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MEMORANDUM REPORT NUMBER 240

ASSESSMENT OF CONFORMITY OF THE FISCALLY CONSTRAINED TRANSPORTATION PLAN AND TRANSPORTATION IMPROVEMENT PROGRAM

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INTRODUCTION

This report provides the basis for a determination that the recommended year 2050 fiscally constrained transportation plan¹ (FCTP) and also the year 2019-2022 transportation improvement program (TIP) are in conformance with the 1997, 2008, and 2015 eight-hour ozone, and the 2006 24-hour fine particulate ($PM_{2.5}$) national ambient air quality standards (NAAQS). Map 1 shows the nonattainment and maintenance areas within Southeastern Wisconsin. The report also demonstrates that the year 2019-2022 TIP will serve to implement the FCTP.²

The U.S. Environmental Protection Agency (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 for regional transportation plans (RTP) and TIPs. The Southeastern Wisconsin Regional Planning Commission (SEWRPC) is the gubernatorially-designated Federal MPO for the Kenosha, Milwaukee, Racine, and West Bend urbanized areas, and the Wisconsin portion of the Round Lake Beach urbanized area. 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 that should be applied at this time with respect to the ozone and fine particulate nonattainment and maintenance areas designated within Southeastern Wisconsin (shown on Map 1).

In addition to the Federal regulations governing the RTP and TIP conformity, SEWRPC, the Wisconsin Department of Natural Resources (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. Figure 1 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. As described in Figure 1, the conformity criteria to be applied to 1997, 2008, and 2015 eight-hour ozone, and the 2006 24-hour PM_{2.5} nonattainment and maintenance areas require the satisfaction of emissions budget tests described in 40 CFR 93.118.

The next section of this report describes the FCTP for the seven-county Southeastern Wisconsin Region. The following section summarizes the 2019-2022 TIP that implements the plan. The remaining sections of this report then identify the specific conformity procedure requirements and conformity determination criteria that 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 2019-2022 TIP are in conformance with the state implementation plan (SIP) or maintenance plan attendant to each of the nonattainment or maintenance areas within the Region.

It is important to note that VISION 2050, FCTP, TIP, maintenance plans, and SIPs have been prepared in a cooperative manner by the Commission and WDNR. The preparation of VISION 2050 and the attendant FCTP, SIPs, and maintenance plans have 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 adopted Commission intermediate growth forecasts for the year 2050, and the forecasts of emissions attendant to the each SIP or maintenance plan were based on alternative high growth VMT and emissions forecasts

¹ An important aspect attendant 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 is used in the determination of conformity and in the development of the transportation improvement program.

² 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 2019-2022 Transportation Improvement Program is documented in a report entitled, A Transportation Improvement Program for Southeastern Wisconsin: 2019-2022.

Map 1 NAAQS Nonattainment/Maintenance Areas within Southeastern Wisconsin



Figure 1 Proposed Conformity Analyses of the Fiscally Constrained Transportation Plan and Year 2019-2022 Transportation Improvement Program

	A	Analysis Year	s and Bu	dgets by	Nonattai	nment/N	laintenar	nce Area		
Nonattainment/				Plan Sta	age and E	Budgets t	o be Use	d (tons)		
Maintenance Area	Month	Emission	2018	2020	2022	2025	2030	2040	2050	NAAQS Budgets Used
6-County 1997 Ozone	July	NOx		51.220	31.910		31.910	31.910	31.910	2015 and 2022 budgets
NAAQS Maintenance Area		VOC		21.080	15.980		15.980	15.980	15.980	attendant to the 1997 Ozone NAAQS
Partial Kenosha County	July	NOx	2.750			2.750	2.750	2.750	2.750	2018 budgets attendant
2008 Ozone Nonattainment Area		VOC	1.440			1.440	1.440	1.440	1.440	to the 2008 Ozone NAAQS
Partial Kenosha County	July	NOx	2.750			2.750	2.750	2.750	2.750	2018 budgets attendant
2015 Ozone NAAQS Nonattainment Area		VOC	1.440			1.440	1.440	1.440	1.440	to the 2008 Ozone NAAQS
Northern Milwaukee/	July	NOx		51.220	31.910		31.910	31.910	31.910	2015 and 2022 budgets
Ozaukee Shoreline 2015										attendant to the 1997
Ozone NAAQS		VOC		21.080	15.980		15.980	15.980	15.980	Ozone NAAQS
Nonattainment Area										
Three-County Fine	January	NOx		32.620		28.690	28.690	28.690	28.690	2020 and 2025 budgets
Particulate Maintenance		VOC		18.274		13.778	13.778	13.778	13.778	attendant to the 2006
Area		PM _{2.5}		2.330		2.160	2.160	2.160	2.160	PM _{2.5} NAAQS
		SO ₂		0.390		0.380	0.380	0.380	0.380	

	MC	VES2014a Inputs	
Source	Moves Input	Last Updated	Notes
WDNR	Age Distribution	6/18/2018	Updated by SEWRPC based on VMT Estimates
	Vehicle Type VMT	4/25/2015	
	Month VMT Fraction	9/6/2012	
	Day VMT Fraction	9/6/2012	
	Non-Freeway Hour VMT Fraction	9/6/2012	
	Fuels	4/30/2018	
	Inspection and Maintenance Program	10/11/2018	
	Meteorology	9/6/2012	
SEWRPC	Average Speed Distribution	Updated at Time	Provided as an Output to the Scenario being
	Freeway Hour VMT Fraction	of Conformity	Modeled using the Commission's current 5th
	Ramp	Demonstration	Generation Travel Demand Model.
	Road Type		
	Source Type Population		MOVES2014a county-level defaults updated based
			on VMT estimates

Note: National defaults will be used with the exception of the above localized input data.

Conformity Analysis Notes

Commission staff will provide WDNR staff with MOVES2014a input and output databases and run specification files attendant to this conformity demonstration.

Source: SEWRPC

under the applicable Commission plan in force at that time, 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 vehicle fleet turnover and Tier 3 motor vehicle and low sulfur fuel regulations. The MOVES model inputs that were used to establish the transportation emission budgets in the PM_{2.5} maintenance plan also accounted 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 that can be implemented within expected funds. 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 that 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.

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 rebuilding as is, various options of rebuilding to modern design standards, compromises to rebuilding to modern design standards, rebuilding with additional lanes, and rebuilding with the 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.

