

Virginia Department of Rail and  
Public Transportation

Transit Capital Project Revenue Advisory Board

# **Final Report**

*Final Report*  
June 12, 2017

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## Executive Summary

A long-term, sustainable investment in transit capital is critical for Virginia's economic vitality. Public transportation in the Commonwealth plays a key role in congestion mitigation, economic development, and environmental stewardship. In addition, it provides mobility to many of Virginia's citizens who have no other means of transportation. Over the past four years, the Commonwealth has provided matching funds to local transit agencies, averaging 45 percent of total public transportation capital investments. The remainder of capital funding has come from federal as well as substantial local and regional investments.

The ability for the Commonwealth and its local governments to continue providing critically needed funding to sustain these investments and keep our transit systems in a state of good repair is at risk due to the expiration of the Capital Project Revenue bond proceeds. These funds are critical in enabling local transit systems to invest in replacement buses, rail cars, infrastructure, facilities, technology, and other capital needs. A failure by the Commonwealth to provide sufficient capital funding will have a cascading effect on the ability of these systems to operate safe and reliable service and may result in the loss of federal funds if transit systems are unable to provide matching funds for capital assistance from the Federal Transit Administration. State participation rates will drop to an average of 28 percent and will only support rolling stock replacement, which has historically been funded at 68 percent.

An evaluation of the Commonwealth's documented funding needs and projected revenues has conservatively identified an average revenue gap of \$130 million annually over the next ten years, representing a drop of over 40 percent from existing funding levels. In 2019, the estimated gap will be \$42 million, and it will grow to an estimate gap of \$178 million by 2027. This reduction in state funding, along with increasing uncertainty in federal funding, will result in an increased burden on local governments to either fill the gap or implement significant reductions in, or elimination of, transit services in communities, large and small, around the Commonwealth. The projected impact of the loss in state transit capital funding to Virginia's economy includes the estimated loss of 1,000 jobs and \$200 million in economic activity annually. It is critical that solutions are identified and implemented to close this gap.

The Virginia General Assembly passed HB 1359 in the 2016 Session in recognition of the need to identify new funding sources for transit capital investments. HB 1359 further required that a prioritization process for funding transit capital investments be explored. Over the past year, the Transit Capital Projects Revenue Advisory Board (Revenue Advisory Board), convened under HB1359, has worked to quantify the gap between transit capital needs and available funding, evaluate potential revenue options, identify a process for prioritization of transit capital projects, and outline recommended changes to the structure of the transit capital program. This analysis has been performed in cooperation with the Transit Service Delivery Advisory Committee and the Commonwealth Transportation Board.

The key recommendations of the Revenue Advisory Board are:

- The Commonwealth needs a steady and reliable stream of dedicated revenues for its transit capital program to meet state of good repair needs and support much needed transit expansion to keep up with population growth.
- The Commonwealth should consider a funding approach that utilizes the following:
  - A combination of revenue sources to spread the impact
  - Revenue sources that ramp up gradually to address future gaps and needs
  - A combination of statewide and regional sources, with the majority of support coming from statewide sources
  - An approach for regional funds to be directed to prioritized needs within that region
  - A floor on regional taxes
  - Excess Priority Transportation Fund revenues (after debt service) dedicated to transit capital as this source becomes available in Fiscal Year 2025

In 2016, the Commonwealth successfully implemented a new prioritization process called Smart Scale for funding transportation expansion needs across the state. Smart Scale uses objective criteria to evaluate candidate projects and provides funding at a higher level to support implementation of the most critically needed projects. In an era of growing needs and constrained resources, the Revenue Advisory Board has determined that it is desirable and possible to develop a project-based prioritization process for the transit capital program.

In developing a transit capital prioritization model, the Revenue Advisory Board has determined that:

- All Transit Capital Funding should be separated into two programs – one for State of Good Repair/Minor Enhancement and one for Major Expansion.
- A minimum of 80 percent of the transit capital program should be directed to State of Good Repair and Minor Enhancement.
- The Commonwealth Transportation Board should have the discretion to move funding from the Major Expansion program into the State of Good Repair program, based on funding needs.
- A single consistent match rate should be applied across asset types in order to provide greater predictability in funding. This would shift away from the existing tiered match rates that vary by year or by asset. The maximum match rate should be high enough to ensure that selected projects are fully funded, e.g. 80 percent for all State of Good Repair projects.
- State of Good Repair projects should be matched at a higher rate than Major Expansion projects.
- Local matching requirements (minimum of four percent) should remain part of the program structure.

