# CHAPTER 6: FINANCIAL CAPACITY ANALYSIS

- Introduction
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- Projected Revenues Through 2050
- Projected Expenses Through 2050
- Conclusion

# **INTRODUCTION**

Federal transportation planning rules require that regional transportation plans include a financial capacity analysis to demonstrate that the plan is fiscally constrained. That is, it must be demonstrated that the estimated costs of recommended projects in the fiscally constrained plan and maintenance of the existing transportation system can be covered using available and projected revenue sources. If projected funding shortfalls exist, new sources of revenue must be identified. In other words, the plan cannot simply be a wish list of projects. This requires prioritizing potential projects, realistically assessing the ability of transportation providers in the metropolitan area to fund particular projects, and balancing the needs of new facilities or capacity expansion projects with system preservation needs.

The plan can identify recommended or needed projects, but if it cannot be demonstrated that funding is reasonably likely to be available for the projects, they cannot be included in the federally recognized plan. Examples of projects and services identified as needed but not included in the fiscally constrained plan are the Bus Rapid Transit (BRT) system and some of the other transit service improvements, and construction of the North Mendota Parkway between CTH M and US 12. While the BRT system is not included in the fiscally constrained plan, planning is underway to identify and design the first segment. The City of Madison (Metro Transit) will then apply for federal Small Starts funding for the project. The City of Madison has included funding for the project in its multi-year capital budget. It is anticipated that the project will be amended into the plan once an initial route and station locations have been identified.

The financial capacity analysis takes into account recent trends in sources and uses of funds, and estimates the ability of existing funding sources to meet the maintenance, preservation, and capacity expansion needs of the transportation system. Estimated project costs and funding must be in year-of-expenditure dollars, reflecting an assumed inflationary factor. An inflationary factor of 2.0% for both project costs and program funding has been assumed in accordance with WisDOT and FHWA guidance.

The current federal surface transportation legislation, the Fixing America's Surface Transportation (FAST) Act, passed in December 2015, provides the federal transportation funding program and planning framework for the next few years. The legislation provides for about a 2% annual increase in funding through 2020. While there have been some relatively minor



changes in programs, the current basic framework has been in place since 1991 when the landmark ISTEA legislation was passed. Therefore, it is safe to assume that this basic framework and recent funding levels will continue. While some short-term funding methods were employed to provide the necessary funding for the FAST Act, it is expected that a long-term solution will be developed to maintain funding levels. Any changes in programs or funding levels provided in the next reauthorization legislation will be incorporated into an updated financial analysis as part of the next major plan update in five years.

The financial capacity analysis assumes that state funding will also increase around 2% annually. Unlike the case with federal funding, this has not been the recent trend. According to a recent WisDOT report (see below), since 2006 the state motor vehicle fuel tax rate has remained the same and annual revenue from the tax has grown only 7.2% - a compound annual growth rate of 0.6%. Adjusted for inflation, gas tax revenue has actually declined during this period. As a result, WisDOT has in recent years relied on transfers from the General Fund and Petroleum Inspection Fund, along with increased bonding. This plan assumes that in the long term, the state transportation fund situation will be addressed and that inflationary increases to recent spending levels in the Madison metro area will be provided.

### <u>State Transportation Fund Solvency Report – A Solvency Study from the</u> Wisconsin Department of Transportation (Dec. 2016)

The 2015-17 biennial budget required WisDOT to conduct a study of the solvency of the state transportation fund. The study relied in part on a 2013 study by the Wisconsin Commission on Transportation Finance & Policy that examined and made recommendations regarding new revenue sources. The 2016 study analysis included five main components:

- Results from a related study focused on recent efficiency improvements at WisDOT;
- Description of current revenue sources for transportation;
- Description of current transportation expenditures by program area;
- Analysis of scenarios for future expenditures compared to projected revenues; and
- Potential options for new revenue, including a detailed feasibility study of tolling the Interstate highways in the state.



A Solvency Study from the Wisconsin Department of Transportation December 2016

Tolling was not fully evaluated in the 2013 study, so the latest study included an examination of the feasibility of tolling on the Interstate highways in the state. This feasibility study evaluated current and best practices from tolling in other states, legal and policy issues that would need to be addressed, and revenue and traffic forecasting for tolling (including an estimate of infrastructure and operating costs and potential traffic diversion from tolled routes).

The fund solvency study projected revenues over the next 10-year period and then examined three different expenditure scenarios, and their impacts on the resulting condition of the transportation system. In terms of revenues, motor vehicle fuel



Tolling example for the I-39/90/94 corridor through the metropolitan planning area. Source: WisDOT Solvency Report, Appendix B.

taxes are expected to decrease due to greater vehicle fuel efficiency while vehicle registration fees are expected to grow a small amount. The three expenditure scenarios for 2018-2027 were: (1) spending less than the current 2015-17 budget; (2) spending at same level as current budget; and (3) a modest increase in spending above the current budget levels. A funding shortfall was projected for all scenarios – from \$852 million over the decade in one to \$7.94 billion in three.

Under scenario one, the number of state highway system miles rated in poor or worse condition would increase 109% from 21% to 44% by Fiscal Year (FY) 2027. The second phase of the Verona Road (US 18/151) project, which involves expansion of Verona Road south to CTH PD and new interchanges at Williamsburg Way and CTH PD, would be delayed a year to 2019-2021 and the Interstate 39/90 (Madison Beltline to III. State Line) expansion project delayed three years with the Beltline/Interstate interchange project funded in FYs 2025-27 following completion of the Interstate expansion project. No new Majors program projects, such as the Beltline and Stoughton Road/US 51 currently being studied, could be enumerated (approved for funding) by the state Transportation Projects Commission until FY 2026-30. Other estimated impacts include a cumulative loss in purchasing power (given inflationary cost increases) of \$798 million in local General Transportation Aids (GTA) – the largest source of state funding for local roadways – and a cumulative funding gap in Metro Transit operating assistance of \$25 million.



Under scenario two, the number of state highway system miles rated in poor or worse condition would increase 93% while the number rated at fair or better would decrease by 25%. The Verona Road and Interstate expansion projects would not be delayed. New Majors program projects could be approved in 2020 (the list includes Stoughton Road/US 51 and US 51, McFarland to Stoughton) and 2026 (Beltline). GTA and Metro Transit impacts would be the same as in scenario one.

Under scenario three, the number of state highway system miles rated in poor or worse condition would increase 72% while the number rated at fair or better would decrease by 19%. The Verona Road project could be constructed a year ahead of schedule (2017-2019). The Interstate/Beltline interchange project could be funded in FY 2021-2023 at the completion of the Interstate expansion project. Enumeration of the Stoughton Road/US 51 and US 51, McFarland to Stoughton projects would still occur in 2020, but the Beltline project could be enumerated in FY 2022. GTA impacts are assumed to remain the same, while the scenario assumes approval of enabling legislation for local transit authorities, the increased revenue from which could offset the loss of state transit operating funding and address unmet capital needs. For Metro Transit, these capital needs include a planned new satellite bus garage/maintenance facility that is needed to accommodate a larger bus fleet required to expand weekday peak period service, add larger, articulated buses, and ease severe over-crowding at the current facility.

The fund solvency study considered potential additional revenue sources and estimated their potential revenue. These include increases to current fuel-based taxes and vehicle registration and license fees and three completely revenue sources: registration fee based on number of miles a vehicle is driven; new highway use fee of 2.5% on the price of new vehicle registered in state for the first time; and tolling on the Interstate system. Federal restrictions would likely limit the use of tolling revenue to investments in the facility or the broader interstate highway from which it was collected.

