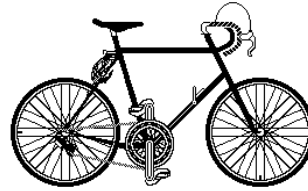


# Sheboygan Metropolitan Planning Area Transportation Improvement Program Calendar Years 2016 – 2019



December, 2015

**SHEBOYGAN METROPOLITAN PLANNING AREA  
TRANSPORTATION IMPROVEMENT PROGRAM  
CALENDAR YEARS 2016 - 2019**

**Prepared by:  
Bay-Lake Regional Planning Commission**

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The contents of this report reflect the views of the Bay-Lake Regional Planning Commission, which is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views and policies of the U.S. Department of Transportation. This report does not constitute a standard, specification or regulation.

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## **INTRODUCTION**

Federal regulations which govern the planning process in metropolitan planning areas require the preparation of a Transportation Improvement Program (TIP), while state guidance requires the preparation of a TIP or TIP amendment consisting of a multiyear program of projects. Proposed transit operating, transit capital, elderly and disabled transportation, bicycle and pedestrian transportation, and street and highway projects must be included in an adopted TIP program of projects to be eligible for Federal aid.

Minor civil divisions within the Sheboygan Metropolitan Planning Area include: the Cities of Sheboygan and Sheboygan Falls; the Villages of Howards Grove and Kohler; the Town of Sheboygan; and portions of the Towns of Herman, Lima, Mosel, Sheboygan Falls and Wilson. Jurisdictions in the urbanized portion of the metropolitan planning area were requested to submit projects for consideration using Surface Transportation Program (STP) Urban funding; these projects were prioritized using the *STP Urban Project Prioritization Policy* developed by the MPO (see Appendix G). Two projects that appear in Table 6 of this TIP have been awarded STP Urban funding in the past two cycles:

- North Avenue from State Highway 42/Calumet Drive to North 15<sup>th</sup> Street: Design (which appeared in the *2015 – 2018 TIP*) and reconstruction with no increase in capacity and rail work (Awarded STP Urban funding for the 2013 – 2018 and 2015 – 2020 cycles; project sponsor is the City of Sheboygan; design was programmed for 2015, and construction is scheduled for 2017 and 2018); and
- Superior Avenue from North Taylor Drive to North 29<sup>th</sup> Street: Design (which appeared in the *2015 – 2018 TIP*) and reconstruction with no increase in capacity (Awarded STP Urban funding for the 2013 – 2018 and 2015 – 2020 cycles; project sponsor is the City of Sheboygan; design was programmed for 2015, and construction is scheduled for 2019).

Street and highway projects also were requested of area municipalities, the Sheboygan County Transportation Department and the Wisconsin Department of Transportation.

Transit capital projects and operating expenses for the period covered by this TIP were requested by the Sheboygan Parking and Transit Utility. The Sheboygan County Health and Human Services Department's Aging and Disability Resource Center (ADRC) and the Wisconsin Department of Transportation submitted specialized transportation projects and capital items for inclusion in this TIP. In addition, any Transportation Alternatives Program (TAP) projects have been officially approved by the Wisconsin Department of Transportation, while other bicycle and pedestrian transportation projects (from the Non-Motorized Transportation Pilot Program) have been approved by Sheboygan County.

The priority system for street and highway, transit capital, and bicycle and pedestrian transportation projects is based on the programmed project year. Priorities are established by the responsible agencies in the submittal of projects to the Bay-Lake Regional Planning Commission for inclusion in the TIP, with the exception of STP Urban projects, which are prioritized by the MPO following project proposal submittals. The Bay-Lake Regional Planning Commission then reviews the submitted projects based on compliance with short- and long-range transportation plan recommendations, availability of Federal, state and local transportation funds, and the air quality impacts of programmed improvements.

The Sheboygan MPO Technical and Policy Advisory Committees reviewed and recommended approval of the *2016 – 2019 TIP* on December 10, 2015, and the Bay-Lake Regional Planning Commission approved this *2016 – 2019 TIP* on December 11, 2015. Street and highway projects, transit operating funds and capital projects, elderly and disabled transportation and capital items, and bicycle and pedestrian transportation projects listed are in compliance with both short-range and long-range transportation plans for the Sheboygan Metropolitan Planning Area prepared by the Bay-Lake Regional Planning Commission.

## **TRANSPORTATION IMPROVEMENT PROGRAM**

Transportation Improvement Programs (TIPs) have been completed or amended for the urbanized portion of the Sheboygan Metropolitan Planning Area since 1982, the year in which the Bay-Lake Regional Planning Commission was designated the Metropolitan Planning Organization (MPO) for the Sheboygan Urbanized Area. Following passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991, both an urbanized area and a metropolitan planning area were required to be delineated following the 1990 Census; the long-range transportation plan and TIP were required to cover the larger metropolitan planning area (urbanized area plus territory outside the urbanized area expected to become urbanized in 20 years). Until recently, only projects in the smaller urbanized area were eligible for STP Urban funding; in the most recent funding cycles, MPOs have, at their discretion, been able to extend an existing STP Urban project which originates in the urbanized area outside that area as long as the entire project is within the metropolitan planning area. All maps in this document show the current (post-2010 Census) boundaries of the Sheboygan urbanized area and of the Sheboygan metropolitan planning area.

The TIP completed in 1982 listed projects only for the upcoming year, while TIPs completed in 1983 and 1984 were limited in scope to a three-year period. From 1985 to 1996, the TIP included projects for a five-year period. However, beginning with the *1998 – 2001 TIP* completed and adopted in 1997, new TIPs began to cover a four-year period, due to a relative lack of projects in the fifth program year.

The *2016 – 2019 TIP* is a listing of transit operating expenses and capital items, elderly and disabled transportation projects and capital items, bicycle and pedestrian transportation projects, and street and highway projects, including an element which is eligible for Federal aid and covers calendar years 2016, 2017, 2018 and 2019. This element contains those projects in the Sheboygan Metropolitan Planning Area which have highest priority as far as funding and implementation are concerned. It is estimated that nearly \$60,718,000 will be needed to meet anticipated project costs in the four-year element component of the TIP.

- In 2016, these costs will include nearly \$3,736,000 for transit operating expenses, \$510,000 for transit capital projects, over \$405,000 for elderly and disabled transportation operating expenses, \$0 for elderly and disabled transportation capital items, \$8,176,000 for bicycle and pedestrian transportation projects, and \$12,695,000 for street and highway projects.
- In 2017, these costs will include nearly \$3,773,000 for transit operating expenses, \$1,350,000 for transit capital projects, \$144,000 for elderly and disabled transportation capital items, \$958,000 for bicycle and pedestrian transportation projects, and \$2,654,000 for street and highway projects.



- In 2018, these costs will include nearly \$3,811,000 for transit operating expenses, \$900,000 for transit capital projects, \$0 for elderly and disabled transportation capital items, \$3,948,000 for bicycle and pedestrian transportation projects, and \$8,909,000 for street and highway projects.
- In 2019, these costs will include nearly \$3,849,000 for transit operating expenses, \$0 for transit capital projects, \$0 for elderly and disabled transportation capital items, \$175,000 for bicycle and pedestrian transportation projects, and \$4,725,000 for street and highway projects.

Elderly and disabled transportation operating expenses typically are not programmed beyond one calendar year. Again, Transportation Alternatives Program (TAP) and Congestion Mitigation and Air Quality (CMAQ) projects have been officially approved by the Wisconsin Department of Transportation, while other bicycle and pedestrian transportation projects (from the Sheboygan County Non-Motorized Transportation Pilot Program) have been approved by Sheboygan County, for the period covered by this TIP.

The next section of the TIP describes various transit projects which are scheduled for the program period, including transit operational funding, transit capital projects, elderly and disabled transportation operating expenses, and elderly and disabled transportation capital projects. This will be followed by a listing of bicycle and pedestrian transportation projects in the Sheboygan metropolitan planning area. This in turn will be followed by a description of the various street and highway projects which are scheduled for the program period.

A subsequent section of the main body of the TIP involves evidence of the financial capacity to complete all transit operating, transit capital, elderly and disabled transportation operating expenses, elderly and disabled transportation capital items, bicycle and pedestrian transportation projects, and street and highway projects listed in the TIP. A summary of the public participation process used in the development of this TIP is included as well. Another section of the TIP discusses the implementation status of projects recommended for 2015 in the *Sheboygan Metropolitan Planning Area TIP: Calendar Years 2015 – 2018* (including amendments to that TIP processed in 2015). A later section of the TIP discusses the air quality conformity process followed in the development of the TIP. This is followed by a statement on impacts of TIP projects on environmental justice. This in turn is followed by discussion concerning clarification of planning procedures and the Federal “Moving Ahead for Progress in the 21<sup>st</sup> Century” (MAP-21) act, which allows for a certain degree of flexibility in project selection. The final section of the main body of this document discusses TIP amendment guidelines.

Nine appendices are included in this TIP, and involve the following information:

- Appendix A: Glossary of Terms;
- Appendix B: Procedures for the Involvement of Private Enterprise in Transit Programs;
- Appendix C: Air Quality Conformity Statement;
- Appendix D: Financial Capacity Assessment of Shoreline Metro;
- Appendix E: Statement of Impacts of TIP Projects on Environmental Justice;
- Appendix F: MPO Approval of TIP;
- Appendix G: Surface Transportation Program (STP) Urban System Project

Prioritization Policy;

- Appendix H: Transition in Programming from SAFETEA-LU to MAP-21 Funding Programs; and
- Appendix I: Sheboygan MPO Technical and Policy Advisory Committees.

### **Transit Projects**

#### **Transit Operational Funding: 2016 – 2019**

Table 1 lists the distribution of operational funding sources for the transit division of the Sheboygan Parking and Transit Utility (Shoreline Metro) for the 2016 – 2019 program period. Table 1 includes Shoreline Metro’s core fixed-route transit service in the Cities of Sheboygan and Sheboygan and the Village of Kohler, and also includes ADA paratransit costs within the Shoreline Metro service area. Operating and administrative costs are assumed to increase by 1.0 percent each year between 2016 and 2019. Costs shown in Table 1 assume that route changes will be implemented at the beginning of any given calendar year.

Projected revenues are also shown in Table 1. Federal Section 5307 (general operating) revenues are anticipated to involve approximately 32.26 percent of operating costs each year throughout the period covered by this TIP. Table 1 also assumes that the Sheboygan Parking and Transit Utility will receive and utilize Community Development Block Grant (CDBG) entitlement funding (provided to the City of Sheboygan by the U.S. Department of Housing and Urban Development on an annual basis) to maintain transit services at a reasonable cost to the transit user and to the taxpayer each year over the program period; \$42,493 in CDBG funding is assumed to be available in each year covered by this TIP. State Section 85.20 (general operating) revenues are assumed to involve approximately 26.84 percent of operating costs each year throughout the period covered by this TIP. State Section 85.205 (paratransit supplemental) revenues are assumed to involve \$48,830 each year throughout the period covered by this TIP.

Municipal funding of transit begins at a base level of \$511,547 for the City of Sheboygan, \$35,178 for the City of Sheboygan Falls, and \$12,151 for the Village of Kohler in 2016. The municipal share of transit funding is expected to increase by approximately 2.73 percent from 2016 to 2017, by approximately 2.69 percent from 2017 to 2018, and by approximately 2.64 percent from 2018 to 2019. Municipal funding of transit covers approximately 14.96 percent of total expenses in 2016, 15.22 percent of total expenses in 2017, 15.47 percent of total expenses in 2018, and 15.72 percent of total expenses in 2019.

Farebox revenues used to finance transit service begin at a base level of \$715,000 in 2016, then are assumed to remain at this level throughout the period covered by this TIP. Farebox funding of transit covers approximately 19.14 percent of total expenses in 2016, 18.95 percent of total expenses in 2017, 18.76 percent of total expenses in 2018, and 18.58 percent of total expenses in 2019.

Other revenues (advertising and proprietary revenues, interest income, etc.) are assumed to remain flat in absolute terms throughout the period covered by this TIP.

<b>Table 1</b> <b>Calendar Years 2016 - 2019: Transit Operating Funds</b> <b>(TIP ID No.: 372-16-201)</b>				
	2016	2017	2018	2019
<b>Operating Expenses</b>	\$3,735,639	\$3,772,995	\$3,810,725	\$3,848,833
<b>Farebox Revenue</b>	\$715,000	\$715,000	\$715,000	\$715,000
<b>Other Revenue (Advertising, Investments, etc.)</b>	\$162,585	\$162,585	\$162,585	\$162,585
<b>Total Deficit</b>	\$2,858,054	\$2,895,410	\$2,933,140	\$2,971,248
<b>Federal Funding Sources:</b>				
<b>Section 5307</b>	\$1,205,158	\$1,217,210	\$1,229,382	\$1,241,675
<b>HUD CDBG Entitlement Funds</b>	\$42,493	\$42,493	\$42,493	\$42,493
<b>State Funding Sources:</b>				
<b>Section 85.20</b>	\$1,002,697	\$1,012,724	\$1,022,851	\$1,033,080
<b>Section 85.205</b>	\$48,830	\$48,830	\$48,830	\$48,830
<b>Local Funding Sources:</b>				
<b>City of Sheboygan</b>	\$511,547	\$525,531	\$539,654	\$553,920
<b>City of Sheboygan Falls</b>	\$35,178	\$36,140	\$37,111	\$38,092
<b>Village of Kohler</b>	\$12,151	\$12,483	\$12,819	\$13,157
<b>Total Funding</b>	\$2,858,054	\$2,895,411	\$2,933,140	\$2,971,247
<b>Balance</b>	\$0	\$0	\$0	\$0
Assumptions made in developing Table 1: (1) Operating and administrative costs are assumed to increase by 1.0 percent each year throughout the period covered by this TIP. (2) ADA paratransit costs are included in operating expenses. All other paratransit costs can be found in Table 3. (3) Farebox revenues are assumed to remain flat in absolute dollars throughout the period covered by this TIP. (4) Other revenues (advertising and proprietary revenues, interest income, etc.) are assumed to remain flat in absolute dollars throughout the period covered by this TIP. (5) Federal Section 5307 (general operating) revenues are assumed to involve approximately 32.26 percent of operating expenses throughout the period covered by this TIP. (6) The Sheboygan Parking and Transit Utility expects to continue utilizing Community Development Block Grant (CDBG) Entitlement funding (provided to the City of Sheboygan by the U.S. Department of Housing and Urban Development on an annual basis) to maintain transit services at a reasonable cost to the transit user and to the taxpayer each year over the program period. The amount in each year covered by this TIP will be \$42,493. (7) State Section 85.20 (general operating) revenues are assumed to involve approximately 26.84 percent of operating expenses throughout the period covered by this TIP. (8) State Section 85.205 (paratransit supplemental) revenues will involve \$48,830 each year throughout the period covered by this TIP. (9) The City of Sheboygan is assumed to provide approximately 91.5 percent of local funding sources for transit operation. The City of Sheboygan Falls is assumed to provide approximately 6.3 percent of local funding sources for transit operation. The Village of Kohler is assumed to provide approximately 2.2 percent of local funding sources for transit operation. (10) Balances of \$1 or less (positive or negative) are due to rounding error.				
Source: City of Sheboygan Parking and Transit Utility, 2015; and Bay-Lake Regional Planning Commission, 2015.				

### Transit Capital Projects: 2016 – 2019

Table 2 lists capital projects for the transit division of the Sheboygan Parking and Transit Utility (Shoreline Metro) for the 2016 – 2019 period. Of these projects, two capital projects are recommended for 2016, two capital projects are recommended for 2017, one capital project is recommended for 2018, and no capital projects are recommended for 2019.



Table 2  
Calendar Years 2016 - 2019: Transit Capital Items  
(In Thousands of Dollars)

Primary Jurisdiction/ Project Sponsor	Project Description	Type of Cost	Jan. - Dec. 2016				Jan. - Dec. 2017				Jan. - Dec. 2018				Jan. - Dec. 2019				Year Open	Air Quality Status
			Federal	State	Local	Total	Federal	State	Local	Total	Federal	State	Local	Total	Federal	State	Local	Total		
Sheboygan Parking and Transit Utility	On-Board Video Surveillance System for Paratransit Vehicles (Transit Preservation)	PE ROW ACQUI												0					2025	Exempt
(ILLUSTRATIVE PROJECT - NOT PROGRAMMED)		TOTAL									48	0	12	60						
											48	0	12	60						
											5307/5339									
Sheboygan Parking and Transit Utility	Replacement of Two (2) 35-Foot Fixed-Route Buses (Transit Preservation)	PE ROW ACQUI												0					2025	Exempt
											720	0	180	900						
											720	0	180	900						
											CMAQ									
Sheboygan Parking and Transit Utility	Replacement of Three (3) 35-Foot Fixed-Route Buses (Transit Preservation)	PE ROW ACQUI																0	2025	Exempt
															1,080	0	270	1,350		
(ILLUSTRATIVE PROJECT - NOT PROGRAMMED)		TOTAL													1,080	0	270	1,350		
															5307/5339					
Sheboygan Parking and Transit Utility	Replacement of Ten (10) Office, Dispatch and Maintenance Computers (Transit Preservation)	PE ROW ACQUI																0	2025	Exempt
															6	0	2	8		
(ILLUSTRATIVE PROJECT - NOT PROGRAMMED)		TOTAL													6	0	2	8		
															5307/5339					

NOTES: The following funding codes are used to identify Federal funding sources:

5304 = Section 5304 Federal Transit Administration funding will be the Federal funding source; this is a discretionary transit planning program administered by the WisDOT Bureau of Transit, Local Roads, Railroads and Harbors.  
5307/5339 = Section 5339 (formerly Section 5309 in SAFETEA-LU) Federal Transit Administration funding will be the Federal funding source. In the event that Section 5339 funding is not available, Section 5307 Federal Transit Administration funding will be the Federal funding source.  
CMAQ = The Congestion Mitigation and Air Quality improvement program will be the Federal funding source; this is a competitive program for Wisconsin's air quality nonattainment and maintenance areas administered by the WisDOT Bureau of Transit, Local Roads, Railroads and Harbors.

2016 - 2019 Funding Summary

Total Transit Preservation Project Funding = \$2,760,000  
Total Transit Improvement Project Funding = \$0  
Total Transit Expansion Project Funding = \$0

Source: City of Sheboygan Parking and Transit Utility Commission, 2015; and Bay-Lake Regional Planning Commission, 2015.

***Two capital expenditures are recommended for calendar year 2016:***

- One (1) fixed-route bus (with a length of 35 feet) is expected to be purchased in 2016. This new bus will be used to replace one older bus that will have exceeded its life expectancy at the time of replacement. The new bus will provide a better transportation experience for passengers as well as reduce operating budget maintenance and repair costs. Shoreline Metro staff notes that from the time a purchase order is issued for new buses, it typically takes about one year for delivery. The cost of this 2016 project is \$410,000. The Federal share for this bus will come from either the Federal Transit Administration (FTA) Section 5339 or Section 5307 capital program.
- Shoreline Metro plans to replace 50 of its dispatch radios in 2016. These radios have been used for several years, and are in need of replacement. The cost of this 2016 project is \$100,000. This project is expected to be entirely funded at the local level (no Federal funding).

***Two capital expenditures are recommended for calendar year 2017:***

- Two (2) fixed-route buses (with a length of 35 feet each) are expected to be purchased in 2017. These new buses will be used to replace two older buses that will have exceeded their life expectancy at the time of replacement. The planning justification for this project is similar to that for the 2016 fixed-route bus acquisition. The cost of this 2017 project is \$900,000. The Federal share for these buses will come from the Congestion Mitigation and Air Quality (CMAQ) program.
- One (1) fixed-route bus (with a length of 35 feet) is expected to be purchased in 2017. This new bus will be used to replace one older bus that will have exceeded its life expectancy at the time of replacement. The planning justification for this project is similar to that for the 2016 fixed-route bus acquisition. The cost of this 2017 project is \$450,000. The Federal share for this bus will come from either the FTA Section 5339 or Section 5307 capital program.

In addition, three capital expenditures are listed as illustrative projects for calendar year 2017, and will be added to the TIP if funding materializes:

- Completion of a transit development program (TDP) for Shoreline Metro is an illustrative project for 2017. The current TDP covers the period from 2012 through 2016, and the TDP will be due for updating in 2017; the updated TDP is expected to cover the period from 2018 through 2022. Some of the preliminary survey work for this TDP (i.e.: passenger opinion and boarding and alighting surveys) should be completed prior to 2017. The cost of this 2017 project is \$50,000. If funded, the Federal share of this project would involve Federal Transit Administration (FTA) Section 5304 funds.
- Replacement of a forklift is an illustrative project for 2017. The existing forklift was acquired in 1979, and is in dire need of replacement. Shoreline Metro needs to provide and use safe equipment in its operations. The existing forklift does not meet state safety standards, and therefore should be retired. The transit facility uses a forklift on a regular basis, and the shop employees are certified forklift operators. Many tasks are completed with use of the forklift, including: accessing and storing large, heavy bus parts in the warehouse storage racks; unloading freight from delivery trucks; replacing engines and transmissions; moving out-of-service buses around the facility; and handling drums of

waste oil for the waste oil furnace. The cost of this 2017 project is \$40,000. If funded, the Federal share of this project would involve FTA Section 5339 or Section 5307 capital funds.

- An updated farebox data system is an illustrative project for 2017. This project would involve the replacement of Shoreline Metro's GFI fareboxes for its fixed-route buses. The farebox is an electronic fare media device which accepts and documents the fares, logs passenger trip and fare data, and ensures tamper-proof chain-of-custody for the funds generated through fares. The existing fares date back to the mid-1980s, and are an aging but essential tool for the operation of the transit system. The fareboxes and affiliated software contain the infrastructure needed for compilation of data necessary to receive state and Federal funding. The cost of this 2017 project is \$150,000. If funded, the Federal share of this project would involve FTA Section 5339 or Section 5307 capital funds.

***One capital expenditure is recommended for calendar year 2018:***

- Two (2) fixed-route buses (with a length of 35 feet each) are expected to be purchased in 2018. These new buses will be used to replace two older buses that will have exceeded their life expectancy at the time of replacement. The planning justification for this project is similar to that for the 2016 fixed-route bus acquisition. The cost of this 2018 project is \$900,000. The Federal share for both buses will come from the CMAQ program.

In addition, one capital expenditure is listed as an illustrative project for calendar year 2018, and will be added to the TIP if funding materializes:

- Acquisition and installation of an on-board video surveillance system for Shoreline Metro's paratransit vehicles is an illustrative project for 2018. When a problem occurs, video surveillance is relied upon. The cost of this 2018 project is \$60,000. If funded, the Federal share of this project would involve FTA Section 5339 or Section 5307 capital funds.

***No capital expenditures are recommended for calendar year 2019.***

However, two capital expenditures are listed as illustrative projects for calendar year 2019, and will be added to the TIP if funding materializes:

- Purchase of three (3) fixed-route buses (with a length of 35 feet each) is an illustrative project for 2019. These new buses will be used to replace three older buses that will have exceeded their life expectancy at the time of replacement. The planning justification for this project is similar to that for the 2016 fixed-route bus acquisition. The cost of this 2019 project is \$1,350,000. If funded, the Federal share of this project would involve FTA Section 5339 or Section 5307 capital funds.
- Replacement of ten (10) computers in Shoreline Metro's office, dispatch and maintenance work stations is an illustrative project for 2019. All of these computers are aging and in need of replacement. The cost of this 2019 project is \$7,500. (Note: This was rounded to \$8,000 in Table 2). If funded, the Federal share of this project would involve FTA Section 5339 or Section 5307 capital funds.

**Elderly and Disabled Transportation Operating Expenses: 2016**

Elderly and disabled transportation operating expenses are identified in Table 3. The Sheboygan County Health and Human Services Department's Aging and Disability Resource Center (ADRC), which handles elderly and disabled transportation in the Sheboygan Metropolitan Planning Area and elsewhere in Sheboygan County, normally does not program operating expenses beyond one calendar year. The projects identified in Table 3 involve operating expenses for calendar year 2016. These projects include a volunteer driver program and the purchase of specialized (elderly and disabled, but non-ADA) transportation services from Shoreline Metro (operating as Metro Connection).

**Elderly and Disabled Transportation Capital Projects: 2016 – 2019**

Elderly and disabled transportation capital projects are identified in Table 4. The Sheboygan County Health and Human Services Department's ADRC has filed a Section 5310 grant application with WisDOT for 80 percent Federal funding (with 20 percent local or sponsor funding) on the purchase of nine replacement vehicles in the 2016 – 2017 funding cycle. In December 2015, the WisDOT Bureau of Transit, Local Roads, Railroads and Harbors notified the MPO that two of these vehicles (medium sized buses in 2017) would be awarded to Sheboygan County, and will be operated by Shoreline Metro; this is the one item that is programmed in the TIP, with all other needed elderly and disabled transportation capital projects being listed as "illustrative projects." WisDOT staff did indicate that additional Section 5310 projects may be selected with a small amount of remaining funding in early 2016; if Sheboygan County or other applicants in the metropolitan planning area are awarded vehicles through this process, the TIP will be amended to officially program these projects. Additional vehicles are expected to be acquired through future Section 5310 grant applications in 2018 and 2019 based on review and updating of the *2012 Coordinated Public Transit – Human Services Transportation Plan for Sheboygan County* and the capital programs of Sheboygan County and Shoreline Metro.

In the State of Wisconsin, with the exception of larger (over 200,000 population) urbanized areas (which are required to have their own selection processes under MAP-21), WisDOT reviews all Section 5310 vehicle grant applications from public and private non-profit agencies, ranks the applications, and selects the top projects to be included in a single state Section 5310 grant application to the FTA.



<b>Table 3</b> <b>Calendar Year 2016: Elderly and Disabled Transportation Projects</b>						
Responsible Agency	Project	Total Cost	Federal Share	State Share	Local Share	Fares/Contributions
Sheboygan County Health and Human Services Department  <b>TIP ID No.: 372-16-203</b>	Volunteer Driver Program	\$34,901	\$8,334 OAA	\$0	\$12,119	\$14,448
Sheboygan County Health and Human Services Department  <b>TIP ID No.: 372-16-204</b>	Purchase of Specialized Transportation Services from Shoreline Metro	\$370,500	\$0	\$267,083	\$53,417	\$50,000
NOTE: The following funding code is used to identify a federal funding source:  OAA = Older Americans Act funding (provided by the U.S. Department of Health and Human Services, <b>not</b> by USDOT).						
Source: Sheboygan County Health and Human Services Department, 2015; and Bay-Lake Regional Planning Commission, 2015.						

Table 4 Calendar Years 2016 - 2019: Elderly and Disabled Transportation Capital Projects (In Thousands of Dollars)																					
Primary Jurisdiction/ Project Sponsor	Project Description	Type of Cost	Jan. - Dec. 2016				Jan. - Dec. 2017				Jan. - Dec. 2018				Jan. - Dec. 2019				Year Available	Air Quality Status	
			Federal	State	Local	Total	Federal	State	Local	Total	Federal	State	Local	Total	Federal	State	Local	Total			
Sheboygan County Health and Human Services Department and Shoreline Metro (one vehicle for Sheboygan County and four vehicles for Shoreline Metro)  (ILLUSTRATIVE PROJECT - NOT PROGRAMMED)	Five minibuses with 8 ambulatory positions and one wheelchair position. The vehicles will be used for transportation for the elderly and persons with disabilities. (Replacement)	PE ROW ACQUI  TOTAL				0.0 0.0 288.0 360.0 288.0 5310													2025	Exempt	
RCS Empowers, Inc.   (ILLUSTRATIVE PROJECT - NOT PROGRAMMED)	One medium sized gas powered bus with 10 ambulatory positions and two wheelchair positions. The vehicles will be used for transportation for the elderly and persons with disabilities. (Replacement)	PE ROW ACQUI  TOTAL				0.0 0.0 43.2 54.0 43.2 5310													2025	Exempt	
RCS Empowers, Inc.   (ILLUSTRATIVE PROJECT - NOT PROGRAMMED)	One minivan with 3 to 4 ambulatory positions and one to two wheelchair positions. The vehicles will be used for transportation for the elderly and persons with disabilities (Replacement)	PE ROW ACQUI  TOTAL				0.0 0.0 28.8 36.0 28.8 5310													2025	Exempt	
Sheboygan County Health and Human Services Department (applicant) and Shoreline Metro (operator) (two vehicles)  TIP ID No.: 372-16-205	Two medium sized buses with 10 ambulatory positions and two wheelchair positions. The vehicles will be used for transportation for the elderly and persons with disabilities (Replacement).	PE ROW ACQUI  TOTAL								0.0 0.0 115.2 144.0 115.2 5310									2025	Exempt	
Sheboygan County Health and Human Services Department and Shoreline Metro (one vehicle each)  (ILLUSTRATIVE PROJECT - NOT PROGRAMMED)	Two medium sized buses with 10 ambulatory positions and two wheelchair positions. The vehicles will be used for transportation for the elderly and persons with disabilities (Replacement).	PE ROW ACQUI  TOTAL											0.0 0.0 115.2 144.0 115.2 5310						2025	Exempt	

Table 4 Calendar Years 2016 - 2019: Elderly and Disabled Transportation Capital Projects (In Thousands of Dollars)																						
Primary Jurisdiction/ Project Sponsor	Project Description	Type of Cost	Jan. - Dec. 2016				Jan. - Dec. 2017				Jan. - Dec. 2018				Jan. - Dec. 2019				Year Available 2025	Air Quality Status		
			Federal	State	Local	Total	Federal	State	Local	Total	Federal	State	Local	Total	Federal	State	Local	Total				
Sheboygan County Health and Human Services Department and Shoreline Metro (one vehicle each)  (ILLUSTRATIVE PROJECT - NOT PROGRAMMED)	Two medium sized buses with 10 ambulatory positions and two wheelchair positions. The vehicles will be used for transportation for the elderly and persons with disabilities (Replacement).	PE ROW ACQUI  TOTAL													0.0					Exempt		
															0.0							
															115.2      0.0      28.8      144.0							
															115.2      0.0      28.8      144.0							
5310																						
NOTE: The following funding code is used to identify federal funding sources:																						
5310 = Section 5310 Federal Transit Administration funding will be the federal funding source. Section 5310 is a capital program used to obtain vehicles for elderly and disabled transportation provided by counties and by nonprofit organizations.																						
Source: Sheboygan County Health and Human Services Department, 2015; Shoreline Metro, 2015; and Bay-Lake Regional Planning Commission, 2015.																						

### **Bicycle and Pedestrian Transportation Projects**

One bicycle and pedestrian transportation project has been officially approved by the Wisconsin Department of Transportation for the period covered by this TIP; this is evident in Table 5:

- Some \$175,000 is programmed in each of calendar years 2016, 2017, 2018 and 2019 for “grouped” transportation alternative/enhancement projects that may occur in the Sheboygan Metropolitan Planning Area. This bicycle and pedestrian transportation project involves 80 percent Federal participation and 20 percent state participation.

In addition, as indicated in Table 5, Sheboygan County has approved the following projects to be implemented under its Non-Motorized Transportation Pilot Program (NMTTP, a Federal earmark in SAFETEA-LU awarded to Sheboygan County) over the period covered by the TIP:

- Sheboygan County NMTTP: Level of effort for program oversight, including education and outreach (\$100,000 in 2016, and \$50,000 in each of 2017 and 2018);
- Bicycle/pedestrian path on Taylor Drive in the City of Sheboygan (\$7,133,000 for construction in 2016, and \$376,000 for construction in 2017);
- NMTTP marketing/branding (\$68,000 for marketing and branding in 2016, and \$67,000 for marketing and branding in 2017);
- Planning study for a road diet/multi-use track facility on Indiana Avenue from South 17<sup>th</sup> Street in the City of Sheboygan to Highland Drive in the Village of Kohler (\$500,000 for a study in 2016);
- Construction of a bridge for bicyclists and pedestrians over the Sheboygan River near the former Tecumseh Engines plant in the City of Sheboygan Falls (\$64,000 for design in 2017, and \$319,000 for construction in 2018);
- Construction of a multi-use pathway in the Alliant Energy utility corridor on the south side of the City of Sheboygan (\$200,000 for design in 2016, \$100,000 for design in 2017, and \$2,900,000 for construction in 2018); and
- Union Pacific rails-to-trails conversion extension in the City of Sheboygan: Pennsylvania Avenue to Indiana Avenue, including an eastern extension to South 9<sup>th</sup> Street paralleling Indiana Avenue (\$126,000 for design in 2017, and \$504,000 for construction in 2018).

All of the NMTTP projects indicated above involve 100 percent Federal funding.

In addition, Table 5 includes four illustrative projects that are not officially programmed in this *2016 – 2019 TIP*:

- Construction of multi-use pathways on North Taylor Drive between Kohler Memorial Drive and Superior Avenue and from the intersection of North Taylor Drive and North Avenue into Evergreen Park (\$36,000 for design in 2017, and \$144,000 for construction in 2018);
- Conversion of County Highway PP into a linear parkway and trail facility from Highland Drive to South Taylor Drive (\$225,000 for design in 2017, and \$2,900,000 for construction in 2018);



Table 5 Calendar Years 2016 - 2019: Bicycle and Pedestrian Transportation Projects (In Thousands of Dollars)																				
Primary Jurisdiction/ Project Sponsor	Project Description	Type of Cost	Jan. - Dec. 2016				Jan. - Dec. 2017				Jan. - Dec. 2018				Jan. - Dec. 2019				Year Open	Air Quality Status
			Federal	State	Local	Total	Federal	State	Local	Total	Federal	State	Local	Total	Federal	State	Local	Total		
Sheboygan County	Union Pacific Rail/Trail Conversion Extension in the City of Sheboygan: Pennsylvania Avenue to Indiana Avenue (Includes an Eastern Extension to South 9th Street Paralleling Indiana Avenue)	PE ROW CONST OTHER  TOTAL					126 0 0 0	0 0 0 0	0 0 0 0	126 0 0 0	504 0 0 0	0 0 0 0	0 0 0 0	504 0 0 0					2025	Exempt
<b>TIP ID No.: 372-11-109</b>							126 NMTTP	0 0	0 0	126 0	504 NMTTP	0 0	0 0	504 0						
Sheboygan County	Construction of Multi-Use Pathways on North Taylor Drive between Kohler Memorial Drive and Superior Avenue and from the Intersection of North Taylor Drive and North Avenue into Evergreen Park (1.20 mi.)	PE ROW CONST OTHER  TOTAL					36 0 0 0	0 0 0 0	0 0 0 0	36 0 0 0	144 0 0 0	0 0 0 0	0 0 0 0	144 0 0 0					NA	Exempt
<b>(ILLUSTRATIVE PROJECT - NOT PROGRAMMED)</b>							36 NMTTP	0 0	0 0	36 0	144 NMTTP	0 0	0 0	144 0						
Sheboygan County	CTH PP Highland Drive to Taylor Drive Conversion into Linear Parkway and Trail Facility (1.80 mi.)	PE ROW CONST OTHER  TOTAL					225 0 0 0	0 0 0 0	0 0 0 0	225 0 0 0	2,900 0 0 0	0 0 0 0	0 0 0 0	2,900 0 0 0					NA	Exempt
<b>(ILLUSTRATIVE PROJECT - NOT PROGRAMMED)</b>							225 NMTTP	0 0	0 0	225 0	2,900 NMTTP	0 0	0 0	2,900 0						
Sheboygan County	Union Pacific Rail/Trail Conversion Extension in the City of Sheboygan: Indiana Avenue to Mead Avenue	PE ROW CONST OTHER  TOTAL					300 0 0 0	0 0 0 0	0 0 0 0	300 0 0 0	3,500 0 0 0	0 0 0 0	0 0 0 0	3,500 0 0 0					NA	Exempt
<b>(ILLUSTRATIVE PROJECT - NOT PROGRAMMED)</b>							300 NMTTP	0 0	0 0	300 0	3,500 NMTTP	0 0	0 0	3,500 0						
Sheboygan County	Construction of a Bridge for Bicyclists and Pedestrians over the Sheboygan River near the Bemis Manufacturing Plant in the City of Sheboygan Falls	PE ROW CONST OTHER  TOTAL					93 0 0 0	0 0 0 0	0 0 0 0	93 0 0 0	463 0 0 0	0 0 0 0	0 0 0 0	463 0 0 0					NA	Exempt
<b>(ILLUSTRATIVE PROJECT - NOT PROGRAMMED)</b>							93 NMTTP	0 0	0 0	93 0	463 NMTTP	0 0	0 0	463 0						

Table 5 Calendar Years 2016 - 2019: Bicycle and Pedestrian Transportation Projects (In Thousands of Dollars)																				
Primary Jurisdiction/ Project Sponsor	Project Description	Type of Cost	Jan. - Dec. 2016				Jan. - Dec. 2017				Jan. - Dec. 2018				Jan. - Dec. 2019				Year Open	Air Quality Status
			Federal	State	Local	Total	Federal	State	Local	Total	Federal	State	Local	Total	Federal	State	Local	Total		
Wisconsin Department of Transportation  <b>TIP ID Nos.: 372-13-101 (for 2016 funding), 372-15-101 (for 2017 and 2018 funding) and 372-16-101 (for 2019 funding)</b>	Enhancements Grouped Projects	PE	20	5	0	25	20	5	0	25	20	5	0	25	20	5	0	25	2025	Exempt
		ROW				0				0				0				0		
		CONST	120	30	0	150	120	30	0	150	120	30	0	150	120	30	0	150		
		OTHER				0				0				0				0		
		TOTAL	140	35	0	175	140	35	0	175	140	35	0	175	140	35	0	175		
		TA					TA				TA				TA					
NOTES: The following funding codes are used to identify federal funding sources: NMTTP = Non-Motorized Transportation Pilot Program (Federal earmark in SAFETEA-LU awarded to Sheboygan County) TA = Transportation Alternatives Program (Includes the former Transportation Enhancements, Safe Routes to School, and Recreational Trails programs in SAFETEA-LU).																				
2016 - 2019 Funding Summary:  Total WisDOT Approved Bicycle and Pedestrian Project Funding (all sources) = \$700,000 Total NMTTP Project Funding (all sources) = \$12,557,000																				
Source: Sheboygan County Planning and Conservation Department, 2015; Wisconsin Department of Transportation, 2015; and Bay-Lake Regional Planning Commission, 2015.																				

- Union Pacific rails-to-trails conversion extension between Indiana Avenue and Mead Avenue in the City of Sheboygan (\$300,000 for design in 2017, and \$3,500,000 for construction in 2018); and
- Construction of a bridge for bicyclists and pedestrians over the Sheboygan River near the Bemis Manufacturing plant in the City of Sheboygan Falls (\$93,000 for design in 2017, and \$463,000 for construction in 2018).

If funding becomes available, the *2016 – 2019 TIP* may be amended to include one or more of these illustrative projects.

### **Street and Highway Improvement Projects**

Table 6 describes those street and highway improvement projects which are scheduled for the 2016 – 2019 program period. A wide variety of street and highway improvements will take place over the 2016 – 2019 period, including:

- Four reconstruction projects with no increase in capacity (one of these projects also involves rail work);
- Two roundabout construction projects (one of these projects involves right-of-way acquisition);
- Three bridge replacement projects;
- One bridge rehabilitation project;
- One miscellaneous cable guard (cable barrier) project on Interstate Highway 43; and
- A multi-county sequencing and prioritization study for Interstate Highway 43 involving the Wisconsin Department of Transportation.

WisDOT “grouped” projects are also listed in Table 6 for 2016, 2017, 2018 and 2019 in the areas of: STP Safety; railroad/highway crossing safety; HSIP/Highway Safety Improvement Program; railroad crossing protective devices; Office of the Commissioner of Railroads (OCR) rail-highway safety; Interstate highway system preventive maintenance; National Highway System preventive maintenance; and STN connecting highway system preventive maintenance.

Of the 12 specific street and highway projects authorized in this *2016 – 2019 TIP*:

- Four projects are scheduled for construction in 2016;
- One project is scheduled for construction in 2017;
- Three projects are scheduled for construction in 2018;
- Two projects are scheduled for construction in 2019. Of these, one project will involve right-of-way acquisition in 2017;
- One project will involve construction in both 2017 and 2018; and
- One project will involve completion of a study in 2016.

Map 1 indicates specific projects to be wholly or partially implemented in 2016 and 2017. Map 2 indicates specific projects to be wholly or partially implemented in 2018 and 2019.