After careful study and analysis of the Commonwealth's transit capital funding needs and with the Smart Scale model in mind, the Revenue Advisory Board, in collaboration with the Transit Service Delivery Advisory Committee, has developed a proposed approach to transit capital prioritization. The approach includes initial recommendations for criteria and measures based on an understanding of the transit capital needs that exist across the Commonwealth. However, should a prioritization process be adopted, a more thorough analysis of these criteria and measures is required to finalize specific recommendations prior to implementation, with opportunities for additional input from the transit stakeholders. It is also recommended that the policy and specific provisions of the prioritization process should be developed by the Commonwealth Transportation Board, in a manner similar to Smart Scale.

The following report summarizes the extensive research and analysis conducted by the Revenue Advisory Board and presents recommendations. During this effort, the Revenue Advisory Board focused on identifying the answers to four key questions:

- How much funding is needed?
- What are potential funding sources?
- Which projects should be funded?
- How should funds be allocated to capital projects?

Additional technical details are provided in a series of appendices to this report and all proceedings of the Revenue Advisory Board are documented on the Department of Rail and Public Transportation's webpage at: <http://www.drpt.virginia.gov/transit/major-transit-initiatives/transit-capital-project-revenue-advisory-board-hb-1359/>

It is important to recognize that the majority (approximately 80 percent) of transit capital funds are currently dedicated to replacement of existing assets in order to maintain them in a state of good repair. The needs assessment outlined in this report represents a snapshot of program needs as understood in 2016. The transit capital environment is constantly changing as asset conditions are assessed and documented by transit providers statewide in response to recently imposed federal requirements. One notable example is the recent capital plan update from the Washington Metropolitan Area Transit Authority (WMATA) which reflects an increase of \$1.1 billion in capital funding needs over the next five years. This information was released after this study's analysis was conducted and reflects an increase in the overall statewide funding gap that will need to be addressed through further analysis.

## 1 Introduction and Background

Over the last decade, Virginia witnessed a nearly eight percent population growth, and with it, a 33 percent increase in the demand for public transportation services. Across the Commonwealth, 44 public transit agencies provide these essential services to over 200 million riders each year<sup>1</sup>.

Through its transit capital program, the Virginia Department of Rail and Public Transportation (DRPT) will invest over \$236 million in 2018 to ensure that transit agencies across Virginia can continue to adequately maintain and expand the buses, rolling stock, and physical infrastructure they utilize to meet the increasing demand for access to public transportation.

The Virginia General Assembly's modest funding increases for public transit over the last two decades have been unable to meet this growing demand. Consequently, the state transit capital program faces a pending budget crisis. In 2019, \$110 million in dedicated revenues – 44 percent of all program funding – will begin to phase out as the ten-year life of the Capital Project Revenue bonds comes to a close.

Recognizing the subsequent impact of this anticipated loss of revenue, the 2016 General Assembly enacted HB 1359, establishing the Transit Capital Project Revenue Advisory Board<sup>2</sup>.

This report examines the impacts of the upcoming reduction in revenues as a result of the Capital Project Revenue bonds beginning to phase out in 2019. It also identifies possible sources of replacement revenues the General Assembly may consider to not only replace the loss of these bonds but also to meet the growing demand for transit services in the decade ahead.

Additionally, the report provides methodologies for prioritization of the transit capital program, both for State of Good Repair as well as Minor Enhancement and Major Expansion projects. These methodologies are designed to support the Commonwealth Transportation Board in its efforts to fully fund the highest priority transit capital projects across the Commonwealth.

Five appendices provide additional detail on the analyses developed to support this investigation:

- Appendix A: Transit Resource Allocation Plan
- Appendix B: Detailed Summary of Revenue Options

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<sup>1</sup> 2015 State of Mobility Study

<sup>2</sup> HB 1359: <https://lis.virginia.gov/cgi-bin/legp604.exe?161+sum+HB1359>

- Appendix C: Detailed Funding Packages
- Appendix D: Illustrative Scoring Process
- Appendix E: Prioritized Funding Approach

## **1.1 Impact to Transit Agencies in Virginia**

HB 1359 charged the Revenue Advisory Board to identify new funding sources for transit capital investments and to explore a prioritization process for funding transit capital investments. The reduction in transit capital investment is anticipated to have a significant impact on transit service and personal mobility in the Commonwealth. Local governments will be faced with difficult choices: identify additional local funding to support transit or eliminate vital transit services. With reductions in service, the public would experience longer headways between buses, elimination of transit routes, and an overall reduction in mobility choices. These impacts are not only significant to local governments and transit agencies, but they have statewide economic implications as well.

## **1.2 Economic Analysis**

DRPT secured the consultant services of KPMG to estimate the impacts associated with the sunset of the Capital Project Revenue bonds in 2019. The study found that without replacement of these funds, there would be a significant impact on the Virginia economy and on the productivity of the transportation network in various regions of the Commonwealth, especially in Northern Virginia. This analysis assumes that local and federal investment remains at current levels. As there are significant federal and local government contributions to transit capital, any reduction in those funds for transit would serve to increase the negative impact to Virginia's economy.

