MEMORANDUM REPORT NO. 223
(Appendix C: Updated June 2018)

ASSESSMENT OF CONFORMITY OF THE RECOMMENDED YEAR 2050 FISCALLY CONSTRAINED TRANSPORTATION PLAN AND THE 2015-2018 TRANSPORTATION IMPROVEMENT PROGRAM

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VISION 2050
One Region, Focusing on Our Future

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The contents of this report do not necessarily reflect the official views or policy of the above agencies.

U.S. Department of Transportation
Federal Highway Administration

U.S. Department of Transportation
Federal Transit Administration

WISCONSIN DEPARTMENT OF TRANSPORTATION

WISCONSIN DEPT. OF NATURAL RESOURCES

WISCONSIN DEPARTMENT OF ADMINISTRATION

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INTRODUCTION

This report is intended to provide the basis for a determination that the recommended year 2050 fiscally constrained transportation plan[1] (FCTP) and also the year 2015-2018 transportation improvement program (TIP) are in conformance with the early progress plan for the 2008 eight-hour ozone national ambient air quality standards (NAAQS) for the Wisconsin portion of the Chicago-Naperville, IL-IN-WI moderate maintenance area[2], and the maintenance plan for the 2006 24-hour fine particulate ($PM_{2.5}$) NAAQS for the three-county maintenance area consisting of Milwaukee, Racine, and Waukesha Counties. The report is also intended to demonstrate that the year 2015-2018 TIP continues to serve to implement the FCTP.[3]

This finding of conformity is for the 2008 eight-hour ozone NAAQS for the Wisconsin portion of the Chicago-Naperville, IL-IN-WI moderate nonattainment area, consisting of that portion of Kenosha County east of IH 94, and for the three-county maintenance area for the 2006 24-hour $PM_{2.5}$ NAAQS within Southeastern Wisconsin consisting of Milwaukee, Racine, and Waukesha Counties. Map 1 shows the nonattainment and maintenance areas within Southeastern Wisconsin.

The United States Environmental Protection Agency (USEPA), on October 9, 2009, designated a three-county (Milwaukee, Racine, and Waukesha) $PM_{2.5}$ nonattainment area. In June 2012, the Wisconsin Department of Natural Resources (WDNR) submitted, a redesignation request and maintenance plan for air quality under the 2006 24-hour $PM_{2.5}$ NAAQS for the three-county $PM_{2.5}$ nonattainment area which established motor vehicle emission

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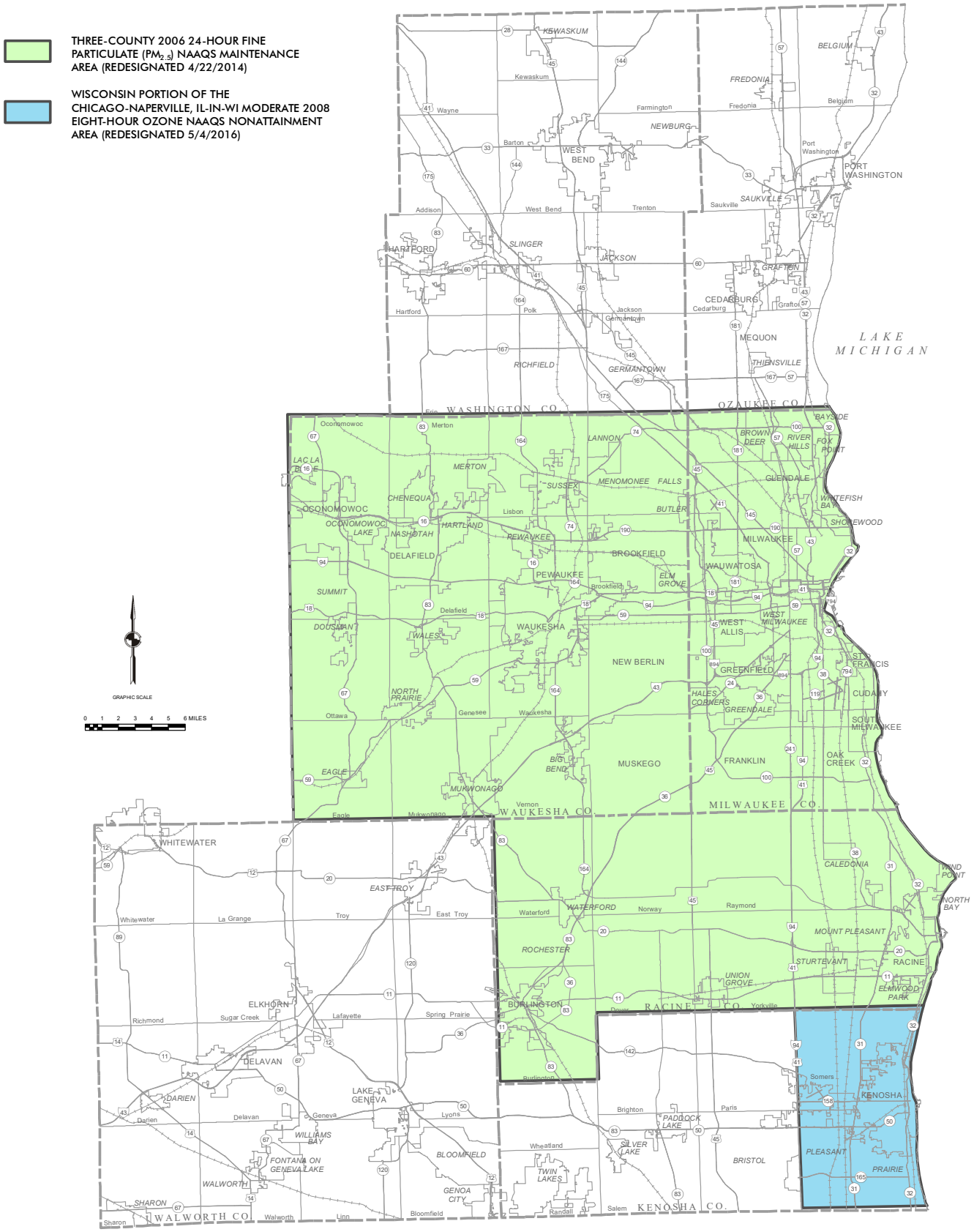
[1] *An important aspect related to implementing VISION 2050 relates to funding. The amount of public funding needed to construct, operate, and maintain the transportation component of VISION 2050 has been compared to the amount of funding expected to be available. Federal metropolitan planning regulations (23 CFR Part 450) and conformity regulations (40 CFR Part 93.108) require that the Region's transportation plan be "fiscally constrained"—only including projects that can be funded with expected funds, taking into account the limitations placed on these funding sources by Federal and State law. Therefore, only the recommended portion of VISION 2050 that can be funded with these revenues is considered the "fiscally constrained" regional plan by the Federal Government and is titled the Recommended Fiscally Constrained Transportation Plan (FCTP). The FCTP includes all the transportation elements of VISION 2050 except for the public transit element, which cannot be implemented within expected funds due to a gap in funding. Therefore, transit service under the FCTP would be expected to decline rather than significantly improve as proposed under VISION 2050. The FCTP is used in the determination of conformity and in the development of the transportation improvement program.*

[2] *The Wisconsin portion of the Chicago-Naperville, IL-IN-WI moderate ozone nonattainment area for the 2008 eight-hour ozone NAAQS consisting of that portion of Kenosha County east of IH 94. On August 27, 2015 USEPA published a proposed reclassification of the Chicago-Naperville, IL-IN-WI marginal ozone nonattainment area to moderate nonattainment for failure to attain 2008 8-hour ozone NAAQS by the July 20, 2015 attainment date, based on the 2012-2014 monitor design values. This reclassification was finalized May 4, 2016. In addition, based on 2013-2015 monitor design values, this area has now attained the 2008 eight-hour ozone NAAQS and there is currently a three state effort underway to develop a redesignation and maintenance plan. WDNR is anticipating a summer submittal to USEPA of a redesignation and maintenance plan for the Wisconsin portion of the Chicago-Naperville, IL-IN-WI ozone nonattainment area.*

[3] *The regional transportation plan is documented in SEWRPC Planning Report No. 55, VISION 2050: A Regional Land Use and Transportation System Plan for Southeastern Wisconsin. The 2015-2018 Transportation Improvement Program is documented in a report entitled, A Transportation Improvement Program for Southeastern Wisconsin: 2015-2018.*

Map 1
NAAQS Nonattainment and Maintenance Areas within the Southeastern Wisconsin Region



Source: SEWRPC

budgets (MVEB) for volatile organic compounds (VOC), Nitrogen oxides (NO_x), sulfur dioxide (SO_2), and $PM_{2.5}$ for the years 2020 and 2025, which are based on the MOVES2010a emissions model. Effective April 22, 2014, USEPA has approved the maintenance plan and the three-county 2006 24-hour $PM_{2.5}$ nonattainment area has been redesignated as attaining the 2006 24-hour $PM_{2.5}$ NAAQS. With this approval and redesignation, the MVEBs have been determined to be adequate for the demonstration of transportation conformity. On December 23, 2015 WDNR submitted a state implementation plan (SIP) revision which established updated VOC MVEBs. Effective April 22, 2016, USEPA has approved the SIP revision and updated VOC MVEBs.

The United States Environmental Protection Agency (USEPA), on May 31, 2012, designated Kenosha County east of IH 94 as being in nonattainment of the 2008 eight-hour ozone NAAQS and included this area in the larger Chicago-Naperville, IL-IN-WI marginal nonattainment area. In January 2015, WDNR submitted an early progress plan for the Wisconsin portion of the Chicago-Naperville, IL-IN-WI marginal ozone nonattainment area which established MVEBs for VOC and NO_x for the year 2015 based on the MOVES2014 emissions model. Effective April 16, 2015 USEPA determined that the budgets included in the early progress plan were adequate for the demonstration of transportation conformity. On August 27, 2015 USEPA published a proposed reclassification Chicago-Naperville, IL-IN-WI marginal ozone nonattainment area to moderate nonattainment for failure to attain 2008 8-hour ozone NAAQS by the July 20, 2015 attainment date, based on the 2012-2014 monitor design values. This reclassification was finalized May 4, 2016.

USEPA and the U.S. Department of Transportation (USDOT) have established criteria and procedures to be used by a Metropolitan Planning Organization (MPO) in making conformity determinations of regional transportation plans (RTP) and TIPs. The Southeastern Wisconsin Regional Planning Commission (SEWRPC) is the gubernatorially designated Federal MPO for the Kenosha, Milwaukee, Racine, the Wisconsin portion of the Round Lake Beach, and West Bend urbanized areas. The conformity criteria established by USEPA are set forth in the Federal Register (40 CFR Part 51), and the criteria with respect to ozone and $PM_{2.5}$ precursors apply to Southeastern Wisconsin. These Federal regulations identify the conformity criteria which should be applied at this time with respect to the Wisconsin portion of the Chicago-Naperville, IL-IN-WI moderate ozone nonattainment area (2008 eight-hour ozone NAAQS), and the three-county $PM_{2.5}$ maintenance area (2006 24-hour $PM_{2.5}$ NAAQS).

In addition to the Federal regulations governing the RTP and TIP conformity, SEWRPC, WDNR, and the Wisconsin Department of Transportation (WisDOT) have adopted a memorandum of agreement regarding the conduct of RTP and TIP conformity determinations, which was approved by USEPA and became effective on April 22, 2013. Appendix A provides a summary of the interagency agreement on the conformity criteria and tests which should be applied in this conformity determination. The principal agencies involved were SEWRPC, WisDOT, WDNR, USDOT Federal Highway and Transit Administrations, and USEPA. The conformity criteria to be applied to the three-county maintenance area under the 2006 24-hour $PM_{2.5}$ NAAQS with respect to VOC, NO_x, SO_2, and $PM_{2.5}$ and the Wisconsin portion of the Chicago-Naperville, IL-IN-WI moderate ozone nonattainment area under the 2008 eight-hour ozone NAAQS with respect to VOC and NO_x require the satisfaction of emissions budget tests described in 40 CFR 93.118. With

respect to the VOC budgets included in the December 2015 SIP update for the three-county 2006 24-hour $PM_{2.5}$ maintenance area, and the VOC and NO_x budgets included in the early progress plan, this conformity demonstration is also intended to satisfy the requirement that conformity of the plan and TIP be demonstrated within two years of a maintenance plan approval or a budget or budgets being determined adequate by USEPA.

The next section of this report describes the FCTP for the seven-county Southeastern Wisconsin Region. The following section summarizes the 2015-2018 TIP which implements the plan. The remaining sections of this report then identify the specific conformity procedure requirements and conformity determination criteria which have been established by USEPA for use in the determination of FCTP and TIP conformity. These sections also indicate the extent to which the conformity analysis, FCTP, and the TIP meet each of these requirements and criteria. The assessment of conformity with respect to each requirement and criterion concludes that the FCTP and the 2015-2018 TIP are in conformance with the maintenance plan for the three-county maintenance area for the 2006 24-hour $PM_{2.5}$ NAAQS and the early progress plan for the Wisconsin portion of the Chicago-Naperville, IL-IN-WI ozone nonattainment area for the 2008 eight-hour ozone NAAQS.

It is important to note that VISION 2050, FCTP, TIP, maintenance plan, and early progress plan have been prepared in a cooperative manner by the Commission and WDNR. The preparation of VISION 2050, FCTP, maintenance plan, and early progress plan has been extensively coordinated. The forecasts of vehicle-miles of travel (VMT) and air pollutant emissions utilized in the preparation of the FCTP were based on the official Commission intermediate growth forecasts for the year 2050, and the forecasts of emissions under the maintenance plan for the 2006 24-hour $PM_{2.5}$ NAAQS were based on alternative high growth VMT and emissions forecasts under the year 2035 RTP, and increased by 7.5 percent to account for uncertainty in transportation emissions forecasts. Vehicle fleet, fuels, and meteorology inputs, which the Commission utilized to run USEPA's MOVES2014a emission model and estimate air pollutant emissions in the preparation of this conformity assessment of the FCTP and TIP were provided by WDNR. This conformity analysis includes the emission reduction benefits attendant to Tier 2 motor vehicle and low sulfur fuel regulations. The MOVES model inputs which were used to establish the transportation emission budgets in the $PM_{2.5}$ maintenance plan also did account for the emission reduction benefits attendant to these more recent regulations. In addition, WDNR has relied upon the Commission's RTP for the identification and evaluation of potential transportation control measures considered for incorporation into the maintenance plan.

FISCALLY CONSTRAINED TRANSPORTATION PLAN

VISION 2050 includes both a land use component and transportation component. This plan represents the Region's vision or guide for the pattern of development and the attendant transportation system necessary to efficiently accommodate existing and anticipated future growth within the Region. An important aspect related to implementing VISION 2050 relates to funding. The amount of public funding needed to construct, operate, and maintain the transportation component of VISION 2050 has been compared to the amount of funding expected to be available. Federal metropolitan planning regulations (23 CFR Part 450) and conformity regulations (40 CFR Part 93.108) require that the Region's transportation plan be "fiscally constrained"—only including projects that can be funded with expected funds, taking into account the limitations placed on these funding sources

by Federal and State law. Therefore, only the recommended portion of VISION 2050 that can be funded with these revenues is considered the "fiscally constrained" regional transportation plan (FCTP) by the Federal Government. The FCTP includes all the transportation elements of VISION 2050 except for the public transit element, which cannot be implemented within expected funds due to a gap in transit funding. Therefore, transit service under the FCTP would be expected to decline rather than significantly improve as proposed under VISION 2050. The FCTP is used in the determination of conformity and in the development of the transportation improvement program.

The FCTP has been developed to meet the requirements of a Federally recognized congestion management process, including the definition of performance measures to establish congestion problems and to assist in the evaluation of alternative measures to address congestion and the evaluation and recommendation of alternative measures to resolve the identified congestion problems. The development and evaluation of transportation alternatives which would address existing and anticipated future traffic congestion problems was done in a disciplined way so as to ensure that highway capacity expansion projects were proposed for inclusion in the plan only as a last resort. Appropriate, detailed, quantified attention was paid to determining the extent to which a wide variety of transportation system management measures, including land use, traffic management, and transit, could be used to resolve congestion problems. Once that extent was determined, highway capacity improvement proposals were placed into the plan to resolve many, but not all, of the residual congestion problems. This conformity assessment is being conducted as part of the 2016 decennial major review and update of the regional land use and transportation system plans (VISION 2050).

It should be noted that VISION 2050 and the FCTP do not make any recommendation with respect to whether the 10.2 route-miles of IH 43 between Howard Avenue and Silver Spring Drive, when reconstructed, should be reconstructed with or without additional traffic lanes. The FCTP recommends that preliminary engineering conducted for the reconstruction of this segment of IH 43 should include the consideration of alternatives for rebuilding the freeway with additional lanes and rebuilding it with the existing number of lanes. The decision of how this segment of IH 43 would be reconstructed would be determined by the Wisconsin Department of Transportation (WisDOT) through preliminary engineering and environmental impact study. During preliminary engineering, WisDOT would consider and evaluate a number of alternatives, including rebuild as is, various options of rebuild to modern design standards, compromises to rebuilding to modern design standards, rebuilding with additional lanes, and rebuilding with existing number of lanes. Only at the conclusion of preliminary engineering would a determination be made as to how this segment of IH 43 freeway would be reconstructed. Following the conclusion of the preliminary engineering for the reconstruction, VISION 2050 and the FCTP would be amended to reflect the decision made as to how IH 43 between Howard Avenue and Silver Spring Drive would be reconstructed. Any construction along this segment of IH 43 prior to preliminary engineering—such as bridge reconstruction—should fully preserve and accommodate the future option of rebuilding the freeway with additional lanes. As the FCTP does not include a recommendation regarding the future capacity needs for this segment of IH 43, for the purposes of determining conformity of the FCTP, the conformity demonstration as documented in this report has been conducted based on the existing capacity of this segment of IH 43.

As previously noted, the FCTP includes the implementation of all of the elements of the transportation component of VISION 2050 with the exception of the transit element. The arterial highway capacity improvement and expansion recommendations included in the FCTP are shown in Map 2 and are listed in Table 1. These represent all highway plan element projects with potential air quality impact and which are referred to in the Federal regulations as "nonexempt" projects. Table 1 and Map 3 also present the anticipated implementation stages for all highway capacity improvement and expansion recommended under the plan; more specifically, the planned capacity improvement and expansion to be open to traffic by the years 2017, 2020, 2025, 2030, 2040, and 2050 are identified. Table 2 summarizes the mileage of system improvement and expansion anticipated to be implemented by 2017, 2020, 2025, 2030, 2040, and 2050. Given the potential for individual projects to be deferred or advanced due to considerations such as right-of-way acquisition, the anticipated implementation schedule for the plan is considered to be the mileage of county and local arterial system improvement and expansion, and the mileage of state trunk highway improvement and expansion as set forth in Table 2.

Given that transportation system management (TSM), travel demand management (TDM), Freight, and bicycle and pedestrian facility costs are primarily included in the costs for surface arterial streets and highways, and typically represent a fraction of the cost to reconstruct an arterial facility, there would also likely be enough revenue to fund the TSM, TDM, Freight, and bicycle and pedestrian elements as proposed under the Plan. As discussed in Chapter III of Volume I, the TSM and bicycle and pedestrian elements of the year 2035 regional transportation plan have also been substantially implemented since that plan was adopted, further supporting this conclusion.

The financial analysis identifies a funding gap with respect to transit, and based on reasonably expected revenues, the FCTP includes a decline of approximately 11 percent from 2014 service levels of 60,400 vehicle-miles of transit service to 53,600 vehicle-miles of transit operating by the year 2050. The reduction in transit service levels would be expected to be achieved primarily through reductions in existing transit service frequency and the elimination of freeway flier service in Milwaukee County. Two major projects for transit are included in the FCTP: Phase I, the Lakeshore Extension, and the Arena Extension of the City of Milwaukee streetcar project and the Milwaukee County bus rapid transit (BRT) line between the Milwaukee regional medical center and downtown Milwaukee. Map 4 shows the routes and service areas for the public transit systems in Southeastern Wisconsin which now represent the transit system in the FCTP.

