

JACTS

Financial Analysis

14-1

Moving Ahead for Progress in the 21st Century (MAP-21) requires that MPO Long Range Plans be financially constrained documents. Prior legislation set the regulation that a planning process be realistic in terms of the financial resources available to carry out the plan. The current regulations regarding establishing a financial plan are as follows:

- (i) For purposes of transportation systems operations and maintenance, the financial plan shall contain system-level estimates of costs and revenue sources that are reasonably expected to be available to adequately operate and maintain Federal-aid highways (as defined by 23 U.S. C. 101(a)(5)) and public transportation (as defined by title 49 U.S.C. Chapter 53).
- (ii) For the purpose of developing the metropolitan transportation plan, the MPO, public transportation operator(s), and State shall cooperatively develop estimates of funds that will be available to support metropolitan transportation plan implementation, as required under Sec. 450.314(a). All necessary financial resources from public and private sources that are reasonably expected to be made available to carry out the transportation plan shall be identified.
- (iii) The financial plan shall include recommendations on any additional financing strategies to fund projects and programs included in the metropolitan transportation plan. In the case of new funding sources, strategies for ensuring their availability shall be identified.
- (iv) In developing the financial plan, the MPO shall take into account all projects and strategies proposed for funding under title 23 U.S. C., title 49 U.S.C. Chapter 53 or with other Federal funds; State assistance; local sources; and private participation. Starting December 11, 2007, revenue and cost estimates that support the metropolitan transportation plan must use an inflation rate(s) to reflect “year of expenditure dollars,” based on reasonable financial principles and information, developed cooperatively by the MPO, State(s), and public transportation operator(s).
- (v) For the outer years of the metropolitan transportation plan (i.e., beyond the first 10 years), the financial plan may reflect aggregate cost ranges/cost bands, as long as the future funding source(s) is reasonably expected to be available to support the projected cost ranges/cost bands.
- (vi) For nonattainment and maintenance areas, the financial plan shall address the specific financial strategies required to ensure the implementation of TCMs in the applicable SIP.
- (vii) For illustrative purposes, the financial plan may (but is not required to) include additional projects that would be included in the adopted transportation plan if additional resources beyond those identified in the financial plan were to become available.
- (viii) In cases that the FHWA and the FTA find a metropolitan transportation plan to be fiscally constrained and a revenue source is subsequently removed or substantially reduced (i.e., by legislative or administrative actions), the FHWA and the FTA will not withdraw the original determination of fiscal constraint; however, in such cases, the FHWA and the FTA will not act on an updated or amended metropolitan transportation plan that does not reflect the changed revenue situation.

The development of this financial plan chapter is based on the outlined requirements from the regulations. The revenue and expenditure projections are presented in cost adjusted/inflated dollars, termed “year-of-expenditure” dollars. The previous 2035

Transportation Plan was also developed using this process. Past practice, historic data, and already committed funds are the major factors considered in establishing future funding estimates.

Since the majority of funding for transportation improvements comes from federal and state dollars, actions at both these levels will impact the actual future funding available for projects at the local level. The future of both of these funding sources for the life of the 2040 Plan cannot be predicted with any level of certainty at this time. Therefore, lacking any definitive information to the contrary, future estimates are based on a continuation of the historic experience with these sources.

History of Transportation Financing

The development and maintenance of the transportation system has been, and still is, primarily financed by user fees. However, local funding, both public and private, has become an increasing contributor to transportation improvements in recent years. At the state level, user fees include a per gallon tax on gasoline and diesel fuel and a per vehicle registration fee based on vehicle value. The state gas tax is currently \$0.19 per gallon. However, as vehicles become more fuel efficient, and alternative fuel use increases, the revenue generated from this tax diminished significantly. Gasoline and diesel fuels are also taxed \$0.184 per gallon at the federal level. Some revenue for transportation at the state level is also generated from the sale tax on vehicle related consumer purchases.