KPMG's modeling of the economic impacts to the Commonwealth from such a reduction in capital spending identified a significant negative impact, amounting to a loss of \$200 million in gross economic state output and 1,000 jobs each year for as long as the reduction in capital spending were to remain in force. These include jobs directly related to transit investment, those individuals who are indirectly employed in support of transit, and employment that is induced via the expenditure of wages and salaries of those directly or indirectly related to transit investment which is spent on other goods and services.

Based on information supplied by the American Public Transportation Association, there is a significant amount of employment in the Commonwealth that is related to the transit industry.

**Figure 1- Transit Related Companies and Industries in Virginia**

<u>Company</u>	<u>Industry</u>	<u>Location</u>
Big R Bridge	Station Equipment	Abingdon
Mayville Engineering	Fabrication	Atkins, Wytheville
Consolidated Glass	Windows	Galax
Imperial Group	Fabrication	Dublin
CVG Trim Systems	Seating, Wiring	Dublin
Koppers Inc	Station Equipment, Ties	Salem
Progress Rail Services	Wheels, axles, traction motors	Roanoke
Cardinal Rubber	Gaskets, hoses	Roanoke, Richmond
Metalsa	Frames, fuel tanks, side rails	Roanoke
Goodyear Tires	Tires	Danville
Schrader International	Valves, air/fluid control	Altavista
Parker Hannifin Integrated	Seals, gaskets, fasteners	Lynchburg
Cableform	Motor controls	Troy
Tri-Dim Filter	Filters	Louisa
Oran Safety Glass	Glass	Emporia
Sealeaze	Door seals, track heating	Chesterfield
Deuta America	Data loggers, sensors	Richmond
Continental Automotive	Engine, fuel, chassis systems	Newport News
American Turbocharger	Remanufacturing	Newport News
TE Connectivity	Sensors	Hampton
Cooper Bearings	Bearings	Norfolk
East Coast Brake Rebuilders	Brake remanufacture	Norfolk
Dedicated Micros	CCTV Security Systems	Chantilly
CelPlan Technologies	Communications & Wirelss	Reston
Sonny Merryman	Bus manufacturer	Lynchburg

Currently, labor income due to continued transit capital investment is estimated to be an average of \$560 million each year. With the loss of transit funding, approximately \$80 million of this amount of labor income would be lost each year.

From a public finance perspective, there is approximately \$4 million of annual state tax revenue that is attributable to sales and use taxes, individual income taxes, corporate income, and other taxes that would be lost in the event that capital spending were not replaced.

Perhaps even more significant than these economic impacts are the resulting costs to the transportation system, such as travel times for commuters, and on the quality of life for those



using Virginia roads and transit. These can impact the attractiveness of Virginia as a business and residential location, increasing the impact of the reduction in transit investment on Virginia's economy.

The KPMG study included an impact analysis on the use of public transit and roadway usage as a result of reductions in capital funding. Models of the Northern Virginia, Richmond, Fredericksburg, and Hampton Roads areas were used to simulate the effect of reduced capital spending and ultimately reduced transit service levels on ridership and traffic in these areas. As expected, reductions in transit ridership result in additional automobile usage, resulting in additional congestion during peak periods. Not surprisingly, impacts in Northern Virginia were most notable due to the already congested traffic conditions, which are further exacerbated in the event of a reduction of investment in mass transit. Because of the high capital costs of highway construction, dense urban development patterns, and impacts on private property, it is unlikely that the Commonwealth could construct enough roadway capacity to mitigate the congestion impacts of this additional automobile usage.

Across all four regions studied, KPMG estimated that a reduction in capital spending on transit would lead to an increase in the time traveled, vehicle operating costs, and accident costs experienced by transportation system users. KPMG determined that the annual value of additional time incurred by transportation system users from extending travel times is \$78.7 million in the year 2020. An additional cost of \$41.8 million in the year 2020 would be incurred in additional vehicle operating costs due to the extra miles driven as a result of reduced capital funding and the increase in automotive trips. Similarly, there is an additional annual cost of \$5.6 million that would be incurred in the form of costs of reduced safety. In total, these impacts on productivity are approximately \$126 million annually in 2020 and rising to \$208 million by the year 2040.

Transit investment also has a positive impact on property values and land use patterns that are not quantified in this analysis. It is reasonable to anticipate that significant, long-term reductions in transit capital funding would negatively impact local government revenues from transit accessible properties and would change land development densities that are supported by high capacity transit investment.

