

FY 2014-2017

Transportation Improvement Program

For the Twin Cities Area Transportation Study (TwinCATS)



July 2013

Prepared by the

Southwest Michigan Planning Commission

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LIST OF ACRONYMS USED IN THIS DOCUMENT

BR.....	Business Route
CO.....	Carbon Monoxide
FAE.....	Federal Aid Eligible
FHWA.....	Federal Highway Administration
FTA.....	Federal Transit Administration
FY.....	Fiscal Year
GPA.....	General Programs Account
IN.....	Indiana
LRP.....	Long Range Plan
MAB.....	Metropolitan Area Boundary
MACOG.....	Michiana Area Council of Governments
MCD.....	Minor Civil Division
MDOT.....	Michigan Department of Transportation
MI.....	Michigan
MPO.....	Metropolitan Planning Organization
NAAQS.....	National Ambient Air Quality Standards
TWINCATS.....	Twin Cities Area Transportation Study
NB.....	North Bound
NO ₂	Nitrogen Dioxide
O ₃	Ozone
Pb.....	Lead
PM _{2.5}	Breathable Particle Matter 2.5 Microns
PM ₁₀	Breathable Particle Matter 10 Microns

SB.....South Bound
SIP.....State Implementation Plan
SO₂.....Sulfur Dioxide
STIP.....State Transportation Improvement Program
SWMPC.....Southwest Michigan Planning Commission
TAC.....Technical Advisory Committee
TIP.....Transportation Improvement Program
U.S. EPA.....United States Environmental Protection Agency.

This document regularly refers to other files and forms located on the Southwest Michigan Planning Commission (SWMPC) website, www.swmpc.org. Any information found on the website can also be obtained by contacting the SWMPC at:

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INTRODUCTION

OVERVIEW OF THE TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

Federal legislation (CFR 450.324) dictates that the metropolitan transportation planning process shall include development of a Transportation Improvement Program (TIP) for the metropolitan planning area by the Metropolitan Planning Organization (MPO), in cooperation with the State and public transit operators.

This TIP must do the following:

- **Time Period:** Cover a period of no less than four years. This TIP covers fiscal years (FY) 2014-2017 (October 1, 2013 – September 30, 2017).
- **Updated:** Be updated at least every four years,
- **Expiration:** The TIP expires when the FHWA/FTA approval of the State Transportation Improvement Program (STIP) expires
- **Clean Air Act Requirements:** Nonattainment and maintenance areas are subject to conformity requirements. However, since this plan will be submitted to FHWA and FTA after July 2013 and with the partial revocation of the 1997 National Ambient Air Quality Standards (NAAQS), conformity analysis will not take place with this document.
- **Approval:** be approved by the MPO and the Governor.
- **Fiscal Constraint:** The TIP shall be financially constrained by year and include a financial plan that demonstrates which projects can be implemented using current revenue sources and which projects may be implemented using proposed revenue sources.
- **Funded Projects:** Only projects for which construction and operating funds can reasonably be expected to be available may be included.

The TIP shall:

- Include all transportation projects (including pedestrian walkways, transit, bicycle transportation facilities, and transportation enhancement projects) within the metropolitan planning area proposed for funding under title 23 U.S.C. and the Federal Transit Act;
- Be consistent with the TwinCATS Long Range Transportation Plan (LRP);

- Include all regionally significant transportation projects for which Federal Highway Administration (FHWA) or the Federal Transit Administration (FTA) approval is required, whether or not the projects are to be funded with title 23 U.S.C. or Federal Transit Act funds;
- Include, for information purposes in air quality non-attainment and maintenance areas, all regionally significant transportation projects proposed, whether funded with federal or non-federal funds.

All projects that fit into the categories above shall include:

- Sufficient descriptive material (i.e. type of work, termini, length, etc.) to identify the project or phase as well as to permit air quality analysis in accordance with the U.S. EPA conformity requirements;
- Estimated total cost;
- The amount of federal funds proposed to be obligated during each program year;
- The proposed source of the recipient/sub-recipient, State, and local agencies responsible for carrying out the project;
- In areas with Americans with Disabilities Act-required paratransit and key station plans, identification of those projects which will implement the plans.

Projects proposed for FHWA and/or FTA funding that are not considered by the State and MPO to be of appropriate scale for individual identification in a given program year may be grouped by function, geographic area, and work type using applicable classifications. These projects are called General Program Accounts (GPA). In air quality non-attainment and maintenance areas, classifications must be consistent with the exempt project classifications contained in the U.S. EPA conformity requirements.

PERFORMANCE MEASURES

A key feature of MAP-21 is the establishment of a performance and outcome based transportation program. This is a significant change from the previous transportation legislation SAFETEA-LU. The objective of this performance and outcome-based program is for states and MPOs to invest resources in projects that collectively will make progress toward the achievement of national goals. The SWMPC began preliminary discussions with the committee members regarding this topic once MAP-21 legislation was passed. SWMPC found it prudent to take a step back from the process and develop a listing of those areas in which further investigation and data collection would be beneficial to the member agencies. SWMPC staff will wait for federal regulations to be released and then proceed with formal selection and review of performance measures for the region based on those regulations. Once further federal guidance on performance measures arrives, SWMPC will further incorporate performance measures into the TIP project selection and management process. The following section will provide information on the focus of measures in MAP-21 legislation and then a review of factors that the MPO may want to further investigate after release of US DOT national measures and state targets.

I. NATIONAL PERFORMANCE MEASURES

MAP-21 requires the U.S. Secretary of Transportation, in consultation with states, MPOs, and other stakeholders, to establish national performance measures. MAP-21 establishes national performance goals for the Federal-aid highway program in seven areas:

Table 1: National Performance Goals

Goal area	National goal
Safety	To achieve a significant reduction in traffic fatalities and serious injuries on all public roads
Infrastructure condition	To maintain the highway infrastructure asset system in a state of good repair

Congestion reduction	To achieve a significant reduction in congestion on the National Highway System
System reliability	To improve the efficiency of the surface transportation system
Freight movement and economic vitality	To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development
Environmental sustainability	To enhance the performance of the transportation system while protecting and enhancing the natural environment
Reduced project delivery delays	To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices

The U.S. Department of Transportation (DOT) is to establish such measures within **18 months of** enactment of MAP-21. The timeline for completion would be March 2014.

The MPO is currently coordinating with the local agencies in order to prepare for the implementation of the national performance goals listed above in Table ____.

1. **Safety** – The MPO is currently working with the local road and transit agencies to identify problematic areas in the region to better understand how the MPO could improve safety for motorists and non-motorized transportation users.
2. **Infrastructure condition** – The MPO is working has been working with local road agencies on the identification of PASER ratings that help to identify when preventative maintenance work should be done.
3. **Congestion reduction** – As there are little to no areas of congestion in the study area, those areas that have been identified in this plan will be discussed further in the implementation of the plan through a subcommittee.
4. **System reliability** – As the MPO areas continues to recover from the economic downturn of the late 2000s, the MPO will monitor areas with development pressure and will be proactive in discussions with local road and transit agencies on how to ensure that the movement of people can continue efficiently.
5. **Freight movement and economic vitality** – The MPO continues to monitor and gain information regarding the movement of freight commodities within the region.

6. **Environmental sustainability** – the MPO is continuously working with local watershed and environmental groups to reduce the potential impacts to species and environmentally sensitive areas identified in the Environmental Mitigation section of the long range plan.

7. **Reduced project delivery delays** – MPO staff continue to work with MDOT and other agencies to ensure that projects move forward following regulatory changes at the state and federal levels that would slow down project delivery.

II. STATE PERFORMANCE TARGETS

Within one year of the US DOT final rule on performance measures, states will set performance targets in support of those measures. States may set different performance targets for urbanized and rural areas. The timeline for completion would be March 2015. To ensure consistency each state must, to the maximum extent practicable:

- Coordinate with an MPO when setting performance targets for the area represented by that MPO;
- Coordinate with public transportation providers when setting performance targets in an urbanized area not represented by an MPO.

III. MPO PERFORMANCE TARGETS

Within 180 days of states or providers of public transportation setting performance targets, MPOs are to set performance targets in relation to the performance measures. The timeline for this to be complete would be September 2015. To ensure consistency, each MPO must, to the maximum extent practicable, coordinate with the relevant state and public transportation providers when setting performance targets. The targets are required in the Long Range Transportation Plan according to §1201; 23 USC 134(i)(2)(B).

- Reporting on progress-Requires states to report on the condition and performance of the NHS; the effectiveness of the investment strategy document in the state asset management plan for the NHS; progress toward achieving performance targets; and the ways in which the state is addressing congestion at freight bottlenecks. [§1203; 23 USC 150(e)]. States and MPOs will report to DOT on progress in achieving targets.

- Performance Measures- the use of evidence (data) to determine progress toward specific defined objectives.

As the SWMPC and TwinCATS Committee members watch the development of these actions, we will incorporate changes into the long range plan to meet the newly developed federal and state measures. It should be noted that the current MAP-21 legislation expires on September 30, 2014, well before these requirements can be fulfilled.

IV. FACTORS FOR FURTHER INVESTIGATION

As SWMPC staff began to navigate through the concepts of performance measures, it became clear that SWMPC and the Committee members wanted to identify issues of importance for the MPO to investigate. MAP-21 outlined factors which the TwinCATS MPO committee used to SWMPC along with TwinCATS Committee members decided to only focus on the factors that the MPO can impact directly through the MPO committee structure. It is the hope that the review of the factors that the MPO can directly impact will help in determining baseline conditions then measurement can begin once it is clear what the MPO will be tasked with measuring.

*As federal regulations from the FHWA and FTA are released, the SWMPC will update this section of the LRP to reflect the changes that have been implemented.

Each factor will list the following information:

- Why the issue is important
- How SWMPC plans to measure the factor/gather information
- How the MPO process can impact this (if at all)

TWINCATS MPO FACTORS

1. Review the number of signals that could be optimized throughout the study area

- a. Optimized signals reduce travel time, allowing people to get to their destinations more efficiently and have the potential for assisting in economic activity. In addition, there are air quality benefits that arise when cars do not have to start and stop constantly.
 - b. SWMPC will use average daily traffic information to see the highest traveled roadways and look use the Transportation Improvement Programs to see when signal projects had been done.
 - c. The MPO has direct review authority on the development of signal projects, as local STP and CMAQ funds can be used for these types of projects.
- 2. Preserve agricultural and commercial economies by ensuring that transportation projects enhance and do not prevent the long term movement of products to local and regional markets.**
- a. The agricultural market is integral to the local economic health of the region and the tourism industry.
 - b. SWMPC will gather information on the total amount of agricultural products being produced in the TwinCATS region and how they are transported to local and regional markets. SWMPC will work with farm cooperatives, MSU Extension, and others to acquire this information.
 - c. The MPO has direct review authority on federal aid roadways where long distance travel would happen for the distribution of agricultural products.
- 3. Review and inventory infrastructure connections (such as sidewalks, bus stops, bicycle lanes, paved shoulders) to key destinations identified by community members and local officials.**
- a. Providing non-automobile access to destinations throughout the region is important due to the aging demographics of Michigan and specifically the study area.
 - b. SWMPC will inventory key destination areas, as identified by transit ridership logs, community outreach efforts, and discussions with local government agencies.
 - c. The MPO has review authority on the allocation of federal highway and federal transit funds. When projects are proposed, SWMPC transportation staff can provide data and other supplemental information to the committee members before a project is approved. A greater emphasis can be placed on creating connections within the transportation network.
- 4. Identify and inventory the TWINCATS environmental justice populations that can access fixed route transit within a ¼ miles walking radius.**

- a. Providing non-automobile access to destinations throughout the region is important due to the aging demographics of Michigan and specifically the study area.
- b. SWMPC will inventory key destination areas, as identified by transit ridership logs, community outreach efforts, and discussions with local government agencies within the environmental justice populations.
- c. The MPO has review authority on the allocation of federal highway and federal transit funds. When projects are proposed, SWMPC transportation staff can provide data and other supplemental information to the Committee members before a project is approved. A greater emphasis can be placed on creating connections within the transportation network.

5. Identify roadways in the region that receive traffic volumes under design capacity and conduct studies on roadway redesigns.

- a. As the population and average daily traffic count of roadways have decreased, the excessive capacity of roadways has not changed. Redesigning the roadways with pedestrians in mind will help to ensure that the transportation system meets the needs of all users. This policy would be in line with the State of Michigan's Complete Streets Policy.
- b. Identify roadways that have excessive capacity, in number of lanes or lane width that could be restriped to provide a complete street. Use Volume/Capacity ratios to determine roadways that have excess capacity.
- c. The MPO has review authority on the allocation of federal highway funds. When projects are proposed, SWMPC transportation staff can provide data and other supplemental information to the Committee members before a project is approved. A greater emphasis can be placed on creating connections within the transportation network.

6. Reduce passenger vehicle miles traveled by providing alternative modes of transportation.

- a. Allowing people to travel by different means such as by walking, biking, rail or using transit has been identified as a priority by the public and the TwinCATS Committee members to ensure an interconnected transportation system.
- b. SWMPC staff will develop an inventory of the total miles traveled by modes of transportation (rail, transit, biking, walking, and passenger cars) in the region. Sources used will include but are not limited to, commuting data from MDOT, Census Transportation

Planning Package (CTPP), Rideshare, schools, the review of train travel data along the Blue Water, Wolverine, and Pere Marquette lines.

- c. The MPO has review authority on the allocation of federal highway funds. When projects are proposed SWMPC transportation staff can provide data and other supplemental information to the Committee members before a project is approved. A greater emphasis can be placed on creating connections within the transportation network.

7. Identify and inventory bicycle and pedestrian crash hot spots.

- a. Making our entire transportation system safe for all users can help people more easily reach their daily activities safely, whether they are able to use an automobile or not.
- b. SWMPC will inventory crash statistics from the asset management database, MI state policy crash reports, MDOT, those identified by community outreach efforts, and discussions with local government agencies.
- c. The MPO has review authority on the allocation of federal highway funds. When projects are proposed, SWMPC transportation staff can provide data and other supplemental information to the Committee members before a project is approved. SWMPC staff could encourage greater participation in the preliminary engineering and design of projects near the identified hot spots.

8. Identify and inventory the number of traffic crash injuries/fatalities.

- a. Making our entire transportation system safe for all users can help people more easily reach their daily activities, whether they are able to use an automobile or not. According to the National Highway Traffic Safety Administration (NHTSA)'s National Center for Statistics and Analysis, rural fatal crashes accounted for 57 percent of all traffic fatalities.
- b. SWMPC will inventory crash statistics from the asset management database, MI state policy crash reports, MDOT, those identified by community outreach efforts, and discussions with local government agencies.
- c. The MPO has review authority on the allocation of federal highway funds. When projects are proposed, SWMPC transportation staff can provide data and other supplemental information to the Committee members before a project is approved. SWMPC staff could

encourage greater participation in the preliminary engineering and design of projects near the identified hot spots.

V. RESOURCES FOR PERFORMANCE MEASURES

SWMPD will continue to participate in learning opportunities and discussions as more information regarding performance measures becomes available. There are several resources that committee members and SWMPD staff can utilize to gain more knowledge. What follows is a brief listing of some of those resources.

- Federal Highway Administration (FHWA) <http://www.fhwa.dot.gov/MAP21/>
- Federal Transit Administration (FTA) <http://www.fta.dot.gov/map21/>
- National Association of Regional Councils (NARC) <http://narc.org/issueareas/transportation/>
- National Association of Development Organizations (NADO) <http://www.nado.org/>
- Association of Metropolitan Planning Organizations (AMPO) <https://www.ampo.org/>

TWINCATS PROJECT SELECTION AND PRIORITIZATION PROCEDURE

The TwinCATS Committee members elected to have a subcommittee of interested members to assist in the selection of projects for the 2014-2017 TIP. The initial selection meeting was held in March 2013. Once the meeting started, the primary discussion centered on MDOT's request to handle the FY 2013 use of additional obligation authority assigned to the TMA. The allocation was in the amount of \$453,000. Once the obligation authority issue was resolved, selection of other projects took place. Projects that were submitted were evaluated based upon the following criteria by the subcommittee:

- Available funding for each fiscal year;
- Traffic counts for the proposed project segment;
- PASER ratings for the proposed project segment;
- Connectivity to segments being done throughout the TIP years;
- When the community had a project using local STP funds.

The proposed project list was sent out for official public comment during the month of April 2013 and was brought before the TwinCATS TAC and Policy Committees for final vote and approval. In addition, MPO staff solicited and welcomed public and committee member comment during the month of March.

Table 2: Timeline of TIP Development

12/17/2012	Online TIP project application approved by committee
2/1-4/20/2013	MPO Staff drafted sections of the TIP document, including information about MAP-21, Environmental Mitigation and Environmental Justice maps
2/6/2013	TIP Project Application released, and Call for Projects submitted to local agencies
2/25/2013	Project Applications due; MPO Staff compile project information
3/1/2013	Project Selection Subcommittee Meeting
3/18/2013	Policy Committee approves TIP Project list being sent out for public comment
4/1/2013- 4/11/2013	Public Comment Period on TIP Project list
4/15/2013	Policy Committee approves TIP project list
5/20/2013	Policy Committee approves final TIP document for 10-day public comment period
7/2013	Submitted to SWMPC Board for Approval
7/2013	Submitted to FHWA and MDOT for approval

AMENDMENTS TO THE TIP

The TIP may be amended at any time consistent with the procedures established in federal legislation. To do so, the agency responsible for the project proposed to be added to the TIP will fill out a TIP Amendment Form, which can be found in at http://www.swmpc.org/TwinCATS_tipapp.asp. Public involvement procedures outlined in the Participation Plan (found online at <http://www.swmpc.org/participation.asp> or available by contacting the SWMPC) shall be utilized. In some cases, the TIP may be amended administratively, as described in Section VII: Amendment Procedures.

RELATIONSHIP TO THE STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM (STIP)

After approval by the MPO and the Governor, the TIP shall be included without modification, directly or by reference, in the STIP program. The exception to that rule is in non-attainment and maintenance areas, where a conformity finding by the FHWA and the FTA must be made before it is included in the STIP. After approval by the MPO and the Governor, a copy shall be provided to the FHWA and the FTA. The state shall notify the MPO when a TIP including projects under the jurisdiction of these agencies, has been included in the STIP.

ACTION REQUIRED BY FHWA/FTA

The FHWA and FTA must jointly find that each metropolitan TIP is based on a continuing, comprehensive transportation process carried on cooperatively by the state, MPO, and transit operator in accordance with the provisions of 23 U.S.C. 134 and Section 8 of the Federal Transit Act (49 U.S.C. app. 1607). This finding shall be based on the self-certification statement submitted by the State and MPO under Section 450.334 and upon other reviews as deemed necessary by the FHWA and FTA.

If the TIP is found to conform to the STIP, the Governor/MPO shall be notified of the joint finding. After the FHWA and the FTA find the TIP to be in conformance, the TIP shall be incorporated without modification, into the STIP directly or by reference.