The implementation schedule for the FCTP identifies the elements of the transit plan which should be available for use as of the years 2017, 2020, 2025, 2030, 2040 and 2050. As shown in Figure 1 and Table 3, the year 2050 transit plan element implementation schedule anticipates that the 11 percent decrease in vehicle-miles of transit service over 2014 levels will continue from the year 2014 resulting in a decrease in service to about 60,100 vehicle-miles by 2017, 59,300 by 2020, 57,800 by 2025, 56,200 by 2030, 54,700 by 2040, and 53,600 by 2050. In addition to the expected declines in existing transit service, the FCTP includes the City of Milwaukee streetcar project and Milwaukee County BRT line with operation of both services beginning by the year 2020.

Map 2
Arterial Streets and Highways: Fiscally Constrained Transportation Plan

PROPOSED NEW ARTERIAL

ARTERIAL PROPOSED TO BE WIDENED WITH ADDITIONAL TRAFFIC LANES

PRESERVE EXISTING CROSS-SECTION

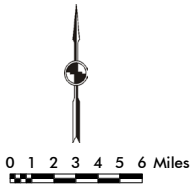
NO RECOMMENDATION WITH RESPECT TO WHETHER THIS SEGMENT OF IH 43 SHOULD BE RECONSTRUCTED WITH OR WITHOUT ADDITIONAL LANES (SEE NOTE BELOW)

PROPOSED NEW INTERCHANGE

PROPOSED FULL INTERCHANGE WHERE A HALF INTERCHANGE CURRENTLY EXISTS

NOTE:

VISION 2050 and the FCTP do not make any recommendation with respect to whether the segment of IH 43 between Howard Avenue and Silver Spring Drive, when reconstructed, should be reconstructed with or without additional lanes. The determination as to whether this segment of IH 43 would be reconstructed with or without additional lanes would be made during preliminary engineering. Following the conclusion of the preliminary engineering for the reconstruction, VISION 2050 and the FCTP would be amended to reflect the decision made as to how this segment IH 43 would be reconstructed. As the FCTP does not include a recommendation regarding the future capacity needs for this segment of IH 43, for the purposes of determining conformity of the FCTP, the conformity demonstration as documented in this report has been conducted based on the existing capacity of this segment of IH 43.



Source: SEWRPC

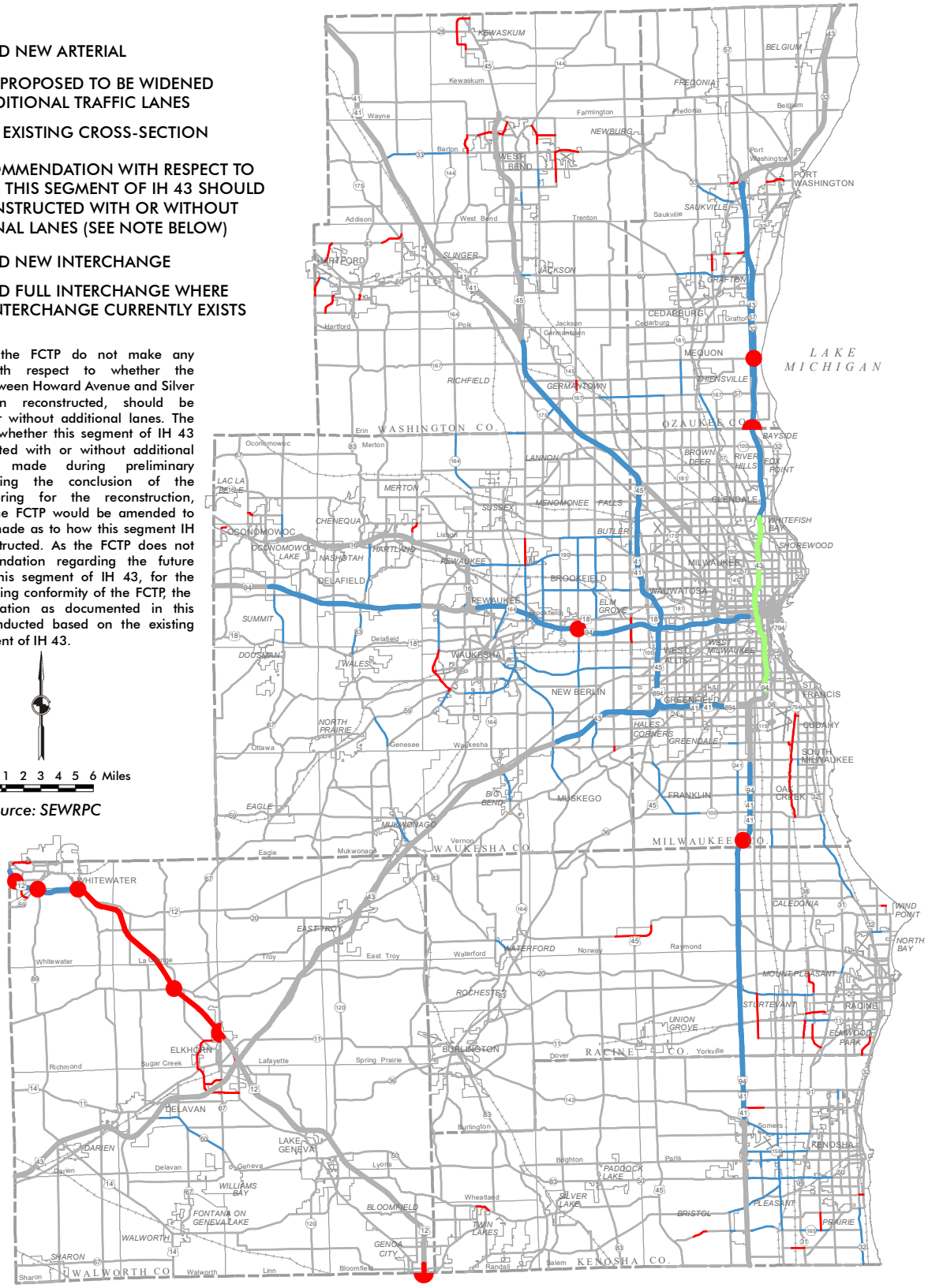


Table 1
Arterial Highway Capacity Improvement and Expansion Projects Included in the Fiscally Constrained Transportation Plan

Year Open To Traffic	County	Improvement Type	Facility	Termini	Description
2017	Milwaukee	Widening	STH 241 (27th Street) [a]	Rawson Avenue to Drexel Avenue	Widen from four to six traffic lanes
2020	Kenosha	Expansion	CTH F extension [a]	CTH O to 89th Street	Construct two lanes on new alignment
		Widening	CTH S [a]	CTH H to STH 31	Widen from two to four traffic lanes
			STH 165 (104th Street) [a]	IH 94 to Prairie Springs Park	Widen from two to four traffic lanes
	Milwaukee	Widening	IH 894/USH 45	Hale Interchange to Lincoln Avenue	Widen from six to eight traffic lanes
			IH 94	Waukesha County Line to Zoo Interchange	Widen from six to eight traffic lanes
			IH 94/IH 894/USH 45 [a]	Zoo Interchange	Interchange reconstruction and modernization
	Racine	Widening	STH 20/83 (W. Main Drive) [a]	Buena Park Road to First Street	Widen from two to four traffic lanes
	Walworth	Expansion	W Market Street extension	CTH H to Voss Road	Construct two lanes on new alignment
	Washington	Widening	CTH Y	STH 175 to USH 41/45	Widen from two to four traffic lanes
			USH 41	STH 60 Interchange	Widen from two to four traffic lanes
	Waukesha	Expansion	West Waukesha Bypass [a]	CTH X to Sunset Drive	Construct four lanes on new alignment
		Widening	CTH M (North Avenue) [a]	Lilly Road to 124th Street	Widen from two to four traffic lanes
			CTH M (North Avenue) [a]	Pilgrim Road to 147th Street	Widen from two to four traffic lanes
			CTH TT [a]	Sunset Drive (CTH D) to USH 18 (Summit Avenue)	Widen from two to four traffic lanes
			CTH TT (Meadowbrook Road) [a]	Northview Road to IH 94	Widen from two to four traffic lanes
			CTH TT (Meadowbrook Road) [a]	Northview Road to USH 18 (Summit Avenue)	Widen from two to four traffic lanes
			IH 94	Moorland Rd to Waukesha County Line	Widen from six to eight traffic lanes
2025	Kenosha	Expansion	51st Avenue extension	93rd Street to STH 165	Construct two lanes on new alignment
		Widening	CTH C	104th Avenue to CTH H	Widen from two to four traffic lanes
			CTH K	CTH H to Union Pacific Railway	Widen from two to four traffic lanes
			CTH S	E Frontage Rd to CTH H	Widen from two to four traffic lanes
			IH 94 [a]	STH 142 to CTH KR	Widen from six to eight traffic lanes
			STH 50 [a]	IH 94/USH 41 to 51st Avenue	Widen from four to six traffic lanes
	Milwaukee	Expansion	IH 94/USH 41 [a]	27th Street Interchange	Construct new interchange
			STH 241 extension [a]	27th Street to IH 94	Construct four lanes on new alignment
		Widening	IH 43	Silver Spring Drive to STH 60	Widen from four to six traffic lanes
			IH 94	70th Street to 16th Street	Widen from six to eight traffic lanes
			IH 94/USH 41 [a]	CTH G to CTH BB	Widen from six to eight traffic lanes
			IH 94/USH 41/STH 341	Stadium Interchange	Interchange reconstruction and modernization
			Pennsylvania Avenue	Milwaukee Avenue to College Avenue	Widen from two to four traffic lanes
			Port Washington Road	Bender Road to Daphne Road	Widen from two to four traffic lanes
	Ozaukee	Expansion	IH 43	Highland Road Interchange	Construct new interchange
		Widening	STH 167	Washington County Line to N Swan Road	Widen from two to four traffic lanes
	Racine	Expansion	21st Street extension	Loni Lane to Willow Road	Construct two lanes on new alignment
			Oakes Road extension	Braun Road to Oakes Road	Construct two lanes on new alignment
			Oakes Road extension	Braun Road to STH 31	Construct two lanes on new alignment
		Widening	IH 94 [a]	CTH KR to CTH K	Widen from six to eight traffic lanes
			IH 94 [a]	CTH K to CTH G	Widen from six to eight traffic lanes
			Three Mile Road	STH 32 to Lasalle Street	Widen from two to four traffic lanes
	Walworth	Expansion	New Facility	STH 67 to STH 11	Construct two lanes on new alignment
	Washington	Expansion	STH 33	Trenton Road to Oak Road	Construct two lanes on new alignment
			Trenton Road extension	STH 33 to Maple Road	Construct two lanes on new alignment
		Widening	STH 60	Independence Avenue to Existing four lane section	Widen from two to four traffic lanes
	Waukesha	Expansion	Oconomowoc Parkway	CTH BB (Concord Road) to Oconomowoc Parkway	Construct two lanes on new alignment
		Widening	Calhoun Road [a]	North Avenue to STH 190 (Capitol Drive)	Widen from two to four traffic lanes
			CTH M (North Avenue)	Barker Road to Brookfield Road	Widen from two to four traffic lanes
			CTH M (North Avenue) [a]	Calhoun Road to Pilgrim Road	Widen from two to four traffic lanes
			CTH M (North Avenue)	Brookfield Road to Calhoun Road	Widen from two to four traffic lanes
2030	Kenosha	Widening	CTH H	CTH C to STH 50	Widen from two to four traffic lanes
			CTH H	CTH S to STH 50	Widen from two to four traffic lanes
			CTH K	IH 94 to 115th Avenue	Widen from two to four traffic lanes
			CTH K	104th Street to CTH H	Widen from two to four traffic lanes
			STH 158 (52nd Street)	STH 31 to 95th Avenue	Widen from two/four to six traffic lanes
			STH 158 (52nd Street)	IH 94 to 95th Street	Widen from two/four to six traffic lanes
			STH 165	STH 31 to CTH EZ	Widen from two to four traffic lanes
	Milwaukee	Widening	IH 43	CTH O (Moorland Road) to Hale Interchange	Widen from four to six traffic lanes
			IH 43/IH 894	Hale Interchange to STH 241	Widen from six to eight traffic lanes
			IH 43/IH 894/USH 45	Hale Interchange	Interchange reconstruction and modernization
			STH 32	County Line Road to STH 100	Widen from two to four traffic lanes
			STH 38	County Line to Oakwood Road	Widen from two to four traffic lanes
	Ozaukee	Widening	CTH W	Glen Oaks Lane to Highland Road	Widen from two to four traffic lanes
			STH 181	STH 167 to Highland Road	Widen from two to four traffic lanes
			STH 33	Progress Drive to CTH O	Widen from two to four traffic lanes
			STH 33	CTH I to Progress Drive	Widen from two to four traffic lanes
	Racine	Expansion	Five Mile Road extension	North Point Drive to Erie Street	Construct two lanes on new alignment
			Oakes Road extension	Oakes Road to Airline Road	Construct two lanes on new alignment
			CTH V extension	STH 20 to STH 11	Construct two lanes on new alignment
		Widening	STH 32	Five Mile Road to STH 31	Widen from two to four traffic lanes
			STH 32	STH 31 to Milwaukee County Line	Widen from two to four traffic lanes

Table 1 (Continued)

Year Open To Traffic	County	Improvement Type	Facility	Termini	Description
2030	Walworth	Expansion	W Market Street extension	STH 11 to CTH H	Construct two lanes on new alignment
		Widening	STH 50	North Shore Drive to CTH F	Widen from two to four traffic lanes
	Washington	Expansion	Arthur Road extension	CTH N to Arthur Road	Construct two lanes on new alignment
			Division Road extension	Main Street to Freistadt Road	Construct two lanes on new alignment
			Monroe Avenue extension	Monroe Avenue to Pond Road	Construct two lanes on new alignment
			New Facility	Arthur Road to Kettle Moraine Road	Construct two lanes on new alignment
			Wacker Drive extension	Lee Road to Monroe Avenue	Construct two lanes on new alignment
		Widening	CTH Y	USH 45 to STH 175	Widen from two to four traffic lanes
			STH 167	Fond Du Lac Avenue to Ozaukee County Line	Widen from two to four traffic lanes
			STH 60	USH 45 to Industrial Drive	Widen from two to four traffic lanes
	Waukesha	Expansion	Oconomowoc Parkway	STH 16 to CTH BB	Construct two lanes on new alignment
		Widening	Calhoun Road	STH 190 (Capitol Drive) to CTH K	Widen from two to four traffic lanes
			CTH D	Calhoun Road to Milwaukee County Line	Widen from two to four traffic lanes
			CTH F	USH 18 (Moreland Boulevard) to IH 94	Widen from four to six traffic lanes
			CTH P	CTH Z to STH 16	Widen from two to four traffic lanes
			CTH Q	Colgate Road to CTH V	Widen from two to four traffic lanes
			CTH X	STH 59 to CTH H	Widen from two to four traffic lanes
			CTH Y	North Avenue to USH 18	Widen from two to four traffic lanes
			CTH Y	STH 59/164 to Hickory Trail	Widen from two to four traffic lanes
			CTH Y	North Avenue to STH 190	Widen from two to four traffic lanes
			STH 83	Phylis Parkway to USH 18	Widen from two to four traffic lanes
			STH 83	Meadow Lane to STH 16	Widen from two to four traffic lanes
2040	Kenosha	Expansion	85th Street extension	Sheridan Road to 7th Avenue	Construct two lanes on new alignment
			CTH ML extension	79th Avenue to STH 31	Construct two lanes on new alignment
		Widening	104th Avenue	64th Street to STH 158	Widen from two to four traffic lanes
			30th Avenue	CTH E to 15th Street	Widen from two to four traffic lanes
			CTH C	East Frontage Road to 104th Street	Widen from two to four traffic lanes
			CTH C	CTH U to West Frontage Road	Widen from two to four traffic lanes
			CTH H	CTH C to STH 165	Widen from two to four traffic lanes
			CTH Q	CTH U to IH 94	Widen from two to four traffic lanes
			STH 32	128th Street to CTH T	Widen from two to four traffic lanes
			STH 50	51st Avenue to 39th Avenue	Widen from four to six traffic lanes
	Milwaukee	Widening	IH 41	Burleigh Road to North Interchange	Widen from six to eight traffic lanes
			STH 100 (Ryan Road)	STH 36 (Loomis Road) to 60th Street	Widen from two to four traffic lanes
			STH 241 (27th Street)	Drexel Avenue to Puetz Road	Widen from four to six traffic lanes
			USH 45/STH 100 [a]	Drexel Avenue to STH 36	Widen from two to four traffic lanes
	Ozaukee	Expansion	Cedar Creek Road	CTH O to East Cedar Creek Road	Construct two lanes on new alignment
			Cold Springs Road extension	CTH O to CTH W	Construct two lanes on new alignment
			E. Cedar Creek Road	East River Road to CTH W	Construct two lanes on new alignment
			Maple Road extension	Cedar Creek to Rose Street	Construct two lanes on new alignment
			Walters Street extension	CTH LL to Grant Street	Construct two lanes on new alignment
		Widening	CTH W	CTH V to Lakeland Road	Widen from two to four traffic lanes
			STH 57	Milwaukee County Line to STH 167	Widen from two to four traffic lanes
			STH 60	STH 181 to 12th Avenue	Widen from two to four traffic lanes
	Racine	Expansion	CTH K extension	Britton Road to 108th Street	Construct two lanes on new alignment
		Widening	STH 11	Willow Road to STH 31	Widen from four to six traffic lanes
			STH 20	IH 94/USH 41 to Oakes Road	Widen from four to six traffic lanes
			STH 31	CTH MM to CTH C	Widen from six to eight traffic lanes
	Walworth	Expansion	Deere Road extension	Deere Road to STH 11	Construct two lanes on new alignment
			E Market Street extension	STH 11 to STH 67	Construct two lanes on new alignment
	Washington	Expansion	Jefferson Street extension	North River Road to Trenton Road	Construct two lanes on new alignment
			Kettleview Road extension	STH 33 to Schuster Drive	Construct two lanes on new alignment
			Kettleview Road extension	CTH H to STH 28	Construct two lanes on new alignment
			Kettleview Road extension	STH 28 to USH 45	Construct two lanes on new alignment
			North River Road extension	North River Road to STH 144	Construct two lanes on new alignment
			Schuster Drive extension	Schuster Drive to Beaver Dam Road	Construct two lanes on new alignment
			Wilson Avenue extension	Monroe Avenue to Lincoln Avenue	Construct two lanes on new alignment
		Widening	IH 41	Waukesha County Line to Richfield Interchange	Widen from six to eight traffic lanes
	Waukesha	Expansion	CTH KE realignment	CTH K to 800 feet north	Construct two lanes on new alignment
			IH 94	Calhoun Road Interchange	Construct new interchange
		Widening	Calhoun Road	Cleveland Avenue to STH 59	Widen from two to four traffic lanes
			Calhoun Road	Coffee Road to Cleveland Avenue	Widen from two to four traffic lanes
			CTH D	STH 59/164 to Calhoun Road	Widen from two to four traffic lanes
			CTH Y	CTH L to College Avenue	Widen from two to four traffic lanes
			IH 41	North Interchange to Washington County Line	Widen from six to eight traffic lanes
			IH 43	CTH Y (Racine Avenue) to CTH O (Moorland Road)	Widen from four to six traffic lanes
			IH 94	STH 67 to CTH SS	Widen from four to six traffic lanes
			IH 94	STH 16 to Moorland Rd	Widen from six to eight traffic lanes
			Pilgrim Road	CTH K (Hampton Avenue) to North Avenue	Widen from two to four traffic lanes
			Pilgrim Road	North Avenue to USH 18	Widen from two to four traffic lanes
			Pilgrim Road	CTH K (Hampton Avenue) to STH 190 (Capitol Drive)	Widen from two to four traffic lanes

Table 1 (Continued)