The study did not make any recommendations about transportation revenue and expenditure options, including tolling. The report simply provided the scenarios and potential revenue options for consideration. In 2013, the Wisconsin Commission on Transportation Finance and Policy, which was created in the 2011-2013 biennial state budget and charged with examining issues related to the future of transportation finance in Wisconsin, recommended strategies for additional funding.

The Commission issued a report, Keep Wisconsin Moving – Smart Investments, Measurable Results, which recommended additional annual funding of around \$480 million over the following ten years for all modes of transportation. That level of investment was determined to be needed to maintain existing road and bridge conditions, make safety improvements, provide limited major highway modernization, and provide some other multi-modal facility and service improvements. In order to provide the additional revenue, the Commission recommended the following:

- Raise the state gas tax by 5 cents, to 23 cents per gallon;
- Adopt a new mileage-based registration fee for cars and light trucks that would amount to one cent for each mile traveled;
- Increase the annual registration fees for commercial vehicles by 73 percent;
- Increase the fee for an 8-year drivers license by \$20; and
- Eliminate the sales tax exemption on the trade-in value of a vehicle.

The Commission also recommended the following:

- Enactment of legislation to allow for regional or local transportation or transit authorities supported by county or local sales taxes;
- Increase bonding while keeping debt service payments at a manageable level;
- Indexing the state fuel tax and vehicle registration fees to the inflation rate as had been the case for many years;
- Support federal legislation to allow states more flexibility to enact tolls on the Interstate system and other highways designated as part of the National Highway System; and
- Support a state constitutional amendment to protect the state transportation fund passed in a November 2014 ballot measure.

# FUNDING TRENDS IN THE MADISON METRO AREA

### County and Municipal Streets/Roadways

Municipal streets are mostly financed by local funding sources. These include general revenues and bonds and, in the case of municipalities, also special assessments, impact fees, and tax increment financing. Counties cost share with municipalities on some projects. WisDOT distributes state funding to counties and municipalities through the state's General Transportation Aids and Connecting Highway Aids programs, and through other local programs such as the Local Road Improvement Program.

Figure 6-1, Historical County and Local Street/Roadway Expenses, shows the expenditures for operations and maintenance, construction, and other street related facilities (e.g., lighting, sidewalks, storm sewers) by municipalities in the Madison



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# Historical County and Municipal Street/Roadway Expenses (\$000's) within the Madison Metropolitan Planning Area