Sources of Transportation Funding

Collection and distribution of gasoline and diesel fuel taxes in Michigan is regulated under State Act 51 of 1951 (commonly referred to as "Act 51"). Michigan's fuel tax is collected at the refinery and deposited into the Michigan Transportation Fund (MTF). Federal taxes are placed into the Federal Highway Trust Fund, with the exception of one cent of the tax, which is dedicated to the clean-up of underground fuel storage tanks. Most of the tax revenues, at the federal and state levels, are earmarked to fund highway, mass transit, safety, and non-motorized improvements. The state's MTF dollars are distributed to MDOT, the county road commissions, the cities and villages, and the Comprehensive Transportation Fund (CTF). The CTF was established to fund public transit improvements. In addition to the funding from the MTF, the CTF has received funding from the state's general fund in the past.

Most states have vehicle registration fees that are earmarked for transportation improvements as well. In Michigan, the registration fees for automobiles and trucks are also deposited in the MTF. There is no federal passenger vehicle registration fee. At present, there is not a local option for assessing these types of fees.

County and city MTF allocations have generally accounted for over half of locally available transportation revenues. Cities and villages may provide additional funding for transportation improvements. Typical sources for such funds include a community's general fund, property tax millage, general obligation bonds, contributions from other units of government, tax increment financing, and special assessments. Revenue can also result from accumulated interest on MTF funding that has been distributed to the local road agencies.

County road commissions receive funding from their member townships for improvements to non-primary roads as road commissions are not allowed to pay for more than 50% of such improvements. Some counties generate revenue by entering into maintenance agreements with MDOT to complete work on state trunkline facilities.

Revenue is also sometimes generated from developers who will pay for the construction of access drives, roads, or other necessary improvements serving new developments.

At the federal level, MAP-21 combined the many programs available to fund transportation improvements into more cohesive pots. The Interstate Maintenance, National Highway System (NHS) and the Highway Bridge program have been combined into the National Highway Performance program. The state uses this funding source for high level facilities like interstate highways. The Surface Transportation Program (STP) still provides funds to the state and to local urban, small city, and rural areas for transportation improvements. A separate safety component was established under SAFETEA-LU and continues under MAP-21 to address projects in this category.

The enhancement (which includes beautification, historic preservation, and non-motorized), has been combined with the Recreational Trails and Safe Routes to Schools program under the name "Transportation Alternatives". Other funding programs under MAP-21 include Congestion Mitigation Air Quality (CMAQ) and Rail-Highway Crossings.

The Federal Transit Administration has separate programs to provide capital and operating funding for public transportation as well as other specific programs such as: New Starts/Small Starts programs.

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Potential Sources of Revenue for Plan Development

Federal Funding

National Highway Performance
Surface Transportation Program
Transportation Alternatives Program
Highway Safety Improvement Program
Rail-Highway Crossing Program
Federal Transit Administration
New Starts/Small Starts Program
Other Federal

State Funding

Motor Vehicle Tax (Act 51) Distribution
Comprehensive Transportation Fund Distribution
Transportation Economic Development Funds
Other State

Local Funding

General Fund Contributions (Cities)
Township Contributions
Street Improvement Assessments
Road Improvement Bonds
Tax Increment Financing
Special Assessment Districts
Dedicated Millage
Service Contracts
Fare Box Revenues
Private Industry Contributions
In-Kind Contributions
Foundations
Other Local

Developing Revenue Forecasts

Local revenue projects were made utilizing the experience of the two largest (City of Jackson and Jackson County Department of Transportation) and five smaller (Cement City, Concord, Grass Lake, Parma, and Springport) local road agencies for the period 2010 to 2012 as the base. The Act 51 reports submitted to the state by the agencies provided revenue and expenditures data for making future projections. The Act 51 reports break down revenues and expenditures between the major/primary road system and the minor/local road system. JACTS deals with funding for projects on the federal-aid eligible system, which is almost completely the same system as the major/primary road system. While the local street/secondary road system revenues and expenditures are reviewed, these figures are not used in addressing either costs or revenues for this financial assessment,