The arterial highway capacity improvement and expansion recommendations included in the FCTP are shown on 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 2018, 2020, 2022, 2025, 2030, 2040, and 2050 are identified. Table 2 summarizes the mileage of system improvement and expansion anticipated to be implemented at each of the identified stages of plan implementation. 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

Map 2 Arterial Streets and Highways: Fiscally Constrained Transportation Plan



Table 1

Year Open	ļ	Improvement _			:
to Traffic	County	Type	Facility	Termini	Description
2020	Kenosha	Expansion	CTH F extension	CTH O to 89th Street	Construct two lanes on new alignment
		Widening	104th Avenue	64th Street to STH 158	Widen from two to four traffic lanes
			CTH S	CTH H to STH 31	Widen from two to four traffic lanes
			CTH S	E Frontage Road to CTH H	Widen from two to four traffic lanes
			STH 165 (104th Street)	IH 94 to Prairie Springs Park	Widen from two to four traffic lanes
	Racine	Expansion	International Drive	Hoods Creek to STH 11	Construct four lanes on new alignment
			Wisconn Valley Way	STH 11 to CTH KR	Construct four lanes on new alignment
		Widening	Braun Road	S Sylvania Ave to CTH H	Widen from two to six traffic lanes
			CTH H	CTH KR to Braun Road	Widen from two to four traffic lanes
			СТН Н	Braun Road to Venice Avenue	Widen from two to four traffic lanes
			CTH KR	East Frontage Road to CTH H	Widen from two to six traffic lanes
			STH 11	Wisconn Valley Way to International Drive	Widen from four to seven traffic lanes
			STH 11	International Drive to CTH H	Widen from four to five traffic lanes
			STH 11	SE Service Road to Wisconn Valley Way	Widen from four to ten traffic lanes
			STH 20/83 (W. Main Street)	Buena Park Road to First Street	Widen from two to four traffic lanes
	Waukesha	Widening	Calhoun Road	North Avenue to STH 190 (Capitol Drive)	Widen from two to four traffic lanes
2022	Kenosha	Widening	IH 94	STH 142 to CTH KR	Widen from six to eight traffic lanes
			STH 50	IH 94/USH 41 to 43rd Avenue	Widen from four to six traffic lanes
	Milwaukee	Widening	IH 41/USH 45	North Leg of Zoo Interchange	Interchange reconstruction and modernization
			IH 94/USH 41	CTH G to CTH BB	Widen from six to eight traffic lanes
	Racine	Widening	IH 94	CTH KR to CTH K	Widen from six to eight traffic lanes
			IH 94	CTH K to CTH G	Widen from six to eight traffic lanes
			Braun Road	CTH H to 90th Street	Widen from two to four traffic lanes
			CTH KR	CTH H to Old Green Bay Road	Widen from two to four traffic lanes
			STH 11	56th Road to S Sylvania Ave	Widen from two to four traffic lanes
	Waukesha	Widening	CTH M (North Avenue)	Lilly Road to 124th Street	Widen from two to four traffic lanes
			CTH M (North Avenue)	Pilgrim Road to 147th Street	Widen from two to four traffic lanes
			CTH M (North Avenue)	Calhoun Road to Pilgrim Road	Widen from two to four traffic lanes
			СТН ТТ	USH 18 (Summit Avenue) to CTH D (Sunset Drive)	Widen from two to four 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
	Milwaukee	Widening	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

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

Project included in 2019-2022 Transportation Improvement Program

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Table 1 (C	ontinued)				
Year Open to Traffic	County	Improvement Type	Facility	Termini	Description
2025	Ozaukee	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	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
			W Market Street extension	CTH H to Voss Road	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	стн ү	STH 175 to USH 41/45	Widen from two to four traffic lanes
			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	CTH M (North Avenue)	Brookfield Road to Calhoun Road	Widen from two to four traffic lanes
			CTH M (North Avenue)	Barker Road to Brookfield Road	Widen from two to four traffic lanes
2030	Kenosha	Widening	СТН Н	CTH S to STH 50	Widen from two to four traffic lanes
			СТН Н	CTH C to STH 50	Widen from two to four traffic lanes
			CTH K	104th Street to CTH H	Widen from two to four traffic lanes
			CTH K	IH 94 to 115th Avenue	Widen from two to four traffic lanes
			STH 158 (52nd Street)	IH 94 to 95th Street	Widen from two/four to six traffic lanes
			STH 158 (52nd Street)	STH 31 to 95th Avenue	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	Silver Spring Drive to STH 60	Widen from four to six traffic lanes
			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
		Widening	STH 32	STH 31 to Milwaukee County Line	Widen from two to four traffic lanes
			STH 32	Five Mile Road to STH 31	Widen from two to four traffic lanes
	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
					Table continued on next page.

Year Open to Traffic		Improvement Tvne	Eacility	Termini	Description
	Workington	Evenancian	Monto Avenue automion	Monton Attonto to Dond Dond	
2030	wasnington	Expansion	ivionroe Avenue extension	Monroe Avenue to Pona Koaa	Construct two lanes on new alignment
			Wacker Drive extension	Lee Road to Monroe Avenue	Construct two lanes on new alignment
		Widening	СТН Ү	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 STH 190	Widen from two to four traffic lanes
			СТН Ү	North Avenue to USH 18	Widen from two to four traffic lanes
			СТН Ү	STH 59/164 to Hickory Trail	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	30th Avenue	CTH E to 15th Street	Widen from two to four traffic lanes
			CTH C	CTH U to West Frontage Road	Widen from two to four traffic lanes
			CTH C	East Frontage Road to 104th Street	Widen from two to four traffic lanes
			СТН Н	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	43rd Avenue to 39th Avenue	Widen from four to six traffic lanes
	Milwaukee	Widening	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	Drexel Avenue to STH 36	Widen from two to four traffic lanes
			USH 45/STH 100	Rawson Avenue to Drexel Avenue	Widen from four to six traffic lanes
	Ozaukee	Expansion	Cedar Creek Road	CTH O to East Cedar Creek Road	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

