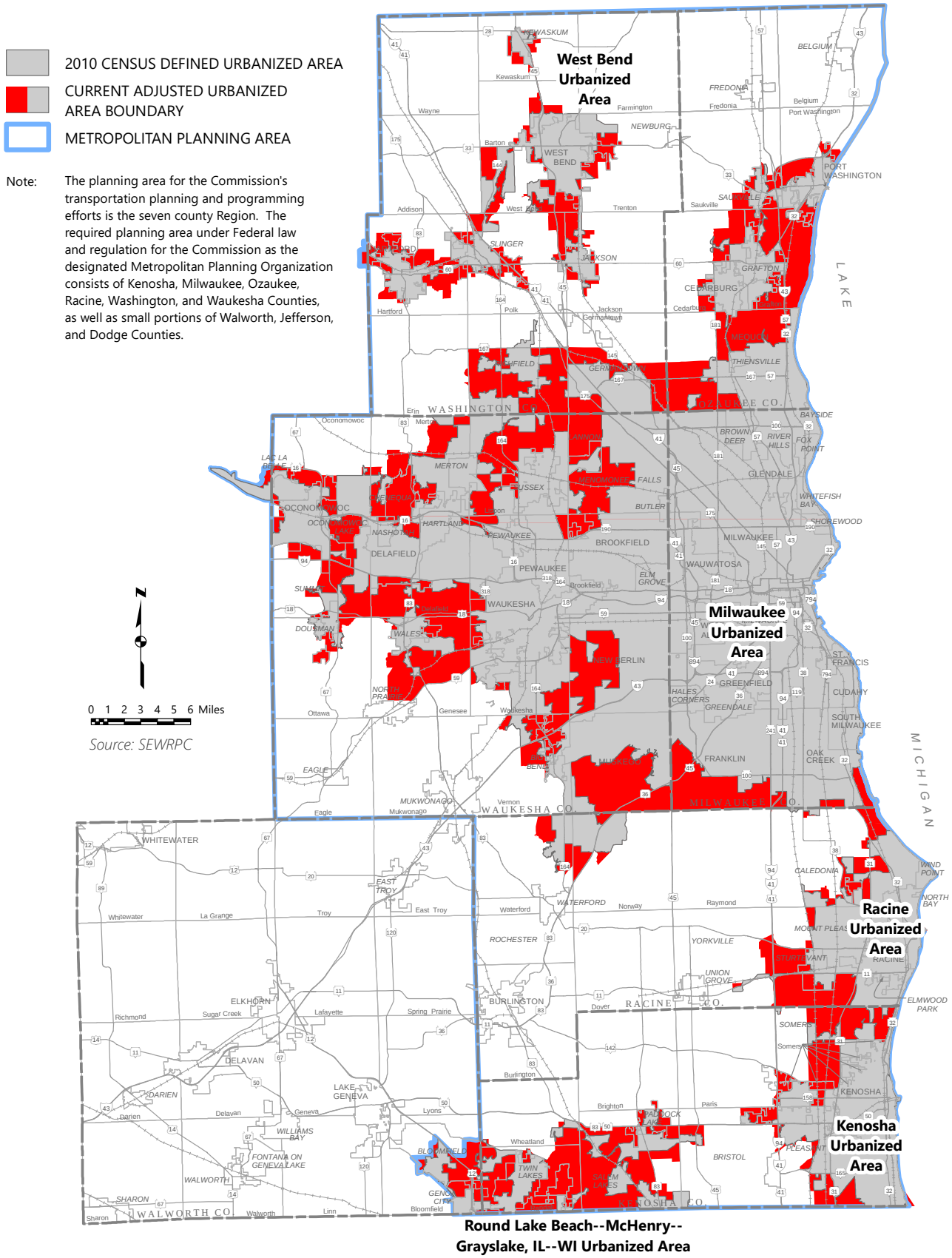
To allow the effective monitoring of specific plan recommendations related to the targets, separate areawide short-term targets for the TAM, NHS, freight, and CMAQ performance measures were established for the Region, rather than accepting the State's targets. In order to meet deadlines established in Federal regulations, the Commission set initial targets for performance measures related to TAM, NHS, freight, and CMAQ. The initial targets established for TAM were set in coordination with the transit operators of the Region. The initial targets for the NHS, freight, and CMAQ performance measures were based on the targets established by the State.

The remainder of this memorandum documents the process followed by the Commission in establishing targets for the TAM, NHS, freight, and CMAQ performance measures and amending VISION 2050 to incorporate the establishing and monitoring of these targets.

PROCESS FOR ESTABLISHING TARGETS

In integrating the target setting process into the VISION 2050 plan, regional long-term targets for the TAM, NHS, freight, and CMAQ performance measures to the year 2050 were established. As part of developing the year 2050 targets for each of the TAM, NHS, freight, and CMAQ performance measures, baseline data for each measure was collected or developed for the entire Region, plus those portions of Jefferson and Dodge Counties within the MPA. The methodologies used by transit operators and WisDOT to establish their targets were reviewed, along with historical trends and applicable recommendations of VISION 2050 and other State and regional plans. Based on these reviews, the Commission staff developed preliminary recommended year 2050 targets for inclusion in VISION 2050 for each of the TAM, NHS, freight, and CMAQ performance measures by either applying the transit operator or WisDOT methodology, or modifying the methodology based on historical trends and relevant recommendations identified in VISION 2050.

Map 1
The Southeastern Wisconsin Metropolitan Planning Area and Census Defined and Adjusted Urbanized Area Boundaries: 2010



Note: The planning area for the Commission's transportation planning and programming efforts is the seven county Region. The required planning area under Federal law and regulation for the Commission as the designated Metropolitan Planning Organization consists of Kenosha, Milwaukee, Ozaukee, Racine, Washington, and Waukesha Counties, as well as small portions of Walworth, Jefferson, and Dodge Counties.

Source: SEWRPC

The preliminary year 2050 targets were reviewed and considered by the Commission's Advisory Committees on Regional Transportation Planning for incorporation into VISION 2050 as a plan amendment. The public had an opportunity to review and provide comment on the targets during a 30-day public comment period. The preliminary targets, along with any comments received and addressed by Commission staff, were reviewed and considered by the Advisory Committee and Commission in establishing final targets for inclusion in VISION 2050.

Following the inclusion of the targets in VISION 2050, monitoring of achievement of the TAM, NHS, freight, and CMAQ targets is to be completed annually as part of the Commission's Annual Plan Implementation Report, every four years as part of the interim regional plan update, and every 10 years as part of the major regional plan update. The regional long-term targets will be reviewed and potentially updated as part of the interim and major regional plan updates. The establishment of the short-term targets for the MPA, as required by the planning regulations, will be based on the long-term regional targets.

DEVELOPMENT OF PRELIMINARY RECOMMENDED TARGETS

The following sections summarize the methodologies utilized in the establishment of preliminary recommended targets. For the establishment of targets, the performance measures for NHS condition (pavement and bridge) and performance (reliability) were grouped separately. In addition, based on their similarities in data and methodology, the NHS reliability-related measure and the freight measure were grouped together.

Transit Asset Management Targets

Transit operators have long monitored the condition of their assets, and developed funding strategies to maintain those assets. As part of the national performance management framework, FTA developed regulations for the monitoring of the condition of transit assets nationwide. Transit operators are also required to establish targets for guiding investment to keep their assets in a state of good repair.[4] In addition, the Commission is required to work with area transit operators in establishing areawide performance targets for the MPA. As part of these requirements, transit operators are also required to develop TAM plans for their systems.

The TAM performance measures are calculated based on the data that transit operators annually submit to FTA on their assets and system operation for inclusion in the National Transit Database (NTD). The methodology for this calculation is shown on Figure 1.

Transit Operator and Initial MPO targets

Table 2 shows the one-year TAM targets established by MCTS in December 2017 for their assets. When the Commission established initial TAM targets for the MPA in June 2017, it relied heavily on the TAM targets established by MCTS due to MCTS representing about 94 percent of the replacement value of the Region's transit fleet. However, in establishing the initial targets, the Commission consulted with all of the transit operators within the Region on their concurrence on basing the areawide targets on the MCTS targets and in establishing targets for types of transit assets not owned by MCTS, such as fixed-guideway vehicles.

Baseline Data

Transit operators are required to report asset inventory, condition, and performance information to the National Transit Database (NTD) beginning in 2019 for reporting year 2018. The 2017 NTD includes the number and age of the transit rolling stock, which is summarized in Table 3. Baseline performance of transit equipment, facilities, and infrastructure are addressed in the TAM plans completed for each transit operator in October 2018, which will be reported to NTD for reporting year 2018. Transit operators and the Commission will work to track the transit asset data for the Region, and refine TAM targets as part of the continued performance monitoring and reporting process developed by FTA.

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[4] *The FTA TAM regulations define a state of good repair as the condition in which a capital asset is able to operate at a full level of performance.*

Figure 1
Methodology for Calculating the Transit Asset Management Performance Measures

The following is the methodology developed by FTA for calculating the following four TAM performance measures:

- Percent of revenue vehicles that have either met or exceeded their useful life benchmarks (ULB)
- Percent of vehicles and equipment that have either met or exceeded their ULB
- Percent of segments that have performance restrictions
- Percent of facilities exceeding the Transit Economic Requirements Model (TERM) scale

1. As part of the national performance management framework, transit operators are required to conduct an inventory of their transit assets as outlined in the following table:

Transit Asset Category	Asset Class	Applicable Assets
Rolling Stock	All revenue vehicles used in the provision of public transit	Only revenue vehicles with direct capital responsibility
Equipment	All non-revenue service vehicles and equipment over $50,000 used in the provision of public transit, except third-party equipment assets	Only non-revenue service vehicles with direct capital responsibility
Infrastructure	All guideway infrastructure used in the provision of public transit	Only fixed-rail guideway with direct capital responsibility
Facilities	All passenger stations and all exclusive-use maintenance facilities used in the provision of public transit, excluding bus shelters	Maintenance and administrative facilities with direct capital responsibility. Passenger stations (buildings) and parking facilities with direct capital responsibility.

2. Calculate each performance measure, based on the number of assets under each transit asset category that are not in state-of-good repair. For rolling stock and non-revenue service vehicles, the state-of-good repair is identified based on the useful life benchmarks (ULB) from FTA's *Transit Database Asset Inventory Module*. The identification of the state-of-good repair for infrastructure and facilities is based on FTA's Transit Economic Requirements Model (TERM) scale, as provided in the *TAM Facility Performance Measure Reporting Guidebook: Condition Assessment Calculation*.

Source: Federal Transit Administration and SEWRPC

Table 2
Year 2018 Transit Asset Management Targets Established by the Milwaukee County Transit System

Asset			Performance Measure	Target
Category	Class	Examples		
Rolling Stock	Buses	40 foot buses	Percent of revenue vehicles that have either met or exceeded their useful life benchmark	< 30
Equipment	Non-revenue service vehicles and equipment over $50,000	Route Supervisor Vehicles, Maintenance Trucks, Pool Vehicles, DPF Cleaning System, Bus Wash Systems, Fare Collection systems, Vehicle Lifts, etc.	Percent of vehicles and equipment that have either met or exceeded their useful life benchmark	< 30
Facilities	Support	Administration Building, Fleet Maintenance, Kinnickinnic Station/Garage, Fond Du Lac Station/Garage, Fiebrantz Station/Garage, 60th and Vliet Rest Stop, Teutonia and Atkinson Rest Stop	Percent of facilities within an asset class, rated below 3 on condition reporting system	< 15
	Parking	Park-Ride Lots with Direct Capital Responsibility		0
Infrastructure	Fixed Guideway	N/A	N/A	

Source: Milwaukee County Transit System and SEWRPC

Table 3
Condition of Transit Vehicle Assets of Transit Operators in the Region: 2017

Asset Category/Class	Count	Past Age ULB	
		Number[a]	Percent
Bus	533	115	21.6
Cutaway Bus	53	7	13.2
Minivan	22	2	9.1
Van	6	4	66.7
Automobile	8	1	12.5
Vintage Trolley	7	7	100.0
Revenue Vehicles Summary	629	136	21.6

Note: This assessment utilized the Useful Life Benchmarks (ULB) identified in FTA's Default Useful Life Benchmark Cheat Sheet.

[a] *The Useful Life Benchmarks represent the following: buses = 14 years; cutaways = 10 years; minivans, vans, and automobiles = 8 years; vintage trolleys = 8 years.*

Source: National Transit Database and SEWRPC

Evaluation of Historical Trends

Figure 2 shows the average vehicle age for the transit systems in the Region from 2011 to 2017. While not fully representing the TAM performance measures, the average vehicle age data shows that the condition of the transit fleet remained somewhat stable over the seven-year time period.

Review of Relevant Plans

VISION 2050 contains many recommendations related to expanding and improving transit in the Region. In addition, short-range (five-year) transit development plans developed for each of the Region's public transit systems contain detailed recommendations for the transit services of each operator. As part of the National performance management framework, each transit operator in the Region is required to develop asset management plans that provide a condition report of their infrastructure and for establishing performance targets to provide a basis for investment prioritization.

VISION 2050

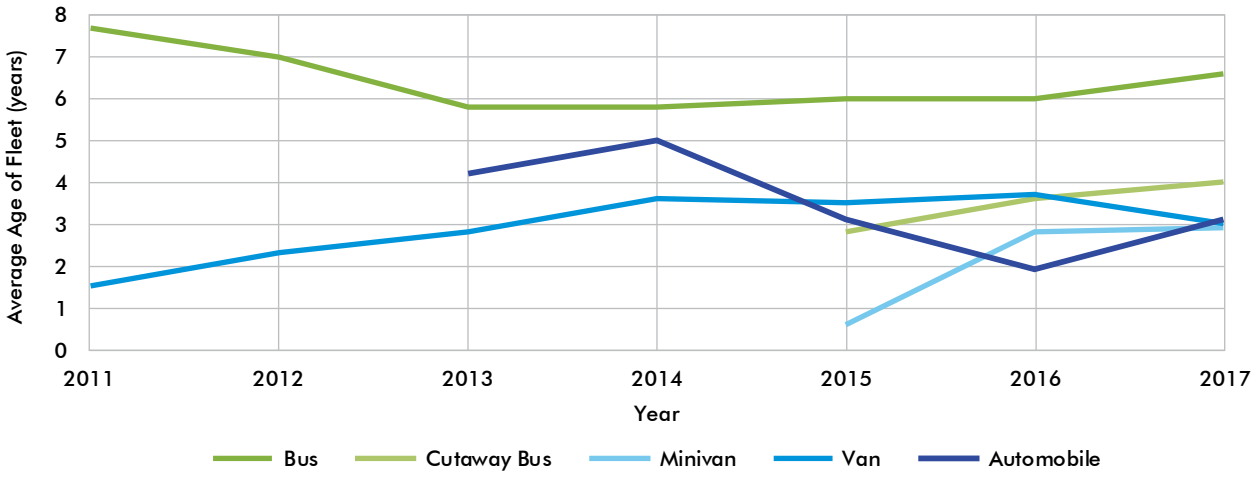
VISION 2050 recommends a substantial improvement and expansion of transit service in Southeastern Wisconsin over the next 30 years (Recommendations 2.1 through 2.4). This includes significant improvement and expansion of public transit in Southeastern Wisconsin, including four commuter rail lines, eight rapid transit lines, and significantly expanded local bus, express bus, commuter bus, and shared-ride taxi services. As part of keeping the existing system, and the recommended expansion and improvement, a viable service to the residents of the Region, the condition of the transit assets in the Region are recommended to be kept in a state of good repair. More detail on these recommendations can be found in Chapter 1 of Volume III of the VISION 2050 report.

As part of the development of VISION 2050, it was determined that without additional transit funding being made available at the Federal and State levels, transit service would be expected to decline—as it has in recent years—by the year 2050. Based on this, a Fiscally-Constrained Transportation Plan (FCTP) was developed for the Region, which included only the portions of the recommended transit expansion and improvement that would be expected to be completed by the year 2050 with existing and reasonably expected funds. Similarly, it is expected that, based on the existing and reasonably expected funding levels assumed under the FCTP, that transit operators will be required to maintain vehicles and other assets beyond their useful life. More detail on the FCTP can be found in Chapter 2 of Volume III of the VISION 2050 report, and in the document prepared for the Second Amendment to VISION 2050.

Transit Development Plans

The Commission has prepared, on behalf of many of the transit operators in the Region, short-range transit development plans (TDPs). These plans contain detailed recommendations for the transit services of each operator. The TDPs also make recommendations regarding the short-term capital needs of the transit operators for maintaining their existing assets.

Figure 2
Revenue Vehicle Weighted Average Age – Transit Operators in the Region



Source: National Transit Database and SEWRPC

Transit Asset Management Plans

As required by Federal regulations, TAM plans were submitted to FTA by the start of October 2018 for all of the transit operators in the Region. The TAM plans included a reporting on the current condition of the existing assets of the transit operators and included performance targets for guiding short-term investment decisions. In Southeastern Wisconsin, separate TAM plans were developed for the two Tier I transit operators[5]—MCTS and Kenosha Area Transit. With respect to the Tier II operators, a group TAM plan was prepared by the Commission for eight transit operators—Hartford City Taxi System, Ozaukee County Transit System, RYDE (City of Racine Transit System), Washington County Transit System, City of Waukesha Metro Transit, Waukesha County Transit System, City of West Bend Taxi Service, and Western Kenosha County Transit. In addition, Western Kenosha County Transit was included in the group plan prepared by the Commission. The remaining Tier II transit operators (Walworth County and City of Whitewater) opted into the statewide Group TAM Plan prepared by the WisDOT.

Preliminary TAM Targets

Establishing year 2050 targets based on the short-range targets established by the Commission for the year 2018 would acknowledge that a portion of the Region's rolling stock and transit facilities will operate beyond their useful life and below optimal conditions. In recent years, transit operators in the Region are, and have been, making maximum use of all available FTA funds in order to maintain a state of good repair. Such funds, until recently, have been below historical levels—making it difficult to maintain the desired replacement of buses every 12 to 14 years. Other recent funding challenges include State transit funding decreasing or not keeping pace with inflation, the limited ability to replace Federal and State funds with local property taxes due to State-imposed tax levy caps, and restrictions on other local government revenue sources established by the State. However, given the VISION 2050 recommendations for the over doubling of transit service by the year 2050 and the associated substantial investment in transit assets that would occur if that doubling is achieved. Specifically, the Commission staff preliminarily recommends that the year 2050 targets for the Region for the rolling stock (revenue and non-revenue vehicles) owned by the transit operators were based on a vehicle being replaced on average one year before exceeding its Federally defined maximum useful life. In addition, the Commission staff preliminarily recommended that the year 2050 target for the remaining measures be set as 0 percent based on the assumption that investment levels needed to implement the VISION 2050 recommendations would be sufficient to achieve these targets. Table 4 shows the preliminary recommended year 2050 targets for each of the TAM performance measures. It was further

[5] *A Tier I Transit Provider operates rail or has greater than 100 vehicles across all fixed route modes, or greater than 100 vehicles in one non-fixed route mode. A Tier II Transit Provider is a subrecipient of 5311 funds, or an American Indian Tribe, or operates less than or equal to 100 vehicles across all fixed route modes, or less than or equal to 100 vehicles in one non-fixed route mode.*

Table 4
Preliminary Recommended Year 2050 Transit Asset Management Targets for the Region

Asset Class	Asset Examples	Performance Measure	Preliminary Recommended Year 2050 Target	Year 2018 Target[a]
		Rolling Stock		
Buses, Other Passenger Vehicles, and Railcars	Bus, Cutaway, Van, Minivan, and Streetcars	Percent of revenue vehicles that have either met or exceeded their useful life benchmark	< 10	< 30
		Equipment		
Non-revenue service vehicles and equipment over $50,000	Route Supervisor Vehicles, Maintenance Trucks, Pool Vehicles, DPF Cleaning System, Bus Wash Systems, Fare Collection systems, Vehicle Lifts	Percent of vehicles and equipment that have either met or exceeded their useful life benchmark	< 20	< 30
		Facilities		
Support	Maintenance and Administrative Facilities	Percent of facilities within an asset class, rated below 3 on condition reporting system	0	< 15
Passenger	Rail Terminals, Bus Transfer Stations	Percent of facilities within an asset class, rated below 3 on condition reporting system	0	0
Parking	Park-Ride Lots with Direct Capital Responsibility	Percent of facilities within an asset class, rated below 3 on condition reporting system	0	0
		Infrastructure		
Fixed Guideway	Track Segments, Exclusive Bus Rights-of-Way, Catenary Segments, and Bridges	Percent of segments that have performance restrictions	0	0

[a] *It is proposed that future short-term targets (beyond 2018) for these performance measure be the same as the year 2018 target until additional Federal and State funding becomes available for transit capital projects.*

Source: SEWRPC

recommended, unless additional Federal and State funding becomes available for transit capital projects, that future short-term targets (beyond 2018) for the rolling stock-related measure be the same as the year 2018 targets, as shown on Table 4.