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TABLE 14-1

**Average per Year Major Street/Primary Road Revenues
For the Time Period 2010 - 2012**

REVENUES	City of Jackson	Jackson County Road Commission	TOTAL
Michigan Transportation Fund	\$ 1,838,667	\$ 6,873,500	\$ 8,712,167
Transportation Economic Development Fund	\$2,557,198	\$426,080	\$2,983,278
Federal Funding	\$2,155,505	\$1,776,900	\$3,932,405
Local Funding	\$16,657	\$9,481	\$26,138
Metro Act	\$116,900	\$0	\$116,900
Miscellaneous	\$333,951	\$124,040	\$457,991
TOTAL	\$7,018,878	\$9,210,001	\$16,228,879

TABLE 14-1a

**Average per Year Local Street/Secondary Road Revenues
For the Time Period 2010 - 2012**

REVENUES	City of Jackson	Jackson County Road Commission	TOTAL
Michigan Transportation Fund	\$559,826	\$3,294,875	\$3,854,701
Transportation Economic Development Fund	\$0	\$0	\$0
Federal Funding	\$0	\$28,270	\$28,270
Local Funding	\$0	\$245,608	\$245,608
Metro Act	\$0	\$0	\$0
Miscellaneous	\$83,140	\$43,570	\$126,710
TOTAL	\$642,966	\$3,612,323	\$4,255,289

The estimates of future funding for local transportation needs on the major street/primary road system are based on the presumption that the current funding sources will see annual increases of 0.4% through 2017, 3.3% through 2019, and 5% thereafter. An increase of 2.0% per year through FY 2017 and 2.62% thereafter is figured as the potential increase in federal funding per MDOT.

Therefore, based on their Act 51 reports, it is estimated that the local agencies, as a group, will have revenues available for transportation investments for major streets/primary roads averaging the following from each of these categories (based on Table 14-1):

MI Transportation Fund (MTF) - starting with a combined average of \$8,712 million in 2012 and increasing as stated in the paragraph above, a total of \$348,091 million will be available for the overall time period of 2014-2040.

State Economic Development Categories – Federal dollars that were earmarked for the Transportation Economic Development Fund Category D are no longer available. The county will to receive state TEDF Category D funds as long as the Legislature continues the appropriation. To be fiscally conservative, the annual amount appropriated for Jackson County of \$163,316 will be used. This amount will be carried forward at the same level for 2014 to 2040 to will yield a total of \$4,401,000.

Local Funding - starting with a combined average of \$26,138 in 2012, carrying forward at the same level for 2014 to 2040 (due to restricted local budgets) this category will provide a total of \$702,000.

Miscellaneous Funding Sources – This category includes special assessments and other traffic and insurance refunds. Starting with a combined average of \$457,991 in 2012, carrying forward with a 2% per year increase until 2040, this category will total \$16,838,000 over the life of the Plan.

It should be noted that revenues and expenditures for local streets/secondary roads are not included in the calculations shown in the remainder of this chapter. The calculation of the cumulative total revenues by the above categories over the life of the 2040 Plan is shown in Table 14-2, below:

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TABLE 14-2 – Cumulative Revenue Estimates for the Period of 2014-2040
STATE and LOCAL Sources used by LOCAL AGENCIES
(Source: Act 51) (\$ in 000's)