Year Open to Traffic	County	Improvement Tvna	Eacility	Termini	Description
0700	Decise	-yr-	CTILV automica	Daitton Dood to 100th Street	Construct two losses on some elisament
2040	Racine	Expansion		Britton Koad to Tugth 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	STH 28 to USH 45	Construct two lanes on new alignment
			Kettleview Road extension	CTH H to STH 28	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
	Waukesha	Expansion	CTH KE realignment	CTH K to 800 feet north	Construct two lanes on new alignment
		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
			СТН Ү	CTH L to College 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 North Avenue	Widen from two to four traffic lanes
			Pilgrim Road	CTH K (Hampton Avenue) to STH 190 (Capitol Dirve)	Widen from two to four traffic lanes
			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	STH 16 to CTH Y (Barker Road)	Widen from four to six traffic lanes
			STH 190	CTH Y (Barker Road) to Brookfield Road	Widen from four to six traffic lanes
			STH 67	CTH DR to USH 18	Widen from two to four 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
			Lichter Road	E Frontage Road to 100th Ave	Construct two lanes on new alignment
	Milwaukee	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
			IH 94	70th Street to 16th Street	Widen from six to eight traffic lanes
	Ozaukee	Widening	CTH W	Lakeland Road to Highland Road	Widen from two to four traffic lanes

Table 1 (Continued)

Year Open		Improvement			
to Traffic	County	Type	Facility	Termini	Description
2050	Racine	Expansion	Four and a Half Mile Road	STH 32 to Erie Street	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
	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 Drive extension	Reddelien Road to Capitol Drive	Construct two lanes on new alignment
			Lake Drive extension	Yosemite Road 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	Sunset Drive to Arcadian Avenue	Widen from six to eight traffic lanes
			STH 59	CTH XX to Sunset Drive	Widen from four to six lanes
			STH 83	STH 59 to CTH X	Widen from two to four traffic lanes

Table 1 (Continued)

Source: SEWRPC

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



Note:

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

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. N



Table 2Implementation Schedule for the Arterial Street and Highway ElementCapacity Improvement and Expansion: 2020-2050

		Pro	posed Inci	remental A	rterial Sys	tem	
		Impr	ovement a	nd Expans	ion Route	Miles	
Southeastern Wisconsin Region	2020	2022	2025	2030	2040	2050	Total
State Trunk Highway	7	41	44	84	121	135	432
County and Local Trunk Highway	15	19	32	65	108	133	372
Total Regional Arterial System	22	60	76	149	229	268	804

Source: SEWRPC

quantified via 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, of VISION 2050, 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 insufficient funding levels with respect to transit, and based on reasonably expected revenues, the FCTP includes a decline of approximately 12 percent from 2014 service levels of 60,400 vehicle-miles of transit service to 53,200 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 that are included in the FCTP.

The implementation schedule for the FCTP identifies the elements of the transit plan that should be available for use at each of the implementation stages used to demonstrate conformity. Though Figure 2 shows an increase in transit service levels after 2015, this increase is attributed to transit service improvements provided as part of the Zoo Interchange project that are not expected to continue beyond the year 2018. As shown in Figure 2 and Table 3, the year 2050 transit plan element implementation schedule anticipates that the 12 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 53,200 vehicle miles of service by 2050. In addition to the expected declines in existing transit service, the FCTP includes the City of Milwaukee streetcar project operation beginning by the year 2020 and Milwaukee County BRT line operation beginning by the year 2022.

2019 THROUGH 2022 TRANSPORTATION IMPROVEMENT PROGRAM (TIP) FOR SOUTHEASTERN WISCONSIN

The 2019-2022 TIP for Southeastern Wisconsin is documented in the SEWRPC report entitled, *A Transportation Improvement Program for Southeastern Wisconsin: 2019-2022*. 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, and West Bend urbanized areas, and the Wisconsin portion of the Round Lake Beach urbanized area. The TIP also includes both arterial highway and public transit projects that receive Federal assistance and projects that 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 a more complete picture of proposed arterial highway and public transit improvements. The continuation of the preparation of such

Map 4 Transit Services: Fiscally Constrained Transportation Plan



Figure 2 Historic and Planned Vehicle-Miles of Public Transit Service Under the Fiscally Constrained Transportation Plan



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

Year	Description
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
2022	 Transit service reduced to approximately 58,700 vehicle miles of service on an average weekday, maintain transit service area. 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 53,200 vehicle miles of service on an average weekday, maintain transit service area.

^a Project included in the 2019-2022 Transportation Improvement Program

Source: SEWRPC

a comprehensive TIP for Southeastern Wisconsin permits a comprehensive evaluation of transportation improvements with respect to air quality impacts.³ 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 needed to implement 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 FCTP AND TIP

This section of the report demonstrates the conformity of the FCTP and 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 assessments. This conformity demonstration is for the 1997, 2008, and 2015 eight-hour ozone, and the 2006 24-hour PM_{2.5} nonattainment and maintenance areas shown on Map 1.

³ All TIP projects with potential impact on air quality, or "nonexempt" projects, are listed later in this report in Table 5.

Conformity Determination Procedural Requirements

The procedures to determine conformity set forth in the *Federal Register* (40 CFR Parts 51⁴ and 93⁵) 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, and West Bend urbanized areas, and the Wisconsin portion of the Round Lake Beach urbanized area 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 that 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 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 2018, 2020, 2022, 2025, 2030, 2040 and 2050. The population, household, and employment data at regional and subregional levels for the intermediate implementation stages of the plan have been projected by interpolating 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, nonattainment area, and maintenance area level forecasts for population, households, and employment are set forth in Figure 3.

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 that 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 is 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 are expected to have little impact on VMT, accounting for less than 0.1 percent variation in annual growth. Variations in regional economic growth and substantial changes in the perceived cost of automobile use may be expected to each account for about 0.5 percent variation in growth annually.

The determination of conformity utilizes the travel simulation models that have been maintained, refined, and validated by the Commission since the 1960s. These travel simulation models have been employed in the preparation of the RTP and for the motor vehicle emissions forecasts for the SIPs and Maintenance Plans developed by the WDNR. These models and their validation are described in SEWRPC Technical Report No. 51, *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 U.S. Census Bureau 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.

⁴ As amended through October 18, 2016

⁵ As amended through March 14, 2012





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 demonstration was completed in July 2016 on the year 2050 FCTP and the 2015-2018 TIP. Conformity determinations have been made nine times using the July 2016 demonstration. Since July 2016, transit fares have remained essentially unchanged and though service levels have increased due to the Zoo Interchange transit routes, the funding is for three years and they are expected to be discontinued or to be absorbed within the background service levels. The last conformity demonstration of the FCTP and TIP— completed in July 2016—projected that transit service levels measured in vehicle-miles of service would decline 11 percent to the year 2050 and transit fares would increase at the rate of 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. As the fiscal environment for transit is unchanged since the last demonstration, this analysis is based on these same assumptions.