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County/ Municipality	0 & M <sup>1</sup>	Const. <sup>2</sup>	Other <sup>3</sup>	Total	0 & M <sup>1</sup>	Const. <sup>2</sup>	Other <sup>3</sup>	Total	0 & M <sup>1</sup>	Const. <sup>2</sup>	Other <sup>3</sup>	Total	0 & M <sup>1</sup>	Const. <sup>2</sup>	Other <sup>3</sup>	Total	0 & M <sup>1</sup>	Const. <sup>2</sup>	Other <sup>3</sup>	Total
Dane County 4	6,955.8	3,053.5	363.4	10,372.7	7,762.8	1,684.0	1,025.6	10,472.4	8,096.3	7,610.1	717.3	16,423.7	7,800.9	6,794.7	452.4	15,048.0	7,824.2	4,906.5	381.8	13,112.5
C. Fitchburg	1,541.6	2,803.9	159.6	4,505.1	1,552.8	3,416.9	140.2	5,109.9	1,543.3	16,629.9	134.6	18,307.8	3,416.2	2,020.5	133.3	5,570.0	1,870.3	8,287.8	182.6	10,340.7
C. Madison	24,201.6	17,177.5	4,687.9	46,067.0	18,597.8	25,050.9	7,272.9	50,921.6	17,767.1	26,463.0	5,793.1	50,023.2	19,519.6	17,360.1	6,371.6	43,251.3	20,900.8	18,097.0	10,235.7	49,233.4
C. Middleton	2,015.5	1,899.5	271.6	4,186.6	2,118.7	1,129.1	322.7	3,570.5	1,862.0	1,064.2	463.5	3,389.7	2,406.0	2,682.9	370.8	5,459.7	2,186.0	1,136.4	8,602.3	11,924.7
C. Monona	710.6	2,751.6	71.2	3,533.4	763.4	3,599.2	95.3	4,457.9	749.0	3,100.2	116.8	3,966.0	736.3	3,135.2	105.1	3,976.7	890.7	615.4	161.9	1,668.0
C. Stoughton	1,336.4	317.6	1,322.7	2,976.7	1,365.0	914.4	928.4	3,207.8	1,246.0	577.9	762.6	2,586.5	1,132.8	486.8	202.7	1,822.4	1,202.8	2193.9	287.9	3,684.6
C. Sun Prairie	3,083.3	2,199.0	651.8	5,934.1	2,783.0	2,400.3	662.5	5,845.8	2,688.1	1,518.7	445.4	4,652.2	3,163.5	2,221.7	390.9	5,776.1	2,985.0	3,118.6	973.1	7,076.6
C. Verona	914.0	1,180.1	183.5	2,277.6	1,284.3	1,057.0	208.0	2,549.3	1,532.9	1,138.3	721.5	3,392.7	1,111.8	2,362.9	203.8	3,678.4	1,047.8	1,608.6	222.2	2,878.6
Cities Total	33,803.0	28,329.2	7,348.3	69,480.5	28,465.0	37,567.8	9,630.0	75,662.8	27,388.4	50,492.2	8,437.5	86,318.1	31,486.3	30,270.1	7,778.2	69,534.5	31,083.3	35,057.7	20,665.7	86,806.7
V. Cottage Grove	572.1	406.4	120.3	1,098.8	447.2	337.8	94.6	879.6	522.7	1,173.7	93.1	1,789.5	718.4	359.2	148.2	1,225.8	1,291.1	2.3	93.6	1,386.9
V. Cross Plains	392.0	220.7	69.7	682.4	344.2	314.5	71.4	730.1	341.0	175.6	73.4	590.0	429.8	891.3	76.6	1,397.7	419.8	1,631.8	76.1	2,127.6
V. DeForest	424.6	857.7	372.2	1,654.5	530.7	888.2	155.4	1,574.3	413.8	2,344.5	259.6	3,017.9	457.9	2,226.4	216.6	2,900.9	466.8	1,235.4	371.2	2,073.4
V. Maple Bluff	105.7	2,956.9	427.9	3,490.5	133.3	62.4	62.4	258.1	248.7	71.7	52.2	372.6	237.4	216.2	34.9	488.6	223.4	3,840.5	51.3	4,115.2
V. McFarland	1,113.8	21.7	95.5	1,231.0	1,050.1		119.4	1,169.5	984.8		104.9	1,089.7	912.4	239.3	109.7	1,261.5	967.2	212.3	97.5	1,277.0
V. Oregon	812.8	520.7	384.0	1,717.5	906.2	93.5	206.9	1,206.6	458.5	125.5	222.7	806.7	707.1	199.6	171.0	1,077.7	706.1	449.4	158.7	1,314.2
V. Shorewood Hills	275.5	1,011.2	25.2	1,311.9	201.2	1,233.7	23.5	1,458.4	273.0	1,061.2	26.9	1,361.1	218.8	1,163.3	30.9	1,413.0	334.5	619.9	176.1	1,130.5
V. Waunakee	1,764.7	2,420.1	291.8	4,476.6	1,275.6	1,659.8	472.0	3,407.4	977.5	1,471.0	366.5	2,815.0	967.0	2,230.9	317.6	3,515.5	1,253.5	1,824.8	943.5	4,021.8
V. Windsor 5	257.2	131.4	27.6	416.3	287.5	84.8	28.5	400.8	265.6	203.7	27.8	497.0	285.3	212.7	28.6	526.6	302.2	211.2	32.4	545.8
Villages Total	5,718.4	8,546.8	1,814.2	16,079.5	5,176.0	4,674.7	1,234.1	11,084.8	4,485.6	6,626.9	1,227.1	12,339.5	4,934.0	7,739.1	1,134.2	13,807.2	5,964.5	10,027.6	2,000.5	17,992.5
T. Berry <sup>6</sup>	38.1	65.6	0.0	103.8	51.4	89.1	0.0	140.6	65.6	35.4	0.0	101.0	56.4	20.8	0.1	77.3	50.2	30.6	0.1	80.8
T. Blooming Grove	232.4	93.7	16.2	342.3	111.2	152.7	19.9	283.8	190.4	204.1	17.3	411.8	150.6	140.6	24.8	316.0	164.8	203.9	24.5	393.3
T. Bristol 7	259.5	29.3	8.3	297.1	387.1	2.1	9.1	398.3	280.1		9.9	290.1	420.9	,	8.4	429.3	244.6	,	10.0	254.6
T. Burke	303.1	24.9	13.7	341.7	229.2	366.9	8.5	604.6	256.1	467.4	0.0	732.5	257.3	202.4	<i>L</i> .6	469.4	251.3	483.1	10.2	744.6
T. Cottage Grove <sup>8</sup>	430.5	129.7		560.2	377.7	134.6		512.3	371.5	218.7		590.2	388.1	255.0	1.4	644.6	353.9	341.4	1.3	696.7
T. Cross Plains <sup>9</sup>	61.7	54.1	0.4	116.2	60.3	1.3	0.5	62.1	54.0	1.3	0.5	55.9	71.2	,	0.5	71.7	83.8		0.5	84.4
T. Dunkirk <sup>10</sup>	261.9		4.2	266.2	336.6		7.2	343.7	195.6	82.2	18.0	295.8	229.1	101.2	4.7	335.0	287.1	43.5	5.0	335.6
T. Dunn	411.6	151.8	11.5	574.9	405.8	117.7	11.8	535.3	447.6	177.6	12.0	637.2	584.4	168.7	12.6	765.7	481.5	299.4	12.6	793.4
T. Madison	333.6	852.9	30.1	1,216.6	347.3	874.7	35.6	1,257.6	369.2	132.8	33.0	535.0	348.1	0.8	36.2	385.1	689.5	85.3	34.4	809.3
T. Middleton	404.4	809.9	235.0	1,449.3	447.3	1,573.2	70.0	2,090.5	446.9	429.6	199.3	1,075.8	539.9	381.1	63.5	984.5	1,147.2	514.0	126.7	1,787.9
T. Oregon <sup>11</sup>	110.3	107.3		217.5	184.7	100.5		285.2	95.9	113.2		209.1	144.2	141.6		285.8	166.2	94.6		260.8
T. Pleasant Springs <sup>12</sup>	258.8	,	0.5	259.3	359.5		0.5	360.0	302.5		0.5	303.1	332.6		0.6	333.2	400.3		0.6	400.9
T. Rutland <sup>13</sup>	68.9	28.1	1.5	98.4	76.8	78.6	0.9	156.3	68.2	86.9	0.8	155.9	96.8	134.6	0.9	232.2	78.9	81.8	1.5	162.1
T. Springfield <sup>14</sup>	201.4	2.3	1.0	204.6	237.4	2.3	1:1	240.7	378.6	1.7	1.2	381.5	245.2	1.2	1.3	247.7	301.3	1.5	1.3	304.0
T. Sun Prairie <sup>15</sup>	181.8			181.8	652.7			652.7	298.0			298.0	227.7			7.722	217.5			217.5
T.Verona <sup>16</sup>	284.1	116.8	2.3	403.3	217.9	254.4	2.4	474.7	231.8	181.2	2.4	415.5	414.2	51.7	2.2	468.1	244.6	428.6	2.5	675.7
T.Vienna <sup>17</sup>	244.9	46.6	1.7	293.1	206.2	106.7	1.8	314.6	157.0	131.8	1.5	290.3	213.8	93.3	1.4	308.5	231.8	240.7	1.6	474.2
T. Westport	1,040.9		3.2	1,044.1	940.7		3.4	944.1	461.2	,	3.4	464.6	561.8		3.9	565.7	1,299.9		4.1	1,303.9
Towns Total	5,127.8	2,512.9	329.8	7,970.5	5,629.7	3,854.8	172.7	9,657.2	4,670.4	2,264.0	308.9	7,243.3	5,282.4	1,692.9	0,172.1	7,147.5	6,694.5	2,848.4	0,236.8	9,779.7
MP0 PL Area Total	51,605.1	42,442.4	9,855.7	103,903.2	47,033.5	47,781.3	12,062.3	106,877.2	44,640.7	66,993.3	10,690.8	122,324.7	49,503.5	46,496.8	9,536.9	105,537.2	51,566.4	52,840.2	23,284.7	127,691.4

Note: Costs rounded to nearest \$1,000. "-" indicates zero or no data available, while 0.0 indicates less than \$500.

Source: Wisconsin Dept. of Revenue, County and Municipal Revenues and Expenditures Reports.

Roadway operations and maintenance costs, including costs for engineering, highway equipment, and buildings. For county, includes depreciation for equipment and buildings.

<sup>2</sup> Includes operating expenditures and capital costs for constructing roadways.

<sup>1</sup>Includes operating expenditures and capital costs for road related facilities costs, including finited purpose roads, street lighting sidewalks, stoom severs, and parking facilities. <sup>1</sup>Estimated at 88, 99%, <sup>8</sup>Estimated at 65, 72%, <sup>8</sup>Estimated at 65, 72%, <sup>8</sup>Estimated at 76, 49%, <sup>8</sup>Estimated at 76, 49%, <sup>8</sup>Estimated at 54, 39%, <sup>8</sup>Estimated at 65, 09%, <sup>8</sup>Estimated at 54, 39%, <sup>8</sup>Estimated at 65, 09%, <sup>8</sup>Estimated at 54, 36%, <sup>8</sup>Estimated at 65, 09%, <sup>8</sup>Estimated at 50, 49%, <sup>8</sup>Estimated at 65, 09%, <sup>8</sup>Estimated at 54, 36%, <sup>8</sup>Estimated at 65, 09%, <sup>8</sup>Estimated at 65, 09%, <sup>8</sup>Estimated at 50, 05%, <sup>8</sup>Estimated at 56, 05%, <sup>8</sup>Estimated at 50, 05%, <sup>8</sup>Estimated at 56, 05%, <sup>8</sup>Estima

<sup>15</sup> Estimated at 66.90%.

<sup>11</sup> Estimated at 45.16%.