TWINCATS OVERVIEW

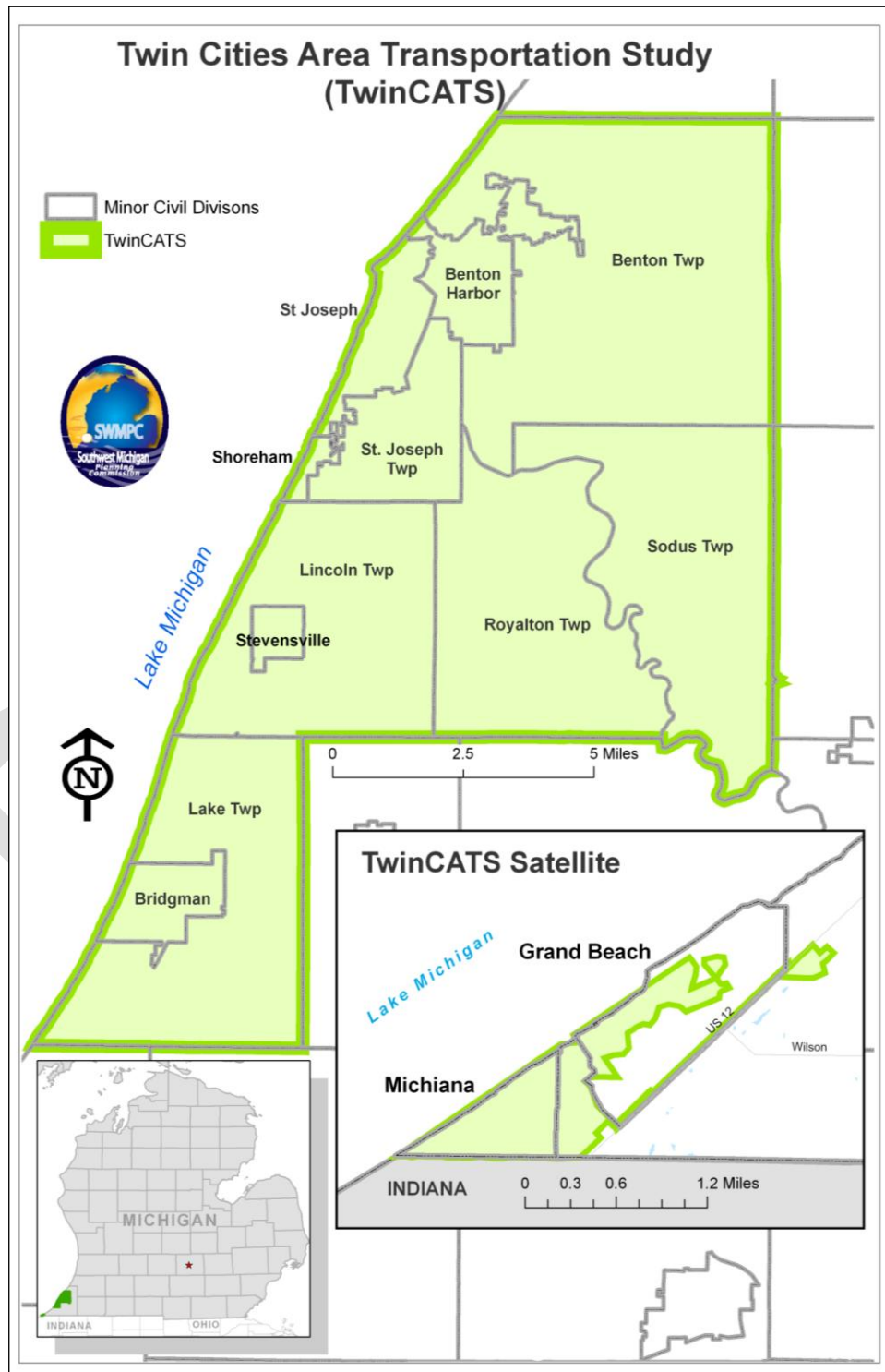
STUDY AREA

The Twin Cities Area Transportation Study (TwinCATS) metropolitan area boundary (MAB) for the urban transportation planning activities includes:

- City of Benton Harbor
- City of Bridgman
- City of St. Joseph;
- Village of Grand Beach*
- Village of Michiana*
- Village of Shoreham
- Village of Stevensville
- Benton Charter Township
- Lake Charter Township
- Lincoln Charter Township
- Royalton Township
- St. Joseph Charter Township
- Sodus Township.

A map of the TwinCATS area can be found on the next page.

Map 1: TwinCATS Study Area



*The Villages of Grand Beach and Michiana were added to the TwinCATS MPO after consultation with partners in Indiana. Because the MPO boundary is not contiguous, this area is called the TwinCATS satellite. These villages have been designated by the U.S. Census as being a part of the Northern Indiana Regional Planning Commission (NIRPC) urbanized area and therefore needing transportation planning. However, because this portion of the NIRPC urbanized area is located in Michigan, the SWMPC and NIRPC entered into an agreement that SWMPC would provide transportation planning services to the Grand Beach/Michiana area. To make a decision whether to put this area in with the TwinCATS urbanized area or the Niles-Buchanan-Cass-Area Transportation Study (NATS), the characteristics of both urbanized areas were reviewed. It was decided that the Grand Beach/Michiana area would be a satellite of TwinCATS, not NATS, because of the area's location along the Lake Michigan coast, a criterion which characterizes many TwinCATS communities.

Agencies who contribute project requests in the TwinCATS area include:

- City of Benton Harbor
- City of St. Joseph
- City of Bridgman
- Village of Grand Beach
- Village of Michiana
- Village of Shoreham
- Village of Stevensville
- Berrien County Road Commission
- Twin Cities Area Transportation Authority
- Michigan Department of Transportation (MDOT) is responsible for all state highway projects.

Townships do not receive Act 51 funding and therefore work with the Road Commission to develop and implement road projects.

MPO TIP FINANCIAL PLAN

The Transportation Improvement Program (TIP) is the list of road and transit projects that communities and agencies plan to implement over a four-year period. That list is required to be fiscally constrained; that is, the cost of projects programmed in the TIP cannot exceed the amount of funding “reasonably expected to be available” during that time. The financial plan is the section of the TIP that documents the method used to calculate funds reasonably expected to be available and compares this amount to proposed projects to demonstrate that the TIP is fiscally constrained. The financial plan also identifies the costs of operating and maintaining the transportation system in the Twin Cities Area Transportation Study.

SOURCES OF TRANSPORTATION FUNDING

The basic sources of transportation funding are motor fuel taxes and vehicle registration fees. Both the federal government and the State of Michigan tax motor fuel, the federal government at \$0.184 per gallon on gasoline and \$0.244 per gallon on diesel and Michigan at \$0.19 per gallon on gasoline and \$0.15 per gallon on diesel. Michigan also charges sales tax on motor fuel, but this funding is not applied to transportation. The motor fuel taxes are excise taxes, which means that they represent a fixed amount per gallon. The amount collected per gallon does not increase when the price of gasoline or diesel fuel increases. Over time, inflation erodes the purchasing power of the motor fuel tax.

The State of Michigan also collects annual vehicle registration fees when motorists purchase license plates or tabs. This is a very important source of transportation funding for the state. Currently, roughly half of the transportation funding collected by the state is in the form of vehicle registration fees.

Cooperative Revenue Estimation Process

Estimating the amount of funding available for the four-year TIP period is a complex process. It relies on a number of factors, including economic conditions, miles travelled by vehicles nationwide and in the State of Michigan, and federal and state transportation funding received in previous years. Revenue forecasting relies on a combination of data and experience and represents a “best guess” of future trends.

The revenue forecasting process is a cooperative effort. The Michigan Transportation Planning Association (MTPA), a voluntary association of public organizations and agencies responsible for the administration of transportation planning activities throughout the state, formed the Financial Working Group (FWG) to develop a statewide standard forecasting process. FWG is comprised of members from the Federal Highway Administration (FHWA), the Michigan Department of Transportation (MDOT), transit agencies, and metropolitan planning organizations. It represents a cross-section of the public agencies responsible for transportation planning in our state. The revenue assumptions in this financial plan are based on the factors formulated by the FWG and approved by the MTPA. They are used for all TIP financial plans in the state.

HIGHWAY FUNDING FORECAST--FEDERAL

Sources of Federal Highway Funding

Federal transportation funding comes from motor fuel taxes (mostly gasoline and diesel). Receipts from these taxes are deposited in the Highway Trust Fund (HTF). Funding is then apportioned to the states. Apportionment is the distribution of funds through formulas in law. The current law governing these apportionments is Moving Ahead for Progress in the 21st Century (MAP-21). Under this law, Michigan receives approximately \$1 billion in federal transportation funding annually. This funding is apportioned through a number of programs designed to accomplish different objectives, such as road repair, bridge repair, safety, and congestion mitigation. A brief description of the major funding sources follows.

National Highway Performance Program (NHP): This funding is used to support condition and performance on the National Highway System (NHS) and to construct new facilities on the NHS. The National Highway System is the network of the nation's most important highways, including the Interstate and US highway systems. In Michigan, most roads on the National Highway System are state trunk lines (i.e., "I-," "US-," and "M-" roads). However, MAP-21 expanded the NHS to include all principal arterials (the most important roads after freeways), whether state- or locally-owned. However, it should be noted that as of March 2013 all NHPP eligible roadways in the study area are MDOT controlled roadways. This may change if the classification of some roadways in the TwinCATS urban area changes. This review will take place in the summer of 2013, after the TIP has been submitted.

Surface Transportation Program (STP): STP funds are designed for construction, reconstruction, rehabilitation, resurfacing, restoration, preservation, or operational improvements to federal-aid highways and replacement, preservation, and other improvements to bridges on public roads. Michigan's STP apportionment from the federal government is evenly split, half to areas of the state based on population and half that can be used in any area of the state. In FY 2014, Michigan's STP apportionment is estimated to be \$269.8 million. The TwinCATS region will receive approximately \$821,634 which will be used by cities, villages, and the county road commissions. STP funds can also be flexed (transferred) to transit projects.

Highway Safety Improvement Program (HSIP): HSIP funds are intended to correct or improve a hazardous road location or feature or address other highway safety problems. Projects can include intersection improvements, shoulder widening, rumble strips, improving safety for pedestrians, bicyclists, or disabled persons, highway signs and markings, guardrails, and other activities. The State of Michigan retains all Safety funding and uses a portion on the state trunk line system, distributing the remainder to local agencies through a competitive process. Michigan's statewide FY 2014 estimated Safety apportionment is \$64.5 million. While there is no specific allocation that goes directly to the TwinCATS MPO, local agencies are eligible to apply for these funds as stated above.

Congestion Mitigation and Air Quality Improvement (CMAQ): Intended to reduce emissions from transportation-related sources. MAP-21 has placed an emphasis on diesel retrofits, but funds can also be used for traffic signal retiming, actuations, and interconnects; installing dedicated turn lanes; roundabouts; travel demand management such as ride share and vanpools; transit; and non-motorized projects that divert non-recreational travel from single-occupant vehicles. CMAQ funds come to the MPO by means of a countywide allocation, since the MPO does not encompass the entire county. Therefore, there are CMAQ funds for projects in Berrien County that can be utilized for projects within the MPO. For FY 2014 Berrien County received an allocation of \$578,210. The distribution of the county funds are decided at publicly held county meetings, where all transit and road projects are discussed and voted upon.

Transportation Alternatives Program (TAP): TAP funds can be used for a number of activities to improve the transportation system environment, including (but not limited to) nonmotorized projects, preservation of historic transportation facilities, outdoor advertising control, vegetation management in rights-of-way, and the

planning and construction of projects that improve the ability of students to walk or bike to school. The statewide apportionment for Transportation Alternatives is estimated to be \$26.4 million in FY 2014. The funding will then be split, 50 percent being retained by the state and 50 percent to various areas of the state by population, much like the STP distribution. TwinCATS did not receive an allocation because its population was too small under the criteria set by the statewide distribution formula. However, TwinCATS member jurisdictions are still eligible to apply for TAP funds via a statewide competitive process, based on the merits of the individual project.

BASE AND ASSUMPTIONS USED IN FORECAST CALCULATIONS OF FEDERAL HIGHWAY FUNDS

Each year, the targets (amount TwinCATS is expected to receive) are calculated for each of these programs, based on federal apportionment documentation and state law. Targets for fiscal year 2013, as provided by MDOT, are used as the baseline for the forecast. The Financial Work Group of the MTPA developed a two percent per year federal revenue growth rate for the FY 2014 through FY 2017 TIP period. If targets for each of fiscal years 2014-2017 are known (such as CMAQ), those amounts were used without adjustment. While this is less than the five percent growth rate over the past 20 years, the decrease in motor fuel consumption (due to less driving and higher-MPG vehicles) and the economic downturn and restructuring experienced by the nation in general and Michigan in particular make assumptions based on long-term historical trends unusable. Table 3 contains the federal transportation revenue projections for the 2014-2017 TIP.

Table 3: TwinCATS Federal Highway Revenue Projections 2014-2017

Fiscal Year (FY)	STP	CMAQ Funds (Berrien County)	TOTAL
2014	\$821,634	\$578,210	\$1,399,844
2015	\$838,067	\$578,210	\$1,416,277
2016	\$854,828	\$578,210	\$1,433,038
2017	\$871,925	\$578,210	\$1,450,135
TOTAL:	\$3,386,454	\$2,312,841	\$5,699,295

SOURCES OF STATE HIGHWAY FUNDING

There are two main sources of state highway funding, the state motor fuel tax and vehicle registration fees. The motor fuel tax, currently set at 19 cents per gallon on gasoline and 15 cents per gallon on diesel, raised approximately \$937.5 million in fiscal year 2011.¹ Like the federal motor fuel tax, this is also an excise tax that doesn't increase as the price of fuel increases, so over time, inflation erodes the purchasing power of these funds. Approximately \$855.9 million in additional revenue is raised through vehicle registration fees when motorists purchase their license plates or tabs each year. The state sales tax on motor fuel, which taxes both the fuel itself and the federal tax, is not deposited in the Michigan Transportation Fund. Altogether, approximately \$1.9 billion was raised through motor fuel taxes, vehicle registrations, heavy truck fees, interest income, and miscellaneous revenue in FY 2011.

The state law governing the collection and distribution of state highway revenue is Public Act 51 of 1951, commonly known as "Act 51." All revenue from these sources is deposited into the Michigan Transportation Fund (MTF). Act 51 contains a number of complex formulas for the distribution of the funding, but essentially, once funding for certain grants and administrative costs are removed, 10 percent of the remainder is deposited in the Comprehensive Transportation Fund (CTF) for transit. The remaining funds are then split between the State Trunkline Fund, administered by MDOT, county road commissions, and municipalities in a proportion of 39.1 percent, 39.1 percent, and 21.8 percent, respectively.²

MTF funds are critical to the operation of the road system in Michigan. Since federal funds cannot be used to operate or maintain the road system (items such as snow removal, mowing grass in the right-of-way, paying the electric bill for streetlights and traffic signals, etc.), MTF funds are local communities' and road commissions' main source for funding these items. Most federal transportation funding must be matched with 20 percent non-

¹ Michigan Dept of Transportation, Annual Report, Michigan Transportation Fund, Fiscal Year Ending September 30, 2011 (MDOT Report 139), Schedule A.

² Act 51 of 1951, Section 10(1)(j).

federal revenue. In Michigan, most match funding comes from the MTF. Finally, federal funding cannot be used on local public roads, such as subdivision streets. Here again, MTF is the main source of revenue for maintenance and repair of these roads.

Funding from the MTF is distributed statewide to incorporated cities, incorporated villages, and county road commissions, collectively known as “Act 51 agencies.” The formula is based on population and public road mileage under each Act 51 agency’s jurisdiction.

Base and Assumptions Used in Forecast Calculations of State Highway Funds

The base for the financial forecast of state funding is the FY 2011 distribution of MTF funding as found in MDOT Report 139. This report details distribution of funding to each eligible Act 51 agency in the state. Adding all of the distributions to cities, villages, and county road commissions, in the TwinCATS area, that provides an overall distribution total can be derived for the region. That amount that Berrien County Act 51 agencies can plan to receive in the TwinCATS area was \$11,363,725.21 in FY 2011.

The Financial Work predicted an increase of 0.4 percent in state revenues for fiscal years 2014 through 2017. Table 4 shows the amount of MTF funding cities, villages, and road commissions in the TwinCATS area are projected to receive during the four-year TIP period, based on the agreed-upon rates of increase.

Table 4: Projected MTF Distribution to Act-51 Agencies in the TwinCATS Region for Highway Use

2014	2015	2016	2017	Total
11,500,636.09	11,546,638.63	11,592,825.18	11,639,196.48	46,279,296.38

State funding is projected to grow much more slowly than federal funding during the four-year TIP period. This will have two effects on the region’s highway funding: First, available funding for operations and maintenance of the highway system will most likely not keep pace with the rate of inflation, leaving less money for a growing list of maintenance work. Secondly, the federal highway funding will grow at a greater rate than non-federal money

to match it. For those federal transportation sources requiring match, this means that some funding will go unused, despite the demand.

HIGHWAY FUNDING FORECAST—LOCAL FUNDING

Sources of Local Highway Funding

Local highway funding can come from a variety of sources, including transportation millages, general fund revenues, and special assessment districts. Locally-funded transportation projects that are not of regional significance are not required to be included in the TIP. Local funding support for projects in the TIP are significant and there are very few communities within the MPO that have dedicated revenue collected from an assessment on property taxes. There are no communities within the MPO that have dedicated transportation revenue.

Base and Assumptions Used in Forecast Calculations of Local Highway Funds

The current TIP covers fiscal years 2011 through 2014. The current TIP, plus FY 2010 from the previous TIP, were queried for all projects with funding codes indicating that local funding was or will be used. Local funds programmed by transit agencies were removed, as were advance construct funds. Advance construct (AC) means the agency uses its own money to build the project, then pays itself back in a future year with federal funding. Because of the way AC projects are shown in the TIP, counting them exaggerates the amount of local funding actually used. When this was done, the five-year annual average of local funding totaled about \$460,897.20 a year with total local funding for the 2010-2014 period totaling approximately \$2,304,456. It's highly unlikely that there will be increases in local funding over the four-year TIP period. For the projects currently listed in the TIP there will be approximately 1,466,317 in the form of local funding.

Table 5: Road Projects with Local Match in the TwinCATS Region

Funding Year	Road projects with local match
2014	\$129,855
2015	\$1,116,910
2016	\$149,675
2017	\$69,877
Total	\$1,466,317

DISCUSSION OF INNOVATIVE FINANCING STRATEGIES--HIGHWAY

A number of innovative financing strategies have been developed over the past two decades to help stretch limited transportation dollars. Some are purely public sector; others involve partnerships between the public and private sectors. Some of the more common strategies are discussed below.

Toll Credits: This strategy allows states to count funding they earn through tolled facilities (after deducting facility expenses) to be used as “soft match,” rather than using the usual cash match for federal transportation projects. States have to demonstrate “maintenance of effort” when using toll credits—in other words, they must show that the toll money is being used for transportation purposes and that they’re not reducing their efforts to maintain the existing system by using the toll credit program. Toll credits have been an important source of funding for the State of Michigan in the past because of the three major bridge crossings and one tunnel crossing between Michigan and Ontario. Toll credits have also helped to partially mitigate the funding crisis in Michigan, since insufficient non-federal funding is available to match all of the federal funding apportioned to the state.

State Infrastructure Bank (SIB): Established in a majority of states, including Michigan.³ Under the SIB program, states can place a portion of their federal highway funding into a revolving loan fund for transportation improvements such as highway, transit, rail, and intermodal projects. Loans are available at 3 percent interest and a 25-year loan period to public entities such as political subdivisions, regional planning commissions, state agencies, transit agencies, railroads, and economic development corporations. Private and nonprofit corporations developing publicly owned facilities may also apply. In Michigan, the maximum per-project loan amount is \$2 million. The Michigan SIB had a balance of approximately \$12 million in FY 2011.

Transportation Infrastructure Finance and Innovation Act (TIFIA): This nationwide program, significantly expanded under MAP-21, provides lines of credit and loan guarantees to state or local governments for development, construction, reconstruction, property acquisition, and carrying costs during construction. TIFIA enables states and local governments to use the borrowing power and creditworthiness of the United States to finance projects at far more favorable terms than they would otherwise be able to do on their own. Repayment of TIFIA funding to the federal government can be delayed for up to five years after project completion with a repayment period of up to 35 years. Interest rates are also low. The amount authorized for the TIFIA program in FY 2014 nationwide is \$1.0 billion.

Bonding: Bonding is borrowing, where the borrower agrees to repay lenders the principal and interest. Interest may be fixed over the term of the bond or variable. The amount of interest a borrower will have to pay depends in large part upon its perceived credit risk; the greater the perceived chance of default, the higher the interest rate. In order to bond, a borrower must pledge a reliable revenue stream for repayment. For example, this can be the toll receipts from a new transportation project. In the case of general obligation bonds, future tax receipts are pledged.

States are allowed to borrow against their federal transportation funds, within certain limitations. While bonding provides money up front for important transportation projects, it also means diminished resources in future years, as funding is diverted from projects to paying the bonds' principal and interest. Michigan transportation law requires money for the payment of bond and other debts be taken off the top before the distribution of funds for other purposes. Therefore, the advantages of completing a project more quickly need to be carefully weighed with the disadvantages of reduced resources in future years.

Advance Construct/Advance Construct Conversion: This strategy allows a community or agency to build a transportation project with its own funds (advance construct) and then be reimbursed with federal funds in a future year (advance construct conversion). Tapered match can also be programmed, where the agency is reimbursed over a period of two or more years. Advance construct allows for the construction of highway

projects before federal funding is available; however, the agency must be able to build the project with its own resources and then be able to wait for federal reimbursement in a later year.