Table 6 Calendar Years 2016 - 2019: Street and Highway Improvement Projects (In Thousands of Dollars)																				
Primary Jurisdiction/ Project Sponsor	Project Description	Type of Cost	Jan. - Dec. 2016				Jan. - Dec. 2017				Jan. - Dec. 2018				Jan. - Dec. 2019				Year Open	Air Quality Status
			Federal	State	Local	Total	Federal	State	Local	Total	Federal	State	Local	Total	Federal	State	Local	Total		
Wisconsin Department of Transportation and City of Sheboygan	STH 42/Calumet Drive Main Avenue to North 26th Street Reconstruction with no Increase in Capacity (4630-05-21, 4630-05-71 and 4630-05-72) (0.40 mi.) (Highway Preservation)	PE ROW CONST  TOTAL	  2,668  2,668 NHPP	  640  640	  496  496	  3,804  3,804													2025	Exempt
Wisconsin Department of Transportation	STH 28 Prange Road to South Taylor Drive Reconstruction with no Increase in Capacity (4640-05-00, 4640-05-21 and 4640-05-71) (0.39 mi.) (Highway Preservation)	PE ROW CONST  TOTAL	  148  148 NHPP	  4,494  4,494	  0  0	  4,642  4,642													2025	Exempt
Wisconsin Department of Transportation	STH 32 Intersection with Happy Lane (City of Sheboygan Falls) Construction of a Roundabout (4540-23-21 and 4540-23-71) (0.02 mi.) (Highway Safety)	PE ROW CONST  TOTAL	  0  0	  1,798  1,798	  0  0	  1,798  1,798													2025	Exempt from Regional Emissions Analysis
City of Sheboygan	North Avenue STH 42/Calumet Drive to North 15th Street Reconstruction with no Increase in Capacity and Rail Work (4996-01-78, 4996-01-79, 4996-01-80 and 4996-01-81) (0.57 mi.) (Highway Preservation)	PE ROW CONST  TOTAL					  210  210 URB	  91  91	  53  53	  354  354	  1,820  1,820 URB	  0  0	  1,139  1,139	  2,959  2,959					2025	Exempt
City of Sheboygan	Superior Avenue North Taylor Drive to North 29th Street Reconstruction with no Increase in Capacity (4996-01-72 and 4996-01-73) (0.30 mi.) (Highway Preservation)	PE ROW CONST  TOTAL													  612  612 URB	  0  0	  383  383	  995  995	2025	Exempt
Wisconsin Department of Transportation	IH 43 Ozaukee County Line to IH 41 in Brown County Sequencing and Prioritization Study (1221-17-00) (81.06 mi.) (Highway Preservation)	PE ROW CONST  TOTAL	  232  232 NHPP	  58  58	  0  0	  290  290													2025	Exempt

Table 6 Calendar Years 2016 - 2019: Street and Highway Improvement Projects (In Thousands of Dollars)																				
Primary Jurisdiction/ Project Sponsor	Project Description	Type of Cost	Jan. - Dec. 2016				Jan. - Dec. 2017				Jan. - Dec. 2018				Jan. - Dec. 2019				Year Open	Air Quality Status
			Federal	State	Local	Total	Federal	State	Local	Total	Federal	State	Local	Total	Federal	State	Local	Total		
Wisconsin Department of Transportation  <b>TIP ID No.: 372-15-001</b>	STH 28	PE																	2025	Exempt from Regional Emissions Analysis
	Intersection with CTH EE	ROW																0		
	Construction of a Roundabout (4010-20-00, 4010-20-21 and 4010-20-71) (0.10 mi.)	CONST					0	260	0	260					1,472	368	0	1,840		
	(Highway Safety)	TOTAL					0	260	0	260					1,472	368	0	1,840		

Table 6 Calendar Years 2016 - 2019: Street and Highway Improvement Projects (In Thousands of Dollars)																				
Primary Jurisdiction/ Project Sponsor	Project Description	Type of Cost	Jan. - Dec. 2016				Jan. - Dec. 2017				Jan. - Dec. 2018				Jan. - Dec. 2019				Year Open	Air Quality Status
			Federal	State	Local	Total	Federal	State	Local	Total	Federal	State	Local	Total	Federal	State	Local	Total		
Wisconsin Department of Transportation  <b>TIP ID Nos.: 372-13-003 (for 2016), 372-15-007 (for 2017 and 2018), and 372-16-002 (for 2019)</b>	Rail/Highway Crossing Safety Projects Grouped Projects (0.00 mi.) (Highway Safety)	PE				0				0				0				0	2025	Exempt
		ROW				0				0				0				0		
		CONST	120	30	0	150	120	30	0	150	120	30	0	150	120	30	0	150		
		TOTAL	120	30	0	150	120	30	0	150	120	30	0	150	120	30	0	150		
		RHGC								RHGC								RHGC		
Wisconsin Department of Transportation  <b>TIP ID Nos.: 372-13-004 (for 2016), 372-15-008 (for 2017 and 2018), and 372-16-003 (for 2019)</b>	HSIP/Highway Safety Improvement Program Grouped Projects (0.00 mi.) (Highway Safety)	PE	16	4	0	20	16	4	0	20	16	4	0	20	16	4	0	20	2025	Exempt
		ROW				0				0				0				0		
		CONST	80	20	0	100	80	20	0	100	80	20	0	100	80	20	0	100		
		TOTAL	96	24	0	120	96	24	0	120	96	24	0	120	96	24	0	120		
		HSIP								HSIP								HSIP		
Wisconsin Department of Transportation  <b>TIP ID Nos.: 372-13-005 (for 2016), 372-15-009 (for 2017 and 2018), and 372-16-004 (for 2019)</b>	Railroad Crossing Protective Devices Grouped Projects (0.00 mi.) (Highway Safety)	PE				0				0				0				0	2025	Exempt
		ROW				0				0				0				0		
		CONST	120	30	0	150	120	30	0	150	120	30	0	150	120	30	0	150		
		TOTAL	120	30	0	150	120	30	0	150	120	30	0	150	120	30	0	150		
		STP								STP								STP		
Office of the Commissioner of Railroads  <b>TIP ID Nos.: 372-13-006 (for 2016), 372-15-010 (for 2017 and 2018), and 372-16-005 (for 2019)</b>	Office of the Commissioner of Railroads (OCR) Rail-Highway Safety Projects Grouped Projects (0.00 mi.) (Highway Safety)	PE				0				0				0				0	2025	Exempt
		ROW				0				0				0				0		
		CONST	120	30	0	150	120	30	0	150	120	30	0	150	120	30	0	150		
		TOTAL	120	30	0	150	120	30	0	150	120	30	0	150	120	30	0	150		
		RHGC								RHGC								RHGC		
Wisconsin Department of Transportation  <b>TIP ID Nos.: 372-13-007 (for 2016), 372-15-011 (for 2017 and 2018), and 372-16-006 (for 2019)</b>	Interstate Highway System Preventive Maintenance Projects Grouped Projects (0.00 mi.) (Highway Preservation)	PE				0				0				0				0	2025	Exempt
		ROW				0				0				0				0		
		CONST	160	40	0	200	160	40	0	200	160	40	0	200	160	40	0	200		
		TOTAL	160	40	0	200	160	40	0	200	160	40	0	200	160	40	0	200		
		NHPP								NHPP								NHPP		
Wisconsin Department of Transportation  <b>TIP ID Nos.: 372-13-008 (for 2016), 372-15-012 (for 2017 and 2018), and 372-16-007 (for 2019)</b>	National Highway System Preventive Maintenance Projects Grouped Projects (0.00 mi.) (Highway Preservation)	PE				0				0				0				0	2025	Exempt
		ROW				0				0				0				0		
		CONST	400	100	0	500	400	100	0	500	400	100	0	500	400	100	0	500		
		TOTAL	400	100	0	500	400	100	0	500	400	100	0	500	400	100	0	500		
		NHPP								NHPP								NHPP		

Table 6 Calendar Years 2016 - 2019: Street and Highway Improvement Projects (In Thousands of Dollars)																				
Primary Jurisdiction/ Project Sponsor	Project Description	Type of Cost	Jan. - Dec. 2016				Jan. - Dec. 2017				Jan. - Dec. 2018				Jan. - Dec. 2019				Year Open	Air Quality Status
			Federal	State	Local	Total	Federal	State	Local	Total	Federal	State	Local	Total	Federal	State	Local	Total		
Wisconsin Department of Transportation	STN Connecting Highway System	PE				0				0				0				0	2025	Exempt
	Preventive Maintenance Projects	ROW				0				0				0				0		
<b>TIP ID Nos.: 372-13-009 (for 2016), 372-15-013 (for 2017 and 2018), and 372-16-008 (for 2019)</b>	Grouped Projects (0.00 mi.)	CONST	400	0	100	500	400	0	100	500	400	0	100	500	400	0	100	500		
	(Highway Preservation)	TOTAL	400	0	100	500	400	0	100	500	400	0	100	500	400	0	100	500		
			NHPP				NHPP				NHPP				NHPP					
NOTES: The following funding codes are used to identify Federal funding sources: HSIP = Highway Safety Improvement Program NHPP = National Highway Performance Program (includes the former National Highway System, Interstate Maintenance, and Bridge Replacement and Rehabilitation programs (on the Enhanced National Highway System) in SAFETEA-LU. RHGC = Rail-Highway Grade Crossing Program STP = Surface Transportation Program (includes the Surface Transportation Program in SAFETEA-LU, plus the former Bridge Replacement and Rehabilitation program (off the Enhanced National Highway System) in SAFETEA-LU). URB = Surface Transportation Program - Urban																				
<u>2016 - 2019 Funding Summary:</u> Total Highway Preservation Project Funding = \$20,855,000 Total Highway Safety Project Funding = \$8,128,000 Total Highway Improvement Project Funding = \$0 Total Highway Expansion Project Funding = \$0																				
Source: Wisconsin Department of Transportation, 2015; City of Sheboygan, 2015; and Bay-Lake Regional Planning Commission, 2015.																				

In addition to specific street and highway improvement projects, approval of this *2016 – 2019 TIP* also implies approval of several Wisconsin Department of Transportation “grouped” projects (which are of a region-level scope) when they occur in the Sheboygan Metropolitan Planning Area. These “grouped” projects are classified in the following categories: (1) traffic safety; (2) the statewide highway safety improvement program (HSIP); (3) regional railroad crossing projects; (4) region-wide hazardous waste; (5) wetland mitigation bank; (6) state highway rehabilitation; (7) pavement marking; (8) traffic operations; and (9) maintenance resurfacing. These projects involve only Federal and state transportation funds, involve work on the state trunk highway system, and are expected to involve minimal funding levels within the Sheboygan Metropolitan Planning Area.

### **FINANCIAL PLAN FOR THIS TRANSPORTATION IMPROVEMENT PROGRAM**

An addition to Transportation Improvement Programs and TIP Amendments resulting from Federal surface transportation in recent years, including the “Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21) act, is a financial plan which documents that funding is available to meet expenditures for projects receiving Federal funding throughout the period covered by a TIP or TIP Amendment.

Table 7 discusses available Federal funding for the *2016 – 2019 TIP* in thousands of dollars, and demonstrates the ability of available funding sources to implement the projects programmed in the TIP. Programmed expenditures in the TIP have been compared to the funding estimated to be available. Included in Table 7 are Federal highway and Federal transit funding sources. In the event of the over-programming of funds, the MPO advisory committees will work to resolve the discrepancy; this may involve the use of alternative Federal and/or state funding sources.

Table 7 reflects an annual inflation factor of 2.3 percent for programmed expenditures and an estimated inflation factor of 1.0 percent for available funding in nearly all highway and transit programs; exceptions include the Transportation Alternatives program (TA), as well as the Congestion Mitigation and Air Quality improvement program (CMAQ), where funding was not inflated at all. Most inflation factors used in this financial plan were based on guidance from staff of the WisDOT Bureau of Planning and Economic Development that was issued to Wisconsin MPOs in the development of their financial plans for their long-range transportation plans and TIPs in September of 2015; the Sheboygan Parking and Transit Utility consulted with the MPO on transit-related inflation factors.

Table 7 indicates that the following street and highway and bicycle and pedestrian project categories in the *2016 – 2019 TIP* are adequately funded when taken as a whole for the program period:

- National Highway Performance Program (NHPP), including what were National Highway System and Interstate Maintenance funding sources under SAFETEA-LU, and also funding bridge improvements on the National Highway System. Three regular NHPP projects and three categories of WisDOT “grouped” NHPP projects are funded in Table 6.
- Surface Transportation Program (STP), including projects that were originally included under the STP funding category in SAFETEA-LU, as well as any bridge improvements off the National Highway System. Five regular STP projects and one category of WisDOT “grouped” STP projects are funded in Table 6.

Table 7 Programmed and Available Federal Funding for the 2016 - 2019 TIP (In Thousands of Dollars)												
Funding Source		Programmed Expenditures					Estimated Available Funding					
Agency	Program	2016	2017	2018	2019	Total	2016	2017	2018	2019	Total	
Federal Highway Administration	National Highway Performance Program (NHPP)	4,008	982	1,005	1,028	7,023						
	Surface Transportation Program (STP)	337	246	2,294	1,704	4,581						
	Surface Transportation Program - Urban (URB)	0	215	1,905	655	2,775						
	Highway Safety Improvement Program (HSIP)	192	196	1,585	206	2,179						
	Rail-Highway Grade Crossing (RHGC)	240	246	251	257	994						
	Transportation Alternatives (TA)	140	140	140	140	560						
	Non-Motorized Transportation Pilot Program (NMTPP)	8,001	801	3,949	0	12,751						
	<b>Total</b>	<b>12,918</b>	<b>2,825</b>	<b>11,129</b>	<b>3,990</b>	<b>17,551</b>	<b>22,968</b>	<b>15,898</b>	<b>19,037</b>	<b>15,416</b>	<b>73,318</b>	
Federal Transit Administration	Section 5304	0	0	0	0	0	0	0	0	0	0	
	Section 5307 - Sheboygan Urbanized Area - Operating Expenses	1,205	1,217	1,229	1,242	4,893	1,205	1,217	1,229	1,242	4,893	
	Section 5307 - Sheboygan Urbanized Area - Capital Expenses	0	0	0	0	0	0	0	0	0	0	
	Section 5339	324	363	0	0	687	169	171	173	174	687	
	Congestion Mitigation and Air Quality Improvement Program (CMAQ)	0	720	720	0	1,440	389	390	389	390	1,558	
	Section 5310	0	116	0	0	116	0	116	0	0	116	
	<b>Total</b>	<b>1,529</b>	<b>2,416</b>	<b>1,949</b>	<b>1,242</b>	<b>7,136</b>	<b>1,763</b>	<b>1,894</b>	<b>1,791</b>	<b>1,806</b>	<b>7,254</b>	
NOTES:												
(1) Totals may not be completely consistent with the sum of individual cell entries due to rounding error.												
(2) With the exception of Transportation Alternatives (TA), all highway- and enhancement-related programmed expenditures were adjusted to reflect an annual inflation rate of 2.3 percent, while all highway- and enhancement-related estimated available funding was adjusted to reflect an annual inflation rate of 1.0 percent. TA funds were not adjusted to reflect inflation. These adjustments were made per WisDOT guidance updated in September 2015.												
(3) Total transit operating expenses were adjusted to reflect an annual inflation rate of 1.0 percent. These adjustments were made through consultation with staff from the Sheboygan Parking and Transit Utility (Shoreline Metro).												
(4) With the exception of CMAQ, all transit capital programmed expenditures were adjusted to reflect an annual inflation rate of 2.3 percent, while all transit capital programmed expenditure estimated available funding was adjusted to reflect an annual inflation rate of 1.0 percent. CMAQ funds were not adjusted to reflect inflation. These adjustments were made per WisDOT guidance updated in September 2015, as well as through consultation with staff from the Sheboygan Parking and Transit Utility (Shoreline Metro).												
Source: Bay-Lake Regional Planning Commission, 2015.												

- Surface Transportation Program – Urban (URB): Two regular URB projects are funded in Table 6.
- Highway Safety Improvement Program (HSIP): One regular HSIP project and two categories of WisDOT “grouped” HSIP projects are funded in Table 6.
- Rail-Highway Grade Crossing Program (RHGC): Two categories of WisDOT “grouped” RHGC projects are funded in Table 6.
- Transportation Alternatives Program (TA): One category of WisDOT “grouped” TA projects is funded in Table 5.
- Sheboygan County Non-Motorized Transportation Pilot Program (NMTTP): Seven NMTTP projects are funded in Table 5.

As far as transit is concerned:

- It is likely that Shoreline Metro will apply for FTA Section 5304 funding to complete a transit development program (TDP) for its operation. If the Wisconsin Department of Transportation approves this funding, Table 2 will be amended to include this project.
- Section 5307 transit operational funds will be available in stable amounts for the regular operations of Shoreline Metro over the program period, as noted in Table 1.
- Based on recent trends, and when taken as a whole, transit capital funding should be available to finance one fixed-route bus replacement in 2016, as well as one fixed-route bus replacement in 2017 (Table 2), although the local share for these bus replacements may be slightly higher than has been the case for past bus replacements. Six other capital items are listed as illustrative projects in Table 2. Section 5339 FTA funding will be the primary Federal funding source for transit capital items at Shoreline Metro and at other small urbanized transit operations in Wisconsin. In the event that Section 5339 funding is not available, Section 5307 FTA funding will be the Federal funding source for most transit capital items.
- Congestion Mitigation and Air Quality Improvement Program (CMAQ) funding should be available to finance two fixed-route bus replacements in 2017, as well as two fixed-route bus replacements in 2018 in Table 2.
- Section 5310 funding will be available to fund two medium sized buses for the Sheboygan County Health and Human Services Department that will be operated by Shoreline Metro for transportation of the elderly and persons with disabilities. All other projects listed in Table 4 are illustrative at this time, and the TIP will be amended if funding materializes for one or more of the elderly and disabled transportation capital projects listed in Table 4.

Any costs associated with providing street operations and maintenance (O & M) activities are funded entirely by the local operating budgets of the various jurisdictions within the Sheboygan Metropolitan Planning Area. These O & M funds are completely separate from the capital improvement funds provided for in this TIP, and do not affect the cost estimates and corresponding fiscal constraints shown in this document.

## **PUBLIC PARTICIPATION PROCESS**

In 2012, the Bay-Lake Regional Planning Commission updated its Public Participation Plan for all transportation plans and programs developed for the Sheboygan MPO. The following narrative outlines the public involvement process used in the development of this *2016 – 2019 TIP* for the Sheboygan Metropolitan Planning Area.

The Bay-Lake Regional Planning Commission published a Notice of Request for Comment on the draft *2016 – 2019 Transportation Improvement Program* for the Sheboygan Metropolitan Planning Area in a local newspaper as well as through social media. This notice informed the public of the availability of draft copies of the TIP at key locations in the Sheboygan Metropolitan Planning Area, and solicited public input on the draft TIP. This Notice of Request for Comment was also mailed to individuals and organizations on the MPO Public Participation Plan mailing list. This Notice of Request for Comment listed approximate and actual dates of all significant meetings and hearings concerning the TIP, and included a public hearing announcement. Draft copies of the TIP were made available (at five public review locations in the Sheboygan area as well as on the Sheboygan MPO webpage linked to the Bay-Lake Regional Planning Commission website) for a period of 30 days. A public hearing on the draft TIP was held during this review period.

Comments received on the draft TIP were forwarded to the MPO Technical and Policy Advisory Committees for their consideration. Following the public hearing, the MPO Technical and Policy Advisory Committees reviewed the draft TIP and public input, and made their recommendation to the Bay-Lake Regional Planning Commission. Comments received at the public hearing, written comments received during the public comment period and the recommendation from the MPO Technical and Policy Advisory Committees were then forwarded to the Bay-Lake Regional Planning Commission for its consideration.

The following was a schedule of events for public involvement in the development of the *2016 – 2019 TIP*:

November 11, 2015

Notice of Request for Public Comment on the draft *2016 – 2019 TIP* published in a local newspaper, sent to other local media and publicized via social media. Significant meetings and hearings concerning the TIP were listed in the notice, including notice of the public hearing concerning the TIP. Draft TIP made available for public review at five locations in the Sheboygan Metropolitan Planning Area and on the MPO webpage of the Bay-Lake Regional Planning Commission website.

November 11, 2015

Notice of Request for Public Comment on the draft *2016 – 2019 TIP* was made available to



	individuals and organizations on the MPO Public Participation Plan mailing list.
November 11, 2015	Draft TIP made available for public review through December 10, 2015.
December 2, 2015	Public Hearing on the <i>2016 – 2019 TIP</i> .
December 10, 2015	Technical and Policy Advisory Committees considered public comments and made a recommendation to the Bay-Lake Regional Planning Commission.
December 11, 2015	Bay-Lake Regional Planning Commission meeting: Consideration of written comments, comments from the public hearing and recommendation of the MPO Technical and Policy Advisory Committees, and Commission action on the final TIP.
Week of December 14 – 18, 2015	Formal transmittal of the final TIP to applicable state and Federal agencies.

The public hearing concerning the *2016 – 2019 TIP* commenced at 4:00 p.m. on December 2, 2015, at the Sheboygan County Administration Building (Room 302), 508 New York Avenue, Sheboygan. One individual was in attendance at the public hearing: Tom Wegner, Vice Chairperson of the Sheboygan County Board and a member of the Sheboygan MPO Policy Advisory Committee. Jeffrey Agee-Aguayo represented the Bay-Lake Regional Planning Commission at the public hearing.

Jeffrey Agee-Aguayo had a presentation available that focused on the draft TIP. However, given that there was one person in attendance and the fact that that individual was already familiar with the MPO process, the public hearing took more of a question and answer and discussion format. The one meeting attendee was given a packet of tables from the main body of the TIP that was reviewed. Several large display maps were available in the public hearing room; these maps showed the location of proposed street and highway projects in the TIP, the location of street and highway projects completed in 2015 in the previous TIP, and the environmental justice impacts of street and highway and bicycle and pedestrian transportation projects in the draft TIP as well as of the current Shoreline Metro route structure.

No substantive issues or comments were raised at the public hearing.

The public hearing concerning the *2016 – 2019 TIP* officially concluded at 5:00 p.m.

Written comments were received from Edward Procek, Sheboygan County Board Supervisor (District 7) and Bay-Lake Regional Planning Commissioner. Mr. Procek discussed the need for expanded transit service (both in terms of hours as well as area served) in the Sheboygan metropolitan planning area and elsewhere in Sheboygan County, along with the need to replace

several older buses and other vehicles at Shoreline Metro. Mr. Procek also discussed the need to have adequate financing at the state and local levels in order to improve roads and other infrastructure in the Sheboygan metropolitan planning area. Mr. Procek expressed hope that a “wheel tax” in the City of Sheboygan as well as an “infrastructure sales tax” that may be authorized by the state legislature may help to improve the condition of streets and highways in the area in the near future.

### **IMPLEMENTATION STATUS OF PROJECTS RECOMMENDED FOR 2015 IN THE SHEBOYGAN METROPOLITAN PLANNING AREA TIP**

Several projects have been completed in the Sheboygan Metropolitan Planning Area since the TIP process began. Street and highway projects recommended for 2015 in the *2015 – 2018 TIP* (adopted in December 2014, and amended once thereafter) which were completed by the end of 2015 are identified on Map 3. Table 8 includes a summary of the progress made on transit operations and capital items, elderly and disabled transportation operations and capital items, bicycle and pedestrian transportation projects, and street and highway improvement projects which were scheduled for 2015 in the *2015 – 2018 TIP*. Table 8 identifies projects scheduled in the *2015 – 2018 TIP* for 2015, and includes information such as project location, jurisdiction, project description, and project status.

### **AIR QUALITY CONFORMITY STATEMENT**

The air quality conformity statement for this *2016 – 2019 TIP* can be found in Appendix C. The conformity statement has been prepared for both the TIP and for the *Year 2045 Sheboygan Area Transportation Plan (SATP)*. The *Year 2045 SATP* (and this *2016 – 2019 TIP* which implements that plan) demonstrates conformity against a SIP in which USEPA found motor vehicle emission budgets adequate for Sheboygan County; emission budgets in the SIP were developed using the MOVES 2014 emissions estimating model, and the conformity analysis found in Appendix C utilized emission factors produced by MOVES 2014 to demonstrate conformity against the SIP. This conformity analysis was prepared to demonstrate conformity for all of Sheboygan County, since the county has been designated a nonattainment area for the eight-hour standard for ground-level ozone for several years.

### **STATEMENT OF IMPACTS OF TIP PROJECTS ON ENVIRONMENTAL JUSTICE**

Taken as a whole, the projects in this Transportation Improvement Program, together with the other publicly and privately funded transportation improvements and services provided in the Sheboygan Metropolitan Planning Area, do not impose disproportionately high and adverse impacts on minority populations and/or low income populations. Furthermore, the benefits of the transportation improvements and services provided are reasonably distributed to serve the needs of all populations in the area. These statements are based on the analysis summarized in Appendix E of this *2016 – 2019 TIP*.

**Table 8**  
**Implementation Status of Projects Recommended for 2015**  
**Transportation Improvement Program for the Sheboygan Metropolitan Planning Area**

<b>Project Location</b>	<b>Jurisdiction</b>	<b>Project Description</b>	<b>Project Status</b>
STH 42/Calumet Drive Main Avenue to North 26th Street	Wisconsin Department of Transportation and City of Sheboygan	Right-of-Way Acquisition Leading to Reconstruction with no Increase in Capacity	Right-of-Way Acquisition in Progress through August 2016; Programmed for Late 2016; Construction Scheduled for 2017
STH 28/North 14th Street Sheboygan River Bridge	Wisconsin Department of Transportation and City of Sheboygan	Bridge Deck Replacement	Completed
STH 28 Prange Road to South Taylor Drive	Wisconsin Department of Transportation	Reconstruction with no Increase in Capacity	Construction to be Completed in 2016
STH 23 Plymouth to Sheboygan Falls	Wisconsin Department of Transportation	Installation of Fencing	Construction Scheduled for 2016
CTH A Intersection with CTH EE	Wisconsin Department of Transportation and Sheboygan County	Construction of a Roundabout	Completed
North Avenue STH 42/Calumet Drive to North 15th Street	City of Sheboygan	Design Leading to Reconstruction with no Increase in Capacity and Rail Work	Design in Progress Through 2018
Superior Avenue North Taylor Drive to North 29th Street	City of Sheboygan	Design Leading to Reconstruction with no Increase in Capacity	Design in Progress Through 2018
IH 43 Ozaukee County Line to IH 41 in Brown County	Wisconsin Department of Transportation	Sequencing and Prioritization Study	Study in Progress Through 2016
Meadowlark Road Sheboygan River Bridge and Approaches	Town of Sheboygan Falls	Design Leading to Bridge Replacement	Design in Progress Through 2017
Meadowlark Road Fischer Creek Bridge and Approaches	Town of Herman	Design Leading to Bridge Replacement	Design in Progress Through 2017
South 8th Street Sheboygan River Bridge	City of Sheboygan	Design Leading to Bridge Rehabilitation	Design in Progress Through 2016
South Business Drive Railroad Overpass South of Washington Avenue	City of Sheboygan	Design Leading to Bridge Replacement	Design in Progress Through 2017
IH 43 Wilson Lima Road to Fischer Creek Road	Wisconsin Department of Transportation	Design Leading to Installation of Miscellaneous Cable Guard	Completed; Construction Scheduled for 2019
Various Locations in the Sheboygan Metropolitan Planning Area	Wisconsin Department of Transportation	Grouped Projects in the Sheboygan Metropolitan Planning Area	Completed
Sheboygan County NMTTP	Sheboygan County	Level of Effort for Program Oversight (Including Education and Outreach)	Completed, but Work Extended Through 2018
Taylor Drive between Crocker Avenue and just north of Erie Avenue/Taylor Park	Sheboygan County and City of Sheboygan	Bicycle/Pedestrian Path	Construction to be Completed in 2016 and 2017
Various Locations in the City of Sheboygan	City of Sheboygan	Sidewalk Gap Filling	Completed

<b>Table 8</b> <b>Implementation Status of Projects Recommended for 2015</b> <b>Transportation Improvement Program for the Sheboygan Metropolitan Planning Area</b>			
<b>Project Location</b>	<b>Jurisdiction</b>	<b>Project Description</b>	<b>Project Status</b>
Throughout the Sheboygan Metropolitan Planning Area and Sheboygan County	Sheboygan County	NMTPP Marketing and Branding	To be Completed in 2016 and 2017
Indiana Avenue South Taylor Drive to South 17th Street	Sheboygan County	Planning Study for a Road Diet/Multi-Use Cycle-Track Facility	To be Completed in 2016; Study Termini Changed to South 17th Street in the City of Sheboygan to Highland Drive in the Village of Kohler
Over the Sheboygan River near the Former Tecumseh Engines Plant in the City of Sheboygan Falls	Sheboygan County	Design Leading to Construction of a Bridge for Bicyclists and Pedestrians	Preliminary Engineering to be Completed in 2017; Construction to be Completed in 2018
Alliant Energy Utility Corridor on the South Side of the City of Sheboygan	Sheboygan County	Design Leading to Construction of a Multi-Use Pathway	Preliminary Engineering to be Completed in 2016 and 2017; Construction to be Completed in 2018
North Taylor Drive between Kohler Memorial Drive and Superior Avenue and from the Intersection of North Taylor Drive and North Avenue into Evergreen Park	Sheboygan County	Design Leading to Construction of Multi-Use Pathways	Project Dropped; Listed as an Illustrative Project in the <i>2016 - 2019 TIP</i>
Union Pacific Railroad Line Pennsylvania Avenue to Indiana Avenue (Includes an Eastern Extension to South 9th Street Paralleling Indiana Avenue)	Sheboygan County	Design Leading to Rail to Trail Conversion/ Extension	Preliminary Engineering to be Completed in 2017; Construction to be Completed in 2018
Shoreline Metro Service Area	Sheboygan Parking and Transit Utility	Operation of Shoreline Metro	Completed
Sheboygan County	Sheboygan County	Volunteer Driver Program	Completed
Sheboygan County	Sheboygan County	Purchase of Specialized Transportation Services from the City of Sheboygan Parking and Transit Utility	Completed
Source: Bay-Lake Regional Planning Commission, 2015.			

## **EXPEDITED PROJECT SELECTION PROCEDURES**

Federal regulations acknowledge that changes occur as TIP projects advance through the project development process. The regulations include some flexibility that MPOs may choose to implement to manage TIP amendment workload. The *WisDOT TIP Preparation Guidance* includes historic boilerplate language regarding these flexibilities that Wisconsin MPOs have included in their TIPs. FHWA reviewed the boilerplate language, and found some inconsistencies with current regulations. If MPOs choose to include permitted flexibility in implementing the TIP, then FHWA recommends that the TIP include the following specific section with commitment to the procedures outlined. If an MPO chooses not to include specific flexibilities, then the MPO should coordinate with WisDOT and FHWA to ensure that adopted expedited selection procedures remain compliant.

The Bay-Lake Regional Planning Commission/Sheboygan MPO, WisDOT, and the Sheboygan Parking and Transit Utility/Shoreline Metro hereby agree to the following procedures in advancing projects from the approved TIP for Federal funding commitment:

1. The first year of the TIP constitutes an agreed to list of projects for project selection purposes and no further project selection action is required by the MPO for WisDOT or the transit operator to proceed with Federal funding commitment.
2. Projects from the second, third or fourth year of the TIP can be advanced by WisDOT or the transit operator for Federal fund commitment without further project selection action by the MPO.
3. Concerning the Federal funding sources identified for individual projects in the TIP, it is agreed that WisDOT may unilaterally interchange eligible FHWA funding program sources without necessitating an amendment, subject to the project selection authority that Federal regulations and state local program procedures reserve for the State and the MPO, and subject to reconciliation under Item #5.
4. WisDOT can unilaterally interchange FTA Section 5309, Section 5339 and Section 5307 capital funds in urbanized areas between 50,000 and 200,000 population without necessitating a STIP or TIP amendment. FTA should be notified of any interchange of funds.
5. To maintain accountability and fiscal constraint as changes occur during implementation of the TIP, the MPO, WisDOT and the transit operator will monitor projects in the TIP and account for all significant changes in scheduled years and costs in a TIP amendment at the midpoint of the calendar year. (MPOs on a two year TIP update cycle must also commit to “truing up” the TIP by amendment at the end of the first year along with declaring the second year of the TIP to be the agreed to list of projects for the second year of operation).
6. WisDOT relies on the public involvement process conducted by the MPO in the development of its TIP to satisfy the FTA program and planning requirements, as established for the Section 5309, Section 5339 and Section 5307 programs.

## **TIP AMENDMENT GUIDELINES**

### **Major Amendments**

A major *TIP* amendment will be necessary when:

- Adding a non-exempt/expansion project to the first four years of the *TIP*, including advancing a project for implementation from an illustrative list or from the out year(s) of the *TIP*\*;
- Moving a non-exempt/expansion project out of the first four years of the *TIP*\*;
- Significantly changing the scope (character of work or project limits) of a non-exempt/expansion project within the first four years of the *TIP* such that the current description is no longer reasonably accurate\*; or
- Adding or deleting any project that exceeds the lesser of 10 percent of the total original Federal funding programmed for the calendar year, or \$1,000,000 (within the first four years of the *TIP*).

\*For purposes of air quality conformity analysis, “non-exempt” projects are projects that change or modify capacity on the transportation network. Examples of “non-exempt” projects in the Sheboygan area might include adding or deleting lanes on an existing arterial or collector facility, building a new arterial or collector facility, or adding a new interchange to a freeway. Generally, most other projects are considered “exempt” projects for purposes of air quality conformity analysis. Additional information concerning these definitions can be found in the USEPA conformity regulation (40 CFR 93), specifically in Tables 2 and 3 of the regulation. This detailed information is available from MPO staff at the Bay-Lake Regional Planning Commission office.

A major amendment will require the following steps:

- Staff will commence the major amendment process by releasing the proposed amendment for a 30-day public review period. Staff will inform the public of the proposed major amendment by placing the proposed major amendment and public review period announcement on the Sheboygan MPO webpage of the Bay-Lake Regional Planning Commission website, by sending notices to the organizations on the *MPO Public Participation Plan* mailing list and by publishing a notice in one or more local newspapers. The notices will be distributed just before the 30-day review period begins. Public notice will also be provided through social media, including the Bay-Lake Regional Planning Commission Facebook page and (more briefly) through Twitter.
- Near the end of the 30-day public review process, staff will conduct a public hearing on the major *TIP* amendment at an accessible location that can be reached by Shoreline Metro. The public hearing notice will also be sent to the organizations on the *MPO Public Participation Plan* mailing list and to local news media. MPO staff will consider holding the public hearing immediately before meetings of the Sheboygan MPO Technical and Policy Advisory Committees in order to conserve staff time and resources.
- Following the public hearing, the Sheboygan MPO Technical and Policy Advisory

Committees will have the opportunity to comment on the proposed major *TIP* amendment and make a recommendation to the Bay-Lake Regional Planning Commission.

- Staff will present the proposed major amendment to the Bay-Lake Regional Planning Commission (or its Executive Committee) for final approval.

### **Minor Amendments**

A minor *TIP* amendment will be necessary when:

- Adding an exempt/system preservation project to the first four years of the *TIP*, including advancement of a project for implementation from an illustrative list or from the out year(s) of the *TIP*;
- Moving an exempt/system preservation project out of the first four years of the *TIP*;
- Changing the scope (character of work or project limits) of an exempt/system preservation project within the first four years of the *TIP* such that the current description is no longer reasonably accurate; or
- A change in project funding that impacts funding for other projects within the first four years of the *TIP*, forcing any exempt/system preservation project out of the first four years of the *TIP*.

A minor amendment will require the following steps:

- The Sheboygan MPO Technical and Policy Advisory Committees will have the opportunity to comment on the proposed minor *TIP* amendment and make a recommendation to the Bay-Lake Regional Planning Commission; this will include a public comment period toward the beginning of the joint meeting of those committees.
- Staff will present the proposed minor amendment to the Bay-Lake Regional Planning Commission (or its Executive Committee) for final approval.

### **Administrative Modifications**

The *TIP* can be administratively modified by staff without going through the amendment process under the following circumstances:

- Changing the implementation schedule for projects within the first four years of the *TIP*;
- Changes in scope (character of work or project limits) while remaining reasonably consistent with the approved project; or
- Changing the source (Federal, state or local funding source); category (National Highway Performance Program, Surface Transportation Program, earmarks, etc.); or amount of funding for a project without changing the scope or work or schedule for the project or any other project within the first four years of the *TIP*.

In addition, projects approved for Emergency Relief funding are not generally required to be included in the *TIP*. Therefore, any changes made for emergency relief projects may be considered administrative modifications to the *TIP*.

Sheboygan Metropolitan Planning Area  
Sheboygan County, Wisconsin

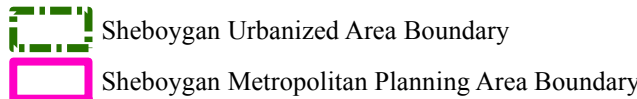
Map 1

# 2016

1. STH 42/Calumet Drive  
Main Avenue to North 26th Street  
Reconstruction with no Increase in Capacity
2. STH 28  
Prange Road to South Taylor Drive  
Reconstruction with no Increase in Capacity
3. STH 32  
Intersection with Happy Lane  
Construction of a Roundabout
4. IH 43  
Ozaukee County Line to IH 41 in Brown County  
Sequencing and Prioritization Study
5. South 8th Street  
Sheboygan River Bridge  
Bridge Rehabilitation

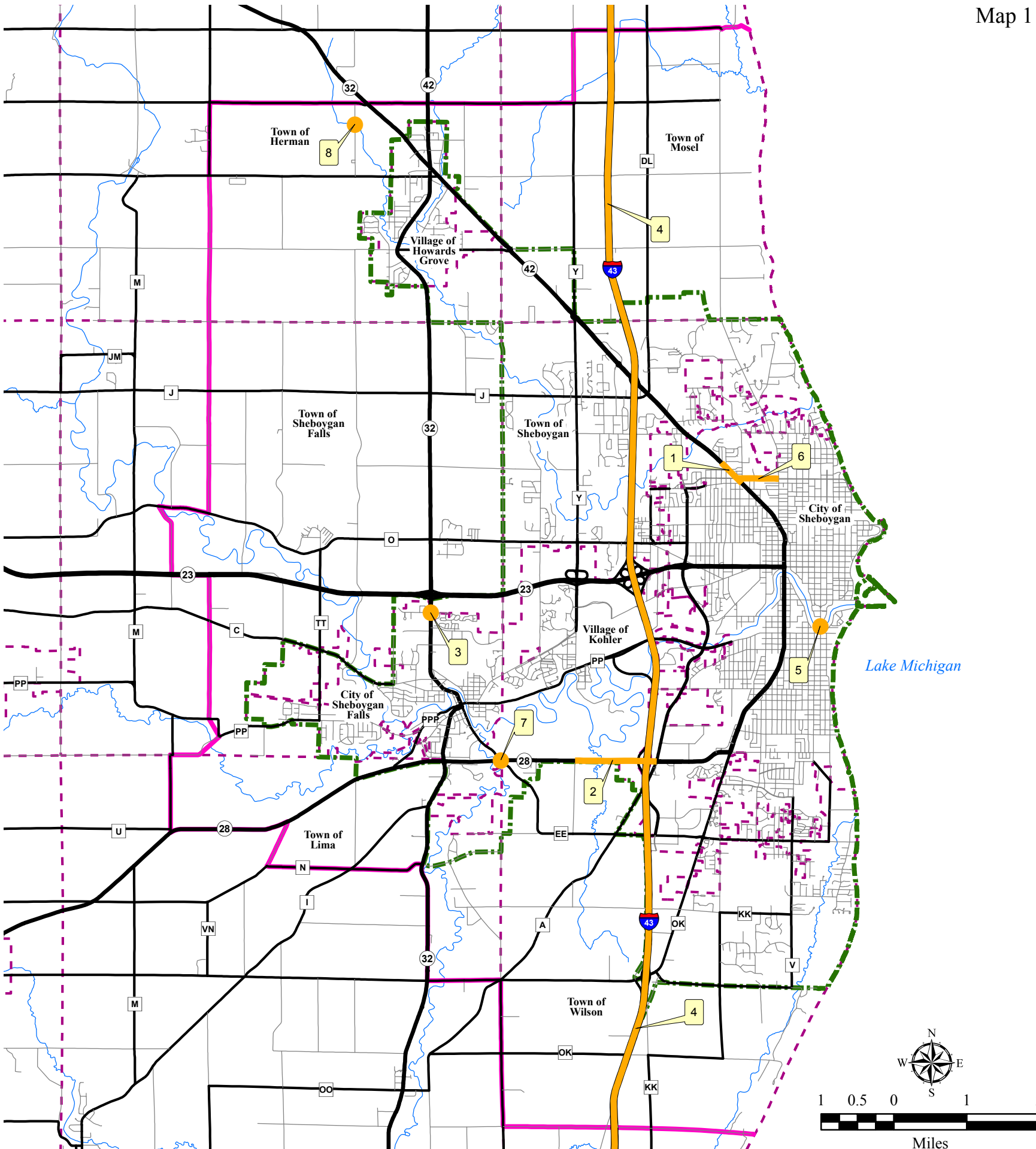
# 2017

6. North Avenue  
STH 42/Calumet Drive to North 15th Street  
Reconstruction with no Increase in Capacity and Rail Work  
(Begins in 2017 and Ends in 2018)
7. STH 28  
Intersection with CTH EE  
Right-of-Way Acquisition Leading to Construction  
of a Roundabout in 2019
8. Meadowlark Road  
Fischer Creek Bridge and Approaches  
Bridge Replacement



December, 2015  
G:\Sheboygan\MPO\TIP\TIP 2016-2019  
Source: WDNR; Sheboygan County, 2015;  
Bay-Lake Regional Planning Commission, 2015

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only. Bay-Lake RPC is not responsible for any inaccuracies herein contained.