The combined annual impacts in terms of both economic and productivity impacts are sizable resulting in the loss of 1,000 jobs and over \$200 million in gross state output. Additionally, this causes a \$160 million increase in the cost of transportation.

**Figure 2 – Summary of Annual Impacts (Year 2020)**

	Annual (year 2020)
Loss of Jobs	1,000/year
Reduced State Output	\$200 Million
Reduced Labor Income	\$ 80 Million
Reduced State Taxes	\$ 4 Million
Increased Time Cost of Traveling	\$78.7 Million
Increased Vehicle Operating Costs	\$41.8 Million
Increased Safety Costs	\$ 5.6 Million

### **1.3 Transit, Land Development, and Statewide Mobility**

Recent research demonstrates that transit service is an essential part of the new economic development model, and a community feature needed to attract and retain young professionals. Today, a key priority of corporate relocation decisions is the proximity to talented, educated labor pools. As such, most corporate relocations are following young people and the millennial workforce. National survey data from the Rockefeller Foundation shows that two-thirds of millennials place high-quality transportation in their top three concerns when evaluating a new place to live, and 75 percent of millennials believe they will live in a place that does not require a car.

In 2015, DRPT commissioned the Southeastern Institute of Research to conduct a Statewide Mobility Survey to gather perspectives on personal mobility. Over 4,500 Virginians were surveyed, representing communities around the Commonwealth. Overall, 82 percent of those surveyed said the availability of alternative transportation options is important to Virginia’s economy, and 83 percent said investment in alternative transportation is important to provide workers with affordable travel for their work commutes. Interestingly, over 80 percent of those surveyed that drive alone or telework believe the availability of alternative modes of travel is important to Virginia’s economy. The responses to these key survey points were also validated geographically. Additionally, the data shows that respondents in areas that are unserved by public transportation are over 70 percent in favor of investment in transportation options.

### **1.4 Revenue Advisory Board Membership**

Consistent with HB 1359, Secretary of Transportation Aubrey Layne appointed seven members to the Revenue Advisory Board upon the nomination of key public transportation stakeholders

in Virginia, including: DRPT, the Virginia Transit Association (VTA), the Virginia Municipal League (VML), the Virginia Association of Counties (VACO), and the Community Transportation Association of Virginia (CTAV).

Representing geographic diversity as well as providing leadership in the transportation industry and local governments, Revenue Advisory Board membership includes:

- Chair: The Honorable Marty Williams (DRPT nomination), At-Large Urban member of the Commonwealth Transportation Board and former state senator and chairman of the Senate Transportation Committee
- Vice-Chair: The Honorable Jeff McKay (VACO nomination), member of the Fairfax County Board of Supervisors and 2017 Chair of the Northern Virginia Transportation Commission
- The Honorable Tom Rust (VTA nomination), former state delegate, chairman of the House Transportation Committee, and member of the Northern Virginia Transportation Commission
- The Honorable Mary Katherine Greenlaw (VML nomination), Mayor of the City of Fredericksburg and a former member of the Fredericksburg Area Metropolitan Planning Organization
- Jim Spore (DRPT nomination), former Virginia Beach City Manager and President and CEO of ReInvent Hampton Roads
- Dr. James Toscano (VTA nomination), Vice President for Institutional Advancement at Tidewater Community College and former member of the Transportation District Commission of Hampton Roads
- Josh Baker (CTAV nomination), CTAV President, current general manager of the Alexandria Transit Company, DASH, and former general manager of the Greater Lynchburg Transit Company

In preparing this report, the Revenue Advisory Board attempted to answer the following questions:

- 1) How much funding is needed?
- 2) What are potential funding sources?
- 3) Which projects should be funded?
- 4) How should funds be allocated to capital projects?

## 2 How Much Funding?

### 2.1 Findings

Existing state transit capital grant matching rates cannot be maintained without sustainable and dedicated funding streams. In its analysis, the consulting team, WSP, determined that \$1.3 billion is needed over the next decade to close the state transit capital funding gap. On an annual basis, the gap begins in Fiscal Year 2019 and grows to approximately \$178 million by 2027. Lower state capital grant contributions will result in a reduction in transit capital investments by Virginia transit agencies or will require additional funding from local, regional, or federal funding sources to make up the gap created by reductions in state funding. Further, while the Capital Project Revenue bonds have financed transit capital needs to date, such debt financing is not a sustainable long-term solution especially as transit capital needs continue to increase. This section outlines current state transit capital funding and provides projections over the upcoming decade for needs and funding sources.

### 2.2 Background and History

The January 1, 2017 Revenue Advisory Board interim report to the General Assembly contains a detailed history of transit capital funding over the last two decades, including the allocation of 14.7 percent of the Transportation Trust Fund revenues to transit capital, a share that has remained stagnant since 1999.