PAVEMENT CONDITION

The Commission has long tracked the pavement condition of the arterial streets and highways within the Region. The condition of pavement has been historically collected based on the separate measuring systems utilized for the State trunk highway system and for the roadways under county and local jurisdiction.[6] However, in order to develop uniform methodology for tracking the condition of the NHS nationwide, FHWA developed four performance measures to monitor pavement condition: percentage of the Interstate system in good condition, percentage of the Interstate system in poor condition, percentage of the non-Interstate NHS in good condition, and percentage of the non-Interstate NHS in poor condition. The methodology for calculating each of the four pavement condition performance measures is provided in Figure 3. The data utilized to develop the performance measures are based on data submitted annually by WisDOT to FHWA through its Highway Performance Monitoring System (HPMS). Based on the methodology developed by FHWA, a rating of Good, Fair, or Poor is determined based on the criteria established for various types of pavement. Then, the performance measures are calculated by dividing the lane miles of Good or Poor pavement by the total lane miles of evaluated pavement for both the Interstate System and the non-Interstate NHS.

[6] *The Commission has utilized the International Roughness Index (IRI) and the Pavement Surface and Evaluation Rating (PASER) system to monitor the condition of the arterials under State and county/local jurisdiction, respectively. IRI is estimated utilizing special equipment to physically measure pavement condition along the roadway, and PASER is a rating system that employs visual inspection techniques to assess the pavement condition.*

Figure 3
Methodology for Calculating the National Pavement Performance Measures for the Interstate System and the Non-Interstate National Highway System (NHS)

The following is the methodology developed by FHWA for calculating the four pavement-related performance measures:

- Percent of Lane-Miles of Interstate Highway System with Good Pavement Condition
- Percent of Lane-Miles of Interstate Highway System with Poor Pavement Condition
- Percent of Lane-Miles of Non-Interstate NHS with Good Pavement Condition
- Percent of Lane-Miles of Non-Interstate NHS with Poor Pavement Condition

1. The following four criteria from data submitted by the State to the Highway Performance Management System (HPMS) are utilized for asphalt and concrete pavement, as follows:

Pavement Type	International Roughness Index (IRI)	Percent Cracking	Average Rutting	Average Faulting
Asphaltic Pavement (AP)	X	X	X	
Jointed Concrete Pavement (JCP)	X	X		X
Continuous Reinforced Concrete Pavement (CRCP)	X	X		

2. For every segment of the Interstate system or the Non-Interstate NHS having pavement condition data in the HPMS, identify the Good and Poor condition for each of the relevant criteria based on the following thresholds:

Measure Criteria	Good	Fair	Poor
IRI	<95	95-170	>170
Percent Cracking	<5	AP: 5-20 JCP: 5-15 CRCP: 5-10	AP: >20 JCP: >15 CRCP: >10
Average Rutting (Inches)	<0.20	0.20-0.40	>0.40
Average Faulting (Inches)	<0.10	0.10-0.15	>0.15

3. Determine the overall Good or Poor pavement condition for every segment of Interstate system or the Non-Interstate NHS, based on the following:

Good	AP and JCP: All Three Criteria Good CRCP: Both Criteria Good
Poor	AP and JCP: Two Criteria Poor CRCP: Both Criteria Poor
Fair	All Other Conditions

4. Calculate the respective performance measure by the following formula:

$$\underset{\text{Having Good or Poor Pavement}}{\text{Percent of Interstate or Non-Interstate NHS}} = \frac{\text{Lane-Miles of Good or Poor Pavement}}{\text{Total Lane Miles}}$$

Source: Federal Highway Administration and SEWRPC

State and Initial MPO Targets

Table 5 shows the two- and four-year statewide targets established by WisDOT in May 2018 for the four pavement-related performance measures. From information provided by WisDOT to FHWA, the targets were established by projecting historical trends into the future. Per Federal regulations, the Commission was required to establish four-year targets for the four pavement-related performance measures for the MPA by November 2018. As such, the Commission established initial targets for these performance measures utilizing the same four-year targets as established by WisDOT.

Regional Baseline Data

Map 2 shows the pavement condition of each segment of highway for the NHS. Table 6 shows the total lane-miles and percentage of NHS roadways in Southeastern Wisconsin that have a rating of Good, Fair, and Poor.

Table 5
Statewide National Highway System (NHS) Pavement Condition Targets Established by the Wisconsin Department of Transportation

Performance Measure	2-Year Target (2019)	4-Year Target (2021)
Interstate NHS Pavement Condition		
Percentage of Lane-Miles in Good Condition	N/A	≥ 45
Percentage of Lane-Miles in Poor Condition	N/A	≤ 5
Non-Interstate NHS Pavement Condition		
Percentage of Lane-Miles in Good Condition	≥ 20	≥ 20
Percentage of Lane-Miles in Poor Condition	≤ 12	≤ 12

Source: WisDOT and SEWRPC

Evaluation of Historical Trends

Figure 4 shows the percentage of lane-miles of pavement considered Good or Poor based only on IRI for both the Interstate system and the Non-Interstate NHS between 2005 and 2016. While not incorporating all of the pavement condition criteria, this shows that there has been a slight improvement in pavement condition for both systems over the 11-year time period.

Review of Relevant Plans

VISION 2050 contains recommendations related to maintaining pavement condition throughout the Region. In addition, as part of the national performance management framework, WisDOT is currently preparing a statewide asset management plan for the pavement and bridges of the roadways on the NHS.

VISION 2050

VISION 2050 recommends that the condition of all 3,600 miles of the roadways that are part of the Region's existing arterial street and highway system be preserved to maintain their ability to effectively carry higher levels of people and goods. Specifically, VISION 2050 recommends maintaining or increasing the current proportion of pavement that is in Good condition, and maintaining or reducing the current proportion of pavement in Poor condition, during the life of the plan. The specific recommendation of VISION 2050 that addresses pavement condition is Recommendation 6.1. More detail on this recommendation can be found in Chapter 1 of Volume III of the VISION 2050 report.

State Asset Management Plans

As part of Federal regulations, WisDOT is required to develop and implement an asset management plan for the pavement and bridges of the roadways on the NHS within the State. WisDOT has not yet finalized the State asset management plan, which was completed following the approval of this amendment. Following the completion of the asset management plan by WisDOT, any recommendations that relate to pavement condition would be considered when the pavement-related targets are reviewed as part of the review and update of VISION 2050 in 2020.

Preliminary Pavement Condition Targets

Utilizing the State's targets for the regional pavement-related performance measures would represent a decrease in condition for three of the four measures. Such declines would not be consistent with the recommendations of VISION 2050 to maintain or improve the pavement condition of the arterial roadways in Southeastern Wisconsin. Thus, Commission staff deemed it appropriate to establish different targets for the Region. Establishing targets would ideally be done with detailed information on where each segment of roadway is in its life cycle and an asset management model that would allow the evaluation of the effect on pavement condition of different pavement management programs. However, such a model has not yet been developed for the NHS in the Region. Thus, for establishing the targets for the pavement performance measures, it was preliminarily recommended that between 2017 (the base year of the data) and the design year 2050 the amount of existing lane-miles in Good condition increase by 10 percent and the amount of lane-miles in Poor condition decrease by 10 percent. Table 7 shows the preliminary recommended year 2050 pavement targets for the Interstate system and the non-Interstate NHS in the Region. Table 8 shows the resulting year 2021 targets for the MPA and Region. It was further preliminarily recommended that the Commission staff work with WisDOT and county/local governments having NHS under their jurisdiction to assemble detailed historical information on each segment of roadway and to develop an asset management model.

Map 2
Pavement Condition of the National Highway System in the Region: 2017

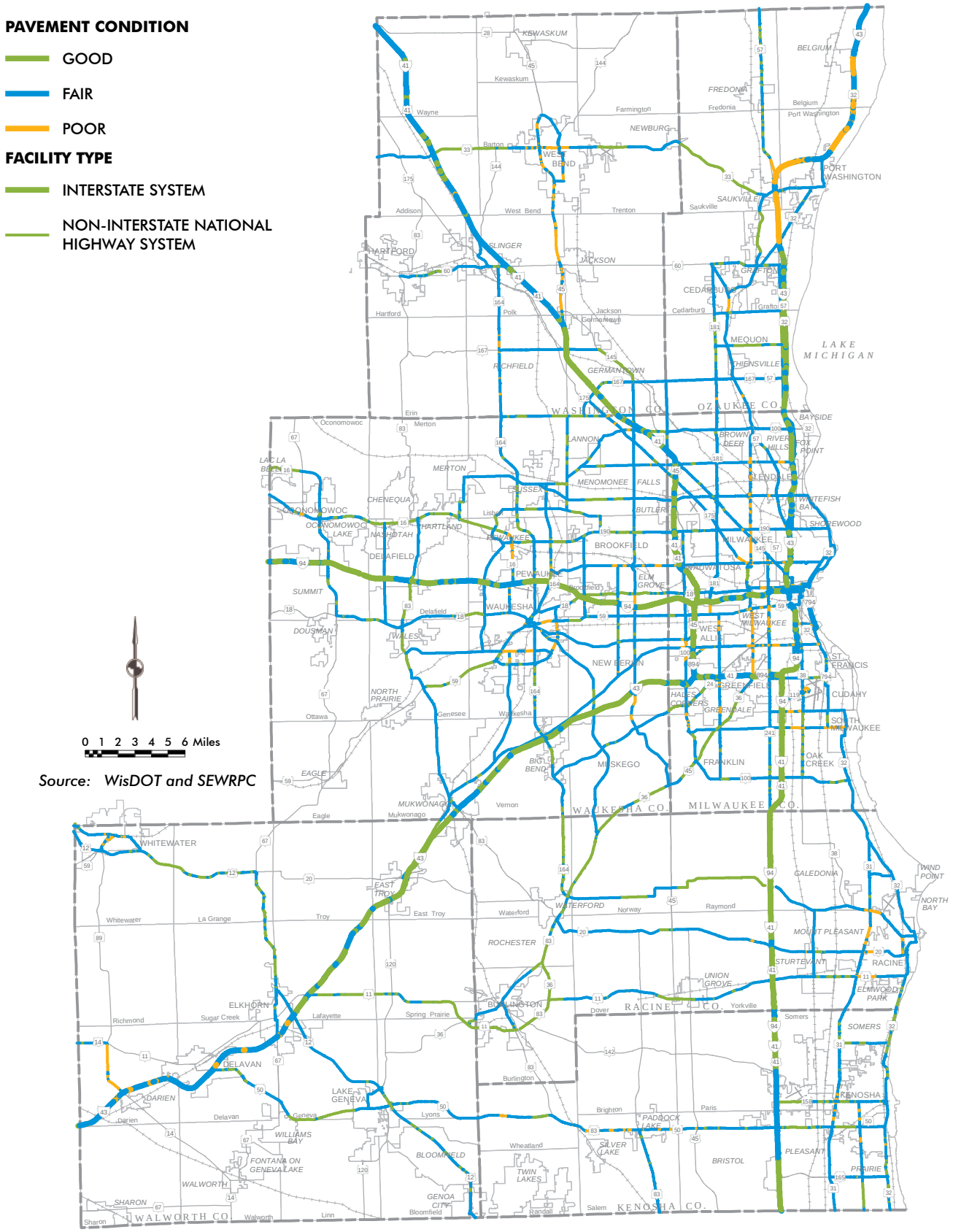


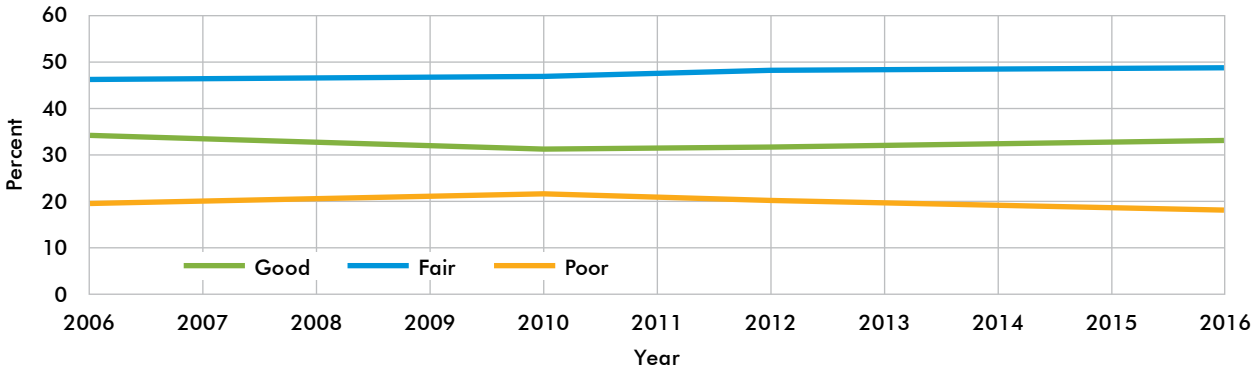
Table 6
Condition of Pavement on the Interstate System and Non-Interstate National Highway System: Base Year 2017

Interstate System		
Rating	**Lane-Miles**	**Percent of Lane-Miles**
Good	604	59.0
Fair	373	36.4
Poor	47	4.6
Total	1,024	100.0

Non-Interstate National Highway System		
Rating	**Lane-Miles**	**Percent of Lane-Miles**
Good	627	18.9
Fair	2,477	74.5
Poor	220	6.6
Total	3,324	100.0

Source: WisDOT and SEWRPC

Figure 4
Condition of State Trunk Highway Based on International Roughness Index: 2006-2016



Source: WisDOT and SEWRPC

Table 7
Preliminary Recommended Regional Year 2050 Targets for National Highway System (NHS) Pavement Performance Measures

Performance Measure	Year 2017 Regional Baseline Data	Preliminary Recommended Year 2050 Regional Target
Interstate NHS Pavement Condition		
Percentage of Lane-Miles in Good Condition	59.0	≥ 64.9
Percentage of Lane-Miles in Poor Condition	4.6	≤ 4.1
Non-Interstate NHS Pavement Condition		
Percentage of Lane-Miles in Good Condition	18.9	≥ 20.8
Percentage of Lane-Miles in Poor Condition	6.6	≤ 5.9

Source: WisDOT and SEWRPC

Table 8
Resulting Year 2021 Targets for National Highway System (NHS) Pavement Performance Measures For the Metropolitan Planning Area and Seven-County Region Based on the Preliminary Recommended Year 2050 Regional Targets

	Metropolitan Planning Area		Seven-County Region	
Performance Measure	Year 2017 Baseline Data	Resulting Year 2021 Target	Year 2017 Baseline Data	Resulting Year 2021 Target
Interstate NHS Pavement Condition				
Percentage of Lane-Miles in Good Condition	61.1	≥ 61.8	59.0	≥ 59.7
Percentage of Lane-Miles in Poor Condition	4.4	≤ 4.3	4.6	≤ 4.5
Non-Interstate NHS Pavement Condition				
Percentage of Lane-Miles in Good Condition	17.6	≥ 17.8	18.9	≥ 19.1
Percentage of Lane-Miles in Poor Condition	6.8	≤ 6.7	6.6	≤ 6.5

Source: WisDOT and SEWRPC

BRIDGE CONDITION

The Commission has long tracked the condition of the bridges located on the arterial streets and highways within the Region. Historically, the condition of bridges has been rated based on utilizing the bridge sufficiency rating[7] of the bridges. However, as part of National performance framework, FHWA developed two performance measures to monitor bridge condition for all NHS roadways (both Interstate and non-Interstate): percentage of NHS bridges in Good condition and percentage of NHS bridges in Poor condition. The methodology for calculating the two bridge condition performance measures is provided in Figure 5. Based on this methodology, a rating of Good, Fair, or Poor is determined based on the criteria established for bridges and culverts. Then, the performance measures are calculated by dividing the total deck area of Good or Poor bridges by the total deck area of evaluated pavement for both the Interstate system and the non-Interstate NHS.

State and Initial MPO targets

Table 9 shows the two- and four-year targets for the two bridge-related performance measures that were established by WisDOT in May 2018. Per Federal regulations, the Commission was required to establish four-year targets for the two bridge-related performance measures for the MPA by November 2018. As such, the Commission established initial targets for these performance measures utilizing the same four-year targets as established by WisDOT.

Regional Baseline Data

Map 3 shows the condition of each bridge on the NHS in Southeastern Wisconsin. Table 10 shows the total bridge area and percentage of NHS bridges in Southeastern Wisconsin that have a condition of Good, Fair, or Poor.

Evaluation of Historical Trends

Figure 6 shows the percentage of deck area of bridges considered Good or Poor for the NHS between 2005 and 2017. Over the time period, there has been a slight improvement in bridge condition of the NHS.

Review of Relevant Plans

VISION 2050 contains recommendations related to maintaining condition of bridges throughout the Region. In addition, as part of the national performance management framework, WisDOT is currently preparing a statewide asset management plan for the pavement and bridges of the roadways on the NHS.

VISION 2050

VISION 2050 recommends that the condition of all 3,600 miles of the roadways, including bridges, that are part of the Region's existing arterial street and highway system be preserved to maintain their ability to effectively carry higher levels of people and goods. Specifically, VISION 2050 recommends maintaining or increasing the current proportion of bridges that are in Good condition, and maintaining or reducing the current proportion of pavement in Poor condition, during the life of the plan. The specific recommendation of VISION 2050 that addresses bridge condition is Recommendation 6.1. More detail on this recommendation can be found in Chapter 1 of Volume III of the VISION 2050 report.

State Asset Management Plans

As part of Federal regulations, WisDOT is required to develop and implement an asset management plan for the pavement and bridges of the roadways on the NHS within the State. WisDOT has not yet finalized the State asset management plan, which was completed following the approval of this amendment. Following the completion of the asset management plan by WisDOT, any recommendations that relate to bridge condition would be considered when the bridge-related targets are reviewed as part of the review and update of VISION 2050 in 2020.