Street and Highway Improvement Projects:  
2018-2019  
Sheboygan Metropolitan Planning Area  
Sheboygan County, Wisconsin

2018

- 1. North Avenue  
STH 42/Calumet Drive to North 15th Street  
Reconstruction with no Increase in Capacity and Rail Work  
(Begins in 2017 and Ends in 2018)
- 2. Meadowlark Road  
Sheboygan River Bridge and Approaches  
Bridge Replacement
- 3. South Business Drive  
Railroad Overpass South of Washington Avenue  
Bridge Replacement
- 4. IH 43  
Wilson Lima Road to Fischer Creek Road  
Miscellaneous Cable Guard

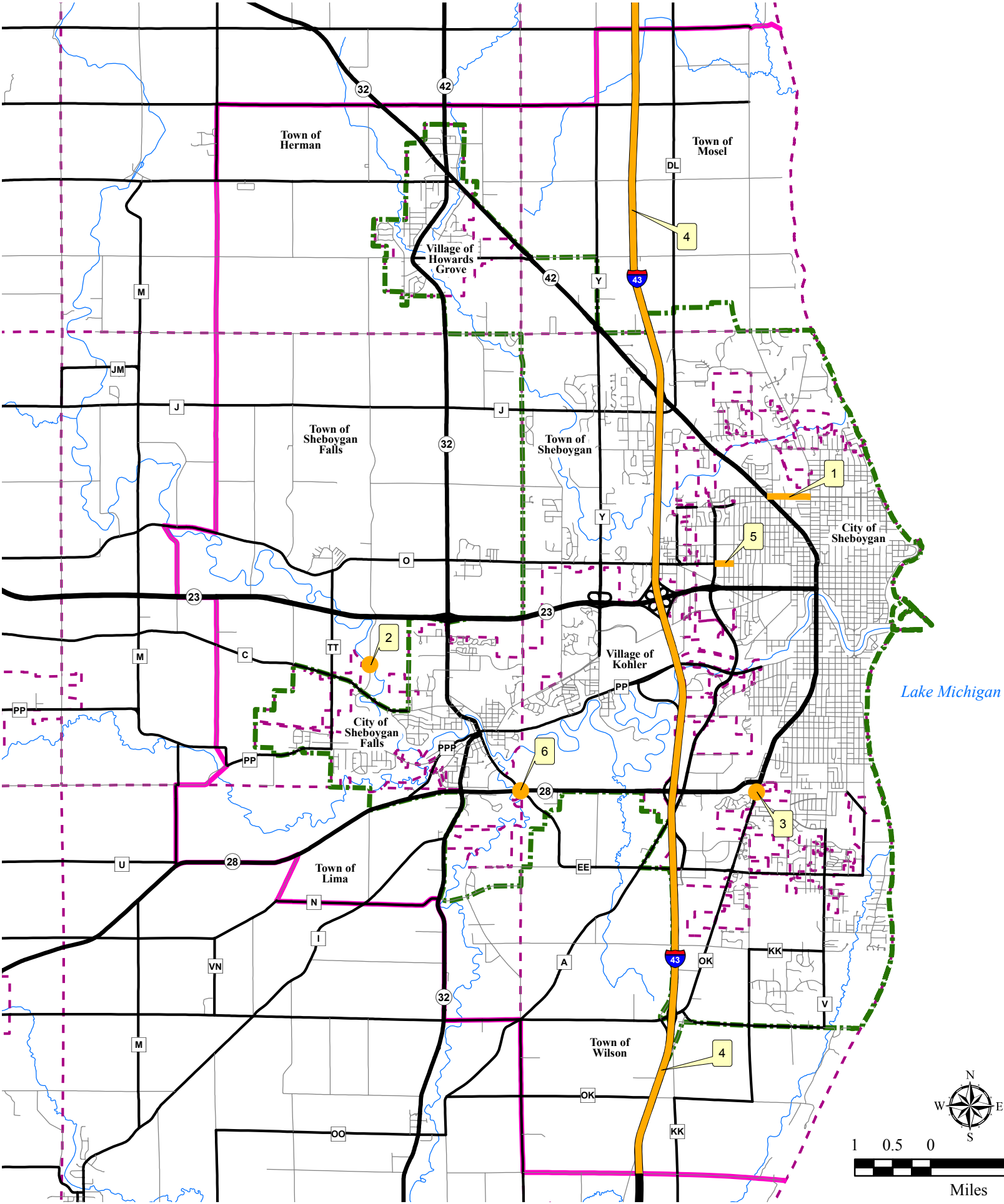
2019

- 5. Superior Avenue  
North Taylor Drive to North 29th Street  
Reconstruction with no Increase in Capacity
- 6. STH 28  
Intersection with CTH EE  
Construction of a Roundabout

 Sheboygan Urbanized Area Boundary  
 Sheboygan Metropolitan Planning Area Boundary

December, 2015  
G:\Sheboygan\MPO\TIP\TIP 2016-2019  
Source: WDNR; Sheboygan County, 2015;  
Bay-Lake Regional Planning Commission, 2015.


This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only. Bay-Lake RPC is not responsible for any inaccuracies herein contained.




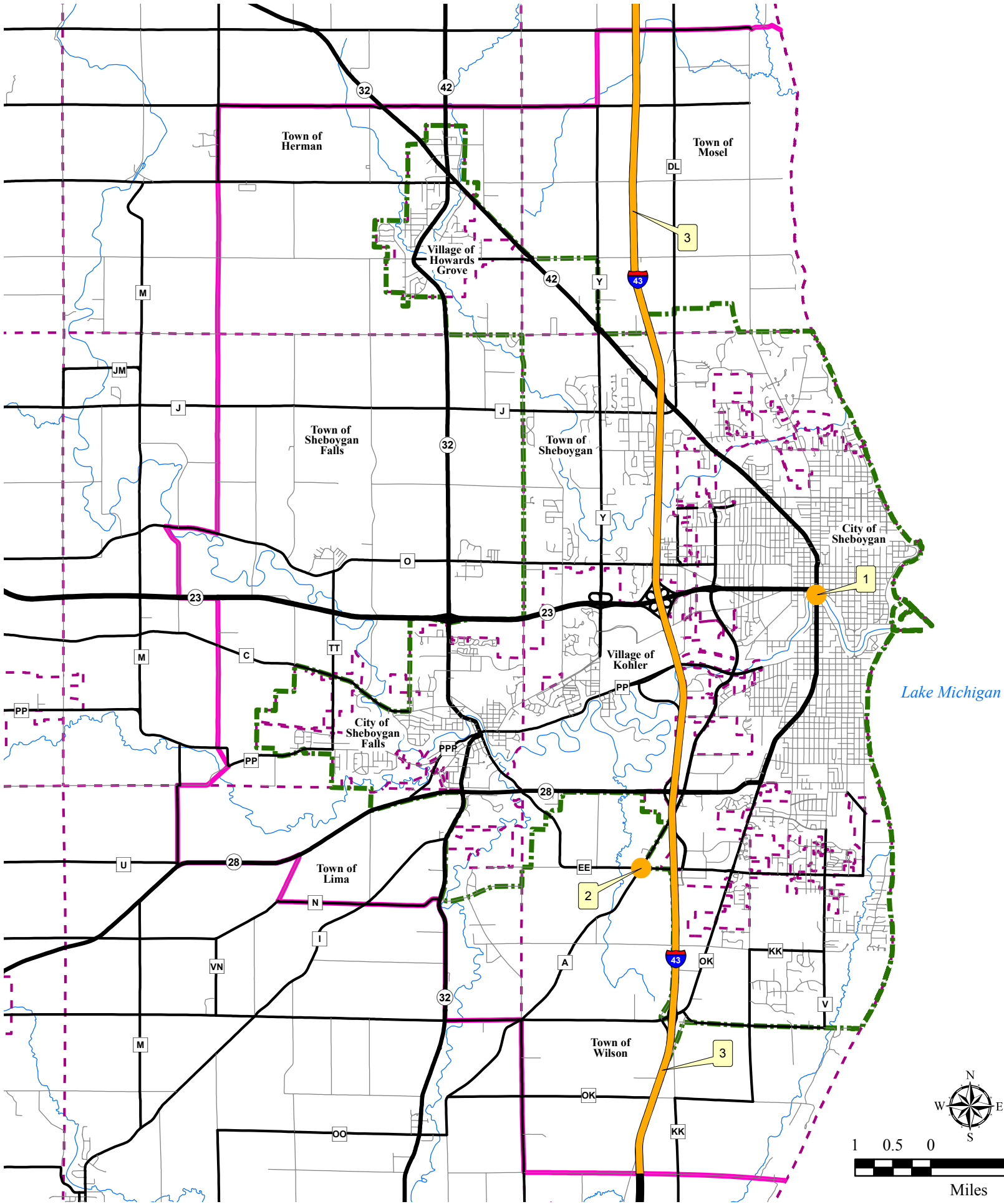
# Street and Highway Improvement Projects Completed in 2015

Sheboygan Metropolitan Planning Area  
Sheboygan County, Wisconsin

1. STH 28/North 14th Street  
Sheboygan River Bridge  
Bridge Deck Replacement
2. CTH A  
Intersection with CTH EE  
Construction of a Roundabout
3. IH 43  
Wilson Lima Road to Fischer Creek Road  
Design Leading to Installation of Miscellaneous Cable Guard


 Sheboygan Urbanized Area Boundary


 Sheboygan Metropolitan Planning Area Boundary



**APPENDIX A**  
**GLOSSARY OF TERMS**

### **Glossary of Terms**

ACQUI	- Acquisition
ADA	- Americans with Disabilities Act of 1990
CAAA	- Clean Air Act Amendments of 1990
CMAQ	- Congestion Mitigation and Air Quality Improvement Program is the Federal funding source.
CONST	- Construction
CTH	- County Trunk Highway
FHWA	- Federal Highway Administration
FTA	- Federal Transit Administration
HSIP	- Highway Safety Improvement Program is the Federal funding source.
IH	- Interstate Highway
MAP-21	- The "Moving Ahead for Progress in the 21 <sup>st</sup> Century" Act (Federal surface transportation authorization legislation approved and signed into law in 2012)
MPO	- Metropolitan Planning Organization
NAAQS	- National Ambient Air Quality Standards
NHPP	- National Highway Performance Program is the Federal funding source; this includes the former National Highway System, Interstate Maintenance, and Bridge Replacement and Rehabilitation programs (on the Enhanced National Highway System) that were in SAFETEA-LU.
NMTPP	- Non-Motorized Transportation Pilot Program is the Federal funding source; this was an earmark for Sheboygan County in SAFETEA-LU
NOx	- Oxides of Nitrogen
PE	- Preliminary Engineering
RHGC	- Rail-Highway Grade Crossing Program is the Federal funding source
ROW	- Right-of-Way Acquisition
RU	- Surface Transportation Program - Rural is the Federal funding source
SAFETEA-LU	- Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (adopted in 2005, and expired on September 30, 2012)
STH	- State Trunk Highway
STP	- Surface Transportation Program is the Federal funding source; this includes the Surface Transportation Program in SAFETEA-LU, plus the former Bridge Replacement and Rehabilitation program (off the Enhanced National Highway System) that was in SAFETEA-LU.
TA	- Transportation Alternatives Program is the Federal funding source; this includes the former Transportation Enhancements, Safe Routes to School and Recreational Trails programs that were in SAFETEA-LU.
TIP	- Transportation Improvement Program
URB	- Surface Transportation Program - Urban is the Federal funding source
VOC	- Volatile Organic Compounds
WisDOT	- Wisconsin Department of Transportation

**APPENDIX B**  
**PROCEDURES FOR THE INVOLVEMENT OF PRIVATE**  
**ENTERPRISE IN TRANSIT PROGRAMS**

## **Procedures for the Involvement of Private Enterprise in Transit Programs**

In conformance with the FTA policy statements on private sector participation as published in the *Federal Registers* of October 22, 1984, and January 24, 1986, the following narrative is documentation of the Bay-Lake Regional Planning Commission's privatization efforts as Metropolitan Planning Organization for the Sheboygan Metropolitan Planning Area in Wisconsin.

1. The Sheboygan Metropolitan Planning Area Technical and Policy Advisory Committees are responsible for reviewing the major transportation plans and programs funded by the FTA and the FHWA. This includes review of projects selected for inclusion in the annual TIP or TIP Amendment for the Sheboygan Metropolitan Planning Area.

The Technical Advisory Committee is composed of local planning technicians and representatives of the Wisconsin Department of Transportation, the FHWA and the FTA. Membership on the Policy Advisory Committee is comprised of the chief elected officials from the local units of government within the metropolitan planning area. Private sector transportation providers receive notice of all meetings of both committees, and are invited to participate in these meetings, but do not sit as voting members of either committee.

2. An inventory of proprietary and private, non-profit providers of transportation services in the area is maintained and updated as necessary. This inventory includes existing school bus, commuter, charter, and intercity carriers as well as taxi and specialized (elderly/disabled) service providers.
3. All private enterprises included in the above inventory have been placed on the notification lists for development of the Bay-Lake Regional Planning Commission's annual transportation planning work program and for review of the transit portions of the draft TIP or TIP Amendment. In addition, agency personnel who may be aware of private providers not in our inventory will be added to the notification list.

Private providers have been invited to ask questions and provide comments on the planning and programming of projects. In addition, new and/or restructured transit service proposed in the TIP or TIP Amendment will be specifically enumerated in the review notice for that particular TIP or TIP Amendment. Private operators will be requested to notify the Bay-Lake Regional Planning Commission if they have any interest in receiving more information on the services or would like to be considered for providing one or more of the services.

With the notification, private providers are provided with the transit projects included in the draft Section 5307/5339 Program of Projects prepared by the Sheboygan Parking and Transit Utility (Shoreline Metro), as well as the list of Section 5310 applications.

4. The service requirements for new or expanded services being considered in the planning process will be specified and made available to private operators. Private proposals will be evaluated according to criteria which consider ability to provide the service and cost. Fully allocated costs will be the basis for comparison between public and private operators.
5. The Bay-Lake Regional Planning Commission is the designated clearinghouse for federally funded projects. While private operators have been included on the project notification list for transit projects in the past, a greater effort has been made to include all private operators

in the review process. This will provide private operators with a greater opportunity to comment on Federal as well as state and local transportation projects.

6. Traditionally, the Bay-Lake Regional Planning Commission has provided technical assistance primarily to local public bodies and public agencies. This will be extended to private operators who request information or assistance with projects related to the transit planning program, as a part of the Commission's role in the coordination of the Technical and Policy Advisory Committees of the Sheboygan Metropolitan Planning Organization.

**APPENDIX C**  
**AIR QUALITY CONFORMITY STATEMENT**



# **APPENDIX C: ASSESSMENT OF CONFORMITY OF THE YEAR 2045 SHEBOYGAN AREA TRANSPORTATION PLAN (SATP) AND THE 2016 – 2019 SHEBOYGAN METROPOLITAN PLANNING AREA TRANSPORTATION IMPROVEMENT PROGRAM (TIP) WITH RESPECT TO THE STATE OF WISCONSIN AIR QUALITY IMPLEMENTATION PLAN**

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## **INTRODUCTION**

This report demonstrates the conformity of this *Year 2045 Sheboygan Area Transportation Plan (SATP)* and the *2016 – 2019 Sheboygan Metropolitan Planning Area Transportation Improvement Program (TIP)* with respect to each of the five criteria established by the U.S. Environmental Protection Agency for such conformity assessment.

On May 21, 2012, USEPA designated Sheboygan County a marginal nonattainment area for ground-level ozone under the 2008 eight-hour standard for that pollutant. The effective date for that designation was July 20, 2012. Sheboygan County also remains a moderate nonattainment area for the 1997 eight-hour ozone standard. The intent of this conformity assessment is to demonstrate conformity of the *Year 2045 SATP* and the *2016 – 2019 TIP* under the 2008 eight-hour standard.

In September 2009, the Wisconsin Department of Natural Resources prepared an “8-Hour Ozone Redesignation Request and Maintenance Plan for the Sheboygan County Subpart-2 Moderate Nonattainment Area,” which was submitted to USEPA. Several other Wisconsin counties were included in this redesignation request, including Manitowoc and Door counties, as well as six counties in southeastern Wisconsin. On April 26, 2010, USEPA published in the *Federal Register* that it had determined that the motor vehicle emissions budgets in this State Implementation Plan (SIP) element were adequate for transportation conformity determinations; this finding took effect on May 21, 2010.

The “8-Hour Ozone Redesignation Request and Maintenance Plan” was approved for all counties except Sheboygan County (in addition, the eastern portion of Kenosha County was included in the Chicago multistate nonattainment area). Unfortunately, Sheboygan County continued to have high ozone readings at its monitor near Lake Michigan, which kept the county in nonattainment.

In 2014, the Wisconsin Department of Natural Resources prepared the latest SIP element applicable to Sheboygan County. This document was titled *The State of Wisconsin’s 2015 Transportation Conformity Budgets for the Kenosha and Sheboygan County 2008 8-Hour Ozone Nonattainment Areas: A CAA-required State Implementation Plan addressing the 2008 8-Hour Ozone National Ambient Air Quality Standard*. A public hearing on this SIP element was held in December 2014, and the public comment period on this SIP element ran through mid January of 2015. This SIP element was submitted to USEPA for adequacy review in early 2015, and the USEPA determined the emissions budgets to be adequate in April 2015.

Recognizing that ozone concentrations are a problem that primarily impacts the Lake Michigan shoreline, the Wisconsin Department of Natural Resources has been working with local officials and with the USEPA to attempt to decrease the size of the nonattainment area from the entire

county to eastern Sheboygan County. On June 27, 2013, the Wisconsin Department of Natural Resources asked USEPA Region 5 to adjust the Sheboygan County nonattainment boundary to a narrow strip of land adjacent to Lake Michigan. The Wisconsin Department of Natural Resources supplemented this boundary refinement request with technical information on January 22, 2014. *The State of Wisconsin's 2015 Transportation Conformity Budgets for the Kenosha and Sheboygan County 2008 8-Hour Ozone Nonattainment Areas* includes smaller emission budgets for a proposed smaller nonattainment area in eastern Sheboygan County in the event that such a redesignation were to take place. The Wisconsin Department of Natural Resources also has placed a temporary air monitor between Sheboygan and Howards Grove to attempt to measure the effect that proximity to Lake Michigan has on ozone levels in warm weather. It is unclear if or when USEPA will act on this proposal.

This conformity assessment involves a comparison of forecast mobile sector emissions from the *Year 2045 SATP* and its implementing *2016 – 2019 TIP* to emissions budgets in the *State of Wisconsin's 2015 Transportation Conformity Budgets for the Kenosha and Sheboygan County 2008 8-Hour Ozone Nonattainment Areas*. MOVES 2014 was used to compute forecasted emissions for this conformity analysis.

The five criteria established in the July 1, 2004, *Federal Register* (40 CFR Part 93, Subpart A), as applicable to the Sheboygan County ozone nonattainment area under the eight-hour standard, are (1) use of the most recent planning assumptions; (2) use of the latest emissions estimating model; (3) interagency and public consultation; (4) timely implementation of transportation control measures (TCMs); and (5) consistency with the motor vehicle emissions budgets for volatile organic compounds and for nitrogen oxides established in the *State of Wisconsin's 2015 Transportation Conformity Budgets for the Kenosha and Sheboygan County 2008 8-Hour Ozone Nonattainment Areas*. Amendments made to the conformity rule that were published in the *Federal Register* on March 24, 2010, and on March 14, 2012, did not impact the five basic criteria used to demonstrate conformity.

## **USE OF THE MOST RECENT PLANNING ASSUMPTIONS**

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

The Bay-Lake Regional Planning Commission is the gubernatorially designated metropolitan planning organization (MPO) for the Sheboygan Urbanized Area in Wisconsin, and also prepares sewer service area plans for eastern Sheboygan County. The Bay-Lake Regional Planning Commission has also developed comprehensive plans for communities in Sheboygan County. As the MPO for the Sheboygan Urbanized Area, the Bay-Lake Regional Planning Commission is responsible for the preparation of current population, household, employment, and travel and traffic forecasts. The Bay-Lake Regional Planning Commission and the Wisconsin Department of Transportation jointly maintain the travel and traffic simulation models which are used in Sheboygan County for transportation planning and for air quality conformity analysis; these models were expanded to include all of Sheboygan County in recent years for a more transparent air quality conformity analysis and so that capacity modifying projects in rural Sheboygan County could be modeled and analyzed. The estimates, forecasts and models used in this conformity analysis are the same as those used by the Bay-Lake Regional Planning Commission in its other planning efforts in Sheboygan County, and are consistent with planning assumptions made by other state agencies for Sheboygan County and for the Sheboygan metropolitan

planning area.

The determination of conformity of the *Year 2045 SATP* and the *2016 – 2019 TIP* requires specific travel and emission forecasts for the years 2015, 2025, 2035 and 2045. The population, household and employment data for the years 2015, 2025 and 2035 have been projected by interpolation at the traffic analysis zone (TAZ) level between the existing 2010 level and the year 2045 forecasts for Sheboygan County based upon the adopted growth scenario for the Sheboygan metropolitan planning area. The 2010 existing level and 2045 forecasts for population, households and employment are identified in Table C.1, along with the interpolated 2015, 2025 and 2035 population, household and employment levels.

During the preparation of the *Year 2045 SATP*, the implications of a range of different future development scenarios for the Sheboygan metropolitan planning area were explored, including the effects of the scenarios on growth in vehicle miles of travel (VMT). The growth scenarios which were considered in plan development included (1) continuation of existing trends (the selected growth scenario on which the *Year 2045 SATP* is based); (2) compact/infill development; and (3) corridor development. VMT was minimized under the compact/infill development scenario, but members of the Sheboygan MPO Technical and Policy Advisory Committees believed that continuation of existing trends would more realistically occur in the metropolitan planning area in the long-range future. Further analysis indicates that transportation improvements are expected to have little impact on VMT, accounting for VMT changes of small fractions of a percent for all milestone years of analysis when compared to the baseline scenario.

Table C.1: Current and Forecast Population, Household and Employment Levels for Sheboygan County: *Year 2045 SATP* and the *2016 – 2019 TIP*

CHARACTERISTIC	EXISTING 2010	ESTIMATE 2015			
			2025	2035	2045
POPULATION	115,507	115,915	123,400	126,830	125,897
HOUSEHOLDS	46,390	47,633	52,016	54,838	55,048
EMPLOYMENT	59,824	62,144	67,058	72,360	78,081

Source: U.S. Bureau of the Census, 2010; Wisconsin Department of Administration, Demographic Services Center, 2013 and 2014; SRF Consulting Group, 2012, 2013 and 2014; and Bay-Lake Regional Planning Commission, 2014.

The determination of conformity utilizes the travel demand forecast model developed cooperatively by the Wisconsin Department of Transportation, its consultant (SRF Consulting Group) and the affected MPOs (East Central Wisconsin Regional Planning Commission as the MPO for the Appleton/Fox Cities, Oshkosh and Fond du Lac urbanized areas, Brown County Planning Commission as the MPO for the Green Bay urbanized area, and Bay-Lake Regional Planning Commission as the MPO for the Sheboygan urbanized area) during the period between June 2011 and December 2013, and utilized in the preparation of the *Year 2045 SATP*. This model was handed over to WisDOT in December of 2013, and WisDOT and the affected MPOs have continued to refine the model since then. The travel demand forecast model was calibrated to simulate year 2010 conditions using data from the National Household Travel Survey (NHTS) applicable to northeastern Wisconsin, as well as using data from the WisDOT traffic count program in Sheboygan County in 2008 and in 2011. The models were validated for the year 2010 by applying the models with 2010 Census data and 2010 transportation network data, and comparing model travel demand estimates to estimates derived from actual traffic counts. Travel demand estimates for 2010 were well within acceptable root mean square error (RMSE) figures

for all traffic count ranges. Modeling was updated using the socioeconomic data indicated in Table C.1 (with a new base year of 2010) in the fall of 2014.

The WisDOT Northeast Region travel demand forecast model links the urban models for the Green Bay, Appleton, Oshkosh, Fond du Lac and Sheboygan metropolitan planning areas, and includes many of the East Central Wisconsin and Bay-Lake Regional Planning Commission counties (in the case of the Bay-Lake Regional Planning Commission, the portion of the region from southern Oconto County to the south is covered). While there are few direct benefits to Sheboygan County through this regional modeling approach (the entire county was already covered by a model), one conformity-related benefit is that Manitowoc, Kewaunee and Door counties are included in this modeling domain, making future conformity analyses easier to accomplish in those counties.

### **Specific Changes to Modeling Assumptions Since Adoption of the Original Year 2035 SATP**

Several revisions to the travel demand forecast model have been made since the original *Year 2035 SATP* was adopted in October of 2006. These revisions are incorporated into the updated travel demand forecast model for Sheboygan County.

#### **Changes to Existing Infrastructure**

- North 7<sup>th</sup> Street from Pennsylvania Avenue to Erie Avenue was converted from a one-way street to a two-way street.
- North 9<sup>th</sup> Street from Erie Avenue to Pennsylvania Avenue was converted from a one-way street to a two-way street.
- Various capacity improvements at and near the Interstate Highway 43/State Highway 28 interchange.
- County Highway O/Superior Avenue from North Taylor Drive to Woodland Road was reconstructed to two lanes plus a center turning lane.
- County Highway OK from County Highway EE/Weeden Creek Road to Camelot Boulevard was reconstructed to two lanes plus a center turning lane.
- A new “event only” half interchange at Interstate Highway 43 and Rowe Road was constructed.

#### **Capacity Modifying Projects and Their Implementation Period in the Year 2045 SATP**

These are noted in Chapter 7 of the *Year 2045 SATP* (pages 7-1 through 7-3), including Table 7.1.

Although outside the Sheboygan metropolitan planning area, reconstruction of State Highway 23 from Plymouth to Fond du Lac from two to four lanes continues to be incorporated into the travel demand forecast model for implementation by **2025**.

#### **Roundabouts**

Several new roundabouts have been implemented or are planned for implementation in the near future. While these cannot be incorporated into the existing travel demand forecast model, the roundabouts are important from an air quality conformity standpoint. Roundabouts have been or will be implemented at the following locations in the Sheboygan metropolitan planning area:

- Intersection of State Highways 28 and 32 (completed);

- Interstate Highway 43/State Highway 42 Interchange (2 roundabouts - completed);
- Intersection of State Highway 42 and Vanguard Drive (completed);
- Intersection of State Highway 42 and County Highway Y (completed);
- Intersection of State Highway 42 and County Highway JJ (completed);
- Intersection of County Highway O/Superior Avenue, North 40<sup>th</sup> Street and Wilgus Avenue (completed);
- Intersection of County Highway OK/South Business Drive and County Highway EE/Weeden Creek Road (completed);
- Intersection of County Highways A and EE/Weeden Creek Road (construction scheduled for 2015);
- Intersection of State Highway 32 and Happy Lane (construction scheduled for 2016);
- Intersection of State Highway 28 and County Highway EE (construction scheduled for 2019);
- Intersection of County Highways A and PP (planned project for 2016 – 2025); and
- Intersection of County Highways C and TT (planned project for 2016 – 2025).

### **Transit Network Changes**

Changes to service levels at Shoreline Metro are incorporated into this analysis, as recommended in the *Sheboygan Transit Development Program (TDP): 2012 – 2016*. Overall general service changes included discontinuation of the final hour of transit service on weekday evenings, as well as reinstatement of the North and South Shuttles throughout the service day on Saturdays. Revisions to all routes were also made in the *Sheboygan TDP: 2012 – 2016*; highlights of route-specific service changes included elimination of Route 1 North and its combination with Route 5 North, as well as division of transit service on the west side of Sheboygan into two routes (Routes 10 North and South). Since adoption of the *Sheboygan TDP: 2012 – 2016*, Shoreline Metro has added a seasonal (summer) route (Route 40) that circulates around attractions in Sheboygan's Harbor Centre district, and has also modified Route 20 (the Kohler/Sheboygan Falls Route) to better serve residents of those two communities. One new fare policy in 2011 involved institution of a \$3 day pass. No additional service, route or fare changes are anticipated at this time. Ridership has increased significantly in recent years, possibly due to some of these policies. A new TDP for Shoreline Metro is expected to be completed in 2017.

### **Congestion Mitigation and Air Quality Improvement Program (CMAQ) Projects**

One CMAQ project was included in the emissions analysis. This project involves the rails to trails conversion of the Union Pacific (UP) rail corridor in the central portion of the City of Sheboygan. This is known as the Shoreline 400 Rail-Trail Project, and it was completed in 2013. Sheboygan County was the sponsor of this project.

### **Sheboygan County Non-Motorized Transportation Pilot Program (NMTTP) Projects**

Several bicycle and pedestrian transportation projects have been completed through the Sheboygan County NMTTP in recent years; these are discussed in Chapter 5 of the *Year 2045 SATP*, and their implementation is assumed in this conformity analysis. Upcoming NMTTP

funded bicycle and pedestrian transportation projects are also identified in Chapters 5 and 7 of the *Year 2045 SATP* as well as in the *2016 – 2019 TIP*, and implementation of these projects is also assumed in this conformity analysis. The Sheboygan County NMTTP program was a special earmark awarded to the county in SAFETEA-LU for the construction of nonmotorized transportation facilities; three other jurisdictions in the United States received a similar earmark in SAFETEA-LU.

### **USE OF THE LATEST EMISSIONS ESTIMATION MODEL**

A second criterion for the plan and program conformity determination as set forth in the July 1, 2004, *Federal Register* (40 CFR 93.111) requires use of the latest air pollutant emissions estimation model. Accordingly, this determination of conformity utilizes the latest emissions estimation model available, the USEPA MOVES 2014 air pollutant emissions estimation model. This emissions estimation model is the latest version of the model used by the Wisconsin Department of Natural Resources Bureau of Air Management in its development of the transportation conformity budgets for volatile organic compounds (VOCs) and nitrogen oxides (NOx) included in the latest SIP revision for Sheboygan County, the *State of Wisconsin's 2015 Transportation Conformity Budgets for the Kenosha and Sheboygan County 2008 8-Hour Ozone Nonattainment Areas*.

The assumptions in the emissions estimation model for the years 2015, 2025, 2035 and 2045 are available from the Wisconsin Department of Natural Resources Bureau of Air Management; contact information and some of the assumptions can be found at the end of this report. The vehicle type mix assumptions are based on the Wisconsin Department of Transportation traffic monitoring program, which also is the basis for Highway Performance Monitoring System (HPMS) traffic count data. This emissions estimation model is the same model used by the State of Wisconsin Department of Natural Resources in the preparation of the State Implementation Plan for Air Quality to assure complete consistency between this conformity determination and the State Implementation Plan. Unlike previous conformity analyses, MOVES 2014 was able to directly compute projected emissions for each analysis year, meaning that the traditional multiplication of emission factors and vehicle miles of travel (VMT) by facility type and speed range was no longer a necessary step in the conformity analysis process.

### **INTERAGENCY AND PUBLIC CONSULTATION**

A third criterion for plan and program conformity determination established in the July 1, 2014, *Federal Register* (40 CFR Part 93.112) relates to interagency and public consultation. The development of this *Year 2045 SATP* involved extensive interagency and public consultation, including, specifically, such consultations with respect to air quality impacts and the implications for conformity of the plan. In particular, the State of Wisconsin Department of Transportation, the State of Wisconsin Department of Natural Resources, the Federal Highway Administration, the Federal Transit Administration, the U.S. Environmental Protection Agency, Sheboygan County, and local units of government in the Sheboygan metropolitan planning area were all extensively involved in the development of the recommended plan, the consideration of the financial resources necessary to implement the recommended plan, and the evaluation of the potential air quality impacts of the recommended plan, in particular with respect to conformity to the State Implementation Plan. These Federal, State, county and local units and agencies of government also have been consulted, and have, as members of the Sheboygan MPO Technical and Policy Advisory Committees guiding the preparation of the *Year 2045 SATP*, reviewed and approved the travel simulation models utilized in the preparation of the *Year 2045 SATP* and

conformity analysis and as well the level of detail of the *Year 2045 SATP*.

The *Year 2045 SATP* incorporates the entire functionally classified arterial and collector street and highway network of the Sheboygan metropolitan planning area, including both urban and rural facilities. As noted earlier, the travel demand forecast modeling analysis used to develop the *Year 2045 SATP* was expanded to include all of Sheboygan County in recent years for a more transparent air quality conformity analysis and so that capacity modifying projects in rural Sheboygan County could be modeled and analyzed.

For the conformity analysis for the *Year 2045 SATP* and its implementing *2016 – 2019 TIP*, the State of Wisconsin Department of Natural Resources provided Bay-Lake Regional Planning Commission staff with MOVES 2014 output based on vehicle miles of travel and average speed data provided by the Bay-Lake Regional Planning Commission on March 12 and 13, 2015. (These data are presented in Tables C.3 and C.4). The other MOVES 2014 modeling assumptions are the same as those used in the *State of Wisconsin's 2015 Transportation Conformity Budgets for the Kenosha and Sheboygan County 2008 8-Hour Ozone Nonattainment Areas* (as it applies to Sheboygan County), which includes an updated vehicle age distribution and benefits of the vehicle inspection and maintenance program. The Bay-Lake Regional Planning Commission then performed the conformity analysis based on the MOVES 2014 output in April of 2015. The Transportation Conformity Work Group (TCWG) reviewed this draft conformity analysis in April and May of 2015.

In addition, there was public consultation with respect to the *Year 2045 SATP*, including consultation on land use, transportation deficiencies, potential transportation improvements, the recommended plan and its financial impacts, and on the potential air quality impacts of the recommended plan. This consultation is documented in Appendix F (Public Participation Process) of the *Year 2045 SATP*. Public consultation efforts included an extensive focus on transit in the *Sheboygan Transit Development Program (TDP): 2012 – 2016* (including numerous review committee meetings, extensive transit survey research and public information meetings), as well as responding to corridor test ideas with the travel demand forecast model.

The *Year 2045 SATP* and the *2016 – 2019 TIP* were each subjected to 30 day public comment periods. A public hearing on the *Year 2045 SATP* was held in May of 2015. A public hearing on the *2016 – 2019 TIP* was held in early December of 2015. Comments received on the *Year 2045 SATP* and on this air quality conformity statement were primarily editorial in nature, and have been incorporated into the respective documents. One comment received on the *Year 2045 SATP* suggested adding one system preservation project to the plan; this project may be added as an amendment to the plan in the future. Comments received on the *2016 – 2019 TIP* discussed the need for additional state and local funding for street, highway and transit projects.

All meetings of the Sheboygan MPO Technical and Policy Advisory Committees, of any special project specific committees, and of the Bay-Lake Regional Planning Commission and its committees have been open to the public during the planning process, and notice of these meetings has been provided to area news media on a timely basis. Periodic electronic newsletters and annual reports of the Bay-Lake Regional Planning Commission have also kept the public informed of this and other MPO planning efforts.

## **TIMELY IMPLEMENTATION OF TRANSPORTATION CONTROL MEASURES (TCM)**

A fourth criterion for plan and program conformity determination in the July 1, 2004, *Federal Register* (40 CFR Part 93.113[b] and [c]) is that the transportation plan and the transportation improvement program must provide for timely implementation of all transportation control measures (TCMs) listed in the State Implementation Plan for Air Quality. More specifically, the transportation plan and the transportation improvement program must provide for timely completion of any TCMs listed in the State Implementation Plan, and nothing in the transportation plan or transportation improvement program may interfere with the implementation of any TCM listed in the State Implementation Plan. The staff of the Wisconsin Department of Natural Resources Bureau of Air Management has indicated to Bay-Lake Regional Planning Commission staff that there are no TCMs specified for Sheboygan County in the State Implementation Plan, including the Sheboygan metropolitan planning area. Therefore, this criterion for plan and program conformity determination is not applicable to this planning effort at this time.

## **CONSISTENCY WITH THE MOTOR VEHICLE EMISSIONS BUDGETS IN THE STATE OF WISCONSIN'S 2015 TRANSPORTATION CONFORMITY BUDGETS FOR THE KENOSHA AND SHEBOYGAN COUNTY 2008 8-HOUR OZONE NONATTAINMENT AREAS**

The fifth and final criterion for plan and program conformity determination, established in the July 1, 2004, *Federal Register* (40 CFR Part 93.118), requires that the transportation system emissions forecasts under the transportation plan and the transportation improvement program be consistent with, that is equal to or less than, the transportation system emission forecasts, or "motor vehicle emissions budgets," in the State Implementation Plan component for Sheboygan County. The State Implementation Plan for this conformity analysis is the "*State of Wisconsin's 2015 Transportation Conformity Budgets for the Kenosha and Sheboygan County 2008 8-Hour Ozone Nonattainment Areas: A CAA-required State Implementation Plan addressing the 2008 8-Hour Ozone National Ambient Air Quality Standard*" submitted to the U.S. Environmental Protection Agency (USEPA) by the Wisconsin Department of Natural Resources in January 2015. The motor vehicle emissions budgets from this plan were found adequate for transportation conformity purposes in April of 2015. The plan presents motor vehicle emissions budgets for 2015 as part of the required "*State of Wisconsin's 2015 Transportation Conformity Budgets for the Kenosha and Sheboygan County 2008 8-Hour Ozone Nonattainment Areas*." This requirement for consistency of the transportation emissions forecasts incorporated in the long-range transportation plan and the transportation improvement program with those incorporated in the "*State of Wisconsin's 2015 Transportation Conformity Budgets for the Kenosha and Sheboygan County 2008 8-Hour Ozone Nonattainment Areas*" applies to volatile organic compounds and nitrogen oxide emissions as precursors to ozone.

Table C.2 indicates the established budgets in the "*State of Wisconsin's 2015 Transportation Conformity Budgets for the Kenosha and Sheboygan County 2008 8-Hour Ozone Nonattainment Areas*" for two ozone precursor pollutants, volatile organic compounds and nitrogen oxides, in 2015. This document also established budgets for a smaller nonattainment area in eastern Sheboygan County in the event that USEPA would grant WDNR's such redesignation request. It should be noted that this conformity analysis only addresses emission forecasts in comparison to 2015 emissions budgets (for 2015, 2025, 2035 and 2045), since the conformity analysis was



conducted in 2015.

Table C.2: Motor Vehicle Emission Budgets for Sheboygan County: State of Wisconsin's 2015 Transportation Conformity Budgets for the Kenosha and Sheboygan County 2008 8-Hour Ozone Nonattainment Areas (On a Hot Summer Day)

Year	Pollutant (Tons)	
	Volatile Organic Compounds (VOCs)	Nitrogen Oxides (NO <sub>x</sub> )
2015	1.9720	4.4350

Source: Bureau of Air Management, Wisconsin Department of Natural Resources, 2015; and Bay-Lake Regional Planning Commission, 2015.

The transportation system emissions attendant to the transportation systems plan and transportation improvement program were forecast through the application of the MPO travel and traffic simulation models to the transportation system plan and transportation improvement program under forecast population, household and employment growth assuming the adopted growth scenario involving continuation of existing trends. The Sheboygan MPO Technical and Policy Advisory Committees selected the “continuation of existing trends” growth scenario as the preferred development vision for the Sheboygan metropolitan planning area in November of 2014. This decision came after several months of debate over the merits of each growth scenario. As stated earlier, VMT was minimized under the compact/infill development scenario, but members of the Sheboygan MPO Technical and Policy Advisory Committees believed that continuation of existing trends would more realistically occur in the metropolitan planning area and elsewhere in Sheboygan County in the long-range future. The “continuation of existing trends” scenario was also most consistent with adopted comprehensive plans in the metropolitan planning area and elsewhere in Sheboygan County.

Table C.3 presents the forecast vehicle miles of travel attendant to the transportation system plan and transportation improvement program by functional classification/facility type and speed range for the forecast years of 2015, 2025, 2035 and 2045, by vehicle type (auto and truck). The transportation plan projects which are not exempt from regional emissions analysis are identified at the beginning of Chapter 7 of the *Year 2045 SATP*. The transportation improvement program projects which are not exempt from regional emissions analysis (where they exist) are marked as “Non-Exempt” in Table 6 of the *2016 – 2019 TIP*.

It should be noted that one capacity modifying project outside the Sheboygan metropolitan planning area but within Sheboygan County was incorporated into the travel demand forecast modeling for the *Year 2045 SATP*, and therefore, is incorporated into this air quality conformity analysis. This project involves an increase from two to four lanes on State Highway 23 from Plymouth to Fond du Lac. This project was assumed to be completed in the 2016 – 2025 implementation period.

Table C.3 indicates that average annual rates of VMT increase were as follows for all of the modeled area (Sheboygan County): 0.51 percent from 2015 to 2025, 0.68 percent from 2025 to 2035, and 0.81 percent from 2035 to 2045. Growth in VMT is expected to average about 0.67 percent per year within the countywide modeling domain through 2045 under the continuation of existing trends recommended scenario.