In 2007, the General Assembly enacted HB 3202 authorizing the Commonwealth Transportation Board to issue \$3 billion in CPR bonds with a minimum of 20 percent, or \$600 million in total, dedicated to transit annually over a ten-year period ending in 2018.

In 2008, Congress passed the Passenger Rail Investment and Improvement Act (PRIIA), which included a \$1.5 billion, ten-year federal authorization dedicated to WMATA to ensure its capital assets remained in a state of good repair. To receive this funding, Congress required a \$1.5 billion, ten-year match commitment from Virginia, Maryland, and the District of Columbia. In 2011, the Commonwealth Transportation Board dedicated an additional \$50 million annually to fulfill the PRIIA match requirement. This action increased the overall Capital Project Revenue bond revenues dedicated to the transit capital program to \$110 million annually, 44 percent of the entire transit capital program in Fiscal Year 2018.

In 2013, the General Assembly enacted HB 2313 generating significant new transportation revenues. However, a portion of those increased revenues to public transportation were contingent upon congressional enactment of the Marketplace Fairness Act, which to date has not occurred. The 2015 General Assembly addressed this lack of congressional action through the enactment of HB 1887. It redirected approximately \$40 million annually in dedicated

transportation revenues to the transit capital program beginning in 2017. Nonetheless, the long-term transit capital shortfall over the next decade remains a critical problem.

The remainder of funding for transit capital needs is covered by federal and local funding. Localities across the state utilize a range of funding sources to meet these needs through their annual capital budgets, including general fund revenues, general obligation bonds, or property taxes. In Northern Virginia, a 2.1 percent increment on gasoline sold is used to fund transit needs in Northern Virginia, including WMATA, Virginia Railway Express, and the Potomac and Rappahannock Transportation Commission.

### 2.3 State Transit Capital Revenue Projections

State transit capital funding sources for the period of 2018-2027 total approximately \$1.1 billion (in year-of-expenditure dollars) and include the following:

- **State Capital Assistance:** Dedicated transportation trust funds provide approximately \$100 million annually.
- **CPR Bonds:** \$60 million is provided annually to the statewide transit capital program, backed by the Priority Transportation Fund as well as \$50 million annually to WMATA to meet the federally mandated PRIIA match. The annual bond fund proceeds diminish in Fiscal Year 19 and are exhausted in Fiscal Year 20.

### 2.4 Estimation of State Transit Capital Assistance Needs

The consultant team developed a ten-year estimation of transit capital needs by public transportation agencies, as well as the projected state funding share required to meet those needs. The ten-year needs estimate reflects a conservative forecast based on the fiscally-constrained planning process established in federal and state statute.

The methodology to estimate transit capital needs over the 2018-2027 period included the following:

- **Data Collection:** Classify Six Year Improvement Program and WMATA Capital Improvement Program projects by transit capital assistance tier and type.
- **Data Verification:** Analyze the funding needs for the ten largest transit agencies receiving state capital assistance in order to identify additional projects excluded from the Six Year Improvement Program, for which funding has not yet been secured. These agencies constitute over 90 percent of all state transit capital funds allocated.
- **Cost Estimation:** Prepare ten-year estimation of capital costs for:
  - WMATA
  - Ten largest transit agencies
  - All other agencies, by Transportation District

For the purposes of this study, the WMATA needs portion of the state transit funding gap analysis totaled \$5.05 billion and was calculated in 2016 based on its Fiscal Years 2017-2022 Capital Improvement Plan. In March 2017, WMATA revised its 5-year capital needs to \$6.15 billion, an increase of \$1.1 billion. The case studies for this analysis do not assume this increased level of capital needs.

The consultant team developed three case studies to analyze potential transit capital funding needs in order to determine the funding gap over the next decade:

- **Baseline of Estimated Funding Needs:** Transit agencies seek funding consistent with the Commonwealth's six-year improvement program. Estimated needs total \$6.3 billion, with a state funding contribution, under the current tier-based allocation approach and match rates of \$2.4 billion. This base line case study results in a **\$1.1 billion gap** between estimated state transit capital funding needs and estimated funding sources.
- **Baseline Minus Expansion Needs:** The state transit capital program would only be able to fund projects addressing state of good repair needs. Additionally, transit agencies would have to rely solely on limited and highly competitive local, regional, and federal sources, if available to fund expansion projects. The inability to rely on state dollars for expansion projects would lead to a decrease in transit availability. In turn, this would result in an increase in single occupant vehicles and longer commute times causing significant economic distress on the Commonwealth. Estimated state of good repair needs over a ten year period total \$4.5 billion, with a state funding contribution, under current allocation approaches and matching rates, of \$1.8 billion. This case study results in a **funding gap of \$0.5 billion**.
- **Baseline Plus Additional Growth:** Building on the baseline estimated funding needs, agencies seek funding for additional expansion projects to meet the continuing growing demand for public transit. In addition, this case includes a five percent contingency on project capital costs in order to account for potential cost overruns or underestimations. Estimated needs in this scenario total \$8.5 billion, with a state funding contribution, under the current tier-based allocation approach and match rates, of \$3.3 billion. This case study results in a **funding gap of \$2.0 billion**.