Year Open To Traffic	County	Improvement Type	Facility	Termini	Description
2040	Waukesha	Widening	Racine Avenue	Downing Drive to STH 59/164	Widen from two to four traffic lanes
			Springdale Road	STH 190 (Capitol Drive) to CTH JJ	Widen from two to four traffic lanes
			STH 164	IH 43 to Edgewood Avenue	Widen from two to four traffic lanes
			STH 164	Howard Lane to CTH Q (Washington County Line)	Widen from two to four traffic lanes
			STH 190[a]	CTH Y (Barker Road) to Brookfield Road	Widen from four to six traffic lanes
			STH 190[a]	STH 16 to CTH Y (Barker Road)	Widen from four to six traffic lanes
			STH 67	CTH DR to USH 18	Widen from two to four traffic lanes
			STH 67	CTH DR to CTH B	Widen from two/four to four/six traffic lanes
			STH 83	Bay View Road to CTH NN	Widen from two to four traffic lanes
			Sunset Drive	Tenny Avenue to STH 59/164	Widen from two to four traffic lanes
2050	Kenosha	Expansion	CTH Q realignment	Winfield Road to 104th Street	Construct two lanes on new alignment
		Expansion	Lichter Rd	E Frontage Rd to 100th Ave	Construct two lanes on new alignment
	Milwaukee	Expansion	Lake Arterial Extension	Edgerton Avenue to STH 100	Construct four lanes on new alignment
		Widening	124th Street	Lisbon Avenue to Ruby Avenue	Widen from two to four traffic lanes
			CTH ZZ (W College Avenue)	35th Street to 27th Street	Widen from two to four traffic lanes
	Ozaukee	Expansion	Cold Springs Rd extension	CTH W to STH 57	Construct two lanes on new alignment
		Widening	CTH W	Lakeland Road to Highland Road	Widen from two to four traffic lanes
			IH 43	STH 60 to STH 57	Widen from four to six traffic lanes
	Racine	Expansion	CTH V extension	STH 11 to Braun Road	Construct two lanes on new alignment
			Four and a Half Mile Rd	STH 32 to Erie St	Construct two lanes on new alignment
			Memorial Drive extension	Chicory Road to CTH KR	Construct two lanes on new alignment
			New facility	CTH K to CTH V	Construct two lanes on new alignment
			Willow Road extension	STH 11 to Braun Road	Construct two lanes on new alignment
		Widening	STH 11	CTH H to Willow Road	Widen from four to six traffic lanes
	Walworth	Expansion	Indian Mound Parkway extension	Indian Mound Parkway to STH 59	Construct two lanes on new alignment
			New East-West Arterial	Main Street to Tratt Street	Construct two lanes on new alignment
			Outer Ring Road	CTH H to Inner Ring Road	Construct two lanes on new alignment
			USH 12	Howard Road to STH 67 Interchange	Construct four lanes on new alignment
			USH 12	STH 67 Interhcange	Construct new interchange
			USH 12	CTH S Interchange	Construct new interchange
			USH 12	CTH P Interchange	Construct new interchange
			USH 12	CTH H to Illinois State Line	Construct four lanes on new alignment
			USH 12	CTH H Interchange	Construct new interchange
			USH 12	CTH A Interchange	Construct new interchange
			USH 12	STH 89 Interchange	Construct new interchange
		Widening	USH 12	Cold Spring Road to Howard Road	Widen from two to four traffic lanes
	Washington	Expansion	18th Avenue extension	Jefferson Street to CTH D	Construct two lanes on new alignment
			Taylor Road extension	Pond Road to STH 60	Construct two lanes on new alignment
		Widening	CTH P (S. Main Street)	Humar Street to CTH NN (Rusco Road)	Widen from two to four traffic lanes
			River Road	Decorah Road to Paradise Drive	Widen from two to four traffic lanes
			STH 33	USH 41 to STH 144	Widen from two to four traffic lanes
	Waukesha	Expansion	124th Street extension	Bluemound Road (USH 18) to Greenfield Avenue (STH 59)	Construct two lanes on new alignment
			Capitol Dr extension	Reddelien Rd to Capitol Dr	Construct two lanes on new alignment
			Lake Drive extension	Yosemite Rd to STH 67	Construct two lanes on new alignment
			Sunnyslope Road extension	CTH HH to CTH L	Construct two lanes on new alignment
			Town Line Road extension	Weyer Road to STH 190	Construct two lanes on new alignment
		Widening	CTH K	Brookfield Road to Calhoun Road	Widen from two to four traffic lanes
			CTH K (Lisbon Road)	Calhoun Road to Hampton Road	Widen from two to four traffic lanes
			CTH O	IH 43 WB Ramp to W Grange Ave	Widen from four to six traffic lanes
			CTH T	Golf Road to CTH SS	Widen from two to four traffic lanes
			Hampton Road	Lisbon Road to 132nd Street	Widen from two to four traffic lanes
			Moorland Road	College Ave to Grange Avenue	Widen from two to four traffic lanes
			STH 164	Riverwood Drive (North) to IH 94	Widen from four to six lanes
			STH 59	CTH XX to Sunset Drive	Widen from four to six lanes
			STH 59	Sunset Drive to Arcadian Avenue	Widen from six to eight traffic lanes
			STH 83	STH 59 to CTH X	Widen from two to four traffic lanes

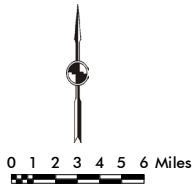
Source: SEWRPC.

[a] Project included in 2015-2018 Transportation Improvement Program

Map 3
Highway Improvement and Expansion Project Staging: Fiscally Constrained Transportation Plan

- 2017
- 2020
- 2025
- 2030
- 2040
- 2050
- NO RECOMMENDATION WITH RESPECT TO WHETHER THIS SEGMENT OF IH 43 SHOULD BE RECONSTRUCTED WITH OR WITHOUT ADDITIONAL LANES (SEE NOTE BELOW)

NOTE:
VISION 2050 and the FCTP do not make any recommendation with respect to whether the segment of IH 43 between Howard Avenue and Silver Spring Drive, when reconstructed, should be reconstructed with or without additional lanes. The determination as to whether this segment of IH 43 would be reconstructed with or without additional lanes would be made during preliminary engineering. Following the conclusion of the preliminary engineering for the reconstruction, VISION 2050 and the FCTP would be amended to reflect the decision made as to how this segment IH 43 would be reconstructed. As the FCTP does not include a recommendation regarding the future capacity needs for this segment of IH 43, for the purposes of determining conformity of the FRTP, the conformity demonstration as documented in this report has been conducted based on the existing capacity of this segment of IH 43.



Source: SEWRPC

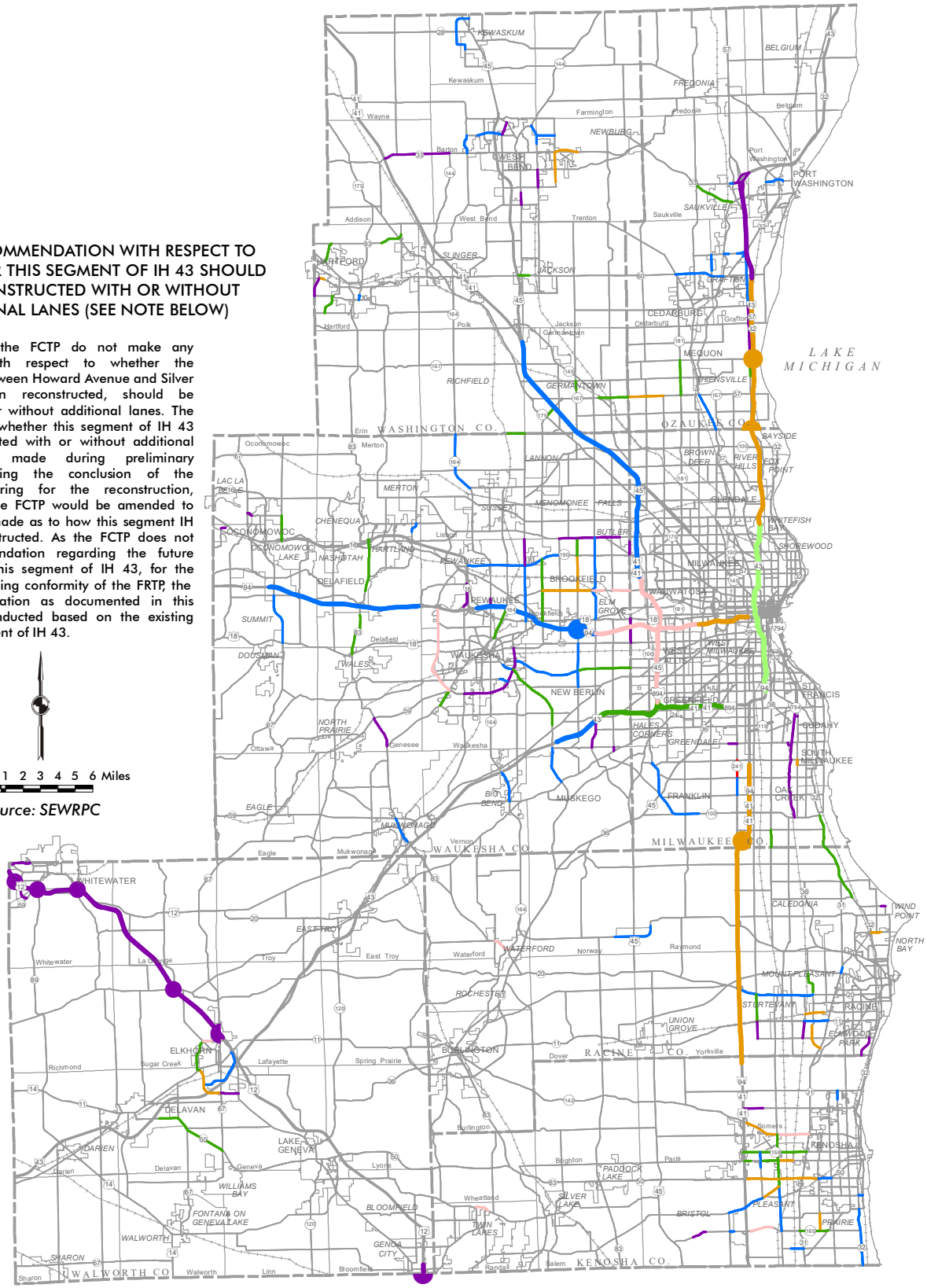


Table 2
Arterial Street and Highway Element Capacity Improvement and Expansion Implementation Schedule

Jurisdiction	Proposed Incremental Arterial System Improvement and Expansion Route Miles						
	2017	2020	2025	2030	2040	2050	Total
State Trunk Highway	- -	21	46	34	73	41	215
County and Local Trunk Highway	1	5	19	34	43	27	129
Total Regional Arterial System	1	26	65	68	116	68	344

Source: SEWRPC.

2015 THROUGH 2018 TRANSPORTATION IMPROVEMENT PROGRAM (TIP) FOR SOUTHEASTERN WISCONSIN

The 2015-2018 TIP for Southeastern Wisconsin is documented in the SEWRPC report entitled, *A Transportation Improvement Program for Southeastern Wisconsin: 2015-2018*. The TIP includes all Federally and otherwise funded arterial highway and public transit projects programmed within the seven-county Region both inside and outside the five urbanized areas within the Region—Milwaukee, Racine, Kenosha, the Wisconsin portion of the Round Lake Beach, and West Bend urbanized areas. The TIP also includes both arterial highway and public transit projects which receive Federal assistance and projects which are funded solely with State and/or local funds. The Commission's TIP has historically included both Federally funded and otherwise funded projects and has included projects for the entire Southeastern Wisconsin Region as well, not just the five urbanized areas within that Region. The TIP has included more than the Federally required listing of Federally assisted projects in the five urbanized areas in order to provide complete information on proposed arterial highway and public transit improvements. The continuation of the preparation of such a comprehensive TIP for Southeastern Wisconsin permits a comprehensive evaluation of transportation improvements with respect to air quality impacts.[4] The TIP has been developed to be fiscally constrained, pursuant to USDOT metropolitan planning regulations (23 CFR Part 450) and USEPA conformity regulations (40 CFR Part 93.108). The funding attendant to implementing the TIP has been determined to be consistent with existing available Federal, State, and local funding levels. A current listing of all projects included in the TIP can be found at the Commission's website (www.sewrpc.org/tip)

ASSESSMENT OF CONFORMITY OF THE FISCALLY CONSTRAINED TRANSPORTATION PLAN AND TRANSPORTATION PLAN AND THE 2015-2018 TRANSPORTATION IMPROVEMENT PROGRAM

This section of the report demonstrates the conformity of the FCTP and the 2015-2018 TIP for Southeastern Wisconsin with respect to each of the conformity criteria, as well as with respect to the procedures to be used to demonstrate conformity as established by USEPA for such conformity assessment. This conformity demonstration is for the Wisconsin portion of the 2008 eight-hour moderate ozone nonattainment area consisting of Kenosha County east of IH 94 and for the three-county $PM_{2.5}$ maintenance area consisting of Milwaukee, Racine, and Waukesha Counties.

[4] All TIP projects with potential impact on air quality, or "nonexempt" projects, are listed later in this report in Table 7.

Map 4
Transit Service: Fiscally Constrained Transportation Plan

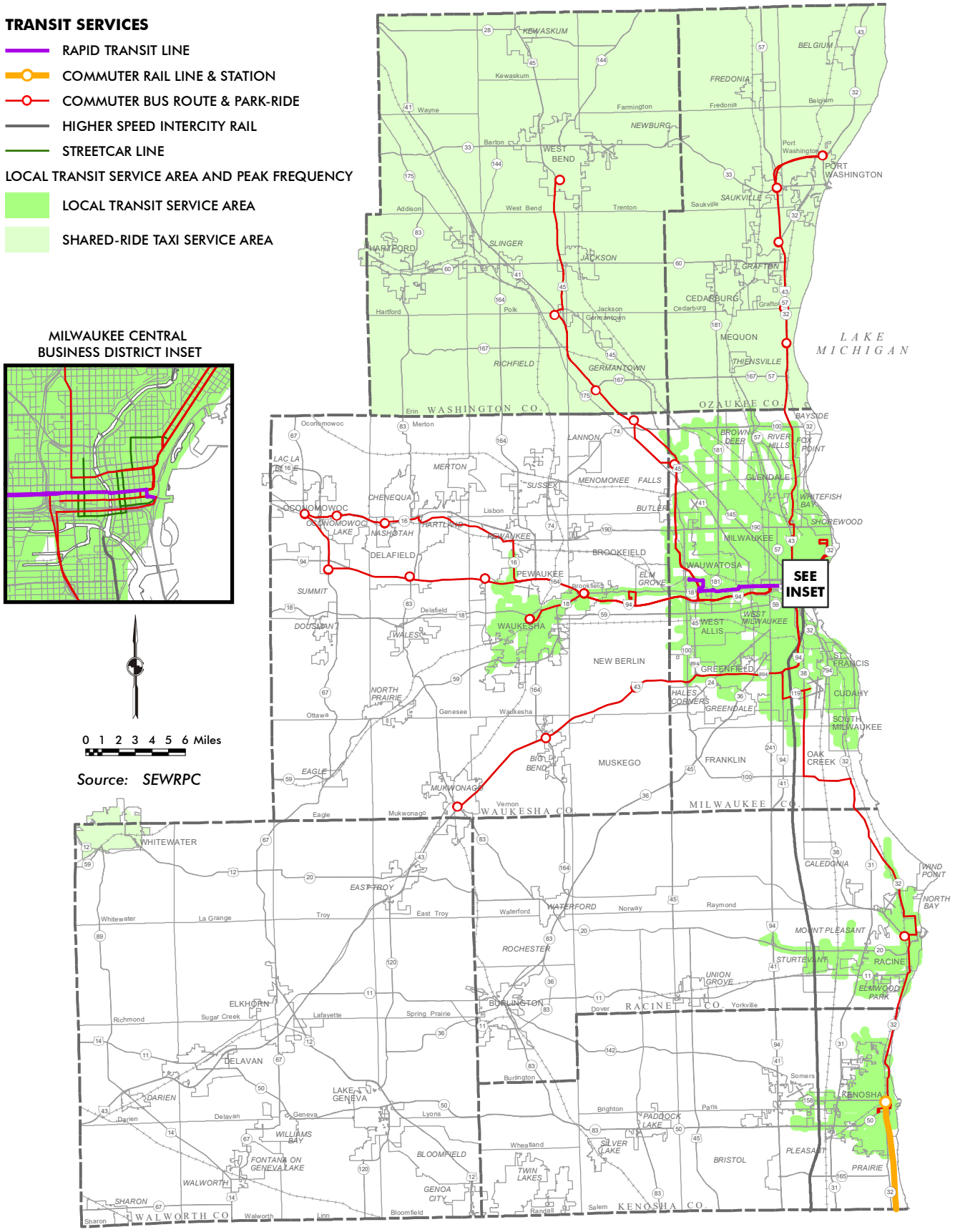
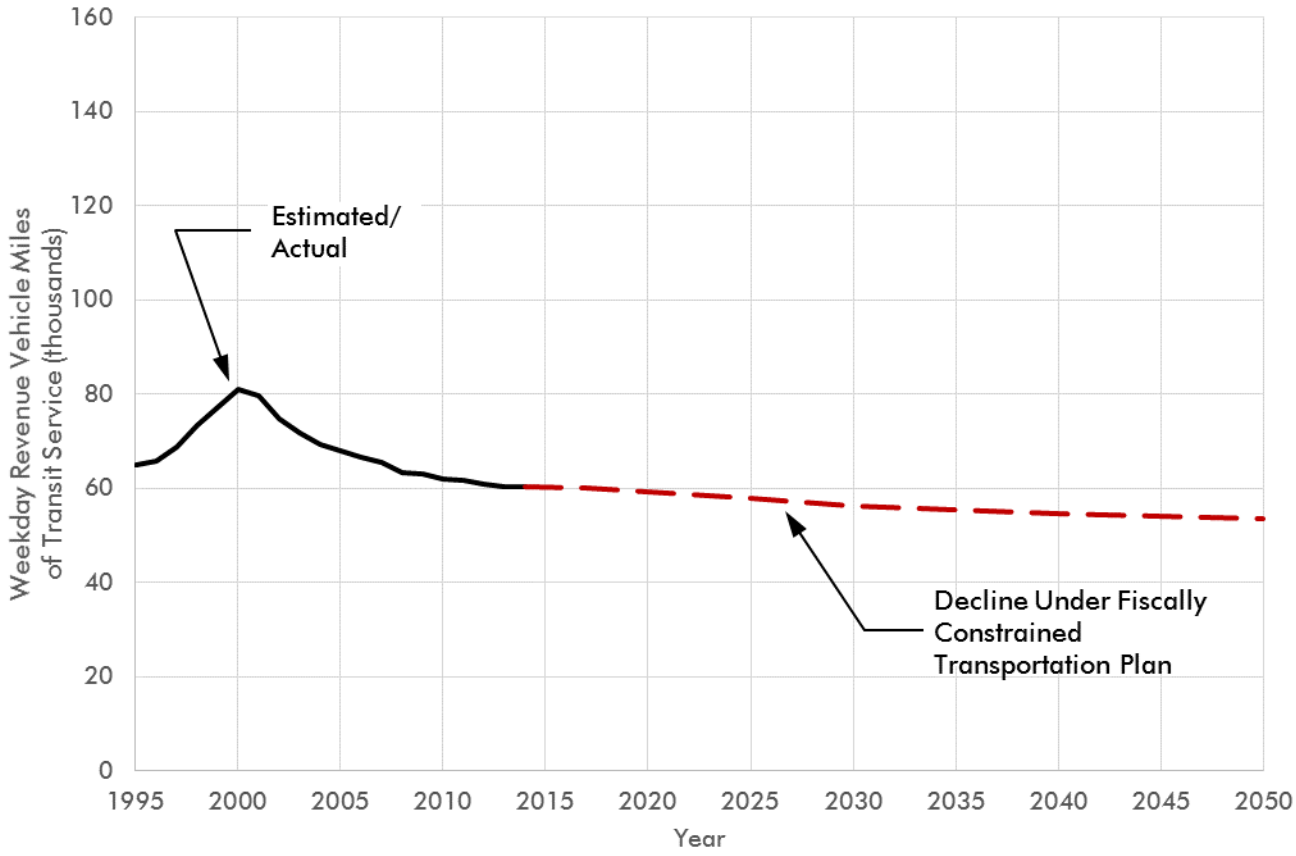


Figure 1
Historic and Planned Vehicle-Miles of Public Transit Service Under the Fiscally Constrained Transportation Plan



Source: SEWRPC.