Table C.3: Year 2045 Sheboygan Area Transportation Plan (SATP): Summer Weekday Vehicle Miles of Travel Within Sheboygan County: Forecast 2015, 2025, 2035 and 2045

FACILITY TYPE	SPEED RANGE	2015 MODEL		2025 MODEL		2035 MODEL		2045 MODEL	
		Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck
INTERSTATES	0-5	0	0	0	0	0	0	0	0
	5-10	0	0	0	0	0	0	0	0
	10-15	0	0	0	0	0	0	0	0
	15-20	0	0	0	0	0	0	0	0
	20-25	0	0	0	0	0	0	0	0
	25-30	0	0	0	0	0	0	0	0
	30-35	0	0	0	0	0	0	0	0
	35-40	0	0	0	0	0	0	0	0
	40-45	0	0	0	0	0	0	0	0
	45-50	0	0	0	0	0	0	0	0
	50-55	0	0	0	0	0	0	0	0
	55-60	0	0	0	0	0	0	0	0
	60-65	0	0	0	0	0	0	0	0
	65+	721,077	87,538	761,751	93,777	826,919	104,655	890,707	117,690
	Subtotal	721,077	87,538	761,751	93,777	826,919	104,655	890,707	117,690
OTHER FREEWAYS	0-5	0	0	0	0	0	0	0	0
	5-10	0	0	0	0	0	0	0	0
	10-15	0	0	0	0	0	0	0	0
	15-20	0	0	0	0	0	0	0	0
	20-25	0	0	0	0	0	0	0	0
	25-30	0	0	0	0	0	0	0	0
	30-35	0	0	0	0	0	0	0	0
	35-40	0	0	0	0	0	0	0	0
	40-45	0	0	0	0	0	0	0	0
	45-50	0	0	0	0	0	0	0	0
	50-55	0	0	0	0	0	0	0	0
	55-60	0	0	0	0	0	0	0	0
	60-65	0	0	0	0	0	0	0	0
	65+	0	0	0	0	0	0	0	0
	Subtotal	0	0	0	0	0	0	0	0
RAMPS	0-5	0	0	0	0	0	0	0	0
	5-10	0	0	0	0	0	0	0	0
	10-15	0	0	0	0	0	0	0	0
	15-20	0	0	0	0	0	0	0	0
	20-25	0	0	0	0	810	110	0	0
	25-30	0	0	0	0	55	8	0	0
	30-35	41,648	5,779	44,921	6,244	47,773	6,632	55,085	7,885
	35-40	690	89	194	39	214	42	81	13
	40-45	0	0	0	0	0	0	0	0
	45-50	0	0	0	0	0	0	0	0
	50-55	0	0	0	0	0	0	0	0
	55-60	0	0	0	0	0	0	0	0
	60-65	0	0	0	0	0	0	0	0
	65+	0	0	0	0	0	0	0	0
	Subtotal	42,338	5,868	45,116	6,283	48,852	6,792	55,166	7,898

Table C.3: Year 2045 Sheboygan Area Transportation Plan (SATP): Summer Weekday Vehicle Miles of Travel Within Sheboygan County: Forecast 2015, 2025, 2035 and 2045

FACILITY TYPE	SPEED RANGE	2015 MODEL		2025 MODEL		2035 MODEL		2045 MODEL	
		Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck
EXPRESSWAYS	0-5	0	0	0	0	0	0	0	0
	5-10	0	0	0	0	0	0	0	0
	10-15	0	0	0	0	0	0	0	0
	15-20	0	0	0	0	0	0	0	0
	20-25	0	0	0	0	0	0	0	0
	25-30	0	0	0	0	0	0	0	0
	30-35	0	0	0	0	0	0	0	0
	35-40	0	0	0	0	0	0	0	0
	40-45	0	0	0	0	0	0	0	0
	45-50	181,281	20,566	290,130	32,461	212,634	26,479	229,505	31,367
	50-55	239,222	22,460	259,079	24,751	386,855	41,012	424,077	50,230
	55-60	0	0	0	0	0	0	0	0
	60-65	0	0	0	0	0	0	0	0
	65+	0	0	0	0	0	0	0	0
	Subtotal	420,503	43,026	549,209	57,212	599,489	67,491	653,582	81,596
URBAN PRINCIPAL ARTERIALS	0-5	0	0	0	0	0	0	0	0
	5-10	0	0	0	0	0	0	0	0
	10-15	0	0	0	0	0	0	0	0
	15-20	0	0	0	0	0	0	0	0
	20-25	0	0	0	0	0	0	0	0
	25-30	13,971	784	14,240	795	14,768	835	15,690	915
	30-35	0	0	0	0	0	0	0	0
	35-40	127,768	9,517	130,268	9,750	132,393	9,714	138,186	10,279
	40-45	30,870	3,187	31,500	3,224	32,723	3,298	34,956	3,477
	45-50	0	0	0	0	0	0	0	0
	50-55	0	0	0	0	0	0	0	0
	55-60	0	0	0	0	0	0	0	0
	60-65	0	0	0	0	0	0	0	0
	65+	0	0	0	0	0	0	0	0
	Subtotal	172,608	13,487	176,008	13,769	179,884	13,847	188,832	14,671
URBAN MINOR ARTERIALS	0-5	0	0	0	0	0	0	0	0
	5-10	0	0	0	0	0	0	0	0
	10-15	0	0	0	0	0	0	0	0
	15-20	0	0	0	0	0	0	0	0
	20-25	0	0	0	0	0	0	0	0
	25-30	25,187	1,524	25,339	1,541	25,782	1,606	27,041	1,786
	30-35	0	0	0	0	0	0	0	0
	35-40	128,087	6,666	130,833	6,896	137,329	7,663	147,355	8,694
	40-45	0	0	0	0	0	0	0	0
	45-50	41,283	2,933	43,227	3,116	51,327	4,214	60,007	5,271
	50-55	0	0	0	0	0	0	0	0
	55-60	0	0	0	0	0	0	0	0
	60-65	0	0	0	0	0	0	0	0
	65+	0	0	0	0	0	0	0	0
	Subtotal	194,557	11,123	199,400	11,553	214,437	13,484	234,403	15,751

Table C.3: Year 2045 Sheboygan Area Transportation Plan (SATP): Summer Weekday Vehicle Miles of Travel Within Sheboygan County: Forecast 2015, 2025, 2035 and 2045

FACILITY TYPE	SPEED RANGE	2015 MODEL		2025 MODEL		2035 MODEL		2045 MODEL	
		Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck
URBAN COLLECTORS	0-5	0	0	0	0	0	0	0	0
	5-10	0	0	0	0	0	0	0	0
	10-15	0	0	0	0	0	0	0	0
	15-20	0	0	0	0	0	0	0	0
	20-25	5,468	263	5,535	269	5,828	296	6,293	338
	25-30	0	0	0	0	1,337	26	0	0
	30-35	92,034	4,727	94,478	4,929	100,007	5,440	107,657	6,179
	35-40	19,845	796	20,894	849	22,954	986	28,090	1,213
	40-45	4,584	165	4,750	170	3,923	160	4,012	174
	45-50	0	0	0	0	0	0	0	0
	50-55	0	0	0	0	0	0	0	0
	55-60	0	0	0	0	0	0	0	0
	60-65	0	0	0	0	0	0	0	0
	65+	0	0	0	0	0	0	0	0
	Subtotal	121,931	5,951	125,656	6,217	134,049	6,908	146,052	7,905
URBAN LOCALS	0-5	0	0	0	0	0	0	0	0
	5-10	0	0	0	0	0	0	0	0
	10-15	0	0	0	0	0	0	0	0
	15-20	1,886	129	1,859	129	1,811	130	1,760	131
	20-25	14,829	600	14,860	603	15,009	618	15,169	638
	25-30	0	0	0	0	0	0	5	0
	30-35	0	0	0	0	0	0	0	0
	35-40	0	0	0	0	0	0	0	0
	40-45	0	0	0	0	0	0	0	0
	45-50	0	0	0	0	0	0	0	0
	50-55	0	0	0	0	0	0	0	0
	55-60	0	0	0	0	0	0	0	0
	60-65	0	0	0	0	0	0	0	0
	65+	0	0	0	0	0	0	0	0
	Subtotal	16,715	729	16,719	732	16,820	748	16,934	769
RURAL PRINCIPAL ARTERIALS	0-5	0	0	0	0	0	0	0	0
	5-10	0	0	0	0	0	0	0	0
	10-15	0	0	0	0	0	0	0	0
	15-20	0	0	0	0	0	0	0	0
	20-25	0	0	0	0	0	0	0	0
	25-30	0	0	0	0	0	0	0	0
	30-35	0	0	0	0	0	0	4,353	282
	35-40	6,988	590	7,299	622	8,838	777	5,315	603
	40-45	122,305	10,930	103,763	9,244	114,099	10,087	90,153	7,931
	45-50	115,881	9,425	68,412	5,294	64,372	5,224	105,879	9,509
	50-55	14,200	1,281	14,680	1,340	15,342	1,483	16,024	1,701
	55-60	0	0	0	0	0	0	0	0
	60-65	0	0	0	0	0	0	0	0
	65+	0	0	0	0	0	0	0	0
	Subtotal	259,375	22,226	194,154	16,499	202,650	17,571	221,725	20,026

Table C.3: Year 2045 Sheboygan Area Transportation Plan (SATP): Summer Weekday Vehicle Miles of Travel Within Sheboygan County: Forecast 2015, 2025, 2035 and 2045

FACILITY TYPE	SPEED RANGE	2015 MODEL		2025 MODEL		2035 MODEL		2045 MODEL	
		Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck
RURAL MINOR ARTERIALS	0-5	0	0	0	0	0	0	0	0
	5-10	0	0	0	0	0	0	0	0
	10-15	0	0	0	0	0	0	0	0
	15-20	0	0	0	0	0	0	0	0
	20-25	0	0	0	0	0	0	0	0
	25-30	5,994	332	6,063	317	6,248	327	15,994	1,146
	30-35	39,254	2,301	41,311	2,442	45,274	2,799	55,054	3,676
	35-40	82,354	6,277	86,210	6,587	90,387	7,018	85,386	6,922
	40-45	39,503	2,341	39,319	2,244	41,879	2,406	56,450	3,765
	45-50	253,010	18,184	258,266	18,688	265,553	19,809	266,423	21,011
	50-55	0	0	0	0	0	0	0	0
	55-60	0	0	0	0	0	0	0	0
	60-65	0	0	0	0	0	0	0	0
	65+	0	0	0	0	0	0	0	0
	Subtotal	420,116	29,437	431,169	30,278	449,340	32,360	479,308	36,520
RURAL MAJOR COLLECTORS	0-5	0	0	0	0	0	0	0	0
	5-10	0	0	0	0	0	0	0	0
	10-15	0	0	0	0	0	0	0	0
	15-20	0	0	1,307	94	0	0	0	0
	20-25	0	0	0	0	0	0	0	0
	25-30	0	0	0	0	0	0	0	0
	30-35	8,752	638	10,375	761	13,264	963	17,081	1,168
	35-40	104,045	6,698	107,185	6,922	112,546	7,314	116,374	7,902
	40-45	197,143	14,952	200,056	15,174	206,912	16,176	222,501	18,484
	45-50	0	0	0	0	0	0	0	0
	50-55	0	0	0	0	0	0	0	0
	55-60	0	0	0	0	0	0	0	0
	60-65	0	0	0	0	0	0	0	0
	65+	0	0	0	0	0	0	0	0
	Subtotal	309,941	22,288	318,923	22,950	332,723	24,453	355,955	27,554
RURAL MINOR COLLECTORS	0-5	0	0	0	0	0	0	0	0
	5-10	0	0	0	0	0	0	0	0
	10-15	0	0	0	0	0	0	0	0
	15-20	0	0	0	0	0	0	0	0
	20-25	0	0	0	0	0	0	0	0
	25-30	11,666	456	11,955	475	12,527	524	13,056	568
	30-35	10,558	505	11,271	561	12,409	655	14,457	822
	35-40	172,362	6,337	176,798	6,608	188,294	7,665	201,435	8,737
	40-45	0	0	0	0	0	0	0	0
	45-50	0	0	0	0	0	0	0	0
	50-55	0	0	0	0	0	0	0	0
	55-60	0	0	0	0	0	0	0	0
	60-65	0	0	0	0	0	0	0	0
	65+	0	0	0	0	0	0	0	0
	Subtotal	194,586	7,298	200,024	7,644	213,230	8,844	228,948	10,127

Table C.3: Year 2045 Sheboygan Area Transportation Plan (SATP): Summer Weekday Vehicle Miles of Travel Within Sheboygan County: Forecast 2015, 2025, 2035 and 2045

FACILITY TYPE	SPEED RANGE	2015 MODEL		2025 MODEL		2035 MODEL		2045 MODEL	
		Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck
RURAL LOCALS	0-5	0	0	0	0	0	0	0	0
	5-10	0	0	0	0	0	0	0	0
	10-15	0	0	0	0	0	0	0	0
	15-20	0	0	0	0	0	0	0	0
	20-25	39,651	1,780	40,779	1,850	42,747	2,003	46,350	2,261
	25-30	0	0	1	0	0	0	0	0
	30-35	0	0	0	0	0	0	0	0
	35-40	0	0	0	0	0	0	0	0
	40-45	0	0	0	0	0	0	0	0
	45-50	0	0	0	0	0	0	0	0
	50-55	0	0	0	0	0	0	0	0
	55-60	0	0	0	0	0	0	0	0
	60-65	0	0	0	0	0	0	0	0
	65+	0	0	0	0	0	0	0	0
	Subtotal	39,651	1,780	40,781	1,850	42,747	2,003	46,350	2,261
ALL TYPES	0-5	0	0	0	0	0	0	0	0
	5-10	0	0	0	0	0	0	0	0
	10-15	0	0	0	0	0	0	0	0
	15-20	1,886	129	3,166	223	1,811	130	1,760	131
	20-25	59,948	2,643	61,174	2,722	64,395	3,027	67,812	3,237
	25-30	56,818	3,096	57,598	3,128	60,717	3,327	71,787	4,415
	30-35	192,246	13,950	202,356	14,937	218,728	16,489	253,687	20,011
	35-40	642,139	36,970	659,681	38,271	692,954	41,179	722,223	44,364
	40-45	394,405	31,575	379,388	30,056	399,535	32,126	408,072	33,830
	45-50	591,457	51,108	660,035	59,559	593,886	55,726	661,814	67,157
	50-55	253,422	23,741	273,759	26,091	402,196	42,496	440,101	51,931
	55-60	0	0	0	0	0	0	0	0
	60-65	0	0	0	0	0	0	0	0
	65+	721,077	87,538	761,751	93,777	826,919	104,655	890,707	117,690
	TOTAL	2,913,397	250,750	3,058,908	268,765	3,261,140	299,156	3,517,962	342,767

Source: Wisconsin Department of Transportation, 2015; Wisconsin Department of Natural Resources, 2014; and Bay-Lake Regional Planning Commission, 2015.

Table C.4 presents the summer weekday average speeds (by speed range and facility type) within Sheboygan County that were projected by the travel demand forecast model for the analysis years of 2015, 2025, 2035 and 2045. Entries only appear in Table C.4 where there was VMT activity.

Table C.4: Year 2045 Sheboygan Area Transportation Plan (SATP): Summer Weekday Average Speeds (by Speed Range and Facility Type) Within Sheboygan County: Forecast 2015, 2025, 2035 and 2045

FACILITY TYPE	SPEED RANGE	2015 MODEL		2025 MODEL		2035 MODEL		2045 MODEL	
		Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck
		MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH
INTERSTATES	0-5	NA	NA	NA	NA	NA	NA	NA	NA
	5-10	NA	NA	NA	NA	NA	NA	NA	NA
	10-15	NA	NA	NA	NA	NA	NA	NA	NA
	15-20	NA	NA	NA	NA	NA	NA	NA	NA
	20-25	NA	NA	NA	NA	NA	NA	NA	NA
	25-30	NA	NA	NA	NA	NA	NA	NA	NA
	30-35	NA	NA	NA	NA	NA	NA	NA	NA
	35-40	NA	NA	NA	NA	NA	NA	NA	NA
	40-45	NA	NA	NA	NA	NA	NA	NA	NA
	45-50	NA	NA	NA	NA	NA	NA	NA	NA
	50-55	NA	NA	NA	NA	NA	NA	NA	NA
	55-60	NA	NA	NA	NA	NA	NA	NA	NA
	60-65	NA	NA	NA	NA	NA	NA	NA	NA
	65+	72.92	73.18	72.71	73.01	72.28	72.63	71.84	72.25
OTHER FREEWAYS	0-5	NA	NA	NA	NA	NA	NA	NA	NA
	5-10	NA	NA	NA	NA	NA	NA	NA	NA
	10-15	NA	NA	NA	NA	NA	NA	NA	NA
	15-20	NA	NA	NA	NA	NA	NA	NA	NA
	20-25	NA	NA	NA	NA	NA	NA	NA	NA
	25-30	NA	NA	NA	NA	NA	NA	NA	NA
	30-35	NA	NA	NA	NA	NA	NA	NA	NA
	35-40	NA	NA	NA	NA	NA	NA	NA	NA
	40-45	NA	NA	NA	NA	NA	NA	NA	NA
	45-50	NA	NA	NA	NA	NA	NA	NA	NA
	50-55	NA	NA	NA	NA	NA	NA	NA	NA
	55-60	NA	NA	NA	NA	NA	NA	NA	NA
	60-65	NA	NA	NA	NA	NA	NA	NA	NA
	65+	NA	NA	NA	NA	NA	NA	NA	NA
RAMPS	0-5	NA	NA	NA	NA	NA	NA	NA	NA
	5-10	NA	NA	NA	NA	NA	NA	NA	NA
	10-15	NA	NA	NA	NA	NA	NA	NA	NA
	15-20	NA	NA	NA	NA	NA	NA	NA	NA
	20-25	NA	NA	NA	NA	24.97	24.99	NA	NA
	25-30	NA	NA	NA	NA	29.96	29.99	NA	NA
	30-35	34.94	34.95	34.91	34.93	34.82	34.85	34.69	34.74
	35-40	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
	40-45	NA	NA	NA	NA	NA	NA	NA	NA
	45-50	NA	NA	NA	NA	NA	NA	NA	NA
	50-55	NA	NA	NA	NA	NA	NA	NA	NA
	55-60	NA	NA	NA	NA	NA	NA	NA	NA
	60-65	NA	NA	NA	NA	NA	NA	NA	NA
	65+	NA	NA	NA	NA	NA	NA	NA	NA

Table C.4: Year 2045 Sheboygan Area Transportation Plan (SATP): Summer Weekday Average Speeds (by Speed Range and Facility Type) Within Sheboygan County: Forecast 2015, 2025, 2035 and 2045

FACILITY TYPE	SPEED RANGE	2015 MODEL		2025 MODEL		2035 MODEL		2045 MODEL	
		Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck
		MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH
EXPRESSWAYS	0-5	NA	NA	NA	NA	NA	NA	NA	NA
	5-10	NA	NA	NA	NA	NA	NA	NA	NA
	10-15	NA	NA	NA	NA	NA	NA	NA	NA
	15-20	NA	NA	NA	NA	NA	NA	NA	NA
	20-25	NA	NA	NA	NA	NA	NA	NA	NA
	25-30	NA	NA	NA	NA	NA	NA	NA	NA
	30-35	NA	NA	NA	NA	NA	NA	NA	NA
	35-40	NA	NA	NA	NA	NA	NA	NA	NA
	40-45	NA	NA	NA	NA	NA	NA	NA	NA
	45-50	49.99	49.99	49.59	49.78	49.97	49.98	49.96	49.97
	50-55	54.99	54.99	54.99	54.99	54.04	54.01	54.99	54.98
	55-60	NA	NA	NA	NA	NA	NA	NA	NA
	60-65	NA	NA	NA	NA	NA	NA	NA	NA
	65+	NA	NA	NA	NA	NA	NA	NA	NA
URBAN PRINCIPAL ARTERIALS	0-5	NA	NA	NA	NA	NA	NA	NA	NA
	5-10	NA	NA	NA	NA	NA	NA	NA	NA
	10-15	NA	NA	NA	NA	NA	NA	NA	NA
	15-20	NA	NA	NA	NA	NA	NA	NA	NA
	20-25	NA	NA	NA	NA	NA	NA	NA	NA
	25-30	27.18	27.25	27.13	27.21	27.04	27.11	26.87	26.94
	30-35	NA	NA	NA	NA	NA	NA	NA	NA
	35-40	39.13	39.30	39.08	39.26	38.99	39.16	38.84	39.00
	40-45	44.38	44.49	44.36	44.46	44.26	44.38	44.05	44.21
	45-50	NA	NA	NA	NA	NA	NA	NA	NA
	50-55	NA	NA	NA	NA	NA	NA	NA	NA
	55-60	NA	NA	NA	NA	NA	NA	NA	NA
	60-65	NA	NA	NA	NA	NA	NA	NA	NA
	65+	NA	NA	NA	NA	NA	NA	NA	NA
URBAN MINOR ARTERIALS	0-5	NA	NA	NA	NA	NA	NA	NA	NA
	5-10	NA	NA	NA	NA	NA	NA	NA	NA
	10-15	NA	NA	NA	NA	NA	NA	NA	NA
	15-20	NA	NA	NA	NA	NA	NA	NA	NA
	20-25	NA	NA	NA	NA	NA	NA	NA	NA
	25-30	27.86	27.89	27.85	27.89	27.84	27.88	27.83	27.87
	30-35	NA	NA	NA	NA	NA	NA	NA	NA
	35-40	37.95	37.96	37.94	37.96	37.93	37.94	37.89	37.91
	40-45	NA	NA	NA	NA	NA	NA	NA	NA
	45-50	46.99	46.99	46.98	46.99	46.97	46.97	46.93	46.93
	50-55	NA	NA	NA	NA	NA	NA	NA	NA
	55-60	NA	NA	NA	NA	NA	NA	NA	NA
	60-65	NA	NA	NA	NA	NA	NA	NA	NA
	65+	NA	NA	NA	NA	NA	NA	NA	NA



Table C.4: Year 2045 Sheboygan Area Transportation Plan (SATP): Summer Weekday Average Speeds (by Speed Range and Facility Type) Within Sheboygan County: Forecast 2015, 2025, 2035 and 2045

FACILITY TYPE	SPEED RANGE	2015 MODEL		2025 MODEL		2035 MODEL		2045 MODEL	
		Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck
		MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH
URBAN COLLECTORS	0-5	NA	NA	NA	NA	NA	NA	NA	NA
	5-10	NA	NA	NA	NA	NA	NA	NA	NA
	10-15	NA	NA	NA	NA	NA	NA	NA	NA
	15-20	NA	NA	NA	NA	NA	NA	NA	NA
	20-25	24.88	24.89	24.88	24.89	24.87	24.88	24.85	24.87
	25-30	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
	30-35	34.69	34.67	34.68	34.66	34.66	34.64	34.64	34.61
	35-40	39.91	39.89	39.90	39.89	39.89	39.87	39.87	39.85
	40-45	44.94	44.89	44.94	44.88	44.91	44.84	44.88	44.79
	45-50	NA	NA	NA	NA	NA	NA	NA	NA
	50-55	NA	NA	NA	NA	NA	NA	NA	NA
	55-60	NA	NA	NA	NA	NA	NA	NA	NA
	60-65	NA	NA	NA	NA	NA	NA	NA	NA
	65+	NA	NA	NA	NA	NA	NA	NA	NA
URBAN LOCALS	0-5	NA	NA	NA	NA	NA	NA	NA	NA
	5-10	NA	NA	NA	NA	NA	NA	NA	NA
	10-15	NA	NA	NA	NA	NA	NA	NA	NA
	15-20	19.98	19.98	19.98	19.99	19.98	19.99	19.99	19.99
	20-25	24.94	24.95	24.94	24.95	24.94	24.95	24.94	24.95
	25-30	NA	NA	NA	NA	NA	NA	25.00	25.00
	30-35	NA	NA	NA	NA	NA	NA	NA	NA
	35-40	NA	NA	NA	NA	NA	NA	NA	NA
	40-45	NA	NA	NA	NA	NA	NA	NA	NA
	45-50	NA	NA	NA	NA	NA	NA	NA	NA
	50-55	NA	NA	NA	NA	NA	NA	NA	NA
	55-60	NA	NA	NA	NA	NA	NA	NA	NA
	60-65	NA	NA	NA	NA	NA	NA	NA	NA
	65+	NA	NA	NA	NA	NA	NA	NA	NA
RURAL PRINCIPAL ARTERIALS	0-5	NA	NA	NA	NA	NA	NA	NA	NA
	5-10	NA	NA	NA	NA	NA	NA	NA	NA
	10-15	NA	NA	NA	NA	NA	NA	NA	NA
	15-20	NA	NA	NA	NA	NA	NA	NA	NA
	20-25	NA	NA	NA	NA	NA	NA	NA	NA
	25-30	NA	NA	NA	NA	NA	NA	NA	NA
	30-35	NA	NA	NA	NA	NA	NA	34.51	34.99
	35-40	37.91	38.81	37.34	38.24	37.02	38.08	36.96	37.82
	40-45	42.92	43.56	42.22	42.81	42.02	42.58	41.29	41.84
	45-50	46.26	46.77	46.95	47.29	46.83	47.15	46.46	46.87
	50-55	51.23	51.49	51.12	51.37	50.94	51.19	50.73	50.99
	55-60	NA	NA	NA	NA	NA	NA	NA	NA
	60-65	NA	NA	NA	NA	NA	NA	NA	NA
	65+	NA	NA	NA	NA	NA	NA	NA	NA

Table C.4: Year 2045 Sheboygan Area Transportation Plan (SATP): Summer Weekday Average Speeds (by Speed Range and Facility Type) Within Sheboygan County: Forecast 2015, 2025, 2035 and 2045

FACILITY TYPE	SPEED RANGE	2015 MODEL		2025 MODEL		2035 MODEL		2045 MODEL	
		Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck
		MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH
RURAL MINOR ARTERIALS	0-5	NA	NA	NA	NA	NA	NA	NA	NA
	5-10	NA	NA	NA	NA	NA	NA	NA	NA
	10-15	NA	NA	NA	NA	NA	NA	NA	NA
	15-20	NA	NA	NA	NA	NA	NA	NA	NA
	20-25	NA	NA	NA	NA	NA	NA	NA	NA
	25-30	28.78	29.92	28.82	29.85	28.63	29.62	28.22	28.76
	30-35	32.86	33.29	32.62	32.98	32.16	32.44	32.81	33.30
	35-40	36.89	37.13	36.76	37.00	36.54	36.80	36.43	36.65
	40-45	43.07	44.04	43.12	43.98	42.90	43.69	43.10	43.88
	45-50	46.75	47.00	46.71	46.94	46.59	46.82	46.46	46.64
	50-55	NA	NA	NA	NA	NA	NA	NA	NA
	55-60	NA	NA	NA	NA	NA	NA	NA	NA
	60-65	NA	NA	NA	NA	NA	NA	NA	NA
	65+	NA	NA	NA	NA	NA	NA	NA	NA
RURAL MAJOR COLLECTORS	0-5	NA	NA	NA	NA	NA	NA	NA	NA
	5-10	NA	NA	NA	NA	NA	NA	NA	NA
	10-15	NA	NA	NA	NA	NA	NA	NA	NA
	15-20	NA	NA	19.97	19.99	NA	NA	NA	NA
	20-25	NA	NA	NA	NA	NA	NA	NA	NA
	25-30	NA	NA	NA	NA	NA	NA	NA	NA
	30-35	33.85	34.25	33.78	34.18	33.53	33.91	33.29	33.65
	35-40	38.00	38.31	37.89	38.19	37.75	38.06	37.60	37.86
	40-45	43.09	43.38	43.06	43.35	42.94	43.24	42.75	43.06
	45-50	NA	NA	NA	NA	NA	NA	NA	NA
	50-55	NA	NA	NA	NA	NA	NA	NA	NA
	55-60	NA	NA	NA	NA	NA	NA	NA	NA
	60-65	NA	NA	NA	NA	NA	NA	NA	NA
	65+	NA	NA	NA	NA	NA	NA	NA	NA
RURAL MINOR COLLECTORS	0-5	NA	NA	NA	NA	NA	NA	NA	NA
	5-10	NA	NA	NA	NA	NA	NA	NA	NA
	10-15	NA	NA	NA	NA	NA	NA	NA	NA
	15-20	NA	NA	NA	NA	NA	NA	NA	NA
	20-25	NA	NA	NA	NA	NA	NA	NA	NA
	25-30	29.56	29.60	29.55	29.57	29.53	29.54	29.51	29.52
	30-35	34.35	34.39	34.29	34.33	34.18	34.23	34.00	34.06
	35-40	39.03	39.17	38.99	39.11	38.93	39.04	38.86	38.98
	40-45	NA	NA	NA	NA	NA	NA	NA	NA
	45-50	NA	NA	NA	NA	NA	NA	NA	NA
	50-55	NA	NA	NA	NA	NA	NA	NA	NA
	55-60	NA	NA	NA	NA	NA	NA	NA	NA
	60-65	NA	NA	NA	NA	NA	NA	NA	NA
	65+	NA	NA	NA	NA	NA	NA	NA	NA

Table C.4: *Year 2045 Sheboygan Area Transportation Plan (SATP): Summer Weekday Average Speeds (by Speed Range and Facility Type) Within Sheboygan County: Forecast 2015, 2025, 2035 and 2045*

FACILITY TYPE	SPEED RANGE	2015 MODEL		2025 MODEL		2035 MODEL		2045 MODEL	
		Auto	Truck	Auto	Truck	Auto	Truck	Auto	Truck
		MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH
RURAL LOCALS	0-5	NA	NA	NA	NA	NA	NA	NA	NA
	5-10	NA	NA	NA	NA	NA	NA	NA	NA
	10-15	NA	NA	NA	NA	NA	NA	NA	NA
	15-20	NA	NA	NA	NA	NA	NA	NA	NA
	20-25	24.90	24.90	24.90	24.90	24.88	24.88	24.86	24.85
	25-30	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
	30-35	NA	NA	NA	NA	NA	NA	NA	NA
	35-40	NA	NA	NA	NA	NA	NA	NA	NA
	40-45	NA	NA	NA	NA	NA	NA	NA	NA
	45-50	NA	NA	NA	NA	NA	NA	NA	NA
	50-55	NA	NA	NA	NA	NA	NA	NA	NA
	55-60	NA	NA	NA	NA	NA	NA	NA	NA
	60-65	NA	NA	NA	NA	NA	NA	NA	NA
	65+	NA	NA	NA	NA	NA	NA	NA	NA

Source: Wisconsin Department of Transportation, 2015; Wisconsin Department of Natural Resources, 2015; and Bay-Lake Regional Planning Commission, 2015.

Table C.5 presents the attendant volatile organic compound emissions. The forecasts are presented for the years 2015, 2025, 2035 and 2045 for all of Sheboygan County. In addition, Table C.5 presents the 2015 motor vehicle emissions budget for volatile organic compounds incorporated in the “*State of Wisconsin’s 2015 Transportation Conformity Budgets for the Kenosha and Sheboygan County 2008 8-Hour Ozone Nonattainment Areas.*” The transportation system volatile organic compound emissions under the transportation system plan and transportation improvement program, when analyzed for all of Sheboygan County, are less than the motor vehicle emissions budget for volatile organic compounds in the “*State of Wisconsin’s 2015 Transportation Conformity Budgets for the Kenosha and Sheboygan County 2008 8-Hour Ozone Nonattainment Areas,*” thus meeting this criterion for consistency.

Table C.5: Forecast Volatile Organic Compound Emissions from the Transportation System in Sheboygan County Under the *Year 2045 SATP/2016 – 2019 TIP* and the State Implementation Plan for Air Quality: 2015, 2025, 2035 and 2045 (On a Hot Summer Weekday) Using MOVES 2014

Year	Sheboygan County	
	State Implementation Plan (tons)*	Year 2045 SATP (tons)
2015	1.9720	1.6770
2025	1.9720	0.7423
2035	1.9720	0.4501
2045	1.9720	0.4337

\*The State Implementation Plan budget for volatile organic compounds is 1.9720 tons for 2015.

Source: Wisconsin Department of Natural Resources, 2015; and Bay-Lake Regional Planning Commission, 2015.

Table C.6 presents the forecast nitrogen oxide emissions. The forecasts are presented for the years 2015, 2025, 2035 and 2045 for all of Sheboygan County. In addition, Table C.6 presents

the 2015 motor vehicle emissions budget for nitrogen oxides incorporated in the “*State of Wisconsin’s 2015 Transportation Conformity Budgets for the Kenosha and Sheboygan County 2008 8-Hour Ozone Nonattainment Areas*.” The transportation system nitrogen oxide emissions under the transportation system plan and transportation improvement program, when analyzed for all of Sheboygan County, are less than the motor vehicle emissions budget for nitrogen oxides included in the “*State of Wisconsin’s 2015 Transportation Conformity Budgets for the Kenosha and Sheboygan County 2008 8-Hour Ozone Nonattainment Areas*,” thus meeting this criterion for consistency. This analysis assumes the same VMT and socioeconomic growth rates over the planning period as those which were assumed in the test for volatile organic compounds.

Table C.6: Forecast Nitrogen Oxide Emissions from the Transportation System in Sheboygan County Under the *Year 2045 SATP/2016 – 2019 TIP* and the State Implementation Plan for Air Quality: 2015, 2025, 2035 and 2045 (On a Hot Summer Weekday) Using MOVES 2014

Year	Sheboygan County	
	State Implementation Plan (tons)*	Year 2045 SATP (tons)
2015	4.4350	3.6967
2025	4.4350	1.3222
2035	4.4350	0.8568
2045	4.4350	0.9038

\*The State Implementation Plan budget for nitrogen oxides is 4.4350 tons for 2015.

Source: Wisconsin Department of Natural Resources, 2015; and Bay-Lake Regional Planning Commission, 2015.

The transportation plan, the transportation improvement program and the travel simulation modeling analysis of attendant emissions fully meet the requirements for transportation plans and programs established in the July 1, 2004, *Federal Register* (40 CFR 93.122). The transportation plan includes all additions to the transportation system. All additions of arterial and collector street and highway system capacity, including widening of arterial and collector streets to provide additional traffic lanes and construction of new facilities, are incorporated in the plan.

The travel simulation modeling conducted under this conformity analysis is fully consistent with the travel simulation modeling conducted for the preparation of the *Year 2045 Sheboygan Area Transportation Plan (SATP)*. The travel simulation modeling for the conformity determination is sensitive to the added capacity and service provided by each arterial and collector expansion or improvement, accurately reflecting its potential effect through changes in travel time and attendant route choice, mode choice, travel patterns and trip generation. The *Year 2045 SATP* and its treatment in the travel simulation modeling analysis goes beyond the federally required consideration of federally defined regionally significant projects (principal arterial routes and transit fixed guideways) in that it includes all arterial and collector facilities within Sheboygan County (including the Sheboygan metropolitan planning area). In addition, the *Year 2045 SATP* is consistent with the approved growth plans and boundaries for the metropolitan planning area, which in turn are consistent with adopted local land use plans. The *Year 2045 SATP* was designed to serve and promote implementation of current and emerging land use plans for communities within the Sheboygan metropolitan planning area.

The *Year 2045 SATP* and the *2016 – 2019 TIP* are fiscally constrained pursuant to U.S. Department of Transportation metropolitan planning regulations (23 CFR 450). The total costs of the *Year 2045 SATP* and of the *2016 – 2019 TIP*, including both capital and operating costs, were estimated and compared to existing available Federal, State and local funding levels; no

funding shortfalls were identified. In addition, per updated metropolitan planning regulations revised in response to the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), and maintained in the Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21), “year of expenditure” (inflation adjusted) costs and revenues (where applicable) were used in preparing the financial plan components of the *Year 2045 SATP* and the *2016 – 2019 TIP*. This financial analysis of the *Year 2045 SATP* and of the *2016 – 2019 TIP* was coordinated with, and is consistent with, the statewide transportation system plan (*Connections 2030*), as well as with other modal state transportation plans as they have been developed.

The procedures for estimating the regional transportation plan and transportation improvement program emissions also fully meet the requirements established in the July 1, 2004, *Federal Register* (40 CFR 93.122). Specifically, the travel simulation modeling analysis for this conformity determination incorporates in the analysis all planned street and highway capacity improvements and expansion for all arterial and collector facilities. The travel simulation modeling analysis does not assume emission reductions for any transportation control measures or control programs external to the transportation system, such as changes to motor fuel volatility or vehicle inspection and maintenance programs, except with respect to such programs incorporated in the State Implementation Plan.

In addition, Federal requirements for determination of conformity after January 1, 1997, have been met under this conformity determination. The travel and traffic simulation models used to estimate the transportation plan air pollutant emissions are network-based models. The models represent current professional practice, and were approved by the Sheboygan MPO Technical and Policy Advisory Committees, which include representatives from Federal, State and local governments. The model estimation of trip generation is dependent on population, number of households, employment (including employment in the trade and service sectors, as well as all other employment), and school enrollment. Projections for these independent variables were developed as part of this planning effort, and are consistent with similar projections developed by State agencies in their planning processes, where such State-level projections exist.

This conformity analysis indicates that the *Year 2045 SATP* and the *2016 – 2019 TIP* are consistent with the mobile sector goals of the “*State of Wisconsin’s 2015 Transportation Conformity Budgets for the Kenosha and Sheboygan County 2008 8-Hour Ozone Nonattainment Areas*” prepared by the Wisconsin Department of Natural Resources and found adequate by the U.S. Environmental Protection Agency.

#### **Off-Model Emission Reduction Benefits Incorporated in this Analysis**

This conformity assessment incorporates emission reduction benefits from averted vehicle miles of travel (VMT) that occurred through implementation of the Sheboygan County Non-Motorized Transportation Pilot Program (NMTTP) from 2011 to 2015. One of the projects completed under the Sheboygan County NMTTP also utilized Congestion Mitigation and Air Quality (CMAQ) program funding awarded in 2010; that project involved the “rails to trails” conversion of the Union Pacific rail corridor to a non-motorized trail through the heart of the City of Sheboygan (otherwise known as the Shoreline 400 Rail Trail). Sheboygan County (and its Planning and Conservation Department), as well as some local governments, were the sponsors of these projects. These projects are assumed to continue to operate over the planning period covered by the *Year 2045 SATP*.

Table C.7 indicates the projected emission reduction benefits (in pounds and U.S. tons) from

averted VMT that occurred through implementation of the Sheboygan County NMTTP from 2011 to 2015. Detailed information on how these estimates were derived is available from the Bay-Lake Regional Planning Commission, and is consistent with information supplied by the Wisconsin Department of Natural Resources, the Sheboygan County Planning and Conservation Department, and the Volpe National Transportation Systems Center (which prepared reports measuring the impacts of the NMTTP in the four jurisdictions that received NMTTP funding). Table C.7 indicates that the averted VMT that occurred through implementation of the Sheboygan County NMTTP from 2011 to 2015 produce small volatile organic compound (VOC) and nitrogen oxide (NOx) emission reduction benefits.

It should be noted that even without these off-model emission reduction benefits, implementation of all other plan and TIP elements remains in conformity with the “*State of Wisconsin’s 2015 Transportation Conformity Budgets for the Kenosha and Sheboygan County 2008 8-Hour Ozone Nonattainment Areas*” for all years of analysis.

This conformity update indicates that the *Year 2045 SATP* and its implementing *2016 – 2019 TIP*, and in particular their capacity adding street and highway projects and averted VMT that occurred through implementation of the Sheboygan County NMTTP from 2011 to 2015, are consistent with the mobile sector goals of the State of Wisconsin Implementation Plan for Air Quality as they apply to Sheboygan County.

Table C.7: Off-Model Transportation Improvement Projects with Attendant Pollution Emission Reductions: 2015, 2025, 2035 and 2045 (On a Hot Summer Weekday)

SPONSOR	TITLE OF PROJECT	REDUCTION IN VOC EMISSIONS (POUNDS PER DAY)				REDUCTION in NOx EMISSIONS (POUNDS PER DAY)			
		2015	2025	2035	2045	2015	2025	2035	2045
Sheboygan County Planning and Conservation Department (and Other Various Local Sponsors)	Averted Vehicle Miles of Travel (VMT) Through Implementation of the Sheboygan County Non- Motorized Transportation Pilot Program (NMTTP) from 2011 to 2015	0.3970	0.1233	0.0678	0.0662	1.0879	0.2083	0.0655	0.0541
TOTAL OFF-MODEL EMISSION REDUCTIONS (TONS)		0.000198	0.000062	0.000034	0.000033	0.000544	0.000104	0.000033	0.000027

Note: Assumptions made in developing these emissions reductions estimates are on file at the Bay-Lake Regional Planning Commission.

Source: Wisconsin Department of Natural Resources, 2015; and Bay-Lake Regional Planning Commission, 2015.

### CONSISTENCY OF THE 2015 – 2018 TIP WITH THE YEAR 2045 SATP

The same non-exempt projects appear in the *2016 – 2019 TIP* as those which appear in the *Year 2045 SATP* for the 2015 implementation period and for the early portion of the 2016 – 2025 implementation period. Non-exempt projects recommended in the *2016 – 2019 TIP* are identical in project scope to those in the *Year 2045 SATP*. In addition, the schedule of project implementation for the *2016 – 2019 TIP* is identical to that of the *Year 2045 SATP*.