For each case, the below table summarizes estimated state transit capital needs, the estimated state contribution, available state funding, and the estimated funding gap over the estimation period.

**Figure 3: Estimated Spending, State Contribution, and Funding Gap (Fiscal Year 18-Fiscal Year 27)**

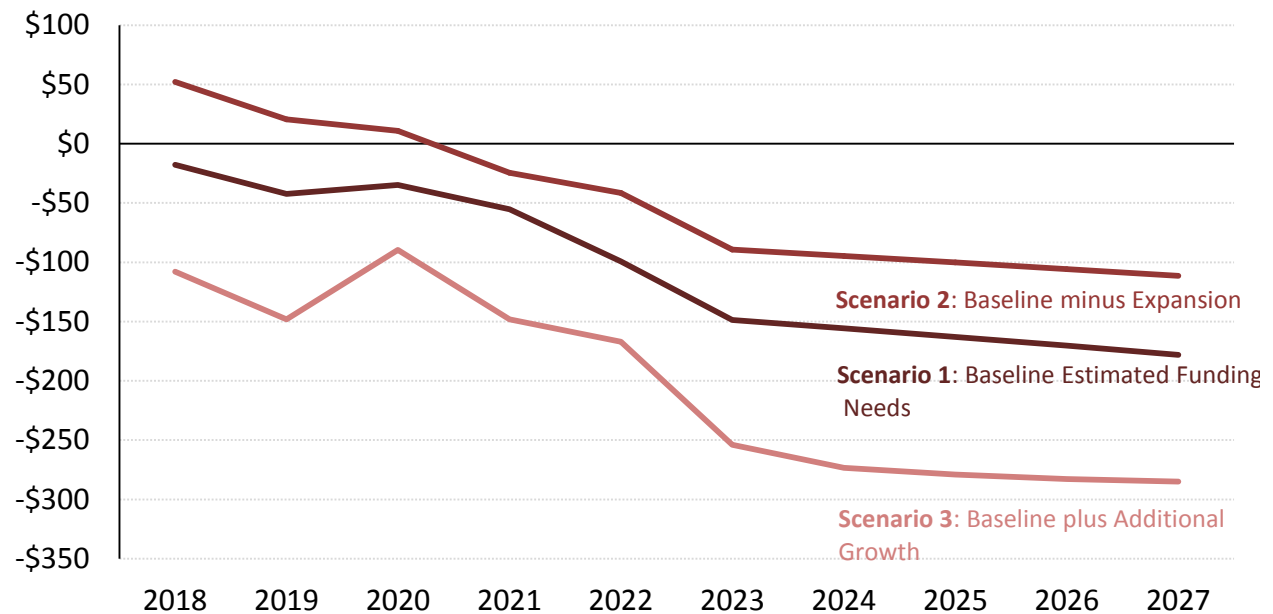
Case Study:	Estimated Needs	State Contribution	Funding Gap
Baseline of Estimate Funding Needs	\$6.3B	\$2.4B	\$1.1B
Baseline Minus Expansion Needs	\$4.5B	\$1.8B	\$0.5B
Baseline Plus Additional Growth	\$8.5B	\$3.3B	\$2.0B

Source: WSP

Figure 4 summarizes the annual estimated state transit capital funding gap for the three case studies, which increases over time in each case as bond funds expire and estimated capital needs grow.

**Figure 4: Annual Estimated State Transit Capital Funding Gap (FY18 – FY27) (Millions of Year-of-Expenditure Dollars)**

Source: WSP



## **3 What Funding Sources?**

### **3.1 Findings**

The Revenue Advisory Board recommends four potential packages that the General Assembly may consider to address the transit capital funding gap. The packages include a mix of statewide and regional sources rather than using a single source or relying upon statewide sources only. Several regional options are available to generate funds commensurate with the transit needs of the two regions of Northern Virginia and Hampton Roads. This decision reflects the Revenue Advisory Board's principles for additional funding listed below.

