



## Projects

The FBRMPO worked cooperatively with NCDOT and the cities, counties, and towns that make up the region to select projects that make the funding cutoff (fiscal constraint in official language). These lists respect our local and regional needs and the North Carolina transportation funding law, the Strategic Transportation Initiative.

The first 10 years represent the Transportation Improvement Program (TIP), a 5-year list of projects slated for construction plus 5 additional years of “developmental” projects that are beginning study and environmental assessment. The “developmental” TIP also begins but does not finish some large projects, including the Balfour Parkway in Henderson County and the I-26 Connector in Buncombe County. Remaining construction for those and a few other projects use the funding available in years 11-15.

Beyond the TIP, “sibling” projects of funded projects are part of the same federal permitting process, and are expected to advance. Those projects use the funds for years 16-20 and a large portion of 21-25. Only a handful of projects outside the TIP either directly, or as sibling projects, were added to this plan.

Additionally, transit projects and bike/pedestrian projects have been separated into different project lists. For each of these categories, their own versions of fiscal

constraint have been established based on similar assumptions for future revenues.

To see additional projects the FBRMPO is developing, see the Comprehensive Transportation Plan (CTP). This plan is a North Carolina requirement, and represents all potential projects, without any financial constraint applied. Except for smaller safety and operational improvements, all projects in the 2040 MTP represent a subset of CTP projects that

## Fiscal Constraint

### The French Broad River MPO seeks to spend within our means.

Federal regulations require the MPO’s Metropolitan Transportation Plan to be fiscally constrained. This means the MTP must project the amount of funds that will be available for different transportation uses in order to responsibly plan for projects. The projection of available funding must be based on reasonable assumptions, derived from FHWA guidance, in order to create a feasible picture of the funding environment for the time period of the MTP (2016-2040.)

### Roadway

State transportation revenues are derived from fees in the form of Motor Fuel Tax (MFT), driver and vehicles fees collected by the NC Division of Motor Vehicles (DMV Fees) and a Highway Use Tax (HUT) on vehicle title transfers. Federal transportation revenues are derived from

a federal MFT tax and vehicle fees (mostly on trucks). North Carolina’s transportation funding comprises roughly 75 percent state revenues and 25 percent federal.

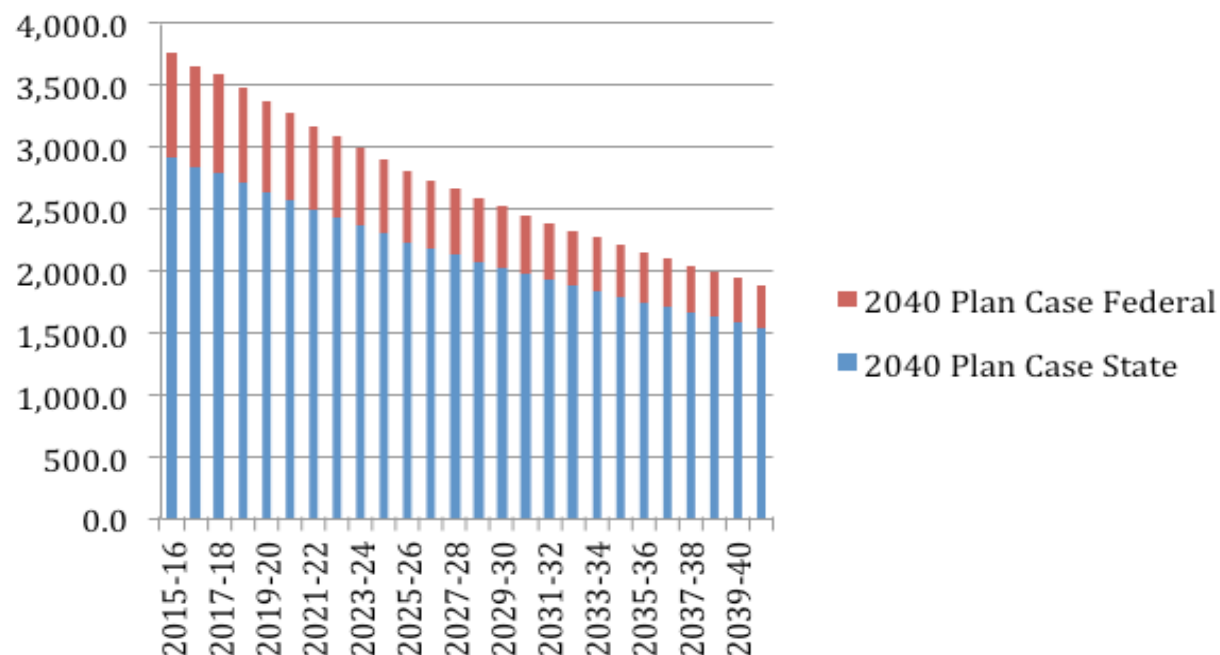
### **North Carolina’s Statewide Transportation Plan (2040 Plan) Revenue Forecast Overview (Used by FBRMPO)**