The transportation plan projects which are not exempt from regional emissions analysis are identified in the implementation timetable for those projects found in Table 7.1 of the *Year 2045 SATP*. The transportation improvement program projects which are not exempt from regional emissions analysis are marked as “Non-Exempt” in Table 6 of the *2016 – 2019 TIP*.

The *2016 – 2019 TIP* is consistent with the *Year 2045 SATP*. The *2016 – 2019 TIP* is therefore an accurate subset of the *Year 2045 SATP* (i.e.: includes the identical projects being implemented

on the identical implementation schedule of the *Year 2045 SATP*), and consequently, the regional emissions analysis for the *Year 2045 SATP* has also been utilized to demonstrate conformity of the *2016 – 2019 TIP* to the Wisconsin State Implementation Plan for Air Quality.

### **STATUS REPORT ON AIR QUALITY CLASSIFICATION STATUS**

On May 21, 2012, USEPA designated Sheboygan County a marginal nonattainment area for ground-level ozone under the 2008 eight-hour standard for that pollutant. The effective date for that designation was July 20, 2012. Sheboygan County also remains a moderate nonattainment area for the 1997 eight-hour ozone standard.

In September 2009, the Wisconsin Department of Natural Resources prepared an “8-Hour Ozone Redesignation Request and Maintenance Plan for the Sheboygan County Subpart-2 Moderate Nonattainment Area,” which was submitted to USEPA. Several other Wisconsin counties were included in this redesignation request, including Manitowoc and Door counties, as well as six counties in southeastern Wisconsin. On April 26, 2010, USEPA published in the *Federal Register* that it had determined that the motor vehicle emissions budgets in this State Implementation Plan (SIP) element were adequate for transportation conformity determinations; this finding took effect on May 21, 2010.

The “8-Hour Ozone Redesignation Request and Maintenance Plan” was approved for all counties except Sheboygan County (in addition, the eastern portion of Kenosha County was included in the Chicago multistate nonattainment area). Unfortunately, Sheboygan County continued to have high ozone readings at its monitor near Lake Michigan, which kept the county in nonattainment.

In 2014, the Wisconsin Department of Natural Resources prepared the latest SIP element applicable to Sheboygan County. This document was titled *The State of Wisconsin’s 2015 Transportation Conformity Budgets for the Kenosha and Sheboygan County 2008 8-Hour Ozone Nonattainment Areas: A CAA-required State Implementation Plan addressing the 2008 8-Hour Ozone National Ambient Air Quality Standard*. A public hearing on this SIP element was held in December 2014, and the public comment period on this SIP element ran through mid January of 2015. This SIP element was submitted to USEPA for adequacy review in early 2015, and the conformity budgets in the SIP element were determined to be adequate in April of 2015.

Recognizing that ozone concentrations are a problem that primarily impacts the Lake Michigan shoreline, the Wisconsin Department of Natural Resources has been working with local officials and with the USEPA to attempt to decrease the size of the nonattainment area from the entire county to eastern Sheboygan County. On June 27, 2013, the Wisconsin Department of Natural Resources asked USEPA Region 5 to adjust the Sheboygan County nonattainment boundary to a narrow strip of land adjacent to Lake Michigan. The Wisconsin Department of Natural Resources supplemented this boundary refinement request with technical information on January 22, 2014. *The State of Wisconsin’s 2015 Transportation Conformity Budgets for the Kenosha and Sheboygan County 2008 8-Hour Ozone Nonattainment Areas* includes smaller emission budgets for a proposed smaller nonattainment area in eastern Sheboygan County in the event that such a redesignation were to take place. The Wisconsin Department of Natural Resources also has placed a temporary air monitor between Sheboygan and Howards Grove to attempt to measure the effect that proximity to Lake Michigan has on ozone levels in warm weather. It is unclear if or when USEPA will act on this proposal.

In late 2014, USEPA proposed a revision to the National Ambient Air Quality Standard

(NAAQS) for ozone. This proposal was published in the December 17, 2014, *Federal Register*. The Wisconsin Department of Natural Resources submitted comments on the proposal to USEPA in a letter dated March 17, 2015. It is fairly obvious that Sheboygan County (or a proposed smaller nonattainment area within the county) will remain nonattainment under the proposal, regardless of where the standard is set. If one of the smaller nonattainment thresholds were to end up as the standard (60 or 65 parts per billion), a significant number of Wisconsin counties could go into nonattainment status. The WDNR also commented that substantial public and private resources would be expended on attempting to return to attainment status if too low a standard is established. The WDNR also commented on how it would be impractical in Wisconsin to start the ozone monitoring season as early as March 1, and how there is a need to improve Federal policy to address regional transport of ozone and its precursors, which impact Wisconsin a great deal. The WDNR also submitted several other comments to USEPA in this letter, many of which are too technical to be discussed in brevity in this report.



## Jeff Agee-Aguayo

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**From:** Bovee, Christopher P - DNR [Christopher.Bovee@wisconsin.gov]  
**Sent:** Thursday, April 09, 2015 9:44 AM  
**To:** Jeff Agee-Aguayo  
**Cc:** Friedlander, Michael - DNR  
**Subject:** MOVES modeling results for Sheboygan Conformity  
**Attachments:** MOVES Modeling Results.docx

Hi Jeff,

The attached MS Word document provides the MOVES2014 modeling results for the Sheboygan County conformity analysis. These modeling runs utilize the vehicle-miles of travel and average speed data you provided to me on March 12 and 13, 2015.

The total emissions are shown at the end of each of the first four tables (Tables 1-a through 1-d). These results are:

### OXIDES OF NITROGEN (NOX)

2015: 3.6972 tons per summer weekday  
2025: 1.3223 tons per summer weekday  
2035: 0.8568 tons per summer weekday  
2045: 0.9038 tons per summer weekday

### VOLATILE ORGANIC COMPOUNDS (VOC)

2015: 1.6772 tons per summer weekday  
2025: 0.7424 tons per summer weekday  
2035: 0.4501 tons per summer weekday  
2045: 0.4337 tons per summer weekday

The format of the modeling results are quite different from those I provided to you in the past. The previous results were from the U.S. EPA's MOBILE series of models, whereas these current results are from the U.S. EPA's updated MOVES model. Providing grams per mile emission factors for the average speeds you provided, as was done for the MOBILE models, would not be feasible for MOVES. MOVES uses speed distributions rather than a single speed and MOVES computes separate emission factors for running exhaust emissions, start emissions and various types of evaporative emissions.

Later today or tomorrow morning, I'll provide you emission factors that could be used for the bike/ped project. These factors will be derived from emission and vehicle-miles of travel values in the attached document.

If you have any questions or need additional information, please let me know.

Chris

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**Christopher P. Bovée**

Mobile Source Emissions Modeler – Bureau of Air Management

Wisconsin Department of Natural Resources

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**Recommended Emission Factors to Determine Benefits of  
Sheboygan County Nonmotorized Transportation Pilot Program**

Calendar Year	Source Type	Fuel Type	Road Type	Summer	Hot Summer Wkdy Emissions		Hot Summer Wkdy Emis. Factors	
				Weekday VMT	NOx (tons)	VOC (tons)	NOx (gms/mile)	VOC (gms/mile)
2015	Passenger Cars	Gasoline	Urban Unrestricted Access	261,902	0.079393	0.028940	0.2750	0.1002
2015	Passenger Cars	Diesel	Urban Unrestricted Access	1,804	0.000443	0.000191	0.2227	0.0960
2015	Passenger Cars	85% Ethanol	Urban Unrestricted Access	151	0.000019	0.000002	0.1131	0.0091
<b>2015</b>	<b>Passenger Cars</b>	<b>ALL</b>	<b>Urban Unrestricted Access</b>	<b>263,857</b>	<b>0.079855</b>	<b>0.029132</b>	<b>0.2746</b>	<b>0.1002</b>
2025	Passenger Cars	Gasoline	Urban Unrestricted Access	265,627	0.014721	0.008808	0.0503	0.0301
2025	Passenger Cars	Diesel	Urban Unrestricted Access	3,017	0.000159	0.000029	0.0477	0.0087
2025	Passenger Cars	85% Ethanol	Urban Unrestricted Access	3,202	0.000107	0.000022	0.0304	0.0063
<b>2025</b>	<b>Passenger Cars</b>	<b>ALL</b>	<b>Urban Unrestricted Access</b>	<b>271,846</b>	<b>0.014987</b>	<b>0.008860</b>	<b>0.0500</b>	<b>0.0296</b>
2035	Passenger Cars	Gasoline	Urban Unrestricted Access	280,187	0.004538	0.004792	0.0147	0.0155
2035	Passenger Cars	Diesel	Urban Unrestricted Access	3,358	0.000066	0.000014	0.0178	0.0037
2035	Passenger Cars	85% Ethanol	Urban Unrestricted Access	3,995	0.000063	0.000016	0.0143	0.0035
<b>2035</b>	<b>Passenger Cars</b>	<b>ALL</b>	<b>Urban Unrestricted Access</b>	<b>287,540</b>	<b>0.004667</b>	<b>0.004821</b>	<b>0.0147</b>	<b>0.0152</b>
2045	Passenger Cars	Gasoline	Urban Unrestricted Access	302,618	0.003740	0.004664	0.0112	0.0140
2045	Passenger Cars	Diesel	Urban Unrestricted Access	3,636	0.000053	0.000012	0.0133	0.0029
2045	Passenger Cars	85% Ethanol	Urban Unrestricted Access	3,316	0.000041	0.000011	0.0111	0.0029
<b>2045</b>	<b>Passenger Cars</b>	<b>ALL</b>	<b>Urban Unrestricted Access</b>	<b>309,570</b>	<b>0.003834</b>	<b>0.004686</b>	<b>0.0112</b>	<b>0.0137</b>

Wisconsin Department of Natural Resources  
April 9, 2015

Table 1-a: 2015 NOX and VOC Emissions: tons per summer weekday (tpswd)

Source Type	Fuel Type	Road Type	Sheboygan Whole County Nonattainment Area – Year 2015			
			NOx Emissions (tpswd)	VOC Emissions (tpswd)		
			Total	Exhaust	Evaporative	Total
Motorcycle	Gasoline	Off-Network	0.0001	0.0006	0.0371	0.0377
Motorcycle	Gasoline	Rural Restricted	0.0028	0.0025	0.0012	0.0036
Motorcycle	Gasoline	Rural Unrestricted	0.0067	0.0074	0.0051	0.0124
Motorcycle	Gasoline	Urban Restricted	0.0026	0.0023	0.0012	0.0036
Motorcycle	Gasoline	Urban Unrestricted	0.0021	0.0027	0.0019	0.0046
Passenger Car	Gasoline	Off-Network	0.2086	0.2299	0.2950	0.5249
Passenger Car	Gasoline	Rural Restricted	0.1122	0.0212	0.0066	0.0278
Passenger Car	Gasoline	Rural Unrestricted	0.1759	0.0377	0.0211	0.0589
Passenger Car	Gasoline	Urban Restricted	0.1094	0.0214	0.0083	0.0297
Passenger Car	Gasoline	Urban Unrestricted	0.0794	0.0181	0.0108	0.0289
Passenger Car	Diesel	Off-Network	0.0010	0.0016	0.0000	0.0016
Passenger Car	Diesel	Rural Restricted	0.0006	0.0002	0.0000	0.0002
Passenger Car	Diesel	Rural Unrestricted	0.0010	0.0004	0.0000	0.0004
Passenger Car	Diesel	Urban Restricted	0.0006	0.0002	0.0000	0.0002
Passenger Car	Diesel	Urban Unrestricted	0.0004	0.0002	0.0000	0.0002
Passenger Car	Ethanol (E-85)	Off-Network	0.0001	0.0001	0.0000	0.0001
Passenger Car	Ethanol (E-85)	Rural Restricted	0.0000	0.0000	0.0000	0.0000
Passenger Car	Ethanol (E-85)	Rural Unrestricted	0.0000	0.0000	0.0000	0.0000
Passenger Car	Ethanol (E-85)	Urban Restricted	0.0000	0.0000	0.0000	0.0000
Passenger Car	Ethanol (E-85)	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
Passenger Truck	Gasoline	Off-Network	0.1976	0.2213	0.1320	0.3532
Passenger Truck	Gasoline	Rural Restricted	0.1466	0.0258	0.0033	0.0290
Passenger Truck	Gasoline	Rural Unrestricted	0.2331	0.0465	0.0122	0.0587
Passenger Truck	Gasoline	Urban Restricted	0.1237	0.0222	0.0037	0.0259
Passenger Truck	Gasoline	Urban Unrestricted	0.0843	0.0182	0.0050	0.0232
Passenger Truck	Diesel	Off-Network	0.0041	0.0020	0.0000	0.0020
Passenger Truck	Diesel	Rural Restricted	0.0066	0.0009	0.0000	0.0009
Passenger Truck	Diesel	Rural Unrestricted	0.0151	0.0026	0.0000	0.0026
Passenger Truck	Diesel	Urban Restricted	0.0062	0.0010	0.0000	0.0010
Passenger Truck	Diesel	Urban Unrestricted	0.0058	0.0010	0.0000	0.0010
Passenger Truck	Ethanol (E-85)	Off-Network	0.0001	0.0001	0.0000	0.0001
Passenger Truck	Ethanol (E-85)	Rural Restricted	0.0001	0.0000	0.0000	0.0000
Passenger Truck	Ethanol (E-85)	Rural Unrestricted	0.0002	0.0000	0.0000	0.0000
Passenger Truck	Ethanol (E-85)	Urban Restricted	0.0001	0.0000	0.0000	0.0000
Passenger Truck	Ethanol (E-85)	Urban Unrestricted	0.0001	0.0000	0.0000	0.0000
Light Commercial Truck	Gasoline	Off-Network	0.0826	0.1005	0.0534	0.1540
Light Commercial Truck	Gasoline	Rural Restricted	0.0522	0.0106	0.0015	0.0121
Light Commercial Truck	Gasoline	Rural Unrestricted	0.0925	0.0236	0.0055	0.0292
Light Commercial Truck	Gasoline	Urban Restricted	0.0451	0.0096	0.0017	0.0113
Light Commercial Truck	Gasoline	Urban Unrestricted	0.0333	0.0094	0.0023	0.0117
Light Commercial Truck	Diesel	Off-Network	0.0037	0.0027	0.0000	0.0027
Light Commercial Truck	Diesel	Rural Restricted	0.0060	0.0011	0.0000	0.0011
Light Commercial Truck	Diesel	Rural Unrestricted	0.0140	0.0030	0.0000	0.0030
Light Commercial Truck	Diesel	Urban Restricted	0.0056	0.0011	0.0000	0.0011
Light Commercial Truck	Diesel	Urban Unrestricted	0.0053	0.0012	0.0000	0.0012
Light Commercial Truck	Ethanol (E-85)	Off-Network	0.0000	0.0000	0.0000	0.0000
Light Commercial Truck	Ethanol (E-85)	Rural Restricted	0.0000	0.0000	0.0000	0.0000
Light Commercial Truck	Ethanol (E-85)	Rural Unrestricted	0.0000	0.0000	0.0000	0.0000
Light Commercial Truck	Ethanol (E-85)	Urban Restricted	0.0000	0.0000	0.0000	0.0000
Light Commercial Truck	Ethanol (E-85)	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
Intercity Bus	Diesel	Off-Network	0.0000	0.0000	0.0000	0.0000
Intercity Bus	Diesel	Rural Restricted	0.0029	0.0001	0.0000	0.0001
Intercity Bus	Diesel	Rural Unrestricted	0.0046	0.0003	0.0000	0.0003
Intercity Bus	Diesel	Urban Restricted	0.0034	0.0002	0.0000	0.0002
Intercity Bus	Diesel	Urban Unrestricted	0.0024	0.0002	0.0000	0.0002

Source Type	Fuel Type	Road Type	Sheboygan Whole County Nonattainment Area – Year 2015			
			NOx Emissions (tpswd)	VOC Emissions (tpswd)		
			Total	Exhaust	Evaporative	Total
Transit Bus	Gasoline	Off-Network	0.0000	0.0000	0.0000	0.0000
Transit Bus	Gasoline	Rural Restricted	0.0000	0.0000	0.0000	0.0000
Transit Bus	Gasoline	Rural Unrestricted	0.0000	0.0000	0.0000	0.0000
Transit Bus	Gasoline	Urban Restricted	0.0000	0.0000	0.0000	0.0000
Transit Bus	Gasoline	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
Transit Bus	Diesel	Off-Network	0.0000	0.0000	0.0000	0.0000
Transit Bus	Diesel	Rural Restricted	0.0047	0.0003	0.0000	0.0003
Transit Bus	Diesel	Rural Unrestricted	0.0058	0.0004	0.0000	0.0004
Transit Bus	Diesel	Urban Restricted	0.0055	0.0004	0.0000	0.0004
Transit Bus	Diesel	Urban Unrestricted	0.0029	0.0002	0.0000	0.0002
Transit Bus	CNG	Off-Network	0.0000	0.0000	0.0000	0.0000
Transit Bus	CNG	Rural Restricted	0.0004	0.0000	0.0000	0.0000
Transit Bus	CNG	Rural Unrestricted	0.0005	0.0001	0.0000	0.0001
Transit Bus	CNG	Urban Restricted	0.0005	0.0001	0.0000	0.0001
Transit Bus	CNG	Urban Unrestricted	0.0002	0.0001	0.0000	0.0001
School Bus	Gasoline	Off-Network	0.0000	0.0000	0.0000	0.0001
School Bus	Gasoline	Rural Restricted	0.0000	0.0000	0.0000	0.0000
School Bus	Gasoline	Rural Unrestricted	0.0000	0.0000	0.0000	0.0000
School Bus	Gasoline	Urban Restricted	0.0001	0.0000	0.0000	0.0000
School Bus	Gasoline	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
School Bus	Diesel	Off-Network	0.0000	0.0000	0.0000	0.0000
School Bus	Diesel	Rural Restricted	0.0059	0.0006	0.0000	0.0006
School Bus	Diesel	Rural Unrestricted	0.0073	0.0012	0.0000	0.0012
School Bus	Diesel	Urban Restricted	0.0068	0.0009	0.0000	0.0009
School Bus	Diesel	Urban Unrestricted	0.0038	0.0007	0.0000	0.0007
Refuse Truck	Gasoline	Off-Network	0.0001	0.0001	0.0000	0.0001
Refuse Truck	Gasoline	Rural Restricted	0.0002	0.0000	0.0000	0.0000
Refuse Truck	Gasoline	Rural Unrestricted	0.0002	0.0000	0.0000	0.0001
Refuse Truck	Gasoline	Urban Restricted	0.0001	0.0000	0.0000	0.0000
Refuse Truck	Gasoline	Urban Unrestricted	0.0001	0.0000	0.0000	0.0000
Refuse Truck	Diesel	Off-Network	0.0000	0.0000	0.0000	0.0000
Refuse Truck	Diesel	Rural Restricted	0.0090	0.0004	0.0000	0.0004
Refuse Truck	Diesel	Rural Unrestricted	0.0084	0.0005	0.0000	0.0005
Refuse Truck	Diesel	Urban Restricted	0.0070	0.0003	0.0000	0.0003
Refuse Truck	Diesel	Urban Unrestricted	0.0030	0.0002	0.0000	0.0002
Single Unit Short-haul Truck	Gasoline	Off-Network	0.0124	0.0119	0.0106	0.0225
Single Unit Short-haul Truck	Gasoline	Rural Restricted	0.0114	0.0018	0.0002	0.0020
Single Unit Short-haul Truck	Gasoline	Rural Unrestricted	0.0172	0.0040	0.0005	0.0045
Single Unit Short-haul Truck	Gasoline	Urban Restricted	0.0137	0.0024	0.0002	0.0026
Single Unit Short-haul Truck	Gasoline	Urban Unrestricted	0.0073	0.0020	0.0002	0.0023
Single Unit Short-haul Truck	Diesel	Off-Network	0.0046	0.0003	0.0000	0.0003
Single Unit Short-haul Truck	Diesel	Rural Restricted	0.0411	0.0042	0.0000	0.0042
Single Unit Short-haul Truck	Diesel	Rural Unrestricted	0.0662	0.0098	0.0000	0.0098
Single Unit Short-haul Truck	Diesel	Urban Restricted	0.0470	0.0056	0.0000	0.0056
Single Unit Short-haul Truck	Diesel	Urban Unrestricted	0.0306	0.0046	0.0000	0.0046
Single Unit Long-haul Truck	Gasoline	Off-Network	0.0003	0.0004	0.0004	0.0007
Single Unit Long-haul Truck	Gasoline	Rural Restricted	0.0003	0.0001	0.0000	0.0001
Single Unit Long-haul Truck	Gasoline	Rural Unrestricted	0.0005	0.0001	0.0000	0.0002
Single Unit Long-haul Truck	Gasoline	Urban Restricted	0.0004	0.0001	0.0000	0.0001
Single Unit Long-haul Truck	Gasoline	Urban Unrestricted	0.0002	0.0001	0.0000	0.0001
Single Unit Long-haul Truck	Diesel	Off-Network	0.0001	0.0000	0.0000	0.0000
Single Unit Long-haul Truck	Diesel	Rural Restricted	0.0024	0.0003	0.0000	0.0003
Single Unit Long-haul Truck	Diesel	Rural Unrestricted	0.0041	0.0007	0.0000	0.0007
Single Unit Long-haul Truck	Diesel	Urban Restricted	0.0028	0.0004	0.0000	0.0004
Single Unit Long-haul Truck	Diesel	Urban Unrestricted	0.0019	0.0003	0.0000	0.0003
Motor Home	Gasoline	Off-Network	0.0007	0.0009	0.0029	0.0038
Motor Home	Gasoline	Rural Restricted	0.0012	0.0003	0.0000	0.0003
Motor Home	Gasoline	Rural Unrestricted	0.0021	0.0006	0.0001	0.0007
Motor Home	Gasoline	Urban Restricted	0.0017	0.0004	0.0000	0.0004
Motor Home	Gasoline	Urban Unrestricted	0.0010	0.0004	0.0000	0.0004
Motor Home	Diesel	Off-Network	0.0001	0.0000	0.0000	0.0000
Motor Home	Diesel	Rural Restricted	0.0010	0.0001	0.0000	0.0001
Motor Home	Diesel	Rural Unrestricted	0.0018	0.0003	0.0000	0.0003
Motor Home	Diesel	Urban Restricted	0.0014	0.0002	0.0000	0.0002

Source Type	Fuel Type	Road Type	Sheboygan Whole County Nonattainment Area – Year 2015			
			NOx Emissions (tpswd)	VOC Emissions (tpswd)		
			Total	Exhaust	Evaporative	Total
Motor Home	Diesel	Urban Unrestricted	0.0010	0.0002	0.0000	0.0002
Combination Short-haul Truck	Gasoline	Off-Network	0.0000	0.0000	0.0000	0.0000
Combination Short-haul Truck	Gasoline	Rural Restricted	0.0000	0.0000	0.0000	0.0000
Combination Short-haul Truck	Gasoline	Rural Unrestricted	0.0000	0.0000	0.0000	0.0000
Combination Short-haul Truck	Gasoline	Urban Restricted	0.0000	0.0000	0.0000	0.0000
Combination Short-haul Truck	Gasoline	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
Combination Short-haul Truck	Diesel	Off-Network	0.0000	0.0001	0.0000	0.0001
Combination Short-haul Truck	Diesel	Rural Restricted	0.0790	0.0031	0.0000	0.0031
Combination Short-haul Truck	Diesel	Rural Unrestricted	0.0738	0.0043	0.0000	0.0043
Combination Short-haul Truck	Diesel	Urban Restricted	0.0616	0.0029	0.0000	0.0029
Combination Short-haul Truck	Diesel	Urban Unrestricted	0.0258	0.0016	0.0000	0.0016
Combination Long-haul Truck	Diesel	Off-Network	0.3920	0.0887	0.0000	0.0887
Combination Long-haul Truck	Diesel	Rural Restricted	0.2778	0.0112	0.0000	0.0112
Combination Long-haul Truck	Diesel	Rural Unrestricted	0.2559	0.0147	0.0000	0.0147
Combination Long-haul Truck	Diesel	Urban Restricted	0.2142	0.0101	0.0000	0.0101
Combination Long-haul Truck	Diesel	Urban Unrestricted	0.0868	0.0052	0.0000	0.0052
ALL	ALL	ALL	3.6972	1.0528	0.6243	1.6772
Motorcycle	ALL	ALL	0.0143	0.0155	0.0465	0.0620
Passenger Car	ALL	ALL	0.6894	0.3311	0.3418	0.6729
Passenger Truck	ALL	ALL	0.8236	0.3416	0.1562	0.4978
Light Commercial Truck	ALL	ALL	0.3405	0.1629	0.0645	0.2274
Intercity Bus	ALL	ALL	0.0132	0.0008	0.0000	0.0008
Transit Bus	ALL	ALL	0.0208	0.0016	0.0000	0.0016
School Bus	ALL	ALL	0.0240	0.0035	0.0000	0.0035
Refuse Truck	ALL	ALL	0.0279	0.0016	0.0001	0.0017
Single Unit Short-haul Truck	ALL	ALL	0.2515	0.0466	0.0117	0.0583
Single Unit Long-haul Truck	ALL	ALL	0.0132	0.0024	0.0004	0.0028
Motor Home	ALL	ALL	0.0119	0.0033	0.0031	0.0064
Combination Short-haul Truck	ALL	ALL	0.2402	0.0120	0.0000	0.0120
Combination Long-haul Truck	ALL	ALL	1.2267	0.1300	0.0000	0.1300
ALL	ALL	ALL	3.6972	1.0528	0.6243	1.6772
ALL	Gasoline	ALL	1.8622	0.8573	0.6243	1.4816
ALL	Diesel	ALL	1.8324	0.1950	0.0000	0.1950
ALL	CNG	ALL	0.0017	0.0003	0.0000	0.0003
ALL	Ethanol (E-85)	ALL	0.0009	0.0003	0.0000	0.0003
ALL	ALL	ALL	3.6972	1.0528	0.6243	1.6772
ALL	ALL	Off-Network	0.9084	0.6612	0.5315	1.1927
ALL	ALL	Rural Restricted	0.7647	0.0847	0.0127	0.0975
ALL	ALL	Rural Unrestricted	0.9868	0.1586	0.0445	0.2032
ALL	ALL	Urban Restricted	0.6596	0.0818	0.0153	0.0971
ALL	ALL	Urban Unrestricted	0.3777	0.0664	0.0203	0.0867
ALL	ALL	ALL	3.6972	1.0528	0.6243	1.6772

Table 1-b: 2025 NOX and VOC Emissions: tons per summer weekday (tpswd)

Source Type	Fuel Type	Road Type	Sheboygan Whole County Nonattainment Area – Year 2025			
			NOx Emissions (tpswd)	VOC Emissions (tpswd)		
				Exhaust	Evaporative	Total
Motorcycle	Gasoline	Off-Network	0.0002	0.0008	0.0364	0.0373
Motorcycle	Gasoline	Rural Restricted	0.0030	0.0022	0.0012	0.0035
Motorcycle	Gasoline	Rural Unrestricted	0.0063	0.0060	0.0049	0.0109
Motorcycle	Gasoline	Urban Restricted	0.0031	0.0024	0.0015	0.0039
Motorcycle	Gasoline	Urban Unrestricted	0.0021	0.0023	0.0019	0.0042
Passenger Car	Gasoline	Off-Network	0.0731	0.0970	0.1561	0.2530
Passenger Car	Gasoline	Rural Restricted	0.0274	0.0055	0.0035	0.0089
Passenger Car	Gasoline	Rural Unrestricted	0.0317	0.0070	0.0101	0.0171
Passenger Car	Gasoline	Urban Restricted	0.0274	0.0057	0.0050	0.0107
Passenger Car	Gasoline	Urban Unrestricted	0.0147	0.0034	0.0054	0.0088
Passenger Car	Diesel	Off-Network	0.0006	0.0007	0.0000	0.0007
Passenger Car	Diesel	Rural Restricted	0.0003	0.0001	0.0000	0.0001
Passenger Car	Diesel	Rural Unrestricted	0.0003	0.0001	0.0000	0.0001
Passenger Car	Diesel	Urban Restricted	0.0003	0.0001	0.0000	0.0001
Passenger Car	Diesel	Urban Unrestricted	0.0002	0.0000	0.0000	0.0000
Passenger Car	Ethanol (E-85)	Off-Network	0.0007	0.0009	0.0000	0.0009
Passenger Car	Ethanol (E-85)	Rural Restricted	0.0002	0.0000	0.0000	0.0000
Passenger Car	Ethanol (E-85)	Rural Unrestricted	0.0002	0.0000	0.0000	0.0000
Passenger Car	Ethanol (E-85)	Urban Restricted	0.0002	0.0000	0.0000	0.0000
Passenger Car	Ethanol (E-85)	Urban Unrestricted	0.0001	0.0000	0.0000	0.0000
Passenger Truck	Gasoline	Off-Network	0.0662	0.0754	0.0854	0.1608
Passenger Truck	Gasoline	Rural Restricted	0.0355	0.0067	0.0023	0.0091
Passenger Truck	Gasoline	Rural Unrestricted	0.0409	0.0081	0.0078	0.0159
Passenger Truck	Gasoline	Urban Restricted	0.0309	0.0060	0.0031	0.0090
Passenger Truck	Gasoline	Urban Unrestricted	0.0155	0.0032	0.0034	0.0066
Passenger Truck	Diesel	Off-Network	0.0034	0.0007	0.0000	0.0007
Passenger Truck	Diesel	Rural Restricted	0.0024	0.0002	0.0000	0.0002
Passenger Truck	Diesel	Rural Unrestricted	0.0051	0.0006	0.0000	0.0006
Passenger Truck	Diesel	Urban Restricted	0.0025	0.0003	0.0000	0.0003
Passenger Truck	Diesel	Urban Unrestricted	0.0021	0.0002	0.0000	0.0002
Passenger Truck	Ethanol (E-85)	Off-Network	0.0019	0.0022	0.0000	0.0022
Passenger Truck	Ethanol (E-85)	Rural Restricted	0.0012	0.0002	0.0000	0.0002
Passenger Truck	Ethanol (E-85)	Rural Unrestricted	0.0012	0.0002	0.0000	0.0002
Passenger Truck	Ethanol (E-85)	Urban Restricted	0.0010	0.0002	0.0000	0.0002
Passenger Truck	Ethanol (E-85)	Urban Unrestricted	0.0005	0.0001	0.0000	0.0001
Light Commercial Truck	Gasoline	Off-Network	0.0249	0.0320	0.0251	0.0571
Light Commercial Truck	Gasoline	Rural Restricted	0.0117	0.0022	0.0007	0.0029
Light Commercial Truck	Gasoline	Rural Unrestricted	0.0156	0.0036	0.0024	0.0060
Light Commercial Truck	Gasoline	Urban Restricted	0.0105	0.0021	0.0009	0.0030
Light Commercial Truck	Gasoline	Urban Unrestricted	0.0059	0.0015	0.0010	0.0025
Light Commercial Truck	Diesel	Off-Network	0.0025	0.0010	0.0000	0.0010
Light Commercial Truck	Diesel	Rural Restricted	0.0018	0.0002	0.0000	0.0002
Light Commercial Truck	Diesel	Rural Unrestricted	0.0038	0.0006	0.0000	0.0006
Light Commercial Truck	Diesel	Urban Restricted	0.0019	0.0003	0.0000	0.0003
Light Commercial Truck	Diesel	Urban Unrestricted	0.0015	0.0002	0.0000	0.0002
Light Commercial Truck	Ethanol (E-85)	Off-Network	0.0005	0.0005	0.0000	0.0005
Light Commercial Truck	Ethanol (E-85)	Rural Restricted	0.0003	0.0000	0.0000	0.0000
Light Commercial Truck	Ethanol (E-85)	Rural Unrestricted	0.0003	0.0000	0.0000	0.0000
Light Commercial Truck	Ethanol (E-85)	Urban Restricted	0.0002	0.0000	0.0000	0.0000
Light Commercial Truck	Ethanol (E-85)	Urban Unrestricted	0.0001	0.0000	0.0000	0.0000
Intercity Bus	Diesel	Off-Network	0.0000	0.0000	0.0000	0.0000
Intercity Bus	Diesel	Rural Restricted	0.0014	0.0001	0.0000	0.0001
Intercity Bus	Diesel	Rural Unrestricted	0.0020	0.0001	0.0000	0.0001
Intercity Bus	Diesel	Urban Restricted	0.0018	0.0001	0.0000	0.0001
Intercity Bus	Diesel	Urban Unrestricted	0.0011	0.0001	0.0000	0.0001

Source Type	Fuel Type	Road Type	Sheboygan Whole County Nonattainment Area – Year 2025			
			NOx Emissions (tpswd)	VOC Emissions (tpswd)		
			Total	Exhaust	Evaporative	Total
Transit Bus	Gasoline	Off-Network	0.0000	0.0000	0.0000	0.0000
Transit Bus	Gasoline	Rural Restricted	0.0000	0.0000	0.0000	0.0000
Transit Bus	Gasoline	Rural Unrestricted	0.0000	0.0000	0.0000	0.0000
Transit Bus	Gasoline	Urban Restricted	0.0000	0.0000	0.0000	0.0000
Transit Bus	Gasoline	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
Transit Bus	Diesel	Off-Network	0.0000	0.0000	0.0000	0.0000
Transit Bus	Diesel	Rural Restricted	0.0016	0.0001	0.0000	0.0001
Transit Bus	Diesel	Rural Unrestricted	0.0018	0.0001	0.0000	0.0001
Transit Bus	Diesel	Urban Restricted	0.0022	0.0001	0.0000	0.0001
Transit Bus	Diesel	Urban Unrestricted	0.0010	0.0001	0.0000	0.0001
Transit Bus	CNG	Off-Network	0.0000	0.0000	0.0000	0.0000
Transit Bus	CNG	Rural Restricted	0.0003	0.0000	0.0000	0.0000
Transit Bus	CNG	Rural Unrestricted	0.0003	0.0000	0.0000	0.0000
Transit Bus	CNG	Urban Restricted	0.0004	0.0000	0.0000	0.0000
Transit Bus	CNG	Urban Unrestricted	0.0001	0.0000	0.0000	0.0000
School Bus	Gasoline	Off-Network	0.0000	0.0000	0.0000	0.0000
School Bus	Gasoline	Rural Restricted	0.0000	0.0000	0.0000	0.0000
School Bus	Gasoline	Rural Unrestricted	0.0000	0.0000	0.0000	0.0000
School Bus	Gasoline	Urban Restricted	0.0000	0.0000	0.0000	0.0000
School Bus	Gasoline	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
School Bus	Diesel	Off-Network	0.0000	0.0000	0.0000	0.0000
School Bus	Diesel	Rural Restricted	0.0034	0.0003	0.0000	0.0003
School Bus	Diesel	Rural Unrestricted	0.0038	0.0005	0.0000	0.0005
School Bus	Diesel	Urban Restricted	0.0045	0.0005	0.0000	0.0005
School Bus	Diesel	Urban Unrestricted	0.0021	0.0003	0.0000	0.0003
Refuse Truck	Gasoline	Off-Network	0.0000	0.0000	0.0000	0.0000
Refuse Truck	Gasoline	Rural Restricted	0.0000	0.0000	0.0000	0.0000
Refuse Truck	Gasoline	Rural Unrestricted	0.0000	0.0000	0.0000	0.0000
Refuse Truck	Gasoline	Urban Restricted	0.0000	0.0000	0.0000	0.0000
Refuse Truck	Gasoline	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
Refuse Truck	Diesel	Off-Network	0.0000	0.0000	0.0000	0.0000
Refuse Truck	Diesel	Rural Restricted	0.0024	0.0001	0.0000	0.0001
Refuse Truck	Diesel	Rural Unrestricted	0.0021	0.0001	0.0000	0.0001
Refuse Truck	Diesel	Urban Restricted	0.0022	0.0001	0.0000	0.0001
Refuse Truck	Diesel	Urban Unrestricted	0.0008	0.0000	0.0000	0.0000
Single Unit Short-haul Truck	Gasoline	Off-Network	0.0044	0.0046	0.0039	0.0086
Single Unit Short-haul Truck	Gasoline	Rural Restricted	0.0025	0.0004	0.0001	0.0005
Single Unit Short-haul Truck	Gasoline	Rural Unrestricted	0.0034	0.0009	0.0002	0.0011
Single Unit Short-haul Truck	Gasoline	Urban Restricted	0.0035	0.0007	0.0001	0.0008
Single Unit Short-haul Truck	Gasoline	Urban Unrestricted	0.0015	0.0005	0.0001	0.0006
Single Unit Short-haul Truck	Diesel	Off-Network	0.0054	0.0003	0.0000	0.0003
Single Unit Short-haul Truck	Diesel	Rural Restricted	0.0118	0.0009	0.0000	0.0009
Single Unit Short-haul Truck	Diesel	Rural Unrestricted	0.0176	0.0019	0.0000	0.0019
Single Unit Short-haul Truck	Diesel	Urban Restricted	0.0156	0.0014	0.0000	0.0014
Single Unit Short-haul Truck	Diesel	Urban Unrestricted	0.0087	0.0009	0.0000	0.0009
Single Unit Long-haul Truck	Gasoline	Off-Network	0.0001	0.0001	0.0001	0.0002
Single Unit Long-haul Truck	Gasoline	Rural Restricted	0.0000	0.0000	0.0000	0.0000
Single Unit Long-haul Truck	Gasoline	Rural Unrestricted	0.0001	0.0000	0.0000	0.0000
Single Unit Long-haul Truck	Gasoline	Urban Restricted	0.0001	0.0000	0.0000	0.0000
Single Unit Long-haul Truck	Gasoline	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
Single Unit Long-haul Truck	Diesel	Off-Network	0.0002	0.0000	0.0000	0.0000
Single Unit Long-haul Truck	Diesel	Rural Restricted	0.0009	0.0001	0.0000	0.0001
Single Unit Long-haul Truck	Diesel	Rural Unrestricted	0.0013	0.0001	0.0000	0.0001
Single Unit Long-haul Truck	Diesel	Urban Restricted	0.0012	0.0001	0.0000	0.0001
Single Unit Long-haul Truck	Diesel	Urban Unrestricted	0.0007	0.0001	0.0000	0.0001
Motor Home	Gasoline	Off-Network	0.0002	0.0003	0.0010	0.0013
Motor Home	Gasoline	Rural Restricted	0.0002	0.0000	0.0000	0.0001
Motor Home	Gasoline	Rural Unrestricted	0.0004	0.0001	0.0000	0.0001
Motor Home	Gasoline	Urban Restricted	0.0004	0.0001	0.0000	0.0001
Motor Home	Gasoline	Urban Unrestricted	0.0002	0.0001	0.0000	0.0001
Motor Home	Diesel	Off-Network	0.0001	0.0000	0.0000	0.0000
Motor Home	Diesel	Rural Restricted	0.0004	0.0000	0.0000	0.0000
Motor Home	Diesel	Rural Unrestricted	0.0007	0.0001	0.0000	0.0001
Motor Home	Diesel	Urban Restricted	0.0007	0.0001	0.0000	0.0001