YEAR	MTF	TEDF	LOCAL	MISCELLANEOUS
2014	\$8,853	\$163	\$26	\$476
2015	\$8,889	\$163	\$26	\$486
2016	\$8,924	\$163	\$26	\$496
2017	\$8,960	\$163	\$26	\$506
2018	\$9,256	\$163	\$26	\$516
2019	\$9,561	\$163	\$26	\$526
2020	\$10,039	\$163	\$26	\$537
2021	\$10,541	\$163	\$26	\$547
2022	\$11,068	\$163	\$26	\$558
2023	\$11,622	\$163	\$26	\$569
2024	\$12,203	\$163	\$26	\$581
2025	\$12,483	\$163	\$26	\$592
2026	\$12,770	\$163	\$26	\$604
2027	\$13,064	\$163	\$26	\$616
2028	\$13,365	\$163	\$26	\$629
2029	\$13,672	\$163	\$26	\$641
2030	\$13,986	\$163	\$26	\$654
2031	\$14,308	\$163	\$26	\$667
2032	\$14,637	\$163	\$26	\$680
2033	\$14,974	\$163	\$26	\$694
2034	\$15,318	\$163	\$26	\$708
2035	\$15,671	\$163	\$26	\$722
2036	\$16,031	\$163	\$26	\$737
2037	\$16,400	\$163	\$26	\$751
2038	\$16,777	\$163	\$26	\$766
2039	\$17,163	\$163	\$26	\$782
2040	\$17,557	\$163	\$26	\$797
TOTAL	\$348,091	\$4,401	\$702	\$16,838
GRAND TOTAL				\$370,842

Federal Revenues for the Local System (not including transit)

In addition to the categories reflected on the Act 51 report, JACTS oversees the expenditure of federal funds that are represented by projects in the Transportation Plan and the TIP (these projects are generally administered by MDOT, so the federal portion of the funding does not show up on the local agencies' Act 51 reports):

Surface Transportation Program (STP) – The STP Urban funding took a drastic decline with the passage of MAP-21. The current TIP amounts are less than were currently projected. Based on the FY 2013 amount of \$1,241 million, federal funding is projected to increase by 2% through FY 2017, and then increase at 2.62% to FY 2040. This will provide **\$47,979 million** available in STP Urban funds over the life of the Plan.

Surface Transportation Program (STP) Rural – The Jackson Metropolitan Area Boundary expands out to the county limits. Therefore, the rural funding is also taken into account when determining financial constraint. In the past, the rural areas received TEDF Federal Category D funds. This funding source has since been eliminated which resulted in an increase in STP Rural dollars. Based on the FY 2013 amount of \$854,000, and increasing by the same percentages as the STP Urban, approximately **\$33,017 million** will be available in STP Rural funds over the life of the Plan.

Local Bridges - Federal funding for local bridges is now distributed by a regional bridge committee that assesses need within a multi-county area. MDOT is no longer providing estimates for a local bridge general program account. Therefore this category is not being estimated separately for future revenue projections and is being included with the several smaller funding categories noted below.

Other Federal - Revenue estimates for several smaller federal funding categories are being estimated together for the purposes of the 2040 Plan. The 2012 general program account figures for local rail crossing, local bridge, local safety, and local transportation alternatives have been used to calculate this total, again expanded 2% per year over the life of the Plan, for a total of **\$18,377 million**.

The calculation of these categories of funds over the life of the *2040 Long Range Transportation Plan* is shown in Table 14-3 on the following page:

TABLE 14-3
Cumulative Revenue Estimates for the Period of 2014-2040
FEDERAL REVENUE Sources used by LOCAL AGENCIES
(\$ in 000's)

YEAR	STP URBAN	STP RURAL	OTHER FEDERAL
2014	\$1,266	\$871	485
2015	\$1,291	\$889	495
2016	\$1,316	\$906	504
2017	\$1,343	\$924	515
2018	\$1,378	\$949	528
2019	\$1,415	\$973	542
2020	\$1,452	\$999	556
2021	\$1,490	\$1,025	571
2022	\$1,529	\$1,052	585
2023	\$1,569	\$1,080	601
2024	\$1,610	\$1,108	617
2025	\$1,652	\$1,137	633
2026	\$1,695	\$1,167	649
2027	\$1,740	\$1,197	666
2028	\$1,785	\$1,229	684
2029	\$1,832	\$1,261	702
2030	\$1,880	\$1,294	720
2031	\$1,929	\$1,328	739
2032	\$1,980	\$1,363	758
2033	\$2,031	\$1,398	778
2034	\$2,085	\$1,435	799
2035	\$2,140	\$1,472	820
2036	\$2,195	\$1,511	841
2037	\$2,253	\$1,551	863
2038	\$2,312	\$1,591	886
2039	\$2,373	\$1,633	909
2040	\$2,435	\$1,676	933
TOTAL	\$47,979	\$33,017	\$18,377
GRAND TOTAL			\$99,373