7 Estimated at 72.35%.

Metropolitan Planning Area from 2010 to 2014, the last year for which data was available. The expenses include those from local revenues as well as state and federal programs. The source of the information are the *County and Municipal Revenues and Expenditures by Wisconsin Cities, Villages & Towns* reports published by the Wisconsin Department of Revenue. Total annual costs for Dane County and all municipalities within the Madison Metropolitan Area during this 5-year period ranged from \$103.9 million in 2010 to \$127.7 million in 2014 with an annual average of \$113.3 million.

### Federal and State Funding for Streets/Roadways

Federal and state funding accounted for 24% and 56% of revenues, respectively, in the WisDOT 2015-17 biennial budget with bond funds (13%) and other funds (7%) accounting for the remainder.

Federal funding is derived from the federal motor fuel tax and then allocated to the states and large urban areas. Federal program funding sources under the current surface transportation legislation, the FAST Act, that are used for roadway improvements include the following:

- National Highway Performance Program (NHPP);
- Surface Transportation Program Block Grant (STBG) Program (formerly Surface Transportation Program), which includes several categories of funding (Urban, Rural/Small Urban, State Flexibility, and Bridge Replacement and Rehabilitation); and
- Highway Safety Improvement Program (HSIP) (includes three categories).

The NHPP and STBG – State Flexibility programs have been used exclusively for state highway projects, while the HSIP and STBG – Bridge programs are available for funding both state and local projects. The STBG – Urban and Rural/Small Urban programs are for county and local roadway projects. For the Madison Metropolitan Area, the STBG Urban Program is the most significant of these federal programs. Most of the funding has been used for county and local road projects, but the program has also been used for other capital projects such Metro Transit bus purchases and a programmed ITS project. MATPB receives an allocation of STBG Urban Program funding and selects county and local projects for funding based on approved policies and project evaluation criteria. MATPB's allocation for 2016-2020 is an average of \$6.86 million per year. Based on the FAST Act, the current federal transportation bill, funding for the upcoming 2018-2022 program cycle is expected to increase to an annual average of \$7.07 million. This funding level is assumed to continue with inflationary adjustments as with other programs.

State transportation funding is derived primarily from the state motor fuel tax, driver license fees, and vehicle registration fees. Funding for state









highways is distributed through several programs, including the following:

- State Highway Rehabilitation (SHR) program, which funds maintenance work on existing state highways along with safety and minor capacity improvements;
- Highway System Management and Operations (HSMO) program, which funds activities to ensure the proper functioning and safety of the state highway system, including traffic operations and management of the State Traffic Operations Center; and
- Majors program, which funds the most complex and costly projects, often involving capacity expansion, to address the most serious deficiencies on the most important state highways.

### Figure 6-2 Annual Roadway Revenue Estimates (\$000's) for the Madison Metropolitan Planning Area

Roadway Construction	Funding Program	Avg. Annual Funding (\$000s)
State Highways		
Federal/State Funding	Combined Backbone and non-Backbone and Majors	\$ 69,876
Local Roadways		
Federal/State Funding	STBG, Local Roads Improvement Program (LRIP), Federal Safety Programs, Local Bridges, 70% General Transportation Aids , 70% Connecting Highway Aids	\$ 24,035
Local Funding	Total County/Local Revenue (from State Department of Revenue) less Federal/State Funding Estimate	\$ 45,001
Subtotal of Local Roadwa	ys	\$69,035
Subtotal		\$ 138,912
Roadway Maintenance and Operations	Funding Program	Avg. Annual Funding (\$000s)
State Highways		
Federal/State Funding	State Highway Maintenance and Operations, State Highway Rehabilitation (SHR) Bridges, SHR Large Bridges	\$ 7,964
Local Roadways		
Federal/State Funding	30% General Transportation Aids, 30% Connecting Highway Aids	\$ 6,012
Local Funding	Total County/Local Revenues (from State Department of Revenue) less Federal/State Funding Estimate	\$ 52,390
Subtotal of Local Roadwa	<i>ys</i>	\$58,402
Subtotal		\$ 66,365
Total		\$205.277

Figure 6-2 shows the annual federal and state funding program revenue estimates (in current dollars) based on recent funding levels over the past 5-6 years. The federal and state funding estimates were provided by WisDOT. Estimated annual funding for Major state highway projects and state highway and bridge preservation and TSM/safety construction projects is \$69.9 million, while estimated funding for state highway maintenance and operations is \$7.9 million, for a total of \$77.8 million. Estimated federal and state funding for local roadway and bridge preservation and TSM/safety construction projects is \$24.0 million, while estimated funding for maintenance and operations is \$6.0 million, for a total of \$30.0 million. This amounts to about 20% of total funding for local roadways. Local funding for local roadways was estimated by subtracting federal/state funding from total revenues.

### Public Transit Funding

The major transit operator in the Madison area is Metro Transit, which is owned by the City of Madison and operates within the oversight of the Mayor, Common Council, and the City's Transit & Parking Commission. Metro contracts with other municipalities and public institutions (including UW-Madison, Madison College, and the Madison Metropolitan School District) to provide service for their constituents.

Metro's capital and operating costs are funded through a combination of federal funding, state operating assistance, passenger fares, and local funds primarily derived from the property tax. Federal funding may be used for capital project expenses, preventive maintenance costs, and a portion may be used for complementary paratransit service for persons unable to use the regular fixed-routes.

The majority of Metro's federal funding comes from the Section 5307 Urbanized Area Formula Program (UAFP), which is apportioned based on revenue vehicle-miles, population, and population density. Metro's FY 2016 apportionment of Section 5307 UAFP funding was \$7.7 million. Metro also receives Federal Section 5337 State of Good Repair and Section 5339 Bus and Bus Facilities formula programs. Funding for the Section 5337 program is based on the miles of bus lanes and other dedicated transit facilities, such as the State Street pedestrian and transit mall, while funding for the Section 5339 program is based on urbanized area population and bus passenger-miles traveled divided by operating costs. Metro's FY 2016 apportionment for these two programs combined was \$1.6 million. Two discretionary components to the Section 5339 program were added under the recently approved FAST Act: a bus and bus facilities program based on asset age and condition and a low or no emissions bus deployment program.

Funding, in particular operating funds, has been and continues to be a major challenge for Metro. State operating assistance in 2015 was actually slightly lower than in 2010, dropping the percentage of Metro's operating expenses covered by the state from 35.6% to 31.6%. At one time in the mid-1990s state operating assistance covered 45% of Metro's operating budget. Figure 6-3 shows the distribution of Metro's operating revenue from 2011-2015. The percent covered by local funding has increased from 28.9% to 32.4% and the percent covered by fares has increased from 23.7% to 24.1%.

Because Metro must now use the majority of its federal funding for eligible operating expenses, this has put a squeeze on its capital budget, making it difficult to keep up with its bus fleet replacement schedule let alone address other capital needs.



## Metro Operating Revenue Summary

2011 - 2015

Given flat state funding and tight local budgets, in part due to the state expenditure restraint program, and the many other competing demands for property taxes, it will become increasingly difficult for Metro to cover inflationary operating cost increases in the future let alone meet the service improvement and expansion needs of the growing metro area and address its capital needs. A regional transit governance structure with a dedicated local source of transit funding will be needed in order to make major regional service improvements such as building out the full BRT system, initiating express commuter service to outlying communities, and increasing service frequency in the core area.