[7] *Sufficiency ratings are a score of 0 to 100 based on four factors: structural adequacy; safety; serviceability and functional obsolescence; essentiality for public use; and special reductions.*

Figure 5
Methodology for Calculating the National Bridge Performance Measures for the National Highway System (NHS)

The following is the methodology developed by FHWA for calculating the two bridge-related performance measures:

- Percent of Deck Area of NHS Bridges in Good Condition
- Percent of Deck Area of NHS Bridges in Poor Condition

1. Identify the Good and Poor condition for each of the relevant criteria based on the following thresholds for the ratings as reported to the National Bridge Inventory:

Measure Criteria	Good	Fair	Poor
Deck	≥7	5 or 6	≤4
Superstructure	≥7	5 or 6	≤4
Substation	≥7	5 or 6	≤4
Culvert	≥7	5 or 6	≤4

2. Calculate overall bridge condition based on the lowest condition of the three criteria for bridges—Deck, Superstructure, and Substation—and the Culvert criteria for culverts.

3. Calculate the respective performance measure by the following formula:

$$\begin{matrix} Percent\ of\ NHS\ Bridges \\ Having\ Good\ or\ Poor\ Pavement \end{matrix} = \frac{Deck\ Area\ \ of\ Good\ or\ Poor\ Pavement}{Total\ Deck\ Area}$$

Source: Federal Highway Administration and SEWRPC

Table 9
Statewide National Highway System (NHS) Bridge Condition Targets Established by the Wisconsin Department of Transportation

Performance Measure	2-Year Target (2019)	4-Year Target (2021)
Percentage of NHS Bridge Deck Area in Good Condition	≥ 50	≥ 50
Percentage of NHS Bridge Deck Area in Poor Condition	≤ 3	≤ 3

Source: WisDOT and SEWRPC

Preliminary Bridge Condition Targets

Utilizing the State's targets for the regional bridge-related performance measures would represent a decrease in condition for these measures. Such declines would not be consistent with the recommendations of VISION 2050 to maintain or improve the bridge condition of the arterial roadways in Southeastern Wisconsin. Thus, Commission staff deemed it appropriate to establish different targets for the Region. Establishing targets would ideally be done with detailed information on where each bridge is in its life cycle and an asset management model that would allow the evaluation of the effect on bridge condition by different pavement management programs. However, such a model has not yet been developed for the NHS in the Region. Thus, for establishing the targets for the bridge performance measures, it was preliminarily recommended that between 2017 (the base year of the data) and the design year 2050 the amount of existing bridge deck in Good condition increase by 10 percent and the amount of deck area in Poor condition decrease by 10 percent. Table 11 shows the preliminary recommended year 2050 bridge targets for the NHS in the Region. Table 12 shows the resulting year 2021 targets for the MPA and Region. It was further preliminarily recommended that the Commission staff work with WisDOT and county/local governments having NHS under their jurisdiction to assemble detailed historical information on each bridge and to develop an asset management model.

SYSTEM RELIABILITY

Transportation system reliability reflects the degree to which travelers are able to reach their destinations on time. Travelers using a less reliable transportation system would be more likely to experience unexpected delays than travelers using a more reliable transportation system. The additional delays associated with a less reliable transportation system would result in negative impacts, such as increased

Map 3
Bridge Condition of the National Highways System in the Region: 2017

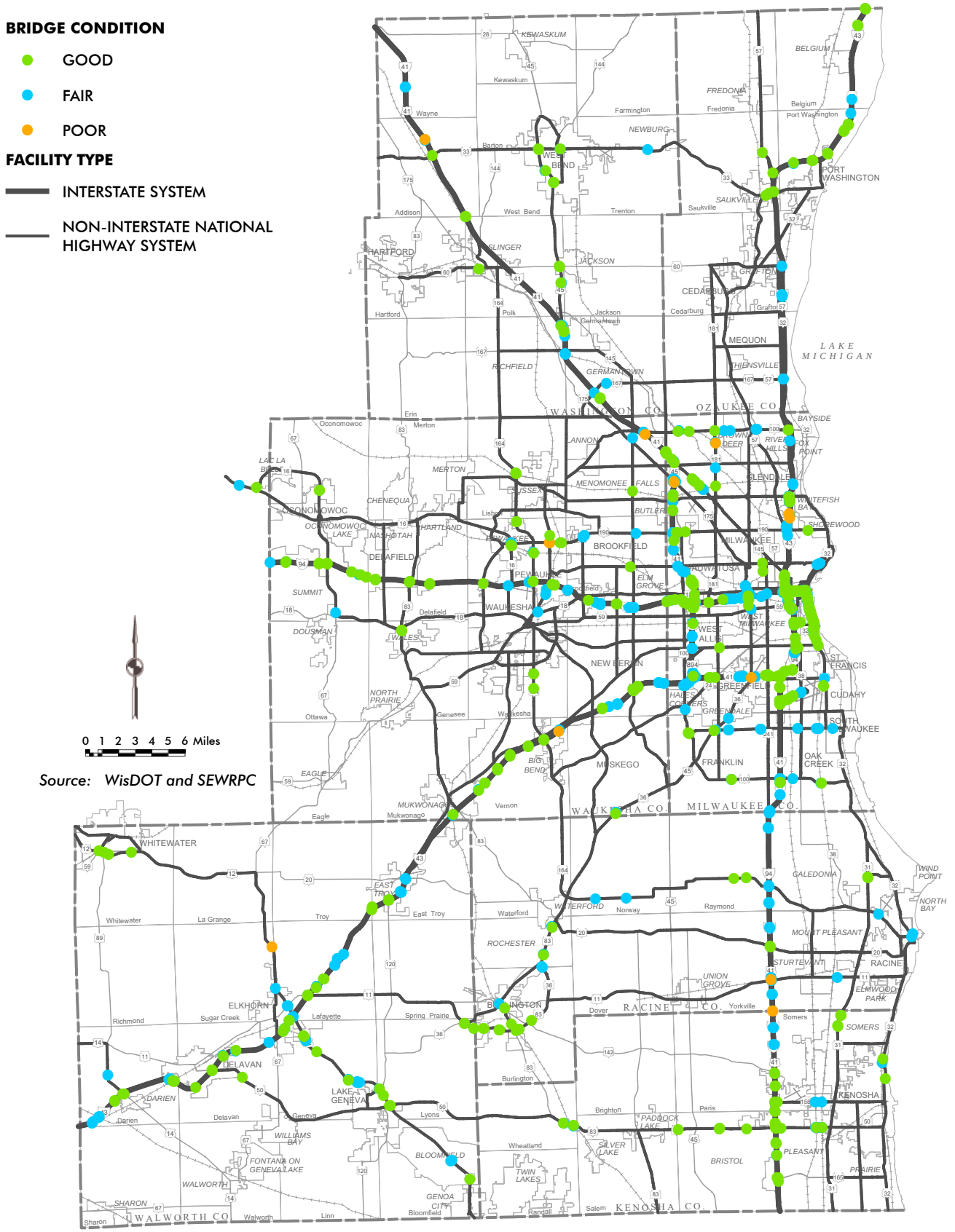
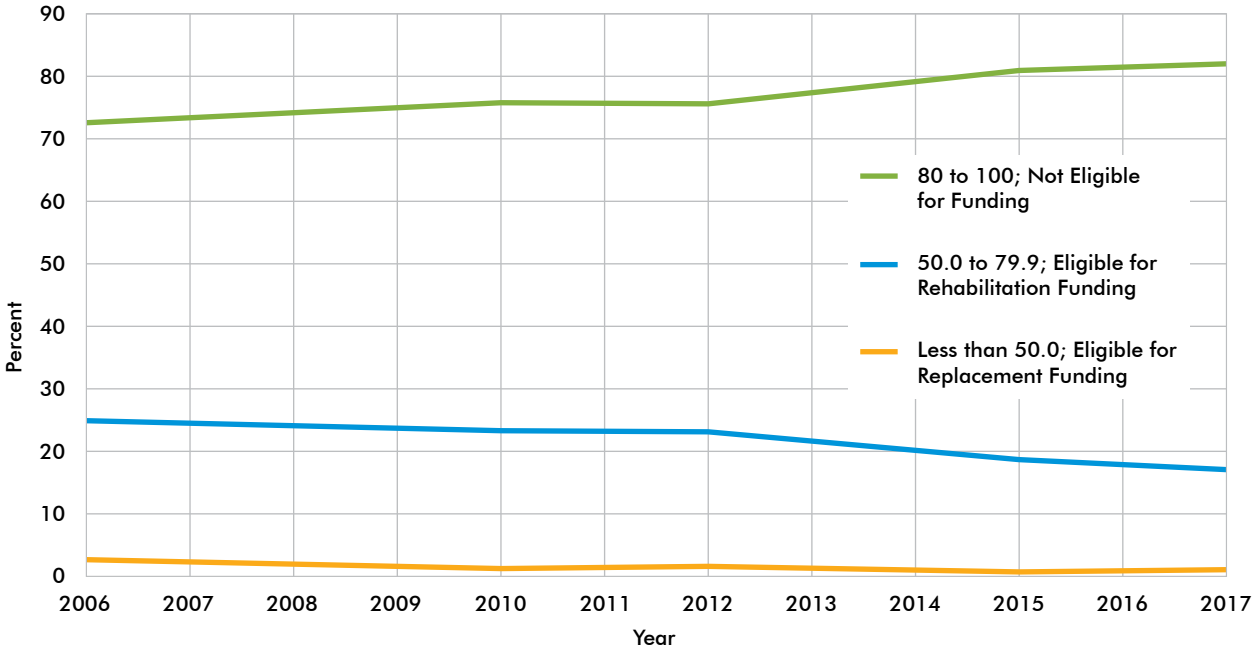


Table 10
Condition of Bridges on the National Highway System: Base Year 2017

Rating	Number of Bridges	Total Deck Area (square feet)	Percent of Total Deck Area
Good	422	607,406	58.0
Fair	334	426,379	40.7
Poor	15	13,468	1.3
Total	771	1,047,257	100.0

Source: WisDOT and SEWRPC

Figure 6
Condition of Bridges Based on Sufficiency Rating on the State Trunk Highway Network: 2006-2017



Source: WisDOT and SEWRPC

Table 11
Preliminary Recommended Regional Year 2050 Targets for National Highway System (NHS) Bridge Performance Measures

Performance Measure	Year 2017 Regional Baseline Data	Preliminary Recommended Year 2050 Regional Target
Percentage of NHS Bridge Deck Area in Good Condition	58.0	≥ 63.8
Percentage of NHS Bridge Deck Area in Poor Condition	1.3	≤ 1.2

Source: WisDOT and SEWRPC

Table 12
Resulting Year 2021 Targets for National Highway System (NHS) Bridge Performance Measures for the Metropolitan Planning Area and Seven-County Region Based on the Preliminary Recommended Year 2050 Regional Targets

	Metropolitan Planning Area		Seven-County Region	
Performance Measure	Year 2017 Baseline Data	Resulting Year 2021 Target	Year 2017 Baseline Data	Resulting Year 2021 Target
Percentage of NHS Bridge Deck Area in Good Condition	58.3	≥ 59.0	58.0	≥ 58.7
Percentage of NHS Bridge Deck Area in Poor Condition	1.3	≤ 1.3	1.3	≤ 1.3

Source: WisDOT and SEWRPC

total travel time delay for personal vehicles and public transit, vehicle emissions, energy use, and freight shipping travel time and costs.

Improving the ability of travelers to reach their destinations on time depends on a variety of factors, including: reducing total congestion[8] on the arterial street and highway system, which would allow the system to better accommodate natural day-to-day fluctuations in traffic volumes; reducing the frequency of events, such as vehicular crashes on arterial streets and highways, which can cause non-recurring congestion;[9] improving alternative routes and modes (such as arterial streets and highways, transit services, bicycle facilities, and pedestrian facilities) that can provide an opportunity for travelers to avoid congestion; and expanding transportation options (such as commuter rail, light rail, and bus rapid transit) that are less impacted by inclement weather and crashes.

Transportation system reliability can be measured by the level of variation in travel times that occurs day-to-day. Reliability is typically measured by comparing the highest travel time experienced[10] on a daily basis or during a particular time of day (such as during peak travel times) on a roadway to the median or average travel time. Reliability can be measured by taking the difference of the two travel times (representing the additional time that should be added to the trip to arrive on time) or as a ratio of the two travel times.

As part of the national performance management framework, FHWA developed three reliability-based performance measures: 1) percent of the Interstate system that is reliable, 2) percent of the non-Interstate NHS that is reliable, and 3) freight reliability ratio. Figures 7 and 8 show the methodology that is to be utilized to calculate the three performance measures. The travel time data that are to be used to calculate these performance measures come from a data set provided by FHWA, called the National Performance Management Research Data Set (NPMRDS). These data are based on probe data that are collected from a third-party and geo-referenced to segments of the NHS. For the year 2017, NPMRDS data are available for nearly the entire Interstate System in Southeastern Wisconsin. However, NPMRDS data are not yet available for all of the non-Interstate. For the year 2017, NHS data are available for about 80 percent of the non-Interstate NHS. As these data are updated annually, it is expected that the quality and quantity of NPMRDS data will increase.

State and Initial MPO Targets

Table 13 shows the two- and four-year targets for the three reliability-related measures established by WisDOT in May 2018. These targets were established by WisDOT by assuming that the percent change that occurred month-to-month within the base year would continue for the following four years. Per Federal regulations, the Commission was required to establish four-year targets for these performance measures for the MPA by November 2018. As such, the Commission established initial targets for the NHS reliability performance measures based on applying the relative change between the statewide baseline conditions and the statewide targets to the baseline data for the MPA. For the freight reliability index, the initial target established for the MPA was the same as the target established by WisDOT.

Regional Baseline Data

Map 4 shows the segments of the NHS that are reliable and unreliable in the Region under the NHS reliability measures, and Map 5 shows the freight reliability index for each segment of the Interstate system in the Region. Table 14 shows the Regional baseline performance for the three performance measures.

Evaluation of Historical Trends

Figures 9 and 10 show the performance of the three reliability-based performance measures for the MPA over a three- to six-year period. Due to the limited number of years of available consistent travel time data for both the Interstate system and the non-Interstate NHS, the trends of the three measures could not be discerned. However, some conclusions can be drawn from the available data for 2017.

[8] *Congestion on arterial streets and highways occurring on an average weekday results from traffic volumes exceeding roadway design capacity, usually during weekday peak traffic hours.*

[9] *Non-recurring congestion is congestion that can occur from time to time due to crashes, roadway construction, inclement weather, or special events.*

[10] *Typically, the 80th or 95th percentile highest travel time.*

Figure 7
Methodology for Calculating the Travel Time Reliability Performance Measures for the Interstate System and the Non-Interstate National Highway System (NHS)

The following is the methodology developed by FHWA for calculating the two NHS reliability performance measures:

- Percent of Person-Miles on Interstate System that is Reliable
- Percent of Person-Miles on Non-Interstate NHS that is Reliable

1. Utilizing travel time data from the National Performance Management Research Data Set (NPMRDS), calculate the 80th percentile and the 50th percentile highest travel time for every segment of the Interstate system or the Non-Interstate NHS for each of the following four time periods from January 1st through December 31st of a given year:

   a. 6 a.m. – 10 a.m. (Monday through Friday)
   b. 10 a.m. – 4 p.m. (Monday through Friday)
   c. 4 p.m. – 8 p.m. (Monday through Friday)
   d. 6 a.m. – 8 p.m. (Saturday and Sunday)

2. For each time period, calculate the level of travel time reliability (LOTTR) for every reporting segment of Interstate system or Non-Interstate NHS for by the following formula:

$$Segment\ Level\ of\ Travel\ Time\ Reliability = \frac{80th\ Percentile\ Travel Time\ of\ Segment}{50th\ Percentile\ Travel Time\ of\ Segment}$$

3. Identify as reliable any reporting segment of the Interstate system or the Non-Interstate NHS that has an LOTTR of below a threshold of 1.50 for all four time periods.

4. Calculate for each reporting segment of the Interstate system or Non-Interstate NHS the annual person-miles of travel (APMT) based on the Annual Average Daily Traffic (AADT) volumes provided by the State for the national Highway Performance Monitoring System (HPMS) by the following formula:

$$Segment\ APMT = Segment\ Length \times AADT \times Directional\ Factor \times Occupancy\ Factor$$

   With the directional factor based on data provided to the HPMS and the occupancy factor provided by the State or MPO.

5. Calculate each of the performance measures by the following formula:

$$Percent\ of\ System\ APMT\ that\ is\ Reliable = 100 \times \frac{Total\ APMT\ of\ Reliable\ Segments}{Total\ System\ APMT}$$

Source: Federal Highway Administration and SEWRPC

The percent of the person-miles of travel on the Interstate system within the MPA that were reliable in 2017—83.9—is above both the six-year average of 81.4 percent and the 2018 level of 80.3 percent. With respect to the percent of person-miles of travel on the non-Interstate NHS within the MPA that were reliable, the 2017 level of 90.9 percent is slightly above the three-year average of 90.7 percent and the 2018 level of 90.4. With respect to the freight reliability ratio within the MPA, the 2017 level of 1.54 is well below the six-year average of 1.73 and the 2018 level of 1.72. The Interstate reliability and the freight reliability ratio in 2017 could have been affected by the Zoo Interchange project, as the core interchange was still under significant construction that year—affecting the use and capacity of the Interstate system in the vicinity of the interchange.

Review of Relevant Plans

VISION 2050 contains many recommendations that would contribute to improving transportation system reliability by increasing system capacity across modes, reducing delay (both recurring and non-recurring), and improving safety. In addition, the State Freight Plan was developed to address freight travel on the state trunk highway network, including recommendations to address system bottlenecks to reduce travel delay.

VISION 2050

VISION 2050 contains recommendations related to expanding public transit service and bicycle accommodations, implementing transportation system management (TSM) and transportation demand management measures, improving safety, and increasing arterial highway capacity. National research has found that such recommendations can contribute to system reliability. The following paragraphs

Figure 8
Methodology for Calculating the Freight Travel Time Reliability Performance Measure for the Intestate System

The following is the methodology developed by FHWA for calculating the Freight reliability performance measure—the Freight reliability ratio.