Table 3
Potential Stages of the Transit Element: Fiscally Constrained Transportation Plan

Year	Description
2017	Transit service reduced to approximately 60,100 vehicle miles of service on an average weekday, maintain transit service area.
2020	Transit service reduced to approximately 59,300 vehicle miles of service on an average weekday, maintain transit service area. • Freeway flier service within Milwaukee County ends • Initiate operation of Phase I, the Lakefront Extension, and the Arena Extension of the City of Milwaukee Streetcar[a] • Initiate operation of Milwaukee County Bus Rapid Transit Line between the Milwaukee Regional Medical Center and Downtown Milwaukee[a]
2025	Transit service reduced to approximately 57,800 vehicle miles of service on an average weekday, maintain transit service area.
2030	Transit service reduced to approximately 56,200 vehicle miles of service on an average weekday, maintain transit service area.
2040	Transit service reduced to approximately 54,700 vehicle miles of service on an average weekday, maintain transit service area.
2050	Transit service reduced to approximately 53,600 vehicle miles of service on an average weekday, maintain transit service area.

[a] *Project included in the 2015-2018 Transportation Improvement Program*

Source: SEWRPC.

Conformity Determination Procedural Requirements

The procedures to determine conformity set forth in the *Federal Register* (40 CFR Parts 51[5] and 93[6]) are: 1) use of latest planning assumptions, 2) use of latest emission model, 3) interagency and public consultation, 4) provision for timely implementation of transportation control measures, 5) transportation plan content, and 6) procedures for determining RTP related emissions.

Use of Latest Planning Assumptions

This conformity determination procedural requirement (40 CFR, Part 93.110) specifies that the conformity assessment must be based upon the official and most current planning assumptions, including current and future population levels, employment levels, travel demand, traffic volumes, and transit ridership.

SEWRPC is the gubernatorially designated MPO for the Kenosha, Milwaukee, Racine, the Wisconsin portion of the Round Lake Beach, and West Bend urbanized areas within Southeastern Wisconsin and also the statutory official areawide planning agency for the seven-county Southeastern Wisconsin Region, which contains these five urbanized areas. The Commission is the agency within Southeastern Wisconsin responsible under State law for the preparation of current population, household, employment, travel, and traffic estimates and also for the preparation of future household, employment, travel, and traffic forecasts. The Commission also maintains the travel and traffic simulation models which are used within Southeastern Wisconsin for transportation and air quality planning. The models used in this conformity analysis are the same as used by the Commission in its regional planning efforts, and as well in support of air quality planning by WDNR.

The determination of conformity of the FCTP and TIP requires specific travel and emission forecasts for the years 2017, 2020, 2025, 2030, 2040 and 2050. The population, household, and employment data at regional and subregional levels for the years 2017, 2020, 2025, 2030, and 2040 have been projected by interpolation between existing regional and subregional estimates and the year 2050 regional forecasts and subregional planned forecast allocations based upon the regional land use plan. The region level and nonattainment and maintenance area level year 2050 forecasts for population, households, and employment are set forth in Table 4, along with the interpolated years 2017, 2020, 2025, 2030, and 2040 population, household, and employment levels.

As part of regional transportation planning over the years, the implications of a range of different future development scenarios for Southeastern Wisconsin have historically been explored, including such scenarios with respect to VMT. The different scenarios included intermediate- and high-growth scenarios for the Region as a whole, centralized and decentralized land use patterns, and alternative regional transportation systems ranging from a "no-build" option, to an alternative which would substantially increase the price of automobile transportation, to the recommended system plan. The results of analyses of these scenarios indicated that the future annual growth in VMT within the Region may be expected to range from about 1.0 percent to 2.0 percent. The analyses indicated that alternative land use patterns and transit and highway improvements may be expected to have little impact on VMT, accounting for less than 0.1 percent variation in annual

[5] *As amended through February 19, 2015*

[6] *As amended through March 14, 2012*

Table 4
Forecast Population, Household, and Employment Levels for Southeastern Wisconsin

Characteristics		Forecast Year					
		2017	2020	2025	2030	2040	2050
Region	Population	2,089,226	2,123,293	2,181,843	2,235,078	2,315,869	2,389,200
	Households	832,885	848,950	876,131	901,814	944,671	987,500
	Employment	1,216,438	1,234,035	1,262,516	1,291,570	1,348,741	1,405,700
$PM_{2.5}$ Area[a]	Population	1,571,354	1,590,997	1,624,619	1,652,995	1,688,730	1,721,000
	Households	630,680	640,285	656,181	670,442	692,209	714,400
	Employment	958,620	969,748	987,793	1,006,169	1,042,356	1,078,400
Ozone Area[b]	Population	136,313	139,431	144,899	150,363	160,490	170,256
	Households	51,825	53,240	55,766	58,357	63,186	68,128
	Employment	66,508	67,961	70,352	72,761	77,543	82,316

Source: SEWRPC.

[a] *Three-county 2006 24-hour fine particulate ($PM_{2.5}$) national ambient air quality standard (NAAQS) maintenance area consisting of Milwaukee, Racine, and Waukesha Counties.*

[b] *Wisconsin portion of the Chicago-Naperville, IL-IN-WI 2008 eight-hour ozone NAAQS nonattainment area consisting of Kenosha County east of IH 94.*

growth. Variations in regional economic growth and substantial changes in the perceived cost of automobile use may be expected to account each for about 0.5 percent variation in growth annually.

The determination of conformity utilizes the travel simulation models which have been maintained, refined, and validated by the Commission since the 1960s, and utilized in the preparation of the RTP and for the motor vehicle emissions forecasts for the State Implementation Plan. These models and their validation are described in SEWRPC Technical Report No. 50, *Travel Simulation Models of Southeastern Wisconsin*. The Commission travel models were revalidated and recalibrated, using new data provided by a major origin and destination travel survey completed within the Region in 2011 and 2012. The models were validated for the years 2001 and 2011 by applying the models with Census data and 2001 and 2011 transportation network data and comparing model estimates of trip generation, trip distribution, highway traffic, and transit ridership to estimates derived from travel surveys and actual traffic and transit ridership counts. The validation indicated that the models were able to accurately replicate not only observed trip generation, travel pattern, modal choice, and VMT data, but also model-estimated individual arterial street traffic volume.

Under this procedural requirement, changes in the transit system with respect to service levels and fares since the last plan and improvement program conformity determination are to be described. The last conformity determination was completed in September 2015 on the year 2035 RTP and the 2015-2018 TIP. That conformity determination was the ninth determination completed on the year 2035 RTP, with the first conformity determination completed in June, 2006. Since September 2015, transit fares and service levels have remained essentially unchanged. The last conformity demonstration—completed in September 2015 on the fiscally-constrained version of the 2035 RTP—projected that transit service levels

measured in vehicle-miles of service would decline 11 percent to the year 2035 and transit fares would increase at 1 percent greater than inflation. The year 2050 FCTP also includes an approximately 11 percent decline in transit service from 2014 service levels, based on the identified funding gap for transit, but holds transit fare increases to general price inflation. The reduction in transit service levels would be expected to be achieved primarily through reductions in local transit service frequency and the elimination of freeway flyer service in Milwaukee County.

The maintenance plan for the 2006 24-hour $PM_{2.5}$ NAAQS for the three-county area includes motor vehicle emissions budgets (MVEBs) considered adequate for the purposes of transportation conformity. These MVEBs were based on a high growth scenario from the Commission's year 2035 plan with attendant growth in VMT of approximately 1.7 percent per year to the year 2010 to 2020, and 1.1 percent per year for 2020-2025 and 7.5 percent in additional emissions to account for uncertainty in transportation emission forecasts. This conformity is based upon the Commission official intermediate growth year 2050 forecasts under the FCTP with an attendant 0.7 percent annual increase in vehicles miles travel from the year 2010 to the year 2017, a 0.5 percent annual increase from 2017 to 2020, a 0.6 percent annual increase from 2020 to 2025, a 0.5 percent annual increase from 2025 to 2030, a 0.5 percent annual increase from 2030 to 2040, and a 0.6 percent annual increase from 2040 to 2050. The VMT forecasts in the maintenance plan and the FCTP are consistent, with the maintenance plan forecasts being equal to, or greater than, the FCTP forecasts. The higher rate of growth assumed in the maintenance plan provides latitude for potential VMT increases in a year or short-term period of years which may exceed long-term average increases, for example, during short-term periods of rapid economic growth and gasoline price decline. Lower rates of increase in VMT are anticipated in the future due to anticipated slower growth in employment and labor force levels, slower declines in household size and slower growth in household levels.

Use of Latest Emissions Model

A second procedural requirement for the plan and program conformity determination (40 CFR 93.111) requires use of the latest air pollutant emissions estimation model. Accordingly, this determination of conformity utilizes the latest emission estimation model available, the USEPA MOVES2014a air pollutant emissions estimation model. The assumptions in the emissions estimation model for the years 2017, 2020, 2025, 2030, 2040 and 2050 in this conformity analysis, are presented in Table 5. This emissions estimation model is the latest version of the model (MOVES2010a) used by WDNR in its development of the transportation conformity budgets for VOC, NO_x, SO_2, and $PM_{2.5}$ included in the maintenance plan which served as the basis for USEPA's redesignation of the three-county southeastern Wisconsin 2006 24-hour $PM_{2.5}$ NAAQS nonattainment area to attainment on April 22, 2014 and the emissions estimation model (MOVES2014) used by WDNR in its development of the transportation conformity budgets for VOC and NO_x included in the early progress plan for the Wisconsin portion of the Chicago-Naperville, IL-IN-WI moderate nonattainment area. This conformity determination assumes implementation of, and credit for, Tier 2 motor vehicle standards and low sulfur gasoline regulations.

Interagency and Public Consultation

A third procedural requirement for plan and program conformity determination (40 CFR 93.112) relates to interagency and public consultation. The development of VISION 2050 and as well, the FCTP, has involved significant interagency and public consultation, including, specifically,

Table 5
Assumptions Associated with the MOVES2014a Emissions Estimating Model

	Category	Wisconsin Portion of the Chicago-Naperville, IL-IN-WI Ozone Nonattainment Area	Three-County Fine Particulate Nonattainment Area[a]
		2017, 2025, 2030, 2040, and 2050	2020, 2025, 2030, 2040, and 2050
Fuel Inputs	Gasoline	MOVES Default	MOVES Default
	Diesel	MOVES Default	MOVES Default
	Compressed Natural Gas	MOVES Default	MOVES Default
	Ethanol (E85)	MOVES Default	MOVES Default
Inspection/Maintenance Program Inputs	Fuel Type Tested	Gasoline	Gasoline
	Inspection Frequency	Biennial	Biennial
	Tests Conducted	Exhaust and Evaporative On-Board Diagnostic Check	Exhaust and Evaporative On-Board Diagnostic Check
	Passenger Cars (All Model Years)		
	Model Years Tested	1996 to Modeled Stage Less 3 Years[b]	1996 to Modeled Stage Less 3 Years[b]
	Compliance Factor	95.04%	95.04%
	Passenger Trucks		
	Pre-2007 Model Years		
	Model Years Tested	1996 to 2006	1996 to 2006
	Compliance Factor	89.34%	89.34%
	2007 and later Model Years		
	Model Years Tested	2007 to Modeled Stage Less 3 Years[b]	2007 to Modeled Stage Less 3 Years[b]
	Compliance Factor	95.04%	95.04%
	Light Commercial Trucks		
	Pre-2007 Model Years		
	Model Years Tested	1996 to 2006	1996 to 2006
	Compliance Factor	83.64%	83.64%
	2007 and later Model Years		
	Model Years Tested	2007 to Modeled Stage Less 3 Years[b]	2007 to Modeled Stage Less 3 Years[b]
	Compliance Factor	93.14%	93.14%
Other Inputs	Meteorological Inputs		
	Range of Hourly Temperature	70.0 to 94.0 °F	14.4 to 29.8 °F
	Range of Hourly Relative Humidity	57.0% to 85.8%	67.0% to 80.4%
	Month Modeled	July	January
	Weekday VMT	SEWRPC	SEWRPC
	VMT by Hour of the Day	MOVES Default/SEWRPC	MOVES Default/SEWRPC
	VMT by Vehicle Class	SEWRPC/WDNR	SEWRPC/WDNR
	Average Speed Distribution	SEWRPC/WDNR	SEWRPC/WDNR
	Vehicle Age Distribution		
	Passenger Cars	WDNR	WDNR
	Passenger Trucks	WDNR	WDNR
	Light Commercial Trucks	WDNR	WDNR
	Intercity Buses	WDNR	WDNR
	School Buses	WDNR	WDNR
	All Other Vehicle Classes	MOVES Default	MOVES Default
	Vehicle Population	MOVES Default/WDNR	MOVES Default/WDNR
	Road Type Distribution	SEWRPC/WDNR	SEWRPC/WDNR
	Ramp Fraction	SEWRPC/WDNR	SEWRPC/WDNR
	Annual Mileage Accumulation	MOVES Default	MOVES Default

NOTE: MOVES = United States Environmental Protection Agency's Motor Vehicle Emissions Simulator (version 2014a)

[a]*Milwaukee, Racine, and Waukesha Counties.*

[b]*For 2017 the range of model years tested would be through 2014, for 2020 the range of model years tested would be through 2017, for 2025 the range of model years tested would be through 2022, for 2030 the range of model years tested would be through 2027, for 2040 the range of model years tested would be through 2037, and for 2050 the range of model years tested would be through 2047*

Source: Wisconsin Department of Natural Resources and SEWRPC.

such consultations with respect to air quality impacts and the implications for conformity of the new plan and its alternatives. The 2015-2018 TIP directly implements the FCTP and is consistent with the plan schedule for implementation. In particular, WisDOT, WDNR, USDOT, and the county and local units of government have all been extensively involved in the development of VISION 2050 and the FCTP, including the consideration and evaluation of alternatives. These Federal, State, county, and local units and agencies of government have also been consulted, and have, as members of the Commission's Advisory Committees guided the preparation and level of detail of VISION 2050 and the FCTP.

In December 2014, the Commission's fourth-generation travel demand models were peer reviewed for consistency with current modeling practice and potential model enhancements suggested by the peer review panel considered and incorporated as appropriate during the development of the fifth-generation travel simulation models.[7] These models were presented to the Commission's Advisory Committees guiding the preparation of VISION 2050.

VISION 2050 and the FCTP also incorporate the entire arterial street and highway network of the Region, including all arterials in both urban and rural areas and major collectors in rural areas. The agencies concerned have also given consideration to the treatment in the travel simulation modeling and in VISION 2050 and the FCTP of transportation control measures. In addition, there has been extensive public consultation with respect to VISION 2050 and the FCTP, including significant consultation on the land use and transportation components with respect to the five scenarios and three alternatives considered and evaluated during the development of VISION 2050 and the FCTP. The consultation includes a public opinion survey, five rounds of public workshops, transmittal of a series of brochures to over 2,600 individuals, transmittal of a series of e-newsletters to nearly 2,000 individuals, extensive outreach activities, including targeted outreach to minority and low-income groups through five rounds workshops with partner groups, and a website including all study and plan materials. The public consultation on VISION 2050 and the FCTP is documented in a series of reports which present the comments received on the plan and its social, economic, and environmental impacts, and the consideration and response to the public comment.

State and county and municipal governments have also been directly involved in the preparation of the 2015-2018 TIP through their submittal of projects for inclusion in the TIP and their consideration and approval of the TIP.

Provision for Timely Implementation of Transportation Control Measures

A fourth procedural requirement for plan and program conformity determination, (40 CFR Part 93.113) is that the FCTP and TIP must provide for timely implementation and may not interfere with the implementation of any transportation control measures included in an applicable implementation plan (state implementation plan, maintenance plan, or early progress plan). There are no transportation control measures included in the maintenance plan for air quality for the three-county nonattainment area for the 2006 24-hour $PM_{2.5}$ NAAQS, and the early progress plan for the Wisconsin portion of

[7] *The peer review of the fourth-generation travel demand models are documented in Chapter 3 of SEWRPC Technical Report 55, Travel Simulation Models of Southeastern Wisconsin.*

the Chicago-Naperville, IL-IN-WI nonattainment area for the 2008 8-hour ozone NAAQS.

Transportation Plan Content

A fifth procedural requirement for plan and program conformity determination is the content, or level of detail, of the transportation plan. The FCTP and the travel simulation modeling analysis of attendant plan emissions fully meet the requirements of transportation plan content (40 CFR 93.106). The FCTP includes all additions to the transportation system with respect to both highway and public transit which can be expected to be completed by the year 2050 based on existing and reasonably expected revenues.

All additions of arterial street system highway capacity which can be expected to be completed by the year 2050, based on existing and reasonably expected revenues, including widening of arterial streets to provide additional traffic lanes and construction of new arterial facilities, are included in the FCTP.[8] This arterial street system includes approximately 3,600 miles of streets within the seven-county Southeastern Wisconsin Region, or about one-third of the total street system, and includes all state, county, and municipal arterials within urban areas and all arterials and major collectors within rural areas of the Region. The plan also includes the total existing transit system, including the existing local, express (the only exception being Milwaukee County Freeway Flyer Service), and rapid transit system components, includes an expected 11 percent reduction in 2014 local and express service levels and maintenance of the geographic coverage of the existing transit systems, and the planned construction and operation of Phase I, the Lakefront Extension, and the Arena Extension of the City of Milwaukee streetcar and Milwaukee County's bus rapid transit line between the Milwaukee Regional Medical Center and Downtown Milwaukee.

The travel simulation modeling conducted under this conformity analysis of the FCTP and TIP is fully consistent with, indeed identical to, the travel simulation modeling conducted by the Commission for the preparation of VISION 2050 and the FCTP and for the preparation of the maintenance plan. The travel simulation modeling for the conformity determination is sensitive

[8] *The FCTP does not make any recommendation with respect to whether the 10.2 route-miles of IH 43 between Howard Avenue and Silver Spring Drive, when reconstructed, should be reconstructed with or without additional traffic lanes. The FCTP recommends that preliminary engineering conducted for the reconstruction of this segment of IH 43 should include the consideration of alternatives for rebuilding the freeway with additional lanes and rebuilding it with the existing number of lanes. The decision of how this segment of IH 43 would be reconstructed would be determined by the Wisconsin Department of Transportation (WisDOT) through preliminary engineering and environmental impact study. During preliminary engineering, WisDOT would consider and evaluate a number of alternatives, including rebuild as is, various options of rebuild to modern design standards, compromises to rebuilding to modern design standards, rebuilding with additional lanes, and rebuilding with existing number of lanes. Only at the conclusion of preliminary engineering would a determination be made as to how this segment of IH 43 freeway would be reconstructed. Following the conclusion of the preliminary engineering for the reconstruction, VISION 2050 and the FCTP would be amended to reflect the decision made as to how IH 43 between Howard Avenue and Silver Spring Drive would be reconstructed. Any construction along this segment of IH 43 prior to preliminary engineering—such as bridge reconstruction—should fully preserve and accommodate the future option of rebuilding the freeway with additional lanes. As the FCTP does not include a recommendation regarding the future capacity needs for this segment of IH 43, for the purposes of determining conformity of the FCTP, the conformity demonstration as documented in this report has been conducted based on the existing capacity of this segment of IH 43.*

to the added capacity and service provided by each highway and transit plan proposal, accurately reflecting its potential effect through changes in travel time and attendant route choice, mode choice, travel patterns, and trip generation. VISION 2050 (including the FCTP) and its treatment in the travel simulation modeling analysis goes beyond the Federally required consideration of Federally recognized regionally significant projects, that is, principal arterials and transit fixed guideways, in that it includes all arterial and public transit facilities. The transportation and land use components of VISION 2050 were designed to be consistent with each other. The transportation component of VISION 2050 being designed to serve and promote implementation of the development pattern envisioned for the year 2050, and the land use component designed to support the transit recommendations envisioned in the transportation system component, through increased development densities proximate to the proposed rapid transit lines. As the projects included in the FCTP come out of the VISION 2050, the accessibility provided by the FCTP should also serve and promote implementation of the land use plan.