The state legislature adopted legislation in 2009 authorizing the creation of the Dane County Regional Transit Authority (DCRTA) with the authority to implement a local sales tax of up to ½ percent. The DCRTA was formed in 2010 and, with the help of City of Madison, Metro, and MPO staff, developed a draft short-term plan for improved transit service to support a referendum on a ¼ percent sales tax. However, Assembly Bill 40 (Act 32) was passed in 2011, eliminating the RTA authorizing legislation and dissolving the DCRTA.

Figure 6-4 shows Metro Transit's average capital and operating revenues from 2011-2015 based on the agency's National Transit Database (NTD) reports. Capital expenses fluctuated considerably, ranging from a low of \$1.1 million in 2013 to \$12.1 million in 2014, averaging \$6 million annually. Operating expenses increased each year from \$49.5 million in 2011 to \$55.0 million in 2015, with a 5-year average of \$52.4 million. The five-year average for capital and operating expenses combined was \$58.4 million.

Metro Transit	Funding Program	Avg. Funding (\$000s)
Capital		
Federal Funding	Urbanized Area Formula Program (5307), State of Good Repair Formula Program (5337),Bus & Bus Facilities Formula Program (5339)	\$ 4,830
Local Funding	City of Madison Property Taxes and Cooperative Agreements with Neighboring Municipalities	\$ 1,208
Subtotal		\$6038
Operating		
Federal Funding	Urbanized Area Formula Program (5307),Special Needs/ADA (5310)	\$ 6,189
State Funding	State Operating Assistance	\$ 17,063
Local Funding	City of Madison Property Taxes and Cooperative Agreements with Neighboring Municipalities, Advertising and Other Revenues	\$ 15,674
Passenger and other General Revenue	Collections on Buses, Transit Passes, Advertising, etc.	\$ 13,467
Subtotal		\$ 52,393
Total		\$58,431

### Figure 6-4 Annual Transit Revenue Estimates (\$000's) for the Madison Metropolitan Planning Area

### **Bicycle and Pedestrian Funding**

Local sources provide most of the funding used for off-street bicycle and pedestrian facilities. This includes Dane County's relatively new PARC & Ride Bicycle Grant Program, which has provided over \$750,000 in the past two years for grants to local communities for bicycle trail projects. Federal funding for off-street bicycle and pedestrian facilities is provided primarily through the Transportation Alternatives Program (TAP). MATPB receives an allocation of TAP



funds, which it directs towards projects it selects. WisDOT also receives a TAP funding allocation, which it uses to fund projects throughout the state. Madison area projects are also eligible for this statewide pool of funds, and two projects were awarded funding in the 2015-2018 program cycle. Factoring in that additional funding along with MATPB's funding allocation, the average annual TAP funding has been \$746,000. Off-street bicycle facilities, such as grade-separated crossings and side paths, have also been included in recent years as part of street construction projects funded by MATPB through the federal STBG (formerly STP) Urban program. Excluding the TAP funding, an average annual total of \$4.05 million has been programmed for off-street bicycle projects in the past three Transportation Improvement Programs, resulting in an average total of \$4.8 million in available funding each year. On street bicycle and pedestrian facility costs are included as part of street projects, and have no stand alone costs. As a result, no projections were generated for on-street facilities.

Figure 6-5

### Annual Transit Revenue Estimates (\$000's) for the Madison Metropolitan Planning Area

Bicycle and Pedestrian Facilities	Funding Program	Avg. Annual Funding (\$000s)
<b>Off-Street Facilities</b>		
Federal/State Funding	STBG - Transportation Alternatives Program (TAP) Set Aside	\$ 746
Local and Other Funding	County PARC & Ride Bicycle Grant Program, Local municipal funding, Other	\$ 4,054
Subtotal		\$4,800

# **PROJECTED REVENUES THROUGH 2050**

Figure 6-6 shows the projected total revenues for transportation projects for the next 34-year period from 2017 to 2050 assuming that recent funding levels remain relatively constant other than inflationary increases. It is estimated that a total of \$13.3 billion could potentially be available to finance projects over the 34-year planning period. The federal and state roadway revenue estimates are based on a 6-year rolling average<sup>1</sup> of expended funds between 2011 and 2016 obtained from WisDOT. Local roadway revenue estimates on based on the 5-year average of expended funds from 2010-2014 obtained from State Department of Revenue reports after subtracting out federal and state funding received. Metro Transit capital revenues (federal and 20% local match) are based on the 5-year average from 2011-2015 in the agency's NTD reports. Metro operating funding (federal, state, and local) is based on the average annual percent increase in operating funding in constant dollars during the same period (0.7%) based on the NTD reports. Federal funding for off-street bicycle and pedestrian facilities is based on the current average funding programmed in the past three TIPs (2015-'19, '16-'20, and '17-'21). Averages were extrapolated to 2050 using an inflation rate of 2 percent. In the case of transit operating revenues, the inflation rate was applied to the assumed average annual increase in constant dollars. Funds were then divided into three time periods (2017-2020, 2021-2035, and 2036-2050) reflecting programmed projects over the next four-year period to 2020 and then two subsequent 15-year increments.

<sup>1</sup> 5-year rolling average period for the General Transportation Aids and Connecting Highway Aids programs and Local Bridge program. Majors program funding is based on average annual amount enumerated for projects from FY 2014-2020.

### Figure 6-6 Estimated Transportation Revenue, 2017 – 2050 (\$000's) for the Madison Metropolitan Planning Area

Source	2017-2020	2021-2035	2036-2050	Total
Roadway Construction				
State Highways				
Federal/State Funding	\$279,505	\$1,269,419	\$1,708,470	\$3,257,394
Local Roadways				
Federal/State Funding	\$96,139	\$436,633	\$587,650	\$1,120,423
Local Funding	\$180,002	\$817,509	\$1,100,259	\$2,097,770
Subtotal of Local Roadways	\$276,142	\$1,254,142	\$1,687,910	\$3,218,193
Subtotal of Roadway Construction	\$555,647	\$2,523,560	\$3,396,380	\$6,475,587
Roadway Maintenance and Operations				
State Highways				
Federal/State Funding	\$31,855	\$144,673	\$194,710	\$371,238
Local Roadways				
Federal/State Funding	\$24,048	\$109,216	\$146,990	\$280,254
Local Funding	\$209,560	\$951,750	\$1,280,930	\$2,442,239
Subtotal of Local Roadways	\$233,607	\$1,060,966	\$1,427,920	\$2,722,493
Subtotal of Maintenance and Operations	\$265,462	\$1,205,638	\$1,622,630	\$3,093,731
Metro Transit				
Capital				
Federal Funding	\$20,583	\$93,481	\$125,813	\$239,877
Local Funding	\$5,146	\$23,370	\$31,453	\$59,969
Subtotal of Capital	\$25,729	\$116,851	\$157,266	\$299,846
Operating				
Federal Funding	\$28,548	\$138,929	\$207,604	\$375,081
State Funding	\$78,730	\$383,142	\$572,538	\$1,034,410
Local Funding	\$75,587	\$367,849	\$549,686	\$993,122
Farebox	\$58,860	\$286,445	\$428,041	\$773,346
Subtotal of Operating	\$241,725	\$1,176,365	\$1,757,869	\$3,175,959
Subtotal of Metro Transit	\$293,182	\$1,410,067	\$2,072,402	\$3,475,805
Bicycle and Pedestrian Facilities				
On-Street Facilities	inc	luded as part of st	reet project fundir	ng
Off-Street Facilities				
Federal/State Funding	\$3,136	\$14,244	\$19,170	\$36,550
Local Funding	\$16,709	\$75,887	\$102,133	\$194,729
Subtotal of Off-Street Facilities	\$19,845	\$90,130	\$121,303	\$231,279
Subtotal	\$19,845	\$90,130	\$121,303	\$231,279
Total Projected Revenue	\$1.134.136	\$5.229.396	\$7.212.716	\$13.276.402

# **PROJECTED EXPENSES THROUGH 2050**

Figure 6-7 shows projected transportation expenses. Expenses are estimated at \$12.8 billion for the planning period. Separate methodologies, detailed below, were developed to determine future expenses for roadway construction, maintenance, and operations; bicycle and pedestrian facilities; and Metro Transit capital and operating costs.