1. Utilizing travel time data from the National Performance Management Research Data Set (NPMRDS), calculate the 95th percentile and the 50th percentile highest truck travel time for every reporting segment of the Interstate system for each of the following five time periods from January 1st through December 31st of a given year:

   a. 6 a.m. – 10 a.m. (Monday through Friday)
   b. 10 a.m. – 4 p.m. (Monday through Friday)
   c. 4 p.m. – 8 p.m. (Monday through Friday)
   d. 6 a.m. – 8 p.m. (Saturday and Sunday)
   e. 8 p.m. – 6 a.m. (Monday through Sunday)

2. For each time period, compute the truck travel time reliability (TTTR) for each reporting segment by the following formula:

$$TTTR = \frac{95th\ Percentile\ Travel\ Time\ of\ Reporting\ Segment}{50th\ Percentile\ Travel\ Time\ of\ Reporting\ Segment}$$

3. Identify for each reporting segment the maximum TTTR of all of the five time periods.

4. Calculate each of the performance measures for the reporting segments by the following formula:

$$Freight\ Reliability\ Ratio = \frac{\sum(Segment\ Length \times Segment\ maxTTTR)}{Total\ System\ Length}$$

Source: Federal Highway Administration and SEWRPC

Table 13
Statewide Targets for National Highway System (NHS) and Freight Reliability Performance Measures Established by the Wisconsin Department of Transportation

Performance Measure	Baseline Data (2017)	2-Year Target (2019)	4-Year Target (2021)
NHS Travel Time Reliability			
Percent of Person-Miles Traveled on the Interstate NHS that are Reliable	97.9	≥ 94.0	≥ 90.0
Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable	93.9	N/A	≥ 86.0
Freight Travel Time Reliability			
Feight Reliability Index	1.16	≤ 1.40	≤ 1.60

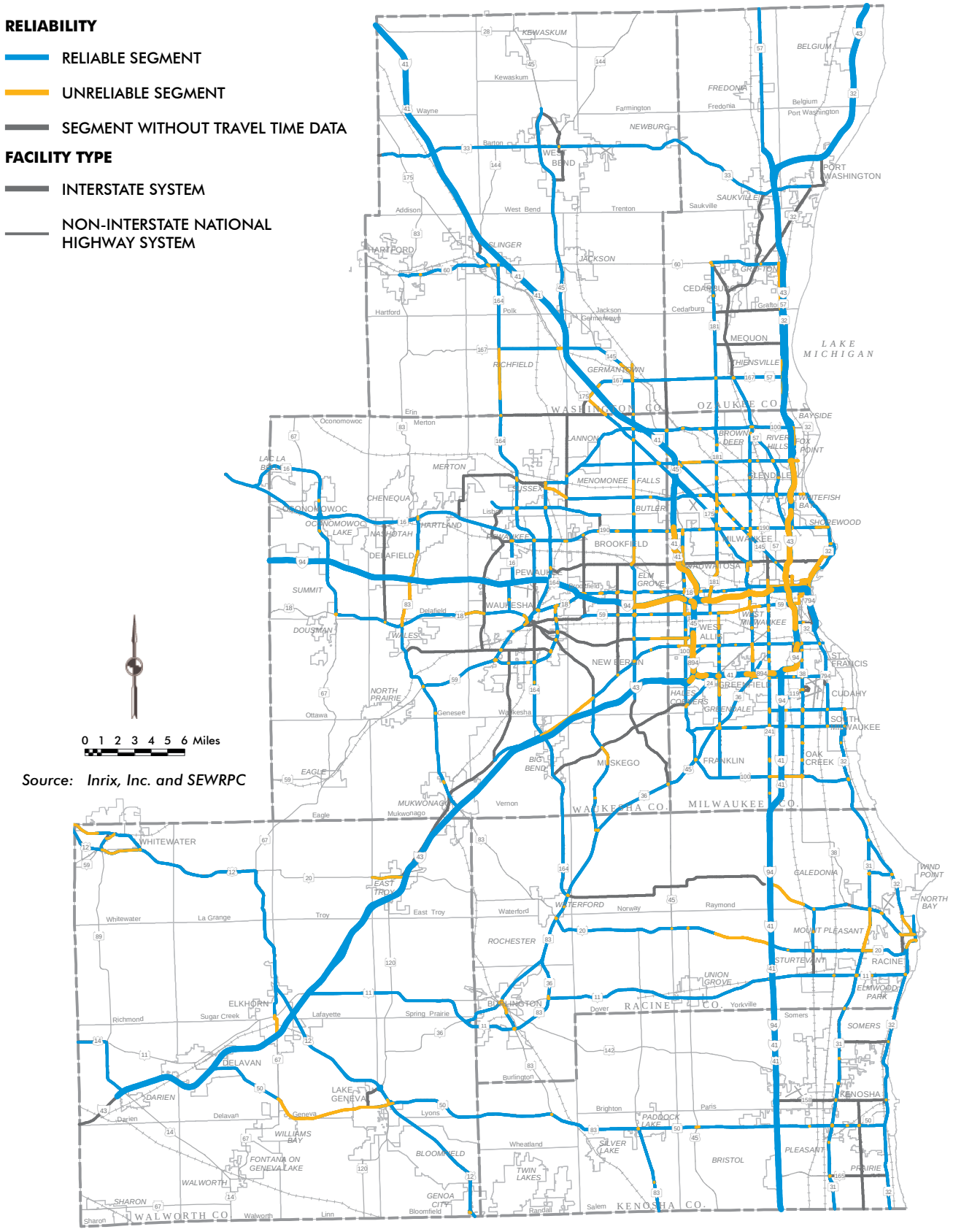
Source: Inrix, Inc., WisDOT, and SEWRPC

summarize these VISION 2050 recommendations. More detail on each of the recommendations can be found in Chapter 1 of Volume III of the VISION 2050 report.

With respect to public transit, VISION 2050 recommends more than doubling transit service in the Region through implementation of four commuter rail lines and eight rapid transit lines, and significantly expanding local bus, express bus, commuter bus, and shared-ride taxi services (Recommendations 2.1 through 2.5). With respect to bicycle and pedestrian accommodations, VISION 2050 recommends that on-street bicycle accommodations be provided on the entire 3,400-mile (nonfreeway) arterial street and highway system (including about 400 miles of enhanced bicycle accommodations), completion of a 709-mile off-street bicycle path network, and expanding bike share program implementation (Recommendations 3.1 through 3.4). VISION 2050 also includes recommendations for the location, design, and construction of pedestrian facilities (Recommendation 3.5).

VISION 2050 recommends the implementation of transportation system management (TSM) measures relating to freeway traffic management, surface arterial street and highway traffic management, and major activity center parking management and guidance. With respect to freeway traffic management, VISION 2050 recommends measures to improve freeway operation—both during average weekday peak traffic

Map 4
Interstate System and Non-Interstate National Highway System Reliability in the Region: 2017



Source: Inrix, Inc. and SEWRPC

Map 5
Freight Reliability Index for the Interstate System in the Region: 2017

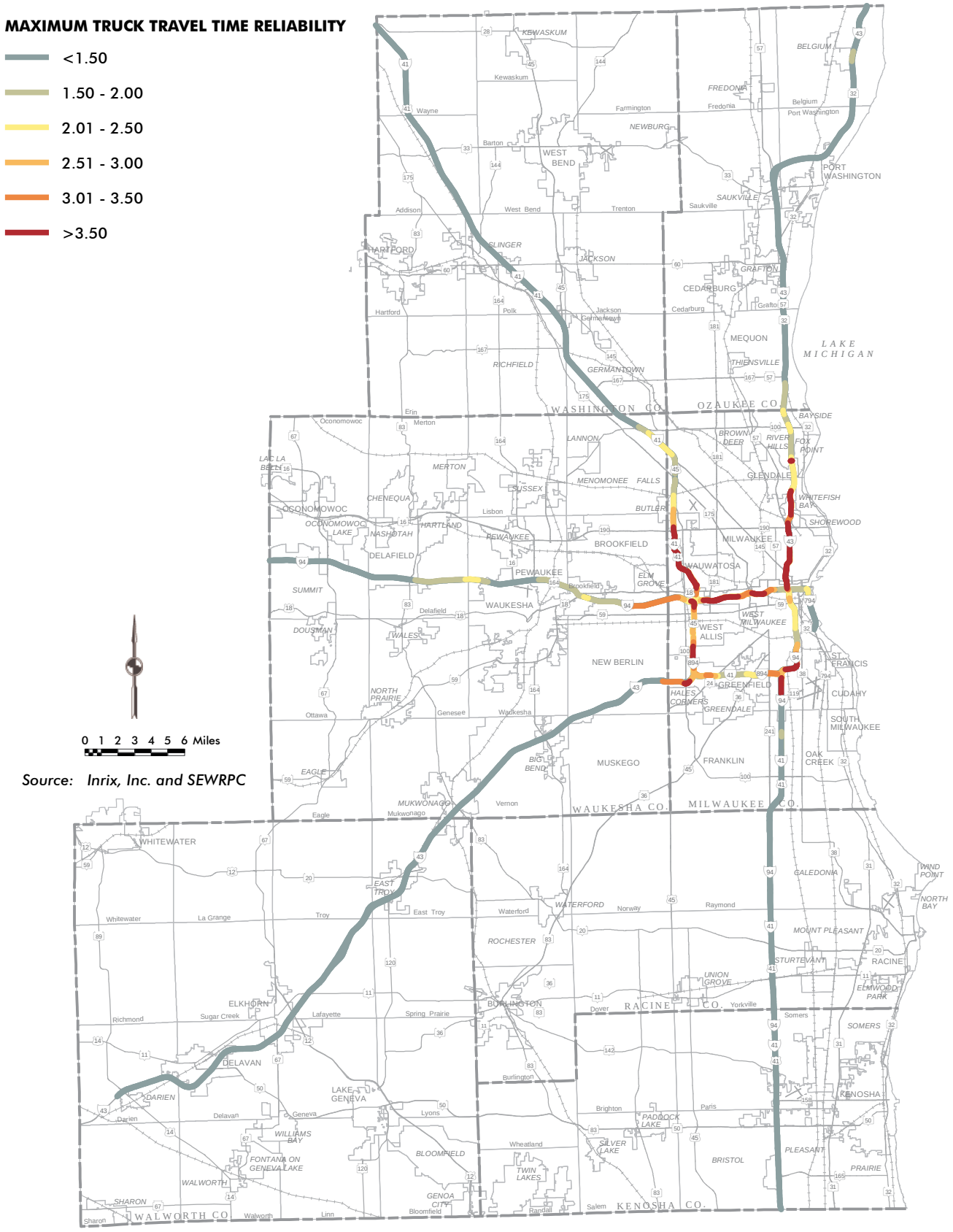
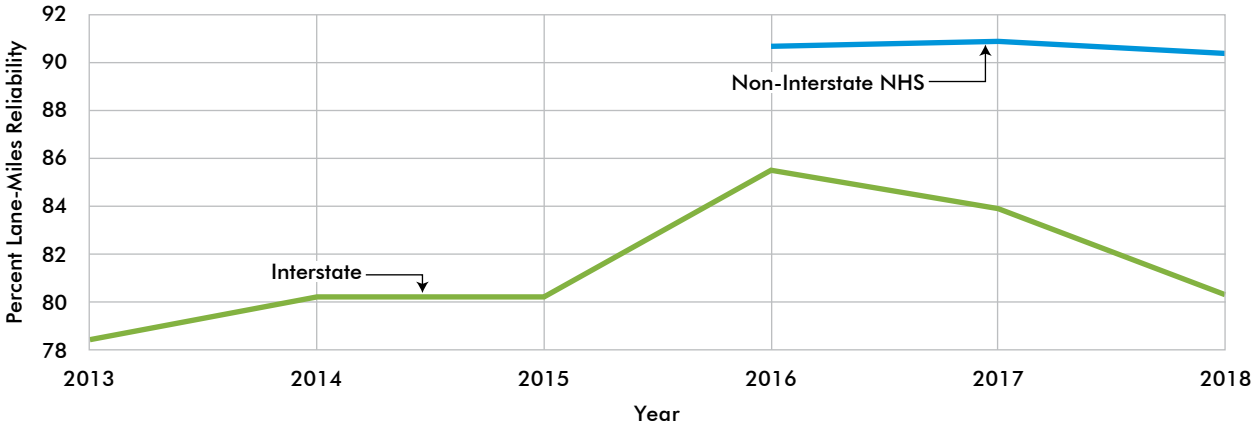


Table 14
National Highway System (NHS) and Freight Reliability in the Region: 2017

Performance Measure	Baseline Data (2017)
NHS Travel Time Reliability	
Percent of Person-Miles Traveled on the Interstate NHS that are Reliable	84.5
Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable	90.8
Freight Travel Time Reliability	
Freight Reliability Index	1.49

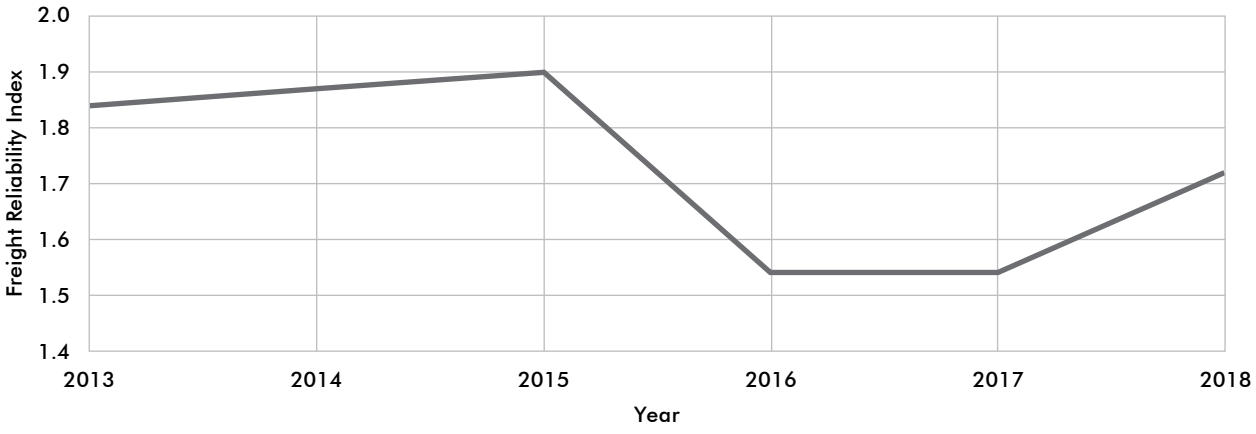
Source: Inrix, Inc. and SEWRPC

Figure 9
Percent of Lane-Miles of the Interstate System and Non-Interstate National Highway Systems (NHS) that are Reliable Within the Metropolitan Planning Area: 2013-2018



Source: Inrix, Inc. and SEWRPC

Figure 10
Freight Reliability Index for the Southeastern Wisconsin Metropolitan Planning Area: 2013-2018



Source: Inrix, Inc. and SEWRPC

periods and during major and minor incidents—through monitoring of freeway operating conditions and control of traffic traveling on and entering the freeway (Recommendations 4.1 through 4.3). The surface arterial street and highway traffic management measures recommended in VISION 2050 include advisory information, traffic signal coordination, intersection traffic engineering improvements, curb-lane parking restrictions, and access management (Recommendations 4.4 through 4.8). VISION 2050 also recommends that demand-responsive pricing for parking be considered for future implementation in major activity centers to improve parking availability and reduce congestion (Recommendations 4.9 through 4.11).

VISION 2050 recommends travel demand management (TDM) measures or strategies that are intended to reduce personal and vehicular travel or to shift such travel to alternative times and routes, allowing for more efficient use of the existing capacity of the transportation system. Such TDM measures include high-occupancy vehicle (HOV) preferential treatment, park-ride lots, pricing personal vehicle travel, TDM promotion, and detailed site specific neighborhood and major activity center land use plans (Recommendations 5.1 through 5.5). In addition, there are a number of transit recommendations in VISION 2050 that fall under this category, including providing information to promote transit use (Recommendation 2.10), implementing a universal fare system and free transfers between transit systems (Recommendation 2.11), and promoting and expanding transit pricing programs (Recommendation 2.13). To be effective, these measures should be technically and politically feasible; integrated with public transit, bicycle and pedestrian, and arterial street and highway improvements; and combined into coherent packages so that a variety of measures are implemented.

VISION 2050 recommends approximately 268.4 route-miles be widened to provide additional through traffic lanes (representing about 7 percent of the total VISION 2050 arterial street and highway system mileage), including 88.9 miles of existing freeways, and providing 74.6 route-miles of new arterial facilities (representing about 2 percent of the total year 2050 arterial street mileage) (Recommendation 6.3). These highway improvements are recommended to address the residual congestion that may not be alleviated by recommended land use, TSM, TDM, bicycle and pedestrian, and public transit measures. In addition, many of the recommended new arterial facilities are recommended because they would provide a grid of arterial streets and highways at the appropriate spacing as the planned urban areas of the Region develop to the year 2050. In addition, VISION 2050 recommends a number of measures to reduce the frequency of crashes on the arterial street and highway system (Recommendation 6.5).

State Freight Plan

The Wisconsin State Freight Plan (SFP), prepared and adopted by the WisDOT in 2018, describes and provides recommendations for improving the State's multimodal freight transportation system. Specifically, the SFP summarizes the impact of the freight transportation system on Wisconsin's economy; describes the historical, current, and forecast future condition and performance of the system; provides recommended policies, strategies, and specific transportation projects aimed at improving the system; and assesses the environmental impacts associated with implementing the SFP's recommendations. Consistent with Federal freight planning requirements, development of the SFP included an analysis and inventory of freight bottlenecks, including bottlenecks on Wisconsin's state trunk highway system. The SFP includes recommended freight-specific highway policies that would help address bottlenecks on the state trunk highway system, including using performance measures to prioritize highway investment needs. The SFP also provides a list of priority freight projects programmed to be implemented using National Highway Freight Program (NHFP) funds from Federal fiscal years 2018 through 2020, which would help address identified bottlenecks.

Preliminary Reliability-Related Targets

Establishing regional targets based on WisDOT's targets for the reliability measures would result in targets representing a decline in overall system reliability greater than the historical average experienced in recent years. In the Region, most of the segments of the Interstate system and the non-Interstate NHS are currently reliable. Most of the unreliable portions of the NHS include those portions of the Interstate system in Milwaukee County that experience excessive congestion. While not all segments of the Interstate system that experience excessive congestion are unreliable, most of the unreliable portions of the Interstate system also experience excessive congestion during parts of the day. The Commission, through its travel demand model, has some certainty on how the recommendations in VISION 2050 would affect segment-by-segment congestion in the system. However, while many of

the recommendations have been shown through National research to contribute to improving system reliability, the Commission staff has not yet studied how the relevant recommendations would specifically affect long-term system reliability in the Region.

It was preliminarily recommended that the year 2050 regional reliability targets be based on a modest 5 percent improvement over the short-term average for the MPA. Table 15 shows the preliminarily recommended year 2050 targets for the three reliability-based targets. It was also preliminarily recommended that the short-term targets for the MPA and Region be the same target. For the two NHS performance measures, this would result in an improvement over the year 2017 levels. With respect to the freight measure, the preliminary target would result in a decline from 2017 levels. However, this may be reasonable given how much lower the 2017 level was compared to the short-term average. In addition, it is preliminarily recommended that, as more years of NPMRDS data become available, the Commission staff study the effect certain measures have on system reliability within the Region for consideration when these targets are reviewed and improved.

CONGESTION MITIGATION AND AIR QUALITY

The Congestion Mitigation and Air Quality Improvement (CMAQ) Program was created by the Intermodal Surface Transportation Efficiency Act (ISTEA), enacted in 1991, with a primary goal of directing Federal funding towards transportation programs and projects that help improve air quality and reduce traffic congestion in areas designated by the U.S. Environmental Protection Agency (EPA) as nonattainment or in maintenance of the National Ambient Air Quality Standards (NAAQS). CMAQ projects generally fall into one ore more of three categories: 1) projects that reduce the number of vehicle trips and/or vehicle-miles traveled (VMT), 2) projects that reduce emissions by improving traffic congestion, and 3) projects that reduce emissions through improved vehicle and fuel technologies. Currently, projects in counties that have historically been included in designated nonattainment or maintenance areas are eligible for funding. Thus, as all seven counties in Southeastern Wisconsin are currently, or have historically been, in nonattainment of either the ozone or $PM_{2.5}$ standards, projects located in any of these counties are eligible for funding.