### **3.2 Principles for Additional Funding**

The Revenue Advisory Board's principles for additional funding are:

- Focus on transit capital funding
- Consider a combination of revenue sources to spread the impact
- Consider a combination of statewide and regional sources that provide steady and reliable streams of revenue
- Use regional funds only for transit needs within the region
- Implement revenue sources/approaches that ramp up gradually to address future gaps and needs based on the phase out of the CPR bond funding
- Consider implementing a floor on regional taxes
- Consider dedicating excess Priority Transportation Fund revenues (after debt service) to transit capital as this source becomes available (approximately Fiscal Year 25)

### **3.3 Evaluation of Funding Options**

The evaluation of funding options included the review of a long list of potential revenue sources, including taxes and fees enacted in Virginia for transportation and non-transportation purposes. Further, the consultant team considered revenue options used to fund transit and transportation in other states and regions of the U.S., as described in Figure 5 below.



**Figure 5: Long list of Revenue Options**

- Access rights fee
- Airport use excise tax
- Alcohol tax
- Amusement taxes
- Bicycle registration fee
- Building permit tax
- Cap and Trade
- Car registration fees
- Car tax (personal property)
- Commercial and industrial property tax
- Connection fee
- Construction fee
- Container truck surcharge
- Dedicate portion of commercial and/or residential real estate taxes or impose a separate special tax district
- Dedicated value added taxes
- Development of public-private partnerships
- Disposal tax surcharge
- Driver license fee
- Energy & utilities taxes
- Fees for trucks servicing the port
- Fertilizer/pesticide taxes (agricultural chemicals)
- Franchise fee
- Fuel Tax
- Head tax (based on # of employees)
- Hospitality tax
- HOT Lanes
- Hotel excise tax
- Impact fees / proffers / contributions for new development
- Impact fees / proffers for new development
- Improvement district tax
- Income tax for localities with the proceeds dedicated to transit
- Increase sales tax base to include more services - dedicate extra revenue to transportation
- Inspection/monitoring/testing fee
- Insurance premium taxes
- Joint Development
- Leasing of air space and right-of-way
- Licensing and recreational fee
- Litter control tax
- Local aquifer protection fee
- Local water/wastewater utility user fee
- Lottery and/or casino revenue / dedicated lottery
- Marine facilities tax
- Local water/wastewater utility user fee
- Lottery and/or casino revenue / dedicated lottery
- Marine facilities tax
- Marine fuels tax
- Mortgage transaction fee
- Naming rights
- Occupational license tax
- Off and/or on-street parking space fee
- Payroll Tax
- Petroleum Business Tax
- Project investment fee
- Property tax
- Real estate transfer tax
- Recordation Taxes
- Rental car taxes
- Restaurant/prepared food tax
- Road branding / providing advertising space on public facilities
- Sales and use tax
- Septic system impact fee
- Solid waste disposal fee (tipping fees, septage/sludge fees)
- Special permitting fees
- Special regional transportation taxing districts
- State public water supply withdrawal fee
- Tax on marine vessels
- Tax on personal watercraft (personal property)
- Taxes on Certain Transportation and Transmission Companies
- Tire Tax
- Tobacco tax
- Toll increase/implementation
- Tourist tolls on roadways as part of toll system
- Traffic violation revenues - percentage
- Transportation/Infrastructure fee for non-profits/governmental organizations whose property is not subject to property taxes
- Utility rights application fee
- Vehicle registration fee for public colleges/universities
- Vehicle titling tax
- Vehicle use fees based on mileage (payable w/ state inspection)
- Voluntary "check off" designating a portion of state income taxes to go towards identified item
- Well permit/pumping fee

Source: WSP

In determining which revenue options to select for further investigation, the Revenue Advisory Board focused on potential revenues that i) presented a minimum potential relation to transportation; ii) were viable options for consideration by the General Assembly; and iii) were under the purview of the state, including regionally generated revenue streams. This list

excluded any locally-controlled funding streams, such as real estate and personal property taxes. The list of revenue sources evaluated is summarized in Figure 6.

For purposes of considering the appropriate balance of regional and statewide sources, it should also be noted that there are currently several regional funding sources in place in Northern Virginia for transit needs, including a portion of the gas tax that is dedicated to WMATA, Virginia Railway Express, and Potomac and Rappahannock Transportation Commission.