Figure 6-7

Estimated Transportation Expenses, 2017 - 2050 (\$000's)
for the Madison Metropolitan Planning Area

Source	2017-2020	2021-2035	2036-2050	Total
Roadway Construction				
State Highways	\$279,505	\$1,269,419	\$1,708,470	\$3,257,394
Local Roadways	\$263,269	\$1,228,992	\$1,724,617	\$3,216,878
Subtotal	\$542,774	\$2,498,411	\$3,433,087	\$6,474,272
Roadway Maintenance and Operations				
State Highways	\$31,855	\$144,673	\$194,710	\$371,238
Local Roadways	\$183,788	\$857,961	\$1,203,957	\$2,245,706
Subtotal	\$215,643	\$1,002,633	\$1,398,667	\$2,616,943
Bicycle and Pedestrian Facilities				
On-Street Facilities	included as part of street project funding			
Off-Street Facilities	\$22,783	\$80,003	\$113,764	\$216,550
Subtotal	\$22,783	\$80,003	\$113,764	\$216,550
Metro Transit				
Capital Expenses	\$25,729	\$116,851	\$157,266	\$299,846
Operating Expenses	\$241,725	\$1,176,365	\$1,757,869	\$3,175,959
Subtotal	\$267,453	\$1,293,216	\$1,915,136	\$3,475,805
Total Projected Expenses	\$833,010	\$3,871,630	\$5,461,987	\$12,783,571

Roadway Construction, Maintenance, and Operations

To begin the process of projecting expenses for construction, maintenance, and operations of the roadway network in the region, the revenue analysis was coupled with a pavement condition analysis to compare funding levels over the past five years to pavement conditions for all roadways by jurisdiction (state, local) and functional classification (arterial, collector, local). Overall, Interstate, US, and state trunk highway conditions in the Metropolitan Planning Area have been gradually improving in recent years as measured by Pavement Condition Index (PCI), which reflects the structural integrity of the roadway. PCI was developed by the US Army Corps of Engineers, and is based on a visual survey of the number and types of distresses in the pavement.<sup>2</sup> In contrast to state highway conditions in the Metro area, local roadway pavement conditions—as measured by a similar rating system as PCI called Pavement Surface Evaluation and Rating or PASER—have been steadily deteriorating during this same period. These outcomes can be tied to state funding priorities and challenges, some of which were discussed at the beginning of this section, and local funding challenges. Figure 6-8 provides a comparison of roadway conditions between 2013 and 2015. These years were not the only ones analyzed, but are the only two with complete data sets for state highways, City of Madison streets, and other local roads and streets.

Next, average roadway construction and roadway maintenance and operations costs were calculated for local streets, collectors, and local arterials within the City of Madison and other metropolitan area cities, villages, and towns by averaging the total lane miles in each municipality by the average annual costs between 2010 and 2014. Average maintenance and operations costs

<sup>2</sup> The Federal Highway Administration requires states to report highway conditions as measured by the International Roughness Index (IRI), which measures the smoothness of the roadway pavement. IRI data indicate the condition of state highways is in worse condition. WisDOT has indicated that Pavement Condition Index (PCI) is the more accurate and appropriate measure because IRI doesn't necessarily mean a roadway is in poor condition and needs extensive rehabilitation or maintenance work.



were highest within the City of Madison at over \$10,915 per lane mile annually, compared to only \$4,327 in towns. Construction costs were, surprisingly, highest in suburban cities bordering Madison, at over \$18,211 per lane mile, compared to \$14,968 for Madison and \$13,304 for villages. These cost differences are likely due to the addition of new urban infrastructure when roads are reconstructed, such as street lights, curb and gutter, and urban furniture.

A lane mileage growth factor was calculated by comparing year-over-year growth of the local transportation network within the Metro area. The number of lane-miles of local roads has grown at a rate of 0.09%, while the growth rate for arterials was 0.9%. The growth rate, lane mileage cost, and inflation factor of 2 percent were applied to each spending category for municipal roads and extrapolated to 2050.

Using these assumptions, it is projected that \$3.2 billion will be needed for local roadway construction over the 34-year

planning period to 2050, while \$2.2 billion will be needed for maintenance and operations. Projected local roadway revenues are \$5.9 billion, resulting theoretically in a "surplus" of around \$478 million. However, this additional revenue will likely be needed to fund preservation projects to avoid the continued deterioration of area roadways.

Because of the assumed increase in arterial lane miles, projected local roadway construction costs should include the cost of the major capacity expansion projects on local roadways listed in <u>Appendix A</u>. The cost of those projects total \$247 million in inflation adjusted dollars over the planning period. If the cost of these projects isn't fully



Pavement Condition by Roadway Type - 2013 vs. 2015 within Madison Metropolitan Planning Area,

covered, however, the "surplus" could cover any extra costs for them.

The projected "surplus" will be needed for additional roadway maintenance and non-capacity expansion construction projects in order to maintain or improve roadway network condition in the future. That is because the projected expenses will merely maintain existing trends – a steadily deteriorating local roadway system. An infusion of additional revenue will be needed to ensure that roadways receive preventive maintenance before significant deterioration, which can add 15-20 years of useful life at a substantial cost savings over reconstruction. Even with timely maintenance, streets eventually need to be reconstructed and utilities replaced.



Figure A-1 in Appendix A includes a list of programmed, planned, and other potential needed future high-cost arterial reconstruction projects based on current roadway condition and year the roadway was originally constructed (where that data was available). The total inflation adjusted cost of these projects over the planning period is \$378 million. This includes some programmed and planned intersection and bridge projects. Some of the identified potential roadway reconstruction projects are in peripheral developing or planned development areas that will need to be reconstructed to urban standards, but many are in existing older developed areas.

The major source of funding for local arterial reconstruction projects is the STBG (formerly STP) Urban program for which MATPB receives an allocation of funding for each multi-year program cycle. The total amount of STBG Urban funding projected to be available over the 34-year planning period is \$347 million, assuming 2% annual inflationary increases in funding. Using the current 60/40 cost share policy of MATPB, this would fund projects totaling \$578 million. This would cover over 90% of the local arterial reconstruction projects (both capacity expansion and preservation) identified. Some of the projects listed will be funded locally and so even though some STBG Urban funding has been and will be used for other types of projects, this demonstrates the feasibility of funding the capacity expansion projects identified while still meeting major arterial preservation project needs in the region.