Federal and State Revenues (for state system)

MDOT has provided revenue estimates for its program for the time frame of the 2040 Plan. The estimates are divided by the major programming categories used by MDOT: preserve vs. increase capacity/new roads. A breakdown by multi-year groupings has been provided by MDOT for the entire Plan period

Revenues that go toward operations and maintenance are not included in the figures in Table 14-4. However, the costs for this type of work by MDOT are included in the discussion regarding operations and maintenance, which is dealt with following the discussion of transit revenues.

MDOT Planning provided the revenue forecasts in “future dollars” as required by the MAP-21 regulations.

TABLE 14-4 – Revenues Available for State Facilities
(\$ in 000's)

MDOT	Preserve	Capacity Improve/New Roads
2014-2018	\$77,211	\$54,254
2019-2023	\$77,625	\$0
2024-2028	\$99,413	\$0
2029-2033	\$138,456	\$0
2034-2037	\$138,634	\$0
2038-2040	\$117,544	\$0
TOTAL	\$ 648,883	\$54,254

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Transit Revenues

A variety of revenue sources are available to support public transit services into the future. The federal government, through the Federal Transit Administration (FTA), makes funds available for both operating and capital transit expenditures with an annual allocation by formula to the local transit operator. The state also makes available funds to support the operating and capital portions of the transit budget. The federal government provides discretionary funding on a sporadic basis for the purchase of major capital items, such as large fixed-route buses.

Federal funding from sources under the Federal Highway Administration (FHWA) can be “flexed” for transit use, for example STP-Urban funding. The local government (the City of Jackson) provides dollars from its general fund to support some of the operating costs of the transit. Revenues are garnered from fares paid by users of the transit service and a modest amount of revenue is derived from sources like advertising.

Table 14-5 lists the estimated revenues for transit over the life of the 2040 Transportation Plan. The federal and state revenues have been provided by MDOT, which provided revenue figures by multi-year groupings, the same as for the road categories. Transit funding from federal and state allocated sources is estimated to be approximately \$220,925 million over the life of the Plan.

The “local, farebox, & other” category is modestly increased at 2% per year over the life of the Plan. Farebox receipts have not been increasing much in recent years.

Table 14-5 – Revenues Available for Transit Services, Vehicles and Facilities
(\$ in 000's)

Year	Federal & State	Local, Farebox, & Other
2014-2018	\$32,529	\$8,820
2019-2023	\$35,914	\$9,738
2024-2028	\$39,652	\$10,749
2029-2033	\$43,779	\$11,870
2034-2038	\$48,336	\$13,107
2039-2040	\$20,715	\$5,617
TOTAL	\$220,925	\$59,901
GRAND TOTAL	\$280,826	

OPERATIONS & MAINTENANCE

The continued effective operation and maintenance of the existing transportation system is a priority and goal of the JACTS process. Therefore, estimated costs for these aspects of the transportation system over the life of the 2040 Plan are taken into consideration and are applied against the total anticipated revenues before any improvements to the system are considered.

The Act 51 reporting data from the local agencies included detail on expenditures as well as revenues. Based on an average of the last three years of expenditures for the two local road agencies, the total cost to operate and maintain the existing major street/primary road system (non-heavy maintenance, routine maintenance, traffic services, winter maintenance, and administrative services) in the JACTS area, as of 2012, was approximately **\$7.057 million** per year, or 81% of the JACTS area MTF budget.