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 (81 FR 8654). 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 for the years 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 demonstration is based upon the Commission's adopted intermediate growth year 2050 forecasts under the FCTP with an attendant 0.9 percent annual increase in vehicles miles travel from the year 2011 to the year 2018, an 0.5 percent annual increase from 2018 to 2025, an 0.5 percent annual increase from 2030 to 2040, and an 0.5 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 2018, 2020, 2022, 2025, 2030, 2040 and 2050 in this conformity analysis are presented in Table 4. This conformity analysis utilizes the June 2018 update to the vehicle fleet age distribution, which is summarized in Figure 4, and assumes implementation of, and credit for, Tier 3 motor vehicle standards and low sulfur gasoline regulations. The conformity analysis accounts for vehicle fleet turnover and its impact on reducing emissions.

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 the FCTP has involved significant interagency and public consultation, including, specifically, such consultations with respect to air quality impacts and the implications for conformity of the new plan and its alternatives. The 2019-2022 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. Potential model enhancements suggested by the peer review panel were considered and incorporated, as appropriate, during the development of the fifth-generation travel simulation models.⁶ 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 included 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 groups 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 that present the comments received on the plan and its social, economic, and environmental impacts, and the consideration and response to the public comment.

State, county, and municipal governments have also been directly involved in the preparation of the 2019-2022 TIP through their submittal of projects for inclusion in the TIP and their consideration and approval of the TIP.

⁶ The peer review of the fourth-generation travel demand models are documented in Chapter 3 of SEWRPC Technical Report 51, Travel Simulation Models of Southeastern Wisconsin.

Table 4 Assumptions Associated with the MOVES2014a Emissions Estimating Model

		8-Hour Ozone and Fine Particulate Nonattainment and Maintenance Areas
	Category	2018, 2022, 2025, 2030, 2040, and 2050
	Gasoline	MOVES Default
uts	Diesel	MOVES Default
n Fr	Compressed Natural Gas	MOVES Default
_	Ethanol (E85)	MOVES Default
	Fuel Type Tested	Gasoline
	Inspection Frequency	Biennial
	Tests Conducted	Exhaust and Evaporative On-Board Diagnostic Check
5	Passenger Cars (All Model Years)	
Ĩ	Model Years Tested	1996 to Modeled Stage Less 3 Years ^a
<u> </u>	Compliance Factor	84 1%
E	Passenger Trucks	
gra	Pre-2007 Model Years	
Pro	Model Vears Tested	1996 to 2006
9	Compliance Factor	82.4%
an	2007 and later Model Vears	02.470
ten	Model Vears Tested	2007 to Modeled Stage Less 3 Vears ^a
ain	Compliance Factor	8/ 1%
Σ	Light Commercial Trucks	07.170
O	Pre-2007 Model Vears	
ect	Model Years Tosted	1006 to 2006
sb	Compliance Eactor	77 4%
-	2007 and later Model Vears	11.70
	Model Vears Tested	2007 to Modeled Stage Less 3 Vears ^a
	Compliance Factor	
	Meteorological Inputs	04.170
	Range of Hourly Temperature	Ozono: 70.0 to 04.0°E/Eine Darticulato: 14.4 to 20.0°E
	Range of Hourly Temperature	Ozone: 70.0 to 94.0 F/Fine Particulate: 70.0 to 90.0
	Month Modeled	
	VMT by Hour of the Day	
	VMT by Vobicle Class	
	Average Speed Distribution	
	Average speed Distribution	SEWRPC/WDINK
	Materry ales	
	Passanger Cars	WDNR
	Passenger Trucks	WDNR
nts	Light Commercial Trucks	WDNR
dul	Intercity Buses	WDNR
ler	Transit Buses	WDNR
ŧ	School Buses	WDNR
-	Befuse Truck	WDNR
	Single Unit Short-haul Trucks	WDNR
	Single Unit Long-baul Trucks	MOVES Default
	Motor Homes	WDNR
	Combination Short-haul Trucks	WDNR
	Combination Long baul Trucks	MOVES Default
	Vehicle Population	
	Pood Type Distribution	
	Pamp Fraction	
	Annual Mileage Accumulation	MOVES Default

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

^a For 2018 the range of model years tested would be through 2015, for 2020 the range of model years tested would be through 2017, for 2022 the range of model years tested would be through 2019, 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





Source: USEPA, WDNR, and SEWRPC

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 (SIP, maintenance plan, or early progress plan). There are no transportation control measures included in the SIPs or maintenance plan for the nonattainment areas within Southeastern Wisconsin.

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 that 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.⁷ 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 1) the total existing transit system, including the existing local, express (the only exception being Milwaukee County Freeway Flyer Service) and rapid transit system components, 2) an expected 12 percent reduction in 2014 local and express service levels and maintenance of the geographic coverage of the existing transit systems, and 3) the planned construction and operation of Phase I, the Lakefront Extension, and the Arena Extension of the City of Milwaukee streetcar and 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 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 Federallyrequired 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 was designed to serve and promote implementation of the development pattern envisioned for the year 2050, and the land use component was designed to support the transit recommendations envisioned in the transportation system component, through increased development densities proximate to the proposed rapid transit lines. Because the projects included in the FCTP come out of 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).⁸ Specifically, the travel simulation modeling analysis for this conformity determination incorporates all planned highway capacity improvements and expansion for all arterial

⁷ 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 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 rebuilding as is, various options of rebuilding to modern design standards, compromises to rebuilding to modern design standards, rebuilding with additional lanes, and rebuilding with the 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.

⁸ 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 fourthgeneration 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. 51, entitled Travel Simulation Models of Southeastern Wisconsin. 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 that 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 4, of SEWRPC Technical Report No. 51, *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 simulation models. The resulting fifth-generation travel simulation models were reviewed by the Commission's Advisory Committee on Regional Land Use and Transportation 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 (6:00 a.m. to 9:00 a.m.), Midday (9:00 a.m. to 2:30 p.m.), PM (2:30 p.m. to 6:00 p.m.), and Night (6:00 p.m. to 6:00 a.m.). 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 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 historical 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 their 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 4 of Technical Report No. 51. Also, as previously noted the FCTP-based annual growth in VMT is between 0.9 and 0.5 percent to the year 2050, which is less than the historical growth rates, but consistent with the trend of declining VMT growth rates since the 1960s.⁹

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

⁹ 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.

and development distribution. The analyses indicate off-network travel 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 No. 55, *VISION 2050: A Regional Land Use and Transportation Plan for Southeastern Wisconsin*. These forecasts anticipate more moderate 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) established for each of the nonattainment and maintenance areas within Southeastern Wisconsin. A description of the source of the conformity demonstration budgets is provided in Figure 1 and in more detail below:

• 1997 8-Hour Ozone NAAQS maintenance Area

With respect to the six-county area, the demonstration of conformity was established using the budget test. The budgets to be utilized were established in the maintenance plan for the 1997 8-hour ozone NAAQS submitted to USEPA in 2011, which established VOC and NO_x MVEB's for 2015 and 2022 (77 FR 6727).