Source Type	Fuel Type	Road Type	Sheboygan Whole County Nonattainment Area – Year 2025			
			NOx Emissions (tpswd)	VOC Emissions (tpswd)		
				Exhaust	Evaporative	Total
Motor Home	Diesel	Urban Unrestricted	0.0004	0.0001	0.0000	0.0001
Combination Short-haul Truck	Gasoline	Off-Network	0.0000	0.0000	0.0000	0.0000
Combination Short-haul Truck	Gasoline	Rural Restricted	0.0000	0.0000	0.0000	0.0000
Combination Short-haul Truck	Gasoline	Rural Unrestricted	0.0000	0.0000	0.0000	0.0000
Combination Short-haul Truck	Gasoline	Urban Restricted	0.0000	0.0000	0.0000	0.0000
Combination Short-haul Truck	Gasoline	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
Combination Short-haul Truck	Diesel	Off-Network	0.0000	0.0001	0.0000	0.0001
Combination Short-haul Truck	Diesel	Rural Restricted	0.0246	0.0008	0.0000	0.0008
Combination Short-haul Truck	Diesel	Rural Unrestricted	0.0212	0.0011	0.0000	0.0011
Combination Short-haul Truck	Diesel	Urban Restricted	0.0218	0.0009	0.0000	0.0009
Combination Short-haul Truck	Diesel	Urban Unrestricted	0.0081	0.0004	0.0000	0.0004
Combination Long-haul Truck	Diesel	Off-Network	0.3385	0.0618	0.0000	0.0618
Combination Long-haul Truck	Diesel	Rural Restricted	0.1015	0.0036	0.0000	0.0036
Combination Long-haul Truck	Diesel	Rural Unrestricted	0.0849	0.0044	0.0000	0.0044
Combination Long-haul Truck	Diesel	Urban Restricted	0.0885	0.0038	0.0000	0.0038
Combination Long-haul Truck	Diesel	Urban Unrestricted	0.0313	0.0017	0.0000	0.0017
ALL	ALL	ALL	1.3223	0.3786	0.3637	0.7424
Motorcycle	ALL	ALL	0.0146	0.0137	0.0460	0.0597
Passenger Car	ALL	ALL	0.1776	0.1206	0.1800	0.3006
Passenger Truck	ALL	ALL	0.2104	0.1043	0.1021	0.2064
Light Commercial Truck	ALL	ALL	0.0814	0.0444	0.0301	0.0746
Intercity Bus	ALL	ALL	0.0063	0.0004	0.0000	0.0004
Transit Bus	ALL	ALL	0.0077	0.0006	0.0000	0.0006
School Bus	ALL	ALL	0.0139	0.0017	0.0000	0.0017
Refuse Truck	ALL	ALL	0.0075	0.0003	0.0000	0.0004
Single Unit Short-haul Truck	ALL	ALL	0.0744	0.0125	0.0044	0.0169
Single Unit Long-haul Truck	ALL	ALL	0.0045	0.0006	0.0001	0.0006
Motor Home	ALL	ALL	0.0037	0.0009	0.0010	0.0020
Combination Short-haul Truck	ALL	ALL	0.0757	0.0033	0.0000	0.0033
Combination Long-haul Truck	ALL	ALL	0.6446	0.0753	0.0000	0.0753
ALL	ALL	ALL	1.3223	0.3786	0.3637	0.7424
ALL	Gasoline	ALL	0.4636	0.2811	0.3637	0.6448
ALL	Diesel	ALL	0.8490	0.0928	0.0000	0.0928
ALL	CNG	ALL	0.0011	0.0001	0.0000	0.0001
ALL	Ethanol (E-85)	ALL	0.0086	0.0046	0.0000	0.0046
ALL	ALL	ALL	1.3223	0.3786	0.3637	0.7424
ALL	ALL	Off-Network	0.5228	0.2785	0.3080	0.5865
ALL	ALL	Rural Restricted	0.2350	0.0240	0.0079	0.0318
ALL	ALL	Rural Unrestricted	0.2451	0.0359	0.0254	0.0613
ALL	ALL	Urban Restricted	0.2207	0.0249	0.0107	0.0355
ALL	ALL	Urban Unrestricted	0.0987	0.0153	0.0118	0.0272
ALL	ALL	ALL	1.3223	0.3786	0.3637	0.7424



Table 1-c: 2035 NOx and VOC Emissions: tons per summer weekday (tpswd)

Source Type	Fuel Type	Road Type	Sheboygan Whole County Nonattainment Area – Year 2035			
			NOx Emissions (tpswd)	VOC Emissions (tpswd)		
			Total	Exhaust	Evaporative	Total
Motorcycle	Gasoline	Off-Network	0.0002	0.0010	0.0368	0.0378
Motorcycle	Gasoline	Rural Restricted	0.0032	0.0023	0.0013	0.0036
Motorcycle	Gasoline	Rural Unrestricted	0.0065	0.0059	0.0051	0.0110
Motorcycle	Gasoline	Urban Restricted	0.0033	0.0024	0.0016	0.0041
Motorcycle	Gasoline	Urban Unrestricted	0.0022	0.0022	0.0020	0.0042
Passenger Car	Gasoline	Off-Network	0.0338	0.0403	0.0929	0.1332
Passenger Car	Gasoline	Rural Restricted	0.0136	0.0024	0.0025	0.0048
Passenger Car	Gasoline	Rural Unrestricted	0.0103	0.0024	0.0069	0.0093
Passenger Car	Gasoline	Urban Restricted	0.0120	0.0023	0.0035	0.0058
Passenger Car	Gasoline	Urban Unrestricted	0.0045	0.0011	0.0037	0.0048
Passenger Car	Diesel	Off-Network	0.0004	0.0004	0.0000	0.0004
Passenger Car	Diesel	Rural Restricted	0.0002	0.0000	0.0000	0.0000
Passenger Car	Diesel	Rural Unrestricted	0.0001	0.0000	0.0000	0.0000
Passenger Car	Diesel	Urban Restricted	0.0002	0.0000	0.0000	0.0000
Passenger Car	Diesel	Urban Unrestricted	0.0001	0.0000	0.0000	0.0000
Passenger Car	Ethanol (E-85)	Off-Network	0.0005	0.0006	0.0000	0.0006
Passenger Car	Ethanol (E-85)	Rural Restricted	0.0002	0.0000	0.0000	0.0000
Passenger Car	Ethanol (E-85)	Rural Unrestricted	0.0001	0.0000	0.0000	0.0000
Passenger Car	Ethanol (E-85)	Urban Restricted	0.0002	0.0000	0.0000	0.0000
Passenger Car	Ethanol (E-85)	Urban Unrestricted	0.0001	0.0000	0.0000	0.0000
Passenger Truck	Gasoline	Off-Network	0.0270	0.0310	0.0620	0.0930
Passenger Truck	Gasoline	Rural Restricted	0.0160	0.0028	0.0021	0.0049
Passenger Truck	Gasoline	Rural Unrestricted	0.0136	0.0028	0.0067	0.0095
Passenger Truck	Gasoline	Urban Restricted	0.0130	0.0024	0.0027	0.0051
Passenger Truck	Gasoline	Urban Unrestricted	0.0051	0.0011	0.0029	0.0040
Passenger Truck	Diesel	Off-Network	0.0030	0.0003	0.0000	0.0003
Passenger Truck	Diesel	Rural Restricted	0.0012	0.0001	0.0000	0.0001
Passenger Truck	Diesel	Rural Unrestricted	0.0025	0.0003	0.0000	0.0003
Passenger Truck	Diesel	Urban Restricted	0.0013	0.0001	0.0000	0.0001
Passenger Truck	Diesel	Urban Unrestricted	0.0010	0.0001	0.0000	0.0001
Passenger Truck	Ethanol (E-85)	Off-Network	0.0014	0.0016	0.0000	0.0016
Passenger Truck	Ethanol (E-85)	Rural Restricted	0.0008	0.0002	0.0000	0.0002
Passenger Truck	Ethanol (E-85)	Rural Unrestricted	0.0007	0.0001	0.0000	0.0001
Passenger Truck	Ethanol (E-85)	Urban Restricted	0.0007	0.0001	0.0000	0.0001
Passenger Truck	Ethanol (E-85)	Urban Unrestricted	0.0003	0.0001	0.0000	0.0001
Light Commercial Truck	Gasoline	Off-Network	0.0084	0.0094	0.0157	0.0251
Light Commercial Truck	Gasoline	Rural Restricted	0.0043	0.0007	0.0005	0.0012
Light Commercial Truck	Gasoline	Rural Unrestricted	0.0040	0.0008	0.0017	0.0025
Light Commercial Truck	Gasoline	Urban Restricted	0.0035	0.0006	0.0007	0.0013
Light Commercial Truck	Gasoline	Urban Unrestricted	0.0015	0.0003	0.0007	0.0010
Light Commercial Truck	Diesel	Off-Network	0.0019	0.0003	0.0000	0.0003
Light Commercial Truck	Diesel	Rural Restricted	0.0007	0.0001	0.0000	0.0001
Light Commercial Truck	Diesel	Rural Unrestricted	0.0015	0.0002	0.0000	0.0002
Light Commercial Truck	Diesel	Urban Restricted	0.0008	0.0001	0.0000	0.0001
Light Commercial Truck	Diesel	Urban Unrestricted	0.0006	0.0001	0.0000	0.0001
Light Commercial Truck	Ethanol (E-85)	Off-Network	0.0004	0.0004	0.0000	0.0004
Light Commercial Truck	Ethanol (E-85)	Rural Restricted	0.0002	0.0000	0.0000	0.0000
Light Commercial Truck	Ethanol (E-85)	Rural Unrestricted	0.0002	0.0000	0.0000	0.0000
Light Commercial Truck	Ethanol (E-85)	Urban Restricted	0.0001	0.0000	0.0000	0.0000
Light Commercial Truck	Ethanol (E-85)	Urban Unrestricted	0.0001	0.0000	0.0000	0.0000
Intercity Bus	Diesel	Off-Network	0.0000	0.0000	0.0000	0.0000
Intercity Bus	Diesel	Rural Restricted	0.0005	0.0000	0.0000	0.0000
Intercity Bus	Diesel	Rural Unrestricted	0.0007	0.0000	0.0000	0.0000
Intercity Bus	Diesel	Urban Restricted	0.0006	0.0000	0.0000	0.0000
Intercity Bus	Diesel	Urban Unrestricted	0.0004	0.0000	0.0000	0.0000

Source Type	Fuel Type	Road Type	Sheboygan Whole County Nonattainment Area – Year 2035			
			NOx Emissions (tpswd)	VOC Emissions (tpswd)		
			Total	Exhaust	Evaporative	Total
Transit Bus	Gasoline	Off-Network	0.0000	0.0000	0.0000	0.0000
Transit Bus	Gasoline	Rural Restricted	0.0000	0.0000	0.0000	0.0000
Transit Bus	Gasoline	Rural Unrestricted	0.0000	0.0000	0.0000	0.0000
Transit Bus	Gasoline	Urban Restricted	0.0000	0.0000	0.0000	0.0000
Transit Bus	Gasoline	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
Transit Bus	Diesel	Off-Network	0.0000	0.0000	0.0000	0.0000
Transit Bus	Diesel	Rural Restricted	0.0007	0.0000	0.0000	0.0000
Transit Bus	Diesel	Rural Unrestricted	0.0008	0.0000	0.0000	0.0000
Transit Bus	Diesel	Urban Restricted	0.0010	0.0000	0.0000	0.0000
Transit Bus	Diesel	Urban Unrestricted	0.0004	0.0000	0.0000	0.0000
Transit Bus	CNG	Off-Network	0.0000	0.0000	0.0000	0.0000
Transit Bus	CNG	Rural Restricted	0.0002	0.0000	0.0000	0.0000
Transit Bus	CNG	Rural Unrestricted	0.0002	0.0000	0.0000	0.0000
Transit Bus	CNG	Urban Restricted	0.0003	0.0000	0.0000	0.0000
Transit Bus	CNG	Urban Unrestricted	0.0001	0.0000	0.0000	0.0000
School Bus	Gasoline	Off-Network	0.0000	0.0000	0.0000	0.0000
School Bus	Gasoline	Rural Restricted	0.0000	0.0000	0.0000	0.0000
School Bus	Gasoline	Rural Unrestricted	0.0000	0.0000	0.0000	0.0000
School Bus	Gasoline	Urban Restricted	0.0000	0.0000	0.0000	0.0000
School Bus	Gasoline	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
School Bus	Diesel	Off-Network	0.0000	0.0000	0.0000	0.0000
School Bus	Diesel	Rural Restricted	0.0017	0.0001	0.0000	0.0001
School Bus	Diesel	Rural Unrestricted	0.0019	0.0001	0.0000	0.0001
School Bus	Diesel	Urban Restricted	0.0024	0.0001	0.0000	0.0001
School Bus	Diesel	Urban Unrestricted	0.0011	0.0001	0.0000	0.0001
Refuse Truck	Gasoline	Off-Network	0.0000	0.0000	0.0000	0.0000
Refuse Truck	Gasoline	Rural Restricted	0.0000	0.0000	0.0000	0.0000
Refuse Truck	Gasoline	Rural Unrestricted	0.0000	0.0000	0.0000	0.0000
Refuse Truck	Gasoline	Urban Restricted	0.0000	0.0000	0.0000	0.0000
Refuse Truck	Gasoline	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
Refuse Truck	Diesel	Off-Network	0.0000	0.0000	0.0000	0.0000
Refuse Truck	Diesel	Rural Restricted	0.0017	0.0000	0.0000	0.0000
Refuse Truck	Diesel	Rural Unrestricted	0.0015	0.0001	0.0000	0.0001
Refuse Truck	Diesel	Urban Restricted	0.0016	0.0001	0.0000	0.0001
Refuse Truck	Diesel	Urban Unrestricted	0.0006	0.0000	0.0000	0.0000
Single Unit Short-haul Truck	Gasoline	Off-Network	0.0014	0.0020	0.0024	0.0044
Single Unit Short-haul Truck	Gasoline	Rural Restricted	0.0019	0.0003	0.0001	0.0004
Single Unit Short-haul Truck	Gasoline	Rural Unrestricted	0.0024	0.0006	0.0002	0.0008
Single Unit Short-haul Truck	Gasoline	Urban Restricted	0.0027	0.0005	0.0001	0.0006
Single Unit Short-haul Truck	Gasoline	Urban Unrestricted	0.0011	0.0004	0.0001	0.0004
Single Unit Short-haul Truck	Diesel	Off-Network	0.0057	0.0002	0.0000	0.0002
Single Unit Short-haul Truck	Diesel	Rural Restricted	0.0080	0.0005	0.0000	0.0005
Single Unit Short-haul Truck	Diesel	Rural Unrestricted	0.0118	0.0010	0.0000	0.0010
Single Unit Short-haul Truck	Diesel	Urban Restricted	0.0110	0.0008	0.0000	0.0008
Single Unit Short-haul Truck	Diesel	Urban Unrestricted	0.0059	0.0005	0.0000	0.0005
Single Unit Long-haul Truck	Gasoline	Off-Network	0.0000	0.0000	0.0000	0.0000
Single Unit Long-haul Truck	Gasoline	Rural Restricted	0.0000	0.0000	0.0000	0.0000
Single Unit Long-haul Truck	Gasoline	Rural Unrestricted	0.0000	0.0000	0.0000	0.0000
Single Unit Long-haul Truck	Gasoline	Urban Restricted	0.0000	0.0000	0.0000	0.0000
Single Unit Long-haul Truck	Gasoline	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
Single Unit Long-haul Truck	Diesel	Off-Network	0.0002	0.0000	0.0000	0.0000
Single Unit Long-haul Truck	Diesel	Rural Restricted	0.0006	0.0000	0.0000	0.0000
Single Unit Long-haul Truck	Diesel	Rural Unrestricted	0.0010	0.0001	0.0000	0.0001
Single Unit Long-haul Truck	Diesel	Urban Restricted	0.0009	0.0001	0.0000	0.0001
Single Unit Long-haul Truck	Diesel	Urban Unrestricted	0.0005	0.0000	0.0000	0.0000
Motor Home	Gasoline	Off-Network	0.0001	0.0001	0.0005	0.0006
Motor Home	Gasoline	Rural Restricted	0.0001	0.0000	0.0000	0.0000
Motor Home	Gasoline	Rural Unrestricted	0.0002	0.0000	0.0000	0.0001
Motor Home	Gasoline	Urban Restricted	0.0002	0.0000	0.0000	0.0000
Motor Home	Gasoline	Urban Unrestricted	0.0001	0.0000	0.0000	0.0000
Motor Home	Diesel	Off-Network	0.0001	0.0000	0.0000	0.0000
Motor Home	Diesel	Rural Restricted	0.0002	0.0000	0.0000	0.0000
Motor Home	Diesel	Rural Unrestricted	0.0003	0.0000	0.0000	0.0000
Motor Home	Diesel	Urban Restricted	0.0003	0.0000	0.0000	0.0000

Source Type	Fuel Type	Road Type	Sheboygan Whole County Nonattainment Area – Year 2035			
			NOx Emissions (tpswd)	VOC Emissions (tpswd)		
				Exhaust	Evaporative	Total
Motor Home	Diesel	Urban Unrestricted	0.0002	0.0000	0.0000	0.0000
Combination Short-haul Truck	Gasoline	Off-Network	0.0000	0.0000	0.0000	0.0000
Combination Short-haul Truck	Gasoline	Rural Restricted	0.0000	0.0000	0.0000	0.0000
Combination Short-haul Truck	Gasoline	Rural Unrestricted	0.0000	0.0000	0.0000	0.0000
Combination Short-haul Truck	Gasoline	Urban Restricted	0.0000	0.0000	0.0000	0.0000
Combination Short-haul Truck	Gasoline	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
Combination Short-haul Truck	Diesel	Off-Network	0.0000	0.0001	0.0000	0.0001
Combination Short-haul Truck	Diesel	Rural Restricted	0.0169	0.0004	0.0000	0.0004
Combination Short-haul Truck	Diesel	Rural Unrestricted	0.0146	0.0006	0.0000	0.0006
Combination Short-haul Truck	Diesel	Urban Restricted	0.0157	0.0005	0.0000	0.0005
Combination Short-haul Truck	Diesel	Urban Unrestricted	0.0056	0.0002	0.0000	0.0002
Combination Long-haul Truck	Diesel	Off-Network	0.3591	0.0594	0.0000	0.0594
Combination Long-haul Truck	Diesel	Rural Restricted	0.0531	0.0014	0.0000	0.0014
Combination Long-haul Truck	Diesel	Rural Unrestricted	0.0444	0.0018	0.0000	0.0018
Combination Long-haul Truck	Diesel	Urban Restricted	0.0480	0.0016	0.0000	0.0016
Combination Long-haul Truck	Diesel	Urban Unrestricted	0.0167	0.0007	0.0000	0.0007
ALL	ALL	ALL	0.8568	0.1947	0.2555	0.4501
Motorcycle	ALL	ALL	0.0155	0.0138	0.0469	0.0606
Passenger Car	ALL	ALL	0.0763	0.0496	0.1095	0.1592
Passenger Truck	ALL	ALL	0.0876	0.0433	0.0763	0.1196
Light Commercial Truck	ALL	ALL	0.0282	0.0130	0.0194	0.0324
Intercity Bus	ALL	ALL	0.0022	0.0001	0.0000	0.0001
Transit Bus	ALL	ALL	0.0038	0.0002	0.0000	0.0002
School Bus	ALL	ALL	0.0070	0.0004	0.0000	0.0004
Refuse Truck	ALL	ALL	0.0054	0.0002	0.0000	0.0002
Single Unit Short-haul Truck	ALL	ALL	0.0519	0.0067	0.0029	0.0096
Single Unit Long-haul Truck	ALL	ALL	0.0032	0.0002	0.0000	0.0002
Motor Home	ALL	ALL	0.0018	0.0003	0.0005	0.0009
Combination Short-haul Truck	ALL	ALL	0.0528	0.0019	0.0000	0.0019
Combination Long-haul Truck	ALL	ALL	0.5212	0.0649	0.0000	0.0649
ALL	ALL	ALL	0.8568	0.1947	0.2555	0.4501
ALL	Gasoline	ALL	0.1964	0.1183	0.2555	0.3737
ALL	Diesel	ALL	0.6539	0.0730	0.0000	0.0730
ALL	CNG	ALL	0.0008	0.0001	0.0000	0.0001
ALL	Ethanol (E-85)	ALL	0.0057	0.0033	0.0000	0.0033
ALL	ALL	ALL	0.8568	0.1947	0.2555	0.4501
ALL	ALL	Off-Network	0.4436	0.1472	0.2104	0.3576
ALL	ALL	Rural Restricted	0.1260	0.0114	0.0065	0.0179
ALL	ALL	Rural Unrestricted	0.1195	0.0170	0.0205	0.0376
ALL	ALL	Urban Restricted	0.1197	0.0119	0.0087	0.0206
ALL	ALL	Urban Unrestricted	0.0481	0.0071	0.0094	0.0165
ALL	ALL	ALL	0.8568	0.1947	0.2555	0.4501

Table 1-d: 2045 NOx and VOC Emissions: tons per summer weekday (tpswd)

Source Type	Fuel Type	Road Type	Sheboygan Whole County Nonattainment Area – Year 2045			
			NOx Emissions (tpswd)	VOC Emissions (tpswd)		
				Exhaust	Evaporative	Total
Motorcycle	Gasoline	Off-Network	0.0002	0.0011	0.0381	0.0392
Motorcycle	Gasoline	Rural Restricted	0.0035	0.0024	0.0014	0.0039
Motorcycle	Gasoline	Rural Unrestricted	0.0070	0.0063	0.0054	0.0117
Motorcycle	Gasoline	Urban Restricted	0.0036	0.0026	0.0017	0.0044
Motorcycle	Gasoline	Urban Unrestricted	0.0024	0.0024	0.0021	0.0045
Passenger Car	Gasoline	Off-Network	0.0305	0.0336	0.0894	0.1230
Passenger Car	Gasoline	Rural Restricted	0.0126	0.0020	0.0025	0.0045
Passenger Car	Gasoline	Rural Unrestricted	0.0086	0.0020	0.0070	0.0090
Passenger Car	Gasoline	Urban Restricted	0.0110	0.0020	0.0036	0.0056
Passenger Car	Gasoline	Urban Unrestricted	0.0037	0.0010	0.0037	0.0047
Passenger Car	Diesel	Off-Network	0.0004	0.0004	0.0000	0.0004
Passenger Car	Diesel	Rural Restricted	0.0002	0.0000	0.0000	0.0000
Passenger Car	Diesel	Rural Unrestricted	0.0001	0.0000	0.0000	0.0000
Passenger Car	Diesel	Urban Restricted	0.0002	0.0000	0.0000	0.0000
Passenger Car	Diesel	Urban Unrestricted	0.0001	0.0000	0.0000	0.0000
Passenger Car	Ethanol (E-85)	Off-Network	0.0003	0.0004	0.0000	0.0004
Passenger Car	Ethanol (E-85)	Rural Restricted	0.0001	0.0000	0.0000	0.0000
Passenger Car	Ethanol (E-85)	Rural Unrestricted	0.0001	0.0000	0.0000	0.0000
Passenger Car	Ethanol (E-85)	Urban Restricted	0.0001	0.0000	0.0000	0.0000
Passenger Car	Ethanol (E-85)	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
Passenger Truck	Gasoline	Off-Network	0.0223	0.0236	0.0585	0.0821
Passenger Truck	Gasoline	Rural Restricted	0.0125	0.0019	0.0021	0.0041
Passenger Truck	Gasoline	Rural Unrestricted	0.0095	0.0021	0.0068	0.0088
Passenger Truck	Gasoline	Urban Restricted	0.0101	0.0017	0.0027	0.0045
Passenger Truck	Gasoline	Urban Unrestricted	0.0036	0.0008	0.0029	0.0037
Passenger Truck	Diesel	Off-Network	0.0031	0.0003	0.0000	0.0003
Passenger Truck	Diesel	Rural Restricted	0.0010	0.0001	0.0000	0.0001
Passenger Truck	Diesel	Rural Unrestricted	0.0023	0.0003	0.0000	0.0003
Passenger Truck	Diesel	Urban Restricted	0.0011	0.0001	0.0000	0.0001
Passenger Truck	Diesel	Urban Unrestricted	0.0009	0.0001	0.0000	0.0001
Passenger Truck	Ethanol (E-85)	Off-Network	0.0009	0.0009	0.0000	0.0009
Passenger Truck	Ethanol (E-85)	Rural Restricted	0.0005	0.0001	0.0000	0.0001
Passenger Truck	Ethanol (E-85)	Rural Unrestricted	0.0004	0.0001	0.0000	0.0001
Passenger Truck	Ethanol (E-85)	Urban Restricted	0.0004	0.0001	0.0000	0.0001
Passenger Truck	Ethanol (E-85)	Urban Unrestricted	0.0001	0.0000	0.0000	0.0000
Light Commercial Truck	Gasoline	Off-Network	0.0068	0.0075	0.0154	0.0229
Light Commercial Truck	Gasoline	Rural Restricted	0.0034	0.0005	0.0006	0.0011
Light Commercial Truck	Gasoline	Rural Unrestricted	0.0028	0.0006	0.0018	0.0024
Light Commercial Truck	Gasoline	Urban Restricted	0.0027	0.0005	0.0007	0.0012
Light Commercial Truck	Gasoline	Urban Unrestricted	0.0010	0.0002	0.0008	0.0010
Light Commercial Truck	Diesel	Off-Network	0.0020	0.0002	0.0000	0.0002
Light Commercial Truck	Diesel	Rural Restricted	0.0006	0.0001	0.0000	0.0001
Light Commercial Truck	Diesel	Rural Unrestricted	0.0013	0.0002	0.0000	0.0002
Light Commercial Truck	Diesel	Urban Restricted	0.0006	0.0001	0.0000	0.0001
Light Commercial Truck	Diesel	Urban Unrestricted	0.0005	0.0001	0.0000	0.0001
Light Commercial Truck	Ethanol (E-85)	Off-Network	0.0002	0.0003	0.0000	0.0003
Light Commercial Truck	Ethanol (E-85)	Rural Restricted	0.0001	0.0000	0.0000	0.0000
Light Commercial Truck	Ethanol (E-85)	Rural Unrestricted	0.0001	0.0000	0.0000	0.0000
Light Commercial Truck	Ethanol (E-85)	Urban Restricted	0.0001	0.0000	0.0000	0.0000
Light Commercial Truck	Ethanol (E-85)	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
Intercity Bus	Diesel	Off-Network	0.0000	0.0000	0.0000	0.0000
Intercity Bus	Diesel	Rural Restricted	0.0004	0.0000	0.0000	0.0000
Intercity Bus	Diesel	Rural Unrestricted	0.0006	0.0000	0.0000	0.0000
Intercity Bus	Diesel	Urban Restricted	0.0006	0.0000	0.0000	0.0000
Intercity Bus	Diesel	Urban Unrestricted	0.0003	0.0000	0.0000	0.0000

Source Type	Fuel Type	Road Type	Sheboygan Whole County Nonattainment Area – Year 2045			
			NOx Emissions (tpswd)	VOC Emissions (tpswd)		
			Total	Exhaust	Evaporative	Total
Transit Bus	Gasoline	Off-Network	0.0000	0.0000	0.0000	0.0000
Transit Bus	Gasoline	Rural Restricted	0.0000	0.0000	0.0000	0.0000
Transit Bus	Gasoline	Rural Unrestricted	0.0000	0.0000	0.0000	0.0000
Transit Bus	Gasoline	Urban Restricted	0.0000	0.0000	0.0000	0.0000
Transit Bus	Gasoline	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
Transit Bus	Diesel	Off-Network	0.0000	0.0000	0.0000	0.0000
Transit Bus	Diesel	Rural Restricted	0.0007	0.0000	0.0000	0.0000
Transit Bus	Diesel	Rural Unrestricted	0.0008	0.0000	0.0000	0.0000
Transit Bus	Diesel	Urban Restricted	0.0011	0.0000	0.0000	0.0000
Transit Bus	Diesel	Urban Unrestricted	0.0005	0.0000	0.0000	0.0000
Transit Bus	CNG	Off-Network	0.0000	0.0000	0.0000	0.0000
Transit Bus	CNG	Rural Restricted	0.0002	0.0000	0.0000	0.0000
Transit Bus	CNG	Rural Unrestricted	0.0002	0.0000	0.0000	0.0000
Transit Bus	CNG	Urban Restricted	0.0003	0.0000	0.0000	0.0000
Transit Bus	CNG	Urban Unrestricted	0.0001	0.0000	0.0000	0.0000
School Bus	Gasoline	Off-Network	0.0000	0.0000	0.0000	0.0000
School Bus	Gasoline	Rural Restricted	0.0000	0.0000	0.0000	0.0000
School Bus	Gasoline	Rural Unrestricted	0.0000	0.0000	0.0000	0.0000
School Bus	Gasoline	Urban Restricted	0.0000	0.0000	0.0000	0.0000
School Bus	Gasoline	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
School Bus	Diesel	Off-Network	0.0000	0.0000	0.0000	0.0000
School Bus	Diesel	Rural Restricted	0.0017	0.0001	0.0000	0.0001
School Bus	Diesel	Rural Unrestricted	0.0019	0.0001	0.0000	0.0001
School Bus	Diesel	Urban Restricted	0.0024	0.0001	0.0000	0.0001
School Bus	Diesel	Urban Unrestricted	0.0011	0.0001	0.0000	0.0001
Refuse Truck	Gasoline	Off-Network	0.0000	0.0000	0.0000	0.0000
Refuse Truck	Gasoline	Rural Restricted	0.0000	0.0000	0.0000	0.0000
Refuse Truck	Gasoline	Rural Unrestricted	0.0000	0.0000	0.0000	0.0000
Refuse Truck	Gasoline	Urban Restricted	0.0000	0.0000	0.0000	0.0000
Refuse Truck	Gasoline	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
Refuse Truck	Diesel	Off-Network	0.0000	0.0000	0.0000	0.0000
Refuse Truck	Diesel	Rural Restricted	0.0019	0.0000	0.0000	0.0000
Refuse Truck	Diesel	Rural Unrestricted	0.0016	0.0001	0.0000	0.0001
Refuse Truck	Diesel	Urban Restricted	0.0018	0.0001	0.0000	0.0001
Refuse Truck	Diesel	Urban Unrestricted	0.0006	0.0000	0.0000	0.0000
Single Unit Short-haul Truck	Gasoline	Off-Network	0.0013	0.0021	0.0024	0.0045
Single Unit Short-haul Truck	Gasoline	Rural Restricted	0.0020	0.0003	0.0001	0.0004
Single Unit Short-haul Truck	Gasoline	Rural Unrestricted	0.0026	0.0007	0.0002	0.0009
Single Unit Short-haul Truck	Gasoline	Urban Restricted	0.0030	0.0005	0.0001	0.0007
Single Unit Short-haul Truck	Gasoline	Urban Unrestricted	0.0012	0.0004	0.0001	0.0005
Single Unit Short-haul Truck	Diesel	Off-Network	0.0062	0.0003	0.0000	0.0003
Single Unit Short-haul Truck	Diesel	Rural Restricted	0.0085	0.0005	0.0000	0.0005
Single Unit Short-haul Truck	Diesel	Rural Unrestricted	0.0127	0.0011	0.0000	0.0011
Single Unit Short-haul Truck	Diesel	Urban Restricted	0.0123	0.0008	0.0000	0.0008
Single Unit Short-haul Truck	Diesel	Urban Unrestricted	0.0062	0.0005	0.0000	0.0005
Single Unit Long-haul Truck	Gasoline	Off-Network	0.0000	0.0000	0.0000	0.0000
Single Unit Long-haul Truck	Gasoline	Rural Restricted	0.0000	0.0000	0.0000	0.0000
Single Unit Long-haul Truck	Gasoline	Rural Unrestricted	0.0000	0.0000	0.0000	0.0000
Single Unit Long-haul Truck	Gasoline	Urban Restricted	0.0000	0.0000	0.0000	0.0000
Single Unit Long-haul Truck	Gasoline	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
Single Unit Long-haul Truck	Diesel	Off-Network	0.0002	0.0000	0.0000	0.0000
Single Unit Long-haul Truck	Diesel	Rural Restricted	0.0007	0.0000	0.0000	0.0000
Single Unit Long-haul Truck	Diesel	Rural Unrestricted	0.0011	0.0001	0.0000	0.0001
Single Unit Long-haul Truck	Diesel	Urban Restricted	0.0010	0.0001	0.0000	0.0001
Single Unit Long-haul Truck	Diesel	Urban Unrestricted	0.0005	0.0000	0.0000	0.0000
Motor Home	Gasoline	Off-Network	0.0001	0.0001	0.0005	0.0006
Motor Home	Gasoline	Rural Restricted	0.0001	0.0000	0.0000	0.0000
Motor Home	Gasoline	Rural Unrestricted	0.0002	0.0000	0.0000	0.0001
Motor Home	Gasoline	Urban Restricted	0.0002	0.0000	0.0000	0.0000
Motor Home	Gasoline	Urban Unrestricted	0.0001	0.0000	0.0000	0.0000
Motor Home	Diesel	Off-Network	0.0002	0.0000	0.0000	0.0000
Motor Home	Diesel	Rural Restricted	0.0002	0.0000	0.0000	0.0000
Motor Home	Diesel	Rural Unrestricted	0.0003	0.0000	0.0000	0.0000
Motor Home	Diesel	Urban Restricted	0.0003	0.0000	0.0000	0.0000

Source Type	Fuel Type	Road Type	Sheboygan Whole County Nonattainment Area – Year 2045			
			NOx Emissions (tpswd)	VOC Emissions (tpswd)		
			Total	Exhaust	Evaporative	Total
Motor Home	Diesel	Urban Unrestricted	0.0002	0.0000	0.0000	0.0000
Combination Short-haul Truck	Gasoline	Off-Network	0.0000	0.0000	0.0000	0.0000
Combination Short-haul Truck	Gasoline	Rural Restricted	0.0000	0.0000	0.0000	0.0000
Combination Short-haul Truck	Gasoline	Rural Unrestricted	0.0000	0.0000	0.0000	0.0000
Combination Short-haul Truck	Gasoline	Urban Restricted	0.0000	0.0000	0.0000	0.0000
Combination Short-haul Truck	Gasoline	Urban Unrestricted	0.0000	0.0000	0.0000	0.0000
Combination Short-haul Truck	Diesel	Off-Network	0.0000	0.0001	0.0000	0.0001
Combination Short-haul Truck	Diesel	Rural Restricted	0.0190	0.0005	0.0000	0.0005
Combination Short-haul Truck	Diesel	Rural Unrestricted	0.0167	0.0007	0.0000	0.0007
Combination Short-haul Truck	Diesel	Urban Restricted	0.0185	0.0006	0.0000	0.0006
Combination Short-haul Truck	Diesel	Urban Unrestricted	0.0063	0.0003	0.0000	0.0003
Combination Long-haul Truck	Diesel	Off-Network	0.4103	0.0676	0.0000	0.0676
Combination Long-haul Truck	Diesel	Rural Restricted	0.0571	0.0015	0.0000	0.0015
Combination Long-haul Truck	Diesel	Rural Unrestricted	0.0482	0.0019	0.0000	0.0019
Combination Long-haul Truck	Diesel	Urban Restricted	0.0537	0.0017	0.0000	0.0017
Combination Long-haul Truck	Diesel	Urban Unrestricted	0.0178	0.0007	0.0000	0.0007
ALL	ALL	ALL	0.9038	0.1831	0.2506	0.4337
Motorcycle	ALL	ALL	0.0167	0.0148	0.0488	0.0636
Passenger Car	ALL	ALL	0.0682	0.0415	0.1062	0.1477
Passenger Truck	ALL	ALL	0.0688	0.0322	0.0730	0.1052
Light Commercial Truck	ALL	ALL	0.0223	0.0102	0.0193	0.0295
Intercity Bus	ALL	ALL	0.0019	0.0001	0.0000	0.0001
Transit Bus	ALL	ALL	0.0041	0.0002	0.0000	0.0002
School Bus	ALL	ALL	0.0071	0.0004	0.0000	0.0004
Refuse Truck	ALL	ALL	0.0058	0.0002	0.0000	0.0002
Single Unit Short-haul Truck	ALL	ALL	0.0560	0.0072	0.0029	0.0101
Single Unit Long-haul Truck	ALL	ALL	0.0035	0.0003	0.0000	0.0003
Motor Home	ALL	ALL	0.0018	0.0003	0.0005	0.0009
Combination Short-haul Truck	ALL	ALL	0.0605	0.0021	0.0000	0.0021
Combination Long-haul Truck	ALL	ALL	0.5872	0.0735	0.0000	0.0735
ALL	ALL	ALL	0.9038	0.1831	0.2506	0.4337
ALL	Gasoline	ALL	0.1688	0.0991	0.2506	0.3498
ALL	Diesel	ALL	0.7306	0.0819	0.0000	0.0819
ALL	CNG	ALL	0.0009	0.0001	0.0000	0.0001
ALL	Ethanol (E-85)	ALL	0.0036	0.0020	0.0000	0.0020
ALL	ALL	ALL	0.9038	0.1831	0.2506	0.4337
ALL	ALL	Off-Network	0.4850	0.1385	0.2042	0.3427
ALL	ALL	Rural Restricted	0.1271	0.0103	0.0067	0.0170
ALL	ALL	Rural Unrestricted	0.1191	0.0163	0.0212	0.0375
ALL	ALL	Urban Restricted	0.1252	0.0113	0.0089	0.0202
ALL	ALL	Urban Unrestricted	0.0474	0.0068	0.0096	0.0164
ALL	ALL	ALL	0.9038	0.1831	0.2506	0.4337

Table 2-a: Vehicle-Miles of Travel Output from the MOVES2014 Model;  
Years 2015, 2025, 2035 and 2045

Source Type	Fuel Type	Road Type	Sheboygan Whole County Nonattainment Area			
			Vehicle-Miles of Travel Summer Weekday			
			2015	2025	2035	2045
Motorcycle	Gasoline	Off-Network				
Motorcycle	Gasoline	Rural Restricted	3,861	4,199	4,571	4,941
Motorcycle	Gasoline	Rural Unrestricted	10,124	9,920	10,415	11,192
Motorcycle	Gasoline	Urban Restricted	3,511	4,307	4,702	5,116
Motorcycle	Gasoline	Urban Unrestricted	3,484	3,606	3,804	4,093
Passenger Car	Gasoline	Off-Network				
Passenger Car	Gasoline	Rural Restricted	293,800	313,159	340,774	369,896
Passenger Car	Gasoline	Rural Unrestricted	568,128	545,604	572,684	617,783
Passenger Car	Gasoline	Urban Restricted	314,808	378,595	413,185	451,250
Passenger Car	Gasoline	Urban Unrestricted	261,902	265,627	280,187	302,618
Passenger Car	Diesel	Off-Network				
Passenger Car	Diesel	Rural Restricted	2,024	3,556	4,085	4,445
Passenger Car	Diesel	Rural Unrestricted	3,914	6,196	6,864	7,423
Passenger Car	Diesel	Urban Restricted	2,169	4,299	4,952	5,422
Passenger Car	Diesel	Urban Unrestricted	1,804	3,017	3,358	3,636
Passenger Car	Ethanol (E-85)	Off-Network				
Passenger Car	Ethanol (E-85)	Rural Restricted	169	3,775	4,858	4,054
Passenger Car	Ethanol (E-85)	Rural Unrestricted	326	6,577	8,165	6,770
Passenger Car	Ethanol (E-85)	Urban Restricted	181	4,564	5,891	4,945
Passenger Car	Ethanol (E-85)	Urban Unrestricted	151	3,202	3,995	3,316
Passenger Truck	Gasoline	Off-Network				
Passenger Truck	Gasoline	Rural Restricted	227,386	228,557	244,397	267,171
Passenger Truck	Gasoline	Rural Unrestricted	509,181	461,130	475,619	516,724
Passenger Truck	Gasoline	Urban Restricted	220,408	249,963	268,067	294,846
Passenger Truck	Gasoline	Urban Unrestricted	189,708	181,442	188,067	204,568
Passenger Truck	Diesel	Off-Network				
Passenger Truck	Diesel	Rural Restricted	4,320	4,830	5,269	5,690
Passenger Truck	Diesel	Rural Unrestricted	9,674	9,745	10,254	11,004
Passenger Truck	Diesel	Urban Restricted	4,188	5,283	5,780	6,279
Passenger Truck	Diesel	Urban Unrestricted	3,604	3,835	4,055	4,356
Passenger Truck	Ethanol (E-85)	Off-Network				
Passenger Truck	Ethanol (E-85)	Rural Restricted	436	10,308	13,637	11,351
Passenger Truck	Ethanol (E-85)	Rural Unrestricted	977	20,796	26,538	21,953
Passenger Truck	Ethanol (E-85)	Urban Restricted	423	11,273	14,958	12,526
Passenger Truck	Ethanol (E-85)	Urban Unrestricted	364	8,183	10,494	8,691
Light Commercial Truck	Gasoline	Off-Network				
Light Commercial Truck	Gasoline	Rural Restricted	51,363	56,533	60,464	65,951
Light Commercial Truck	Gasoline	Rural Unrestricted	114,145	113,194	116,774	126,586
Light Commercial Truck	Gasoline	Urban Restricted	49,419	61,370	65,828	72,245
Light Commercial Truck	Gasoline	Urban Unrestricted	42,382	44,387	46,017	49,944
Light Commercial Truck	Diesel	Off-Network				
Light Commercial Truck	Diesel	Rural Restricted	2,925	3,317	3,569	3,848
Light Commercial Truck	Diesel	Rural Unrestricted	6,501	6,641	6,894	7,386
Light Commercial Truck	Diesel	Urban Restricted	2,815	3,600	3,886	4,215
Light Commercial Truck	Diesel	Urban Unrestricted	2,414	2,604	2,717	2,914
Light Commercial Truck	Ethanol (E-85)	Off-Network				
Light Commercial Truck	Ethanol (E-85)	Rural Restricted	81	2,405	3,215	2,686
Light Commercial Truck	Ethanol (E-85)	Rural Unrestricted	181	4,815	6,208	5,155
Light Commercial Truck	Ethanol (E-85)	Urban Restricted	78	2,610	3,500	2,942
Light Commercial Truck	Ethanol (E-85)	Urban Unrestricted	67	1,888	2,447	2,034
Intercity Bus	Diesel	Off-Network				
Intercity Bus	Diesel	Rural Restricted	274	301	336	380
Intercity Bus	Diesel	Rural Unrestricted	484	466	502	571
Intercity Bus	Diesel	Urban Restricted	339	419	482	573
Intercity Bus	Diesel	Urban Unrestricted	240	250	272	307