Recent trends demonstrate improving pavement conditions on the state highway system within the Madison metropolitan area. This analysis assumes that maintenance and operations will continue at current expenditure levels to the end of the planning period, with a 2% inflationary growth factor. While it would appear that the system would be maintained at a high level, it should be noted that the trend of improving state highway conditions over the past few years represents only a relatively small data sample. Based on the analysis conducted by WisDOT in 2013 and again in 2016 for the state transportation fund solvency study, a substantial increase in funding will be required just to maintain current pavement conditions. The trend in pavement condition of the state and local roadway systems will continue to be monitored. WisDOT is in the process of developmenting a State Highway Investment Plan, which will include an analysis of 20-year infrastructure investment needs.

Information produced from this planning effort will be incorporated into the next 5-year update of the RTP.

For state highway construction expenditures, programmed (or scheduled with funding attached) and other near-term (5-15 years) planned projects were identified and costs estimated using the 2% annual inflationary factor. See Figure A-1 in Appendix A. Included are WisDOT Major Highway Development program projects, specifically Interstate 39/90 expansion south of the Beltline and the Verona Road (US 18/151) expansion project. The only planned Major Highway Development program project included in the plan at this time is the Beltline/Interstate interchange. This project includes three phases, the third of which includes conversion of US 12/18 east of the interchange to a freeway with an interchange at CTH AB.

Other Major Highway Development program projects, which must be recommended for enumeration by the state Transportation Projects Commission (TPC) and enumerated by the Legislature and Governor, are not known at this time. This includes potential capacity expansion projects on the Beltline, Stoughton Road, and US 51 (McFarland to Stoughton) that are currently being studied, as well as the I-39/90/94 and WIS 19 / North Mendota Parkway corridors that are recommended for future study. The preferred roadway improvement alternatives for the Beltline and Stoughton Road corridors have not been determined. Once the studies are completed, the scope of specific improvements identified, costs estimated, and Major Highway Development program funding either secured or determined to be reasonably likely to be available, the plan will be amended to add the project(s) with an updated financial analysis. A preferred alternative for the US 51 (McFarland to Stoughton) corridor has been identified pending completion of the environmental study, however Major Highway Development program funding for the project is uncertain given the other potential Madison area projects for which such funding will be sought in the near future. If the US 51 (McFarland to Stoughton) project does not receive this funding, alternative sources may be needed and the project would then need to be completed in multiple segments over time.

Based on the funding for the Madison area projects enumerated for the Major Highway Development program for FYs 2014-2020, a total of \$1.6 billion in inflation adjusted funding can be expected to be available during the planning period. This would cover the currently estimated inflation-adjusted cost of the Beltline/Interstate interchange (\$550 million) with around \$1 billion available for additional project(s). This would be sufficient to fund the Stoughton Road and US 51 projects should Major Highway Development program funding be sought for them or possibly the Beltline project. However, the region would need to garner a much larger percentage of the Major Highway Development program funding and/or total statewide funding would need to be significantly increased to fund the Beltline project, US 51 projects, and other needs such as the interstate in

the Madison area. The Beltline project, which is expected to cost in excess of \$1 Billion, would be expected to rate as a high priority under the project selection criteria, but would face competition from other major needs in the state, particularly on the southeast area freeway system.

Because the list of Major Highway Development program and other state highway construction projects is incomplete, a major surplus in funding remains, particularly in the last time period – 2035-2050. Because it is assumed that all available funding for construction will be expended, expenditures were adjusted to match revenues.



### Public Transportation

### Capital Costs

The single largest capital expense for Metro Transit by far is replacement buses. Metro typically replaces buses on a cycle of about 15 years. With a fleet of just over 200, it purchases about 15 new buses per year. Although the availability of traditional federal funding for replacement buses has decreased in recent years due to the elimination of discretionary transit capital funding in MAP-21, Metro has been relatively successful in securing local and other federal funds necessary to maintain its fleet. MATPB awarded federal STBG Urban funds in 2015-'17 to purchase a total of 21 buses. Another major capital cost is the ongoing renovation of Metro's maintenance facility. Maintaining Metro's fleet replacement schedule, the facility renovation, and other usual capital expenses can be covered with projected revenues based on recent trends.

However, in order to fully implement the recommended transit system improvements there are some major new capital costs that will require significant additional funding. The two most immediate capital needs are a new bus storage and maintenance facility and bus rapid transit (BRT) infrastructure. In addition, new buses in the future will likely be electric and some may be longer, high-capacity articulated buses. The planned Nakoosa Trail bus storage and maintenance facility is estimated to cost about \$35 million. Final design work for the facility will be done this year. The new facility is necessary for Metro to be able to expand its peak period service area and frequency, and to house and maintain articulated buses, which will be needed for the BRT system. Metro has unsuccessfully applied for discretionary federal TIGER grant funding in the past, but plans to apply again in 2017, assuming the program is continued.

Detailed costs for the planned BRT system are not known, but a feasibility study completed in 2013 estimated that the 20mile system envisioned would cost between \$105 and \$155 million, excluding the cost for the bus storage and maintenance facility. Costs for BRT vary greatly based on the scope of the project. The system envisioned in the feasibility study includes new articulated buses, new stations, and some roadway modifications. A planned 2017 study will provide more detailed cost estimates for a first phase project, which could be constructed, and in service by 2021-'22. Capital funding is anticipated to be provided through a federal Small Starts program grant covering up to 80% of project costs. If other federal funding is not secured, the Small Starts grant could also cover up to one-half of the cost of the new satellite bus storage and maintenance facility, which is needed for the BRT buses. The City of Madison has included required local match funding for the starter BRT project and facility in its multi-year capital budget. Funding for the study and BRT project design is available from previous federal grants and state funding. Once the 2017 study is completed and the initial BRT project identified with an estimated cost, an amendment to the RTP is anticipated to add the project to the fiscally constrained, federally recognized plan.

New articulated and electric buses, as recommended in the plan, will be more expensive than the standard 40-foot diesel buses and hybrid-electric buses currently in use. Electric buses have become more common as the technology improves and the price drops. Articulated buses have been in use in the industry for many years. With the new service planned (bus rapid transit, new all-day service, frequency improvements, and regional express service), the fleet size is expected to grow by about 70 buses, including spares. If all of the recommended service improvements in the plan are implemented, the capacity of Metro's primary and planned satellite facilities will be largely exhausted. Future expansion of the fleet would require additional storage capacity.

Table 6-9 lists the major capital expenses necessary to fully implement the recommended transit improvements. The total estimated cost in today's dollars is over \$300 million — far more than Metro is likely to receive based on historical trends. The recent average annual spending on capital needs is about \$6 million, which is generally sufficient for meeting Metro's bus replacement needs, but not for expanding or upgrading the fleet. Some expansion of the fleet for new service and/or upgrading of the fleet to electric buses may be feasible with other federal funding and increased local funding, but implementation of the full suite of planned improvements would not be possible. Metro will need to fund the new maintenance facility to accommodate planned service expansion regardless of whether it pursues BRT.

While Metro may be able to secure discretionary federal grants for the Nakoosa Trail bus storage and maintenance facility and initial BRT project, funding the complete list of capital needs identified in the plan will likely require a regional funding mechanism.

Major Capital Expense	Estimated Cost in Millions
Bus Rapid Transit System with buses and Nakoosa Trail bus storage and maintenance facility	\$165
Second satellite bus storage and maintenance facility	\$35
Fleet expansion for new all-day service and regional express service	\$30
Upgrade standard 40-foot buses to electric buses with some articulated buses	\$75
Grand Total	\$305

### Figure 6-9 Estimated Costs of Needed Transit System Capital Projects

### **Operating Costs**

Implementing the service improvements recommended in this plan will require an estimated additional 255,000 annual service hours, a 63% increase. See Figure 6-10. This planning-level estimate includes the BRT service, new all-day service, frequency improvements in central Madison, and the network of regional express bus routes. Assuming the service improvements are phased in over the approximately 34-year plan time-frame, the increase translates to about 1.5% per year.