Transportation Emissions and Travel Modeling Procedures

The procedures for estimating the FCTP and TIP emissions also fully meet the emission and travel modeling requirements, (40 CFR 93.122).[9] Specifically, the travel simulation modeling analysis for this conformity determination incorporates in the analysis all planned highway capacity improvements and expansion, for all arterial facilities, including major collectors in rural areas, and for all transit improvements and expansion included in the FCTP. The travel simulation modeling analysis does not assume emission reductions for any transportation control measures or control programs external to the transportation system, as, for example, changes in motor fuel volatility or vehicle inspection and maintenance programs, except with respect to such programs incorporated in the maintenance plan.

The Federal requirements for determination of conformity after January 1, 1997, (40 CFR 93.122(d)), have been met under this conformity determination. The travel and traffic simulation models used to estimate the air pollutant emissions are network-based models which forecast travel demand and traffic volume based upon economic and demographic forecasts, planned land use allocation patterns, and the characteristics of the transportation system. As already noted, the travel models are fully described in Chapter IV, of SEWRPC Technical Report No. 50, *Travel Simulation Models of Southeastern Wisconsin*. The models were calibrated with year 2011-2012 large-scale travel survey data and are consistent with current accepted modeling practice. The fifth-generation travel simulation models incorporate many of the potential model enhancements identified during a peer review of the Commission's fourth-generation travel

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[9] A U.S. Department of Transportation, Federal Highway Administration report issued May 21, 1997, on the Federal Review of the travel modeling conducted by the Commission, is documented in Appendix E of SEWRPC Memorandum Report No. 147, entitled, Assessment of Conformity of the Amended Year 2000-2002 Transportation Improvement Program and Amended Year 2020 Regional Transportation Plan With Respect to the State of Wisconsin Air Quality Implementation Plan—Six-County Severe Ozone Nonattainment Area and Walworth County Ozone Maintenance Area, along with a Commission report which cites how each requirement in 40CFR 93.122 is met. In addition, the Commission's fourth-generation travel demand models were peer reviewed by a panel of three national modeling experts in December 2014. The recommendations for potential model enhancements were considered and incorporated where appropriate into the Commission's fifth-generation travel simulation models. This peer review is documented in Chapter 3 of SEWRPC Technical Report No. 50, entitled Travel Simulation Models of Southeastern Wisconsin.

simulation models. The resulting fifth-generation travel simulation models were reviewed by the Commission's Advisory Committee on Regional Land Use and Transportation System Planning, which includes representation from Federal, State, and local governments.

The fifth-generation travel demand model is a time-of-day model and as such incorporates sensitivity to peak- and off-peak travel times by modeling the trip distribution, modal choice, and a capacity restrained traffic assignment for four different periods of the day: AM (7:00 am to 9:00 am), Midday (9:00 am to 2:30 pm), PM (2:30 pm to 6:00 pm), and Night (6:00 pm to 6:00 am). The models incorporate an iteration, or feedback, of model steps so that the travel times attendant to each period used to determine travel patterns, transit ridership, and route choice are consistent with the travel times established in capacity restraint traffic assignment specific to each period. This feedback of congested travel times within each of the four periods is iterated until the traffic volumes assigned to the system stabilize, thus insuring that the travel times, pattern of travel, and mode choice are consistent and stable.

The constrained peak hour, and the free flow, or off-peak, travel speeds incorporated in the models are based upon actual field surveyed speeds and travel times. The last such analysis was conducted in 2014 utilizing GPS data collected as part of the 2011-2012 travel inventory. The models estimate travel times attendant to the traffic assigned within each model period and utilize these travel times within the trip distribution and modal choice for the work, shopping, and other purposes. The trip distribution step is sensitive to the modes available and both the trip distribution and mode choice steps are directly sensitive to the price of travel, as well as travel time, including public transit travel time.

The future travel and traffic forecasts from the models have been compared to historic trends. The models were validated for the years 2001 and 2011 using 2000 and 2010 census and land use inventory data, and 2001-2002 and 2011-2012 travel survey and transportation system inventory data with respect to simulation of both transit ridership and arterial street and highway traffic by comparing model estimates to actual counts. The VMT estimated by the models in the base year of its validation (2011) have been compared to estimates prepared with the WisDOT traffic counts included in the Highway Performance Monitoring System (HPMS), and it has been determined that the 2011 model estimate is consistent with the 2011 inventory estimate. This validation is documented in Chapter IV of Technical Report No. 50. Also, as previously noted the FCTP based annual growth in VMT is between 0.7 and 0.5 percent to the year 2050, which is less than the historical growth rates, but consistent with the trend of declining growth in VMT since the 1960's.[10]

In addition, the Commission has maintained for over 20 years procedures to estimate off-network roadway travel. The procedures have been periodically reevaluated and validated. Such procedures were developed as part of the first Statewide implementation plan for air quality, prepared by the Regional Planning Commission in 1978, and provide estimates for use in RTP and State Implementation Plan preparation and conformity determination. The method is based on analyses which estimate off-network travel by calculating total intrazonal travel and trip lengths, based upon zone size and development distribution. The analyses indicate off-network travel

[10] *Table 4.4 of Chapter 4 of Volume 1 of SEWRPC Planning Report No. 55, VISION 2050: A Regional Land Use and Transportation System Plan for Southeastern Wisconsin.*

represents about 9 percent of total travel. This is consistent with independent highway performance monitoring system estimates. Off-network travel is estimated for each alternative by factoring network travel forecasts by approximately 10 percent.

As previously noted, consistency of the land use and transportation system components of VISION 2050 is directly established, as both the land use and transportation components were designed to be consistent with each other. As the projects included in the FCTP come out of the transportation component of VISION 2050, the accessibility provided by the FCTP should also serve and promote implementation of the land use plan. The population, employment, land use, and other assumptions attendant to the travel and traffic forecast are documented in Volume III, Chapter 1 of SEWRPC Planning Report 55, *VISION 2050: A Regional Land Use and Transportation Plan for Southeastern Wisconsin*. These forecasts anticipate more moderated growth as compared to historical trends.

Conformity Determination Criteria–Consistency with Motor Vehicle Emissions Budgets

The test of FCTP and TIP conformity requires that the transportation system emissions forecasts under the FCTP and TIP must be consistent with, that is, equal to, or less than, the motor-vehicle emission budgets (MVEB) in the maintenance plan for the three-county maintenance area for the 2006 24-hour $PM_{2.5}$ NAAQS and the early progress plan for the Wisconsin portion of the Chicago-Naperville, IL-IN-WI nonattainment area.

With respect to the three-county area, the maintenance plan for the 2006 24-hour $PM_{2.5}$ NAAQS for this conformity analysis is the attainment demonstration submitted to USEPA in June 2012 which established VOC, NO_x, $PM_{2.5}$, and SO_2 MVEB's for 2020 and 2025. In December 2015, WDNR submitted a SIP revision for the three county area which established new 2020 and 2025 MVEBs for VOC. Effective April 22, 2016, these updated VOC MVEBs will be used to demonstrate conformity.

With respect to the Wisconsin portion of the Chicago-Naperville, IL-IN-WI moderate nonattainment area, the early progress plan for the 2008 8-hour ozone NAAQS for this conformity analysis is the Early Action Plan submitted to USEPA in January 2015 which established VOC and NO_x MVEB's for 2015. Adequacy of the submitted budgets was determined by USEPA effective April 16, 2015.

The transportation system emissions attendant to the FCTP and 2015-2018 TIP through the year 2050 were forecast through application of the Commission's fifth-generation travel and traffic simulation models under the year 2050 population, households, and employment forecasts and regional land use plan. Table 6 presents the forecast VMT attendant to the forecast years of 2017, 2020, 2025, 2030, 2040, and 2050. The transportation plan projects incorporated in each forecast year were listed in Tables 3 (transit) and 1 (arterial street and highway).

The year 2015-2018 TIP is consistent with the FCTP and the plan's implementation schedule. All TIP projects, that is, projects with air quality impacts, are included in the plan. Also, the TIP includes all projects essential to implement the plan on schedule. The satisfaction of these two tests is demonstrated in Tables 1, 3, and 7.

Table 6
Forecast Average Weekday Vehicle Miles of Travel within Southeastern Wisconsin Under the Fiscally Constrained Transportation Plan[a]

	Speed Range (mph)	$PM_{2.5}$ Area[b]					Ozone Area[c]				
		2020	2025	2030	2040	2050	2017	2025	2030	2040	2050
Standard Arterials	0-2.5	--	--	--	--	--	--	--	--	--	--
	2.5-7.5	1,559	1,588	1,592	1,595	2,458	--	--	--	--	--
	7.5-12.5	11,409	11,096	11,091	11,268	10,568	--	168	168	--	--
	12.5-17.5	9,852	11,208	13,021	15,930	17,113	317	163	163	29	58
	17.5-22.5	46,727	45,208	40,063	43,223	50,136	2,098	772	771	28	1,144
	22.5-27.5	1,366,211	1,390,526	1,413,951	1,435,532	1,460,990	45,370	42,829	46,295	47,608	48,604
	27.5-32.5	4,725,668	4,767,999	4,780,425	4,866,867	4,989,744	413,408	426,619	426,190	441,984	456,524
	32.5-37.5	4,504,391	4,567,974	4,633,025	4,722,099	4,874,537	289,071	289,997	297,634	311,279	340,302
	37.5-42.5	2,895,355	2,936,332	2,994,377	3,076,114	3,300,830	75,551	87,308	89,667	116,233	124,510
	42.5-47.5	3,324,834	3,387,367	3,525,572	3,679,162	3,921,491	688,171	732,098	768,513	824,750	898,775
	47.5-52.5	498,010	512,402	534,110	587,264	648,991	72,918	97,974	100,798	110,403	109,723
	52.5-57.5	1,673,235	1,707,211	1,763,989	1,967,144	2,113,879	229,131	249,064	267,886	288,795	313,951
	57.5-62.5	--	--	--	--	--	--	--	--	--	--
	62.5-67.5	--	--	--	--	--	--	--	--	--	--
	67.5-72.5	--	--	--	--	--	--	--	--	--	--
	72.5+	--	--	--	--	--	--	--	--	--	--
	Subtotal	19,057,252	19,338,911	19,711,216	20,406,198	21,390,737	1,816,034	1,926,992	1,998,086	2,141,109	2,293,590
Freeways	0-2.5	--	--	--	126	127	--	--	--	--	--
	2.5-7.5	4,998	12,885	8,713	7,537	9,457	--	--	--	--	--
	7.5-12.5	12,304	4,965	1,985	3,010	1,608	--	--	--	--	--
	12.5-17.5	31,331	28,020	14,330	17,477	11,475	--	--	--	--	--
	17.5-22.5	201,981	170,600	164,518	199,901	217,361	--	--	--	--	--
	22.5-27.5	240,951	257,624	286,519	224,596	271,498	--	--	--	--	--
	27.5-32.5	224,969	231,968	232,918	202,702	199,443	--	--	--	--	--
	32.5-37.5	260,428	274,370	312,401	268,842	294,953	--	--	--	--	--
	37.5-42.5	319,564	309,426	256,345	255,680	291,127	--	--	--	--	371
	42.5-47.5	371,137	352,264	376,922	345,995	382,033	--	--	--	--	5,335
	47.5-52.5	697,445	681,746	646,865	724,042	772,673	--	--	--	--	--
	52.5-57.5	2,477,699	2,669,325	2,690,368	2,728,535	2,779,522	--	--	--	--	--
	57.5-62.5	2,880,722	2,964,161	3,143,500	3,161,491	3,209,686	--	--	--	9,652	37,560
	62.5-67.5	498,536	343,918	362,585	475,199	491,836	16,617	6,379	27,151	87,656	118,692
	67.5-72.5	3,869,777	4,310,162	4,417,965	5,056,068	5,069,371	999,227	1,103,565	1,128,198	1,159,722	1,159,716
	72.5+	--	--	--	--	--	--	--	--	--	--
	Subtotal	12,091,844	12,611,435	12,915,935	13,671,199	14,002,171	1,015,844	1,109,944	1,155,350	1,257,030	1,321,673
	Total	**31,149,096**	**31,950,347**	**32,627,151**	**34,077,398**	**35,392,908**	**2,831,878**	**3,036,936**	**3,153,435**	**3,398,139**	**3,615,263**

Source: SEWRPC

[a] *The vehicle miles of travel set forth in this table represent arterial vehicle miles of travel only. Nonarterial vehicle miles of travel would increase the total average weekday vehicle miles of travel by approximately 10 percent.*

[b] *Three-county 2006 24-hour fine particulate ($PM_{2.5}$) national ambient air quality standard (NAAQS) maintenance area consisting of Milwaukee, Racine, and Waukesha Counties.*

[c] *Wisconsin portion of the Chicago-Naperville, IL-IN-WI 2008 eight-hour ozone NAAQS nonattainment area consisting of Kenosha County east of IH 94.*

Table 7
Nonexempt Projects included in the 2015-2018 Transportation Improvement Program

PROJECT SPONSOR	PROJECT NO	PROJECT DESCRIPTION / STATE ID	TYPE			ESTIMATED COSTS ($1,000) 2015	2016	2017	2018	Total	AIR QUAL STAT
STATE OF WISCONSIN	546	FINAL ENGINEERING FOR RECONSTRUCTION OF IH 94 (EAST-WEST FREEWAY) WITH ADDITIONAL TRAFFIC LANES FROM 70TH ST TO 16TH ST IN THE CITY OF MILWAUKEE (3.5 MI)	HI	*DETAIL COSTS*	*PE*	0.0	0.0	0.0	22,300.0	22,300.0	NON-EXEMPT
					ROW	0.0	0.0	0.0	0.0	0.0	
					CONST	0.0	0.0	0.0	0.0	0.0	
					OTHER	0.0	0.0	0.0	10,000.0	10,000.0	
					TOTAL	0.0	0.0	0.0	32,300.0	32,300.0	
				SOURCE OF FUNDS	*LOCAL*	0.0	0.0	0.0	0.0	0.0	
					STATE	**0.0**	0.0	0.0	32,300.0	32,300.0	
					FEDERAL	0.0	0.0	0.0	0.0	0.0	
		8009698			*TOTAL*	0.0	0.0	0.0	32,300.0	32,300.0	
	46 (57)	RECONSTRUCTION WITH ADDITIONAL TRAFFIC LANES OF IH 94 FROM THE ILLINOIS STATE LINE TO THE MITCHELL INTERCHANGE IN MILWAUKEE, RACINE, AND KENOSHA COUNTIES (32.50 MI)	HI	*DETAIL COSTS*	*PE*	831.2	1,187.7	2,463.4	1,285.9	5,768.2	NON-EXEMPT
					ROW	556.7	0.5	0.0	0.0	557.2	
					CONST	312.2	1,751.0	97,967.1	119,650.1	219,680.4	
					OTHER	0.0	0.0	0.0	0.0	0.0	
					TOTAL	1,700.1	2,939.2	100,430.5	120,936.0	226,005.8	
				SOURCE OF FUNDS *NHPP*	*LOCAL*	0.0	0.0	0.0	0.0	0.0	
					STATE	**1,294.7**	2,939.2	74,803.5	96,696.8	175,734.2	
					FEDERAL	405.4	0.0	25,627.0	24,239.2	50,271.6	
		8000076			*TOTAL*	1,700.1	2,939.2	100,430.5	120,936.0	226,005.8	
	47 (58)	RECONSTRUCTION OF THE ZOO INTERCHANGE AND APPROACHES ON IH 94, IH 894 AND USH 45 IN MILWAUKEE COUNTY	HI	*DETAIL COSTS*	*PE*	105.1	0.0	0.0	0.0	105.1	NON-EXEMPT
					ROW	5,636.1	0.0	0.5	0.0	5,636.6	
					CONST	379,326.8	21,784.4	180,496.1	230.5	581,837.8	
					OTHER	3,211.1	3,211.1	3,211.1	0.0	9,633.3	
					TOTAL	388,279.1	24,995.5	183,707.7	230.5	597,212.8	
				SOURCE OF FUNDS *NHPP*	*LOCAL*	1,362.2	0.0	198.2	0.0	1,560.4	
					STATE	**319,934.5**	24,995.5	158,976.3	230.5	504,136.8	
					FEDERAL	66,982.4	0.0	24,533.2	0.0	91,515.6	
		8000205 1060-33-00			*TOTAL*	388,279.1	24,995.5	183,707.7	230.5	597,212.8	
	562	RESURFACING OF IH 41/43/894 FROM 84TH ST TO LINCOLN AVE AND THE RESTRIPING OF IH 41/894 TO PROVIDE 8 THROUGH LANES BETWEEN THE HALE INTERCHANGE AND LINCOLN AVE IN MILWAUKEE COUNTY (4.0 MI)	HI	*DETAIL COSTS*	*PE*	0.0	0.0	0.0	0.0	0.0	NON-EXEMPT
					ROW	0.0	0.0	0.0	0.0	0.0	
					CONST	0.0	0.0	0.0	45,000.0	45,000.0	
					OTHER	0.0	0.0	0.0	0.0	0.0	
					TOTAL	0.0	0.0	0.0	45,000.0	45,000.0	
				SOURCE OF FUNDS	*LOCAL*	0.0	0.0	0.0	0.0	0.0	
					STATE	**0.0**	0.0	0.0	45,000.0	45,000.0	
					FEDERAL	0.0	0.0	0.0	0.0	0.0	
		8000274			*TOTAL*	0.0	0.0	0.0	45,000.0	45,000.0	
	48 (60)	RECONSTRUCTION WITH ADDITIONAL LANES OF 27TH ST (STH 241) FROM W DREXEL AVE TO COLLEGE AVE (CTH ZZ) IN THE CITIES OF FRANKLIN AND OAK CREEK (2.0 MI)	HI	*DETAIL COSTS*	*PE*	0.0	0.0	0.0	0.0	0.0	NON-EXEMPT
					ROW	0.0	0.0	0.0	0.0	0.0	
					CONST	24,695.0	0.0	0.0	0.0	24,695.0	
					OTHER	0.0	0.0	0.0	0.0	0.0	
					TOTAL	24,695.0	0.0	0.0	0.0	24,695.0	
				SOURCE OF FUNDS *STP-O*	*LOCAL*	1,250.0	0.0	0.0	0.0	1,250.0	
					STATE	**4,689.0**	0.0	0.0	0.0	4,689.0	
					FEDERAL	18,756.0	0.0	0.0	0.0	18,756.0	
		8009941 2265-16-70			*TOTAL*	24,695.0	0.0	0.0	0.0	24,695.0	
MILWAUKEE COUNTY	74 (628)	RECONSTRUCTION WITH ADDITIONAL TRAFFIC LANES OF S 13TH ST (CTH V) FROM W RAWSON AVE (CTH BB) TO DREXEL AVE (1.00 MI)	HI	*DETAIL COSTS*	*PE*	0.0	0.0	0.0	0.0	0.0	NON-EXEMPT
					ROW	0.0	500.0	0.0	0.0	500.0	
					CONST	0.0	0.0	0.0	5,800.0	5,800.0	
					OTHER	0.0	0.0	0.0	0.0	0.0	
					TOTAL	0.0	500.0	0.0	5,800.0	6,300.0	
				SOURCE OF FUNDS *STP-M*	*LOCAL*	0.0	100.0	0.0	1,160.0	1,260.0	
					STATE	**0.0**	400.0	0.0	0.0	400.0	
					FEDERAL	0.0	0.0	0.0	4,640.0	4,640.0	
		4000032 2505-00-03			*TOTAL*	0.0	500.0	0.0	5,800.0	6,300.0	
	75 (82)	RECONSTRUCTION WITH ADDITIONAL LANES OF S 13TH ST (CTH V) FROM PUETZ RD TO DREXEL AVE IN THE CITY OF OAK CREEK (1.00 MI)	HI	*DETAIL COSTS*	*PE*	0.0	300.0	300.0	50.0	650.0	NON-EXEMPT
					ROW	0.0	0.0	0.0	500.0	500.0	
					CONST	0.0	0.0	0.0	0.0	0.0	
					OTHER	0.0	0.0	0.0	0.0	0.0	
					TOTAL	0.0	300.0	300.0	550.0	1,150.0	
				SOURCE OF FUNDS	*LOCAL*	0.0	300.0	300.0	550.0	1,150.0	
					STATE	**0.0**	0.0	0.0	0.0	0.0	
					FEDERAL	0.0	0.0	0.0	0.0	0.0	
		4000009			*TOTAL*	0.0	300.0	300.0	550.0	1,150.0	
MILWAUKEE (CITY)	139 (173)	IMPLEMENTATION OF THE MILWAUKEE DOWNTOWN CONNECTOR STREETCAR BETWEEN THE MILWAUKEE INTERMODAL STATION AND AN AREA NORTH OF THE CENTRAL BUSINESS DISTRICT	TE	*DETAIL COSTS*	*PE*	0.0	0.0	0.0	0.0	0.0	NON-EXEMPT
					ROW	100.0	0.0	0.0	0.0	100.0	
					CONST	92,459.3	0.0	0.0	0.0	92,459.3	
					OTHER	0.0	0.0	0.0	0.0	0.0	
					TOTAL	92,559.3	0.0	0.0	0.0	92,559.3	
				SOURCE OF FUNDS *IH-C/S*	*LOCAL*	43,401.5	0.0	0.0	0.0	43,401.5	
					STATE	**0.0**	0.0	0.0	0.0	0.0	
					FEDERAL	49,157.8	0.0	0.0	0.0	49,157.8	
		4109958			*TOTAL*	92,559.3	0.0	0.0	0.0	92,559.3	

Table continued on next page.