Source Type	Fuel Type	Road Type	Sheboygan Whole County Nonattainment Area			
			Vehicle-Miles of Travel Summer Weekday			
			2015	2025	2035	2045
Transit Bus	Gasoline	Off-Network				
Transit Bus	Gasoline	Rural Restricted	9	13	17	19
Transit Bus	Gasoline	Rural Unrestricted	15	21	26	30
Transit Bus	Gasoline	Urban Restricted	11	19	25	30
Transit Bus	Gasoline	Urban Unrestricted	8	11	14	16
Transit Bus	Diesel	Off-Network				
Transit Bus	Diesel	Rural Restricted	459	493	563	644
Transit Bus	Diesel	Rural Unrestricted	824	778	857	984
Transit Bus	Diesel	Urban Restricted	577	698	826	986
Transit Bus	Diesel	Urban Unrestricted	412	421	468	532
Transit Bus	CNG	Off-Network				
Transit Bus	CNG	Rural Restricted	70	91	109	124
Transit Bus	CNG	Rural Unrestricted	125	144	165	190
Transit Bus	CNG	Urban Restricted	88	129	159	191
Transit Bus	CNG	Urban Unrestricted	63	78	90	103
School Bus	Gasoline	Off-Network				
School Bus	Gasoline	Rural Restricted	17	17	18	21
School Bus	Gasoline	Rural Unrestricted	31	26	28	32
School Bus	Gasoline	Urban Restricted	22	23	27	32
School Bus	Gasoline	Urban Unrestricted	16	14	15	17
School Bus	Diesel	Off-Network				
School Bus	Diesel	Rural Restricted	1,475	1,614	1,798	2,038
School Bus	Diesel	Rural Unrestricted	2,651	2,545	2,737	3,115
School Bus	Diesel	Urban Restricted	1,856	2,283	2,634	3,121
School Bus	Diesel	Urban Unrestricted	1,326	1,377	1,495	1,685
Refuse Truck	Gasoline	Off-Network				
Refuse Truck	Gasoline	Rural Restricted	31	6	5	5
Refuse Truck	Gasoline	Rural Unrestricted	31	6	4	4
Refuse Truck	Gasoline	Urban Restricted	26	6	4	5
Refuse Truck	Gasoline	Urban Unrestricted	10	2	1	2
Refuse Truck	Diesel	Off-Network				
Refuse Truck	Diesel	Rural Restricted	1,273	1,361	1,494	1,631
Refuse Truck	Diesel	Rural Unrestricted	1,277	1,198	1,269	1,390
Refuse Truck	Diesel	Urban Restricted	1,063	1,280	1,454	1,658
Refuse Truck	Diesel	Urban Unrestricted	433	439	470	510
Single Unit Short-haul Truck	Gasoline	Off-Network				
Single Unit Short-haul Truck	Gasoline	Rural Restricted	5,776	6,468	7,132	7,793
Single Unit Short-haul Truck	Gasoline	Rural Unrestricted	8,964	8,808	9,371	10,280
Single Unit Short-haul Truck	Gasoline	Urban Restricted	6,571	8,276	9,446	10,791
Single Unit Short-haul Truck	Gasoline	Urban Unrestricted	3,839	4,080	4,384	4,761
Single Unit Short-haul Truck	Diesel	Off-Network				
Single Unit Short-haul Truck	Diesel	Rural Restricted	12,847	13,731	14,992	16,370
Single Unit Short-haul Truck	Diesel	Rural Unrestricted	19,936	18,699	19,700	21,594
Single Unit Short-haul Truck	Diesel	Urban Restricted	14,615	17,569	19,859	22,668
Single Unit Short-haul Truck	Diesel	Urban Unrestricted	8,538	8,661	9,216	10,001
Single Unit Long-haul Truck	Gasoline	Off-Network				
Single Unit Long-haul Truck	Gasoline	Rural Restricted	90	12	0	0
Single Unit Long-haul Truck	Gasoline	Rural Unrestricted	140	17	0	0
Single Unit Long-haul Truck	Gasoline	Urban Restricted	102	16	0	0
Single Unit Long-haul Truck	Gasoline	Urban Unrestricted	60	8	0	0
Single Unit Long-haul Truck	Diesel	Off-Network				
Single Unit Long-haul Truck	Diesel	Rural Restricted	936	1,170	1,280	1,399
Single Unit Long-haul Truck	Diesel	Rural Unrestricted	1,451	1,591	1,679	1,842
Single Unit Long-haul Truck	Diesel	Urban Restricted	1,063	1,495	1,692	1,933
Single Unit Long-haul Truck	Diesel	Urban Unrestricted	620	736	784	852
Motor Home	Gasoline	Off-Network				
Motor Home	Gasoline	Rural Restricted	326	267	269	291
Motor Home	Gasoline	Rural Unrestricted	672	483	470	510
Motor Home	Gasoline	Urban Restricted	472	435	454	514
Motor Home	Gasoline	Urban Unrestricted	331	258	253	272
Motor Home	Diesel	Off-Network				
Motor Home	Diesel	Rural Restricted	208	245	268	291
Motor Home	Diesel	Rural Unrestricted	429	443	469	510
Motor Home	Diesel	Urban Restricted	301	399	453	514
Motor Home	Diesel	Urban Unrestricted	211	236	253	272



Source Type	Fuel Type	Road Type	Sheboygan Whole County Nonattainment Area			
			Vehicle-Miles of Travel Summer Weekday			
			2015	2025	2035	2045
Combination Short-haul Truck	Gasoline	Off-Network				
Combination Short-haul Truck	Gasoline	Rural Restricted	2	0	0	0
Combination Short-haul Truck	Gasoline	Rural Unrestricted	2	0	0	0
Combination Short-haul Truck	Gasoline	Urban Restricted	1	0	0	0
Combination Short-haul Truck	Gasoline	Urban Unrestricted	1	0	0	0
Combination Short-haul Truck	Diesel	Off-Network				
Combination Short-haul Truck	Diesel	Rural Restricted	10,516	13,130	14,524	16,810
Combination Short-haul Truck	Diesel	Rural Unrestricted	10,783	11,815	12,610	14,653
Combination Short-haul Truck	Diesel	Urban Restricted	8,866	12,452	14,259	17,252
Combination Short-haul Truck	Diesel	Urban Unrestricted	3,637	4,310	4,646	5,343
Combination Long-haul Truck	Diesel	Off-Network				
Combination Long-haul Truck	Diesel	Rural Restricted	36,449	37,988	43,250	49,711
Combination Long-haul Truck	Diesel	Rural Unrestricted	35,221	32,213	35,387	40,832
Combination Long-haul Truck	Diesel	Urban Restricted	29,683	34,797	41,010	49,280
Combination Long-haul Truck	Diesel	Urban Unrestricted	11,556	11,431	12,681	14,487
ALL	ALL	ALL	3,164,149	3,327,674	3,560,297	3,860,731
Motorcycle	ALL	ALL	20,980	22,031	23,491	25,342
Passenger Car	ALL	ALL	1,449,376	1,538,170	1,648,998	1,781,559
Passenger Truck	ALL	ALL	1,170,670	1,195,344	1,267,134	1,365,159
Light Commercial Truck	ALL	ALL	272,372	303,363	321,517	345,904
Intercity Bus	ALL	ALL	1,338	1,436	1,592	1,831
Transit Bus	ALL	ALL	2,659	2,896	3,319	3,848
School Bus	ALL	ALL	7,394	7,899	8,752	10,060
Refuse Truck	ALL	ALL	4,145	4,298	4,701	5,204
Single Unit Short-haul Truck	ALL	ALL	81,087	86,292	94,098	104,256
Single Unit Long-haul Truck	ALL	ALL	4,462	5,044	5,435	6,025
Motor Home	ALL	ALL	2,950	2,765	2,890	3,175
Combination Short-haul Truck	ALL	ALL	33,807	41,706	46,039	54,058
Combination Long-haul Truck	ALL	ALL	112,908	116,428	132,328	154,309
ALL	ALL	ALL	3,164,149	3,327,674	3,560,297	3,860,731
ALL	Gasoline	ALL	2,891,186	2,950,885	3,127,515	3,400,346
ALL	Diesel	ALL	269,183	295,953	328,353	373,355
ALL	CNG	ALL	345	442	524	608
ALL	Ethanol (E-85)	ALL	3,435	80,394	103,904	86,422
ALL	ALL	ALL	3,164,149	3,327,674	3,560,297	3,860,731
ALL	ALL	Off-Network				
ALL	ALL	Rural Restricted	657,124	707,544	770,894	837,558
ALL	ALL	Rural Unrestricted	1,306,187	1,263,869	1,325,687	1,428,511
ALL	ALL	Urban Restricted	663,657	806,159	883,533	969,335
ALL	ALL	Urban Unrestricted	537,182	550,102	580,182	625,328
ALL	ALL	ALL	3,164,149	3,327,674	3,560,297	3,860,731

Table 2-b: Vehicle Population Output from the MOVES2014 Model;  
Years 2015, 2025, 2035 and 2045

Source Type	Fuel Type	Road Type	Sheboygan Whole County Nonattainment Area Vehicle Population			
			2015	2025	2035	2045
Motorcycle	Gasoline	Off-Network	2,979	3,129	3,336	3,599
Motorcycle	Gasoline	Rural Restricted				
Motorcycle	Gasoline	Rural Unrestricted				
Motorcycle	Gasoline	Urban Restricted				
Motorcycle	Gasoline	Urban Unrestricted				
Passenger Car	Gasoline	Off-Network	41,826	43,242	45,958	49,730
Passenger Car	Gasoline	Rural Restricted				
Passenger Car	Gasoline	Rural Unrestricted				
Passenger Car	Gasoline	Urban Restricted				
Passenger Car	Gasoline	Urban Unrestricted				
Passenger Car	Diesel	Off-Network	270	473	547	598
Passenger Car	Diesel	Rural Restricted				
Passenger Car	Diesel	Rural Unrestricted				
Passenger Car	Diesel	Urban Restricted				
Passenger Car	Diesel	Urban Unrestricted				
Passenger Car	Ethanol (E-85)	Off-Network	22	513	653	546
Passenger Car	Ethanol (E-85)	Rural Restricted				
Passenger Car	Ethanol (E-85)	Rural Unrestricted				
Passenger Car	Ethanol (E-85)	Urban Restricted				
Passenger Car	Ethanol (E-85)	Urban Unrestricted				
Passenger Truck	Gasoline	Off-Network	28,953	29,073	30,644	33,473
Passenger Truck	Gasoline	Rural Restricted				
Passenger Truck	Gasoline	Rural Unrestricted				
Passenger Truck	Gasoline	Urban Restricted				
Passenger Truck	Gasoline	Urban Unrestricted				
Passenger Truck	Diesel	Off-Network	536	609	660	713
Passenger Truck	Diesel	Rural Restricted				
Passenger Truck	Diesel	Rural Unrestricted				
Passenger Truck	Diesel	Urban Restricted				
Passenger Truck	Diesel	Urban Unrestricted				
Passenger Truck	Ethanol (E-85)	Off-Network	50	1,271	1,706	1,426
Passenger Truck	Ethanol (E-85)	Rural Restricted				
Passenger Truck	Ethanol (E-85)	Rural Unrestricted				
Passenger Truck	Ethanol (E-85)	Urban Restricted				
Passenger Truck	Ethanol (E-85)	Urban Unrestricted				
Light Commercial Truck	Gasoline	Off-Network	7,010	7,174	7,560	8,248
Light Commercial Truck	Gasoline	Rural Restricted				
Light Commercial Truck	Gasoline	Rural Unrestricted				
Light Commercial Truck	Gasoline	Urban Restricted				
Light Commercial Truck	Gasoline	Urban Unrestricted				
Light Commercial Truck	Diesel	Off-Network	399	422	446	481
Light Commercial Truck	Diesel	Rural Restricted				
Light Commercial Truck	Diesel	Rural Unrestricted				
Light Commercial Truck	Diesel	Urban Restricted				
Light Commercial Truck	Diesel	Urban Unrestricted				
Light Commercial Truck	Ethanol (E-85)	Off-Network	9	292	399	337
Light Commercial Truck	Ethanol (E-85)	Rural Restricted				
Light Commercial Truck	Ethanol (E-85)	Rural Unrestricted				
Light Commercial Truck	Ethanol (E-85)	Urban Restricted				
Light Commercial Truck	Ethanol (E-85)	Urban Unrestricted				
Intercity Bus	Diesel	Off-Network	5	5	6	7
Intercity Bus	Diesel	Rural Restricted				
Intercity Bus	Diesel	Rural Unrestricted				
Intercity Bus	Diesel	Urban Restricted				
Intercity Bus	Diesel	Urban Unrestricted				

Source Type	Fuel Type	Road Type	Sheboygan Whole County Nonattainment Area			
			Vehicle Population			
			2015	2025	2035	2045
Transit Bus	Gasoline	Off-Network	0	0	1	1
Transit Bus	Gasoline	Rural Restricted				
Transit Bus	Gasoline	Rural Unrestricted				
Transit Bus	Gasoline	Urban Restricted				
Transit Bus	Gasoline	Urban Unrestricted				
Transit Bus	Diesel	Off-Network	16	16	18	21
Transit Bus	Diesel	Rural Restricted				
Transit Bus	Diesel	Rural Unrestricted				
Transit Bus	Diesel	Urban Restricted				
Transit Bus	Diesel	Urban Unrestricted				
Transit Bus	CNG	Off-Network	2	3	3	4
Transit Bus	CNG	Rural Restricted				
Transit Bus	CNG	Rural Unrestricted				
Transit Bus	CNG	Urban Restricted				
Transit Bus	CNG	Urban Unrestricted				
School Bus	Gasoline	Off-Network	2	2	2	2
School Bus	Gasoline	Rural Restricted				
School Bus	Gasoline	Rural Unrestricted				
School Bus	Gasoline	Urban Restricted				
School Bus	Gasoline	Urban Unrestricted				
School Bus	Diesel	Off-Network	161	174	194	223
School Bus	Diesel	Rural Restricted				
School Bus	Diesel	Rural Unrestricted				
School Bus	Diesel	Urban Restricted				
School Bus	Diesel	Urban Unrestricted				
Refuse Truck	Gasoline	Off-Network	2	1	0	0
Refuse Truck	Gasoline	Rural Restricted				
Refuse Truck	Gasoline	Rural Unrestricted				
Refuse Truck	Gasoline	Urban Restricted				
Refuse Truck	Gasoline	Urban Unrestricted				
Refuse Truck	Diesel	Off-Network	53	59	65	72
Refuse Truck	Diesel	Rural Restricted				
Refuse Truck	Diesel	Rural Unrestricted				
Refuse Truck	Diesel	Urban Restricted				
Refuse Truck	Diesel	Urban Unrestricted				
Single Unit Short-haul Truck	Gasoline	Off-Network	566	580	641	717
Single Unit Short-haul Truck	Gasoline	Rural Restricted				
Single Unit Short-haul Truck	Gasoline	Rural Unrestricted				
Single Unit Short-haul Truck	Gasoline	Urban Restricted				
Single Unit Short-haul Truck	Gasoline	Urban Unrestricted				
Single Unit Short-haul Truck	Diesel	Off-Network	1,159	1,248	1,356	1,507
Single Unit Short-haul Truck	Diesel	Rural Restricted				
Single Unit Short-haul Truck	Diesel	Rural Unrestricted				
Single Unit Short-haul Truck	Diesel	Urban Restricted				
Single Unit Short-haul Truck	Diesel	Urban Unrestricted				
Single Unit Long-haul Truck	Gasoline	Off-Network	14	4	0	0
Single Unit Long-haul Truck	Gasoline	Rural Restricted				
Single Unit Long-haul Truck	Gasoline	Rural Unrestricted				
Single Unit Long-haul Truck	Gasoline	Urban Restricted				
Single Unit Long-haul Truck	Gasoline	Urban Unrestricted				
Single Unit Long-haul Truck	Diesel	Off-Network	59	72	82	92
Single Unit Long-haul Truck	Diesel	Rural Restricted				
Single Unit Long-haul Truck	Diesel	Rural Unrestricted				
Single Unit Long-haul Truck	Diesel	Urban Restricted				
Single Unit Long-haul Truck	Diesel	Urban Unrestricted				
Motor Home	Gasoline	Off-Network	254	233	245	273
Motor Home	Gasoline	Rural Restricted				
Motor Home	Gasoline	Rural Unrestricted				
Motor Home	Gasoline	Urban Restricted				
Motor Home	Gasoline	Urban Unrestricted				
Motor Home	Diesel	Off-Network	162	214	245	273
Motor Home	Diesel	Rural Restricted				
Motor Home	Diesel	Rural Unrestricted				
Motor Home	Diesel	Urban Restricted				
Motor Home	Diesel	Urban Unrestricted				

Source Type	Fuel Type	Road Type	Sheboygan Whole County Nonattainment Area			
			Vehicle Population			
			2015	2025	2035	2045
Combination Short-haul Truck	Gasoline	Off-Network	0	0	0	0
Combination Short-haul Truck	Gasoline	Rural Restricted				
Combination Short-haul Truck	Gasoline	Rural Unrestricted				
Combination Short-haul Truck	Gasoline	Urban Restricted				
Combination Short-haul Truck	Gasoline	Urban Unrestricted				
Combination Short-haul Truck	Diesel	Off-Network	339	335	371	439
Combination Short-haul Truck	Diesel	Rural Restricted				
Combination Short-haul Truck	Diesel	Rural Unrestricted				
Combination Short-haul Truck	Diesel	Urban Restricted				
Combination Short-haul Truck	Diesel	Urban Unrestricted				
Combination Long-haul Truck	Diesel	Off-Network	376	437	500	577
Combination Long-haul Truck	Diesel	Rural Restricted				
Combination Long-haul Truck	Diesel	Rural Unrestricted				
Combination Long-haul Truck	Diesel	Urban Restricted				
Combination Long-haul Truck	Diesel	Urban Unrestricted				
ALL	ALL	ALL	85,227	89,579	95,638	103,359
Motorcycle	ALL	ALL	2,979	3,129	3,336	3,599
Passenger Car	ALL	ALL	42,118	44,228	47,159	50,873
Passenger Truck	ALL	ALL	29,539	30,953	33,011	35,612
Light Commercial Truck	ALL	ALL	7,419	7,887	8,405	9,066
Intercity Bus	ALL	ALL	5	5	6	7
Transit Bus	ALL	ALL	18	20	22	25
School Bus	ALL	ALL	163	175	196	226
Refuse Truck	ALL	ALL	55	60	65	72
Single Unit Short-haul Truck	ALL	ALL	1,725	1,828	1,997	2,224
Single Unit Long-haul Truck	ALL	ALL	73	75	82	92
Motor Home	ALL	ALL	417	447	490	546
Combination Short-haul Truck	ALL	ALL	339	335	371	439
Combination Long-haul Truck	ALL	ALL	376	437	500	577
ALL	ALL	ALL	85,227	89,579	95,638	103,359
ALL	Gasoline	ALL	81,608	83,437	88,387	96,043
ALL	Diesel	ALL	3,535	4,063	4,490	5,003
ALL	CNG	ALL	2	3	3	4
ALL	Ethanol (E-85)	ALL	81	2,076	2,758	2,309
ALL	ALL	ALL	85,227	89,579	95,638	103,359
ALL	ALL	Off-Network	85,227	89,579	95,638	103,359
ALL	ALL	Rural Restricted				
ALL	ALL	Rural Unrestricted				
ALL	ALL	Urban Restricted				
ALL	ALL	Urban Unrestricted				
ALL	ALL	ALL	85,227	89,579	95,638	103,359

## Jeff Agee-Aguayo

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**From:** Bovee, Christopher P - DNR [Christopher.Bovee@wisconsin.gov]  
**Sent:** Thursday, April 09, 2015 5:25 PM  
**To:** Jeff Agee-Aguayo  
**Cc:** Friedlander, Michael - DNR  
**Subject:** Emission Factors for Sheboygan NTPP Benefits  
**Attachments:** Sheboygan NTPP EFs.xlsx

Hi Jeff,

From the MOVES2014 modeling I did for the Sheboygan conformity analysis, I calculated emission factors that could be used to determine the benefits from the Sheboygan County Non-motorized Transportation Pilot Program.

I limited the emissions to passenger cars traveling on urban unrestricted access roads. The emission factors are a VMT-weighted average of emission factors for the three fuel types: gasoline, diesel and 85% ethanol (E-85).

The resulting emission factors are:

### OXIDES OF NITROGEN (NOX)

2015: 0.2746 grams per vehicle-mile  
2025: 0.0500 grams per vehicle-mile  
2035: 0.0147 grams per vehicle-mile  
2045: 0.0112 grams per vehicle-mile

### VOLATILE ORGANIC COMPOUNDS (VOC)

2015: 0.1002 grams per vehicle-mile  
2025: 0.0296 grams per vehicle-mile  
2035: 0.0152 grams per vehicle-mile  
2045: 0.0137 grams per vehicle-mile

More details of the calculations are provided in the attached Excel file.

If you have any questions, please let me know.

Thanks,  
Chris

**We are committed to service excellence.**

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

**Christopher P. Bovée**

Mobile Source Emissions Modeler – Bureau of Air Management  
Wisconsin Department of Natural Resources  
Phone: (608) 266-5542  
Fax: (608) 267-0560  
[christopher.bovee@wisconsin.gov](mailto:christopher.bovee@wisconsin.gov)

**Recommended Emission Factors to Determine Benefits of  
Sheboygan County Nonmotorized Transportation Pilot Program**

Calendar Year	Source Type	Fuel Type	Road Type	Summer	Hot Summer Wkdy Emissions		Hot Summer Wkdy Emis. Factors	
				Weekday VMT	NOx (tons)	VOC (tons)	NOx (gms/mile)	VOC (gms/mile)
2015	Passenger Cars	Gasoline	Urban Unrestricted Access	261,902	0.079393	0.028940	0.2750	0.1002
2015	Passenger Cars	Diesel	Urban Unrestricted Access	1,804	0.000443	0.000191	0.2227	0.0960
2015	Passenger Cars	85% Ethanol	Urban Unrestricted Access	151	0.000019	0.000002	0.1131	0.0091
<b>2015</b>	<b>Passenger Cars</b>	<b>ALL</b>	<b>Urban Unrestricted Access</b>	<b>263,857</b>	<b>0.079855</b>	<b>0.029132</b>	<b>0.2746</b>	<b>0.1002</b>
2025	Passenger Cars	Gasoline	Urban Unrestricted Access	265,627	0.014721	0.008808	0.0503	0.0301
2025	Passenger Cars	Diesel	Urban Unrestricted Access	3,017	0.000159	0.000029	0.0477	0.0087
2025	Passenger Cars	85% Ethanol	Urban Unrestricted Access	3,202	0.000107	0.000022	0.0304	0.0063
<b>2025</b>	<b>Passenger Cars</b>	<b>ALL</b>	<b>Urban Unrestricted Access</b>	<b>271,846</b>	<b>0.014987</b>	<b>0.008860</b>	<b>0.0500</b>	<b>0.0296</b>
2035	Passenger Cars	Gasoline	Urban Unrestricted Access	280,187	0.004538	0.004792	0.0147	0.0155
2035	Passenger Cars	Diesel	Urban Unrestricted Access	3,358	0.000066	0.000014	0.0178	0.0037
2035	Passenger Cars	85% Ethanol	Urban Unrestricted Access	3,995	0.000063	0.000016	0.0143	0.0035
<b>2035</b>	<b>Passenger Cars</b>	<b>ALL</b>	<b>Urban Unrestricted Access</b>	<b>287,540</b>	<b>0.004667</b>	<b>0.004821</b>	<b>0.0147</b>	<b>0.0152</b>
2045	Passenger Cars	Gasoline	Urban Unrestricted Access	302,618	0.003740	0.004664	0.0112	0.0140
2045	Passenger Cars	Diesel	Urban Unrestricted Access	3,636	0.000053	0.000012	0.0133	0.0029
2045	Passenger Cars	85% Ethanol	Urban Unrestricted Access	3,316	0.000041	0.000011	0.0111	0.0029
<b>2045</b>	<b>Passenger Cars</b>	<b>ALL</b>	<b>Urban Unrestricted Access</b>	<b>309,570</b>	<b>0.003834</b>	<b>0.004686</b>	<b>0.0112</b>	<b>0.0137</b>

Wisconsin Department of Natural Resources  
April 9, 2015

**APPENDIX D**  
**FINANCIAL CAPACITY ASSESSMENT OF**  
**SHORELINE METRO**

## **FINANCIAL CAPACITY ASSESSMENT OF SHORELINE METRO**

The most recent Federal Transit Administration (FTA) financial capacity policy for transit systems receiving financial assistance from FTA was issued as Circular 7008.1A on January 30, 2002. In this and all subsequent years in which this policy is in force, the FTA will assess the financial capacity of applicants for federal capital and operating assistance. There are two elements of financial capacity which are evaluated by the FTA: (1) the general financial condition of the public transit grantee and its nonfederal funding entities; and (2) the financial capability of the public transit grantee and its nonfederal funding entities, including the ability of the grantee to fund current capital projects as well as ongoing operating needs. The FTA will determine the financial capacity of Shoreline Metro in the review of this TIP and during its triennial review process.

In addition, the FTA may evaluate the financial capacity of Shoreline Metro if the following conditions exist:

- (1) If there are proposed major changes in transit service levels which create the need for major capital investment;
- (2) If major capital investments must be made to maintain existing service levels, affecting the financial health of the transit system; or
- (3) If there are disturbing trends in ridership, fare levels, operating costs and sources of public support.

In accordance with the requirements of FTA Circular 7008.1A, the Bay-Lake Regional Planning Commission, as the MPO for the Sheboygan Metropolitan Planning Area, has assessed the financial capacity of programmed operating and capital expenditures of Shoreline Metro.

Interested readers are referred to Table D.1 for additional information on operating revenues and expenses (actual, estimated and projected) for the period between 2011 and 2019. Readers are also referred to Table D.2 for additional information concerning financial measures of effectiveness for Shoreline Metro for the period between 2011 and 2019. Detailed operating and capital expense information has also been analyzed in the preparation of several chapters of the *Sheboygan Transit Development Program (TDP): 2012 - 2016*.

It is important to note that there were no negative comments concerning the financial condition of Shoreline Metro expressed in an FTA Triennial Review which took place on June 30 – July 1, 2014. Shoreline Metro streamlined its route structure (in response to changing commercial land use patterns in the transit service area and to make the route structure more efficient for both the transit operation and for passengers) in November 2006. Shoreline Metro discontinued the final hour of transit service on weekday evenings and reinstated the North and South Shuttles throughout the service day on Saturdays in late 2011. Shoreline Metro also consolidated Routes 1 North and 5 North into a single revised Route 5 North in late 2011. In addition, Shoreline Metro divided Route 10 into separate North and South routes in early 2012. Revisions were made to all other Shoreline Metro routes (with the exception of the North and South Shuttles) in late 2011 and early 2012. Base cash fares increased to \$1.75 in mid 2009 (with most other fare media adjusted accordingly with the exception of the monthly pass, which remained at \$48). A day pass of \$3 was instituted in 2011. Fares are projected to remain stable through 2019 at this point.



<p><b>Table D.1</b>  <b>2011 to 2019 Shoreline Metro Operating Expenses and Revenues</b>  (In Thousands of Dollars)</p>									
	ACTUAL				ESTIMATE	PROJECTED**			
	2011	2012	2013	2014	2015	2016	2017	2018	2019
TOTAL OPERATING REVENUES (farebox and other revenues)	\$759	\$909	\$828	\$867	\$872	\$878	\$878	\$878	\$878
TOTAL OPERATING EXPENSES	(\$4,117)	(\$3,826)	(\$3,828)	(\$3,905)	(\$3,768)	(\$3,736)	(\$3,773)	(\$3,811)	(\$3,849)
OPERATING DEFICIT	(\$3,359)	(\$2,917)	(\$3,000)	(\$3,038)	(\$2,896)	(\$2,858)	(\$2,895)	(\$2,933)	(\$2,971)
PUBLIC OPERATING ASSISTANCE:									
FTA SECTION 5307	\$1,245	\$1,180	\$1,320	\$1,293	\$1,231	\$1,205	\$1,217	\$1,229	\$1,242
OTHER FEDERAL FUNDING*	\$42	\$42	\$42	\$42	\$42	\$42	\$42	\$42	\$42
WisDOT SECTION 85.20	\$1,327	\$1,287	\$1,292	\$1,077	\$1,024	\$1,003	\$1,013	\$1,023	\$1,033
WisDOT SECTION 85.205	\$37	\$37	\$37	\$68	\$42	\$49	\$49	\$49	\$49
CITY OF SHEBOYGAN	\$660	\$346	\$288	\$512	\$512	\$512	\$526	\$540	\$554
CITY OF SHEBOYGAN FALLS	\$35	\$18	\$15	\$34	\$34	\$35	\$36	\$37	\$38
VILLAGE OF KOHLER	\$12	\$6	\$5	\$12	\$12	\$12	\$12	\$13	\$13
TOTAL ASSISTANCE	\$3,359	\$2,917	\$3,000	\$3,038	\$2,896	\$2,858	\$2,895	\$2,933	\$2,971
RETAINED EARNINGS	(\$0)	\$0	(\$0)	\$0	\$0	\$0	\$0	\$0	(\$0)
<p>*"Other federal funding" involved \$42,493 in Community Development Block Group (CDBG) entitlement funding provided by the U.S. Department of Housing and Urban Development (HUD) in 2010, involved \$42,493 in CDBG entitlement funding from 2011 through 2015, and is expected to involve \$42,493 in CDBG entitlement funding in 2016, 2017, 2018 and 2019.</p> <p>**Total operating expenses for each year in this table included ADA paratransit expenses. This table only includes revenues and expenses for paratransit services provided in accordance with the ADA.</p>									
NOTE: Balances of \$1,000 or less are, in most cases, due to rounding error.									
Source: Federal Transit Administration, <i>National Transit Database</i> , 2011, 2012 and 2013; City of Sheboygan Parking and Transit Utility, 2014 and 2015; and Bay-Lake Regional Planning Commission, 2015.									

Table D.2 2011 to 2019 Shoreline Metro Measures of Effectiveness									
	ACTUAL				ESTIMATE	PROJECTED			
	2011	2012	2013	2014	2015	2016	2017	2018	2019
REVENUE PASSENGERS (1000s)	458	483	521	539	552	552	552	552	552
REVENUE MILES (1000s)	570	573	586	602	600	575	545	545	545
OPERATING EXPENSES (\$1000s)	\$4,117	\$3,826	\$3,828	\$3,905	\$3,768	\$3,736	\$3,773	\$3,811	\$3,849
FAREBOX REVENUE (\$1000s) <sup>1</sup>	\$437	\$418	\$425	\$452	\$425	\$455	\$455	\$455	\$455
EXPENSE/MILE	\$7.22	\$6.67	\$6.54	\$6.49	\$6.28	\$6.50	\$6.92	\$6.99	\$7.06
EXPENSE/PASSENGER	\$8.98	\$7.92	\$7.35	\$7.25	\$6.82	\$6.76	\$6.83	\$6.90	\$6.97
PASSENGERS/MILE	0.80	0.84	0.89	0.89	0.92	0.96	1.01	1.01	1.01
REVENUE/PASSENGER	\$0.95	\$0.87	\$0.82	\$0.84	\$0.77	\$0.82	\$0.82	\$0.82	\$0.82
BUS FLEET <sup>2</sup>	24	19	24	22	22	22	22	22	22
TRANSIT SYSTEM EMPLOYEES <sup>3</sup> (FULL-TIME EQUIVALENT POSITIONS)	32.5	32.5	32.5	32.5	32.5	31.5	30.0	30.0	30.0
NOTES:									
<sup>1</sup> Fixed-route transit system farebox revenues only.									
<sup>2</sup> Fixed-route transit system vehicle fleet only; excludes service vehicles. All vehicles (active and contingency) are included.									
<sup>3</sup> Fixed-route transit system employees only.									
Source: Federal Transit Administration, <i>National Transit Database</i> , 2011, 2012 and 2013; City of Sheboygan Parking and Transit Utility, 2014 and 2015; and Bay-Lake Regional Planning Commission, 2015.									

Ridership increased by about 5.4 percent between 2011 and 2012; while there was the elimination of one hour of transit service each weeknight coupled with consolidation of two routes on the northeast side of the City of Sheboygan, many other routes were improved around the city, and this, along with the popularity of the day pass instituted in 2011 and improvement in the economy, led to increased ridership. Ridership increased by about 7.8 percent between 2012 and 2013, and this was due to many of the factors that caused the ridership increase from 2011 to 2012. Ridership increased by over 3.4 percent between 2013 and 2014. Ridership is estimated to increase by over 2.5 percent between 2014 and 2015. Ridership is projected to remain at the estimated 2015 level in 2016, 2017, 2018 and 2019, presuming that no significant service cuts or fare increases are implemented.

Farebox revenues decreased by nearly 4.2 percent between 2011 and 2012, increased by over 1.6 percent between 2012 and 2013, and increased by nearly 6.4 percent between 2013 and 2014. Farebox revenues were estimated to have decreased by nearly 6.1 percent between 2014 and 2015. Farebox revenues are projected to increase by nearly 7.1 percent between 2015 and 2016, then are projected to remain at the 2016 level in 2017, 2018 and 2019, again presuming that no significant service cuts or fare increases are implemented.

Minor adjustments in routing, promotional campaigns, and increases in service (where warranted) are among the efforts which have been made by Shoreline Metro over the past several years in order to increase ridership and revenues. There will be a continued backing of transit at the state level. There also has been support for Shoreline Metro in the communities which it serves; such support is expected to continue on the part of a majority of local decision makers in the years to come. However, this support needs to translate into additional subsidy for the transit operation, which may be difficult to accomplish at all levels of government given the Federal deficit, difficulties in balancing the state budget, constraints on local budgets, and few state-authorized options outside the property tax for generating local revenues. There is a strong pro-efficiency movement among local officials in which Shoreline Metro and other city operations have been expected to become leaner and more efficient before receiving increases in municipal-level aids. Many capital acquisitions listed in this TIP are justified precisely with increased efficiency in mind.

In 2016, Shoreline Metro will replace one (1) 35-foot fixed-route bus and will replace fifty (50) dispatch radios. In 2017, Shoreline Metro will replace three (3) 35-foot fixed-route buses. In 2018, Shoreline Metro will replace two (2) 35-foot fixed-route buses. No transit capital projects have been programmed for 2019. Shoreline Metro is encouraged to use its fleet in such a manner that large proportions of the fleet will not need to be replaced simultaneously. No major capital improvements are planned over the program period. Farebox revenues will be stable over the program period, and sources of combined public support will involve increases over the program period. Judging from this information, we find Shoreline Metro to have had a positive financial condition over the past four years, and that Shoreline Metro has the financial capacity to undertake the purchase of all capital items and maintain existing service levels which are programmed in this *2016 – 2019 Transportation Improvement Program (TIP)*.

**APPENDIX E**  
**STATEMENT OF IMPACTS OF TIP PROJECTS ON**  
**ENVIRONMENTAL JUSTICE**

## **IMPACTS OF PROJECTS IN THE 2016 – 2019 TIP ON ENVIRONMENTAL JUSTICE**

In 1994, *Executive Order 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations* was issued. This Executive Order, accompanied by Title VI of the Civil Rights Act of 1964, attempts to identify, avoid and minimize disproportionately harmful or hazardous health and environmental effects on minority and low income populations. This Executive Order was issued in response to public concerns that everyone deserves equal protection under the law. Each Federal agency, including the U.S. Department of Transportation (USDOT), was directed to make environmental justice a part of its mission.

In 1997, the U.S. Department of Transportation issued *DOT Order to Address Environmental Justice in Minority Populations and Low Income Populations*. According to the USDOT, there are three fundamental principles at the core of environmental justice:

- To avoid, minimize or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and on low income populations;
- To ensure the full and fair participation by all potentially affected communities in the transportation decision making process; and
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low income populations.

Maps E.1, E.2 and E.3 illustrate the census block groups with above average minority and/or low income populations. All of these census block groups are located wholly or partially in the City of Sheboygan. A portion of census block group 4.1 is located in the Town of Sheboygan, while a portion of census block group 10.4 is located in the Town of Wilson.

All analysis was done at the block group level. Minority population data were collected from the 2010 Decennial Census, while low income population data were collected from the 2009 – 2013 *American Community Survey 5-Year Estimates*. The Decennial Census no longer has a “long form” that asks economic and other detailed questions.

### **Street and Highway Projects and their Impacts on Environmental Justice Target Areas**

Street and highway projects affecting census block groups with above average minority and/or low income populations are shown in Map E.1; this map only shows programmed street and highway projects during the period covered by this TIP, and does not include studies or WisDOT level of effort projects. The following projects are within or along the boundary of census block groups with above average minority and/or low income populations:

- Project #5: Superior Avenue from North Taylor Drive to North 29<sup>th</sup> Street: Reconstruction with no Increase in Capacity in 2019 (this project is located in a census block group with a high population below the poverty level);
- Project #9: South 8<sup>th</sup> Street: Sheboygan River Bridge: Bridge Rehabilitation in 2016 (this project forms the boundary between one census block group with a high population below the poverty level, and another census block group with a very high minority population and a high population below the poverty level);
- Project #10: South Business Drive: Railroad Overpass South of Washington Avenue:

Bridge Replacement in 2018 (this project is on the western boundary of a census block group with a high minority population and a high population below the poverty level); and

- Project #11: Interstate Highway 43: Wilson Lima Road to Fischer Creek Road: Installation of Miscellaneous Cable Guard in 2018 (this project is on a portion of the western boundary of a census block group with a high population below the poverty level).

All but one of the above noted projects are system preservation projects that are expected to improve the quality and safety of the existing street and highway network. In addition, one of the eight above noted projects (Project #11) is a project that will enhance the safety of area motorists. None of the above noted projects involves additional capacity.

### **Bicycle and Pedestrian Transportation Projects and their Impacts on Environmental Justice Target Areas**

Bicycle and pedestrian transportation projects affecting census block groups with above average minority and/or low income populations are shown in Map E.2; this map only shows programmed projects involving construction during the period covered by this TIP, and does not include projects involving studies, educational/promotional efforts or level of effort projects, nor does it include projects where impacts cannot reasonably be mapped. Some projects that cannot be mapped will benefit residents in environmental justice target areas.

Of the four bicycle and pedestrian transportation projects shown in Map E.2, two projects are located (at least in part) in an environmental justice target area. The following two bicycle and pedestrian transportation projects are located in environmental justice target areas:

- Project #3: Multi-Use Pathway in the Alliant Energy Utility Corridor on the South Side of the City of Sheboygan: Design in 2016 and 2017, and Construction in 2018 (this project passes through a census block group with a high minority population and a high population below the poverty level); and
- Project #4: Union Pacific Rail-Trail Conversion Extension in the City of Sheboygan from Pennsylvania Avenue to Indiana Avenue (Includes an Eastern Extension to South 9<sup>th</sup> Street Paralleling Indiana Avenue): Design in 2017, and Construction in 2018 (one segment of this project forms the boundary between two census block groups with very high minority populations and with high or very high populations below the poverty level, while the other segment associated with this project is located in a census block group with a very high minority population as well as a high population below the poverty level).

All of the above noted projects (as well as projects outside environmental justice target areas) are expected to benefit minority and low income populations throughout the metropolitan planning area.

### **Transit Projects and their Impacts on Environmental Justice Target Areas**

Map E.3 shows the route structure of Shoreline Metro in comparison to environmental justice target areas within the metropolitan planning area. All of the residential portions of the targeted census block groups located within the metropolitan planning area are currently served by transit. The transit service provided allows residents of the targeted census block groups to reach nearly

all major destinations (such as major employment centers, entertainment and recreation venues, government services, health care, schools and shopping centers) in 30 minutes or less. When using transit, most residents need to walk no more than three to five blocks to reach their bus stop or destination.

#### **TIP Projects and Direct and Indirect Impacts on Minority and/or Low Income Populations**

Taken as a whole, the projects in this 2016 – 2019 TIP, together with the other public and privately funded transportation improvements and services provided in the Sheboygan Metropolitan Planning Area, do not impose disproportionately high and adverse impacts on minority populations and/or on low income populations. In addition, the benefits of the transportation services and improvements proposed are reasonably distributed to serve the mobility and accessibility needs of all population groups (and particularly of minority and/or low income populations) within the Sheboygan Metropolitan Planning Area. These statements are based on the analysis of proposed projects, their locations, and impacts on both minority and low income populations as summarized in this appendix to the TIP.

Additional environmental justice analysis can be found in Appendix E of the *Year 2045 Sheboygan Area Transportation Plan (SATP)* adopted in May of 2015.

#### **Public Involvement of Minority and Low Income Populations**

Attempts to involve minority and low income populations in the development of this TIP can be found in the *Public Participation Process* section within the main body of this 2016 – 2019 TIP.