For the life of the Plan, this figure has been expanded by 0.4% through 2017, 3.3% for FY 2018 and 2019, 5% for FY 2020 to 2025, and 2.3% to FY 2040 per year as provided by MDOT based on historic percentages and future projections.

Based on these percentage increases, the total cost for operations and maintenance of the major street/primary road system in the JACTS area by the local agencies over the 2014 to 2040 time period of the 2040 Transportation Plan is expected to be approximately **\$279,690 million**.

MDOT has provided figures regarding its anticipated costs for operations and maintenance (O+M) of the state system within the JACTS area over the time period of the Plan. The costs include routine maintenance performed by the Transportation Service Center (TSC) staff, low level CPM repair work, and maintenance contract costs with local road agencies (including signal maintenance).

Based on an average cost per year of \$13,421 million in 2013 (provided for the 2035 Transportation Plan), a total cost over the life of the 2040 Plan for state operations and maintenance is estimated at **\$516,083 million**. As with the local estimate, this category was expanded by the same percentages as noted in the paragraph above.

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SUMMARY

Summaries of estimated available revenues and estimated expenditures over the life of the *2040 Plan* are shown in the following Tables 14-6 and 14-7:

**Table 14-6 – Summary of Available Revenues for the
JACTS 2040 Long Range Transportation Plan**

Projected Capital Revenues	Total \$
Federal Transportation Funds for Construction of Local Roads	\$99,373,000
Federal and State Funding for State Controlled Roadways	\$1,219,222,000
Federal/State/Local Transit Funding (Operations and Capital)	\$280,826,000
State and Local Funding for Construction and O/M of Local Roads	\$370,032,000
TOTAL	\$1,969,453,000

Table 14-7
Summary of 2040 Long Range Transportation Plan
Operations/Maintenance & Capital Expenditures 2014-2040

Operations/Maintenance (O/M) Expenditures for Local & State Roads	Total \$'s
Estimated Expenditures for O/M on Local Roads	\$279,690,000
Estimated Expenditures for O/M on State Roads	\$516,083,000
PLANNED CAPITAL EXPENDITURES	\$795,773,000
Local Road Projects <ul style="list-style-type: none"> Improve/Expand (7 projects) Preservation Safety Non-Motorized Total	\$9,131,400 \$72,495,000 8,168,738 \$3,480,910 \$93,276,048
Transit Projects <ul style="list-style-type: none"> Operating Expenses Vehicle Replacement (70 Vehicles) Vehicle Addition Other Capital Security Improvements Total	\$ 227,064,700 13,210,600 5,624,000 1,114,800 363,200 \$ 247,377,300
State Projects <ul style="list-style-type: none"> Improve/Expand (3 Projects) Preservation Total	\$54,254,201 \$648,884,655 \$703,138,856
TOTAL CAPITAL EXPENDITURES	\$1,043,161,804
GRAND TOTAL EXPENDITURES	\$1,839,565,204

DEMONSTRATION OF FINANCIAL CONSTRAINT

The total expenditures identified in the *JACTS 2040 Long Range Transportation Plan* are within the total federal, state, and local revenues estimated for the Plan. As shown in Table 14-8 below, there is projected to be adequate revenue available for capital expenditures as well as for operations and maintenance expenditures for the transportation system. Therefore, the *JACTS 2040 Long Range Transportation Plan* is financially constrained.

Table 14-8
**Demonstration of Financial Constraint for the
2040 Long Range Transportation Plan of the Jackson Area
Comprehensive Transportation Study**

Total federal, state, and local revenues estimated to be available for road related construction, transit capital/operating and road related operations and maintenance of the major street/primary road system and state roadway system within the JACTS area.	\$1,969,453,000
Expenditures for Operations/Maintenance of Local & State Roads	\$795,773,000
Expenditures for Local Road Improvement Projects	\$ 93,276,048
Expenditures for Transit Improvement Projects	\$247,377,300
Expenditures for State Improvement Projects	\$703,138,856
REMAINING BALANCE	\$129,887,796