With respect to the National performance management framework, FHWA developed three CMAQ-related performance measures: 1) the annual peak hour excessive delay per capita (PHED) measure, 2) the percent of Travel occurring via non-single occupancy vehicle (non-SOV) measure, and 3) the on-road mobile source (i.e., vehicle) emissions measure. Per the regulations, applicability of these measures is dependent upon whether the geographic areas subject to the performance measures contained a non-attainment area or maintenance area under the 2008 ozone standard and the 2006 fine particulate standards on October 1, 2017. For the two capacity-related measures (the PHED and non-SOV measures), the geographic area is only for large urbanized areas (having a population over 1 million). For the emissions-based measure, the geographic area is the MPA. As shown on Map 6, both the Milwaukee urbanized area and the Southeastern Wisconsin MPA contain 2008 ozone or 2016 fine particulate nonattainment and maintenance areas. Thus, targets for all three CMAQ-related performance measures are required to be established for Southeastern Wisconsin—PHED and Non-SOV targets for the Milwaukee urbanized area and emission reduction targets for the Southeastern Wisconsin MPA.

Per the regulations, WisDOT and the Commission are required to jointly establish identical targets for the two congestion-related performance measures. With respect to the emission reduction-related measure, WisDOT establishes a target for the State and the Commission establishes a target for the MPA.

In addition, as the Milwaukee urbanized area has a population over 1 million and includes at least one nonattainment or maintenance area designated by the EPA,[11] the Commission, as the MPO for

[11] *The Clean Air Act (CAA) identifies six common air pollutants—ground-level ozone, particulate matter, carbon monoxide, lead, sulfur dioxide, and nitrogen dioxide—that are commonly found in the United States, and the EPA has developed a set of National Ambient Air Quality Standards (NAAQS) that establish the permissible levels for each of the six air pollutants. The EPA designates a geographic area to be a "nonattainment area" if the monitored air quality in that area does not meet the NAAQS. States with designated nonattainment areas must develop a State Implementation Plan (SIP) to improve the air quality in nonattainment areas. Once a nonattainment area meets the NAAQS and other CAA requirements are met, the EPA changes the designation of the area from nonattainment to "maintenance area."*

Table 15
Preliminary Recommended Year 2050 Regional Targets for National Highway System (NHS) and Freight Reliability Performance Measures and Resulting Year 2021 Targets

Performance Measure	Year 2017 Baseline Data	Preliminary Recommended Year 2050 Target[a]	Resulting Year 2021 Targets[a]
NHS Travel Time Reliability			
Percent of Person-Miles Traveled on the Interstate NHS that are Reliable	84.5	≥ 85.5	≥ 81.9
Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable	90.8	≥ 95.2	≥ 91.2
Freight Travel Time Reliability			
Freight Reliability Index	1.49	≤ 1.64	≤ 1.72

[a] The Regional and MPA targets are proposed to be the same.

Source: Inrix, Inc. and SEWRPC

the Milwaukee urbanized area, is required per Federal regulations to biennially develop a CMAQ Performance Plan to support the implementation of the CMAQ performance measures. The CMAQ Performance Plan for the Milwaukee urbanized area was completed in September 2018, and was submitted to WisDOT for inclusion in its biennial performance report to FHWA. The CMAQ Performance Plan documents the development of CMAQ performance measure targets for the Milwaukee urbanized area, describes how the targets will be achieved, and lists the approved CMAQ projects in the Milwaukee urbanized area that would contribute to the achievement of the targets.

The following sections describe the establishing of the targets for the three CMAQ-related performance measures. As the three targets are vastly different in their subject and data needs, they are addressed separately.

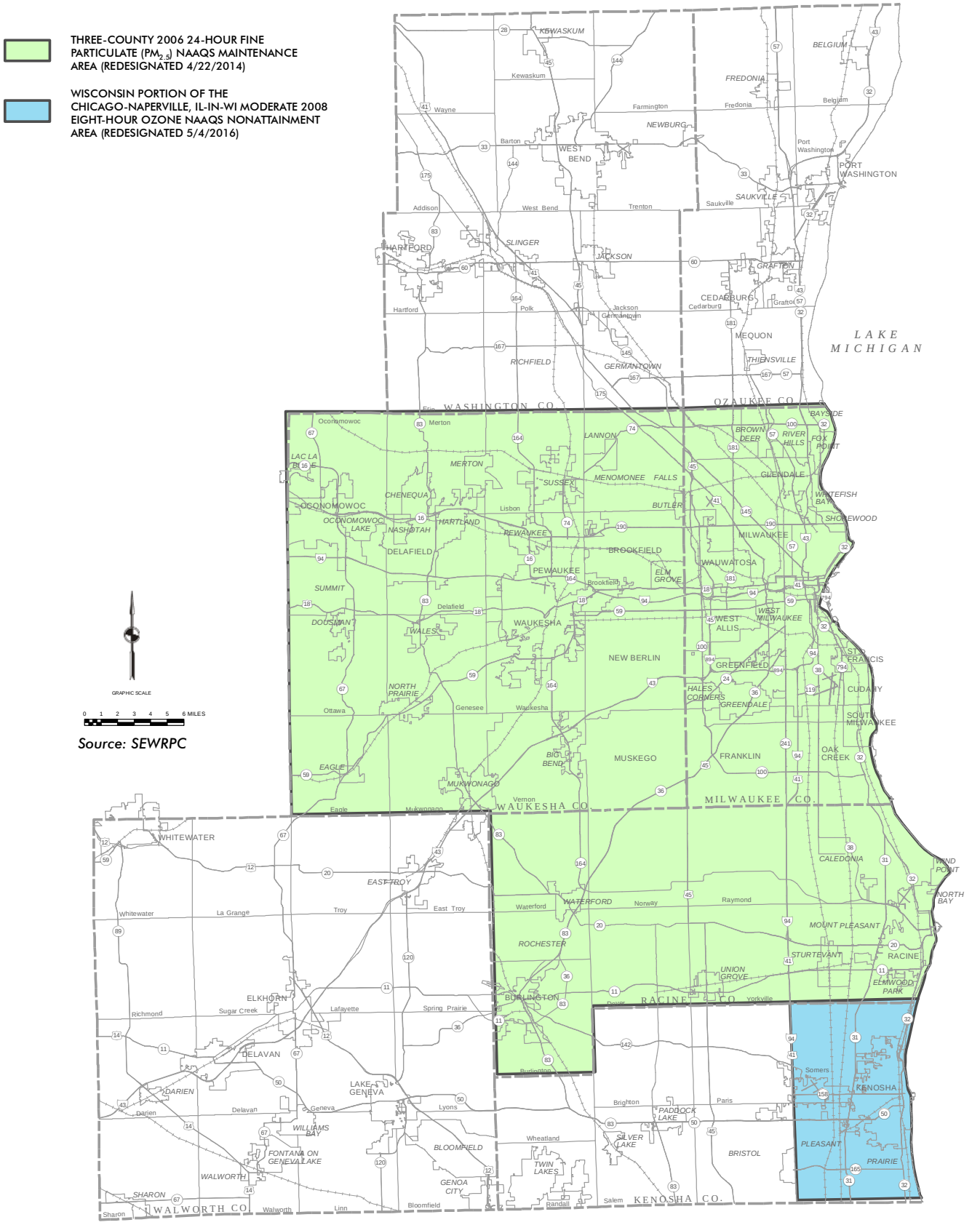
CMAQ – PEAK HOURLY EXCESSIVE DELAY

Figure 11 shows how the PHED measure is to be calculated for the Milwaukee urbanized area. WisDOT and the Commission, per the Federal regulations, must jointly calculate baseline data and establish two-year and four-year targets for the PHED measure for the Milwaukee urbanized area every four years. However, only the four-year target is set for initial four-year cycle of target setting. WisDOT, the Commission staff, and the Traffic Operations and Safety (TOPS) Laboratory based at the University of Wisconsin-Madison collaborated on developing the baseline data and the four-year target for the PHED measure.

Baseline Data and State-MPO target

The baseline data and the four-year target for the PHED measure are shown in Table 16. WisDOT formally approved the four-year target on May 18, 2018. The Commission approved the target on November 16, 2018. To develop the four-year target, Commission staff and WisDOT developed a methodology, described in Appendix A, to estimate growth rates between the base year 2017 and future year 2021 (four-year target year) utilizing the Commission's fifth-generation travel demand model to estimate changes in total annual average delay per capita during the AM and PM peak periods as a proxy for the PHED measure. By utilizing the travel demand model, the impact of added roadway capacity and anticipated population growth on the PHED measure could be estimated. The modeled results indicated that projects completed between 2017 and 2021—principally the Zoo Interchange reconstruction project and the resurfacing and restriping of IH 94/IH 894 between the Hale and Zoo Interchanges—would positively impact travel in the Milwaukee urbanized area by reducing the PHED level by approximately 8 percent. Given the uncertainty in forecasting the future, Commission and WisDOT staffs agreed that half of the modeled reduction (4 percent) in PHED would be applied to the base year PHED measure to estimate the four-year target PHED. While WisDOT and Commission staffs were not required to establish a two-year target for the PHED measure in the initial round of target setting, the two agencies will be required to establish a two-year target during the second CMAQ Performance Plan cycle starting in 2022.

Map 6
NAAQS Nonattainment and Maintenance Areas in the Region on October 1, 2017



Source: SEWRPC

Figure 11
Methodology for Calculating the Annual Hours of Peak Hour Excessive Delay (PHED) per Capita Performance Measure

The following is the methodology developed by FHWA for calculating the Congested Mitigation and Air-Quality Improvement (CMAQ) performance measure related to annual hours of PHED per capita.

1. Determine the Excessive Delay Threshold Travel Time (EDTTT) for each reporting segment of the National Highway System (NHS) by the following formula:

$$EDTTT\ (in\ seconds) = 3{,}600 \times \frac{Segment\ Length}{\begin{matrix} Higher\ of\ 20\ mph\ or \\ 0.6 \times Speed\ Limit \end{matrix}}$$

2. Utilizing travel time data from the National Performance Management Research Data Set (NPMRDS), calculate for each NHS reporting segment the travel time segment delay (RSD) for every 15-minute time bin within the following time periods:

   a. 6 a.m. – 10 a.m. (Monday through Friday)
   b. 3 p.m. – 7 p.m. or 4 p.m. – 8 p.m. (Monday through Friday)

$$RSD\ (in\ seconds) = Average\ Travel\ Time\ - EDTTT$$

3. Calculate Excessive Delay (ED) for every 15-minute bin within both time periods with the following formula:

$$ED\ (in\ hours) = \begin{cases} \dfrac{RSD}{3{,}600}\ when\ RSD\ \geq 0 \\ or \\ 0\ when\ RSD < 0 \end{cases}$$

4. Calculate the Average Vehicle Occupancy (AVO) for each segment with the following formula:

$$AVO_{total} = (Percent\ Cars \times\ AVO_{cars}) + (Percent\ Buses \times AVO_{buses}) + (Percent\ Trucks + AVO_{trucks})$$

   Where the percentage for each vehicle can be provided by the State/MPO or by bus, truck, car traffic volume data provided for the HPMS, and the AVO for each vehicle type can be provided by the State and/or MPO.

5. Calculate the Total Excessive Delay (TED) for each NHS report segment to the nearest hundredth for the entire year by the following formula:

$$Segment\ TED\ (in\ person-hours) = \sum \left(AVO_{total} \times ED \times \frac{hourly\ volume}{4} \right)$$

   Where the hourly volume is estimated by the State and/or MPO for all days and for all reporting segments where ED is measured.

6. Calculate the performance measure by the following formula:

$$Annual\ Hours\ of\ PHED\ per\ Capita = \frac{\sum Segment\ TED}{Total\ Population}$$

   Where the Total Population is the total population in the urbanized area from the most recent annual population published by the U.S. Census.

Source: Federal Highway Administration and SEWRPC

Table 16
Peak Hourly Excessive Delay (PHED) per Capita Targets Established for the Milwaukee Urbanized Area in the Region by the Wisconsin Department of Transportation and the Commission

Performance Measure	Year 2017 Baseline Data	Year 2019 Target	Year 2021 Target
Annual Hours of PHED per Capita	8.96	N/A[a]	≤ 8.60

[a] *The Commission and WisDOT are not required to establish two-year targets as part of the initial target setting for this performance measure.*

Source: Inrix, Inc., University of Wisconsin – Madison Transportation Operations and Safety Laboratory, WisDOT, and SEWRPC

Review of Relevant Plans
VISION 2050 contains many recommendations that would contribute to reducing delay on the transportation system. In addition, the CMAQ Performance Plan prepared for the Milwaukee urbanized includes projects programmed for CMAQ funding that would contribute to improving system delay.

VISION 2050
As the PHED measure is affected by delay in the system, similar to the three reliability-based measures, implementation of the recommendations of VISION 2050 described in the system reliability section of this document would also contribute to improving this performance measure. The relevant VISION 2050 recommendations include expanding public transit service (Recommendations 2.1 through 2.5) and bicycle accommodations (Recommendations 3.1 through 3.5); implementing TSM measures (Recommendations 4.1 through 4.11) and TDM measures (Recommendations 2.11 through 2.13, and 5.1 through 5.4), improving safety (Recommendation 6.5), and increasing arterial highway capacity (Recommendation 6.3). The highway improvements are recommended to address the residual congestion that may not be alleviated by recommended land use, TSM, TDM, bicycle and pedestrian, and public transit measures. More detail on these recommendations can be found in Chapter 1 of Volume III of the VISION 2050 report.

CMAQ Performance Plan
The types of CMAQ projects that are included in the CMAQ Performance Plan includes projects, with the exception of increasing arterial capacity, that are consistent with the VISION 2050 recommendations that would contribute to improving system delay. In particular, the CMAQ Performance Plan includes transit improvement and expansion projects, bicycle/pedestrian projects, and signal coordination projects.

Preliminary PHED Targets
As the Commission is required to jointly establish the PHED target with WisDOT, it was preliminarily recommended that the year 2021 PHED target for the Milwaukee urbanized area continue to match the target established with WisDOT, and that the year 2050 target be based on the methodology developed by the Commission staff. The year 2050 target, and the methodology for establishing the target, will guide Commission staff as they collaborate with WisDOT on future short-term targets for the urbanized area. Table 17 shows the preliminary recommended year 2050 PHED target for the Milwaukee urbanized area, along with the 2021 PHED target established jointly with WisDOT.

CMAQ – NON-SINGLE OCCUPANCY VEHICLE TRAVEL

Figure 12 shows how the non-SOV measure is to be calculated for the Milwaukee urbanized area. Federal regulations require the Commission and WisDOT to use the same data set for calculating the Non-SOV measure, and the two agencies are required to establish and report unified non-SOV baseline and two-year and four-year target values for the Milwaukee urbanized area. As shown in Figure 12, there are three sources of data that are permitted to be utilized for this measure. Based on data being readily available, WisDOT and Commission staffs calculated the non-SOV measure using the five-year estimate for "Commuting to Work" totaled by mode from the U.S. Census Bureau's American Community Survey (ACS) dataset for the Milwaukee urbanized area.

Baseline Data and State-MPO target
The baseline data and the two-year and four-year non-SOV targets for the Milwaukee urbanized area are shown in Table 18. To establish the these targets for the non-SOV measure, the WisDOT and Commission staffs considered three alternative methodologies, as described in Appendix B, to estimate future years 2019 (two-year) and 2021 (four-year) targets—one based on the historical non-SOV travel trend, one based on the VISION 2050 modeled non-SOV travel, and one based on the fiscally constrained transportation plan (FCTP) modeled non-SOV travel. The three methodologies and potential targets were presented and discussed at a meeting between WisDOT and Commission staffs on March 15, 2018. At this meeting, there was discussion that the historical trend may have captured declines in non-SOV travel attendant to the Milwaukee urbanized area coming out of a recession, while both of the modeled alternatives showed some modest improvement in the non-SOV proportion. Of the two modeled methodologies, the FCTP model was generally accepted by both staffs as the most reasonable in the short-term, given current fiscal conditions. Additionally, both staffs concurred that

Table 17
Preliminary Recommended Year 2050 Peak Hourly Excessive Delay (PHED) per Capita Targets for the Milwaukee Urbanized Area in the Region

Performance Measure	Year 2017 Baseline Data	Year 2021 Target	Preliminary Recommended Year 2050 Target
Annual Hours of PHED per Capita	8.96	≤ 8.60[a]	≤ 7.84

[a] *Per regulations, this target was established jointly by the Wisconsin Department of Transportation and the Commission.*

Source: Inrix, Inc., University of Wisconsin – Madison Transportation Operations and Safety Laboratory, WisDOT, and SEWRPC

Figure 12
Methodology for Calculating the Non-Single Occupancy Vehicle (Non-SOV) Performance Measure

FHWA provided three methodologies that can be utilized to calculate the CMAQ performance measure related to percent of non-SOV travel in an urbanized area. The following describe the three methodologies:

1. Utilize SOV travel data that are available from the U.S. Census American Community Survey to calculate the performance measures with the following formula:

   $$Percent\ of\ non\text{-}SOV\ Travel = 100\ percent - percent\ of\ SOV\ Travel$$

2. Utilize the percent of non-SOV travel, as calculated using data derived from a local survey that was conducted within the last two years.

3. Calculate the percent of non-SOV travel based on system monitoring data of the actual use of the transportation system. Sample or continuous measurements may be utilized to count the number of travelers using different modes of transportation. The results of the measurements would need to be factored to represent the travel on the entire transportation system and be representative of annual travel. Additionally, the percent of non-SOV travel would need to be updated at least every two years.

Source: Federal Highway Administration and SEWRPC

Table 18
Non-Single Occupancy Vehicle Targets Established for the Milwaukee Urbanized Area in the Region by the Wisconsin Department of Transportation and the Commission

Performance Measure	Year 2017 Baseline Data	2-Year Target (2019)	4-Year Target (2021)
Percent of non-SOV Travel	20.3[a]	≥ 20.2	≥ 20.1

[a] *Only year 2016 data was available at the time of the development of the baseline data for this measure. As such, year 2016 data was used to represent the required year 2017 baseline data.*

Source: U.S. Census American Community Survey, WisDOT, and SEWRPC

the historical declines in non-SOV travel are not likely to continue at the rate captured by the ACS. To mitigate the more aggressive historical decline, it was agreed that an averaging of the potential targets based on historical trends and the FCTP model would be used to set the two-year and four-year targets for non-SOV travel.

Review of Relevant Plans

VISION 2050 contains many recommendations that would promote and encourage traveling via modes other than the automobile. In addition, the CMAQ Performance Plan prepared for the Milwaukee urbanized includes projects programmed for CMAQ funding that would contribute to increasing non-SOV travel.

VISION 2050

VISION 2050 contains many recommendations that would provide an alternative to SOV travel. These include the recommendations to expand public transit service (Recommendations 2.1 through 2.5) and make transit more accessible to travelers through transit-friendly roadway design, enhanced stops, stations, and park-ride facilities; accommodating bicycles on transit vehicles; implementing programs

to improve access to suburban employment centers; providing information to promote transit use; implementing a universal fare system and free transfers between systems; considering implementation of proof-of-payment services on heavily-used services to minimize stop times; promoting and expanding transit pricing programs; and expanding "guaranteed ride home" programs (Recommendations 2.6 through 2.14). In addition, VISION 2050 recommends the expansion of bicycle accommodations on arterial streets and highways, of the off-street bicycle network, and bike-share programs (Recommendations 3.1 through 3.4), and recommendations related to providing pedestrian accommodations (Recommendation 3.5). VISION 2050 also has recommendation related to transportation demand management intended to reduce the total and peak demand for roadway travel by encouraging and incentivizing people to consider alternatives to single-occupency vehicle trips (Recomendations 5.1 through 5.4 and 5.6). More detail on these recommendations can be found in Chapter 1 of Volume III of the VISION 2050 report.