Revenues for NCDOT’s existing funding sources were developed to define a baseline forecast for the 2040 Plan. The key assumptions:

- All revenues are presented in base year 2011 dollars. Revenues were deflated using a 3.0% annual discount rate. This means that inflation was taken into account on the revenue side, which means adjusting for inflation just happens once (deflating how much there is in spending power) rather than for individual projects. This also makes amending the plan easier during interim years.
- Motor fuel tax revenues are estimated based on projected fuel consumption and the assumed tax rate. Fuel consumption estimates for the 2040 Plan reflect the Energy Information Administration’s long range national forecasts adjusted for the adoption of the Corporate Average Fuel Economy (CAFE) standards. The 2040 Plan revenue forecast assumes the motor fuel tax rate remains fixed at 35 cents under the Base Plan. Then some incremental increase based on indexing of the motor fuel tax over the course of the plan (see Figure 7.1).

- Highway use tax projections are based on NCDOT's methodology where revenues are driven by the growth rates for US consumer spending on motor vehicles as forecast by IHS Global Insight for the North Carolina Office of State Budget and the 3% tax rate applied to the net retail value of vehicles.
- Reflecting NCDOT's projection methodology, Highway Fund revenues from fees (which primarily consist of the staggered registration fee, driver licenses, and truck licenses) are projected to increase based on population growth. The Highway Fund is generally for maintenance. Highway Trust Fund fees, which consist of vehicle-based title and registration fees, are projected to grown at 60% of the corresponding projected rate for consumer auto spending. For the baseline projections current license and fee rates remain unchanged. The Highway Trust Fund is primarily used for funding new projects.
- Federal funds received from the Federal motor fuels taxes are projected using the same methodology as the state motor fuels tax. Annual changes in federal funds are first driven by projected changes in fuel consumption reflecting CAFE standards. At the time the 2040 Plan forecast was developed, MAP-21 (federal transportation authorizing law) had not been adopted and the Federal Surface Transportation Program was subject to several multi-month extensions. Given,

Figure 7.1: State 2040 Plan Revenue Forecast (in Billions of \$)



at the time, the continuing lack of a multi-year authorization and periodic proposals by elected officials to restrict funding levels equal to amounts deposited into the federal Highway Trust Fund (different from the state's), the baseline analysis assumes that federal funds are reduced by 35% beginning in state fiscal year 2014.

- The total revenue calculations assume a 35.0 cents gas tax for each year, a 35% reduction in federal funds starting in state fiscal year 2013, and do not include any toll revenues. These values do not include a 27% reduction in yearly funds for transfers and debt service. The NCDOT 2040 Vision Plan forecasts transportation revenues for all

of North Carolina based on conditions at the time the forecast was done. Declining motor fuel tax revenues at the state and federal level combined with increasing materials costs are the drivers of the fiscal part of this plan.

The bottom line of performing this fiscal analysis is that after adjusting for inflation (through the decreased purchasing power of our revenues) and the continued fall in fuel tax revenue, North Carolina will have half as much in financial resources to invest as a state by 2040. Since FBRMPO based this plan on a percentage of the state total, the region's available funding outlook is similarly diminished.

To get from the statewide 2040 Plan to a figure the region could use, the FBRMPO looked at the draft 2016-2025 STIP. The method takes the total amount programmed in the entire 10-year STIP and calculates the percentage of the statewide STIP slated to come to the FBRMPO over the 10 year period for capital projects (2.91%). For each forecast year of the statewide 2040 plan, the French Broad MPO region assumes 2.91 percent of the statewide total for programming new projects. This is done in 5-year blocks, with the entire cost of the new project accruing on the year shown for right-of-way spending, except for post-year funding specifically called out in the STIP.

Based on this the FBRMPO has nearly \$1,831,258,691 in Construction and \$702,484,685 in Maintenance likely to come to the region between 2016 and 2040.