Public-Private Partnerships (P3): Funding available through traditional sources, such as motor fuel taxes, are not keeping pace with the growth in transportation system needs. Governments are increasingly turning to public-private partnerships (P3) to fund large transportation infrastructure projects. An example of a public-private partnership is Design/Build/Finance/Operate (DBFO). In this arrangement, the government keeps ownership of the transportation asset, but hires one or more private companies to design the facility, secure funding, construct the facility and operate it, usually for a set period of time. The private-sector firm is repaid most commonly through toll revenue generated by the new facility.⁴ Sometimes, as in the case of the Chicago Skyway and the Indiana Toll Road, governments grant exclusive concessions to private firms to operate and maintain already-existing facilities in exchange for an up-front payment from the firm to the government. The firm then operates, maintains, and collects tolls on the facility during the period of the concession, betting that it will collect more money in tolls than it paid out in operations costs, maintenance costs, and the initial payment to the government.

HIGHWAY OPERATIONS AND MAINTENANCE

Construction, reconstruction, repair, and rehabilitation of roads and bridges are only part of the total cost of the highway system. It must also be operated and maintained. *Operations and maintenance* is defined as those items necessary to keep the highway infrastructure functional for vehicle travel, other than the construction, reconstruction, repair, and rehabilitation of the infrastructure. Operations and maintenance includes items such as snow and ice removal, pothole patching, rubbish removal, maintaining the right-of way, maintaining traffic signs and signals, clearing highway storm drains, paying the electrical bills for street lights and traffic signals, and other similar activities, and the personnel and direct administrative costs necessary to implement these projects. These activities are as vital to the smooth functioning of the highway system as good pavement.

⁴ http://www.fhwa.dot.gov/ipd/p3/defined/design_build_finance_operate.htm.

Federal transportation funds cannot be used for operations and maintenance of the highway system. Since the TIP only includes federally-funded transportation projects (and non-federally-funded projects of regional significance), it does not include operations and maintenance projects. While in aggregate, operations and maintenance activities *are* regionally significant, the individual projects do not rise to that level. However, federal regulations require an estimate of the amount of funding that will be spent operating and maintaining the federal-aid eligible highway system over the FY 2014 through FY 2017 TIP period. This section of the Financial Plan provides an estimate for TwinCATS planning area and details the method used to estimate these costs. Table 6 highlights the total lane miles (the miles of federal aid eligible roads multiplied by the total number of lanes) for the system.

Table 6: Federal Aid Eligible Lane Miles in the TwinCATS System

	Federal Aid Lane Miles
State Trunkline	349.365
Local Federal Aid Roads	379.358
All Federal Aid Eligible	728.331

Source: Roadsoft Database, 2013

According to *Michigan's FY 2011-2014 State Transportation Improvement Program*, approximately \$599.3 million will be available statewide for operations and maintenance costs in FY 2014 for the state trunk line highway system (roads with "I-," "US-," and "M-" designations).⁵ About 349.365 lane miles of the state trunkline system are located the TwinCATS region. Assuming an allocation of \$6,500 per lane mile for the operations and maintenance cost, MDOT should spend approximately \$2,270,873 in the TwinCATS region in FY 2014. Since MDOT's operations and maintenance funding comes from state motor fuel taxes (the Michigan Transportation Fund), the agreed-upon rate of increase for state funds (0.4 percent annually) was applied to derive the operations and maintenance costs for FYs 2015, 2016, and 2017.

⁵ Michigan Department of Transportation. *FY 2011-2014 State Transportation Improvement Program* (January 2012), p. 9.

Local communities' and agencies' costs to operate and maintain their portions of the federal-aid highway system were estimated through discussions with the local agencies on an agreed upon average of \$5,000 per lane mile. This was then applied to the total lane mileage of non-trunkline federal-aid eligible roads in the TwinCATS region. The assumption in this case is that local communities and agencies are spending every available operations and maintenance dollar, so funds expended equal funds available. Much of local agencies' operations and maintenance funding comes from the Michigan Transportation Fund, so the agreed-upon rate of increase for state funds (0.4 percent annually) was applied to derive the operations and maintenance costs for FYs 2014 through 2017. MDOT and local operations and maintenance funding available was then brought together for a regional total. This is summarized in Table 7.

Table 7: Projected Available Highway Operations and Maintenance Funding

FY	MDOT Estimate	Local Estimate	Regional Total
2014	\$2,270,873	\$1,896,790	\$4,167,662
2015	\$2,361,707	\$1,972,662	\$4,334,369
2016	\$2,456,176	\$2,051,568	\$4,507,744
2017	\$2,554,423	\$2,133,630	\$4,688,054
TOTAL	\$9,643,178	\$8,054,650	\$17,697,829

HIGHWAY COMMITMENTS AND PROJECTED AVAILABLE REVENUE

The TIP must be fiscally constrained; that is, the cost of projects programmed in the TIP cannot exceed revenues "reasonably expected to be available" during the four-year TIP period. Funding for core programs such as NHP, STP, HSIP, and CMAQ are expected to be available to the region based on historical trends of funding from earlier, similar programs in past federal surface transportation laws. Likewise, state funding from the Michigan Transportation Fund (MTF) and the hybrid state/federal programs, are also expected to be available during the FY 2014 through FY 2017 TIP period. Funds from other programs are generally awarded on a competitive basis and are therefore impossible to predict. In these cases, projects are not amended into the TIP until sufficient proof of funding availability (such as an award letter) is provided. Funds from federal competitive programs are not included in the revenue forecast.

All federally-funded projects must be in the TIP. Additionally, any non-federally-funded but regionally significant project must also be included. In these cases, project submitters demonstrate that funding is available and what sources of non-federal funding are to be utilized.

Projects programmed in the TIP are known as *commitments*. As mentioned previously, commitments cannot exceed funds reasonably expected to be available. Projects must also be programmed in year of expenditure dollars, meaning that they must be adjusted for inflation to reflect the estimated purchasing power of a dollar in the year the project is expected to be built. The MTPA/Financial Work Group has decided on an annual inflation rate of 3.3 percent for projects over the TIP period. This means that a project costing \$100,000 in FY 2014 is expected to cost \$103,300 in FY 2015, \$106,709 in FY 2016, and \$110,230 in FY 2017. Since the amount of federal funds available is only expected to increase by 0.86 percent in 2014 and then 2 percent per year thereafter, and state funds by only 0.4 percent per year over the four-year TIP period, this means that less work can be done each year with available funding. Within the TwinCATS region, all projects accommodated for inflation from the submitting agency. Table 8 is known as a fiscal constraint demonstration. The demonstration is provided to the Michigan Department of Transportation, Federal Highway Administration, and Federal Transit Administration in order to show that the cost of planned projects does not exceed the amount of funding reasonably expected to be available over the FY 2014 through FY 2017 TIP period. This is a summary.

Table 8: Highway Fiscal Constraint Demonstration

TwinCATS	2014		2015		2016		2017	
Funding	Avail	Prog	Avail	Prog	Avail	Prog	Avail	Prog
STP	\$821,634.48	\$821,524	\$838,067.16	\$837,634	\$854,828.50	\$856,324	\$871,925.07	\$854,163
CMAQ Berrien County	\$578,210.29	\$453,000	\$578,210.29	\$126,000	\$578,210.29	459,000	\$578,210.29	\$494,000
TOTAL	\$1,399,844.77	\$1,274,524.00	\$1,416,277.45	\$963,634.00	\$1,433,038.79	\$1,315,324.00	\$1,450,135.36	\$1,348,163.00
Net Balance*	\$125,320.77		\$452,643.45		\$117,714.79		\$101,972.36	

**Net Balance = Available funding less cost of programmed projects. A positive net balance means that available funding exceeds programmed project cost; a negative balance means that programmed project costs exceed available funding; and a zero net balance indicates that programmed project costs equal available funding.*

****** Because the MPO does not encompass Berrien County as a whole, the CMAQ funds are county wide allocation and some of the funds do come to the MPO, but not all in the form of road projects and transit projects.

Sources of Federal Transit Funding

Federal Revenue for transit comes from federal motor fuel taxes, just as it does for highway projects. Some of the motor fuel tax collected from around the country is deposited in the Mass Transit Account of the Highway Trust Fund (HTF). As of the start of fiscal year 2012 (October 1, 2011), the balance of the federal Mass Transit Account was \$7.32 billion.⁶ Federal transit funding is similar to federal highway funding in that there are several core programs where money is distributed on a formula basis and other programs that are competitive in nature. Here are brief descriptions of some of the most common federal transit programs:

Section 5307: This is one of the larger sources of transit funding that is apportioned to Michigan. Section 5307 funds can be used for:

- Capital projects
- Transit planning
- Projects eligible under the former Job Access Reverse Commute (JARC) program (intended to link people without transportation to available jobs).
- Some of the funds can also be used for operating expenses, depending on the size of the transit agency.
- One percent of funds received are to be used by the agency to improve security at agency facilities.

Distribution is based on formulas including population, population density, and operating characteristics related to transit service. Transportation Management Areas (TMAs), which are areas with populations of 200,000 or more, are given their own apportionment. Areas with population between 50,000 and 199,999, including the TwinCATS MPO, are awarded funds by the governor from the governor's apportionment.

⁶ <http://www.fhwa.dot.gov/highwaytrustfund/index.htm>.

Section 5310, Elderly and Persons with Disabilities: Funding for projects to benefit seniors and disabled persons when service is unavailable or insufficient and transit access projects for disabled persons exceeding Americans with Disabilities Act (ADA) requirements. Section 5310 incorporates the former New Freedom program. The State of Michigan allocates its funding on a per-project basis.

Section 5311, Non-Urbanized Area Formula Grant: Funds for capital, operating, and rural transit planning activities in areas under 50,000 population. Activities under the former JARC program (see Section 5307 above) in rural areas are also eligible. The state must use 15 percent of its Section 5311 funding on intercity bus transportation. The State of Michigan operates this program on a competitive basis. Agencies in the TwinCATS MPO that would be eligible for these funds include Twin Cities Area Transportation Authority (TCATA) and Berrien Bus.

Section 5337, State of Good Repair Grants: Funding to state and local governmental authorities for capital, maintenance, and operational support projects to keep fixed guideway systems in a state of good repair. Recipients will also be required to develop and implement an asset management plan. Fifty percent of Section 5337 funding will be distributed via a formula accounting for vehicle revenue miles and directional route miles; fifty percent is based on ratios of past funding received. Currently, the TwinCATS region is not eligible for these funds.

Section 5339, Bus and Bus Facilities: Funds will be made available under this program to replace, rehabilitate, and purchase buses and related equipment, as well as construct bus-related facilities. Each state will receive \$1.25 million, with the remaining funding apportioned to transit agencies based on various population and service factors. Based on guidance from MDOT personnel, the TwinCATS region is slated to receive approximately \$85,000 in 5339 funds annually. However, as of the approval date of this plan, the allocation amount has not been received officially from the state in writing.

Congestion Mitigation and Air Quality Improvement (CMAQ): Intended to reduce emissions from transportation-related sources. MAP-21 has placed an emphasis on diesel retrofits, but funds can also be used for traffic signal retiming, actuations, and interconnects; installing dedicated turn lanes; roundabouts; travel demand management such as ride share and vanpools; transit; and non-motorized projects that divert non-

recreational travel from single-occupant vehicles. CMAQ funds come to the MPO by means of a countywide allocation, since the MPO does not encompass the entire county. Therefore, there are CMAQ funds for projects in Berrien County that can be utilized for projects within the MPO. For FY 2014 Berrien County will receive an allocation of \$578,210. The distribution of the county funds are decided at publicly held county meetings, where all transit and road projects are discussed and voted upon.

Base and Assumptions Used in Forecast Calculations of Federal Transit Funds

The base for the federal portion of the transit financial forecast is the amount of federal funding each transit agency received in the region in FY 2013, the first year of MAP-21. Given the extra obligation authority available at the state level, the MTPA rates of increase were used for FY 2014, rather than the lower MAP-21 factor (1.38 percent). Table 9 shows the federal transit forecast for the FY 2014-17 TIP period.

Table 9: Federal Transit Funding Forecast

TwinCATS FY	Sec 5307	Sec 5310 (Sen/Dsbl)	Sec 5311 (Rural) Operating Funds	Sec 5339 Bus & Bus Facilities*	CMAQ Funds Berrien (Cass)	Total
2014	1,046,241	60,828	26,358	90,000	578,210	1,801,637
2015	1,060,679	61,667	26,721	91,260	578,210	1,818,537
2016	1,075,316	62,518	27,089	92,538	578,210	1,835,671
2017	1,090,155	63,380	27,462	93,832	578,210	1,853,039
Total	4,272,391	248,393	107,630	367,630	2,312,841	7,380,884

*The 5339 allocation for the TwinCATS MPO is based on guidance and preliminary documentation from MDOT.

Sources of State Transit Funding

The majority of state-level transit funding is derived from the same source as state highway funding, the state tax on motor fuels. Act 51 stipulates that 10 percent of receipts into the MTF, after certain deductions, is to be deposited in a subaccount of the MTF called the Comprehensive Transportation Fund (CTF). This is analogous to the Mass Transit Account of the Highway Trust Fund at the federal level. Additionally, a portion of the state-level auto-related sales tax is deposited in the CTF.⁷ Distributions from the CTF are used by public transit agencies for matching federal grants and also for operating expenses. Approximately \$157 million was distributed to the CTF in FY 2011.⁸

Base and Assumptions Used in Forecast Calculations of State Transit Funds

The base for calculations of state transit funds is the amount transit agencies in the TwinCATS region received in FY 2013. The CTF amounts in the TwinCATS region were not constant from 2011 to 2013 for one reason: In the past, MDOT used toll credits for transit to match capital projects, except for facility and bus projects, which were matched with cash. MDOT no longer uses toll credits to match transit projects. Funding was adjusted upward by 3.75 percent for state match and 0.37 percent for state operating in FY 2014, the first year of the TIP, and then by the same percentage in FYs 2015 through 2017, in accordance with factors determined by the Financial Workgroup and approved by the Michigan Transportation Planning Association. The state-level CTF distributions to the TwinCATS transit agencies are shown in Table 10, broken down by state match and state operating.

⁷ Hamilton, William E. *Act 51 Primer* (House Fiscal Agency, February 2007), p. 4.

⁸ MDOT Report 139 for 2011, Schedule A.

Table 10: State Transit (CTF) Revenue Projections

FY	Sec 5307 State Operating	Sec 5307 Capital	Sec 5311 (Rural) Operating Funds State	Sec 5339 Bus & Bus Facilities (State)	Total
2014	848,126	36,312	15,055	Unknown	899,493
2015	851,264	37,673	15,110	Unknown	904,047
2016	854,413	39,085	15,165	Unknown	908,663
2017	857,574	40,550	15,221	Unknown	913,345
Total	3,411,377	153,620	60,551	Unknown	3,625,548

The third column of Table 10, State Match for JARC-Type Projects, shows the maximum amount of match that the state will provide to transit agencies using some of their Section 5307 funding for projects eligible under the Job Access and Reverse Commute program. This program was a stand-alone under the old SAFETEA-LU law, but has been folded into the Sec 5307 program under MAP-21. JARC projects are intended to connect persons without an automobile to job opportunities in many parts of the region.

TRANSIT FINANCIAL FORECAST—LOCAL

Sources of Local Transit Funding

Major sources of local funding for transit agencies include farebox revenues, general fund transfers from city governments, and any transportation millages.

Base and Assumptions Used in Forecast Calculations of Local Transit Funds

The base amounts for farebox, general fund transfers, and millages are derived the MDOT Public Transportation Management System from the reconciled 2011 figures. Presuming that transit agencies spend all money that they receive each year, these data can be used for revenue projections as well. In addition, the agencies provided data on other miscellaneous funding.

Table 11: Local Transit Revenue Projections

FY TwinCATS	Berrien Bus	TCATA
2014	364,649	513,162
2015	364,649	513,162
2016	364,649	513,162
2017	364,649	513,162
TOTAL	1,458,596	2,052,648

Source: Information was gathered from the PTMS data source and the year was the 2011 reconciled report-local revenue and farebox).

Discussion of Innovative Financing Strategies--Transit

Sources of funding for transit are not limited to the federal, state, and local sources previously mentioned. As with highway funding, there are alternative sources of funding that can be utilized to operate transit service. Bonds can be issued (see discussion of bonds in the “Innovative Financing Strategies—Highway” section). The federal government also allows the use of toll credits to match federal funds. Toll credits are earned on tolled facilities, such as the Blue Water Bridge in Port Huron. Regulations allow for the use of toll revenues (after facility operating expenses) to be used as “soft match” for transit projects. Soft match means that actual money does not have to be provided—the toll revenues are used as a “credit” against the match. This allows the actual toll funds to be used on other parts of the transportation system, thus stretching the resources available to maintain the system.⁹ However, MDOT is currently not allowing toll credits to be used as match.

Transit Capital and Operations

Transit expenditures are divided into two basic categories, capital and operations.

1. *Capital* - refers to the physical assets of the agency, such as buses and other vehicles, stations and shelters at bus stops, office equipment and furnishings, and certain spare parts for vehicles.

⁹ FHWA Office of Innovative Program Delivery at http://www.fhwa.dot.gov/ipd/finance/tools_programs/federal_aid/matching_strategies/toll_credits.htm.

2. *Operations* - refers to the activities necessary to keep the system operating, such as driver wages and maintenance costs. Most expenses of transit agencies are operations expenses.

Data on capital and operating costs were derived from the 2014-2017 TIP requests from all agencies. It is also assumed that the transit agencies are spending all available capital and operations funding, so that the amount expended on these items is roughly equal to the amount available. Table 12 shows the amounts estimated to be available for transit capital and operations during the FY 2014-FY 2017 TIP period.

Table 12: Anticipated Amounts to be Expended on Transit Capital and Transit Operations

FY TwinCATS	TCATA Capital*	TCATA Operations*	Berrien Bus Capital	Berrien Bus Operations	Total
2014	0	2,204,000	0	52,060	2,256,060
2015	0	2,204,000	0	52,060	2,256,060
2016	125,000	2,204,000	0	52,060	2,381,060
2017	210,000	2,204,000	390,000	52,060	2,856,060
Total	335,000	8,816,000	390,000	208,240	9,749,240

These tables shows the total project costs for FY 2014-2017 capital and operations with federal, state, and local funds for all of the TwinCATS transit agencies.

*TCATA submitted items for expected requests for 2014 only. These figures do not reflect the true capital and operations expected to be need and received, therefore only 2014 figures were used for this specific agency. The operations figures from 2014 were simply copied into the out years of 2015-2017. The items listed in the TCATA capital come from the requested capital improvements through the CMAQ program which have been approved through the TwinCATS committee through FY 2017. It is anticipated that TCATA will submit applications for other funding years.

Transit Commitments and Projected Available Revenue

The TIP must be fiscally constrained; that is, the cost of projects programmed in the TIP cannot exceed revenues “reasonably expected to be available” during the four-year TIP period. Funding for core programs such as Section

5307, Section 5339, Section 5310, and Section 5311 are expected to be available to the region based on historical trends of funding from earlier, similar programs in past federal surface transportation laws. Likewise, state funding from the state's Comprehensive Transportation Fund (CTF), and local sources of revenue such as farebox, general fund transfers, and millages, are also expected to be available during the FY 2014 through FY 2017 TIP period. Funds from other programs are generally awarded on a competitive basis and are therefore impossible to predict. In these cases, projects are not amended into the TIP until proof of funding availability (such as an award letter) are provided. Funds from federal competitive programs are not included in the revenue forecast.

All federally-funded projects must be in the TIP. Additionally, any non-federally-funded but regionally significant project must also be included. In these cases, project submitters demonstrate that funding is available and what sources of non-federal funding are to be utilized.

Projects programmed in the TIP are known as *commitments*. As discussed previously, commitments cannot exceed funds reasonably expected to be available. Projects must also be programmed in year of expenditure dollars, meaning that they must be adjusted for inflation to reflect the expected purchasing power of a dollar in the year the project is expected to be built. The MTPA/Financial Work Group has decided on an annual inflation rate of 3.3 percent for projects over the TIP period. This means that a project costing \$100,000 in FY 2014 is expected to cost \$103,300 in FY 2015, \$106,709 in FY 2016, and \$110,230 in FY 2017. Since the amount of federal funds available is only expected to increase by 3.75 percent per year, state match funds by only 3.75 percent per year, and state operating funds by 0.37 percent per year over the four-year TIP period, this means that funding will barely keep pace with inflation. All transit projects submitted were adjusted by the submitting agency.