CMAQ Performance Plan
The CMAQ Performance Plan lists many CMAQ projects in the Milwaukee urbanized area that would contribute to the achievement of the targets. In particular, there are a number of CMAQ projects involving the expansion of transit service and bicycle/pedestrian facilities that are intended to provide an alternative to SOV travel.

Preliminary Non-SOV Targets
As the Commission is required to jointly establish the non-SOV target with WisDOT, it is preliminarily recommended that the years 2019 and 2021 non-SOV targets for the Milwaukee urbanized area continue to match the target established with WisDOT. It was also preliminarily recommended that the year 2050 target be based on the VISION 2050 modeled non-SOV travel, per the methodology developed by the Commission staff for establishing the short-term targets. The year 2050 target, and the methodology for establishing the target, will guide Commission staff as they collaborate with WisDOT on future short-term targets for the urbanized area. Table 19 shows the preliminary recommended year 2050 non-SOV targets for the Milwaukee urbanized area, along with the years 2019 and 2021 non-SOV targets established jointly with WisDOT.

CMAQ – EMISSION REDUCTIONS

The methodology for calculating the emission reduction measure is shown on Figure 13. Unlike the two congestion-related CMAQ measures, this measure is to be calculated separately by the State for a statewide target and the Commission for the Region's MPA. The data to be utilized for this measure are the emission reduction estimates for projects implemented for CMAQ funding, as entered by WisDOT into the CMAQ Public Access System. Thus, this measure is the only performance measure established by FHWA that is linked entirely to the implementation of projects funded by a particular funding source.

State and Initial MPO targets
The two-year and four-year emission reduction targets for the State are shown in Table 20. While not required by Federal regulations, WisDOT and the Commission jointly developed the targets for the State. In developing the targets, WisDOT and Commission staffs considered the estimated emission reductions attributable to CMAQ-funded projects that were previously implemented and CMAQ projects that would be implemented within the next two to four years. In November 2018, the Commission established initial two-year and four-year emissions reduction targets based on the share of CMAQ projects expected to be implemented within the MPA.

Baseline Data
The baseline data for the emission reduction measure for the Region are shown in Table 21. For this measure, the baseline data consist of the emission reductions estimated for all of the projects implemented with CMAQ funding over the four-year time period of 2014 through 2017.

Review of Relevant Plans
VISION 2050 contains many recommendations that would contribute to reducing emission levels attributed to the transportation system. In addition, the CMAQ Performance Plan prepared for the Milwaukee urbanized includes projects programmed for CMAQ funding that would contribute to reducing transportation emission levels.

Table 19
Preliminary Recommended Year 2050 Non-Single Occupancy Vehicle Performance Targets for the Milwaukee Urbanized Area in the Region

Performance Measure	Year 2017 Baseline Data	Year 2019 Target	Year 2021 Target	Preliminary Recommended Year 2050 Target
Percent of non-SOV Travel	20.3[a]	≥ 20.2[b]	≥ 20.1[b]	≥ 21.2

[a] *Only year 2016 data was available at the time of the development of the baseline data for this measure. As such, year 2016 data was used to represent the required year 2017 baseline data.*

[b] *Per regulations, this target was established jointly by the Wisconsin Department of Transportation and the Commission.*

Source: U.S. Census American Community Survey, WisDOT, and SEWRPC

Figure 13
Methodology for Calculating the Total Emission Reductions Performance Measures

The following describes the methodology that FHWA developed for calculating the CMAQ performance measures related to total emission reductions. The performance measures are calculated for each criteria pollutant that a portion of the State or metropolitan planning area is in non-attainment or maintenance for. In Southeastern Wisconsin, the three criteria pollutants that an emission reduction measure is to be calculated are for Fine Particulate Matter ($PM_{2.5}$), Volatile Organic Compound (VOC), and Nitrogen Oxide (NO_x).

1. Calculate the performance measures for each relevant criteria pollutant by totaling over a two- or four-year period the total estimated emission reduction estimated to have occurred from projects previously implemented with CMAQ funding (for baseline data and monitoring progress) or estimated to occur through implementation of CMAQ projects.

Source: Federal Highway Administration and SEWRPC

Table 20
Statewide Emission Reduction Targets Established by the Wisconsin Department of Transportation

Performance Measure	2018-2019 Target	2018-2022 Target
Reduction in VOC (kg/day)	≥ 12.154	≥ 30.123
Reduction in NOx (kg/day)	≥ 90.354	≥ 150.388
Reduction in $PM_{2.5}$ (kg/day)	≥ 9.043	≥13.820

Source: WisDOT and SEWRPC

Table 21
Estimated Reduction in Emissions from Projects Implemented with Congestion Mitigation and Air Quality Program Funding in the Region: 2014-2017

Performance Measure	2014-2017 Baseline Data
Reduction in VOC (kg/day)	41.268
Reduction in NOx (kg/day)	109.545
Reduction in $PM_{2.5}$ (kg/day)	3.291

Source: WisDOT and SEWRPC

VISION 2050

VISION 2050 contains many recommendations that align with the types of projects that are eligible for CMAQ funding. The relevant VISION 2050 recommendations include expanding public transit service (Recommendations 2.1 through 2.5) and bicycle accommodations (Recommendations 3.1 through 3.4), and implementing TSM, such as signal coordination and intersection improvements, (Recommendations 4.4 and 4.5) and TDM measures (Recommendations 5.1 through 5.4 and 5.6). More detail on these recommendations can be found in Chapter 1 of Volume III of the VISION 2050 report.

CMAQ Performance Plan

As per the regulations, the CMAQ Performance Plan lists the approved CMAQ projects in the Milwaukee urbanized area, along with their estimated emission reductions, that would contribute to the achievement of the emission reduction target over the next four years.

Preliminary Emission Reduction Targets

As the emission reduction measure is calculated entirely from estimates of the emission reductions attributable to projects implemented with CMAQ funding, it was preliminarily recommended that the years 2019 and 2021 emission reduction targets previously established by the Commission be the Region targets, and that year 2050 targets for this measure not be established. Additionally, the target

for the MPA and the Region will be considered the same. Table 22 shows the preliminary recommended emission reduction targets for the Region.

PUBLIC FEEDBACK ON PRELIMINARY RECOMMENDED TARGETS

At its meeting held on March 28, 2019, the Advisory Committee on Regional Transportation Planning reviewed and approved the preliminary recommended targets for public review and comment. Comments were obtained on the preliminary recommended targets during a formal public comment period held from April 10 through May 9, 2019. A total of five public comments were provided on the preliminary recommended targets and the procedures to develop the targets, with one comment received prior to the formal comment period and four comments received during the comment period. Appendix C of the amendment provides a summary of all public comments received on the preliminary recommended targets.

Following the receipt of the comments received prior to the comment period, the initial preliminary recommended year 2050 TAM target was revised based on discussion of the Advisory Committee at its March 208, 2019, meeting. Initially this target was based on "fiscally-constrained" funding conditions. However, the Advisory Committee recommended that the preliminary recommended year 2050 TAM targets presented to the public for review and comment be based on the aspirational nature of VISION 2050. The Committee further recommended that, unless Federal and State funding become available, the short-term target should be established based on the "fiscally-constrained" funding conditions.

With respect to two comments received during the comment period, one comment stated that the preliminary recommended targets for the NHS pavement condition performance measures seemed high given the limited amount of funding for highway projects. Commission staff responded that the targets for the NHS pavement condition measures are based on the VISION 2050 recommendation that the condition of the arterial street and highway system be maintained or improved by the year 2050. In addition, like many of the recommendations of VISION 2050, improving the condition of the arterial roadways in Southeastern Wisconsin by the year 2050 may require additional Federal and State funding in order to achieve the targets. Achievement of the performance targets will be regularly monitored and reviewed to determine the need for potential revisions. There were no other comments specifically related to the preliminary recommended targets. The other comments provided during the comment period related to information provided on the webpage regarding the targets, suggestions regarding other performance measures not addressed as part of this amendment, or identified projects that would contribute to achievement of certain targets.

With consideration of the comments received on the proposed amendment, the preliminary recommended targets were approved as part of VISION 2050 by the Advisory Committee and by the Commission as final recommended targets.

FINAL RECOMMENDED TAM, NHS, FREIGHT, AND CMAQ TARGETS

The final recommended year 2050 regional targets for the TAM, NHS, freight, and CMAQ performance measures are shown on Table 23. Table 24 shows the proposed short-term TAM, NHS, and freight targets for both the Region's metropolitan planning area and the seven-county Region. Table 25 shows the short-term congestion-related CMAQ targets for the Milwaukee urbanized area that were jointly established by WisDOT and the Commission. Table 26 shows the short-term emission reduction-related CMAQ targets recommended for the Region. As these performance measures are based on the estimated reduction of emissions from future projects that have been awarded CMAQ funds, only short-term targets were established. In addition, the emission reduction-related CMAQ targets for the Metropolitan Planning Area and the Region are the same.

Reporting and Monitoring of Performance Targets

The TAM, NHS, freight, and CMAQ targets will be reported and monitored in the transportation system performance section of the Commission's Annual Plan Implementation Report and on its website. The regional long-term targets will be reviewed and potentially updated every four years as part of the interim regional plan updates and every 10 years as part of the major regional plan updates.

Table 22
Final Recommended Emission Reduction Targets for the Region[a]

Performance Measure	2014-2017 Baseline Data	2018-2019 Target	2018-2022 Target
Reduction in VOC (kg/day)	41.268	≥ 10.860	≥ 27.032
Reduction in NOx (kg/day)	109.545	≥ 83.316	≥ 137.350
Reduction in $PM_{2.5}$ (kg/day)	3.291	≥ 7.797	≥12.096

[a] *Baseline data and targets for the emission reduction-related CMAQ performance measures are the same for the Metropolitan Planning Area and seven-county Region*

Source: WisDOT and SEWRPC

Table 23
Final Recommended Year 2050 Regional Targets for Transit Asset Management (TAM), National Highway System (NHS) Condition, NHS and Freight Reliability, and Traffic Congestion-Related Congestion Mitigation and Air Quality Improvement (CMAQ) Performance Measures

Performance Measure Areas	Performance Measures	Regional Baseline (2017) Data	Recommended Regional Year 2050 Targets
	FTA TAM Measures		
Rolling Stock	Percentage of revenue vehicles that have either met or exceeded their useful life benchmark	21.6	< 10
Equipment	Percentage of non-revenue vehicles and equipment that have either met or exceeded their useful life benchmark	--[a]	< 20
Facilities	Percentage of support facilities within an asset class, rated below 3 on condition reporting system	--[a]	0
	Percentage of passenger facilities within an asset class, rated below 3 on condition reporting system	--[a]	0
	Percentage of parking facilities within an asset class, rated below 3 on condition reporting system	--[a]	0
Fixed Guideway	Percentage of segments that have performance restrictions	--[a]	0
	FHWA NHS Condition Measures		
Condition of Interstate Pavement	Percentage of Lane-Miles in Good Condition	59.0	≥ 64.9
	Percentage of Lane-Miles in Poor Condition	4.6	≤ 4.1
Condition of Non-Interstate NHS	Percentage of Lane-Miles in Good Condition	18.9	≥ 20.8
	Percentage of Lane-Miles in Poor Condition	6.6	≤ 5.9
Condition of NHS Bridges (including interstate bridges)	Percentage of Bridge Deck Area in Good Condition	58.0	≥ 63.8
	Percentage of Bridge Deck Area in Poor Condition	1.3	≤ 1.2
	FHWA NHS and Freight Reliability Measures		
NHS Travel Time Reliability	Percent of Person-Miles Traveled on the Interstate NHS that are Reliable	84.5	≥ 85.5
	Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable	90.8	≥ 95.2
Freight Movement on the Interstate System	Freight Reliability Index	1.49	≤ 1.64
	FHWA CMAQ Measures		
Traffic Congestion[b]	Peak Hour Excessive Delay (PHED) Per Capita	8.96	≤ 7.84
	Percentage of Non-Single Occupancy Vehicles	20.3[c]	≥ 21.2

[a] *Transit operators will begin reporting this data to the National Transit Database for year 2018 conditions.*

[b] *Per the regulations, traffic congestion-related CMAQ targets are to be established for only urbanized areas having a population over 1 million and contain a non-attainment or maintenance area for a pollutant criteria under the National Ambient Air Quality Standards. In Southeastern Wisconsin, only the Milwaukee urbanized area meets these conditions. As such, Commission staff proposed that year 2050 congestion-related targets be established only for the Milwaukee urbanized area.*

[c] *Only year 2016 data was available at the time of the development of the baseline data for this measure. As such, year 2016 data was used to represent the required year 2017 baseline data.*

Source: WisDOT and SEWRPC

Table 24
Short-Term Targets for Transit Asset Management (TAM), National Highway System (NHS) Condition, and NHS and Freight Reliability Performance Measures

Federal Transit Administration Targets

Performance Measure Areas	Performance Measures	Metropolitan Planning Area		Seven-County Region	
		Baseline (2017) Data[a]	Year 2018 Targets[b]	Baseline (2017) Data[a]	Year 2018 Targets[b]
Rolling Stock	Percentage of revenue vehicles that have either met or exceeded their useful life benchmark	21.6	< 30	21.6	< 30
Equipment	Percentage of non-revenue vehicles and equipment that have either met or exceeded their useful life benchmark	--	< 30	--	< 30
Facilities	Percentage of support facilities within an asset class, rated below 3 on condition reporting system	--	< 15	--	< 15
	Percentage of passenger facilities within an asset class, rated below 3 on condition reporting system	--	0	--	0
	Percentage of parking facilities within an asset class, rated below 3 on condition reporting system	--	0	--	0
Fixed Guideway	Percentage of segments that have performance restrictions	--	0	--	0

Federal Highway Administration Targets

Performance Measure Areas	Performance Measures	Metropolitan Planning Area		Seven-County Region	
		Baseline (2017) Data	Year 2021 Targets[c]	Baseline (2017) Data	Year 2021 Targets[c]
FHWA NHS Condition Measures					
Condition of Interstate Pavement	Percentage of Lane-Miles in Good Condition	61.1	≥ 61.8	59.0	≥ 59.7
	Percentage of Lane-Miles in Poor Condition	4.4	≤ 4.3	4.6	≤ 4.5
Condition of Non-Interstate NHS	Percentage of Lane-Miles in Good Condition	17.6	≥ 17.8	18.9	≥ 19.1
	Percentage of Lane-Miles in Poor Condition	6.8	≤ 6.7	6.6	≤ 6.5
Condition of NHS Bridges (including interstate bridges)	Percentage of Bridge Deck Area in Good Condition	58.3	≥ 59.0	58.0	≥ 58.7
	Percentage of Bridge Deck Area in Poor Condition	1.3	≤ 1.3	1.3	≤ 1.3
FHWA NHS and Freight Reliability Measures					
NHS Travel Time Reliability	Percent of Person-Miles Traveled on the Interstate NHS that are Reliable	83.9	≥ 81.9	84.5	≥ 81.9
	Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable	90.9	≥ 91.2	90.8	≥ 91.2
Freight Movement on the Interstate System	Freight Reliability Index	1.54	≤ 1.72	1.49	≤ 1.72

[a] *Only data on revenue vehicles is available for the year 2017. Transit operators will begin reporting data for the other performance measures in 2019 to the National Transit Database for year 2018 conditions.*

[b] *It is proposed that future short-term targets (beyond 2018) for these performance measure be based on the year 2018 target until additional Federal and State funding, or State authorization for additional local funding, become available for transit capital projects.*

[c] *Based on the recommended year 2050 targets.*

Source: WisDOTand SEWRPC

Table 25
Short-Term Peak Hourly Excessive Delay Targets and Non-Single Occupancy Vehicle Targets for the Milwaukee Urbanized Area

Performance Measure	Year 2017 Baseline Data	2-Year Target (2019)[a]	4-Year Target (2021)[a]
Annual Hours of Peak Hour Excessive Delay (PHED) Per Capita	8.96	N/A[b]	≤ 8.60
Percent of non-SOV Travel	20.3[c]	≥ 20.2	≥ 20.1

[a] *Per regulations, this target was established jointly by the WisDOT and the Commission.*

[b] *The Commission and WisDOT are not required to establish two-year targets as part of the initial target setting for this performance measure.*

[c] *Only year 2016 data was available at the time of the development of the baseline data for this measure. As such, year 2016 data was used to represent the required year 2017 baseline data.*

Source: U.S. Census American Community Survey, WisDOT, and SEWRPC

Table 26
Short Term Emission Reduction Targets for the Region[a]

Performance Measure	2014-2017 Baseline Data	2018-2019 Target	2018-2021 Target
Reduction in VOC (kg/day)	41.268	≥ 10.860	≥ 27.032
Reduction in NOx (kg/day)	109.545	≥ 83.316	≥ 137.350
Reduction in $PM_{2.5}$ (kg/day)	3.291	≥ 7.797	≥12.096

[a] *Baseline data and targets for the emission reduction-related CMAQ performance measures are the same for the Metropolitan Planning Area and seven-county Region*

Source: WisDOT and SEWRPC

APPENDICES

APPENDIX A
PHED GROWTH FACTOR METHODOLOGY

The Federal Highway Administration (FHWA) performance measure relating to the annual hours of peak hour excessive delay (PHED) per capita requires the establishment of a four-year target. As the PHED per capita measure is new (and historical data is unavailable to establish a trend), a process for establishing short-range future year targets is necessary. To develop the potential targets, the Southeastern Wisconsin Regional Planning Commission has worked with the Wisconsin Department of Transportation (WisDOT) to develop a proposed methodology to estimate growth rates between the base year (year 2017) and future year 2021 (four-year target) utilizing a travel demand model to estimate changes in total annual average delay per capita during the AM and PM peak periods as a proxy for the PHED per capita measure. By utilizing a travel demand model, the impact construction work zones and new roadway capacity may potentially have on PHED within the Milwaukee urbanized area (MUA), as well as, anticipated population growth can be accounted for. The process to develop the PHED growth factors is as follows:

1. Synthetic 30-minute trip tables derived from the Commission's fifth generation travel demand models are assigned sequentially using the Commission's time-of-day assignment procedure.

2. Congested travel times are calculated in 30-minute increments on every link in the Commission's highway network using a series of volume-delay functions based on the unadjusted highway assignments. The form of the functions is as follows:

$$Time_{congested} = Time_{freeflow} \times \left[1 + \alpha \left(\frac{Volume}{Capacity_{LOS\ E}}\right)^{\beta}\right]$$

Where α and β vary based on whether the facility is a surface arterial or freeway and the freeflow speed of the facility. The set of α and β values are provided in the table below:

Facility Type	Freeflow Speed (MPH)	α	β
Surface Arterial	Greater than 45	0.34	4.0
	35 to 45	0.38	5.0
	30 to 35	0.96	5.0
	Less than 30	1.11	5.0
Freeway	Greater than 65	0.32	7.0
	60 to 65	0.25	9.0
	55 to 60	0.18	8.5
	Less than 55	0.10	10.0

3. Link-level delay is calculated by subtracting the freeflow travel time from the period congested travel time to estimate the average delay in minutes experienced by vehicles traversing a link during a 30 minute period. The average period delay is then multiplied by the mechanically adjusted highway assignment attendant to a period to determine the total period vehicle minutes of delay. The peak hour vehicle delay is then calculated for each link by summing the vehicle delay for the 30-minute periods representing the two peak periods (6 a.m. to 10 a.m. and 3 p.m. to 7 p.m.) used in the PHED calculation. Currently average vehicle occupancy is not accounted for since it is assumed that vehicle occupancy will not change between the base year and 4-year target year.