The STIP shows likely project investments for  
 Table 7.1: Forecast Roadway Expenditures

Forecast Roadway Expenditures		
Year	Construction	Maintenance
2016-2020	\$706,034,000	\$184,374,047
2021-2025	\$275,948,000	\$165,894,820
2026-2030	\$325,188,134	\$138,825,547
2031-2035	\$280,696,829	\$116,173,202
2036-2040	\$243,391,726	\$97,217,069

the first 10 years of the Plan, and accounts for \$981,982,000 of funds identified for specific projects, and \$303,567,466 in additional commitment beyond 2025 that will need to be factored into this Plan. The remaining \$595,654,692 was prioritized using a method that looked at projects with “siblings” funded in the STIP and that also have valid environmental documents and permits. The remaining funding was prioritized using a methodology that is tied to the plan goals and is described in detail in Appendix xxxxxxxxxxxx, and the resulting project list is covered in the previous section.

### Bicycle and Pedestrian

Bicycle and pedestrian forecast revenues were calculated using the same assumptions as roadway, but were based on the funding sources that have reliably

been used towards stand-alone bicycle and pedestrian projects in the region. This analysis focuses on the sources of funding that can be reasonably assumed to be available to our region and include the direct allocations the MPO receives of Surface Transportation Program and Transportation Alternatives, Transportation Alternatives funds programmed through SPOT, and the local contributions necessary to procure those funds.

The amount of STP and TAP funds for stand-alone bicycle and pedestrian projects was calculated by determining the amount of funding going towards those types of projects in past MPO calls for projects as well as the two projects programmed through SPOT 3.0 and reflected in the STIP.

Using these assumptions and continuing

Table 7.2: Bike / Pedestrian Funding Assumptions

Funding Source	Assumption	Base Year Funding
STP-DA	47.6% of available funds will be used towards stand-alone bicycle and pedestrian projects – based on historical percentage of programmed STP-DA	\$1,666,000
TAP-DA	100% of available funds will be used towards stand-alone bicycle and pedestrian projects – based on historical percentage of programmed TAP-DA	\$290,000
TAP (through NCDOT)	Approximately \$57,000 at base year – based on amount of money programmed through State Prioritization and in the 2016-2025 TIP	\$57,000
Local Matching Funds	20% local match will continue to be required and will be supplied	\$503,250

the methodology from the roadway section (in which purchasing power is shown to be reduced by approximately 3% annually), the region will have \$40,844,839 to program for stand-alone bicycle and pedestrian projects between 2016-2040. That figure does not include an additional \$9,030,000 in previously programmed projects from U-5019A, U-5019C, and U-5190.

### Public Transportation

Anticipated funding for public transportation is calculated for the entire five-county region around the FBRMPO (Buncombe, Haywood, Henderson, Madison, and Transylvania counties.) All five-counties are analyzed due to the inability to decipher the use of funding for transit services that operate in both urban and rural areas.

Base funding for public transportation in our region is largely determined from data made available through the National Transit Database for FY 2013. For 5307 and

Table 7.3: Projected Bike/Pedestrian Expenditures

Projected Bike/Pedestrian Expenditures	
Year	Construction
2016-2020	\$11,374,736
2021-2025	\$9,474,837
2026-2030	\$8,136,365
2031-2035	\$6,986,973
2036-2040	\$4,871,928

5310, apportionments from FY 2014 were used as the base year due to significant changes in apportionments from FY 2013 that staff believes will be better utilized for projecting future revenues.

Anticipated revenues are calculated with the same assumptions for federal and state funds (funding will remain flat, but applying inflation to revenues

Table 7.4: Transit Funding Assumptions

Federal Funding	Operations	Capital
5307	97% of funds made available to the FBRMPO region will be used for operations – based on 5-year averages from FY 2009 – FY 2013	3% of funds made available to the FBRMPO region will be used for capital – based on 5-year averages from FY 2009 – FY 2013
5310 (Regional)	45% of funds made available to the FBRMPO region will be used for operations – based on 5310 requirements.	55% of funds made available to the FBRMPO region will be used for capital- based on 5310 requirements
5310 (Statewide)	Baseline funding in rural counties used and extrapolated at 3% annual reduction.	Baseline funding in rural counties used and extrapolated at 3% annual reduction.
5311	Approximately 74.6% of available funds will be used in the five-county area for operations- based on usage proportions in FY 2013.	Approximately 25.4% of available funds will be used in the five-county area for capital-based on usage proportions in FY 2013.
5339	0% used on operations- based on 5339 requirements	100% used for capital- based on 5339 requirements
STP-DA	N/A	2.67% of STP-DA funds made available to the FBRMPO will be utilized for transit capital projects- based on percentage of STP-DA programmed to transit in the past.

will be reflected in reduced purchasing power over the years) but required a more detailed examination into the use of federal funding to make better assumptions for the use of those funds. The following assumptions are made based on the type of federal funds:

Regional transit planning funds (Section

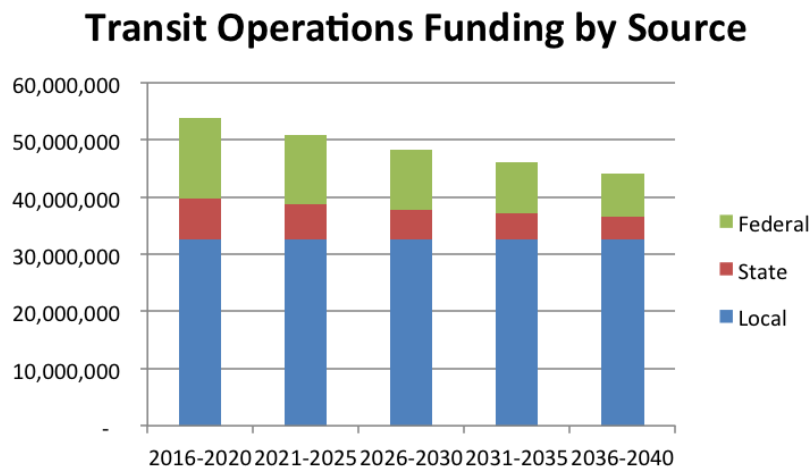
5309) are broken out into their own category and in the project list as its own item. The City of Asheville is the region’s designated recipient of Section 5309 funds and is charged with its administration and use. For these funds the baseline year of FY 2014 was used and extrapolated with a 3% annual reduction throughout the 25-year horizon.

State funds- most prevalent in the form

Table 7.5: Transit Operations

Operations			
	Local	State	Federal
2016-2020	32,670,300	7,014,482	14,113,782
2021-2025	32,670,300	6,023,574	12,119,985
2026-2030	32,670,300	5,172,648	10,407,844
2031-2035	32,670,300	4,441,929	8,937,570
2036-2040	32,670,300	3,814,436	7,674,995

Figure 7.2: Transit Operations Funding by Source

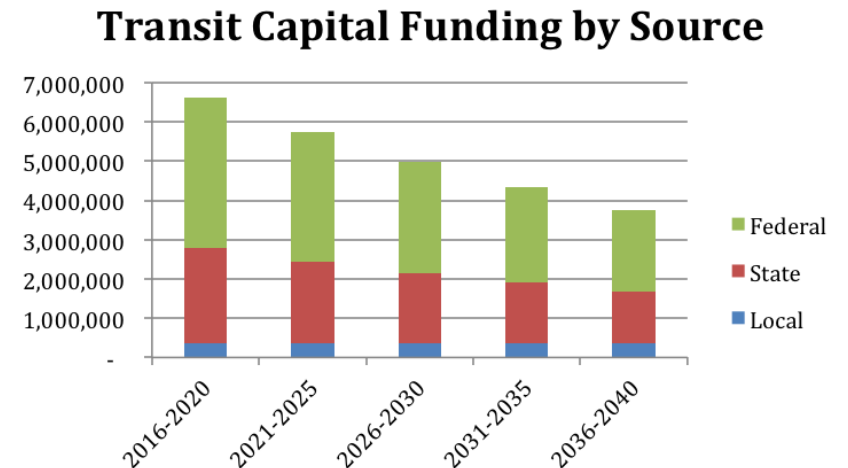


of the Rural Operating Assistance Program (ROAP)- are assumed to continue similarly to federal funds (funding will remain flat, but applying inflation to revenues will be reflected in reduced purchasing power over the years.) The proportion of funding used for operations (74.4%) and capital (25.6%) are assumed to remain relatively stable over the MTP’s twenty-five year time horizon.

Local funds, including farebox revenues  
Table 7.6: Transit Capital

Capital			
	Local	State	Federal
2016-2020	375,129	2,411,564	4,331,530
2021-2025	375,129	2,070,892	3,285,972
2026-2030	375,129	1,778,345	2,821,776
2031-2035	375,129	1,527,126	2,423,155
2036-2040	375,129	1,311,395	2,080,845

Figure 7.3: Transit Capital Funding by Source



and revenues from contract services, are expected to be the only general source of funding to keep up with inflation. This assumption is based on the different source of funds (property taxes, parking revenues, and other sources) that have more political will to be raised to maintain current levels of service.

Table 7.7: Total Amount of Transit Funding

Total Amount of Transit Funding Available	
HORIZON 1 (2016-2020)	65,601,372
HORIZON 2 (2021-2025)	60,625,402
HORIZON 3 (2026-2030)	56,786,029
HORIZON 4 (2031-2035)	53,525,874
HORIZON 5 (2036-2040)	50,657,781