Table 7 (Continued)

PROJECT SPONSOR	PROJECT NO	DESCRIPTION / STATE ID	TYPE	ESTIMATED COSTS ($1,000)		2015	2016	2017	2018	Total	AIR QUAL STAT
MILWAUKEE (CITY)	446	IMPLEMENTATION OF THE LAKEFRONT EXTENSION OF THE MILWAUKEE DOWNTOWN CONNECTOR STREETCAR SYSTEM BETWEEN N BROADWAY AND LINCOLN MEMORIAL DRIVE	TE	*DETAIL COSTS*	*PE*	800.0	900.0	0.0	0.0	1,700.0	NON-EXEMPT
					ROW	0.0	100.0	0.0	0.0	100.0	
					CONST	0.0	27,400.0	0.0	0.0	27,400.0	
					OTHER	0.0	0.0	0.0	0.0	0.0	
					TOTAL	800.0	28,400.0	0.0	0.0	29,200.0	
				SOURCE OF FUNDS *FED TIGER*	*LOCAL*	800.0	14,200.0	0.0	0.0	15,000.0	
					STATE	**0.0**	0.0	0.0	0.0	0.0	
					FEDERAL	0.0	14,200.0	0.0	0.0	14,200.0	
		4109959			*TOTAL*	800.0	28,400.0	0.0	0.0	29,200.0	
STATE OF WISCONSIN	270 (310)	CONSTRUCTION OF THE WAUKESHA BYPASS WITH ADDITIONAL LANES FROM SUMMIT AVE TO GENESEE RD IN THE CITY AND TOWN OF WAUKESHA (3.80 MI)	HI	*DETAIL COSTS*	*PE*	0.0	0.0	0.0	0.0	0.0	NON-EXEMPT
					ROW	0.0	0.0	0.0	0.0	0.0	
					CONST	0.0	37,000.0	0.0	0.0	37,000.0	
					OTHER	0.0	0.0	0.0	0.0	0.0	
					TOTAL	0.0	37,000.0	0.0	0.0	37,000.0	
				SOURCE OF FUNDS *STP-O*	*LOCAL*	0.0	0.0	0.0	0.0	0.0	
					STATE	**0.0**	7,400.0	0.0	0.0	7,400.0	
					FEDERAL	0.0	29,600.0	0.0	0.0	29,600.0	
		8009781 2788-00-71			*TOTAL*	0.0	37,000.0	0.0	0.0	37,000.0	
	271 (311)	RECONSTRUCTION WITH ADDITIONAL LANES OF SUMMIT AVE (STH 67) FROM CTH DR (DELAFIELD RD) TO SUMMIT AVE IN THE CITY OF OCONOMOWOC (2.49 MI)	HI	*DETAIL COSTS*	*PE*	0.0	0.0	0.0	0.0	0.0	NON-EXEMPT
					ROW	0.0	0.0	0.0	0.0	0.0	
					CONST	23,243.5	0.0	0.0	0.0	23,243.5	
					OTHER	0.0	0.0	0.0	0.0	0.0	
					TOTAL	23,243.5	0.0	0.0	0.0	23,243.5	
				SOURCE OF FUNDS *STP-O*	*LOCAL*	71.4	0.0	0.0	0.0	71.4	
					STATE	**4,634.4**	0.0	0.0	0.0	4,634.4	
					FEDERAL	18,537.7	0.0	0.0	0.0	18,537.7	
		8009926 3030-08-70			*TOTAL*	23,243.5	0.0	0.0	0.0	23,243.5	
WAUKESHA COUNTY	287 (328)	RECONSTRUCTION OF WEST WAUKESHA BYPASS WITH ADDITIONAL LANES FROM USH 18 TO NORTHVIEW RD IN THE TOWN AND CITY OF WAUKESHA (1.0 MI)	HI	*DETAIL COSTS*	*PE*	0.0	0.0	0.0	0.0	0.0	NON-EXEMPT
					ROW	3,000.0	0.0	0.0	0.0	3,000.0	
					CONST	0.0	4,164.1	0.0	0.0	4,164.1	
					OTHER	0.0	0.0	0.0	0.0	0.0	
					TOTAL	3,000.0	4,164.1	0.0	0.0	7,164.1	
				SOURCE OF FUNDS *STP-M*	*LOCAL*	600.0	964.1	0.0	0.0	1,564.1	
					STATE	**0.0**	0.0	0.0	0.0	0.0	
					FEDERAL	2,400.0	3,200.0	0.0	0.0	5,600.0	
		7009991 2788-02-00			*TOTAL*	3,000.0	4,164.1	0.0	0.0	7,164.1	
	288 (330)	RECONSTRUCTION WITH ADDITIONAL LANES OF CTH M (NORTH AVE) FROM CALHOUN RD TO PILGRIM RD IN THE CITY OF BROOKFIELD (1.0 MI)	HI	*DETAIL COSTS*	*PE*	0.0	524.0	0.0	0.0	524.0	NON-EXEMPT
					ROW	0.0	0.0	1,732.0	0.0	1,732.0	
					CONST	0.0	0.0	0.0	0.0	0.0	
					OTHER	0.0	0.0	0.0	0.0	0.0	
					TOTAL	0.0	524.0	1,732.0	0.0	2,256.0	
				SOURCE OF FUNDS	*LOCAL*	0.0	524.0	1,732.0	0.0	2,256.0	
					STATE	**0.0**	0.0	0.0	0.0	0.0	
					FEDERAL	0.0	0.0	0.0	0.0	0.0	
		7009988			*TOTAL*	0.0	524.0	1,732.0	0.0	2,256.0	
	289 (331)	RECONSTRUCTION WITH ADDITIONAL LANES OF CTH M (NORTH AVE) FROM PILGRIM RD TO EAST COUNTY LINE IN THE CITY OF BROOKFIELD (2.0 MI)	HI	*DETAIL COSTS*	*PE*	1,098.0	0.0	0.0	0.0	1,098.0	NON-EXEMPT
					ROW	0.0	1,000.0	1,800.0	0.0	2,800.0	
					CONST	0.0	0.0	0.0	13,118.0	13,118.0	
					OTHER	0.0	0.0	0.0	0.0	0.0	
					TOTAL	1,098.0	1,000.0	1,800.0	13,118.0	17,016.0	
				SOURCE OF FUNDS *STP-M*	*LOCAL*	1,098.0	1,000.0	1,800.0	2,624.0	6,522.0	
					STATE	**0.0**	0.0	0.0	0.0	0.0	
					FEDERAL	0.0	0.0	0.0	10,494.0	10,494.0	
		7000012 2766-00-01			*TOTAL*	1,098.0	1,000.0	1,800.0	13,118.0	17,016.0	
	523	RECONSTRUCTION WITH ADDITIONAL TRAFFIC LANES OF CTH M (NORTH AVE) FROM CALHOUN RD TO PILGRIM RD IN WAUKESHA COUNTY (1.06 MI)	HI	*DETAIL COSTS*	*PE*	0.0	681.0	0.0	0.0	681.0	NON-EXEMPT
					ROW	0.0	0.0	0.0	0.0	0.0	
					CONST	0.0	0.0	0.0	0.0	0.0	
					OTHER	0.0	0.0	0.0	0.0	0.0	
					TOTAL	0.0	681.0	0.0	0.0	681.0	
				SOURCE OF FUNDS *STP-M*	*LOCAL*	0.0	136.2	0.0	0.0	136.2	
					STATE	**0.0**	0.0	0.0	0.0	0.0	
					FEDERAL	0.0	544.8	0.0	0.0	544.8	
		7009975 2759-03-00			*TOTAL*	0.0	681.0	0.0	0.0	681.0	
WAUKESHA (CITY)	312 (358)	RECONSTRUCTION WITH ADDITIONAL LANES OF MEADOWBROOK RD (WEST WAUKESHA BYPASS) FROM NORTHVIEW RD TO ROLLING RIDGE DR IN THE CITY OF WAUKESHA (0.53 MI)	HI	*DETAIL COSTS*	*PE*	0.0	0.0	0.0	0.0	0.0	NON-EXEMPT
					ROW	0.0	0.0	0.0	0.0	0.0	
					CONST	0.0	2,000.0	0.0	0.0	2,000.0	
					OTHER	0.0	0.0	0.0	0.0	0.0	
					TOTAL	0.0	2,000.0	0.0	0.0	2,000.0	
				SOURCE OF FUNDS	*LOCAL*	0.0	2,000.0	0.0	0.0	2,000.0	
					STATE	**0.0**	0.0	0.0	0.0	0.0	
					FEDERAL	0.0	0.0	0.0	0.0	0.0	
		7370015			*TOTAL*	0.0	2,000.0	0.0	0.0	2,000.0	

Table continued on next page.

Table 7 (Continued)

PROJECT SPONSOR	PROJECT NO	PROJECT DESCRIPTION / STATE ID	PROJECT TYPE	ESTIMATED COSTS ($1,000)		2015	2016	2017	2018	Total	AIR QUAL STAT
STATE OF WISCONSIN	345 (391)	RECONSTRUCTION WITH ADDITIONAL TRAFFIC LANES OF STH 50 (75TH ST) FROM IH 94 TO 43RD AVE INCLUDING THE FRONTAGE ROADS ALONG STH 50 IN THE CITY OF KENOSHA AND VILLAGE OF PLEASANT PRAIRIE (4.45 MI) 8001026 1310-10-70	HI	*DETAIL COSTS*	*PE*	0.0	0.0	0.0	0.0	0.0	NON-EXEMPT
					ROW	0.0	0.0	20,100.0	0.0	20,100.0	
					CONST	0.0	0.0	0.0	0.0	0.0	
					OTHER	0.0	0.0	0.0	0.0	0.0	
					TOTAL	0.0	0.0	20,100.0	0.0	20,100.0	
				SOURCE OF FUNDS	*LOCAL*	0.0	0.0	0.0	0.0	0.0	
					STATE	**0.0**	0.0	20,100.0	0.0	20,100.0	
					FEDERAL	0.0	0.0	0.0	0.0	0.0	
					TOTAL	0.0	0.0	20,100.0	0.0	20,100.0	
	346 (639)	RECONSTRUCTION OF STH 165 (104TH ST) FROM IH 94 TO STH 31 (INCLUDING RECONSTRUCTION WITH ADDITIONAL TRAFFIC LANES FROM 114TH AVE TO TERWALL TER) IN THE VILLAGE OF PLEASANT PRAIRIE (3.70 MI) 8009773 3738-02-72	HI	*DETAIL COSTS*	*PE*	0.0	0.0	0.0	0.0	0.0	NON-EXEMPT
					ROW	0.0	0.0	0.0	0.0	0.0	
					CONST	0.0	4,898.3	0.0	0.0	4,898.3	
					OTHER	0.0	0.0	0.0	0.0	0.0	
					TOTAL	0.0	4,898.3	0.0	0.0	4,898.3	
				SOURCE OF FUNDS	*LOCAL*	0.0	0.0	0.0	0.0	0.0	
					STATE	**0.0**	4,898.3	0.0	0.0	4,898.3	
					FEDERAL	0.0	0.0	0.0	0.0	0.0	
					TOTAL	0.0	4,898.3	0.0	0.0	4,898.3	
KENOSHA COUNTY	352 (591)	RECONSTRUCTION WITH ADDITIONAL LANES OF CTH S FROM CTH H TO BRUMBACK BLVD IN KENOSHA COUNTY (1.79 MI) 1009960 3210-00-05	HI	*DETAIL COSTS*	*PE*	0.0	0.0	0.0	0.0	0.0	NON-EXEMPT
					ROW	0.0	0.0	0.0	0.0	0.0	
					CONST	0.0	0.0	0.0	0.0	0.0	
					OTHER	250.0	0.0	0.0	0.0	250.0	
					TOTAL	250.0	0.0	0.0	0.0	250.0	
				SOURCE OF FUNDS *STP-O*	*LOCAL*	115.8	0.0	0.0	0.0	115.8	
					STATE	**0.0**	0.0	0.0	0.0	0.0	
					FEDERAL	134.2	0.0	0.0	0.0	134.2	
					TOTAL	250.0	0.0	0.0	0.0	250.0	
	353 (615)	REALIGNMENT OF CTH F FROM CTH O TO 352ND AVE IN THE TOWN OF RANDALL (0.95 MI) 1009959 3733-00-01	HE	*DETAIL COSTS*	*PE*	0.0	0.0	0.0	0.0	0.0	NON-EXEMPT
					ROW	0.0	0.0	0.0	0.0	0.0	
					CONST	0.0	0.0	3,444.7	0.0	3,444.7	
					OTHER	0.0	0.0	0.0	0.0	0.0	
					TOTAL	0.0	0.0	3,444.7	0.0	3,444.7	
				SOURCE OF FUNDS *STP-O*	*LOCAL*	0.0	0.0	688.9	0.0	688.9	
					STATE	**0.0**	0.0	0.0	0.0	0.0	
					FEDERAL	0.0	0.0	2,755.8	0.0	2,755.8	
					TOTAL	0.0	0.0	3,444.7	0.0	3,444.7	
KENOSHA (CITY)	363 (407)	EXPANSION OF ELECTRIC STREETCAR SYSTEM IN THE CITY OF KENOSHA-DOWNTOWN LINE EXTENSION 1039999 1693-42-70	TE	*DETAIL COSTS*	*PE*	1,000.0	0.0	0.0	0.0	1,000.0	NON-EXEMPT
					ROW	0.0	0.0	0.0	0.0	0.0	
					CONST	9,257.8	0.0	0.0	0.0	9,257.8	
					OTHER	0.0	0.0	0.0	0.0	0.0	
					TOTAL	10,257.8	0.0	0.0	0.0	10,257.8	
				SOURCE OF FUNDS *CMAQ*	*LOCAL*	2,051.6	0.0	0.0	0.0	2,051.6	
					STATE	**0.0**	0.0	0.0	0.0	0.0	
					FEDERAL	8,206.2	0.0	0.0	0.0	8,206.2	
					TOTAL	10,257.8	0.0	0.0	0.0	10,257.8	

Source: SEWRPC

Tables 1 and 3 list all projects with air quality impact proposed in the FCTP, along with the plan-recommended implementation schedule, and identifies the plan projects which are included in the year 2015-2018 TIP. Table 7 lists all projects with air quality impact, so-called "nonexempt" projects in the year 2015-2018 TIP and confirms that they are included in the FCTP and confirms that their schedule in the improvement program is consistent with their schedule for project completion proposed in the FCTP.[11]

Table 8 presents for the years 2020, 2025, 2030, 2040, and 2050 forecast VOC, NO_x, SO2, and $PM_{2.5}$ emissions from the transportation system within the three-county $PM_{2.5}$ nonattainment area under the FCTP and TIP, and compares the forecast emissions to the year 2020 and 2025 transportation

[11] *All 2015-2018 TIP projects can be found at the Commission's TIP webpage (www.sewrpc.org/tip).*

Table 8
Conformity Test of the Fiscally Constrained Transportation Plan and 2015-2018 Transportation Improvement Program

Area	Conformity Analysis			Forecast Pollutant Emission Tests (Tons)							
				Volatile Organic Compounds		Nitrogen Oxides		Fine Particulate		Sulfur Dioxide	
	Test	Month	Year	Budget[e]	Forecast	Budget[e]	Forecast	Budget[e]	Forecast	Budget[e]	Forecast
$PM_{2.5}$ Area[a]	Budget Test[c]	January	2020	18.274	14.993	32.620	22.397	2.330	1.138	0.390	0.119
			2025	13.778	10.998	28.690	14.269	2.160	0.753	0.380	0.108
			2030	13.778	8.816	28.690	10.041	2.160	0.564	0.380	0.100
			2040	13.778	7.786	28.690	7.851	2.160	0.470	0.380	0.096
			2050	13.778	7.815	28.690	7.797	2.160	0.474	0.380	0.099
Ozone Area[b]	Budget Test[d]	July	2017	1.994	1.415	4.379	2.798	- -	- -	- -	- -
			2025	1.994	0.804	4.379	1.395	- -	- -	- -	- -
			2030	1.994	0.583	4.379	1.054	- -	- -	- -	- -
			2040	1.994	0.465	4.379	0.875	- -	- -	- -	- -
			2050	1.994	0.441	4.379	0.787	- -	- -	- -	- -

Source: SEWRPC and Wisconsin Department of Natural Resources.

[a] *Three-county 2006 24-hour fine particulate ($PM_{2.5}$) national ambient air quality standard (NAAQS) maintenance area consisting of Milwaukee, Racine, and Waukesha Counties.*

[b] *Wisconsin portion of the Chicago-Naperville, IL-IN-WI 2008 eight-hour ozone NAAQS nonattainment area consisting of Kenosha County east of IH 94.*

[c] *Year 2020 and 2025 budgets for Volatile Organic Compounds, Nitrogen Oxides, Fine Particulates, and Sulfur Dioxide are documented in the maintenance plan submitted by the Wisconsin Department of Natural Resources to USEPA on June 5, 2012. The maintenance plan has been approved by USEPA and the three-county area redesignated to attainment effective April 22, 2014 and revised effective April 22, 2016.*

[d] *Year 2015 budgets for volatile organic compounds and nitrogen oxides are documented in the early action plan submitted by the Wisconsin Department of Natural Resources to USEPA on January 16, 2015 and determined adequate for transportation conformity effective April 16, 2015.*

[e] *Value not to be exceeded.*

system VOC, NO_x, SO2, and $PM_{2.5}$ MVEBs. In all cases, the FCTP and TIP forecast emissions are less than the emissions budgets in the maintenance plan. Thus, this conformity criterion is shown to be fully met for the 2006 24-hour $PM_{2.5}$ NAAQS by the FCTP and 2015-2018 TIP.