4. Total average weekday vehicle delay is calculated for the MUA by summing the peak period minutes of delay for the highway network for the surface arterial and freeway links within the Milwaukee urbanized area.

5. Calculate delay per capita in hours by dividing the total MUA delay in minutes by 60 and by the modeled MUA total population.

6. Annualize the average weekday delay per capita by applying the annualization factor of 341.12.

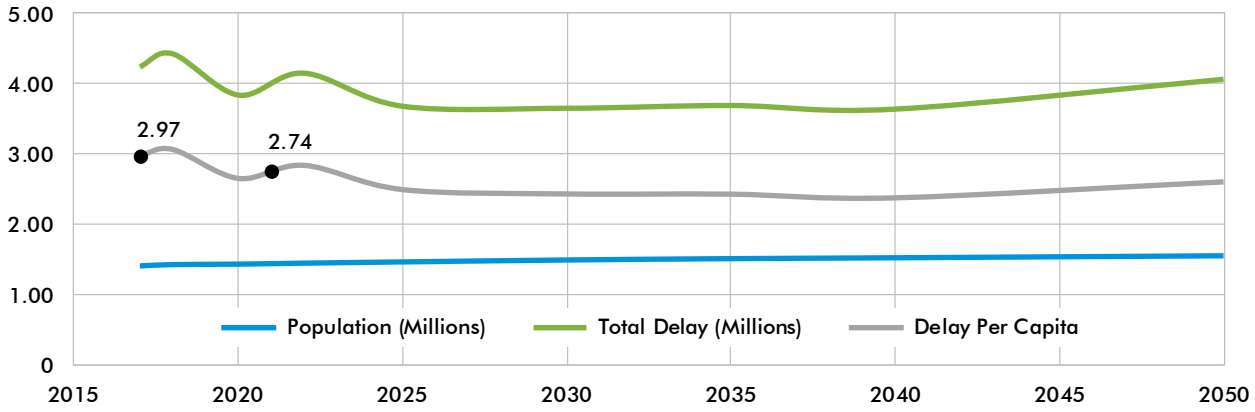
This process is run for the current year and any year of interest. Figure A.1 shows the forecast population, delay, and estimated delay per capita from multiple model runs in roughly 5 year increments through the design year of VISION 2050 under the fiscally constrained plan. The reductions in delay in the earlier years are related to the anticipated implementation of surface arterial and freeway capacity improvements on the most congested segments of the arterial street and highway system. In the later years these improvements begin to get more congested and later improvements do not have as significant an impact on delay because they are on segments largely outside the most densely developed areas of the Region.

Using the information in Figure A.1, a ratio of 0.922 is derived by dividing the total delay per capita of 2.74 hours in 2021 by the total delay per capita of 2.97 hours in 2017. This ratio is then applied to the PHED per capita calculated with the 2017 NPMRDS data to estimate the target PHED per capita value for the year 2021.

RECOMMENDATION

As previously described, the modeled results indicated that the projects expected to be completed by the year 2021 (four-year target), namely the Zoo Interchange reconstruction project and the resurfacing and restriping of IH 894 between the Hale and Zoo Interchanges, would positively impact travel in the Milwaukee urbanized area by reducing the PHED by approximately eight percent. At a meeting between WisDOT and Commission staffs, on March 15, 2018, both staffs concurred that a downward trend in PHED was reasonable. Given the uncertainty in forecasting the future, both staffs concurred that half of the modeled reduction (4 percent) in PHED would be applied to the base year PHED per capita value to estimate the four-year target PHED per capita.

Figure A.1
Forecast Population, Total Delay, and Delay per Capita in the Milwaukee Urbanized Area: 2017-2050



Source: SEWRPC

APPENDIX B
NON-SOV TARGET SETTING METHODOLOGY

The Federal Highway Administration (FHWA) performance measure relating to the percent of non-single occupancy vehicle (non-SOV) travel requires the establishment of two-year and four-year targets the Milwaukee urbanized area. To establish targets there needs to be a process for establishing a trend between the current year and short-range future years for which the targets are being set. To develop the potential targets, the Southeastern Wisconsin Regional Planning Commission has worked with the Wisconsin Department of Transportation (WisDOT) to develop three potential methodologies to estimate future years 2019 (two-year) and 2021 (four-year) targets based on the historical trend, the fiscally constrained transportation plan, and VISION 2050. The non-SOV forecasts through the year 2050 from each of the three methods are shown in Figure B.1.

HISTORICAL TREND

The historical trend methodology utilizes a projection of the last five US Census American Community Survey five-year datasets—2008 through 2012 (20.7 percent), 2009 through 2013 (20.7 percent), 2010 through 2014 (20.5 percent), 2011 through 2015 (20.6 percent), and 2012 through 2016 (20.3 percent)—to estimate potential two-year, four-year, and year 2050 targets. Commission staff used a linear projection which yielded an approximately 3 percentage point reduction in percent non-SOV travel by the year 2050.

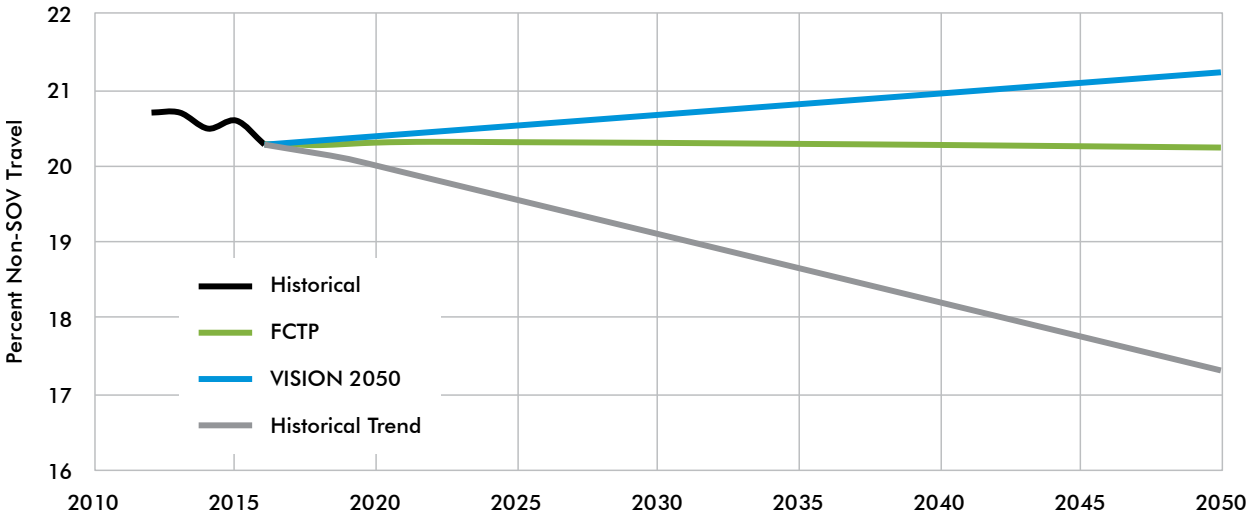
FISCALLY CONSTRAINED TRANSPORTATION PLAN

The second set of potential targets were calculated by factoring the current year 2016 non-SOV percentage by the change in percent non-SOV travel estimated by the Commission's fifth generation travel demand model under the fiscally constrained transportation plan (FCTP). The fiscally constrained transportation plan only includes those projects that can be completed within funding reasonably expected to be available through the year 2050. The staging of the projects under the FCTP is consistent with the staging of projects used to develop the most recent conformity demonstration. Under the FCTP, the percentage of non-SOV travel is expected to decline 0.05 percentage points by the year 2050.

VISION 2050

The third set of potential non-SOV targets were calculated by factoring the current year 2016 non-SOV percentage by the change in percent non-SOV travel estimated by the Commission's fifth generation travel demand model under VISION 2050. Under VISION 2050, the percentage of non-SOV travel is expected to increase 0.95 percentage points by the year 2050.

Figure B.1
Historical and Alternative Future Estimated Percent of Non-Single Occupancy Vehicle (SOV) Travel in the Milwaukee Urbanized Area: 2012-2050



Source: American Community Survey, WisDOT, and SEWRPC

POTENTIAL TARGETS

The potential two- and four-year non-SOV targets under consideration resulting from the three potential forecasting methods are shown below:

Method	Two-Year (2019) Target	Four-Year (2021) Target
Historical Trend	20.11	19.93
FCTP	20.31	20.34
VISION 2050	20.36	20.41

RECOMMENDATION

The three proposed target setting methodologies and potential targets were presented and discussed at a meeting between WisDOT and Commission staffs, on March 15, 2018. At this meeting, there was discussion that the historical trend may have captured declines in non-SOV travel attendant to the Milwaukee urbanized area coming out of a recession, while both of the modeled alternatives show some modest improvement in the non-SOV proportion. Of the two modeled methodologies, the FCTP was generally accepted by both staffs as the most reasonable in the short-term, given current fiscal conditions. Additionally, both staffs concurred that the historical declines in non-SOV travel are not likely to continue at the rate captured by the ACS. To mitigate the more aggressive historical decline, it was agreed that an averaging of the FCTP and historically based targets would be used to set the two- and four-year targets for non-SOV travel. The resulting targets from this averaging are 20.2 (two-year) and 20.1 (four-year).

APPENDIX C
SUMMARY OF RECORD OF PUBLIC COMMENT

INTRODUCTION

This appendix constitutes the formal record of public involvement in the establishing of targets for the national highway performance measures related to transit asset management (TAM), National Highway System (NHS) condition and reliability, freight reliability, and congestion mitigation and air quality improvement (CMAQ) for inclusion into VISION 2050—the year 2050 regional land use and transportation plan. The targets are being established as part of the national performance management framework created by the Moving Ahead for Progress in the 21st Century Act (MAP-21) of 2012, and continued in the Fixing America's Surface Transportation (FAST) Act of 2015. The performance measures included in the framework were developed by the Federal Transit Administration (FTA) for the transit-related measures and Federal Highway Administration (FHWA) for the highway-related measures. The targets, along with the procedures used to develop the targets, were reviewed by the Advisory Committee on Regional Transportation Planning. This Committee is comprised of chief elected and appointed officials of local governments and representatives of Federal and State transportation and environmental resource agencies.

The public was requested to comment on the preliminary recommended targets, along with the procedures used to establish targets, documented in the draft Establishing Targets for the Transit Asset Management, National Highway System Condition and Performance, Freight Performance, and Congestion Mitigation and Air Quality Improvement Federal Performance Measures from April 10, 2019, through May 9, 2019. Formal announcement of the public comment period was provided through paid notices appearing the Milwaukee Journal-Sentinel on April 10, 2019, the Milwaukee Community Journal on April 12, 2019, and in El Conquistador on April 11, 2019. A copy of the notice is included in Figure C.1.

Also, beginning on April 10, 2019, the draft report was made available for review on the Commission's website and at the Commission offices during normal business hours of 8:00 a.m. to 4:30 p.m., Monday through Friday. A summary description of the preliminary recommended targets and opportunity to submit email comments were also available on the Commission's website. A copy of the content posted on the Commission's website for the targets is also included in Figure C.1. In addition, Figure C.1 contains a copy of the notice that was sent via email to recipients of VISION 2050 newsletters and notices.

A total of five public comments were provided on the preliminary recommended targets and the procedures to develop the targets, with one comment received prior to the formal comment period and four comments received during the comment period (Figure C.2). All comments received were considered by Commission staff and the Advisory Committee on Regional Transportation Planning as staff prepared the final performance targets. The following presents a summary of all public comments received regarding the proposed amendment, and Commission staff responses to these comments.

SUMMARY OF COMMENTS RECEIVED

Comments by the ACLU of Wisconsin Foundation, Dennis M. Grzezinski, NAACP Milwaukee Branch, and 1000 Friends of Wisconsin Received Prior to the Formal Public Comment Period and the Meeting of the Advisory Committee on Regional Transportation Planning held on March 28, 2019, for the Consideration of Approving the Proposed Amendment for Public Review and Comment

- One comment stated that, given the proposed significant changes to VISION 2050 proposed under this amendment, an evaluation should be conducted of the impacts on minority populations and low-income populations by the changes included in the proposed amendment.

  Response: The proposed amendment to VISION 2050 involves only the addition of TAM, NHS, freight, and CMAQ-related performance targets into the plan to meet Federal regulations. This amendment will not change any of the recommendations of VISION 2050, as previously amended, and all of the evaluations conducted as part of the development of the plan remain valid—including the evaluation of the effects of the plan on minority populations and low-income populations conducted as part of the second amendment to VISION 2050.[1]

- One comment stated that, as the proposed amendment is based on the fiscally-constrained transportation plan, the Advisory Committee on Regional Transportation Planning should be informed about the effect of a lack of funding of transit and need for additional transit funding.

  Response: Commission staff acknowledge that, while the preliminary recommended year 2050 NHS, freight, and CMAQ targets were based on the aspirational nature of VISION 2050, the preliminary recommended year 2050 TAM targets that were presented to the Advisory Committee were based on "fiscally-constrained" funding conditions. However, at its March 28, 2019, meeting, the Advisory Committee discussed the methodology of establishing the TAM targets and the issue of transit funding at length. Following the discussion, the Advisory Committee recommended that the preliminary recommended year 2050 TAM targets presented to the public for review and comment would be based on the aspirational nature of VISION 2050, similar to the NHS, freight, and CMAQ targets. The Committee further recommended that, unless additional Federal and State funding became available, the short-term targets should be established based on more fiscally-constrained funding conditions.

Comments Received During the Formal Public Comment Period Related to the Proposed Targets

- One person commented that the webpage for the amendment did not make clear what changes are being proposed as part of the amendment to VISION 2050.

  Response: As previously stated, the proposed amendment does not change any of the recommendations of VISION 2050, as amended, nor affect any of the evaluations that were included in the plan. The proposed amendment involves adding new Federally-required performance targets into the existing plan. While the website developed for the proposed amendment to VISION 2050 did include background on the national performance management framework and the proposed targets established to implement the framework in Southeastern

[1] *The evaluation of the impacts of the recommendations of VISION 2050 and the fiscally-constrained plan are documented in Appendix C of the report entitled,* Second Amendment to VISION 2050: A Regional Land Use and Transportation Plan for Southeastern Wisconsin, Land Use Changes and Transportation Improvements Related to the Planned Foxconn Manufacturing Campus.

Wisconsin, the Commission staff could have made it clearer how the proposed performance targets were to be incorporated into VISION 2050. Unfortunately, the measures, as developed by the FTA and FHWA, that are required to be included in VISION 2050 are not public-friendly. However, the Commission staff will continue to refine and improve documentation to make it more understandable by the public.

- One person commented that the proposed targets for the NHS pavement condition measures seem too aggressive given the current level of highway funds.

  Response: The targets for the NHS pavement condition measures are based on the VISION 2050 recommendation that the condition of the arterial street and highway system be maintained or improved by the year 2050. For purposes of target setting, the Commission staff proposed to establish the NHS pavement condition measure based on a 10 percent improvement from year 2017 baseline conditions and year 2050 conditions. Like many of the recommendations of VISION 2050, improving the condition of the arterial roadways in Southeastern Wisconsin by 10 percent by the year 2050 may require additional Federal and State funding. The achievement of the performance targets established under this VISION 2050 amendment will be monitored annually and reviewed, and potentially revised, every four years as part of minor updates to the regional plan and every 10 years as part of major updates to the regional plan.

- One person commented that targets related to safety should have been included in this amendment to VISION 2050. In addition, this person suggested that consideration be given to establishing the target for the number of fatalities measure at zero fatalities.

  Response: The Commission established targets relating to the national safety performance measures, which were incorporated into VISION 2050 in June of 2018.[2] The concept of establishing zero-level-targets was discussed by the Advisory Committee as part of development of the targets. However, it was determined that the years 2046-2050 targets be established based on the long-term declines in both fatalities and serious injuries over the last 20 to 40 years. The purpose of establishing the targets as such was to meet the aspirational nature of, and quantify the safety recommendations of, VISION 2050, while recognizing and considering the effect of past efforts to reduce the number and rate of crashes.

- One person commented that targets related to the effect on automobile travel by rail usage should have been included in this VISION 2050 amendment.

  Response: The performance measures addressed in the proposed amendment to VISION 2050 are performance measures that are specifically developed by the FTA and FHWA, in order to have a uniform series of measures that were consistently utilized nationwide. Currently, there is no performance measure that was created explicitly related to the effect on automobile travel by rail usage. However, the reliability[3] of a particular roadway under the NHS reliability measure could be affected by rail usage. An NHS roadway that experiences excessive delay due to high rail usage at an at-grade crossing could be considered unreliable. Thus, improving a rail-crossing (such as by grade separating the crossing) could improve the reliability of the roadway.

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[2] *The established highway safety targets, and the process utilized in establishing the targets, is documented in a report entitled,* First Amendment to VISION 2050: A Regional Land Use and Transportation Plan for Southeastern Wisconsin, Establishing Targets for Federal Performance Measures: Highway Safety.

[3] *Transportation system reliability reflects the degree to which travelers are able to reach their destinations on time. Travelers using a less reliable transportation system would be more likely to experience unexpected delays than travelers using a more reliable transportation system. The additional delays associated with a less reliable transportation system could result in negative impacts, such as increased total travel time delay for personal vehicles and public transit, increased energy use, and increased freight shipping travel times and costs.*

- One person commented that alternative performance measures to highway level of service should be utilized.

  Response: As previously indicated, this amendment addressed the inclusion of targets established for performance measures developed by FTA and FHWA in VISION 2050. None of these performance measures include highway level of service. Additionally, during the development of VISION 2050, the Commission staff utilized numerous performance measures. While highway level of service was used in the development of the plan, a number of performance measures were utilized related to travel by transit, bicycle, and walking. Examples of these performance measures includes the number of people living in walkable areas, usage (volume) by mode, bicycle level of service, bicycle network connectivity, transit travel times, access to transit, and transit service quality.

- One person commented that the planned Kenosha-Racine-Milwaukee (KRM) commuter rail service, as recommended in VISION 2050, would contribute to the achievement of the CMAQ targets related to the percent of non-single occupancy vehicles and emission reductions.

  Response: Commission staff agree that implementation of the KRM commuter rail service, and the other VISION 2050 recommendations related to expanding and improving transit service in Southeastern Wisconsin, would contribute to the achievement of the preliminary recommended CMAQ-related targets, along with the achievement of the NHS and freight reliability-related measures.