• Wisconsin portion of the Chicago-Naperville, IL-IN-WI Moderate 2008 8-Hour Ozone NAAQS Nonattainment Area

With respect to the Wisconsin portion of the Chicago-Naperville, IL-IN-WI moderate nonattainment area, the demonstration of conformity was established using the budget test. The budgets to be utilized were established in the attainment plan for the 2008 8-hour ozone NAAQS submitted to USEPA in April 2017 that established VOC and NO_x MVEB's for 2017 and 2018. Adequacy of the submitted budgets was determined by USEPA effective November 15, 2017 (82 FR 50418).

Wisconsin portion of the Chicago, IL-IN-WI Margingl 2015 8 Hour Orang NAAOS Nongttaine

Marginal 2015 8-Hour Ozone NAAQS Nonattainment Area

With respect to the Wisconsin portion of the Chicago-Naperville, IL-IN-WI moderate nonattainment area, the demonstration of conformity was established using the budget test. As budgets attendant to the 2015 ozone nonattainment areas have not been established, and this nonattainment area is entirely within the 2008 ozone nonattainment area, the budget test will use the VOC and NO_x MVEB's established in the attainment plan for the 2008 8-hour ozone NAAQS submitted to USEPA in April, 2017. Adequacy of the submitted budgets was determined by USEPA effective November 15, 2017 (82 FR 50418).

• Northern Milwaukee/Ozaukee Shoreline, WI Marginal 2015 8-Hour Ozone NAAQS Nonattainment Area

With respect to the Northern Milwaukee/Ozaukee Shoreline, WI moderate nonattainment area, the demonstration of conformity was established using the budget test. As budgets attendant to the 2015 ozone nonattainment areas have not been established, and this nonattainment area is entirely within the 1997 ozone maintenance area the budget test will use the VOC and NO_x MVEB's established in the maintenance plan for the 1997 8-hour ozone NAAQS submitted to USEPA in 2011 (77 FR 6727).

• 2006 24-hour PM₂₅NAAQS maintenance Area

With respect to the 2006 24-hour $PM_{2.5}$ NAAQS maintenance area, the demonstration of conformity was established using the budget test. The budgets to be utilized were established in the attainment demonstration submitted to USEPA in June 2012 that 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 (81 FR 8654).

The transportation system emissions attendant to the FCTP and 2019-2022 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. Figure 5 presents the forecast VMT attendant to the forecast years 2018 through 2050. The transportation plan projects incorporated in each forecast year are listed in Tables 3 (transit) and 1 (arterial street and highway).

The 2019-2022 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 5.

Tables 1 and 3 list all projects with air quality impacts proposed in the FCTP, along with the plan-recommended implementation schedule, and they identify the plan projects that are included in the TIP. Table 5 lists all projects with air quality impact, so-called "nonexempt" projects in the TIP, 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.¹⁰

Table 6 presents the forecast emissions from the transportation system within the five nonattainment and maintenance areas under the FCTP and 2019-2022 TIP, and compares the forecast emissions to the MVEBs attendant to each. In all cases, the FCTP and TIP forecast emissions are less than the emissions budgets. Thus, this conformity criterion is shown to be fully met for the 1997, 2008, and 2015 ozone, and 2006 24-hour PM_{25} NAAQS by the FCTP and 2019-2022 TIP.

Figure 5 Speed Distribution of Average Weekday Vehicle Miles of Travel Within Southeastern Wisconsin: 2018-2050



Note: The vehicle miles of travel set forth in this figure 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.

Source: SEWRPC

Table 5	
Nonexempt Projects Included in the 2019-202	2 Transportation Improvement Program

		PROJECT					ESTIMA	TED COSTS (\$	1,000)			AIR
PROJECT SPONSOR	NO	DESCRIPTION / STATE	ID	TYPE			2019	2020	2021	2022	REMAINING	QUAL STAT
STATE OF					DETAIL	PE	720.0					
WISCONSIN	46	41 FROM SWAN BLVD TO BURL	EIGH ST	HI	COSTS	ROW						NON-
		TO PROVIDE EIGHT TRAFFIC LAI	NES IN			CONST					8,567.9	EXEMPT
		MILWAUKEE COUNTY (2.07 MI)				OTHER						
	(400)					TOTAL	720.0				8,567.9	
	()				SOURCE	LOCAL						
					OF FUNDS	STATE	720.0					
						FEDERAL						
		8009396 201	10-14-00			TOTAL	720.0					
	47	RECONSTRUCTION WITH ADDIT	TIONAL		DETAIL	PE			5,100.0	27,700.0		
	47	TRAFFIC LANES OF IH 94 (EAST-	WEST	ні	COSTS	ROW				27,000.0		NON-
		FREEWAY) FROM 70TH ST TO 10	6TH ST			CONST						EXEIVIF I
		IN THE CITY OF MILWAUKEE (3.)	5 MI)			OTHER			10,000.0	13,000.0		
	(44)					TOTAL			15,100.0	67,700.0		
					SOURCE	LOCAL						
					OF FUNDS	STATE			15,100.0	67,700.0		
						FEDERAL					-	
		8009698			TOTAL			15,100.0	67,700.0			
	40	RECONSTRUCTION WITH ADDIT	TIONAL		DETAIL	PE						
	40	TRAFFIC LANES OF IH 94 FROM	THE	ні	COSTS	ROW						NON-
		ILLINOIS STATE LINE TO THE MI				CONST		13,213.9				LALIVIT
		AND KENOSHA COUNTIES (32 5	RACINE,			OTHER	3,405.6	450.0				
	(45)	AND RENOSTIA COUNTED (52.5	,0 1011)			TOTAL	3,405.6	13,663.9				
						LOCAL	8.0					
					OF FUNDS	STATE	2,178.6	13,663.9				
		8000076			NHPP	TOTAL	1,219.0	12 662 0				
		8000078				TOTAL	5,405.6	15,005.9				
	49	RECONSTRUCTION OF THE NOP	RTH LEG	н	DETAIL	PE	1,935.0	570.0				NON-
		OF THE ZOO INTERCHANGE AN	ND		20373	ROW	410.0					EXEMPT
		APPROACHES ON IH 94, IH 894	AND V			CONST	10,353.6	160,238.0			545.0	
		USIT 45 IN MILWAOKEL COUNT	'			UTHER	1,285.4					
	(46)				SOURCE	TOTAL	13,984.0	2 700 1			545.0	
						LUCAL	1,000.0	2,709.1				
					0//0/125	SIAIE	749.2	156,016.9				
		8000205 106	50-33-00		NHPP	TOTAL	13 984 0	160 808 0				
					DETAIL	PF						
	285 ^f	(STH 20/83) EPOM BLIENA BAR		HI	COSTS	ROW						NON-
		MILWALIKEE AVE (STH 36) IN TH	4F			CONST	14 051 0					EXEMPT
		VILLAGE OF WATERFORD (1.7 MI)	11)			OTHER						
	(255)				TOTAL	14.051.0						
	(355)				SOURCE	LOCAL	1,814.5					
					OF FUNDS	STATE	2,698,3					
						FEDERAL	9,538.2					
		8009903 225	50-12-70		STP-O	TOTAL	14,051.0					
					DETAIL	PE						
	248	TRAFFIC LANES OF STH 50 (75T)	50 (75TH ST)	HI	COSTS	ROW	4.751.0					NON-
		FROM IH 94 TO 43RD AVE INCL	UDING			CONST		40,079.0	35,500.0	9,700.0		EXEMPT
		THE FRONTAGE ROADS ALONG	STH 50			OTHER	1,500.0	1,100.0				
	(311)	IN THE CITY OF KENOSHA AND				TOTAL	6,251.0	41,179.0	35,500.0	9,700.0		
	(3.1)	VILLAGE OF PLEASANT PRAIRIE	(4.45 MI)		SOURCE	LOCAL		2,137.0	3,098.5			
					OF FUNDS	STATE	6,251.0	36,482.0	32,401.5	9,700.0		
					NHPP	FEDERAL		2,560.0				
		8001026 131	10-10-70		wher	TOTAL	6,251.0	41,179.0	35,500.0	9,700.0		
KENOSHA		RECONSTRUCTION WITH ADDIT	TIONAL		DETAIL	PE						
COUNTY	251	LANES OF CTH S (BURLINGTON	RD)	HI	COSTS	ROW						NON-
		FROM CTH H TO 120TH AVE (EA	AST			CONST		8,288.0				EXEMPT
		FRONTAGE RD) IN KENOSHA CO	OUNTY			OTHER						
	(444)	(1.9 MI)				TOTAL		8,288.0				
	,				SOURCE	LOCAL		8,288.0				
					OF FUNDS	STATE						
						FEDERAL						
		1009954				TOTAL		8,288.0				