Table 13 shows the summary financial constraint demonstration for transit. The demonstration is provided to the Michigan Department of Transportation, Federal Highway Administration, and Federal Transit Administration in order to show that the cost of planned projects does not exceed the amount of funding reasonably expected to be available over the FY 2014 through FY 2017 TIP period.

Table 13: Transit Fiscal Constraint Demonstration

FY	Available Federal	Programmed Federal	Available State	Programmed State	Available Local	Programmed Local
2014	1,801,637	974,030	899,493	836,373	877,811	445,657
2015	1,818,537	706,030	904,047	730,373	877,811	445,657
2016	1,835,671	806,030	908,663	730,373	877,811	470,657
2017	1,853,039	874,030	913,345	730,373	877,811	445,657
Total	7,380,884	3,360,120	3,625,548	3,027,792	3,551,244	1,715,109

Analysis of Funding and Needs

While the previous tables have shown fiscal constraint; i.e., that programmed funds do not exceed available revenues, the fact remains that the needs of the transportation system substantially outweigh the funding available to address them. A brief discussion of highway funding illustrates the problem.

On a statewide basis, a study headed by Michigan Rep. Rick Olson found that approximately \$1.4 billion was needed annually through 2015 just to maintain the existing highway system. This could be expected to increase in future years to approximately \$2.6 billion annually by 2023.¹ Michigan currently receives about \$1 billion from the federal government for transportation and raises an additional \$2 billion through the MTF. After MTF deductions for administrative services and the Comprehensive Transportation Fund (transit), the state is left with approximately \$1.8 billion in state funds, so there is a total of \$2.8 billion for highways and bridges. If an additional \$1.4 billion is required to keep the system at a minimally acceptable level of service, this indicates that the state only has about two-thirds of the funding necessary *just to maintain the existing infrastructure*. Any new facilities would, of course, increase the costs of the system to higher levels.

Table 14 list the LRTP projects and the following map represents the project location.

Table 14: 2014-2017 Transportation Improvement Program Projects

Proposed Fiscal Year for Project Funding	County	Submitting Agency	Name of Project	Indicate project limits (e.g. Fair St to First St)	Length in miles	What is the primary work type for this project?	Project Description Summary	What is the project phase?	AC/ACC ?	Federal Cost	Federal Funding Source	State Cost	State Funding Source	Local Cost	Local Cost Source	Local Funding Comments	Total Project Cost	What is your MDOT job number
2014	Berrien	MDOT	I-94 WB	On I-94 WB from Red Arrow Highway (Exit 16) for 7.4 miles northeasterly to 0.5 miles northeast of Puetz Road. I-94 WB exit and entrance ramps at Exit 16 and Exit 22 extensions.	7.391	Restore and Rehabilitate	Mill existing and place two course HMA Overlay. Shoulder reconstruction. Median grading, replace or repair all culverts under I-94 WB except 84" Tanner Creek. Channel excavation of Thornton County Drain. Crown relocation to between center and outside lane. Underdrain installation. Dune grass planting. Ramp accel/decel extensions.	ROW	No	45,000	IM	5,000	M			None	15,000,000	113585
2014	Berrien	Village of Shoreham	Brown School Road	Lakeshore Drive,east to CSX railroad tracks	0.3	Reconstruct	Remove extg. road materials; lower subbase; install storm sewer, stormwater detention basin; install concrete curb & gutter; install new aggregate base and HMA surface; install sidewalks, mark bike paths on each side.	CON	No	400,000	STP - Local			99,000	Local - Village	19% match from Village	520,000	

Proposed Fiscal Year for Project Funding	County	Submitting Agency	Name of Project	Indicate project limits (e.g. Fair St to First St)	Length in miles	What is the primary work type for this project?	Project Description Summary	What is the project phase?	AC/ACC ?	Federal Cost	Federal Funding Source	State Cost	State Funding Source	Local Cost	Local Cost Source	Local Funding Comments	Total Project Cost	What is your MDOT job number
2014	Berrien	Berrien County Road Commission	Brown School Road	St. Joseph Township from Cleveland Avenue West to Village of Shoreham	0.3	Resurface	Resurface and place 5 foot wide paved shoulders.	CON	No	135,080	STP-Local			33,187	Local - Township (Specify township in Comments)	St. Joseph Charter Township	170,000	
2014	Berrien	Berrien County Road Commission	Hollywood Road	Hollywood Road: M-63 to 500 feet south of Glenlord; and Palladium Drive: Hollywood Road to 1000 feet west; and Maiden La	1.3	Restore & rehabilitate	Restore and rehabilitate	CON	ACC	286,444	STP-Any Area					Berrien County Road Commission	714,416	112091
2015	Berrien	MDOT	I-94	Urban: Empire Road over I-94, 1.7 mile E of Benton Harbor. Rural: Carmody Road over I-94, 2.3 miles E of I-196. County Line Road over I-94, 8.6 miles E of I-196	2.643	Bridge - other	Concrete Shallow overlay, Beam and substructure repair, Paint bearings, Joints, Railing retrofit, and approaches	CON	No	511,520	IM	56,836	M			None	1,937,326	110931
2015	Berrien	MDOT	US-31	at Napier Avenue	0.000	Roadside Facility	Carpool Lot Expansion and Resurface	PE	No	8,185	STP-State	1,815	M	\$ -		None	97,000	116509

Proposed Fiscal Year for Project Funding	County	Submitting Agency	Name of Project	Indicate project limits (e.g. Fair St to First St)	Length in miles	What is the primary work type for this project?	Project Description Summary	What is the project phase?	AC/ACC ?	Federal Cost	Federal Funding Source	State Cost	State Funding Source	Local Cost	Local Cost Source	Local Funding Comments	Total Project Cost	What is your MDOT job number
2015	Berrien	MDOT	I-94	Urban: Empire Road over I-94, 1.7 mile E of Benton Harbor. Rural: Carmody Road over I-94, 2.3 miles E of I-196. County L	2.6	Bridge - other	Concrete Shallow overlay, Beam and substructure repair, Paint bearings, Joints, Railing retrofit, and approaches.	CON	No	1,611,593	IM	179,067	State Funds - Michigan Betterment	\$ -		None	1,937,326	110931
2015	Berrien	Berrien County Road Commission	Marquette Woods Road Resurfacing, St. Joseph Ave to Roosevelt Rd	St. Joseph Ave. East to Roosevelt Rd.	0.5	Restore & rehabilitate	Improve the existing pavement section from the existing 22 feet edge to edge to 32 feet wide hot mix asphalt paved section including 8 foot shoulders consisting of 5 feet paved and 3 foot aggregate. Additionally, concrete sidewalks will be completed on both north and south sides or Marquette Woods Road to facilitate all modes of pedestrian traffic.	CON	No	407,000	STP-Local	\$ -		101,400	Local - Township	Lincoln Charter Township	498,710	

Proposed Fiscal Year for Project Funding	County	Submitting Agency	Name of Project	Indicate project limits (e.g. Fair St to First St)	Length in miles	What is the primary work type for this project?	Project Description Summary	What is the project phase?	AC/ACC ?	Federal Cost	Federal Funding Source	State Cost	State Funding Source	Local Cost	Local Cost Source	Local Funding Comments	Total Project Cost	What is your MDOT job number
2015	Berrien	City of St. Joseph	Botham Avenue Reconstruction Project	Botham Avenue - Niles Avenue (M-63) to Morton Avenue	0.3	Reconstruct	Full reconstruction of Botham Avenue from Niles Road to Morton Avenue. Work is anticipated to include new utilities: storm sewer, sanitary sewer and water main. Existing concrete pavement with curb and gutter will be replaced with HMA pavement and curb and gutter or concrete curb and gutter, dependent upon which option is the most cost effective. Sidewalk ramps will be replaced to meet current standards.	CON	AC	430,634	STP - Local	\$ -		1,017,200	Local - City	AC: St. Joseph	1,343,300	

Proposed Fiscal Year for Project Funding	County	Submitting Agency	Name of Project	Indicate project limits (e.g. Fair St to First St)	Length in miles	What is the primary work type for this project?	Project Description Summary	What is the project phase?	AC/ACC ?	Federal Cost	Federal Funding Source	State Cost	State Funding Source	Local Cost	Local Cost Source	Local Funding Comments	Total Project Cost	What is your MDOT job number
2016	Berrien	MDOT	I-94 WB	On I-94 WB from Red Arrow Highway (Exit 16) for 7.4 miles northeasterly to 0.5 miles northeast of Puetz Road. I-94 WB exit and entrance ramps at Exit 16 and Exit 22. extensions.	7.391	Restore and Rehabilitate	Mill existing and place two course HMA Overlay. Shoulder reconstruction. Median grading, replace or repair all culverts under I-94 WB except 84" Tanner Creek. Channel excavation of Thornton County Drain. Crown relocation to between center and outside lane. Underdrain installation. Dune grass planting. Ramp accel/decel extensions.	CON	No	11,655,000	IM	1,295,000	M			None	15,000,000	113585
2016	Berrien	MDOT	US-31	at Napier Avenue	0.000	Roadside Facility	Carpool Lot Expansion and Resurface	CON	No	63,025	STP-State	13,975	M			None	97,000	116509

Proposed Fiscal Year for Project Funding	County	Submitting Agency	Name of Project	Indicate project limits (e.g. Fair St to First St)	Length in miles	What is the primary work type for this project?	Project Description Summary	What is the project phase?	ACC/ACC ?	Federal Cost	Federal Funding Source	State Cost	State Funding Source	Local Cost	Local Cost Source	Local Funding Comments	Total Project Cost	What is your MDOT job number
2016	Berrien	City of St. Joseph	Botham Avenue Reconstruction Project	Botham Avenue - Niles Avenue (M-63) to Morton Avenue	0.3	Reconstruct	Full reconstruction of Botham Avenue from Niles Road to Morton Avenue. Work is anticipated to include new utilities: storm sewer, sanitary sewer and water main. Existing concrete pavement with curb and gutter will be replaced with HMA pavement and curb and gutter or concrete curb and gutter, dependent upon which option is the most cost effective. Sidewalk ramps will be replaced to meet current standards.	CON	ACC	205,333	STP - Local				Local - City	ACC: St. Joseph	1,343,300	
2016	Berrien	MDOT	I-94 WB	Red Arrow Highway (Exit 16) to I-94 BL (Exit 23)	7.4	Restore & rehabilitate	Mill Existing and Multiple Course HMA Overlay	CON	No	11,655,000	IM	1,295,000	State Funds - Michigan Betterment			None	15,000,000	113585
2016	Berrien	MDOT	US-31	at Napier Avenue	0	Roadside facility	Carpool Lot Expansion and Resurface	CON	No	63,025	STP-State	13,975	State Funds - Michigan Betterment		Local - City	None	97,000	116509
2016	Berrien	Berrien County Road Commission	Shawnee Road Jericho to Date	Jericho to Date	0.5	Resurface	5 foot wide paved shoulders and resurfacing	CON	No	373,658	STP-Local			91,066	Local - Township	Lake Charter Township	450,000	

Proposed Fiscal Year for Project Funding	County	Submitting Agency	Name of Project	Indicate project limits (e.g. Fair St to First St)	Length in miles	What is the primary work type for this project?	Project Description Summary	What is the project phase?	AC/ACC ?	Federal Cost	Federal Funding Source	State Cost	State Funding Source	Local Cost	Local Cost Source	Local Funding Comments	Total Project Cost	What is your MDOT job number
2016	Berrien	City of Benton Harbor	Colfax Avenue Resurfacing	May St to Britain Ave	0.8	Resurface	Cold mill and resurface Colfax Avenue from May St to Britain Avenue including ADA ramp replacements and minor drainage improvements.	CON	No	277,333	STP - Local			69,066	Local - City	Benton Harbor	340,000	
2017	Berrien	Berrien County Road Commission	John Beers Road: Hollywood Road West to Township Line	Hollywood Road thence West 0.51 Miles to West Township Line	0.5	Resurface	Resurface existing pavement that already has 4 foot wide paved shoulders.	CON	No	192,163	STP-Local			46,600	Local - Township	Royalton Township	225,000	
2017	Berrien	Berrien County Road Commission	Hilltop Road	St. Joseph Township ! M-63 to CSX Railroad	0.6	Miscellaneous	Hot patch and micro surface	CON	No	652,000	STP-Local			130,400	Local - Township	St. Joseph Charter Township	160,000	
2014	Berrien	Berrien County Transportation (Berrien Bus)	Rural Operating Funds	Rural Portions of TwinCATS MPO Area		Transit Operations	Public Transit Operations	T-Ops	No	26,030	5311	26,030	M	-		None	52,060	
2015	Berrien	Berrien County Transportation (Berrien Bus)	Rural Operating Funds	Rural Portions of TwinCATS MPO Area		Transit Operations	Public Transit Operations	T-Ops	No	26,030	5311	26,030	M			None	52,060	

Proposed Fiscal Year for Project Funding	County	Submitting Agency	Name of Project	Indicate project limits (e.g. Fair St to First St)	Length in miles	What is the primary work type for this project?	Project Description Summary	What is the project phase?	AC/ACC ?	Federal Cost	Federal Funding Source	State Cost	State Funding Source	Local Cost	Local Cost Source	Local Funding Comments	Total Project Cost	What is your MDOT job number
2016	Berrien	Berrien County Transportation (Berrien Bus)	Rural Operating Funds	Rural Portions of TwinCATS MPO Area		Transit Operations	Public Transit Operations	T-Ops	No	26,030	5311	26,030	M			None	52,060	
2017	Berrien	Berrien County Transportation (Berrien Bus)	Rural Operating Funds	Rural Portions of TwinCATS MPO Area		Transit Operations	Public Transit Operations	T-Ops	No	26,030	5311	26,030	M			None	52,060	
2014	Berrien	TCATA	Public Transportation	Benton Harbor, St. Joseph, Benton Township		Transit operations	Bus operation	T-Ops	No	680,000	5307	704,343	CTF	445,657	Local - Transit Authority Funds	farebox and millage from City of Benton Harbor	1,830,000	
2014	Berrien	TCATA	New Line haul	Benton Harbor, St. Joseph, Benton Township,		Transit operations	It's a commuter route that takes low income passengers to an area that has potentially 70 employees	T-Ops	No	106,000	5316	106,000	CTF					
2014	Berrien	TCATA	Expanded Hours	Benton Harbor, St. Joseph, Benton Township		Transit operations	Provide fixed route service during times beyond the normal systems service hours	T-Ops	No	87,000	5316		CTF					
2014	Berrien	TCATA	Mobility Manager	Benton Harbor, St. Joseph, Benton Township		Transit operations	Mobility Manager to coordinate transportation for the disabled passengers	T-Ops	No	75,000	5317		CTF					

Proposed Fiscal Year for Project Funding	County	Submitting Agency	Name of Project	Indicate project limits (e.g. Fair St to First St)	Length in miles	What is the primary work type for this project?	Project Description Summary	What is the project phase?	AC/ACC ?	Federal Cost	Federal Funding Source	State Cost	State Funding Source	Local Cost	Local Cost Source	Local Funding Comments	Total Project Cost	What is your MDOT job number
2016	Berrien	TCATA	Replacement Buses	Benton Harbor, St. Joseph, Benton Township		Transit Vehicle Replacements/Additions	Bus Replacement - replace two (2) 2010 cutaway buses with a 2016 or newer cutaway bus	T-Cap	No	100,000	CM		CTF	25,000	Local Transit Authority Funds	Farebox and Millage from City of Benton Harbor	125,000	
2017	Berrien	TCATA	Replacement Buses	Benton Harbor, St. Joseph, Benton Township		Transit Vehicle Replacements/Additions	Bus Replacement - replace three (3) 2010 cutaway buses with a 2016 or newer cutaway bus	T-Cap	No	168,000	CM	0	CTF	\$42,000	Local Transit Authority Funds	farebox and millage from City of Benton Harbor	210,000	
2017	Berrien	Berrien Bus	Replacement Buses	Rural Portions of TwinCATS MPO Area		Transit Vehicle Replacements/Additions	Bus Replacement - replace four (4) less than 30' small buses with four (4) 2017 or newer less than 30' small buses	T-Cap	No	312,000	CM	78,000	CTF				390,000	
2015	Berrien	Berrien County Road Commission	Napier Avenue at Pipestone St.	Benton Harbor		Traffic Signal Upgrade	Traffic signal modernization including removal of existing signals and new mast arms, LED traffic signals, video detection, base mount controller & cabinet, sidewalk ramp upgrades, and preparations for corridor-wide interconnection	Tr-Ops	No	160,000	CM						160,000	

Proposed Fiscal Year for Project Funding	County	Submitting Agency	Name of Project	Indicate project limits (e.g. Fair St to First St)	Length in miles	What is the primary work type for this project?	Project Description Summary	What is the project phase?	AC/ACC ?	Federal Cost	Federal Funding Source	State Cost	State Funding Source	Local Cost	Local Cost Source	Local Funding Comments	Total Project Cost	What is your MDOT job number
2014	Berrien	Berrien County Road Commission	Napier Avenue at Union St	Benton Harbor		Traffic Signal Upgrade	Traffic signal modernization including removal of existing signals and new mast arms, LED traffic signals, video detection, base mount controller & cabinet, sidewalk ramp upgrades, and preparations for corridor-wide interconnection	Tr-Ops	No	225,000	CM						225,000	
2015	Berrien	Lincoln Charter Township	Roosevelt Road	From Hidden Pines trail South 1700 Ft		Non-motorized Improvements	1,700 lineal feet of 10 ft. wide, HMA non-motorized trail parallel to existing roadway. Work includes tree removal, machine grading, sand subbase, agg base, HMA surface, striping, detectable warning strips.	Ped/Bike	No	101,000	CM			25,250			126,250	

Proposed Fiscal Year for Project Funding	County	Submitting Agency	Name of Project	Indicate project limits (e.g. Fair St to First St)	Length in miles	What is the primary work type for this project?	Project Description Summary	What is the project phase?	AC/ACC ?	Federal Cost	Federal Funding Source	State Cost	State Funding Source	Local Cost	Local Cost Source	Local Funding Comments	Total Project Cost	What is your MDOT job number
2014	Berrien	Benton Harbor	Pipestone St at Empire Avenue	Benton Harbor		Traffic Signal Upgrade	Traffic signal modernization including removal of existing signals and new mast arms, LED traffic signals, video detection, base mount controller & cabinet, sidewalk ramp upgrades, and preparations for corridor-wide interconnection	Tr-Ops	No	220,000	CM						220,000	
2015	Berrien	Benton Harbor	Pipestone St at Britain Avenue	Benton Harbor		Traffic Signal Upgrade	Traffic Signal improvements including new controller, video detection, conduits and fiber optic cable, and other preparations for corridor-wide interconnection	Tr-Ops	No	116,000	CM						116,000	
2016	Berrien	Benton Harbor	Pipestone St at Wall St	Benton Harbor		Traffic Signal Upgrade	Traffic Signal improvements including new controller, video detection, and preparations for corridor-wide interconnection	Tr-Ops	No	65,000	CM						65,000	

Proposed Fiscal Year for Project Funding	County	Submitting Agency	Name of Project	Indicate project limits (e.g. Fair St to First St)	Length in miles	What is the primary work type for this project?	Project Description Summary	What is the project phase?	AC/ACC ?	Federal Cost	Federal Funding Source	State Cost	State Funding Source	Local Cost	Local Cost Source	Local Funding Comments	Total Project Cost	What is your MDOT job number
2017	Berrien	Benton Harbor	Pipestone St at Jefferson St	Benton Harbor		Traffic Signal Upgrade	Traffic signal modernization including removal of existing signals and new mast arms, LED traffic signals, video detection, base mount controller & cabinet, sidewalk ramp upgrades, and other preparations for corridor-wide interconnection	Tr-Ops	No	240,000	CM						240,000	
2017	Berrien	Benton Harbor	Pipestone St at Market St	Benton Harbor		Traffic Signal Upgrade	Traffic Signal improvements including new controller, video detection, conduits and fiber optic cable, and final preparations for corridor-wide interconnection	T-Ops	No	209,000	CM						209,000	