Figure C.1
Notice of Public Review Period

El Conquistador
April 11, 2019

Milwaukee Community Journal
April 12, 2019

Milwaukee Journal Sentinel
April 10, 2019

Figure C.1 (Continued)

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VISION 2050 Amendment: Establishing targets for Federal transit and highway performance measures for incorporation into VISION 2050

VISION 2050 Federal Safety Performance Measure Targets

2016 Certification Review of the SEWRPC Metropolitan Transportation Planning Process

Regional Transportation Improvement Program: 2017–2020

2012 Certification Review of the SEWRPC Metropolitan Transportation Planning Process

Workforce Mobility Team

Section 5310 Program

2035 Regional Transportation Plan

Regional Nonmotorized Count Program

STH 60 Northern Reliever Route Feasibility Study

Traffic Engineering Study for the Intersection of S. 51st Street and W. Drexel Avenue

2014 Interim Review and Update of the Year 2035 Regional Transportation Plan

Jurisdictional Highway Plans

Public Participation in Regional Planning

Regional Transportation Operations Plan: 2012–2016

Congestion Management Process in Southeastern Wisconsin

Transit Development Plans

Human Services Transportation Coordination

VISION 2050 Amendment: Establishing targets for Federal transit and highway performance measures for incorporation into VISION 2050

The Moving Ahead for Progress in the 21st Century Act (MAP–21) enacted in 2012, created a national performance management framework that established uniform performance measures and target setting to, in part, create a consistent nationwide process for monitoring the effectiveness of Federal transportation investments. As part of implementing the national performance management framework, metropolitan planning organizations (MPOs), like the Commission, are to establish transit and highway targets for performance measures under the following categories:

- Transit Asset Management (TAM)
- National Highway System (NHS) Bridge and Pavement Performance
- NHS and Freight Reliability
- Congestion Mitigation and Air–Quality Improvement (CMAQ)

Under the national performance management framework, the Commission is required to establish performance targets for the Region's metropolitan planning area (map), or the Milwaukee urbanized area for two CMAQ related measures. The TAM targets are established annually, and the NHS, freight, and CMAQ targets are established every four years. While the Commission is required to establish targets for these measures and plan and program for achievement of those targets, there are no consequences should those targets not be met. In addition, the performance targets established for the Region are required to be incorporated into VISION 2050—the year 2050 regional land use and transportation plan completed in 2016.

The Commission is currently requesting public comment through May 9, 2019, on the preliminary recommended targets that will be considered by the responsible Advisory Committee and the Commission for inclusion into VISION 2050—the adopted year 2050 regional land use and transportation plan.

This amendment does not propose any changes to the recommendations included in VISION 2050. It only involves incorporating targets to address new Federal performance management requirements.

Preliminary Recommended Targets for Related Performance Measures

To establish the required short–term targets for the Region, Commission staff first developed long–term (year 2050) targets in the context of VISION 2050. Table 1 shows the preliminary recommended year 2050 regional targets for each of the TAM, NHS, freight, and CMAQ measures, which are proposed to be incorporated into VISION 2050 as an amendment. Table 2 shows the short–term TAM, NHS, and freight targets for both the Region's metropolitan planning area and the seven–county Region. Table 3 shows the short–term congestion related CMAQ targets for the Milwaukee urbanized area and Table 4 shows the short–term emission reduction–related CMAQ targets preliminarily recommended for the Region. As these performance measures are based on this estimated reduction of future projects, the Commission staff propose that only short–term targets be established. In addition, it is proposed that these targets for the Metropolitan Planning Area and the Region be the same

Related Materials

Establishing Targets for Federa Transit and Highway Performance Measures

VISION 2050

Committees

Advisory Committee on Regional Land Use Planning

Advisory Committee on Transportation Planning

Figure C.1 (Continued)

Environmental Justice Task Force

Regional Airport System Plan

Other Transportation Project Websites

Links and Document Downloads

MPO Designation, Geography, and Responsibilities

Lake Parkway Extension Study

targets. The process used to develop each performance measure is summarized in this document.

In general, these targets represent the aspirational nature of, and quantify, the objectives and recommendations of VISION 2050. The preliminary recommended targets, along with the process to establish the targets, were reviewed and endorsed by the Commission's Advisory Committee on Regional Transportation Planning at a meeting held on March 28, 2019.

Reporting and Monitoring of Targets

The targets will be reported and monitored in the transportation system performance section of the Commission's Annual Report and on its website. The regional long-term targets will be reviewed and potentially updated every four years as part of the interim regional plan update and every 10 years as part of the major regional plan update.

Public Comment

The next step in establishing the TAM, NHS, freight, and CMAQ targets for VISION 2050 is soliciting comments from the public. Comments will be accepted through May 9, 2019, and can be provided electronically via email (VISION2050@sewrpc.org), through this webpage (see below), or via letter to the address below. Any comments received during the public comment period will be reviewed by Commission staff and will be summarized and addressed. The comments received will be reviewed by the Advisory Committee and the Commission as part of their consideration of incorporating the long-term TAM, NHS, freight, and CMAQ targets into VISION 2050.

Contact Information

Please provide the following information prior to submitting your request:

First Name:*

Last Name:*

Email Address:

Organization

Mailing Address:

City:*

State:*

Zip:

* Denotes a required field

Press the "Submit" button when finished.

Submit

Figure C.1 (Continued)

Contact Information

E-Mail: VISION2050@sewrpc.org

Phone: (262) 547-6721

Fax: (262) 547-1103

U.S. Mail: Southeastern Wisconsin Regional Planning Commission
P.O. Box 1607
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Southeastern Wisconsin Regional Planning Commission

W239 N1812 Rockwood Drive
P.O. Box 1607
Waukesha, WI 53187-1607

Monday - Friday
8:00 a.m. - 4:30 p.m.

Phone: (262) 547-6721
Fax: (262) 547-1103
E-mail: sewrpc@sewrpc.org

Figure C.1 (Continued)

From: SEWRPC <sewrpcnews@sewrpc.org>
Sent: Wednesday, April 10, 2019 1:23 PM

Subject: SEWRPC Seeking Feedback on Draft Third Amendment to VISION 2050

SEWRPC Seeking Feedback on Draft Third Amendment to VISION 2050

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

VISION 2050
One Region, Focusing on Our Future

REVIEW AND COMMENT ON DRAFT TARGETS FOR TRANSIT AND HIGHWAY PERFORMANCE MEASURES FOR INCLUSION IN VISION 2050

A national performance management framework was created by the Federal government in the Moving Ahead for Progress in the 21st Century Act (MAP-21) enacted in 2012. To partially meet the requirements of this framework, the Southeastern Wisconsin Regional Planning Commission proposes establishing targets related to transit asset management, pavement and bridge condition, highway and freight reliability, and congestion mitigation and air quality improvement for inclusion in VISION 2050, the year 2050 regional land use and transportation plan. As such, draft targets for these performance measures are recommended as an amendment to VISION 2050 and are now available for review and comment through May 9, 2019. Staff will consider all comments received on the draft amendment and will provide all comments to the Advisory Committees guiding VISION 2050 and to the Commission as part of their consideration of the proposed amendment.

NOTE: this amendment does NOT propose any changes to the recommendations included in VISION 2050. It only incorporates targets to address new Federal performance management requirements.

1

Figure C.1 (Continued)

Click Here to Review the Draft Amendment

Southeastern Wisconsin Regional Planning Commission
www.sewrpc.org

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2

Figure C.2
Comments Submitted via U.S. Mail, Email, Fax, or Online Form During the Public Comment Period

March 27, 2019

Eric Lynde
Chief Special Projects Planner
Southeastern Wisconsin Regional Planning Commission
P.O. Box 1607
W239 N1812 Rockwood Drive
Waukesha, WI 53187-1607

Transmitted electronically only: xxxxxxxx

RE: Third Amendment to VISION 2050: A Regional Land Use and Transportation Plan for Southeastern Wisconsin, Establishing Targets for the Transit Asset Management, National Highway System Condition and Performance, Freight Performance, and Congestion Mitigation and Air Quality Improvement Federal Performance Measures

Dear Mr. Lynde:

The undersigned individuals and organizations are all based in, represent members in, or work extensively in the Milwaukee metropolitan region, and have long been concerned with and involved in ensuring racial and environmental justice and promoting the public interest. We submit these comments regarding SEWRPC's proposed Third Amendment to Vision 2050. For many years, SEWRPC's Regional Transportation plans have recognized the essential role that public transit plays within the Region's transportation systems, and they have repeatedly recommended substantial expansion of public transit as essential for the sustainability and growth of its economy and for the quality of life of its residents. The proposed Amendment is likely to exacerbate, rather than ameliorate, disparities in the region, and does not adequately mitigate the disparate impact on communities of color. Transit system improvement and expansion necessary to ameliorate these disparities has lagged far behind highway improvement and expansion for many years, and this Amendment continues that trend.

The July 2006 Regional Transportation System Plan for 2035 called for a 100% increase in public transit, at a time when transit had declined 15% from its level in 2000. It recognized that:

> It is not desirable, and not possible, in the most heavily traveled corridors, dense urban areas, or the largest and densest activity centers of the Region to accommodate all travel by automobile with respect to both demand for street traffic carrying capacity and parking.

The 2035 Plan also pointed out that because public transit encourages higher development density and in-fill land use, it results in efficiencies for the overall transportation system and other public infrastructure and services, as well as reducing air pollution and energy consumption. The Plan also recognized that high quality public transit is important to the quality of life and economy of the Region, and essential to meet the travel needs of the significant portion of the Region's population that is unable to use personal automobile transportation.

More recently, the December 2016 Vision 2050 Plan again recommended an approximately 100% increase in public transit, based on the many benefits of such an expansion:

- Expanding the traffic carrying capacity in major travel corridors;
- Encouraging more walkable neighborhoods and improving public health;
- Enabling elderly residents to age in place as their ability to drive declines;
- Improving access to jobs, education, healthcare for households without a car;
- Providing employers with access to a larger labor force;
- Improving the Region's competitiveness with other metro areas;
- Saving residents $144 million a year by 2050 in transportation expenses;
- Decreasing the demand for investments in parking spaces (costing up to $25,000 each);
- Reducing carbon emissions from transportation.

Consistent with Federal Highway Administration regulations, the Vision 2050 Plan acknowledged that then existing financing sources would not be sufficient to fund the recommended public transit increases, identified potential sources for such funding, and pointed out that "Almost all of these funding sources would require approval of the Governor and State Legislature." A "fiscally constrained" version of the Plan was then set forth.

The proposed Amendment now being presented to the Advisory Committee on Regional Transportation Planning are driven by the "fiscally constrained" version of the 2050 Plan. This is one in a series of plan amendments driven by these fiscal restraints. If the well-founded and carefully reasoned recommendations for expanding public transit that were found by SEWRPC in 2006 and again in 2016 to be necessary for the Region's transportation system are ever to be implemented, it is imperative that Amendments such as this be treated as something other than mere "boilerplate." The Advisory Committee ought to be informed of why a doubling of transit was recommended, and of the negative consequences of causing transit instead to continue further on its downward path, including the significant adverse impact on the Region's communities of color – especially African American and Latinx persons – and persons with disabilities. The need for the Governor and Legislature to approve additional sources of funding for public transit in order to avoid these negative outcomes should be clearly and explicitly stated when Amendments such as this one are proposed.

As we have made clear in comments on other Amendments, Vision 2050 conducted extensive analyses of the effects of the plan on underserved communities, including communities of color , including an Equitable Analysis of the Fiscally Constrained Transportation Plan. *See, id.*, App. N.

The proposed further reduction of transit services will unquestionably result in an ***inequitable*** distribution of the benefits and burdens of transportation system investments.[1]

[1] We note that, as we have stated previously, the major transit system investment that has occurred in recent years is the streetcar. Whatever its other benefits, there is little evidence that this proportionately serves communities of color. To the contrary, it is designed in particular to serve downtown residents, see, e.g., https://www.biztimes.com/2018/ideas/economic-development/whos-going-to-ride-the-streetcar/ , and tourists. An analysis of the demographics of downtown residents would confirm that they are disproportionately white non-Hispanic compared to the city (and likely the county) population. In other

Moreover, given the well-known, racially disparate, transit dependence in the region, the refusal to acknowledge and include, in the plan, the indisputable fact that a reduction in transit service has already imposed a disproportionate adverse effect on communities of color – especially African American and Latinx persons – and persons with disabilities, and will continue to do so, may well constitute a form of intentional discrimination. SEWRPC has the obligation to make it absolutely clear to decision makers that the failure and refusal to provide improved transit, especially while at the same time expanding highway capacity, *is* an action that has a discriminatory effect.

Now, however, although SEWRPC proposes to make significant changes to Vision 2050 it has failed to conduct any such analysis. To the contrary, there appears to be no discussion at all of any issues related to Title VI (or environmental justice). Thus, there is no way to ascertain whether or not the proposed transportation changes will have the indirect or cumulative effects of increasing the profound racial disparities in the region. The failure to analyze the effects on persons of color – again, especially African-Americans and Latinx – and persons with disabilities runs counter to Title VI and Sec. 504 of the Rehabilitation Act.

However, SEWRPC must do more than analyze those effects. Title VI, and principles of Environmental Justice, require that recipients of federal funding – including the state of Wisconsin – "avoid, minimize, or mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects, on minority populations and low-income populations." https://www.fhwa.dot.gov/Environment/environmental_justice/ej_at_dot/; see also, 23 C.F.R. § 450.336(a)(3) (requiring metropolitan planning organizations to certify compliance with Title VI of the Civil Rights Act, including the regulations at 49 C.F.R. Pt. 21, which prohibit actions that have a discriminatory effect). SEWRPC can and must explicitly reaffirm this obligation to mitigate, and make clear that a funding improvement is necessary as a mitigation measure, to avoid racially disparate impacts and disparate impacts on the basis of disability.[2]

It also must ***ensure that offsetting benefits are included in the revised plan to counter the long-standing, racially disparate, adverse effects that these communities have suffered***. As an entity that receives federal funding, SEWRPC is subject to Title VI of the Civil Rights Act. This law precludes federally funded agencies from administering their programs in a manner that has a discriminatory effect, as well as from taking intentionally discriminatory actions. See, e.g., 49 C.F.R. §21.5. The "desired outcome" is providing ***"[f]air distribution of the beneficial and adverse effects of the proposed action.***" FHWA, "Guidance on Environmental Justice and NEPA" ("EJ/NEPA") (Dec. 16, 2011). "To the extent that *plans* and programs include proposed improvements with disproportionate beneficial impacts or reflect decision processes that exclude

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words, this system appears to *disproportionately* serve non-minority persons. At a minimum this analysis must be conducted before it can be asserted that the streetcar is a transit system investment that provides even a proportional (and much less an offsetting) benefit to communities of color.

[2] Moreover, improving and expanding transit will not only benefit underserved communities, it is consistent with federal law. Under 23 C.F.R. § 450.332 (e), "In nonattainment and maintenance areas [which includes much of this region], priority shall be given to the timely implementation of TCMs [Transportation Control Measures] contained in the applicable SIP…." Under federal law, public transportation is, of course, such a measure. 42 U.S.C. § 7408(f)(1)(A)(i).

requirements." FHWA, "Title VI: Non-Discrimination in the Federal-Aid Highway Program" at 7-3 (emphasis added). Moreover, the plan must "[m]inimize and/or mitigate unavoidable impacts by identifying concerns early in the planning phase ***and providing offsetting initiatives and enhancement measures*** to benefit affected communities and neighborhoods." *An Overview of Transportation and Environmental Justice* (FHWA & FTA, May 2000) (emphasis added).

Respectfully submitted,

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Figure C.2 (Continued)

From: website@sewrpc.org
Sent: Wednesday, April 10, 2019 2:17 PM
To: VISION2050
Subject: VISION 2050 Amendment Comment Form

FirstName1:	John
LastName1:	Rennpferd
Email:	xxxxxxxx
Organization1:	
MailingAddress1:	1828 Marquette Ave
City1:	South Milwaukee
State1:	WI
Zipcode1:	53172
comments:	An easy method to reach the reduction in single occupant vehicles target, and the reduction in emissions targets is starting the KRM commuter rail line. Commuter behavior cannot change without a consistently reliable, and comparable commute alternative.
ClientIP:	141.106.13.119
SessionID:	xhuzlml4ppiaqvzs1qmiuely

See Current Results

From: website@sewrpc.org
Sent: Wednesday, April 10, 2019 2:41 PM
To: VISION2050
Subject: VISION 2050 Amendment Comment Form

FirstName1:	Joyce Tang
LastName1:	Boyland
Email:	xxxxxxxx
Organization1:	
MailingAddress1:	
City1:	Milwaukee
State1:	WI
Zipcode1:	53211
comments:	Is there any way to address the use of outdated "Level of Service" metrics and replace them with metrics that prioritize people rather than vehicle speed? Joyce
ClientIP:	205.213.28.202
SessionID:	maht5wvyqv0vez0scufkg4ox

See Current Results

Figure C.2 (Continued)

From:	website@sewrpc.org
Sent:	Wednesday, April 10, 2019 3:52 PM
To:	VISION2050
Subject:	VISION 2050 Amendment Comment Form

FirstName1:	Dave
LastName1:	Swan
Email:	xxxxxxxx
Organization1:	Waukesha county board
MailingAddress1:	W239N4050 Swan RD,
City1:	Pewaukee
State1:	Wisconsin
Zipcode1:	53072
comments:	I feel the highway condition is too aggressive .More will be needed to maintain present road conditions. Not enough attention to rail lines. As they increase traffic,North and South roads will need to extend or there will be traffic jams as they wait for more train traffic
ClientIP:	65.30.131.42
SessionID:	qytbwppthquy5n5hmczb22uc

See Current Results

Figure C.2 (Continued)

From:	website@sewrpc.org
Sent:	Wednesday, April 10, 2019 4:09 PM
To:	VISION2050
Subject:	VISION 2050 Amendment Comment Form

FirstName1:	Robert
LastName1:	Schneider
Email:	xxxxxxxx
Organization1:	UW-Milwaukee
MailingAddress1:	
City1:	Milwaukee
State1:	WI
Zipcode1:	53212
comments:	What is the connection between Tables 1-4 and safety? The targets listed seem to relate to infrastructure maintenance, emissions, and congestion. But the title of the section on this webpage suggests that these targets are related to safety. Also, I think that FHWA's performance measures include transportation-related injuries and fatalities. Could you please establish some benchmarks for injuries and fatalities by each transportation mode in our SE Wisconsin region? These would include pedestrian fatalities & injuries, bicyclist fatalities & injuries, driver fatalities & injuries, and passenger fatalities & injuries. Ultimately, the goal would be zero fatalities by 2050 (and maybe some "acceptable" level of injuries by 2050). If our plan is multimodal and is serious about creating a safe transportation system, we should have some strong performance targets for injuries and fatalities (in addition to the others listed in Tables 1-4). These safety-based performance measures would also be a nice complement to the excellent pedestrian, bicyclist, and motorist safety-related policy recommendations throughout the Vision 2050 Plan.
ClientIP:	129.89.182.191
SessionID:	cppcxmcka52wsb34ukbsbhfk

See Current Results

Figure C.2 (Continued)

From: Brian Peters
Sent: Thursday, April 11, 2019 10:01 AM
To: VISION2050

Subject: RE: SEWRPC Seeking Feedback on Draft Third Amendment to VISION 2050

When I served on the Environmental Justice Taskforce, one of the things we frequently discussed with SEWRPC staff was the need to make your language more readable by the general public. I thought SEWRPC was making progress. What happened to that effort? I've read the information in this and the webpage, I've looked at the tables, and I still have no idea exactly what it is that you're trying to change. There's no specifics – not even highlighted numbers – and as far as I can tell, there's nothing to give context between the current numbers and the proposed new numbers.

Can you please tell me exactly what SEWRPC is trying to change here?

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Dr. Thomas M. Slawski ..... Chief Biologist