		PROJECT	ESTIMATED COSTS (\$1,000)								
PROJECT SPONSOR	NO	DESCRIPTION / STATE ID	ТҮРЕ			2019	2020	2021	2022	REMAINING	QUAL STAT
KENOGUA				DETAIL	PE						
COUNTY	252	LANES OF CTH S FROM CTH H TO	HI	COSTS	ROW						NON-
		BRUMBACK BLVD IN KENOSHA			CONST	8,988.0					EXEMPT
		COUNTY (1.79 MI)			OTHER	350.0					
	(317)				TOTAL	9,338.0					
	(0.1.)			SOURCE	LOCAL	4,628.3					
				OF FUNDS	STATE						
				STP-O	FEDERAL	4,709.7				ļ	
		1009960 3210-00-05		5 0	TOTAL	9,338.0					
	252	REALIGNMENT OF CTH F FROM CTH O		DETAIL	PE						
	255	TO 352ND AVE IN THE TOWN OF	HE	COSTS	ROW						NON-
		RANDALL (0.95 MI)			CONST	3,444.8					EXEIVIPI
					OTHER						
	(318)				TOTAL	3,444.8					
				SOURCE	LOCAL	689.0					
				OF FUNDS	STATE						
		1000050 2722.00.01		STP-O	FEDERAL	2,755.8				ł	
		1009959 5755-00-01			TOTAL	5,444.0					
KENOSHA	264	EXPANSION OF THE CITY OF KENOSHA	TF	DETAIL	PE						NON-
(CITY)		TRANSIT SYSTEM SERVICE TO INCLUDE	16	0373	ROW						EXEMPT
		S NEW ROUTES, EXPAND AND EXTEND			CONST						271211111
		PURCHASE NEW BUSES			TOTAL	3,301.8					
	(331)			SOURCE	IOCAL	5,501.8					
				OF FUNDS	STATE						
					FEDERAL	2 641 4					
		1030006		CMAQ	TOTAL	3.301.8				+	
				DETAII	PF						
MILWAUKEE	99	EXPRESS BUS POLITES ALONG	TI	COSTS	ROW						NON-
COUNTY		WISCONSIN AVE, UW-MILWAUKEE			CONST						EXEMPT
		AND SHERMAN BLVD IN MILWAUKEE			OTHER	3.000.0	3.000.0				
	(100)	COUNTY			TOTAL	3,000.0	3,000.0				
	(100)			SOURCE	LOCAL	600.0	600.0				
				OF FUNDS	STATE						
				auto	FEDERAL	2,400.0	2,400.0				
		4000083 1693-34-28		CMAQ	TOTAL	3,000.0	3,000.0				
MILWALIKEE		MILWAUKEE STREETCAR PHASE 1		DETAIL	PE						
(CITY)	120	OPERATING ASSISTANCE IN THE CITY	TE	COSTS	ROW						NON-
. ,		OF MILWAUKEE			CONST						EXEMPT
					OTHER	2,023.0					
	(134)				TOTAL	2,023.0					
				SOURCE	LOCAL	405.0					
				OF FUNDS	STATE						
		4400005		CMAQ	FEDERAL	1,618.0				ł	
		4100085 1693-34-18			IUIAL	2,023.0					
	121	OPERATING ASSISTANCE FOR THE	ΤС	DETAIL	PE						NON
		LAKEFRONT LINE OF THE MILWAUKEE	16	05/5	ROW						EXEMPT
		SIREEICAK			OTHER						
					TOTAL		1,100.0				
	(135)			SOURCE	LOCAL		1,100.0				
				OF FUNDS	STATE		220.0				
				5 51405	FEDERAI		880.0				
		4100188 1693-34-32		CMAQ	TOTAL		1,100.0			t	
				DETAU	DF	100.0	.,				
	122	STREETCAR RETWEEN THE MILWAUKEE	TE	COSTS	ROW						NON- EXEMPT
		INTERMODAL STATION AND AN ARFA			CONST	900.0					
		NORTH OF THE CENTRAL BUSINESS			OTHER						
	(120)	DISTRICT: PHASE I			TOTAL	1,000.0					
	(136)			SOURCE	LOCAL	450.0					
				OF FUNDS	STATE						
KENOSHA (CITY) MILWAUKEE COUNTY MILWAUKEE (CITY)					FEDERAL	550.0				ļ	
		4109958		IH-C/S	TOTAL	1,000.0					