Map 2: TwinCATS TIP Project Locations

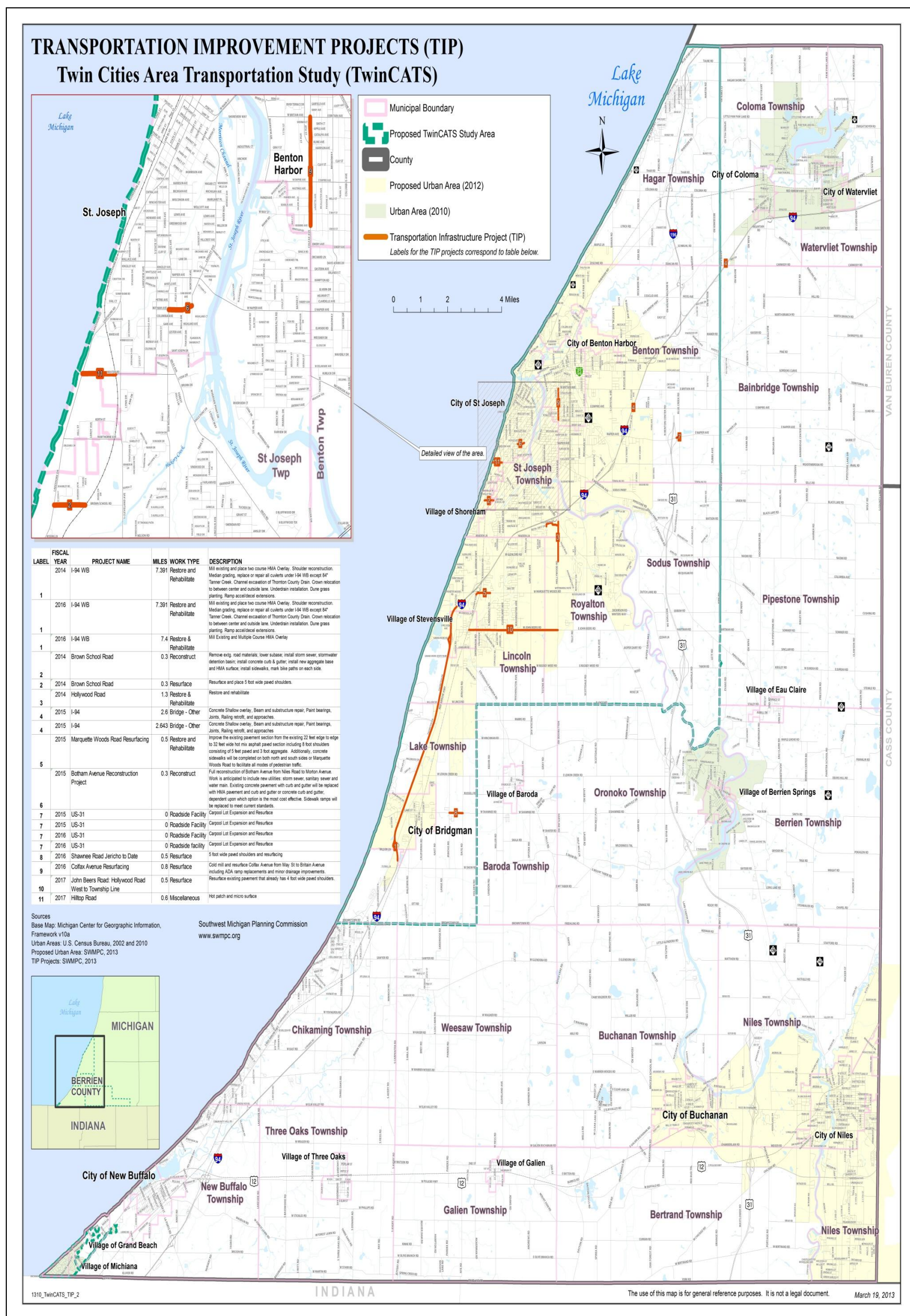


Table 15 shows the projects that are on the illustrative list for the TIP. The “Illustrative List” is essentially a wish list; it consists of projects that are desired by MPO member jurisdictions as part of the TIP planning process, but nevertheless were not programmed in the 2014-2017 TIP due to funding constraints and necessary MPO project prioritization. These projects may be programmed if new funds become available during this TIP cycle.

Table 15: Illustrative List Projects

Name/Location of Project	Submitting Agency	Indicate project limits (e.g. Fair St to First St)	Length in miles	What is the primary work type for this project?	Project Description Summary	Federal Cost	Federal Funding Source	Local Cost	Local Funding Source
Red Arrow Highway	City of Bridgman	South City limits to North City limits.	1.7	Resurface	Cold milling and resurfacing of Red Arrow Hwy from the south City limits to the north City limits, including miscellaneous sidewalk and curb and gutter replacement, ADA ramps, and pavement markings. The roadway through this area is experiencing moderate transverse cracking, minor rutting and joint deterioration.	727,200	STP-Local	181,800	Local-City
Hollywood Road: Marquette Woods Road to Glenlord Road	Berrien County Road Commission	Marquette Woods Road to Glenlord Road	1.1	Restore & rehabilitate	Restore and add 5 foot wide paved shoulders	798,038	STP-Local	176,962	Local-Township
Marquette Woods Road Resurfacing	Berrien County Road Commission	Roosevelt Rd. to Cleveland Ave.	0.5 mi	Restore and Rehabilitate	Improve the existing pavement section from the existing 22 feet edge to edge to 32 feet wide hot mix asphalt paved section including 8 foot shoulders consisting of 5 feet paved and 3 foot aggregate.	345,000	STP-Local	86,000	Local-Township
Marquette Woods Road Resurfacing	Berrien County Road Commission	Cleveland Ave. to Washington Ave.	0.5 mi	Restore and Rehabilitate	Improve the existing pavement section from the existing 22 feet edge to edge to 32 feet wide hot mix asphalt paved section including 8 foot shoulders consisting of 5 feet paved and 3 foot aggregate.	353,000	STP-Local	88,000	Local Township

Name/Location of Project	Submitting Agency	Indicate project limits (e.g. Fair St to First St)	Length in miles	What is the primary work type for this project?	Project Description Summary	Federal Cost	Federal Funding Source	Local Cost	Local Funding Source
Broadway Avenue Resurfacing	City of Benton Harbor	Pipestone Avenue to Empire Avenue	0.8	Resurface	Cold milling and resurfacing Broadway Avenue from Pipestone Avenue to Empire Avenue.Reconstruct ADA ramps with minor drainage improvements along with new pavement markings delineating on street bike lanes.	250,000	STP-Local	50,000	Local-City
Shawnee Road	Berrien County Road Commission	City of Bridgman to Jericho Road	0.5	Resurface	5 foot wide paved shoulders and resurfacing	368,325	STP-Local	81,675	Local-Township
Pipestone avenue Resurfacing	City of Benton Harbor	50 South of Main St to Britain Avenue	0.6	Resurface	Cold mill and resurface Pipestone Avenue from Main St to Britain Avenue with ADA ramp improvements and minor drainage improvements.	288,000	STP-Local	72,000	Local-City
Lakeview Avenue Resurfacing Project	City of Saint Joseph	Lakeview Avenue - Hilltop Road to West Highland Avenue.	0.4	Resurface	Cold Milling and HMA Overlay of Lakeview Avenue from Hilltop Road to West Highland Avenue. Storm sewer to be constructed in green space requiring removal and replacement of sidewalk in those locations. Sidewalk ramps will be replaced as needed to meet current standards.	421,000	STP-Local	196,300	Local-City
Fairplain Drive and Mall Drive	Berrien County Road Commission	M-139 to Pipestone Road	1.2	Restore & rehabilitate	Mill and Fill HMA pavement and construct sidewalks on both sides of road where feasible.	1,178,640	STP-Local	261,360	Local- City
John Beers Road: Hollywood to Scottdale	Berrien County Road Commission	Hollywood Road to Scottdale Road	1.1	Restore & rehabilitate	Widen for 5 foot wide paved shoulders and resurface.	392,880	STP-Local	87,120	Local-Township
Lincoln Avenue	Berrien County Road Commission	St. Joseph Charter Township: M-63 to Maiden Lane	1.5	Resurface	Hot patch and Micro surface	130,960	STP-Local	29040	Local-Township

Name/Location of Project	Submitting Agency	Indicate project limits (e.g. Fair St to First St)	Length in miles	What is the primary work type for this project?	Project Description Summary	Federal Cost	Federal Funding Source	Local Cost	Local Funding Source
Shawnee Date to Holden	Berrien County Road Commission	Date to Holden	0.5	Resurface	5 foot wide paved shoulders and resurfacing	368325	STP-Local	81675	Local-Township
Wallace Avenue Reconstruction Project	City of St. Joseph	Wallace Avenue - Lakeshore Drive (I94-BL) to South State Street.	0.4	Reconstruct	Reconstruction of Wallace Avenue from Lakeshore Drive to South State Street including HMA pavement, curb and gutter, storm sewer, sanitary sewer, and water main. Sidewalks and sidewalk ramps will be replaced as needed to meet current ADA standards. NOTE: Illustrative List 2018 Construction.	600,700	STP-Local	824,700	Local-City
Hilltop Road Resurfacing Project	City of St. Joseph	Hilltop Road - Lakeshore Drive (I94-BL) to CSX Railroad Tracks.	0.3	Resurface	HMA milling and resurfacing of Hilltop Avenue from Lakeshore Drive (I94-BL) east to CSX RR Tracks.	266,300	STP-Local	124,000	Local-City
Langley Avenue Resurfacing Project	City of St. Joseph	Langley Avenue - Pearl Street to Napier Avenue	0.8	Resurface	HMA milling and resurfacing of Langley Avenue from Napier Avenue to Pearl Street. Sidewalk ramps will be replaced to meet current ADA standards.	681,000	STP-Local	317,400	Local-City
Water Street Reconstruction Project	City of St. Joseph	Water Street - State Street to Vine Street.	0.1	Reconstruct	Reconstruction of Water Street from State Street to Vine Street. Sidewalk ramps will be replaced to meet current ADA standards.	199,800	STP-Local	213,400	Local-City

AIR QUALITY ANALYSIS

1990 FEDERAL CLEAN AIR ACT AMENDMENTS

The 1990 Federal Clean Air Act Amendments (CAAA) identified six pollutants for which air quality standards were established: Ozone (O₃), carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), “respirable” or breathable particulate matter (PM), and lead (Pb). Each one of these pollutants has benchmark levels that are considered allowable for public exposure. Beyond those benchmark levels, the air quality for that constituent pollutant is considered dangerous. The EPA has termed these national standards as “national ambient air quality standards,” or NAAQS. Transportation contributes to four of the six criteria pollutants: O₃, CO, PM,



St. Joseph River, Benton Harbor

and NO₂. Ozone is formed when volatile organic compounds (VOC) and oxides of nitrogen (NO_x) combine with sunlight and high temperatures. One way to reduce the amount of Ozone is to reduce the amount of VOC and NO_x which are produced in the region. VOC and NO_x emissions originate, in part, from highway motor vehicles and can be reduced by decreasing congestion such as ridesharing and/or providing for alternatives to the automobile, such as public transit.

In addition to establishing benchmark levels of exposure to pollutants, the CAAA of 1990 required that transportation plans and TIPs in non-attainment areas demonstrate "conformity" to the State Implementation Plan (SIP), which is intended to ensure that the state meets the National Ambient Air Quality Standards (NAAQS). In other words, transportation projects, such as the construction of highways and transit rail lines cannot be federally funded or approved unless they are consistent with state air quality goals. In addition, transportation projects must not cause or contribute to new violations of the air quality standards, worsen existing violations, or delay attainment of air quality standards.

CHANGES TO THE FEDERAL CLEAN AIR ACT

- In 1997, the standard for fine breathable particulate matter (PM) was increased to 2.5 microns (PM_{2.5}), and a more rigorous 8-hour ozone testing standard replaced the previous 1-hour ozone testing standard. In 2001, the U.S. Supreme Court upheld the constitutionality of the new EPA standards.
- March 12, 2008, the EPA announced a new primary 8-hour ozone standard of 0.075 parts per million (ppm), down from the previous .085 ppm.
- May 21, 2012, Federal Register notice, (77FR 30160), revoked the 1997 ozone standard for transportation conformity purposes only.

IMPACT TO STATE OF MICHIGAN AND TWINCATS STUDY AREA

In a letter dated April 30, 2012 from Lisa P. Jackson of the U.S. Environmental Protection Agency to Governor Rick Snyder stated that “I am pleased to inform you that no areas in Michigan violate the 2008 standards or contribute to a violation of the ozone standards in a nearby area. As a result, the EPA is designating all of Michigan ‘unclassifiable/attainment’.” See Appendix G.

According to an MDOT Office Memorandum from Pete Porciello dated June 14, 2012 (See Appendix G), “After July 2013, conformity analysis will no longer need to be demonstrated unless new designations of nonattainment occur. The next time standards will be revised will be in 2013 or early 2014. Conformity requirements for nonattainment areas would begin within 1 year after the standard is published for any areas that are in nonattainment (sometime before 2015). Michigan is in attainment for the following national ambient air quality standards,”

- Nitrogen Dioxide,
- Carbon Monoxide,
- Particulate Matter less than 10 microns (PM₁₀),
- Lead (Pb)
- Sulfur Dioxide (SO₂)

Correspondence from Andy Pickard, FHWA Transportation Planning Team Leader, to Dave Wresinski, MDOT Director stated that the May 21, 2012 Federal Register notice only partially revoked the 1997 ozone

standard, and that those areas in nonattainment or maintenance status for the 1997 standard have not changed. However, MPOs, such as TwinCATS, that have long range transportation plans and transportation improvement programs due in 2013 that were previously classified nonattainment are exempt from demonstrating conformity if updated plans are due or approved after July 20, 2013. Therefore, TwinCATS does not need to demonstrate air quality conformity or perform an air quality analysis for this 2013-2040 long range transportation plan update. See Appendix G.

DRAFT

ENVIRONMENTAL JUSTICE

Environmental Justice (EJ) is a federal directive (Executive Order 12898, enacted in 1994) requiring all federal programs to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects as the result of its programs, policies, and activities on minority populations and low-income populations. Populations that require special consideration include historically marginalized groups such as African Americans, Asian Americans, Hispanic or Latino Americans, Native Americans and low-income households.

In addition to the general EJ mandate, the US DOT published its own Order (5610.2) in the Federal Register on April 15, 1997. This Order requires the incorporation of EJ principles in all US DOT programs, policies and activities. The US DOT integrates the goals of the Executive Order through a process developed within the framework of existing requirements, primarily the National Environmental Policy Act of 1969 (NEPA), Title VI of the Civil Rights Act of 1964 (to ensure that no person is excluded from participation in, denied the benefits of, or is subjected to, discrimination).

Within the TwinCATS area, efforts are undertaken to ensure that transportation system improvements that are implemented do not have disproportionately negative effects on minority and low-income populations. In addition, system investments must provide for an equitable distribution of benefits to areas that are traditionally underrepresented in the planning process. Transportation projects may bring new benefits in terms of greater connectivity to destinations and faster, safer travel. At the same time, these projects can also bring new concerns with increased noise, air pollution, or impediments during construction processes. In order to ensure that transportation investments in the TwinCATS equitably benefit on all of the region's diverse populations, and that they do not have a disproportionately adverse impact on any of these populations, SWMPC undertook procedures listed in the methodology section below.

METHODOLOGY TO IDENTIFY ENVIRONMENTAL JUSTICE POPULATIONS

In June of 2007, SWMPC revisited its procedures for identifying TwinCATS EJ Populations. Staff turned to representatives from MDOT to determine the procedures used at the state level for EJ analysis. The methodology described below outlines the procedures used for TwinCATS EJ analysis and parallels what is being used by the State of Michigan.

Minority group population numbers were assembled from the following 2010 US Census sources:

1. Total Population (Summary File 1, Table 1);
2. Black or African American alone (Summary File 1, P3);
3. American Indian and Alaskan Native alone (Summary File 1, P3);
4. Asian alone (Summary File 1, P3); and
5. Hispanic or Latino (Summary File 1, P5).

All but Hispanic or Latino population numbers were drawn from populations of one race. Since the US Census does not consider Hispanic or Latino to be a race designation, there will be, by definition, individuals who identified themselves as two or more races within the Hispanic or Latino designation.

Low-income population numbers were drawn from the following 2011 American Community Survey (ACS) sources:

1. Population for whom poverty status is determined (ACS 2007-2011 5-Year Estimates, Table S1701) and
2. Population for whom annual income was below poverty level (ACS 2007-2011 5-Year Estimates, Table S1701).

The 2010 US Census did not include a “long form”, where questions about income had been asked in Census 2000 and prior decennial census datasets. Instead, the American Community Survey, which helps the Census Bureau collect data continuously, now measures income in its questionnaire.

5-Year Estimates were used because they provide a large enough sample for the Census Bureau to report data at the Census Block Group level in our region.

Census Block Groups are also the smallest geographic summary area for which race and poverty data are available. At the block group level, individual concentrations of population can be more carefully identified.

To determine whether a census block group constituted an “EJ area”, SWMPC calculated the percentage of the total population in each census block group that belonged to each of the designated EJ groups. The percentage of the population that belonged to each EJ group was then compared to the proportion of the overall population of Michigan that the group constitutes. SWMPC then created maps for each of the EJ groups, shading areas where the concentration of that particular EJ group was higher than the proportion that the group represents of the state of Michigan’s overall population.

For example, people who identify as African American made up 14.6% of the total population of Michigan. The Environmental Justice analysis map of the African-American population would show shading for those block groups that had greater than 14.6% of their population who identified as African American.

The EJ maps were then overlayed with the 2014-2017 TIP and LRTP project location information to determine potential impacts to EJ populations. These maps can be found in Appendix A.

CONCLUSION

After reviewing the EJ maps with the project locations, it has been determined that there will be no disproportionately adverse effects on EJ targeted populations and that EJ populations have not been excluded from the benefits to be derived from projects in their area. Most local projects programmed in TwinCATS have a goal of preservation and maintenance, thus avoiding negative environmental consequences associated with new construction. It should be noted that only roadway projects were mapped here. The proposed new line haul route for TCATA was not mapped, as the final route configuration has yet to be worked out. Depending on its location, the new route could significantly benefit EJ populations. In addition, several other projects such as the mobility manager have no specific geographic location within

the TwinCATS region and therefore could not be mapped. The mobility manager assists with outreach to transit dependent populations, which may include certain segments of the EJ populations.

In addition, traffic signal upgrades were not mapped, as this would potentially lead to the maps becoming far too cluttered and confusing. There are traffic signal upgrades programmed in both EJ and non-EJ areas, demonstrating that the efficiency and air quality benefits of these projects will be derived regionally.

DRAFT

PUBLIC INVOLVEMENT AND CONSULTATION

PUBLIC INVOLVEMENT

Notices indicating a public comment period for the LRTP projects were sent via e-mail and postal mail (see Appendix D for copy of notices) to local media, local governments, schools, human service organizations, and some members of the general public, all from the SWMPC contacts database. Members of the public were invited to the initial public outreach meeting on February 25, 2013. The formal comment period began April 1 and ended on April 11, 2013. The notice to the public contained detailed dates, times, and locations of the meetings at which public comment on the LRTP projects would be accepted, and described how to comment on the LRTP projects if meeting attendance was not an option. Please see Appendix B for public notices. The public had the opportunity to comment in person at the regular TwinCATS Technical Advisory Committee meeting on April 15, 2013 at 9:30 a.m. at Southwest Michigan Regional Airport or by submitting an e-mail or letter using the following contact information:

Southwest Michigan Planning Commission

185 E Main St

Benton Harbor, MI 49022

manig@swmpc.org; flowers@swmpc.org

(269)-925-1137 (x24) (x17)

CONSULTATION

Previous transportation legislation, SAFETEA-LU, required that MPOs use a consultation process, which is a separate and discrete process from the general public participation process, this process was continued with MAP-21 legislation. This process is meant as a way to better consider the needs of consulted agencies and

to eliminate or minimize conflicts with other agencies' plans. By consulting with agencies in this manner during the development of this plan, these groups can compare potential project lists and maps with other natural and resource inventories. The MPO will be able to compare the Draft LRP to any documents received and make adjustments as necessary to achieve great compatibility.

Legislation suggests that contacts with State, local, Indian Tribes, and private agencies responsible for the following areas be contacted:

- Economic growth and development
- Environmental protection
- Airport operators
- Freight movement
- Land use management
- Natural resources
- Conservation
- Historical preservation
- Human service transportation providers

Because the SWMPC is both a regional planning agency and a MPO, relationships with agencies responsible for cultural, land use, and environmental planning are already established. The SWMPC has a wide range of planning expertise which regularly cross-cuts with transportation planning. Expanding the scope of transportation planning to ensure the inclusion of the range of stakeholders and partners will only enhance the quality of the region's transportation plans and projects.