Service Category	Estimated Annual Revenue Service Hours	Estimated Cost in Millions
Existing Metro Transit Service	406,000	\$55
Bus Rapid Transit	104,000	\$14
New All-Day Service	88,000	\$12
Frequency Improvements	7,000	\$1
Regional Express Service	56,000	\$8
Grand Total	661,000	S90

Figure 6-10 Estimated Annual Service Hours for Recommended Regional Transit System

This 1.5% growth rate is considerably higher than Metro's historical growth rate of about 0.9% per year since 2003. Before 2003, there had actually been a trend of decreasing service hours following the route restructure and expansion in 1998. Between 2010 and 2015, Metro Transit's operating funding increased an average of 0.7% per year in constant 2015 dollars. This increase allowed for some increased service – in fact, during that same time period, service hours actually increased at an average of 1.4% per year. However, this level of funding would not provide the resources necessary to support the transit service recommendations in this plan. Because service hours rose faster than operating funding, some hours were added through improved efficiencies, and there are limits to these efficiency gains. Also, increased funding has come from local governments, and competing funding demands and the state expenditure restraint program make its continuation unlikely.

If the number of service hours was to increase at the same rate as operating funding has risen – 0.7% per year – Metro could expect to be able to operate about 112,000 additional annual service hours by 2050, slightly less than one-half of the service hours recommended in this plan. The remaining unfunded 143,000 annual service hours will require a new funding source. See figure 6-11.

Figure 6-12 identifies the types of revenue generation mechanisms that could be used to fund the expansion of the transit system as well as the estimated annual revenue generation of these sources. A vehicle registration fee



**Metro Transit Service Hour Projections** 

alone would not be enough to fund the planned transit system, but would allow Metro to make targeted service expansions and pursue needed capital improvements. A 1/4 percent sales tax would likely be sufficient to fund a steady implementation of the

planned transit system while a ½ percent sales tax would act as a safeguard against future state and federal funding reductions, and allow faster implementation of the planned system. It is important to note that an RTA could be used to fund transit alone or all modes of transportation depending on the statutory language in the enabling legislation. The recommendations above assume all funds are allocated to transit. If funds are divided between modes, additional funding may be required to implement the planned transit system.

### Figure 6-12 Estimated Annual Revenue Generated from New Taxing Authority

	Estimated Cost
Revenue Source	in Millions
RTA - ¼ % Sales Tax	\$23
RTA - ½ % Sales Tax	\$46
Vehicle Registration Fee - \$20 per year	\$8

### **Bicycle Projects**

New urban arterial streets and high-volume collector streets are almost universally built with bicycle facilities. Urban arterial street reconstruction projects generally include bicycle facilities, where feasible, given right of way constraints and competing demands for the space. The cost of these facilities is included in the budget for street projects. Therefore, no additional need for funding is anticipated for on-street bicycle facilities beyond that projected for the roadway system. Major regional off-street facilities, such as shared-use paths, are generally stand-alone projects, although some side paths and grade-separated crossings are now being funded as part of roadway projects such as those on CTH M and CTH PD. The *2015 Bicycle Transportation Plan* identified a network of planned regional priority paths and estimated the cost for these projects. <u>Figure A-2</u> in Appendix A lists these projects and a planning level cost estimate for them. There are also some major shared-use path and grade-separated crossing recommendations that have been identified as part of major state highway corridor projects, most notably the Beltline and Stoughton Road. It is expected that at least some of those projects would be funded as part of those projects.

Bicycle project costs were estimated for the 2015 Bicycle Transportation Plan based on planning-level cost assumptions, taking into account the length of the path, character of the corridor, and presence of bridges and underpasses. Programmed projects were then assigned a construction year and, as with the roadway projects, the longer term projects were assigned to one of two time periods – 2021 to 2035 and 2036 to 2050. Project costs include a 2% per year inflationary factor. The costs of these regional priority projects, about \$80 million in 2021-2035 and \$114 million in 2036-2050, are forecasted to be within the projected funds

available (\$90 million in 2021-2035 and \$121 million in 2036-2050). Other path projects included in the bicycle facilities plan may be completed with urban development projects, in conjunction with roadway construction projects, or may be funded separately.

# CONCLUSION

The financial capacity analysis for the RTP assumes a 2% annual inflationary increase in federal, state, and local funding. However, the state gasoline tax rate will need to be increased, or other new revenue sources (e.g., new mileage based registration fee) created, in order to offset inflationary increases in project costs. The state gas tax hasn't been increased since, 2006 when the automatic indexing of the gas tax and vehicle registration fees to the inflation rate was eliminated. The State Commission on Transportation Finance and Policy's report, <u>Keep Wisconsin Moving – Smart Investments, Measurable Results</u>, provided recommendations for generating additional revenue, but thus far the state legislature has not addressed the long-term solvency of the state transportation fund.

An increase in funding levels is necessary to maintain the existing condition of the region's roadway system. The overall condition of the state highway system has improved the past few years, but necessary major reconstruction projects loom on the horizon. Also, a WisDOT analysis of the statewide system indicates that spending at the same level as the current budget will result in a 93% increase in state highway miles rated in poor or worse condition by FY 2027. The overall condition of the local roadway system has been steadily deteriorating. It is difficult to estimate the level of increase in funding that would be necessary to maintain or improve the condition of local roadways in the region, but clearly the current level of funding is insufficient.

The financial analysis indicates that projected revenues will be sufficient to implement the state and local arterial roadway capacity expansion projects identified in Figure 5-2 in Chapter 5 and listed in Figure A-1 in Appendix A while at the same time addressing roadway preservation needs in a manner similar to recent trends. However, this means that roadway conditions, at least on the local system, will continue to slowly deteriorate. Major capacity improvements in two state highway corridors (Stoughton Road, Beltline) currently being studied would probably not all be able to be fully funded with current funding levels – the Beltline project alone is expected to cost over \$1 billion. Major Highway Development program projects funding, which is provided on a statewide discretionary basis, will be sought for these projects. Some local arterial capacity expansion needs will not be able to be addressed without additional funding, most notably the western segment of the planned North Mendota Parkway.

Significant new transit funding will be needed to implement the recommended regional transit service improvements, including BRT, new regional commuter service, and increased local service frequencies in high-demand corridors. The estimated costs to fully implement the plan include over \$300 million in capital costs and a 63% increase in annual service hours at an estimated additional annual cost of \$45 million. Implementation of these improvements will likely require a new regional funding mechanism, such as a regional transit authority, with the ability to levy a sales tax. It is estimated that a ½ cent sales tax today would generate \$46 million annually.

Current funding levels, adjusted annually for inflation, would be sufficient to fund the major regional priority path projects illustrated in <u>Figure 5-8</u> in Chapter 5 and listed in <u>Figure A-2</u> in Appendix A. These projects were identified as needed to address key gaps and barriers, and complete the planned primary regional network found in <u>Figure 5-10</u> in Chapter 5. Additional identified projects would need to be completed in conjunction with new development, as part of roadway construction projects or with additional funding. On-street facilities are assumed to be included as part of roadway projects.