Table 8 presents for the years 2017, 2025, 2030, 2040, and 2050 forecast VOC and NO_x emissions from the transportation system within the Wisconsin portion of the Chicago-Naperville, IL-IN-WI nonattainment area for the 2008 eight-hour ozone NAAQS under the FCTP and the TIP, and compares the forecast emissions to transportation system VOC and NO_x. In all cases, the FCTP and TIP forecast emissions are less than the emissions budgets in the early progress plan. Thus this conformity criterion is fully met for the 2008 eight-hour ozone NAAQS by the FCTP and 2015-2018 TIP.

APPENDICES

APPENDIX A

CONFORMITY ANALYSIS OF THE YEAR 2050 FISCALLY CONSTRAINED REGIONAL TRANSPORTATION PLAN AND YEAR 2015-2018 TRANSPORTATION IMPROVEMENT PROGRAM

- Years for Analysis [Years For Which Projection of Emissions Will Be Made For The Regional Transportation Improvement Program (TIP)/Fiscally Constrained Transportation Plan (FCTP)], Planning Assumptions and Forecasts, and Travel Simulation Models
  - Proposed years are 2017, 2020, 2025, 2030, 2040, and 2050. Year 2050 emission projections will be based on SEWRPC intermediate demographic and economic growth forecasts from year 2050 regional land use plan.
  - Emission projections will be based upon travel and traffic forecasts prepared from the Commission's current (5th Generation) travel simulation models—developed with 2011-2012 data and have been validated to the years 2001 and 2011 estimated actual vehicle miles of travel. These models and the attendant validation are documented in Commission Technical Report Number 50, Travel Simulation Models of Southeastern Wisconsin.

- Emission Budget Tests for Conformity
  - Three-County 24-Hour Fine Particulate ($PM_{2.5}$) maintenance area
    - MOVES2010a based budgets included in the 24-hour fine particulate redesignation request and maintenance plan submitted to US EPA in June of 2012
      - 2020, 2025, 2030, 2040 and 2050 TIP/FCTP emission forecasts must not exceed the 2020 and 2025 emission budgets
      - Emission estimates will be compared to the $PM_{2.5}$, NO_X, SO_2, and VOC budgets included in 24-hour fine particulate redesignation request and maintenance plan submitted to US EPA in June of 2012 and VOC budgets included in the SIP update submitted to USEPA December 23, 2015.
        - Fine Particulate ($PM_{2.5}$)—2.33 tons for 2020 and 2.16 for 2025
        - Nitrogen Oxides (NO_X)—32.62 tons for 2020 and 28.69 tons for 2025
        - Sulfur Dioxide (SO_2)—0.39 tons for 2020 and 0.38 tons for 2025
        - Volatile Organic Compounds (VOC)—18.274 tons for 2020 and 13.778 tons for 2025
        - Emission model will be MOVES2014a
  - Partial Kenosha County 2008 Ozone NAAQS nonattainment area comprised of Pleasant Prairie and Somers Townships
    - MOVES2014 based budgets included in Early Progress Plan Submitted to US EPA in January of 2015.
      - 2017, 2025, 2030, 2040 and 2050 TIP/FCTP emission forecasts must not exceed the 2015 emission budgets.
      - Emission estimates will be compared to the NO_X and VOC budgets included in Early Progress Plan Submitted to US EPA in January of 2015.
        - NO_X—4.379 tons for 2015
        - VOC—1.994 tons for 2015
      - Emission model will be MOVES2014a

- National defaults will be used with the exception of the following localized input data:
  - Age Distribution (2017, 2020, 2025, 2030, 2040, and 2050) to be provided by WDNR
  - Average Speed Distribution (2017, 2020, 2025, 2030, 2040, and 2050) to be provided by SEWRPC
  - Fuels (2017, 2020, 2025, 2030, 2040, and 2050) to be provided by WDNR
  - Inspection and Maintenance Program (2017, 2020, 2025, 2030, 2040, and 2050) to be provided by WDNR
  - Meteorology (2017, 2020, 2025, 2030, 2040, and 2050) to be provided by WDNR
  - Ramp (2017, 2020, 2025, 2030, 2040, and 2050) to be provided by SEWRPC
  - Road Type (2017, 2020, 2025, 2030, 2040, and 2050) to be provided by SEWRPC
  - Source Type Population (2017, 2020, 2025, 2030, 2040, and 2050) to be provided by WDNR and updated by SEWRPC based on VMT Estimates
  - Vehicle Type VMT (2017, 2020, 2025, 2030, 2040, and 2050) to be provided by WDNR and updated by SEWRPC based on VMT Estimates
  - Month VMT Fraction (2017, 2020, 2025, 2030, 2040, and 2050) to be provided by WDNR
  - Day VMT Fraction (2017, 2020, 2025, 2030, 2040, and 2050) to be provided by WDNR
  - Hour VMT Fraction (2017, 2020, 2025, 2030, 2040, and 2050) to be provided by WDNR and Freeway Data updated by SEWRPC

- SEWRPC will run the MOVES2014a model to develop emission estimates and will provide WDNR copies of the MOVES run specifications, input files, and MOVES outputs with the draft conformity demonstration.

APPENDIX B

REVIEW AGENCY CORRESPONDENCE REGARDING THE ASSESSMENT OF CONFORMITY

Federal Highway Administration
525 Junction Rd, Suite 8000
Madison, WI 53717-2157

Federal Transit Administration
200 W. Adams Street, Suite 320
Chicago, IL 60606-5232

July 28, 2016

Mr. Kenneth R. Yunker, Executive Director
Southeastern Wisconsin Regional Planning Commission
W239 N1812 Rockwood Drive
P.O. Box 1607
Waukesha, WI 53187-1607

Dear Mr. Yunker:

The Federal Highway Administration and Federal Transit Administration jointly reviewed the Southeastern Wisconsin Regional Planning Commission's (SEWRPC) June 30, 2016 and prior communications and documentation supporting a federal determination of transportation air quality conformity on the VISION 2050 regional transportation plan and amended 2015-2018 TIP. The TIP amendment accounts for proposed reconfiguration on I-41/894 between the Hale Interchange and Lincoln Avenue in Milwaukee County to add one through lane in each direction.

Principal documentation defining the recommended transportation system, the near term transportation improvement program, and assessment of their impacts on transportation conformity include:

- SEWRPC Planning Report No. 55, *VISION 2050: A Regional Land Use and Transportation System Plan for Southeastern Wisconsin*, adopted July 28, 2016;
    - Volume III, Chapter 2, *Recommended Fiscally Constrained Transportation Plan* (FCTP)
- *A Transportation Improvement Program for Southeastern Wisconsin: 2015-2018* as amended July 28, 2016 (TIP);
- SEWRPC Memorandum Report No. 223 *Assessment of Conformity of the Recommended Year 2050 Fiscally Constrained Transportation Plan and the Year 2015-2018 Transportation Improvement Program*;
- SEWRPC Technical Report 10, 5th Edition, "The Economy of Southeastern Wisconsin;"
- SEWRPC Technical Report 11, 5th Edition, "The Population of Southeastern Wisconsin;"
- SEWRPC Technical Report 50, "Travel Simulation Models of Southeastern Wisconsin."

The conformity demonstration relies and is based on the collective information in all of these documents as well as other supporting documents referenced therein.

The FCTP and TIP apply to the six-county southeastern Wisconsin metropolitan planning area (MPA) consisting of Washington, Ozaukee, Waukesha, Milwaukee, Racine, and Kenosha

Counties; plus portions of Walworth County within the Round Lake Beach, IL-WI MPA and portions of Jefferson and Dodge Counties within the Milwaukee MPA. The conformity assessment and this determination pertain specifically to the following criteria pollutants and associated EPA area designations:

- 2006, 24-Hour Fine Particulate (PM2.5) National Ambient Air Quality Standards and the associated three-county maintenance area (Milwaukee, Waukesha, and Racine Counties)
- 2008, Eight-Hour Ozone National Air Quality Standard and the Wisconsin portion of the Chicago-Naperville, IL-IN-WI moderate nonattainment area (eastern Kenosha County).

FHWA and FTA find that the FCTP and TIP meet the following requirements:

- The fiscally constrained transportation system envisioned for horizon and analysis years is described, including identification of design concept, scope, and operating policies of regionally significant additions or modifications to the existing system sufficient to determine travel times, traffic volumes, transit ridership, and relationship with expected land use;
- Significant future transportation policies, requirements, services, and activities are described;
- Fiscal constraint is demonstrated consistent with federal metropolitan transportation planning requirements, policies, and guidance;
- Latest planning assumptions are used, including:
    - Estimates of current and future population, employment, travel, and congestion, based on:
        - Year 2050 population and employment forecasts, and
        - Adjustment to reconcile differences between modeled and estimated actual average weekday vehicle miles of travel.
    - Changes in transit operating policies (including fares and service levels) and assumed transit ridership since the previous conformity determination;
    - Reasonable assumptions about transit service and increases in transit fares and road and bridge tolls over time;
    - Use of the latest existing information regarding the effectiveness of the TCMs and other implementation plan measures which have already been implemented; and
- Use of the latest emissions estimation model – MOVES 2014a.

Interagency consultation occurred among the USEPA, Wisconsin DNR, Wisconsin DOT, FHWA, FTA, and SEWRPC based on March 29, 2016, April 6, 2016, June 30, 2016, and July 12, 2014 email correspondences; discussions at quarterly meetings of the Wisconsin Transportation Conformity Workgroup in 2013 through 2016; and a July 14, 2016 teleconference. Consultation included agreement on the latest planning assumptions, latest emissions model, and appropriate conformity tests and analysis years to be used in the regional emissions analysis as documented in conformity assessment. The USEPA, Wisconsin DNR, and Wisconsin DOT all provided review and comments supporting approval of the SEWRPC conformity determination.

SEWRPC provided extensive opportunity for public comment on the plan, including most recently from April 7 through May 6, 2016 and addressed any comments impacting air quality

conformity. A public comment period for the proposed I-41/894 TIP amendment was open from July 7-14, 2016. No comments were received.

There are no transportation control measures in approved Wisconsin air quality SIPs.

SEWRPC's regional emissions analysis demonstrates that implementation of the FCTP and amended TIP will result in mobile source emissions within the motor vehicle emissions budgets established in the Wisconsin maintenance plan for the 2006-24 hour PM2.5 NAAQS (effective April 22, 2016) and the early progress plan for the Wisconsin portion of the Chicago, IL-IN-WI ozone nonattainment area (determined adequate by EPA effective April 16, 2015).

Accordingly, FHWA and FTA jointly determine the SEWRPC Recommended Year 2050 Fiscally Constrained Transportation Plan and the Year 2015-2018 Transportation Improvement Program as amended to be in conformance with the transportation planning requirements of Titles 23 and 49 U.S.C., the Clean Air Act Amendments, and related regulations as they pertain to the 2006-24 hour PM2.5 NAAQS and associated Milwaukee-Waukesha-Racine counties' maintenance area and the 2008 eight-hour ozone NAAQS as applicable to the Wisconsin portion of the Chicago, IL-IN-WI ozone nonattainment area.

This conformity finding is valid for a period of four years. A new air quality conformity determination will be required if either the FCTP or TIP is modified by adding, removing, or changing the implementation schedule of a regionally significant or non-exempt project or if any other triggering events specified in 40 CFR 93.104 occur. Conformity can also lapse if the FCTP or TIP is not updated within the required renewal period of four years.

Should you have any questions regarding this conformity finding, please contact Dwight McComb at (608) 829-7518.

Sincerely yours,

Michael Davies, P.E.
Division Administrator
On Behalf of the U.S. Department of Transportation
Federal Highway Administration
Federal Transit Administration

ecc: Aileen Switzer, WisDOT, DTIM
Donna Brown-Martin, WisDOT, DTIM, BPED
Patricia Trainer, WisDOT, DTSD, BTS
Tony Barth, WisDOT, SE Region
Michael Leslie, USEPA
Bart Sponseller, WDNR
Stewart McKenzie, FTA
Dwight McComb, FHWA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

JUL 2 0 2016

REPLY TO THE ATTENTION OF

Michael Davies
Division Administrator
Federal Highway Administration - Wisconsin Division
525 Junction Road, Suite 8000
Madison, Wisconsin 53717

Dear Mr. Davies:

The U.S. Environmental Protection Agency (EPA) has completed its review of the conformity determinations for the 2015-2018 Transportation Improvement Program (TIP) and 2050 Recommended Fiscally Constrained Transportation Plan (Plan). The TIP and Plan were prepared by the Southeastern Wisconsin Regional Planning Commission (SEWRPC). This letter provides the results of our review of the conformity determinations.

The Milwaukee metropolitan area is currently designated marginal nonattaintment for the 2008 eight-hour ozone standard for a portion of Kenosha county, and maintenance for the 2006 fine particulates 24-hour standard for Milwaukee, Racine, Waukesha counties.

EPA's MOVES2014a model generated emissions factors (EFs) which SEWRPC used for the regional analyses. These EFs were developed using the latest local transportation planning assumptions for this area. Emissions were calculated for the years 2017, 2020, 2025, 2030, 2040, and 2050. The Milwaukee metropolitan area TIP and Plan demonstrated consistency with all applicable conformity tests for 2008 8-hour ozone standard and the 2006 $PM_{2.5}$ 24-hour.

In summary, the SEWRPC TIP and the Plan conformity determinations for the Milwaukee metropolitan area meet the requirements of the conformity regulations. EPA recommends that these conformity determinations be approved. If you have any questions, feel free to contact Michael Leslie of my staff, at (312) 353-6680.

Sincerely yours,

Carolyn Persoon
Acting Chief
Control Strategies Section

cc: Mike Friedlander
Bureau of Air Management
Wisconsin Department of Natural Resources

Dwight McComb
Federal Highway Administration
Wisconsin Division

Wisconsin Department of Transportation
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Scott Walker
Governor

Mark Gottlieb
Secretary

Division of Transportation
System Development
4802 Sheboygan Ave, Rm 451
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July 7, 2016

Mr. Dwight McComb
Planning and Program Development Engineer
Federal Highway Administration
U.S. Department of Transportation
525 Junction Road, Suite 8000
Madison, Wisconsin 53717

SUBJECT: Review of Draft "Assessment of Conformity of the Federally Recognized Year 2050 Transportation Plan (FRTP) and the Year 2015-2018 Transportation Improvement Program (TIP) for the 2008 Eight-Hour Ozone and 2006 24-Hour Fine Particulate National Ambient Air Quality Standards"

Dear Mr. McComb:

The Wisconsin Department of Transportation (WisDOT) appreciates the opportunity to review the Southeastern Wisconsin Regional Planning Commission's (SEWRPC) draft Assessment of Conformity of the Year 2050 FRTP and TIP referenced above.

WisDOT has completed its review of SEWRPC's Assessment of Conformity of the Year 2050 FRTP and the 2015-2018 TIP. The FRTP and TIP conformance pertain to the Wisconsin portion of the Chicago-Naperville, IL-IN-WI 2008 eight-hour marginal ozone nonattainment area consisting of Kenosha County east of IH 94 (Somers and Pleasant Prairie Townships), and the three county $PM_{2.5}$ maintenance area consisting of Milwaukee, Racine, and Waukesha counties.

WisDOT's review has focused on SEWRPC's demonstration that it had met the criteria and procedural requirements stipulated in the amended Transportation Conformity Rule (Restructuring Amendments) issued in the Federal Register, March 14, 2012, 40 CFR, Part 93, with a final rule effective date of April 13, 2012. SEWRPC's planning assumptions, its travel and emissions modeling assumptions have been derived in part through collaboration with the Department of Natural Resources (WDNR) and WisDOT. These are now applied to the year 2050 RTP and its implementing 2015 - 2018 TIP to demonstrate conformity.

Kenosha County's forecasted volatile organic compounds (VOCs) and nitrogen oxides (NOx) emissions from the FRTP were compared with the motor vehicle emissions budgets (MVEBs) in the State Implementation Plan (SIP) component for Kenosha County. This SIP element was submitted for review to USEPA in January, 2015. The MVEBs for VOCs and NOx in the Wisconsin 8-hour ozone nonattainment areas, including Kenosha County, were found to be adequate for use in transportation conformity determinations as published in the Federal Register on April 1, 2015 with an April 16, 2015 effective date. Transportation system emissions under the FRTP demonstrate that for each forecasted year (2017, 2025, 2030, 2040 and 2050) the emissions for both ozone precursors, VOCs and NOx, are less than the corresponding motor vehicle emissions budgets in Wisconsin's State Implementation Plan element noted above.

As for the three county $PM_{2.5}$ maintenance area, the forecasted year emission estimates must be less than the MVEBs included in the USEPA approved Redesignation to Attainment request for the 2006 24-hour $PM_{2.5}$ Standard (40 CFR 93.118) which was published in the Federal Register with an effective date of April 22, 2014. A VOC budget revision to the Maintenance Plan was approved by USEPA and published in the Federal Register February 22, 2016 with an effective date of April 22, 2016. The VOC, NOx, SO_2 and $PM_{2.5}$ emission forecasts (2017, 2025, 2030, 2040 and 2050) for the transportation system within the three county $PM_{2.5}$ maintenance area under the FRTP and year 2015-2018 TIP are less than the emission budgets for the maintenance plan.

Based on the results of these analyses, WisDOT concurs with SEWRPC's conclusion that the FRTP and the 2015-2018 TIP are in conformance with the Wisconsin State Implementation Plan for Air Quality for the 2008 8-Hour Ozone standard for the Kenosha county portion of the Chicago-Naperville, IL-IN-WI marginal ozone nonattainment area and the State of Wisconsin three county Maintenance Plan for the 2006 24-hour $PM_{2.5}$ standard.

Thank you for the opportunity to review the Assessment of Conformity. We recognize the many benefits associated with reduced emissions from all sectors. These are important benefits and goals that we continue to work towards. If you have any questions, please contact John Glaze of my staff at 608/264-9525.

Sincerely,

Steven Krebs, Director
Bureau of Technical Services
Division of Transportation System Development

CC: Christopher Hiebert, Southeastern Wisconsin Regional Planning Commission
Bethaney Bacher-Gresock, FHWA – Wisconsin
William Wheeler, FTA – Region 5
Michael Leslie, USEPA – Region V
Gail Good, DNR - Bureau of Air Management
Aileen Switzer, WisDOT – Division of Transportation Investment Management
Joseph Olson, WisDOT – Division of Transportation System Development
Patricia Trainer, WisDOT – Bureau of Technical Services

jag

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

WISCONSIN
DEPT. OF NATURAL RESOURCES

DRAFT
July 15, 2016

Mr. John Mooney
U.S. Environmental Agency – Region V
77 West Jackson Boulevard
Mail Code: AR-18J
Chicago, IL 60604-3507

SUBJECT: Review of Southeastern Wisconsin Regional Planning Commission's Transportation Conformity Determination for the Year 2050 Recommended Fiscally Constrained Regional Transportation Plan (RTP) and 2015-2018 Transportation Improvement Program (TIP)

Dear Mr. Mooney:

The Wisconsin Department of Natural Resources (WDNR) has reviewed the Southeastern Wisconsin Regional Planning Commission's (SEWRPC) transportation conformity determination for the year 2050 recommended fiscally constrained RTP and the 2015-2018 TIP for the Kenosha-Milwaukee-Racine urbanized area. WDNR's assessment is that the recommended fiscally constrained RTP and TIP conform to Wisconsin's 2008 ozone and 2006 24-hour $PM_{2.5}$ national ambient air quality standard (NAAQS) state implementation plans (SIPs) for transportation conformity purposes.

Wisconsin submitted a SIP revision for the 2006 $PM_{2.5}$ NAAQS on December 23, 2015, which established updated motor vehicle emission budgets (MVEB) for volatile organic compounds (VOC). EPA approved the SIP revision for the 2006 24-hour $PM_{2.5}$ NAAQS and the attendant VOC MVEB for transportation conformity purposes on February 22, 2016 with an effective date of April 22, 2016 (81 FR 8654). Wisconsin also submitted an early progress SIP to EPA on January 16, 2015 containing updated MVEBs for the Kenosha 2008 ozone non-attainment area. EPA approved these MVEBs on July 6, 2015 (80 FR 38400) with an effective date of September 4, 2015. SEWRPC's analysis indicates that the recommended fiscally constrained 2050 RTP and 2015-18 TIP forecast emissions remain within these MVEBs.