Table 5 (Continued)

Table 5 (Continued)

		PROJECT	ESTIMATED COSTS (\$1,000)								
PROJECT SPONSOR	NO	DESCRIPTION / STATE ID	ТҮРЕ			2019	2020	2021	2022	REMAINING	QUAL STAT
				DETAIL	PE	10.0	100.0	10.0			
MILWAUKEE	123	EXTENSION OF THE MILWAUKEE STREETCAR BETWEEN N BROADWAY	TE	COSTS	ROW						NON-
(CITY)					CONST	100.0	2,900.0	100.0			EXEMPT
		AND LINCOLN MEMORIAL DRIVE			OTHER						
	(127)				TOTAL	110.0	3,000.0	110.0			
	(157)			SOURCE	LOCAL	55.0	1,500.0	55.0			
				OF FUNDS	STATE						
					FEDERAL	55.0	1,500.0	55.0			
		4109959		FED TIGER	TOTAL	110.0	3,000.0	110.0		Ī	
WAUKESHA		RECONSTRUCTION WITH ADDITIONAL		DETAIL	PE						
	204	LANES OF CTH M (NORTH AVE) FROM	HI	COSTS	ROW						NON- EXEMPT
COONT		CALHOUN RD TO EAST COUNTY LINE			CONST		14,641.4	7,542.6			
		IN THE CITY OF BROOKFIELD (3.0 MI)			OTHER						
	(257)				TOTAL		14,641.4	7,542.6			
	(257)			SOURCE	LOCAL		4,351.0	2,300.0			
				OF FUNDS	STATE						
					FEDERAL		10,290.4	5,242.6			
		7009988 2759-03-00)	STP-M	TOTAL		14,641.4	7,542.6			
		RECONSTRUCTION WITH ADDITIONAL		DETAIL	PE						NON-
(CITY)	214	LANES OF CALHOUN RD FROM CTH M	HI	COSTS	ROW						
(((1)))		TO STH 190 IN THE CITY OF			CONST		9,098.4				EXEMPT
		BROOKFIELD (2.14 MI)			OTHER		740.0				
	(273)				TOTAL		9,838.4				
	(273)			SOURCE	LOCAL		7,843.4				
				OF FUNDS	STATE						
				675 M	FEDERAL		1,995.0				
		7029999 2783-05-00)	5119-191	TOTAL		9,838.4				

Source: SEWRPC

Table 6Conformity Test of the Fiscally Constrained Transportation Planand 2019-2022 Transportation Improvement Program

			Plan Stage and Budgets to be Used (tons)						
Nonattainment/Maintenance Area	Month	Emission	2018	2020	2022	2025	2030	2040	2050
6-County 1997 Ozone NAAQS	July	NO _x		51.220	31.910		31.910	31.910	31.910
Maintenance Area		VOC		21.080	15.980		15.980	15.980	15.980
Partial Kenosha County 2008 Ozone	July	NOx	2.750			2.750	2.750	2.750	2.750
Nonattainment Area		VOC	1.440			1.440	1.440	1.440	1.440
Partial Kenosha County 2015 Ozone	July	NO _x	2.750			2.750	2.750	2.750	2.750
Nonattainment Area		VOC	1.440			1.440	1.440	1.440	1.440
Northern Milwaukee/Ozaukee Shoreline	July	NO _x		51.220	31.910		31.910	31.910	31.910
2015 Ozone Nonattainment Area		VOC		21.080	15.980		15.980	15.980	15.980
Three-County Fine Particulate	January	NO _x		32.620		28.690	28.690	28.690	28.690
Maintenance Area		VOC		18.274		13.778	13.778	13.778	13.778
		PM _{2.5}		2.330		2.160	2.160	2.160	2.160
		SO ₂		0.390		0.380	0.380	0.380	0.380

			Forecast Emissions (tons)						
Nonattainment/Maintenance Area	Month	Emission	2018	2020	2022	2025	2030	2040	2050
6-County 1997 Ozone Maintenance Area	July	NOx		26.510	21.892		11.370	8.397	8.359
		VOC		15.607	13.782		7.978	6.034	5.802
Partial Kenosha County 2008 Ozone	July	NOx	2.595			1.419	1.054	0.792	0.787
Nonattainment Area		VOC	1.347			0.873	0.627	0.481	0.470
Partial Kenosha County 2015 Ozone	July	NOx	2.595			1.419	1.054	0.792	0.787
Nonattainment Area		VOC	1.347			0.873	0.627	0.481	0.470
Northern Milwaukee/Ozaukee Shoreline	July	NOx		26.510	21.892		11.370	8.397	8.359
2015 Ozone Nonattainment Area		VOC		15.607	13.782		7.978	6.034	5.802
Three-County Fine Particulate	January	NOx		23.227		14.825	10.313	7.930	7.897
Maintenance Area		VOC		15.274		11.494	9.228	8.009	8.053
		PM _{2.5}		1.189		0.787	0.587	0.484	0.490
		SO ₂		0.121		0.110	0.101	0.098	0.100

				Remaining Safety Margin (tons)						
Nonattainment/Maintenance Area	Month	Emission	2018	2020	2022	2025	2030	2040	2050	
6-County 1997 Ozone Maintenance Area	July	NOx		24.710	10.018		20.540	23.513	23.551	
		VOC		5.473	2.198		8.002	9.946	10.178	
Partial Kenosha County 2008 Ozone	July	NOx	0.155			1.331	1.696	1.958	1.963	
Nonattainment Area		VOC	0.093			0.567	0.813	0.959	0.970	
Partial Kenosha County 2015 Ozone	July	NOx	0.155			1.331	1.696	1.958	1.963	
Nonattainment Area		VOC	0.093			0.567	0.813	0.959	0.970	
Northern Milwaukee/Ozaukee	July	NOx		24.710	10.018		20.540	23.513	23.551	
Shoreline 2015 Ozone NAAQS		VOC		5 473	2 198		8 002	9 946	10 178	
Nonattainment Area		100		5.475	2.150		0.002	5.540	10.170	
Three-County Fine Particulate	January	NOx		9.393		13.865	18.377	20.760	20.793	
Maintenance Area		VOC		3.000		2.284	4.550	5.769	5.725	
		PM _{2.5}		1.141		1.373	1.573	1.676	1.670	
		SO ₂		0.269		0.270	0.279	0.282	0.280	