# 2016-2019 Street and Highway Improvement Project Locations and Environmental Justice Target Areas


Sheboygan Metropolitan Planning Area  
Sheboygan County, Wisconsin


 System Preservation

 Safety


## % Below Poverty Level

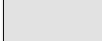
 0% - 15.74%


 15.75% - 26.05%

 >26.05%

## % Minority

 0% - 21.84%

 21.85% - 33.15%

 >33.15%

## Project Locations

- |  |  |
|--|--|
| 1. STH 42/Calumet Drive<br>Main Avenue to North 26th Street<br>Reconstruction with no Increase in Capacity   | 7. Meadowlark Road<br>Sheboygan River Bridge and Approaches<br>Bridge Replacement              |
| 2. STH 28<br>Prange Road to South Taylor Drive<br>Reconstruction with no Increase in Capacity  | 8. Meadowlark Road<br>Fischer Creek Bridge and Approaches<br>Bridge Replacement                |
| 3. STH 32<br>Intersection with Happy Lane<br>Construction of a Roundabout  | 9. South 8th Street<br>Sheboygan River Bridge<br>Bridge Rehabilitation                         |
| 4. North Avenue<br>STH 42/Calumet Drive to North 15th Street<br>Reconstruction with no Increase in Capacity and Rail Work<br>(Begins in 2017 and Ends in 2018) | 10. South Business Drive<br>Railroad Overpass South of Washington Avenue<br>Bridge Replacement |
| 5. Superior Avenue<br>North Taylor Drive to North 29th Street<br>Reconstruction with no Increase in Capacity   | 11. IH 43<br>Wilson Lima Road to Fischer Creek Road<br>Miscellaneous Cable Guard               |
| 6. STH 28<br>Intersection with CTH EE<br>Construction of a Roundabout  |  |



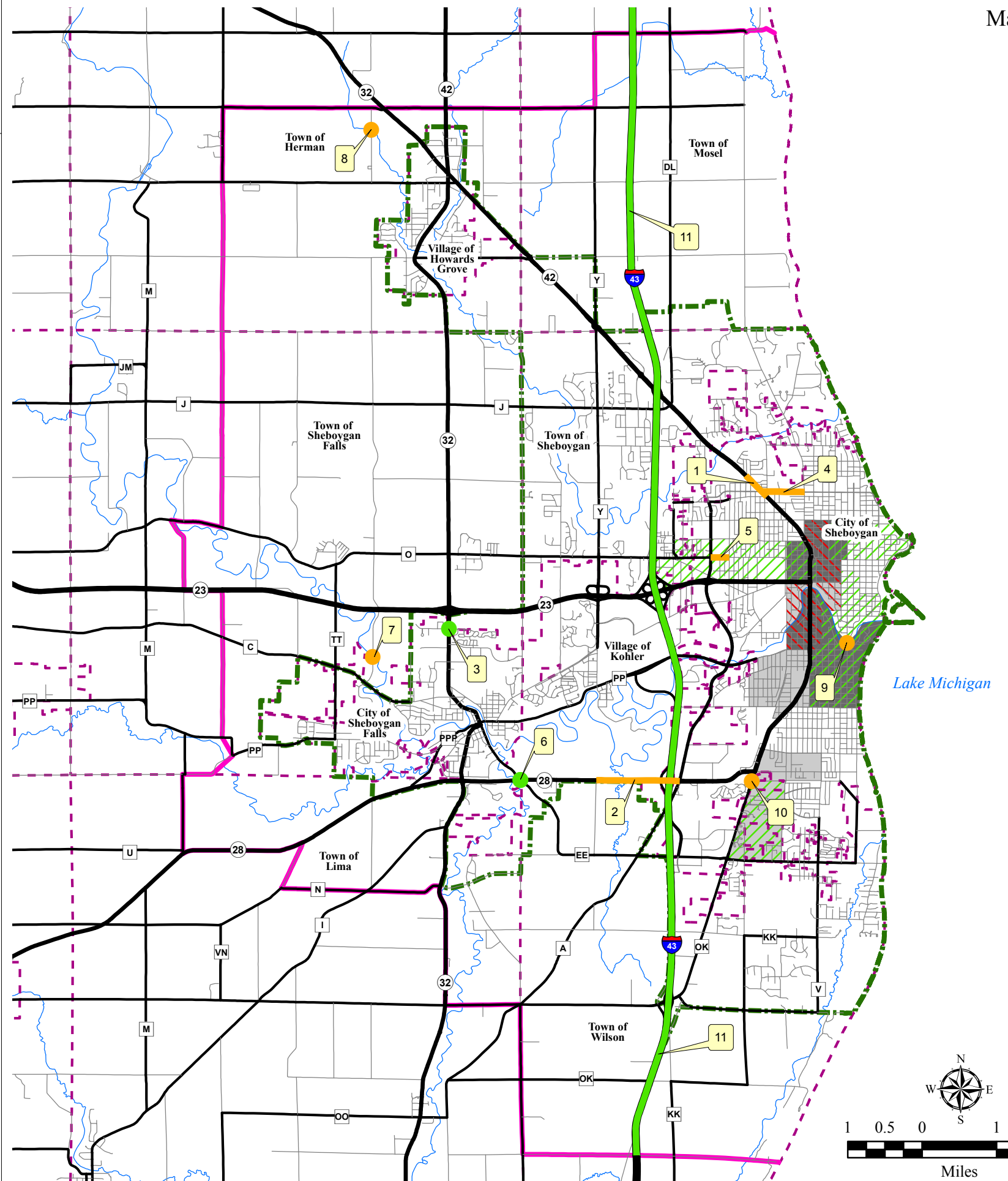
Sheboygan Urbanized Area Boundary

Sheboygan Metropolitan Planning Area Boundary

December, 2015  
G:\Sheboygan\MPO\TIP\TIP 2016-2019  
Source: WDNR; Sheboygan County, 2015;  
Bay-Lake Regional Planning Commission, 2015.

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only. Bay-Lake RPC is not responsible for any inaccuracies herein contained.

Map E.1



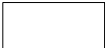
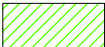



2016-2019 Bicycle and Pedestrian Transportation Project Locations  
and Environmental Justice Target Areas




Sheboygan Metropolitan Planning Area  
Sheboygan County, Wisconsin

 Bicycle and Pedestrian Accommodations

% Below Poverty Level



-  0% - 15.74%
-  15.75% - 26.05%
-  >26.05%

% Minority

-  0% - 21.84%
-  21.85% - 33.15%
-  >33.15%

Project Locations

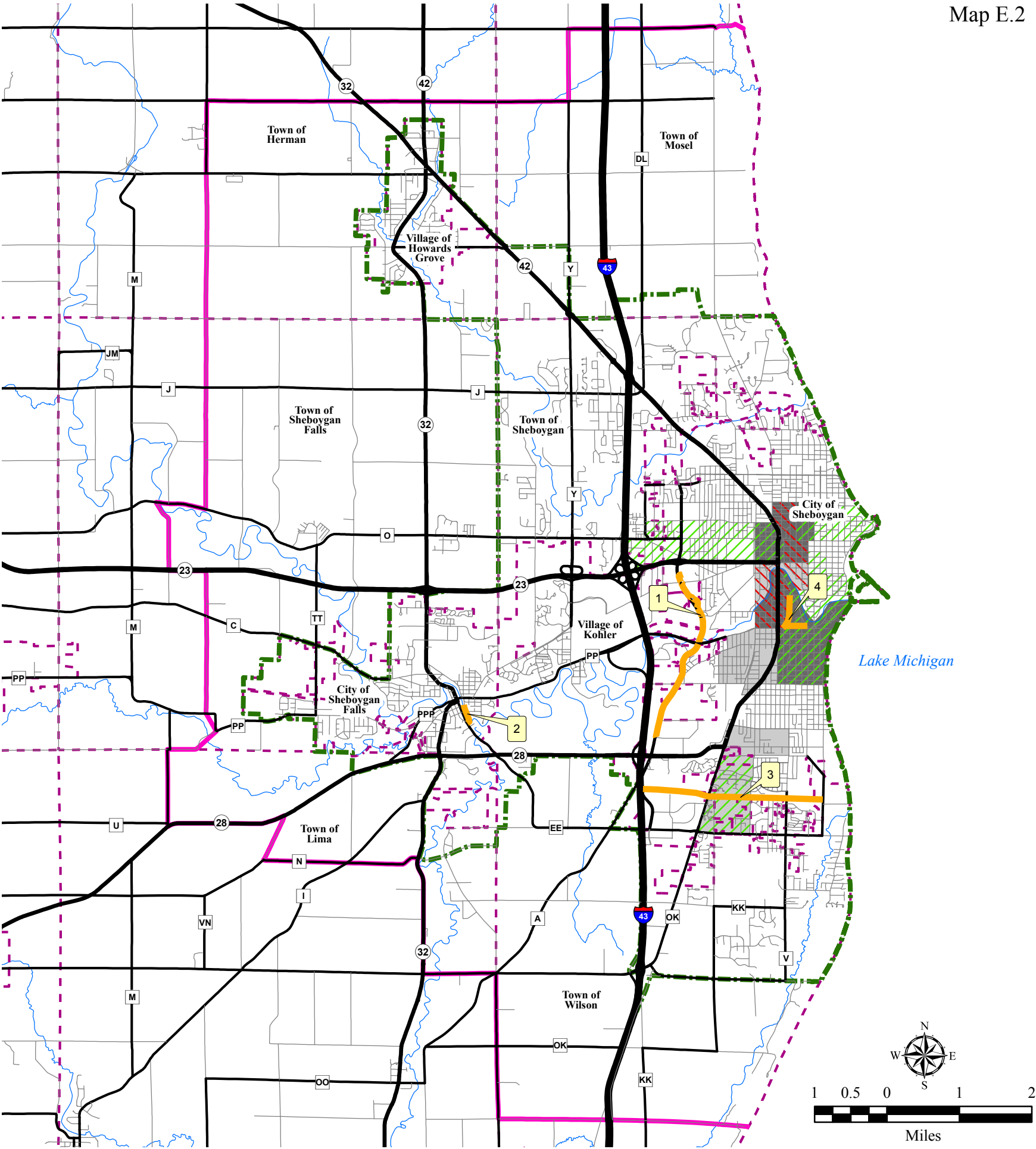
1. Bicycle/Pedestrian Path on Taylor Drive
2. Bridge for Bicyclists and Pedestrians over the Sheboygan River near the Former Tecumseh Engines Plant in the City of Sheboygan Falls
3. Multi-Use Pathway in the Alliant Energy Utility Corridor on the South Side of the City of Sheboygan
4. Union Pacific Rail/Trail Conversion Extension in the City of Sheboygan: Pennsylvania Avenue to Indiana Avenue (Includes an Eastern Extension to South 9th Street Paralleling Indiana Avenue)

-  Sheboygan Urbanized Area Boundary
-  Sheboygan Metropolitan Planning Area Boundary

December, 2015  
G:\Sheboygan\MPO\TIP\TIP 2016-2019  
Source: WDNR; Sheboygan County, 2015;  
Bay-Lake Regional Planning Commission, 2015.

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Map E.2



Shoreline Metro Fixed Routes and  
Environmental Justice Target Areas

Sheboygan Metropolitan Planning Area  
Sheboygan County, Wisconsin

- Route No. 3 North-South
- Route No. 5 North-South
- Route No. 7 North-South
- Route No. 10 North-South
- Route No. 20
- Route No. 30
- Route No. 40 (Seasonal)
- Route Deviation

% Below Poverty Level

- 0% - 15.74%
- 15.75% - 26.05%
- >26.05%

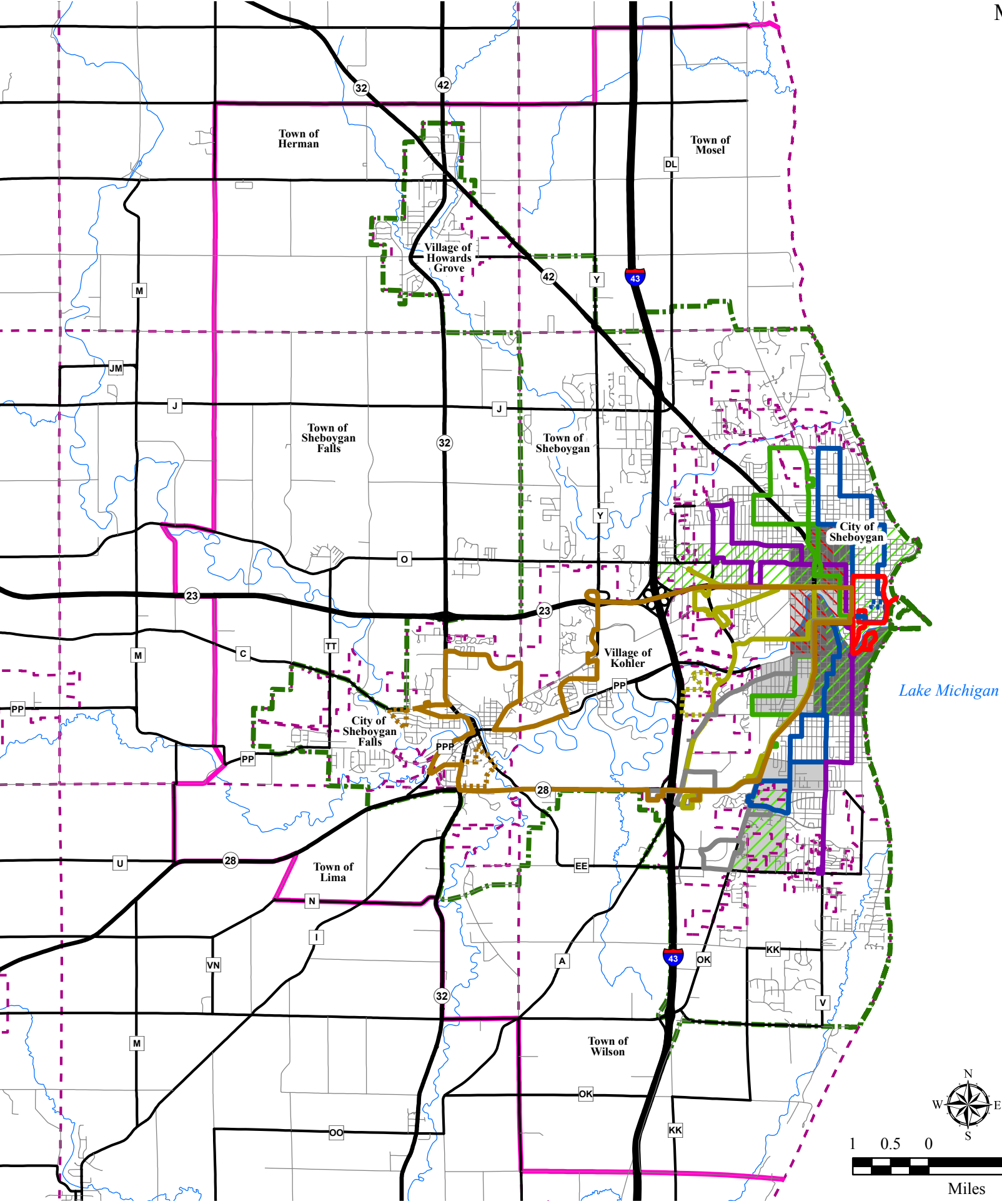
% Minority

- 0% - 21.84%
- 21.85% - 33.15%
- >33.15%

- Sheboygan Urbanized Area Boundary
- Sheboygan Metropolitan Planning Area Boundary

December, 2015  
Q:\Myfiles\Sheboyga\TIP\TIP 2016-2019  
Source: WDNR; Sheboygan County, 2015;  
Bay-Lake Regional Planning Commission, 2015.

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survey and is not intended to be used as one. This  
drawing is a compilation of records, information and  
data used for reference purposes only. Bay-Lake RPC  
is not responsible for any inaccuracies herein contained.



**APPENDIX F**  
**MPO APPROVAL OF TIP**

## RESOLUTION 7-2015

**Resolution of the Bay-Lake Regional Planning Commission approving the *Sheboygan Metropolitan Planning Area Transportation Improvement Program (TIP): Calendar Years 2016 – 2019*, determining air quality conformity for the *Year 2045 SATP* and its implementing *2016 – 2019 TIP*, and certifying the Metropolitan Transportation Planning Process for the Sheboygan Metropolitan Planning Area.**

WHEREAS, the Bay-Lake Regional Planning Commission is the officially designated Metropolitan Planning Organization (MPO) for metropolitan transportation planning in the Sheboygan Metropolitan Planning Area; and

WHEREAS, U.S. Department of Transportation regulations provide for self-certification that the metropolitan transportation planning process is being carried out in conformance with all applicable requirements of Federal law; and

WHEREAS, metropolitan transportation planning, including the preparation of Transportation Plans and Transportation Improvement Programs (TIPs) or TIP Amendments, is required of metropolitan planning areas and by Federal statutes and regulations within the purview of the U.S. Department of Transportation, including Title 23 of the U.S. Code, Section 134 (and its implementing regulation, 23 CFR 450[c], as amended), and Title 49, U.S. Code (Federal Transit Act, as amended); and

WHEREAS, the *Year 2045 SATP* was adopted by the Bay-Lake Regional Planning Commission in May 2015 following a plan preparation effort involving public outreach and numerous meetings of the Sheboygan MPO Technical and Policy Advisory Committees; and

WHEREAS, a specific air quality conformity analysis was undertaken with respect to the Sheboygan County non-attainment area for ground-level ozone, with the result that the *Year 2045 SATP* and its implementing *2016 – 2019 TIP* (which superseded the *2015 – 2018 TIP* with no additional projects that were determined to be non-exempt from regional emissions analysis) have been determined to conform to the existing State of Wisconsin implementation plan for the achievement and maintenance of national ambient air quality standards, as required by the Federal Clean Air Act Amendments of 1990 and their implementing regulations; and

WHEREAS, citizen input was received on the *2016 – 2019 TIP* through a public participation process which included a public comment period and public hearing, as well as public meetings of the Sheboygan MPO Technical and Policy Advisory Committees, and which otherwise conformed to provisions for TIP development in the 2012 update to the *Sheboygan MPO Public Participation Plan*; and

WHEREAS, the *2016 – 2019 TIP* for the Sheboygan Metropolitan Planning Area was reviewed (and modified, where necessary) by professionals and by elected officials representing municipalities in the Sheboygan Metropolitan Planning Area as well as by private sector transportation providers before subsequently being recommended for approval by the Sheboygan MPO Technical and Policy Advisory Committees at their joint meeting on December 10, 2015.

NOW, THEREFORE BE IT RESOLVED:

FIRST: That the Bay-Lake Regional Planning Commission approves the *Sheboygan Metropolitan Planning Area Transportation Improvement Program (TIP): Calendar Years 2016 – 2019* as being compatible with existing transportation plans and programs in the Sheboygan Metropolitan Planning Area.

SECOND: That the Bay-Lake Regional Planning Commission determines that the *Year 2045 SATP* and its implementing *2016 – 2019 TIP* for the Sheboygan Metropolitan Planning Area conform to the State of Wisconsin Implementation Plan for the achievement and maintenance of national ambient air quality standards, as required by the Federal Clean Air Act Amendments of 1990 and their implementing regulations.

THIRD: That the Bay-Lake Regional Planning Commission, as MPO for the Sheboygan Metropolitan Planning Area, and in accordance with 23 CFR 450.334(a), hereby certifies that the metropolitan transportation planning process is addressing major issues facing the Sheboygan Metropolitan Planning Area, and is being conducted in accordance with all applicable requirements of:

- (1) 23 U.S.C. 134 and 49 U.S.C. 5303, and this subpart;
- (2) Sections 174 and 176 (c) and (d) of the Clean Air Act as amended (42 U.S.C. 7504, 7506 (c) and (d)) and 40 CFR Part 93;
- (3) Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d-1) and 49 CFR Part 21;
- (4) 49 U.S.C. 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity;
- (5) Sections 1101 (b) of the "Moving Ahead for Progress in the 21<sup>st</sup> Century" Act (MAP-21, Pub. L. 112-141) and 49 CFR Part 26 regarding the involvement of disadvantaged business enterprises in the US DOT funded projects;
- (6) 23 CFR Part 230, regarding the implementation of an equal opportunity program on Federal and Federal-aid highway construction contracts;
- (7) The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 *et. seq.*) and 49 CFR Parts 27, 37 and 38;
- (8) The Older Americans Act, as amended (42 U.S.C. 6101), prohibiting discrimination on the basis of age in programs or activities receiving Federal financial assistance;
- (9) Section 324 of Title 23, U.S.C., regarding the prohibition of discrimination based on gender; and
- (10) Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) and 49 CFR 27 regarding discrimination against individuals with disabilities.

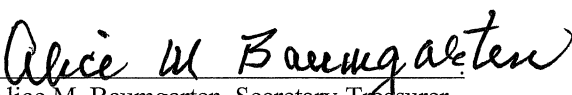
FOURTH: That the Bay-Lake Regional Planning Commission certifies that the 2016 – 2019 TIP for the Sheboygan Metropolitan Planning Area contains only projects that are consistent (in scope, termini and the implementation schedule) with the Year 2045 Sheboygan Area Transportation Plan (SATP).

FIFTH: That the Bay-Lake Regional Planning Commission endorses the continuation of the urban transportation planning process in the Sheboygan Metropolitan Planning Area.

  
Donald C. Markwardt, Chairperson  
Bay-Lake Regional Planning Commission

ATTEST:

I, Alice M. Baumgarten, Secretary-Treasurer of the Bay-Lake Regional Planning Commission, hereby certify that the above is a true copy of a resolution adopted by the Bay-Lake Regional Planning Commission on the 11<sup>th</sup> day of December, 2015.

  
Alice M. Baumgarten, Secretary-Treasurer  
Bay-Lake Regional Planning Commission

**APPENDIX G**  
**SURFACE TRANSPORTATION PROGRAM (STP) URBAN SYSTEM**  
**PROJECT PRIORITIZATION POLICY**

**SURFACE TRANSPORTATION PROGRAM URBAN SYSTEM PROJECT**  
**PRIORITIZATION POLICY**  
**TRANSPORTATION IMPROVEMENT PROGRAMS**  
**SHEBOYGAN URBANIZED AREA**  
**As Revised: Effective November 1, 2014**

**I. Surface Transportation Program (STP) Urban Project Eligibility**

Street and highway construction projects on arterial and collector routes within the Sheboygan Urbanized Area, transit capital projects and transportation alternatives projects in the Sheboygan Urbanized Area, in general, are eligible for STP Urban funding. The following are guidelines which shall be used by the MPO in determining whether street and highway construction, transit capital and transportation alternatives projects have sufficient priority to be included as STP Urban eligible projects in a Transportation Improvement Program (TIP):

- A. The costs of feasibility studies are not eligible for STP Urban funding. However, engineering or design costs are eligible for funding.
- B. Right-of-way acquisition costs are eligible for STP Urban funding. However, such right-of-way acquisition must meet all state and federal guidelines.
- C. Isolated traffic signal installation projects are not eligible for STP Urban funding. However, applicants for such projects are encouraged to apply for funding under the Highway Safety Improvement Program (HSIP).
- D. Railroad crossing projects are not eligible for STP Urban funding unless they are part of an STP Urban eligible project.
- E. The sponsoring local government or governments is (or are) required to present evidence from their Capital Improvement Program indicating financial commitment to the local share of the project if funded, and also must submit a WisDOT project worksheet to the MPO and to the WisDOT Northeast Region office by the deadline established by the MPO for the upcoming biennium.

**II. Project Level Tests of STP Urban Project Eligibility**

The following tests of eligibility must be satisfied before a project can proceed to the prioritization categories:

- A. The project must be submitted by a local jurisdiction for inclusion in an upcoming Transportation Improvement Program (TIP). In addition, the overall TIP must be in conformity with the Wisconsin Department of Natural Resources' State Implementation Plan (SIP) for Air Quality, as required by the Clean Air Act Amendments (CAAA) of 1990.
- B. The project must appear as a recommendation in the Sheboygan Area Transportation Plan (SATP), in its various components. If the project is not in the SATP, the SATP must be amended to include the project.

- C. Engineering and design are eligible costs under this program. However, preliminary engineering must be completed before a project may be eligible for construction funding. Evidence of cost estimates based on completed preliminary engineering for the project must be attached to the WisDOT project worksheet.

### **III. Special Conditions of the Prioritization Process**

Alternate financing sources should be used whenever possible before considering STP Urban funds to finance a project. Examples of such alternate financing sources for street and highway improvements include the National Highway Performance Program (for bridges on the National Highway System network), the Surface Transportation Program (for bridges off the NHS network), the state Transportation Economic Assistance (TEA) program, the Congestion Management and Air Quality (CMAQ) improvement program, the HSIP program, and the Local Roads Improvement Program (LRIP). Examples of such alternate financing sources for transit capital improvements include the FTA Section 5307 and Section 5339 programs and the CMAQ program. Examples of such alternate financing sources for transportation alternatives include the TAP and CMAQ programs.

Federal funding participation for any project in this program cannot be more than 80 percent of total project costs. In an effort to make federal participation worth the paperwork involved with any project financed by state and/or federal funds, the MPO has established a 50 percent minimum for federal participation on most projects. Exceptions can be made for high-cost projects which are expected to utilize more than half the federal STP Urban allotment made to the Sheboygan Urbanized Area in any given funding period.

### **IV. STP Urban Project Prioritization Criteria**

The criteria in this section shall be used to evaluate STP Urban eligible projects in order to establish priorities based on need. These criteria include current or potential demand, importance of the facility in the urban transportation system, and condition of the facility, corridor, vehicle or equipment. Overall score determines the priority of all eligible projects, with the highest score receiving top priority in each project category.

- A. *Current or Potential Demand.* This is an indicator of capacity problems with a street or highway, transit vehicle or bicycle or pedestrian facility. In the case of street or highway improvements to existing facilities, a higher volume-to-capacity ratio receives a higher score. In the case of new streets or highways, a volume-to-capacity ratio close to 0.70 receives a higher score. The projected “no build” volume-to-capacity ratios under the recommended growth scenario calculated for the current SATP will be applied in determining the volume-to-capacity ratios for improvements to existing facilities under this criterion. The projected volume-to-capacity ratios under the “recommended plan” and the recommended growth scenario calculated for the current SATP will be applied in determining the volume-to-capacity ratios for new streets or highways under this criterion.

In the case of transit vehicle improvements, a higher vehicle load factor receives a higher score. The vehicle load factor for a specific route will be used when transit vehicle improvements can be attributed to that route. Otherwise, a systemwide vehicle load factor will be used to evaluate transit vehicle improvements. In the case



of other transit capital improvements, a score of 5 will be assigned to such improvements.

In the case of transportation alternatives, a large amount of potential use on a typical summer day by bicyclists, pedestrians and other non-motorized traffic receives a higher score.

#### STREET OR HIGHWAY RECONSTRUCTION

<u>Volume-to-Capacity Ratio</u>	<u>Score</u>
1.01 or higher	10
0.81 - 1.00	8
0.61 - 0.80	6
0.41 - 0.60	4
0.21 - 0.40	2
0.01 - 0.20	0

#### TRANSIT VEHICLE IMPROVEMENTS

<u>Vehicle Load Factor</u>	<u>Score</u>
1.01 or higher	10
0.81 - 1.00	8
0.61 - 0.80	6
0.41 - 0.60	4
0.21 - 0.40	2
0.01 - 0.20	0

#### NEW STREETS OR HIGHWAYS

<u>Anticipated V/C Ratio</u>	<u>Score</u>
0.86 or higher	0
0.76 - 0.85	5
0.66 - 0.75	10
0.56 - 0.65	7
0.46 - 0.55	3
0.01 - 0.45	0

#### OTHER TRANSIT CAPITAL IMPROVEMENTS

<u>All Eligible Projects</u>	<u>Score</u>
	5

#### TRANSPORTATION ALTERNATIVES

<u>Potential Daily Use</u>	<u>Score</u>
250 or higher	10
200 - 249	8
150 - 199	6
100 - 149	4
50 - 99	2
0 - 49	0

- B. *Importance of the Facility in the Urban Transportation System.* This is an indicator of an existing or planned street or highway, transit vehicle or capital improvement or transportation alternative in the transportation system of the Sheboygan Urbanized Area. In the case of existing or planned street or highway improvements, this criterion gives priority to the improvement of principal arterial routes over minor arterial routes, and of minor arterial routes over collector routes.

In the case of transit vehicle or capital improvements, the transit director will prioritize transit vehicle or other transit capital improvements being considered for STP Urban funds into six tiers assigned points as described below. Transit capital STP Urban candidate projects will be limited based on agency need and available funding.

In the case of transportation alternatives, consistency with recommendations made in the most current *Sheboygan County Pedestrian and Bicycle Comprehensive Plan* determines the importance of the facility in the urban transportation system as

described below. Transportation alternatives which do not provide directly for bicycle, pedestrian or other non-motorized transportation purposes are assigned one point under this criterion.

ALL STREET OR HIGHWAY IMPROVEMENTS

<u>Functional Classification</u>	<u>Score</u>
Principal Arterial	5
Minor Arterial (greater than 10,000 ADT)	4
Minor Arterial (less than 10,000 ADT)	3
Collector (greater than 5,000 ADT)	2
Collector (less than 5,000 ADT)	1
Local Street	0

ALL TRANSIT CAPITAL IMPROVEMENTS

<u>Director's Classification</u>	<u>Score</u>
First Tier	5
Second Tier	4
Third Tier	3
Fourth Tier	2
Fifth Tier	1
Sixth Tier	0

TRANSPORTATION ALTERNATIVES

<u>Pedestrian/Bicycle Plan Consistency</u>	<u>Score</u>
Completely Consistent (Facility Type, Scope and Timing)	5
Generally Consistent (Facility Type and Scope)	4
Somewhat Consistent (Facility Type)	3
Somewhat Inconsistent (Scope AND Timing are Consistent, but not Facility Type)	2
Generally Inconsistent (Scope OR Timing is Consistent)	1
Transportation Alternatives which do not Provide Directly for Bicycle, Pedestrian or Other Non-motorized Transportation Purposes	1
Completely Inconsistent	0

- C. *Condition.* An indicator of the degree to which pavements, vehicles, equipment, or corridors for bicyclists and pedestrians are deficient in project areas where STP Urban funds are being considered in the TIP process. A higher score means that the pavement, transit capital item, bicycle corridor or pedestrian corridor is in poorer condition. Pavement Management Systems will be utilized in determining the pavement condition of existing streets and highways examined under this policy. In the City of Sheboygan, the pavement management system maintained by the city Department of Public Works will be utilized to evaluate the pavement deficiencies of streets and highways involving candidate projects, then converted to a score equivalent to the PASER pavement management system. The PASER system will be used to evaluate the pavement condition of all other candidate STP Urban projects in the Sheboygan Urbanized Area. All new streets and highways shall be assigned an automatic ten points under this criterion.

In the case of transit vehicle or capital improvements, existing vehicle or equipment age, useful life of the vehicle or equipment as determined by FTA, and physical condition of the existing vehicle or equipment or conditions leading to the need for

additional vehicles or equipment will be considered in determining the condition of vehicles and equipment examined under this policy.

In the case of transportation alternatives, the *Guide for the Development of Bicycle Facilities* and the *Guide for the Planning, Design and Operation of Pedestrian Facilities* (both of which are produced by the American Association of State Highway and Transportation Officials, or AASHTO) will be used in determining the condition of corridors for bicyclists and pedestrians.

<u>STREET OR HIGHWAY RECONSTRUCTION</u>		<u>ALL OTHER IMPROVEMENTS</u>	
<u>Pavement Condition</u>	<u>Score</u>	<u>Condition</u>	<u>Score</u>
Very Poor - Failure (Needs Reconstruction)	10	Very Poor - Failure	10
Poor (Needs Patching, Major Overlay, or Complete Recycling)	8	Poor	8
Fair (Sealcoat or Nonstructural Overlay Required)	6	Fair	6
Good (Crack Filling Required; Sealcoat Recommended)	4	Good	4
Very Good (Recent Sealcoat or New Road Mix)	2	Very Good	2
Excellent (New Construction or Recent Overlay)	0	Excellent	0
<u>NEW STREETS OR HIGHWAYS</u>		<u>NEW TRANSPORTATION ALTERNATIVES</u>	
<u>All Eligible Projects</u>	<u>Score</u>	<u>All Eligible Projects</u>	<u>Score</u>
	10		10

- D. *Multimodalism.* This criterion evaluates whether a candidate project includes alternatives to single occupancy vehicle transportation. This can include transit and non-motorized transportation (including bicycle and pedestrian travel). Examples include newly constructed or reconstructed sidewalks, roadways with appropriate bearing capacity for buses, bus loading zones, bus lanes and construction of lanes with adequate widths for bicycles. Projects must serve as general use to the public. Projects which incorporate alternative facilities that primarily serve a transportation purpose rather than a recreational purpose will receive higher priority. Transit and most transportation alternative projects will receive 1, 3 or 5 points, depending on the number of alternate modes which they ultimately serve.

<u>ALL PROJECTS</u>	
<u>Number of Alternate Modes Served</u>	<u>Points</u>
Adds Three Alternate Modes	5
Adds Two Alternate Modes	3
Adds One Alternate Mode	1
Adds No Alternate Modes	0
Deletes One Alternate Mode	-1
Deletes Two Alternate Modes	-3
Deletes Three Alternate Modes	-5

- E. *Transportation Safety*. This criterion is based on an assessment of existing safety problems and the extent to which the proposed project will reduce such problems. Crash statistics and standards should be used when considering street and highway projects, while more qualitative safety aspects should be considered for bicycle and pedestrian transportation projects and for transit capital projects. In addition, this criterion emphasizes a goal of eliminating or minimizing corridor or intersection safety problems on the system. In the case of street and highway projects, alternative ratings are available by project type based on segment crash rates, high accident intersection locations and new facilities.

### **Street and Highway Improvement Projects**

In the case of street and highway improvement projects, alternative ratings are available by project type based on segment crash rates, high accident intersection crash rates, and new facilities.

#### **Segment Crash Rates**

WisDOT determines average crash rates per 100 million vehicle miles traveled by facility type or functional classification. These crash rates can be determined for mid-block segments of urban streets.

<u>Crash Rate</u>	<u>Score</u>
280 or more	5
150 to 279	3
1 to 149	1
0	0

#### **High Accident Intersections**

Crash rates at intersections are scored as follows:

<u>Crash Rate</u>	<u>Score</u>
5 or more	5
3 to 4	3
1 to 2	1
0	0

#### **New Facilities**

An assumption is made that an increase in travel options improves the efficiency and safety of the existing infrastructure by shifting trips traveled to safer facilities.

<u>Safety Determination</u>	<u>Score</u>
Safety concerns addressed without compromising usefulness; promotes increased use by all user groups	5
Safety measures may encourage increased use by many user groups, but discourage use by a few user groups	3
Safety measures encourage increased use by some user groups, but discourage use by a fairly equal number of user groups	1

Facility use definitely decreases, or safety concerns cannot be adequately addressed	0
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### **Bicycle and Pedestrian Transportation Projects**

<u>Safety Determination</u>	<u>Score</u>
The bicycle or pedestrian transportation project would have a high, positive impact on safety (i.e.: reduction in crashes)	5
The bicycle or pedestrian transportation project would have a moderate, positive impact on safety	3
The bicycle or pedestrian transportation project would have a low positive impact on safety	1
The bicycle or pedestrian transportation project would have no impact on safety	0

### **Transit Capital Improvements**

<u>Safety Determination</u>	<u>Score</u>
The transit capital project would have a high, positive impact on safety	5
The transit capital project would have a moderate, positive impact on safety	3
The transit capital project would have a low positive impact on safety	1
The transit capital project would have no impact on safety	0

**APPENDIX H**  
**TRANSITION IN PROGRAMMING FROM SAFETEA-LU TO MAP-21**  
**FUNDING PROGRAMS**

## Transition in Programming from SAFETEA-LU to MAP-21 Funding Programs

Federal-aid highway and transit funding programs changed effective October 1, 2012 as a result of the 2012 transportation reauthorization act *Moving Ahead for Progress in the 21st Century Act* (MAP-21). The TIP reflects project programming based on the previous SAFETEA-LU funding programs. SAFETEA-LU program eligibility was retained within the condensed structure of the MAP-21 funding programs. The following table indicates how SAFETEA-LU funding programmed in the TIP relates to MAP-21 revenue programs while the transition in programming is underway.

### Federal-aid Highway Programs

MAP-21	SAFETEA-LU
National Highway Performance Program (NHPP)	NHS, IM, & Bridge (on NHS)
Surface Transportation Program (STP)	STP & Bridge (non-NHS)
Congestion Mitigation & Air Quality Improvement Program (CMAQ)	CMAQ
Highway Safety Improvement Program (HSIP)	HSIP (incl. High Risk Rural Roads)
Railway-Highway Grade Crossing	Railway Highway Grade Crossing
Transportation Alternatives	Transportation Enhancements, Safe Routes to School, Recreational Trails

### Federal-aid Transit Programs

MAP-21	SAFETEA-LU
Urbanized Area Formula Grants (5307)	Urbanized Area Formula Grants (5307) Job Access & Reverse Commute Program (5316) (Part)
Enhanced Mobility of Seniors and Individuals with Disabilities (5310)	Elderly & Persons with Disabilities Program (5310) New Freedom Program (5317)
Rural Area Formula Grants (5311)	Nonurbanized Area Formula Program (5311) Job Access & Reverse Commute Program (5316) (Part)
State of Good Repair Program (5337) (Formula)	Fixed Guideway Modernization (5309) (Discretionary)
Bus and Bus Facilities Formula Program (5339)	Bus and Bus-Related Projects (5309) (Discretionary)
Fixed Guideway Capital Investment Grants (5309)	New Starts & Small Starts Programs (5309) (Discretionary)

**APPENDIX I**  
**SHEBOYGAN MPO TECHNICAL AND POLICY ADVISORY**  
**COMMITTEE MEMBERS**



SHEBOYGAN METROPOLITAN PLANNING ORGANIZATION  
TECHNICAL ADVISORY COMMITTEE (December 2015)

Marisol Simon, Regional Adm.  
FTA Region 5  
Chicago

Kevin Struck  
Growth Management Educator  
Sheboygan Co. UW Extension  
Sheboygan

Steve Sokolowski  
City of Sheboygan Dept. of Planning and Development  
Sheboygan

Aaron Brault  
Sheboygan County Planning and Conservation Department  
Sheboygan

Diane Paoni, Urban Planning Section  
WisDOT Bureau of Planning & Economic Development  
Madison

Greg Schnell\*\*, Director  
Sheboygan County Transportation Dept.  
Sheboygan

Mary Forlenza (Ex-Officio Member)  
Federal Highway Administration, Wisconsin Division  
Madison

Ryan Sazama  
City of Sheboygan DPW Engineering Division  
Sheboygan

Jerry Benzschawel, Director  
City of Sheboygan Falls Public Works Department  
Sheboygan Falls

Derek Muench, Director  
Shoreline Metro  
Sheboygan

Steve Hirshfeld  
WisDOT Bureau of Transit, Local Roads, Railroads & Harbors  
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Matt Halada  
WisDOT Northeast Region  
Green Bay

Ryan Welsing  
Village of Howards Grove

Charles Sweet  
Sheboygan Co. Memorial Airport  
Sheboygan Falls

Peter McMullen  
Wisconsin DNR Southeast Region  
Milwaukee

Mark Winkel  
Eastern WI Counties Railroad Consortium  
Sheboygan

David Smith  
Bicycling Advocate  
Sheboygan

David Biebel\*, Director  
Department of Public Works  
City of Sheboygan

Christopher Bovee  
Bureau of Air Management  
Wisconsin DNR  
Madison

Jeremiah Schiefelbein  
Wisconsin DNR Northeast Region  
Green Bay

Cory Roeseler  
Sheboygan Co. Traffic Safety Commission  
Sheboygan

Brett Edgerle  
Village of Kohler

\*Indicates Committee Chair

\*\*Indicates Committee Vice-Chair

SHEBOYGAN METROPOLITAN PLANNING ORGANIZATION  
POLICY ADVISORY COMMITTEE (December 2015)

Tom Wegner, Vice Chairperson  
Sheboygan County Board

Steven Bauer\*, Chairperson  
Town of Sheboygan Falls

John Ehmann, Chairperson  
Town of Wilson

William Blashka (for Daniel Hein, Chairperson)  
Town of Sheboygan

Tom Schnettler, President  
Village of Kohler

Randy Meyer, Mayor  
City of Sheboygan Falls

Michael Vandersteen, Mayor  
City of Sheboygan

Dirk Zylman, Chairperson  
Town of Mosel

Charles Born\*\*, Chairperson  
Town of Lima

James Scheiber, President  
Village of Howards Grove

Ald. Darryl Carlson, Chairman  
Sheboygan Transit Commission  
Sheboygan

Jeffrey Sixel, Chairperson  
Town of Herman

Will Dorsey, Director  
WisDOT Northeast Region  
Green Bay

\*Indicates Committee Chair

\*\*Indicates Committee Vice-Chair

# BAY-LAKE REGIONAL PLANNING COMMISSION

[www.baylakerpc.org](http://www.baylakerpc.org)

## COMMISSION MEMBERS

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### ***Door County***

Ken Fisher

### ***Florence County***

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Chuck Hoffman

### ***Marinette County***

Alice Baumgarten, Secretary/Treasurer

Mary Meyer

*Nomination Pending*

### ***Oconto County***

Tom Kussow

Terry Brazeau

Dennis Kroll

### ***Sheboygan County***

Mike Hotz, Vice-Chairperson

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