Agencies with which the SWMPC requested consultation were sent the following in the mail:

1. A letter explaining the transportation planning consultation process according to MAP-21 legislation.
2. The TWINCATS role in this process.
3. A draft list of 2040 LRP proposed transportation projects.
4. A map displaying proposed projects.
5. Directions on how they might provide their input.

The Consultation List is presented in Table 16.

Table 16: Consultation List

Contact	Specification	City	State
Abonmarche Consultants, Inc.		Benton Harbor	MI
Area Agency on Aging Region VI		St Joseph	MI
Benton Charter Township		Benton Harbor	MI
Benton Harbor Area Schools	High School	Benton Harbor	MI
Berrien Bus		Berrien Springs	MI
Berrien Co. Community Development		St. Joseph	MI
Berrien County	Road Commission	Benton Harbor	MI
Berrien County	Parks & Recreation	St. Joseph	MI
Berrien County	Administration	St. Joseph	MI
Berrien County Board of Commissioners		St. Joseph	MI
Berrien County Conservation District		Berrien Springs	MI
Berrien County Drain Commissioner		St. Joseph	MI
Berrien County Historical Association		Berrien Springs	MI
Berrien County Planning Commission		St. Joseph	MI

Berrien County Public Transit		Berrien Springs	MI
Berrien Regional Education Service Agency		Berrien Springs	MI
Berrien Springs Public Schools	High School	Berrien Springs	MI
Bridgman Public Schools	High School	Bridgman	MI
CARE-A-VAN		Coloma	MI
Chikaming Open Lands		Lakeside	MI
City of Benton Harbor	Dept of Public Works	Benton Harbor	MI
City of Benton Harbor	Economic Development	Benton Harbor	MI
City of Bridgman		Bridgman	MI
City of New Buffalo		New Buffalo	MI
City of St Joseph		St Joseph	MI
Coloma/Watervliet Area Chamber of Commerce		Coloma	MI
Consumer's Energy Inc		Covert	MI
Consumers Power Company		Kalamazoo	MI
Cornerstone Alliance		Benton Harbor	MI
Countryside Academy		Benton Harbor	MI

Department of Human Services	Berrien County	Benton Harbor	MI
Disability Network of SW MI - Berrien/Cass		St Joseph	MI
Eau Claire Public Schools	High School	Eau Claire	MI
Federal Highway Administration	Michigan Division	Lansing	MI
Friends of Harbor Country Trails			MI
Friends of the St Joseph River		Athens	MI
Hagar Township		Riverside	MI
Lake Charter Township		Bridgman	MI
Lakeshore Public Schools	Administration	Stevensville	MI
Lakeshore Public Schools	High School	Stevensville	MI
Lincoln Charter Township		Stevensville	MI
Mary's City of David		Benton Harbor	MI
MDEQ	Head Quarters	Lansing	MI
MDEQ	Air Quality Division	Lansing	MI
MDEQ	Surface Water Quality Division	Plainwell	MI
MDEQ Kalamazoo	Water Division	Kalamazoo	MI
MDOT	Coloma TSC	Benton Harbor	MI
MDOT	Southwest Region	Kalamazoo	MI

MDOT	Bureau of Transportation Planning	Lansing	MI
MDOT	Intermodal Section	Lansing	MI
MDOT	Multi-Modal Transportation Services Bureau	Lansing	MI
MDOT	Non-Motorized Transportation	Lansing	MI
MDOT	Passenger Transportation Division	Lansing	MI
MDOT	Statewide Planning	Lansing	MI
MDOT	Urban/Public Transportation	Lansing	MI
MDOT	Intermodal Section	Lansing	MI
MDOT	Bureau of Transportation Planning	Lansing	MI
Merritt Engineering Inc		Stevensville	MI
MI Dept of Agriculture	Environmental Stewardship Division	Lansing	MI
MI Dept of Agriculture & Rural Development		Lansing	MI
MI Dept of Natural Resources	Lansing	Lansing	MI
MI Dept of Natural Resources	Plainwell	Plainwell	MI
MI Dept of Natural Resources	Plainwell	Plainwell	MI
Michigan Association of Railroad Passengers		Livonia	MI
Michigan Economic Develop Corp		Lansing	MI

Michigan House 78th District		Lansing	MI
Michigan House 79th District		Lansing	MI
Michigan Senate 21st District	Lansing Office	Lansing	MI
Michigan Works	Benton Harbor	Benton Harbor	MI
MSU Extension	Berrien County	Benton Harbor	MI
National Railroad Passenger Corp		Niles	MI
Natural Resources Conservation Service	Berrien County	Berrien Springs	MI
NW Indiana Regional Plan. Commission		Portage	IN
Pokagon Band of Potawatomi Indians		Dowagiac	MI
Preserve the Dunes		Riverside	MI
River Valley Public Schools	High School	Three Oaks	MI
Royalton Township		St Joseph	MI
Sarett Nature Center		Benton Harbor	MI
Sodus Township		Sodus	MI
Southwest Michigan Community Action Agency		Benton Harbor	MI
Southwest Michigan Land Conservancy		Portage	MI
Southwest Michigan Regional Airport		Benton Harbor	MI

St. Joseph Charter Township		St Joseph	MI
St. Joseph High School		Saint Joseph	MI
St. Joseph Public Schools	Administration	St. Joseph	MI
St. Joseph River Harbor Authority	Berrien County Administration Center	St. Joseph	MI
State Historic Preservation Office	Preserve America	Lansing	MI
SW MI Home Builders Association		Berrien Springs	MI
The Nature Conservancy		Comstock Park	MI
Twin Cities Area Transportation Authority		Benton Harbor	MI
Village of Grand Beach		Grand Beach	MI
Village of Michiana		New Buffalo	MI
Village of Shoreham		St Joseph	MI
Village of Stevensville		Stevensville	MI
Western Michigan University	Southwest Campus	Benton Harbor	MI
Wightman & Associates, Inc		Benton Harbor	MI

Comments received during the consultation process can be found in Appendix C.

AMENDMENT PROCEDURES

There are many circumstances that necessitate amending the Transportation Improvement Program, such as changes in project scope, cost, local match situation, or work schedules. Amendments can include adding a new project, deleting a project, amending a project or administratively amending (modifying) a project. For additions, deletions, and amendments, there are public involvement requirements to be followed, as outlined in the SWMPC Public Participation Plan. This plan can be found at http://swmpc.org/TwinCATS_docs.asp or <http://swmpc.org/participation.asp>. The amendment process includes:

- Environmental justice analysis;
- Air conformity analysis if applicable;
- A seven-day public comment period;
- Recommendation for approval by the TWINCATS Technical Advisory Committee;
- Final approval by the TWINCATS Policy Committee;
- Submission of the TIP amendment request by SWMPC staff to MDOT;
- Approval of the request by MDOT and submission to FHWA and/or FTA;
- Approval of the request by FHWA and/or FTA.
- After the amendment is processed, the amended TIP table will be made available online at http://swmpc.org/TwinCATS_docs.asp.

Any questions from MDOT, FHWA, and/or FTA must be addressed by staff and committee members before the request can be approved. Beginning October 1, 2010, MDOT is using a schedule of six times per year for approval of TIP amendment requests.

There are cases in which SWMPC staff may administratively amend (modify) the TIP based on a local request. Project details such as minor changes in project costs, scope, termini, technical descriptions, and funding source may be approved administratively by SWMPC staff. TIP amendment procedures will be decided on a case-by-case basis, and at its discretion, SWMPC staff may elect to follow a full TIP amendment

process. The list of examples below indicates places where SWMPC staff discretion to approve amendments is specifically granted. This list below is not comprehensive since it may not be possible to always determine in advance the particular circumstance for any given project. A consultation process may be appropriate to determine how to apply this guidance in any given situation. Staff shall report any actions to TWINCATS at the earliest opportunity following the action.

Administrative amendments by staff are expressly permitted in the following cases:

- Projects that are subject to MDOT's selection authority and identified with SWMPC priorities on the Illustrative List maybe be moved administratively to the main body of the TIP upon selection by MDOT.
- Projects may be postponed within the TIP provided that financial constraint is maintained. In such cases, if additional balances are the outcome, the Project Selection Subcommittee will be convened at the earliest convenience to consider any projects that may be ready for advancement.
- Implementing agencies may request to move a project forward, in place of another, provided that that the one moved forward is already in the approved TIP and the TIP remains fiscally constrained.
- Funding source may be changed where there is no impact on another agency's projects or funds.
- Changes that reflect increased local or non-federal share may be made to a total project cost for the convenience of, and at the request of, the local agency, including matching ratios or non-federal eligible costs.
- MDOT general program account funding levels may be changed.
- Minor clarifications of scope or project technical descriptions where needed to advance an approved project.
- Adjustments to project scheduling for projects already contained in an approved TIP which do not impact other agencies' projects or funds.
- To correct errors or omissions in the event that a previously approved project must be added to the TIP, particularly when projects roll over from one TIP to the next, provided such action does not impact other agencies' projects of funds.

- Minor modifications to the TIP transit element (including, but not limited to, adding or deleting line items, increasing or decreasing costs, changing quantities or shifting funds from one line item to another) may be made administratively by staff on request provided that the amendment will involve currently available or anticipated FTA funds and will not negatively impact another local road or transit agency project.
- Unless otherwise required by law (such as a conformity requirement) a congressionally designated earmark or high priority project may be amended into the TIP once authorization has been signed into law.

The following examples of project types and cases must always be referred to the full TIP amendment process, unless they involved changes as provided above:

- Any addition of a new project not previously reviewed or prioritized by the Policy Committee.
- Actions which may have an adverse impact on another agency's projects or funding.
- Any major change of scope which increases capacity through the addition of a new road or lane. Minor widening such as shoulders, passing bays, turnouts, or intersection modifications will not be considered major capacity improvements.
- Major changes in cost which may impact financial constraint, local matching share, or adversely impact another agency's projects or funding programs.
- Any major state or local infrastructure project changes which will have a potential for broad or compelling adverse impacts on any local jurisdiction, the natural environment, or the traveling public. Adding or deleting projects determined to be non-exempt from conformity analysis shall be treated as full TIP amendments.
- Any removal of a major capacity improvement project from the current TIP shall be treated using the same process as for addition of a similar project in order to assure that financial constraint and public participation requirements are met.

These general policies may be reviewed and amended from time to time and are intended to be flexible to accommodate special circumstances not foreseen at this writing. When doubt exists about the circumstances in any given case, a consultation process should be used to obtain guidance on interpreting the circumstance.

RESULTS OF PRIOR FUNDING

Each year the MPO is required to post a listing of all projects the received federal funds in the fiscal year.

The SWMPC provides that listing of projects that have been obligated, or have secured federal funds, on their website. A listing of obligated funds from previous years can be viewed at

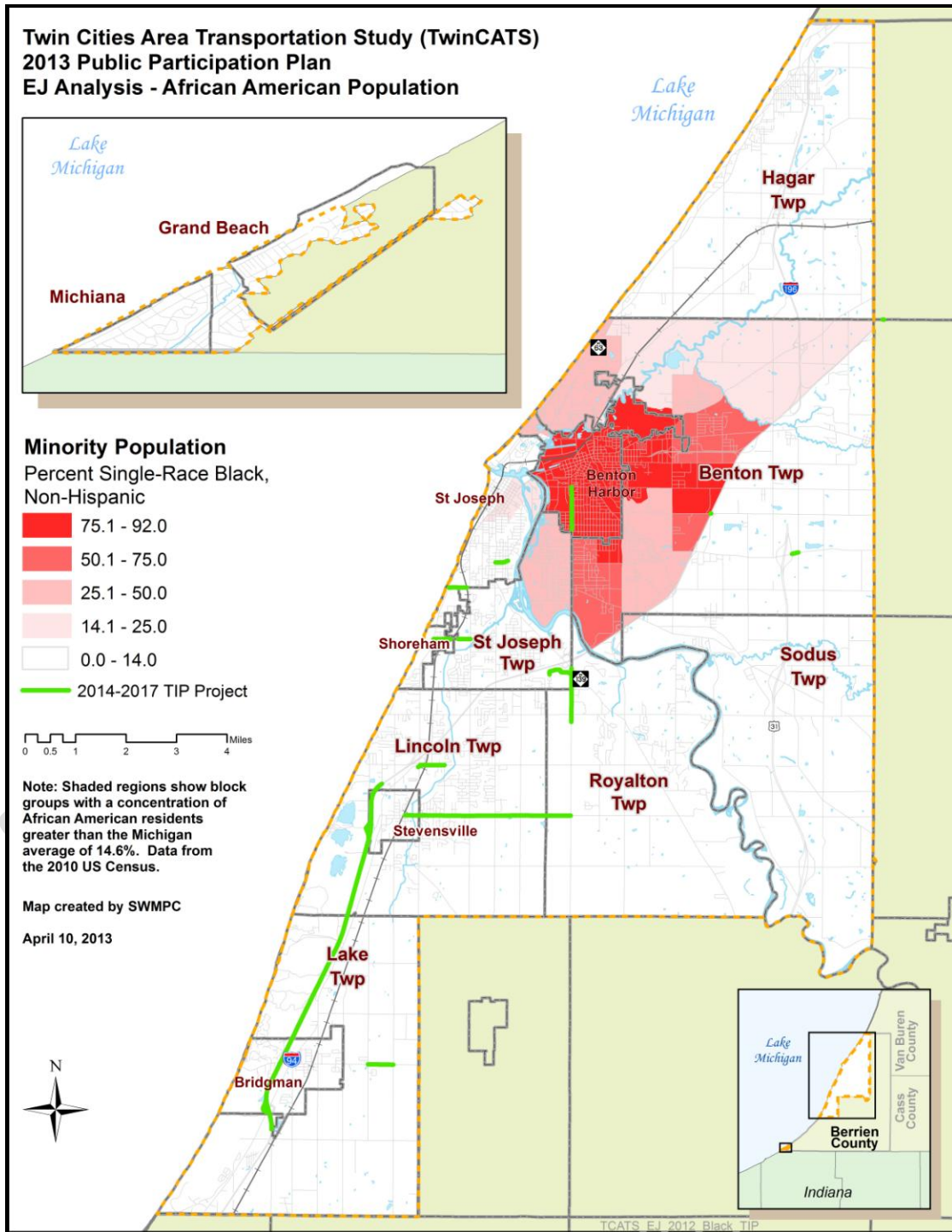
<http://www.swmpc.org/tcatsyrrpts.asp>. For a more detailed discussion of these and other annual reports for the TwinCATS MPO, please contact the SWMPC.

Annual Obligated Projects (<http://www.swmpc.org/tcatsyrrpts.asp>)

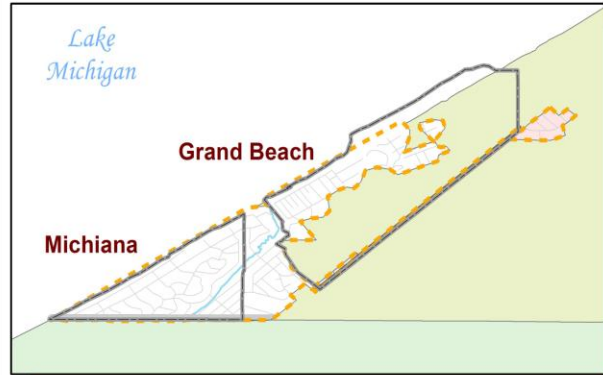
2012-[Roads](#) and [Transit](#)

2011 [Roads](#) and [Transit](#)

APPENDIX A ENVIRONMENTAL JUSTICE MAPS

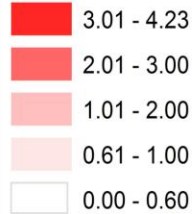


**Twin Cities Area Transportation Study (TwinCATS)
2013 Public Participation Plan
EJ Analysis - American Indian Population**