We appreciate the considerable SEWRPC staff time, expertise and cooperation that were devoted to this effort and look forward to our continued collaboration with SEWRPC for implementing the VISION 2050 long range transportation and land use planning objectives. Should you have any questions or comments concerning our review of this conformity determination, please contact Mike Friedlander of my staff at (608) 267-0806.

Sincerely,

Gail Good
Director
Air Management Program

cc: Aileen Switzer/WisDOT
Joseph Olson/WisDOT
Pat Trainer/WisDOT
Dwight E. McComb/FHWA
William Wheeler/FTA-Chicago
Michael G. Leslie/USEPA-Region V
Kenneth R. Yunker/SEWRPC

APPENDIX C

CONSISTENCY OF THE FISCALLY CONSTRAINED TRANSPORTATION PLAN (FCTP) AND 2017-2020 TRANSPORTATION IMPROVEMENT PROGRAM (TIP) WITH THE 1997 8-HOUR OZONE NATIONAL AMBIENT AIR QUALITY (NAAQS) MOTOR VEHICLE EMISSION BUDGETS

INTRODUCTION

A recent decision by the DC Circuit Court vacated several elements of the implementation rule for the 2008 Ozone National Ambient Air Quality Standard (NAAQS). Within Southeastern Wisconsin, the impact of this ruling is that, unless the Court reverses its decision, conformity demonstrations and determinations will be required to resume for the six-county 1997 8-hour ozone maintenance area consisting of Kenosha, Milwaukee, Ozaukee, Racine, Washington, and Waukesha Counties.

In response to the Court's decision, the US DOT has issued guidance to the division and regional administrators of the Federal Highway and Transit Administrations that effectively puts "on-hold" Federal approval of regional transportation plans and State and regional transportation improvement programs (TIP) and any amendment that includes a new non-exempt project until the regional transportation plans and TIPs can be determined to conform with the 1997 ozone NAAQS. Given the frequency of TIP amendments within Southeastern Wisconsin, and the potential to add new non-exempt transit and highway projects, it is prudent to establish air quality conformity of the land use and fiscally constrained transportation plan (FCTP) and 2017-2020 TIP with respect to the 1997 8-hour ozone NAAQS.

As there have not been any substantive changes to the FCTP and TIP since the last conformity determination (April 26, 2018), the conformity demonstration attendant to the 1997 8-hour ozone NAAQS provided in this appendix is based on the same assumptions and plan staging utilized to demonstrate the consistency of the FCTP and TIP with respect to 2008 ozone and 2012 fine particulate NAAQS, which was completed in July 2016. The conformity analysis is documented in Figure C.1.

CONFORMITY DETERMINATION CRITERIA: CONSISTENCY WITH MOTOR VEHICLE EMISSIONS BUDGETS

The test of FCTP and TIP conformity requires that the transportation system emissions forecasts under the FCTP and TIP must be consistent with, that is, equal to or less than, the motor-vehicle emission budgets (MVEB) in the maintenance plan for the six-county maintenance area for the 1997 8-hour ozone NAAQS and the 2011 update to the 1997 8-hour ozone nonattainment area redesignation request and maintenance plan.

With respect to the six-county area, the maintenance plan for the 1997 8-hour ozone NAAQS for this conformity analysis is the attainment demonstration submitted to USEPA in 2011, which established VOC and NOx MVEB's for 2015 and 2022.

The transportation system emissions attendant to the FCTP and 2017-2020 TIP through the year 2050 were forecast through application of the Commission's fifth-generation travel and traffic simulation models under the year 2050 population, households, and employment forecasts and regional land use plan. Table 6 presents the forecast VMT attendant to forecast years of 2020 through 2050. The transportation plan projects incorporated in each forecast year were listed in Tables 3 (transit) and 1 (arterial street and highway).

The year 2017-2020 TIP is consistent with the FCTP and the plan's implementation schedule. All TIP projects, that is, projects with air quality impacts, are included in the plan. Also, the TIP includes all projects essential to implement the plan on schedule. The satisfaction of these two tests is demonstrated in Tables 1, 3, and 7.

Figure C.1
Proposed Conformity Analysis of the FCTP and 2017-2020 TIP with Respect to the 1997 8-hour Ozone NAAQS and Maintenance Plan

- **Years for Analysis [Years For Which Projection of Emissions Will Be Made For The Regional Transportation Improvement Program (TIP)/Transportation Plan (RTP)], Planning Assumptions and Forecasts, and Travel Simulation Models**

  - Proposed years are 2020, 2022, 2030, 2040, and 2050. Year 2050 emission projections will be based on SEWRPC intermediate demographic and economic growth forecasts from year 2050 regional land use plan.

  - Unless otherwise noted below, analysis will be using the same assumptions as the current conformity demonstration and determination documented in Commission Memorandum Report No. 223, *Assessment of Conformity of the Recommended Year 2050 Fiscally Constrained Transportation Plan and 2015-2018 Transportation Improvement Program*.

  - Emission projections will be based upon travel and traffic forecasts prepared from the Commission's current (5th Generation) travel simulation models—developed with 2011-2012 data and validated to the years 2001 and 2011 estimated actual vehicle miles of travel. These models and the attendant validation are documented in Commission Technical Report Number 51, *Travel Simulation Models of Southeastern Wisconsin*.

- **Emission Budget Tests for Conformity**

  - Six-County 1997 Ozone NAAQS maintenance area comprised of Kenosha, Milwaukee, Ozaukee, Racine, Washington, and Waukesha Counties

    - MOVES2010a based Budgets included in the 2011 update to the 8-hour ozone nonattainment area attainment demonstration and redesignation request. Years 2020, 2022, 2030, 2040 and 2050 TIP/FCTP VOC and NO_x emission forecasts must not exceed the 2015 and 2022 VOC and NO_x Budgets.

      - Nitrogen Oxides (NO_x)—51.22 tons for 2015 and 31.91 tons for 2022
      - Volatile Organic Compounds (VOC)—21.08 tons for 2015 and 15.98 tons for 2022

    - Emission estimates will be developed using the MOVES2014a model

- **National defaults will be used with the exception of the following localized input data:**

  - Age Distribution: to be provided by WDNR (Current as of 4/30/2018)
  - Average Speed Distribution: to be provided by SEWRPC
  - Fuels: to be provided by WDNR (Current as of 4/30/2018)
  - Inspection and Maintenance Program: to be provided by WDNR (Current as of 4/30/2018)
  - Meteorology: to be provided by WDNR (Current as of 9/6/2012)
  - Ramp: to be provided by SEWRPC
  - Road Type: to be provided by SEWRPC
  - Source Type Population: MOVES2014a county-level defaults updated by SEWRPC based on VMT estimates
  - Vehicle Type VMT: to be provided by WDNR (Current as of 4/25/2015) and updated by SEWRPC based on VMT Estimates
  - Month VMT Fraction: to be provided by WDNR (Current as of 9/6/2012)
  - Day VMT Fraction: to be provided by WDNR (Current as of 9/6/2012)
  - Hour VMT Fraction: to be provided by WDNR (Current as of 9/6/2012) and freeway data updated by SEWRPC

- **SEWRPC will run the MOVES2014a model to develop emission estimates and will provide WDNR copies of the MOVES run specifications, input files, and MOVES outputs with the draft conformity demonstration.**

Table C.1
Conformity Test of the FCTP and 2017-2020 TIP

Year	Forecast Pollutant Emission Tests (Tons)			
	VOC		NOx	
	Budget	Forecast	Budget	Forecast
2020	*21.08*	15.47	*51.22*	26.25
2022	*15.98*	13.39	*31.91*	21.50
2030	*15.98*	7.75	*31.91*	11.58
2040	*15.98*	5.97	*31.91*	9.04
2050	*15.98*	5.76	*31.91*	9.13

Source: SEWRPC.

Tables 1 and 3 list all projects with air quality impact proposed in the FCTP, along with the plan-recommended implementation schedule, and identifies the plan projects which are included in the year 2017-2020 TIP. Table 7 lists all projects with air quality impact, so-called "nonexempt" projects in the year 2017-2020 TIP and confirms that they are included in the FCTP and confirms that their schedule in the TIP is consistent with their schedule for project completion proposed in the FCTP.[1]

Table C.1 presents for the years 2020, 2022, 2030, 2040, and 2050 forecast VOC and NOx emissions from the transportation system within the six-county 1997 8-hour ozone NAAQS maintenance area under the FCTP and TIP, and compares the forecast emissions to the year 2015 and 2022 transportation system VOC and NOx MVEBs. In all cases, the FCTP and TIP forecast emissions are less than the emissions budgets in the maintenance plan. Thus, this conformity criterion is shown to be fully met for the 1997 8-hour ozone NAAQS by the FCTP and 2017-2020 TIP.

The U.S. Department of Transportation determination of conformity and interagency concurrence letters with respect to 1997 ozone NAAQS conformity demonstration are included as Figures C.2 through C.5.

[1] *All 2017-2020 TIP projects can be found at the Commission's TIP webpage (www.sewrpc.org/tip).*

Figure C.2
U.S. Department of Transportation Conformity Determination of the FCTP and TIP with Respect to the 1997 Ozone NAAQS

Federal Highway Administration
525 Junction Rd, Suite 8000
Madison, WI 53717-2157

Federal Transit Administration
200 W. Adams Street, Suite 320
Chicago, IL 60606-5232

May 21, 2018

Mr. Michael Hahn
Executive Director
Southeastern Wisconsin Regional Planning Commission
W239 N1812 Rockwood Drive
P.O. Box 1607
Waukesha, WI 53187-1607

Dear Mr. Hahn:

A recent court decision vacated several elements of the implementation rule for the 2008 Ozone National Ambient Air Quality Standard (NAAQS). Within Southeastern Wisconsin, the impact of this ruling is that conformity demonstrations and determinations will be required to resume for the six-county 1997 ozone maintenance area unless the Court reverses its decision. The outcome of the following process is that FHWA and FTA concur with the Southeastern Wisconsin Regional Planning Commission's (SEWRPC's) analysis that its current RTP and 2017-2020 TIP conform to Wisconsin's 1997 8-hour ozone NAAQS state implementation plan (SIP) for transportation conformity purposes.

By e-mail dated April 27, 2018 the Southeastern Wisconsin Regional Planning Commission (SEWRPC) initiated coordination to assess the current Vision 2050 regional transportation plan (RTP) and 2017-2020 transportation improvement plan (TIP) conformity with the 1997 ozone requirements. SEWRPC proposes amending the current conformity demonstration document (Commission Memorandum No. 223) for the 2008 ozone non-attainment and 2012 fine particulate maintenance area to include a demonstration of conformity with Wisconsin's 1997 8-hour ozone NAAQS state implementation plan (SIP) for transportation.

The Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) jointly received the Southeastern Wisconsin Regional Planning Commission's (SEWRPC's) analysis demonstrating that its current fiscally constrained RTP and 2017-2020 TIP conform with the 1997 8-hour ozone NAAQS. As there have not been any substantive changes to the RTP and 2017-2020 TIP since the last conformity determination (April 26, 2018), the conformity demonstration for the 1997 8-hour ozone NAAQS is based on the same assumptions and plan staging utilized to demonstrate the consistency of the RTP and TIP with respect to 2008 ozone and 2012 fine particulate NAAQS, which was completed in July 2016. Based on the information

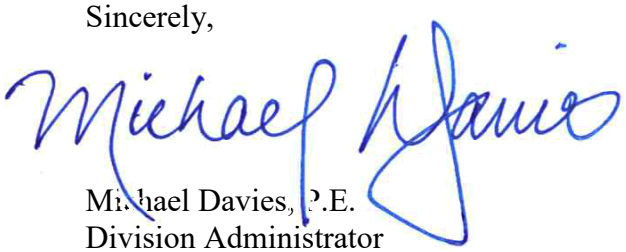
Figure C.2 (continued)

provided by SEWRPC and interagency consultation with the Wisconsin Department of Natural Resources, Wisconsin Department of Transportation and the U.S. Environmental Protection Agency, FHWA and FTA concur with SEWRPC's analysis that its current RTP and 2017-2020 TIP conform to Wisconsin's 1997 8-hour ozone NAAQS state implementation plan (SIP) for transportation conformity purposes.

This conformity finding is valid until conformity on the current RTP expires on July 28, 2020. A new air quality conformity determination will be required if either the RTP or TIP is modified by adding, removing, or changing the implementation schedule of a regionally significant or non-exempt project or if any other triggering events specified in 40 CFR 93.104 occur. Conformity can also lapse if the RTP or TIP is not updated within the required renewal period of four years.

Should you have any questions regarding this conformity finding, please contact Mitch Batuzich at (608) 829-7523.

Sincerely,



Michael Davies, P.E.
Division Administrator
On Behalf of the U.S. Department of Transportation
Federal Highway Administration
Federal Transit Administration

Figure C.3
U.S. Environmental Protection Agency Concurrence Letter

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAY 15 2018 REPLY TO THE ATTENTION OF

Michael Davies
Division Administrator
Federal Highway Administration - Wisconsin Division
525 Junction Road, Suite 8000
Madison, Wisconsin 53717

Dear Mr. Davies:

The U.S. Environmental Protection Agency (EPA) has completed its review of the conformity determinations for the 2017-2020 Transportation Improvement Program (TIP) and the 2050 Fiscally Constrained Transportation Plan (Plan) for the Milwaukee metropolitan area. The TIP and Plan was prepared by the Southeastern Wisconsin Regional Planning Commission (SEWRPC). This letter provides the results of our review of the conformity determinations.

The purpose of these conformity determinations was to address the recent decision from the United States Court of Appeals for the District of Columbia Circuit decision in South Coast Air Quality Management District v. EPA et al, issued on February 16, 2018. The Milwaukee metropolitan area was designated maintenance for the 1997 8-hour ozone standard, consisting of Kenosha, Milwaukee, Ozaukee, Racine, Washington, and Waukesha counties. In order to add new non-exempt projects to the TIP and Plan, in light of the court decision, SEWRPC would need to demonstrate conformity for the 1997 8-hour ozone standard.

EPA's MOVES2014a model generated emissions factors (EFs) which SEWRPC used for the regional analyses. These EFs were developed using the latest local transportation planning assumptions for this area. Emissions were calculated for the years 2020, 2022, 2030, 2040, and 2050. The Milwaukee metropolitan area TIP and Plan demonstrated consistency with all applicable conformity tests for the 1997 8-hour ozone standard.

If you have any questions, feel free to contact Michael Leslie of my staff, at (312) 353-6680.

Sincerely yours,

Pamela Blakley

Pamela Blakley
Chief
Control Strategies Section

Figure C.4
Wisconsin Department of Transportation Concurrence Letter

Wisconsin Department of Transportation
www.dot.wisconsin.gov

Scott Walker
Governor

Dave Ross
Secretary

Division of Transportation System Development
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P O Box 7965
Madison, WI 53707-7965
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Fax: 608-264-6667
E-Mail: DOTDTSDDivision-Office@dot.wi.gov

May 15, 2018

Mr. Michael Davies
Division Administrator
Federal Highway Administration
525 Junction Road Suite 8000
Madison, WI 53717

Subject: Southeastern Wisconsin Regional Planning Commission's (SEWRPC's) Transportation Conformity Determination of the Year 2050 Transportation Plan and Year 2017-2020 Transportation Improvement Program with Respect to the 1997 Eight-Hour Ozone National Ambient Air Quality Standards (NAAQS)

Dear Mr. Davies:

Based on the April 23, 2018 Federal Highway Administration/Federal Transit Administration joint interim guidance issued in response to the recent court decision in *South Coast Air Quality Management District v. EPA,* SEWRPC, in consultation with the Interagency Conformity Workgroup, conducted a transportation conformity demonstration of the year 2050 fiscally constrained regional transportation plan (RTP) and implementing 2017-2020 transportation improvement program (TIP) for the Kenosha-Milwaukee-Racine urbanized area with respect to the 1997 8-hour ozone NAAQS to avoid any disruption in its transportation planning activities in Southeastern Wisconsin.

As SEWRPC correctly indicates, the conformity test for its RTP and TIP conformity determination requires that the transportation system emissions forecasts under the Plan and TIP are consistent with (i.e., equal to or less than) the motor vehicle emissions budgets in the maintenance plan for the six-county maintenance area for the 1997 8-hour ozone NAAQS and the 2011 update to the 1997 8-hour nonattainment area re-designation request and maintenance plan.

We have reviewed SEWRPC's approach to and results of the analysis. From the data, analysis, and information SEWRPC presents, we are concluding that the conformity analysis of its fiscally constrained RTP and implementing TIP demonstrates consistency with the emissions budgets for the 6-county maintenance area with respect to the 1997 8-hour ozone NAAQS. With this conclusion, we are hopeful that we can move forward with the transportation planning process for the area without any undue disruption.

Should you have any questions regarding our conclusion, feel free to contact Patricia Trainer at (608) 264-7330.

Sincerely,

Scott J. Lawry, P.E., Director
Bureau of Technical Services

CC: William Wheeler, FTA
Evan Gross, FTA
Michael Batuzich, FHWA
Bethaney Bacher-Gresock, FHWA
Mary Forlenza, FHWA
Michael Leslie, USEPA Region 5
Gail Good, WDNR
Christopher Hiebert, SEWRPC
Aileen Switzer, WisDOT

Figure C.5
Wisconsin Department of Natural Resources Concurrence Letter

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
101 S. Webster Street
Box 7921
Madison WI 53707-7921

Scott Walker, Governor
Daniel L. Meyer, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

May 7, 2018

Mr. John Mooney
U.S. Environmental Protection Agency - Region 5
Mail Code: AR-18J
Chicago, IL 60604-3507

Subject: Review of Southeastern Wisconsin Regional Planning Commission's Transportation Conformity Determination for the Year 2050 Recommended Fiscally Constrained Regional Transportation Plan (RTP) and 2017-2020 Transportation Improvement Program (TIP)

Dear Mr. Mooney:

On April 23, 2018, in response to the recent court decision in *South Coast Air Quality Management District v. EPA,* the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) published joint interim guidance on conformity requirements associated with the 1997 ozone NAAQS. The joint FHWA/FTA guidance determined that new RTP and TIP updates and amendments that include non-exempt projects may not proceed until transportation conformity with the 1997 ozone NAAQS has been determined.

The Wisconsin Department of Natural Resources (WDNR) has reviewed the Southeastern Wisconsin Regional Planning Commission's (SEWRPC's) transportation conformity determination for the year 2050 recommended fiscally constrained RTP and the 2017-2020 TIP for the Kenosha-Milwaukee-Racine urbanized area. WDNR's assessment is that the recommended fiscally constrained RTP and TIP conform to Wisconsin's 1997 8-hour ozone national ambient air quality standard (NAAQS) state implementation plan (SIP) for transportation conformity purposes.

Wisconsin supplemented its original redesignation request for the 1997 8-hour ozone NAAQS for this area on November 16, 2011; this submittal established updated motor vehicle emission budgets (MVEBs) for oxides of nitrogen (NO_x) and volatile organic compounds (VOCs). EPA approved the redesignation request for the 1997 8-hour ozone NAAQS and the associated MVEBs for transportation conformity purposes on July 31, 2012 (77 FR 45252). SEWRPC's analysis indicates that the recommended fiscally constrained 2050 RTP and 2017-20 TIP forecast emissions will remain within these MVEBs.

Should you have any questions or comments concerning our review of this conformity determination, please contact Mike Friedlander of my staff at (608) 267-0806.

Sincerely,

Gail E Good

Gail Good
Director
Air Management Program

Figure C.5 (continued)

cc: Aileen Switzer/WisDOT
Donna Brown-Martin/WisDOT
Pat Trainer/WisDOT
Michael Batuzich/FHWA
William Wheeler/FTA-Chicago
Michael G. Leslie/USEPA-Region V
Michael G. Hahn/SEWRPC
Christopher Hiebert/SEWRPC