Source: SEWRPC

APPENDICES

APPENDIX A

REVIEW AGENCY CONCURRENCE CORRESPONDENCE USDOT CONFORMITY DETERMINATION AND

32 | SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION MEMORANDUM REPORT NO. 240



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

December 5, 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:

On November 2, 2018 SEWRPC transmitted a conformity demonstration (Memorandum Report No. 240) for its 2050 Regional Transportation Plan (RTP), which will be amended in December 2018 due to significant changes precipitated by the Foxconn development. Based on the information provided by SEWRPC and interagency consultation with the Wisconsin Department of Natural Resources (WDNR), Wisconsin Department of Transportation and the U.S. Environmental Protection Agency, FHWA and FTA concur with SEWRPC's analysis for demonstrating that the proposed amendment to the RTP and the concomitant emissions estimates are consistent with Wisconsin's 1997, 2008, and 2015 8-hour ozone and the 2006 24-hour fine particulate 2.5 (PM_{2.5}) motor-vehicle budgets (MVEB) contained in the WDNR state implementation plans (SIPs) for transportation conformity purposes.

FHWA and FTA find that the plan meets 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;
- There are no transportation control measures (TCMs) included in the SIPs or maintenance plan for the non-attainment areas within Southeastern Wisconsin; 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 a November 2, 2018 email correspondences and discussions at quarterly meetings of the Wisconsin Transportation Conformity Workgroup in 2018. 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.

This conformity finding is valid until conformity on the current determination expires on July 28, 2020. A new air quality conformity determination will be required if either the RTP or Transportation Improvement Program (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.

chaef

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



Wisconsin Department of Transportation

Scott Walker Governor

Dave Ross Secretary Division of Transportation System Development 4822 Madison Yards Way, Room S408 P O Box 7965 Madison, WI 53707-7965 Phone: 608-266.8488 Fax: 608-264-6667 E-Mail: DOTDTSDDivision-Office@dot.wi.gov

November 21, 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) Draft Assessment of Transportation Conformity of the Year 2050 Fiscally Constrained Transportation Plan (FCTP) and the Year 2019-2022 Transportation Improvement Program (TIP) with Respect to the 6-County 1997 Ozone National Ambient Air Quality Standards (NAAQS) Maintenance Area, the Partial Kenosha County 2008 Ozone NAAQS Nonattainment Area, the Partial Kenosha County 2015 Ozone NAAQS Nonattainment Area, the Northern Milwaukee/Ozaukee Shoreline 2015 Ozone NAAQS Nonattainment Area, and the Three-County 2006 Fine Particulate NAAQS Maintenance Area

Dear Mr. Davies:

The Wisconsin Department of Transportation (WisDOT) has completed its review of SEWRPC's *Draft Assessment of Conformity of the Fiscally Constrained Transportation Plan and Transportation Improvement Program*, documented in Memorandum Report No. 240 and further referenced in the subject of this letter. In our review, we observed that SEWRPC's assessment meet all the criteria and procedural requirements of the transportation conformity regulations and was conducted in keeping with the Memorandum of Agreement between SEWRPC, the Wisconsin Department of Natural Resources, and WisDOT.

During the interagency consultation process, it was agreed that the "budget test" would be used to demonstrate conformity for all NAAQS scenarios involving a nonattainment or maintenance area in the Southeastern Region. The data and the results of SEWRPC's analyses show that in all cases, the transportation emissions forecasts under the fiscally constrained Plan and the year 2019-2022 TIP are clearly within the motor vehicle emissions budgets approved by the Environmental Protection Agency for the nonattainment and maintenance areas for use in demonstrating conformity.

In view of the above, we conclude that SEWRPC has effectively demonstrated conformity of its Year 2050 FCTP and the Year 2019-2022 TIP with respect to the 6-County 1997 ozone NAAQS maintenance area, the partial Kenosha County 2008 ozone NAAQS nonattainment area, the partial Kenosha County 2015 ozone NAAQS nonattainment area, the Northern Milwaukee/Ozaukee Shoreline 2015 ozone NAAQS nonattainment area, and the three-County 2006 fine particulate NAAQS maintenance area.

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

Sincerely,

Scott J. Lawry

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 ES, WisDOT

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



November 20, 2018

Mr. John Mooney U.S. Environmental Protection Agency - Region 5 77 West Jackson Blvd. 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 2019-2022 Transportation Improvement Program (TIP)

Dear Mr. Mooney:

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 2019-2022 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 and 2008 ozone national ambient air quality standards (NAAQS) and the 2006 24-hour PM_{2.5} NAAQS state implementation plans (SIPs) for transportation conformity purposes.

Wisconsin supplemented its redesignation request for the Milwaukee-Racine 1997 ozone NAAQS nonattainment area on November 16, 2011, to include updated motor vehicle emission budgets (MVEBs) for oxides of nitrogen (NO_x) and volatile organic compounds (VOCs). EPA approved both the redesignation request and the associated MVEBs for transportation conformity purposes on July 31, 2012 (77 FR 45252).

Wisconsin submitted a SIP revision for the Milwaukee-Racine-Waukesha 2006 24-hour PM_{2.5} NAAQS maintenance plan on December 23, 2015, which established updated MVEBs for VOCs. EPA approved this SIP revision and the associated MVEBs for transportation conformity purposes on February 22, 2016 with an effective date of April 22, 2016 (81 FR 8654).

Finally, Wisconsin submitted an attainment plan to EPA for the partial Kenosha County 2008 ozone nonattainment area on April 17, 2017, which contained updated MVEBs for this area. EPA determined the adequacy of these MVEBs on October 31, 2017 (82 FR 50418) with an effective date of November 15, 2017.

SEWRPC's analysis indicates that the recommended fiscally constrained 2050 RTP and 2019-22 TIP forecast emissions will remain within these MVEBs and thereby conform to the SIP. WDNR concurs with this assessment.



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

Sincerely,

E. Aood

Gail Good Director Air Management Program

cc: Aileen Switzer (WisDOT) Pat Trainer (WisDOT) Michael Batuzich (FHWA) William Wheeler (FTA-Chicago) Michael G. Hahn (SEWRPC) Christopher Hiebert (SEWRPC) David Bizot (AM/7) Mike Friedlander (AM/7)