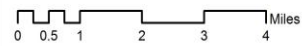


Minority Population

Percent Single-Race
American Indian, Non-Hispanic



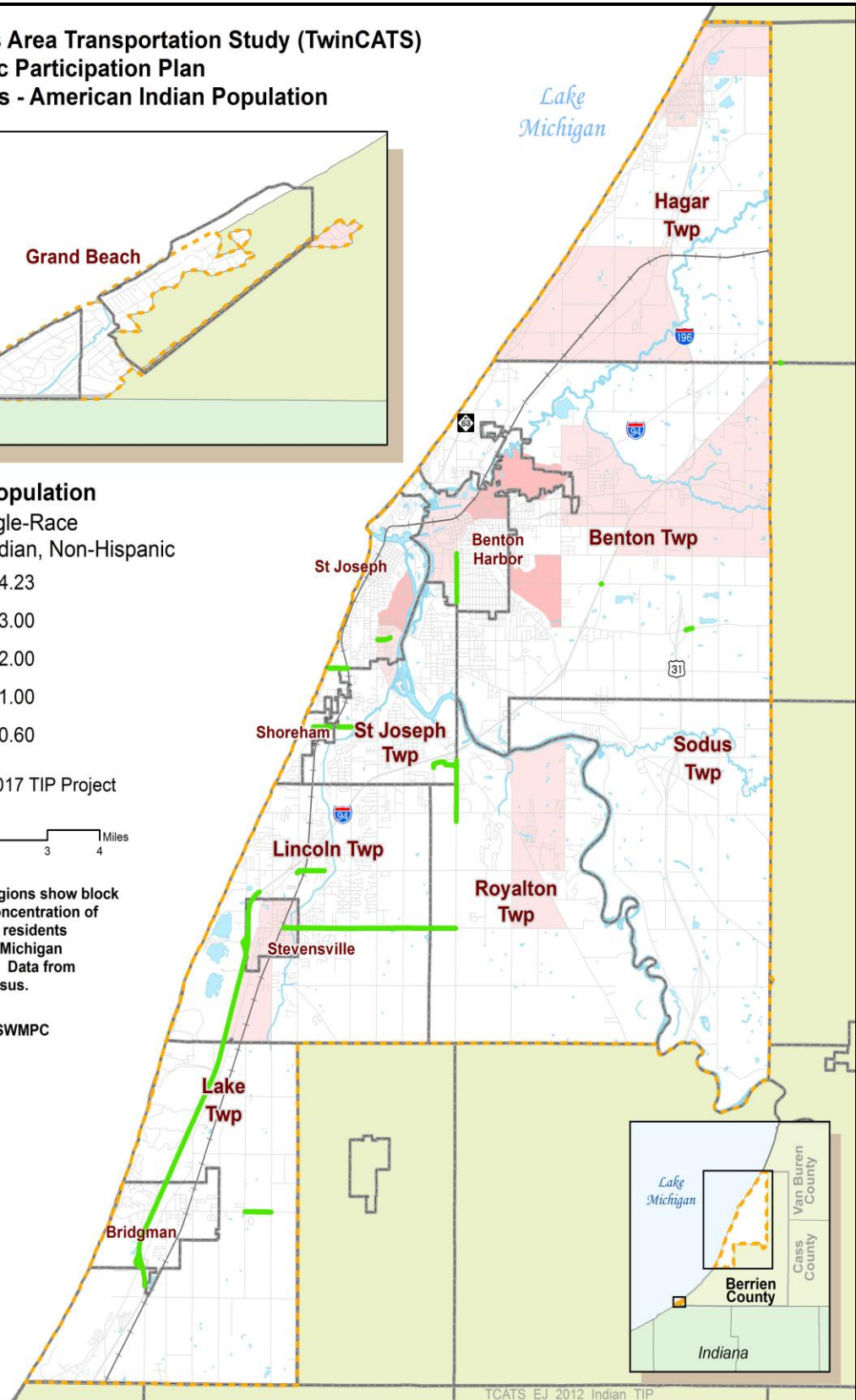
2014-2017 TIP Project



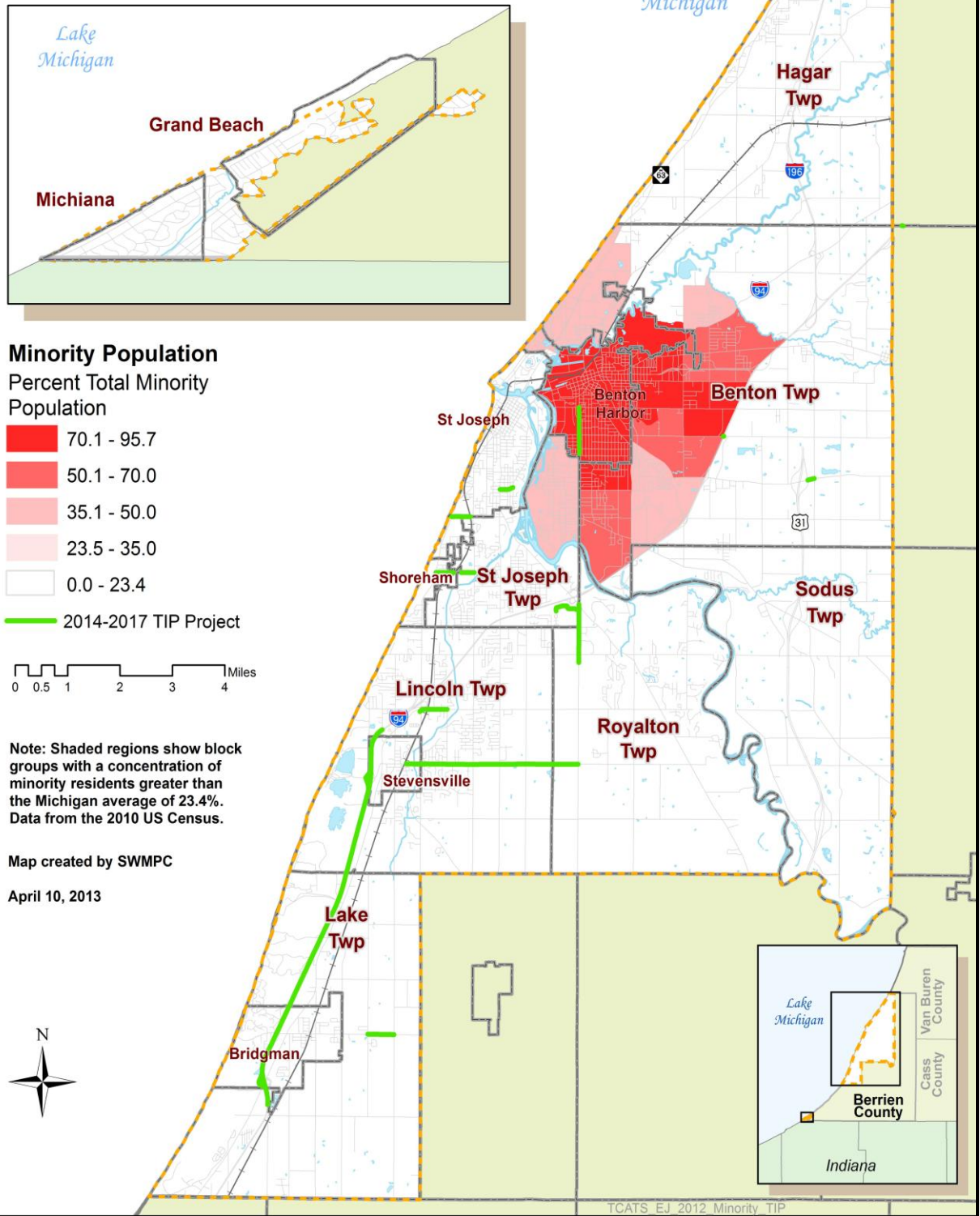
Note: Shaded regions show block groups with a concentration of American Indian residents greater than the Michigan average of 0.6%. Data from the 2010 US Census.

Map created by SWMPC

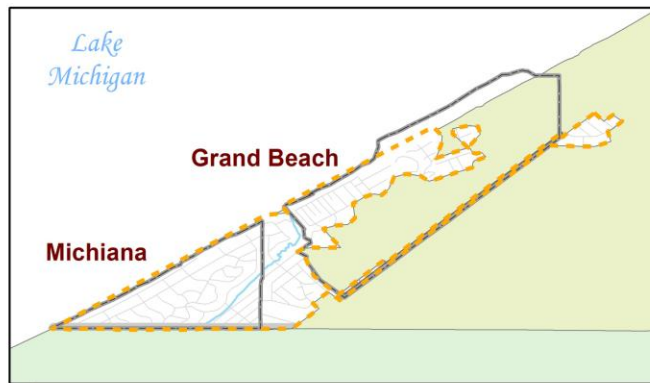
April 10, 2013



**Twin Cities Area Transportation Study (TwinCATS)
2013 Public Participation Plan
EJ Analysis - Total Minority Population**

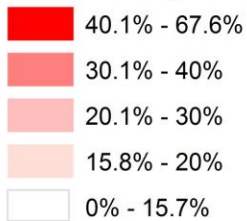


**Twin Cities Area Transportation Study (TwinCATS)
2013 Public Participation Plan
EJ Analysis - Low Income Population**

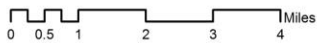


Low Income Population

Percent Population
Below Poverty Level



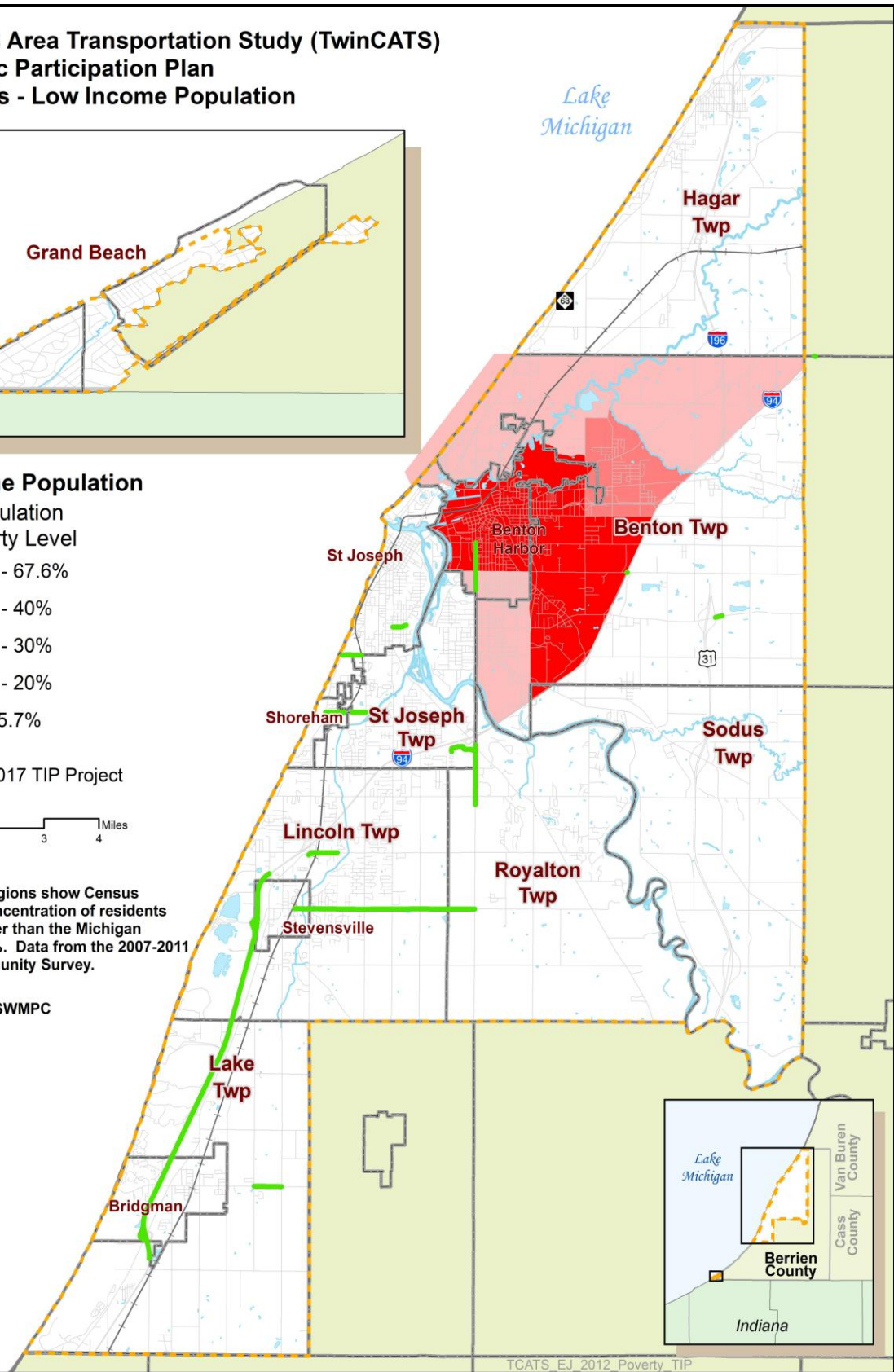
2014-2017 TIP Project



Note: Shaded regions show Census Tracts with a concentration of residents in poverty greater than the Michigan average of 15.7%. Data from the 2007-2011 American Community Survey.

Map created by SWMPC

April 10, 2013



APPENDIX B: PUBLIC INVOLVEMENT NOTICES

AFFFP
TwinCATS TIP 2014-2017 Project

Affidavit of Publication

STATE OF MICHIGAN }
COUNTY OF BERRIEN } SS

Jennifer Flewellen, being duly sworn, says:

That she is Classified Manager of the Herald Palladium, a Daily newspaper of general circulation, printed and published in St Joseph, Berrien County, Michigan; that the publication, a copy of which is attached hereto, was published in the said newspaper on the following dates:

March 26, 2013

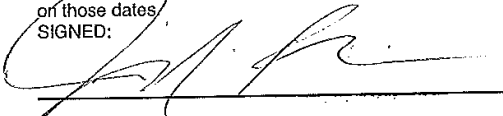
TwinCATS TIP 2014-2017 Projects

The St. Joseph/Benton Harbor Area Transportation Study (TwinCATS) is proposing the 2014-2017 Transportation Improvement Program (TIP), as required by federal guidelines. The TwinCATS Policy Committee has approved a list of TIP projects for public comment. The list of projects can be found at <http://www.swmpc.org/twincats1417tip.asp>, in the document "Proposed Project Program." The Southwest Michigan Planning Commission encourages the public to submit comments on these projects to Gauram Mani, Transportation Planner at 269-925-1137 (x24) or manig@swmpc.org; 185 E Main St Suite 701, Benton Harbor, MI 49022. The official public comment period will close on April 7.

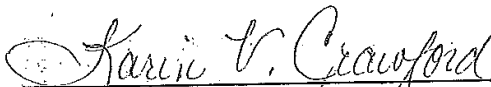
Publisher's Fee: \$ 62.40

That said newspaper was regularly issued and circulated on those dates.

SIGNED:



Subscribed to and sworn to me this 26th day of March 2013.


Karin Crawford, Notary Public Berrien Co, Michigan

AFFP

NATS & TwinCATS The Niles-Bucha

Affidavit of Publication

STATE OF MICHIGAN }
COUNTY OF BERRIEN } SS

Donna Knight, being duly sworn, says:

That she is Classified Manager of the Niles Daily Star, a daily newspaper of general circulation, printed and published in , Berrien County, Michigan; that the publication, a copy of which is attached hereto, was published in the said newspaper on the following dates:

May 31, 2013

NATS & TwinCATS

The Niles-Buchanan-Cass Area Transportation Study (NATS) and Twin Cities Area Transportation Study (TwinCATS) would like to announce the official release of their Long Range Transportation Plans and Transportation Improvement Programs for public comment to begin on May 30, 2013 and end on June 8, 2013. All of the documents can be viewed electronically as indicated below. If you would like to receive a hard copy of the plan, please contact the SWMPC at 185 E. Main St., Suite 701 Benton Harbor, MI 49022; Phone: (269) 925-1137; Fax: (269) 925-0288 or email at manig@swmpc.org.

TwinCATS


- Long Range Transportation Plan can be viewed at <http://www.swmpc.org/twincats2040.asp>
- Transportation Improvement Program can be viewed at <http://www.swmpc.org/twincats1417tip.asp>

NATS

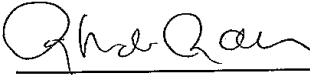
- Long Range Transportation Plan can be viewed at http://www.swmpc.org/nats_2040.asp
- Transportation Improvement Program can be viewed at http://www.swmpc.org/nats_1417_tip.asp.

That said newspaper was regularly issued and circulated on those dates.

SIGNED:


Classified Manager

Subscribed to and sworn to me this 31st day of May 2013.


Rhonda Rau, Notary Public, Berrien County, MI

My commission expires: September 20, 2014

03103028 00012172

RECEIVED
JUN 3 2013

BY:

AFFP

LRP & TIP Public HearingsPUBLI

Affidavit of Publication

STATE OF MICHIGAN }
COUNTY OF BERRIEN }

SS

Jennifer Flewellen, being duly sworn, says:

That she is Classified Manager of the Herald Palladium, a Daily newspaper of general circulation, printed and published in St Joseph, Berrien County, Michigan; that the publication, a copy of which is attached hereto, was published in the said newspaper on the following dates:

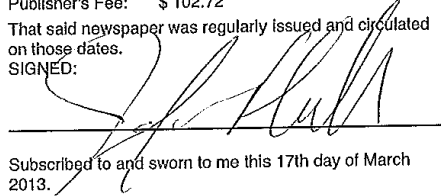
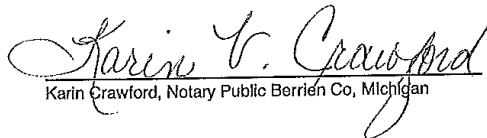
March 17, 2013

LRP & TIP Public Hearings
PUBLIC COMMENTS SOUGHT FOR TRANSPORTATION PLANNING WORK
THROUGHOUT BERRIEN AND CASS COUNTY
The public is encouraged to attend a series of three public meetings held by the
Twin Cities Area Transportation Study (TwinCATS)
<http://www.swmpc.org/twincats.asp> and the Niles-Buchanan-Cass Area
Transportation Study (NATS) <http://www.swmpc.org/nats.asp> metropolitan planning
organizations to discuss the status of the Transportation Improvement Program
(TIP) and the Long Range Transportation Plan (LRP) that cover the Benton Harbor
and St. Joseph area (TwinCATS) and the Niles, Buchanan, and southern Cass
County region (NATS).
TwinCATS meetings will be held from 5-7 pm at Michigan Works 499 W Main St.,
Benton Harbor, MI 49022 on March 20, April 17, and May 22, 2013.
NATS meetings will be held from 5-7 pm at the Niles Public Library 620 E Main St.,
Niles, MI 49120 on March 27, April 24, and May 29, 2013.
If you cannot attend the public meetings your comments may be sent to Suzann
Flowers, Transportation Planner at the Southwest Michigan Planning Commission
flowerss@swmpc.org; phone (269) 925-1137 x 17; fax (269) 925-0288; mail 185 E.
Main St. Suite 701 Benton Harbor, MI 49022.

Publisher's Fee: \$ 102.72

That said newspaper was regularly issued and circulated
on those dates.

SIGNED:


Subscribed to and sworn to me this 17th day of March
2013.
Karin Crawford, Notary Public Berrien Co, Michigan

APPENDIX C: CONSULTATION COMMENTS RECEIVED

DRAFT

APPENDIX D: PUBLIC COMMENTS RECEIVED AND RESPONSES

As part of the public outreach efforts, MPO staff hosted three open houses, where members of the public were welcome to come, learn about the MPO process, and make comments on the TIP and Long Range Transportation plan. These meetings were held March 20, April 17, and May 22, 2013. In addition, we welcomed and actively sought comments via email and telephone.

At Meeting

Meeting 3/20/13

There were no members of the public present.

Meeting 4/17/13

Discussed during Session (after Brief Presentation on the MPO)

Roundabouts are great at slowing traffic down, but trucks still use roads that have them. On Main St in Benton Harbor, the roundabouts are too small. Landscaping and the roundabout materials can be damaged, in addition to potential vehicular accidents. These roundabouts also require regular maintenance and should be part of the regular project programming process.

Meeting times are problematic. Members of the public cannot attend meetings that are in the morning. Flowers and Mani stated that we actually go above and beyond what's required, and that we have a participation plan in place that outlines how we do outreach.

Question from the public on what air quality conformity is. Mani explained that the section details our compliance with federal air quality standards, and that we are in "attainment-maintenance", meaning that we were previously non-compliant for particulate matter.

Question: "US-31 has been going on way too long. When will it ever get done?" Flowers responded that it is a long term project. The pipeline is being re-routed. MDOT is focused on preservation right now, and the project is not on MDOT's five year plan.

One member of the public recommended upgrades to Red Arrow Highway—to go from four to three lanes, which will ensure that cars are not passing each other and creating hazardous conditions for cyclists on the shoulder. Shoulders could also be widened on some stretches. Mani said he would look at traffic counts to see exactly which segments of Red Arrow had been examined previously.

One member of the public expressed concerns with bicycles not being allowed on Amtrak. Mani and Flowers responded that the plan does now try to set the stage for intermodal connectivity in our region, but the bikes-on-trains issue is still a work in progress.

One member of the public asked about large, unnecessary parking lots, and whether there could be policies put in place to use existing parking rather than dedicating new asphalt to automobiles. Mani and Flowers responded by saying that this is a local land use issue, over which TwinCATS and SWMPC have no authority.

Meeting 5/22/13

One member of the public was in attendance. No comments were given.

Responses to Questionnaire at 4/17/13 meeting

Do you have any concerns or questions regarding the proposed list of TIP projects that will be funded in Fiscal Years 2014, 2015, 2016, and 2017?

“Huh?”

“In the Long Range Plan- Part V Rail issues- Amtrak does not allow bicycles on Michigan trains. South Shore Line also does not allow bicycles on their trains. On Amtrak, one must disassemble and place the bike in a bag or box for shipping. This is impractical for tourism. Amtrak also does not allow tourists to bring their golf clubs on their trains. Again must be boxed for shipping. I’ve made numerous comments to MDOT on need for bike lanes on Red Arrow Highway, Napier to M-139 and have received no confirmation of receipt.”

Any transportation projects that you think need to be done?

“I-94 & M-63 interchange. Light for I-94 exit is far too long. Light for M-63 South is far too short.”

“Improving safety on major corridors i.e. Red Arrow, Nappier, M-139 et. Al. by redesigning roads to accommodate non-motorized transportation (pedestrians, bicyclists, wheelchairs). Many secondary roads need larger shoulders to accommodate bike lanes.”

What types of transportation do you think we should be focusing on?

“Niles Avenue and Lakeshore Drive. Only one lane each way w/continual center turn lane is constraining.”

“Improving safety for alternate modes of transportation. Improving connectivity at alternate modes of transportation. Bicycle→ Trains--→Bicycle (wheelchairs) -→ home or business, including hotels.”

What are the transportation hot spots in your community?

“3 way corner at Niles Road, Niles Avenue, and M-139”

“I-94 Overpass at Exit 23- Red Arrow is treacherous for pedestrians walking or cyclists passing under the I-94 overpass. Red Arrow Highway from Stevensville/Baroda Road to Glenlord could go on a ‘lane diet.’”

Any other comments, suggestions, or concerns?

“Meetings need to be scheduled in the evening. As you said, there are conflicts at all times, so why not evening meeting so workers and people going to school can go to these meetings?”

“The addition of the Harbor Marina Project will add to the congestion in both St. Joseph and Benton Harbor. Plans for this project don’t include alternate modes of transportation other than autos. I have showed [Mani] some possibilities for bike paths, whistle stop, and walkways from the project from St. Joseph to Benton Harbor. Could you please inform me of any future bicycle road design seminars?”

Public Comments Received via Email

“At a time when more attention is now on public health and healthier lifestyles, there are a number of local areas where I believe there is a critical need for revision and accessibility for residents to move around the greater Benton Harbor area and especially around public housing and with an access to shopping. Not everyone owns a car or can afford limited bus transportation.

First and foremost is the area along the street that runs between the Target shopping center and Michael's proceeding to Meijers, Lowe's, Walmart, etc. There are 2 housing developments--one on each side of the road--and yet these residents do not have sidewalks or bike paths to safely access the area stores. As a result, many are forced to walk, ride bikes, push baby strollers and shopping carts, and operate their motorized wheelchairs in the middle of a very busy street. This is extremely dangerous at all times, but especially in the winter when there is not even the alternative of attempting to walk in the piled snow on each side. Those driving to and from work along this stretch are frequently faced with the dangerous situation of this kind of traffic competing with motorized vehicles in the dark.

Another area where there is an extreme need that I've observed is all along Napier Ave between Pipestone and the St. Joseph River. Again, there are public housing and residential neighborhoods and schools and no way to walk or bike safely along that highly-traveled stretch.

On both North Shore and Paw Paw Avenue heading north from the City of Benton Harbor, there also is no safe way for residents to get to the city and shopping, schools, daycare, church, etc. because there are no sidewalks or bike lanes. People who reside in Benton Manor and other neighborhood residences, are frequently encountered walking, pushing baby strollers, riding bikes in the streets on both dangerous hills and curves with no other place to go at all hours of day and night and in all kinds of weather.

Finally, I live on Paw Paw Avenue and walk my dog along that road to get to other neighborhoods daily. Paw Paw Avenue is a designated heavy-truck route where traffic travels 55 mph (or faster as there are times

when people think that it is a great race track to test high speeds for half mile and mile distances). Because there are no sidewalks or a safe paved shoulder, I frequently encounter people who are on cell phones or texting and are swerving and headed straight toward me and my dog. I'm trying to be healthier; however, I'm not sure that fearing for my life every time that I attempt to do so is beneficial.

If the focus is on a healthier, more active society, then I believe that any transportation studies need to also focus on improving the network for people who choose--or are forced to use--other means to get around the area. I would certainly walk or ride my bike to more places if I felt that it was a safe route to do so. I would park my car in one location and walk from store-to-store in the area mentioned above if there was a safe sidewalk structure in place to get between each of the stores. And, that would definitely be more environmentally sound as we would be producing less carbon pollution.

Please share my comments with the necessary parties involved.”

- Thank you,

Bette Pierman, Benton Harbor, MI

Bettebgv@yahoo.com

269-925-9695

“Disability Network Southwest Michigan affirms the importance of public transit in accessing economic and civic opportunities. Many people with disabilities rely solely on public transit to get around their communities, and strategies that strengthen the effectiveness and efficiency of public transit mean that more people with disabilities can fully participate in community life. Many people with disabilities in Berrien County currently have no access to public transit. The intent to use demand-response services more efficiently and to integrate current local transit services as a way of expanding service capacity will mean that more people with disabilities will be able to live the lives they choose. Increased accessibility of fixed routes support people with disabilities in living truly spontaneous lives, as more people will be able to access the same services options everyone else can use to travel in the community. Comprehensive, reliable, accessible, effective transportation options are a critical piece of an inclusive, liveable community where everyone can thrive.”

-Joanne Johnson, on behalf of the Disability Network of Southwest Michigan

“I have been talking to several developers in the area and some of them see Benton Harbor evolving into a tourist/retirement area around the golf course. With that demographic it seems the area may need a transportation design that looks like what they do in Florida or Arizona.....golf cart paths everywhere to

allow for greater density by having smaller roads and tight parking. It also is a proven way to get people to use small light electric vehicles instead of large cars and SUVs.

“People living from St. Joseph all the way to the Whirlpool Administration Center on M63 would be able to travel some sort of cart path with their electric golf cart into Benton Harbor for shopping and entertainment. Younger people would be able to use these paths for bicycles and other alternative transportation, but the most important thing would be to allow older people and tourists to go out to eat and get groceries with their electric golf cart. It would allow the density to increase by a huge amount and promote electric vehicles that are already being produced in large quantities for a low cost....no waiting for new technology that may never come . . . I have a golf cart at home in a rural area. I use it almost every day to haul things over to my in-laws house or to property we own just down the street. It saves me a lot of time and money over using my SUV.”

- Bryan Tutton

Responses to the public comments and questions were provided by TwinCATS member representatives at the _____ meeting of TwinCATS. At the request of the TWINCATS Technical Advisory Committee, the responses are not included in the published TIP document but were sent to the individuals who made the comments.

DRAFT

APPENDIX F – SELF-CERTIFICATION

METROPOLITAN TRANSPORTATION

PLANNING PROCESS CERTIFICATION

(For Nonattainment and Maintenance Areas)

In accordance with 23 CFR 450.334, the Michigan Department of Transportation and the Southwest Michigan Planning Commission, the Metropolitan Planning Organization for the Niles-Buchanan-Cass Michigan Urbanized Area, hereby certify, as part of the STIP submittal, that the transportation planning process is addressing the major issues in the metropolitan planning area and is being conducted in accordance with all applicable requirements of:

- I. 23 U.S.C. 134, 49 U.S.C. 5303, and 23 CFR 450.334;
- II. Sections 174 and 176(c) and (d) of the Clean Air Act, as amended (42 U.S.C 7504 and 7506(c) and (d)) and 40 CFR part 93;
- III. Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d-1) and 49 CFR part 21;
- IV. 49 U.S.C. 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity;
- V. Section 1101(b) of the SAFETEA-LU (Pub. L. 109-59) and 49 CFR part 26 regarding the involvement of disadvantaged business enterprises in USDOT funded projects;
- VI. 23 CFR part 230, regarding the implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts;
- VII. 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;

- VIII. 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;
- IX. Section 324 of title 23 U.S.C. regarding the prohibition of discrimination based on gender; and
- X. Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) and 49 CFR part 27 regarding discrimination against individuals with disabilities.

John Egelhaaf, Executive Director

Southwest Michigan Planning Commission

Date

Susan Mortel, Director

Bureau of Transportation Planning

Date

APPENDIX G: AIR QUALITY CORRESPONDENCE



OFFICE MEMORANDUM

DATE: June 14, 2012
TO: Dal McBurrows, Pamela Boyd
FROM: Pete Porciello
SUBJECT: Briefing from MDOT's air quality meeting with DEQ on 6/11/12

MDOT Statewide Planning Section Staff met with DEQ counterparts to discuss general Air Quality topics on June 11, 2012. Present were:

MDOT
Dalrois McBurrows, Pamela Boyd, Pete Porciello, Mark Kloha
DEQ
Barb Rosenbaum, Bob Irvine, Tom Shanley, Dave Mason, Mary Maupin,
Bob Rusch

Complete Michigan NAAQS Attainment Status

Ozone:
EPA's designations for Ozone under the recently published 2008 standard (.075ppb) put Michigan in attainment/unclassifiable status for Ozone statewide. The standard takes effect on 7/20/2012.

Only the transportation conformity requirements of the existing 08ppb standard are revoked effective 1 year from the implementation date of the new standard (July 20, 2013). Conformity requirements could begin under those standards sometime in 2014-2015 depending on the date the standard is published. *Requirements for CMAQ are in effect until later guidance or funding reauthorization bill language changes them.*

After July 2013, conformity will no longer need to be demonstrated unless new designations of nonattainment occur. The next time standards will be revised will be in 2013 or early 2014. Actual designations may not occur until 2014 with SIP revisions not needed until about 2018. Conformity requirements for nonattainment areas would begin within 1 year after the standard is published for any areas that are in nonattainment (sometime before 2015).

Annual and 24-hour PM 2.5
The 7 county SEMCOG area is designated out of attainment for the Annual and 24-hour PM2.5 standard. Although DEQ has requested redesignation of the area to attainment, that request has not yet been approved by USEPA pending resolution of a lawsuit related to the PM 2.5 standard.

Nitrogen Dioxide (NO₂)

Michigan is in attainment for Nitrogen Dioxide

Carbon Monoxide (CO)

Michigan is in attainment for CO. An area consisting of part of Wayne, Oakland and Macomb Counties is in attainment/maintenance.

Particulate Matter less than 10 Microns (PM₁₀)

Michigan is in attainment of the PM₁₀ standard.

Lead (Pb)

Michigan is in attainment for lead except for a small area of less than 1 square mile in Ionia County in Belding.

Sulfur Dioxide (SO₂)

Michigan is currently in attainment for SO₂, but will have an area in Wayne County designated nonattainment sometime this year. It is not likely that there will be a regional transportation conformity requirement for this pollutant.

How does the Ozone monitoring data look so far for this season?

DEQ reported that the monitoring data so far could show violations in Allegan County, part of Detroit and Muskegon for Ozone. However, with designations not coming again until sometime around 2014, Michigan would not have to engage in the inventory and rate of progress plan process unless such designations are published for the new 2008 (.075) ozone standards or the revised standards that are coming in 2013-2014.

There will be an area of Detroit designated nonattainment for Sulfur Dioxide sometime this year, but transportation conformity should not be required as part of the regulatory actions for attaining the SO₂ standard.

How will DEQ proceed in the event of a new nonattainment area?

The process of creating an emissions inventory and using interagency consultation to develop an attainment plan will be the same as previously followed from the Michigan SIP. Regarding transportation conformity, the Conformity SIP will still be a valid guideline for creating baselines and inventories for the purposes of any new transportation conformity requirements that occur.

Interagency Workgroup Activity

Review of projects for air quality analysis should continue for the next year, or until nonattainment designations are made. If the .08ppb standard is revoked on 7/20/13 and no new nonattainment areas are named under the new .075 standard, Ozone conformity requirements will cease until such time as Michigan has a designated nonattainment area for Ozone under the new standard.

MDOT Update on MOVES implementation

MDOT updated DEQ on the MOVES 2010b model implementation and invited staff to visit MDOT to learn how to use and set up the model. DEQ is interested in learning how the model was packaged and pushed by DIT to MDOT machines so that they can look at a similar way to load the model at DEQ. MDOT announced that there should be a refresher training to reacquaint staff with the use of MOVES in August, along with the distribution of revised vehicle population data that is the most up to date available. MDOT also described a change to the air quality chapters in the TIPS. These will be replaced by a universal air quality document which details methods of calculating and reporting conformity. Technical documentation will be electronic for all future conformity demonstrations.

MOVES uses for climate change activities were discussed, and a brief mention of the next version of MOVES (MOVES2013) which should handle climate change issues. There will be more database records needed for that and it will involve a change to MDOT's master spreadsheet files in order to accommodate the revisions. The off road modules are not working yet, so in the meantime, DEQ will continue to use the NMIM modeling for off road emissions. Consultations and continued discussions on this will be needed in order to be sure that procedures are established to validate the information obtained and to make the proper transition to the use of the MOVES model for off road emissions.

CMAQ issues

Because it is not known what the transportation reauthorization funding bill will contain for CMAQ language, and whether or not the core provisions of the program will change, a discussion of what if's occurred and MDOT shared a handout with DEQ describing the known impacts to date on the program.

Other issues from DEQ

LADCO, regional emissions inventories will be due in December. These will need to be created with MOVES for every Michigan County which will require transportation model information and MOVES data bases for each county in Michigan. DEQ will be forwarding information about the inventory call to staff for action.

Continued Dialogue Needed

MDOT and DEQ discussed meeting quarterly or perhaps more often to discuss upcoming issues and to keep in touch with events and air quality needs. Staff from both departments will also be attending meetings to assure that partners have access to updates and information related to transportation and air quality. DEQ will also play a role in information on point and area pollution needs as well as stationary source emissions issues that are relevant to the attainment of the NAAQS.



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

DEC 09 2011

REPLY TO THE ATTENTION OF:

The Honorable Rick Snyder
Governor of Michigan
P.O. Box 30013
Lansing, Michigan 48909

Dear Governor Snyder:

This letter is to notify you of the U.S. Environmental Protection Agency's preliminary response to Michigan's air quality designation recommendations for the revised 2008 ozone National Ambient Air Quality Standards (NAAQS).

On March 12, 2008, EPA revised its NAAQS for ground-level ozone to provide increased protection of public health and the environment. EPA lowered the primary 8-hour ozone standard from 0.08 parts per million (ppm) to 0.075 ppm to protect against health effects associated with ozone exposure, including a range of serious respiratory illnesses and increased premature death from heart or lung disease. EPA revised the secondary 8-hour ozone standard, making it identical to the primary standard, to protect against adverse welfare effects, including impacts on sensitive vegetation and forested ecosystems.

History shows us that better health and cleaner air go hand-in-hand with economic growth. Working closely with the states and tribes, EPA is implementing the standards using a common sense approach that improves air quality and minimizes the burden on state and local governments. As part of this routine process, EPA is working with the states to identify areas in the country that meet the standards and those that need to take steps to reduce ozone pollution. Within one year after a new or revised air quality standard is established, the Clean Air Act requires the Governor of each state to submit to EPA a list of all areas in the state, with recommendations for whether each area meets the standard. As a first step in implementing the 2008 ozone standards, EPA asked states to submit their designation recommendations, including appropriate area boundaries, by March 12, 2009. In September 2009, EPA announced it was reconsidering the 2008 ozone standards. EPA later took steps to delay the designation process for the 2008 ozone standards pending outcome of the reconsideration. In September 2011, the Office of Management and Budget returned to EPA the draft final rule addressing the reconsideration of the 2008 ozone standards. On September 22, 2011, EPA restarted the implementation effort by issuing a memorandum to clarify for state and local agencies the status of the 2008 ozone standards and to outline plans for moving forward to implement them. EPA indicated that it would proceed with initial area designations for the 2008 standards, and planned to use the recommendations states made in 2009 as updated by the most current, certified air quality data from 2008-2010. While EPA did not request that states submit updated designation recommendations, EPA provided the opportunity for states to do so.

After considering Michigan's March 12, 2009 ozone designation recommendations and other relevant technical information, including 2008-2010 air quality data, EPA intends to designate the entire state of Michigan as unclassifiable/attainment for the 2008 ozone NAAQS.

EPA is committed to working with the states and tribes to share the responsibility of reducing ozone air pollution. Current and upcoming federal standards and safeguards, including pollution reduction rules for power plants, vehicles and fuels, will assure steady progress to reduce ozone-forming pollution and will protect public health in communities across the country. We look forward to a continued dialogue with you and your staff as we work together to implement the 2008 ozone standards. Should you have any questions, please do not hesitate to contact me at 312-886-3000, or Cheryl L. Newton, Director, Air and Radiation Division, at 312-353-6730.

Sincerely,



Susan Hedman,
Regional Administrator

cc: Dan Wyant, Director, and G. Vinson Hellwig, Chief
Michigan Department of Environmental Quality



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 30 2012

THE ADMINISTRATOR

The Honorable Rick Snyder
Governor of Michigan
P.O. Box 30013
Lansing, Michigan 00004-8909

Dear Governor Snyder:

The U.S. Environmental Protection Agency today is taking the next step to address ozone air quality by issuing final area designations for the 2008 National Ambient Air Quality Standards for ozone. This action, required under the Clean Air Act, lets communities know if their outdoor air is meeting the national standards for ground-level ozone and which areas are violating, or contributing to violations of, the national standards.

The EPA strengthened the ozone standards on March 12, 2008, to increase protection of public health and the environment. Breathing air containing high levels of ozone, a key ingredient in smog, can reduce lung function, trigger respiratory symptoms, and worsen asthma or other respiratory conditions. Ozone exposure also can contribute to premature death, especially in people with heart and lung disease. The new standards, which also protect against damage to sensitive vegetation and forested ecosystems, are a key part of the EPA's commitment to a clean, healthy environment. As we have done for more than 40 years, the EPA will work with you to improve air quality and continue to protect the health of our citizens.

As part of the designations process, the EPA worked closely with states, tribes and local governments to identify areas in the nation that meet the standards and those that need to take steps to reduce ozone pollution. After reviewing the most recent certified ozone air quality data for your state and evaluating factors to assess contribution to nearby levels of ozone, I am pleased to inform you that no areas in Michigan violate the 2008 standards or contribute to a violation of the ozone standards in a nearby area. As a result, the EPA is designating all of Michigan "unclassifiable/attainment." I appreciate the information that Michigan shared with the EPA throughout this process to assess ozone air quality.

History shows that cleaner air, better health and economic growth go hand-in-hand. For areas designated "unclassifiable/attainment," the challenge is to maintain clean air. Working closely with the states and tribes, the EPA is implementing the 2008 ozone standards using a common sense approach that protects air quality, maximizes flexibility and minimizes burden on state, tribal and local governments.

I recognize that the EPA shares the responsibility with the states and tribes for managing ozone air pollution. I also recognize that air pollution crossing state boundaries can contribute to downwind violations of the standards. Current and upcoming federal standards and safeguards, including pollution reduction rules for power plants, industrial facilities, vehicles and fuels, will ensure steady progress to reduce smog-forming pollution and will protect public health in communities across America.

The EPA will be assisting state, tribal and local air agencies by identifying currently available emission reduction measures as well as relevant information concerning their efficiency and cost-effectiveness. State, local and tribal agencies will be able to use this information in developing emission reduction strategies, plans and programs to attain and maintain cleaner air.

I look forward to continuing to work with you and your staff as we strive to advance our shared goal of clean air. Additional technical information on the ozone designations can be found at www.epa.gov/ozonedesignations. If you have questions, please contact me, or your staff may call Sarah Hospodár-Pallone, Deputy Associate Administrator for Intergovernmental Relations, at 202-564-7178,

Sincerely,



Lisa P. Jackson



Michigan Division

January 14, 2013

315 W. Allegan Street, Room 201
Lansing, MI 48933
517-377-1844 (office)
517-377-1804 (fax)
Michigan.FHWA@dot.gov

In Reply Refer To:
HDA-MI

Mr. Dave Wresinski, Director
Bureau of Transportation Planning (B340)
Michigan Department of Transportation
Lansing, Michigan

Dear Mr. Wresinski:

This letter is in response to your letter to our office dated November 7, 2012. In the letter, you had four specific statements relating to both air quality and metropolitan transportation plan schedules. Below are your statements in italics with our comments following. These questions were answered with advisement from air quality staff in our headquarters.

The May 21, 2012 Federal register notice (77 FR 30160) pertains to revocation of the 1997 ozone standard. Note that the notice did not address other pollutants (eg, PM-2.5 or CO) or change their associated regulations.

1. *MPOs that have LRTP updates due in 2013 that were previously classified non-attainment are exempt from demonstrating conformity if updated plans are due or approved after the July 20, 2013 date.*

Correct. After July 20, 2013, areas that are in attainment for the 2008 ozone standard will not have to demonstrate transportation conformity for ozone. It is important to note that MPOs that are nonattainment or maintenance for other air quality standards will need to demonstrate conformity for those pollutants.

2. *MPOs now have the option of updating their LRP's on a five-year cycle versus a four-year cycle as a result of attainment designation for ozone.*

Not yet. The May 21, 2012 Federal Register notice, as cited above, revoked the 1997 ozone standard for transportation conformity purposes only. It did not completely revoke the standard; therefore an area's nonattainment or maintenance status for the 1997 ozone standard has not changed. Per the planning regulations found in 23 CFR 450.322(c), plans need to be updated at least every four years for nonattainment and maintenance areas. Therefore, until the 1997 ozone standard is revoked completely, MPOs that are nonattainment or maintenance for the 1997 standard will need to update their long range plans at least every four years.

We have also spoken with the Environmental Protection Agency (EPA) staff to determine progress towards complete revocation of the 1997 ozone standard. We do not have a date of when this may occur but will keep you informed as we learn of progress. It is important to note that MPOs that are nonattainment or maintenance for other air quality standards will continue the four year transportation plan update cycle when the 1997 ozone standard is completely revoked.

3. *MPO LRTP update schedules are based on the date the last LRTP conformity finding was approved by FHWA and the Federal Transit Administration for non-attainment areas and the date the MPO Executive Committee approves LRTP updates in attainment areas.*

Correct. Per 23 CFR 450.322 (a), the effective date of metropolitan plans in non-attainment and maintenance areas is "...the date of a conformity determination issued by FHWA and FTA...", and "...its date of adoption by the MPO..." for attainment areas.

As mentioned previously, when EPA completely revokes the 1997 ozone standard and an area is no longer in non-attainment or maintenance, the five-year plan update cycle will apply and is based on the MPO approval date.

4. *MPOs are required to develop and update LRTPs with at least a 20-year planning horizon, as stated in 23 CFR 450.322, and maintain a 20-year horizon during the life of the plan.*

Correct. Per 23 CFR 450.322 (a), the 20-year horizon is as of the "effective date" of the Plan (as described in Question 3 above). However, MPO's are encouraged to select a horizon year which would maintain at least a 20-year horizon until the next plan update is completed.

We have previously met with MDOT Planning staff to address these issues and assist in outlining a schedule for development of long-range plans for each MPO. I will set-up an additional meeting on this topic, to be sure both MDOT and FHWA have the same understanding of the issues and that your questions have been answered.

Please feel free to contact me at (517) 702-1827 or Andy.Pickard@dot.gov if you should need further assistance.

Sincerely,



Andy Pickard PE, AICP
Transportation Planning Team Leader

For: Russell L. Jorgenson, P.E.
Division Administrator