**Figure 6: List of Revenue Sources Evaluated**

<b>Revenue Source</b>	<b>Statewide</b>	<b>Regional</b>
Retail Sales and Use	✓	✓
Motor Vehicle Sales and Use	✓	
Motor Vehicle License Fee	✓	
Motor Vehicle Rental Tax	✓	✓
Sales Tax On Motor Fuels	✓	✓
Driver’s License Fees	✓	
Toll Implementation	✓	✓
Tax on Auto-Repair Labor	✓	
General Property Tax		✓
C&I Property Tax		✓
Deed/Mortgage Recordation Tax	✓	✓
Real Estate Transfer Tax	✓	✓
Hospitality Tax		✓
Personal Income Tax	✓	
Insurance Premium Tax	✓	
Communication Sales Tax	✓	
Utility Bill Fee		✓
Tobacco/Cigarette Tax	✓	

Source: WSP

These revenue sources were evaluated according to the criteria summarized in Figure 7. The criteria assess each source relative to ease of implementation, economic, political, and administrative conditions. The scoring criteria are summarized below, with full circles representing high (positive) scores, empty circles representing low (negative) scores, and half-filled circles representing medium scores.

**Figure 7: Revenue Evaluation Criteria**

Factor	Description	Rating
Revenue potential	Amount funding source may yield for transit programs	<ul style="list-style-type: none"> <li>● High</li> <li>◐ Medium</li> <li>○ Low</li> </ul>
Keep pace with inflation	Source keeps pace or is correlated with general price inflation	<ul style="list-style-type: none"> <li>● Indexed and/or keeping pace with inflation</li> <li>◐ Sometimes keeping pace with inflation</li> <li>○ Not indexed/not keeping pace with inflation</li> </ul>
Equity	Proportionate impact across income levels	<ul style="list-style-type: none"> <li>● Progressive (consistent with incomes)</li> <li>◐ Neutral</li> <li>○ Regressive (higher burden on lower incomes)</li> </ul>
Nexus with beneficiaries	Correlation with beneficiaries of transit programs	<ul style="list-style-type: none"> <li>● Directly related to the beneficiaries</li> <li>◐ Some relation</li> <li>○ No relation</li> </ul>
Stability/predictability	Annual stability and predictability	<ul style="list-style-type: none"> <li>● Generally stable/predictable</li> <li>◐ Varies but generally predicable</li> <li>○ Relatively unpredictable/volatile</li> </ul>
Administration	Administrative, collection and enforcement costs	<ul style="list-style-type: none"> <li>● Already collected at some level/low cost</li> <li>◐ Moderate administration and collection costs</li> <li>○ Costly new administration and collection mechanisms required</li> </ul>

Source: WSP

● = High

◐ = Medium

○ = Low

The outcome of this screening is a matrix presented in Figure 8 that describes each source and highlights its advantages and disadvantages relative to the funding objectives. More detail on the evaluation of each potential revenue source is provided in Appendix B.

**Figure 8: Evaluation of Potential Revenue Sources**

Source	Revenue potential	Keeps pace with inflation	Equity	Nexus with beneficiaries	Stability/Predictability	Administration
Retail Sales and Use	●	●	○	◐	◐	●
Communication Sales Tax	●	○	◐	◐	●	●
Motor Vehicle Sales and use	◐	●	◐	◐	◐	●
Motor Vehicle License Fee	●	◐	○	◐	●	●
Motor Vehicle Rental Tax	○	○	◐	○	○	●
Sales Tax On Motor Fuels	●	○	○	◐	○	●
Drivers License Fees	◐	○	○	◐	●	●
Toll Implementation	◐	◐	○	○	◐	◐
Tax on Auto-Repair Labor	●	●	◐	◐	◐	◐
Property Tax	●	◐	◐	◐	◐	◐
C&I Property Tax	●	◐	◐	◐	○	●
Deed/Mortgage Recordation Tax	○	◐	◐	◐	○	●
Real Estate Transfer Tax	○	◐	◐	○	○	●
Hospitality Tax	◐	●	●	○	○	◐
Personal Income Tax	●	●	●	○	○	●
Insurance Premium Tax	●	●	◐	○	◐	●
Utility Bill Fee	◐	◐	○	○	●	◐
Tobacco/Cigarette Tax	●	○	◐	○	◐	●

Source: WSP

● = High      ◐ = Medium      ○ = Low

Based on these results, the Revenue Advisory Board selected potential revenue sources for further evaluation. This includes existing taxes with large bases that contribute to funding transit capital, such as the Retail Sales and Use Tax and the Motor Vehicle Sales and Use Tax. Subsequently, order-of-magnitude revenue estimates were prepared for the selected statewide and regional funding sources. For illustrative purposes, the additional revenue generated from

modest increases to current rates was calculated. These increases amount to a 5 to 15 percent increase over the current tax rate of each revenue source. The estimated revenue potential for statewide sources is summarized in Figure 9, for Northern Virginia in Figure 10, and for Hampton Roads in Figure 11.

**Figure 9: Estimated Revenue Potential – Statewide Revenues**

State Sources	Existing State Tax Rate	Increased Tax Rate	Growth Rate	Average Annual Revenue Estimated*
Retail Sales Tax	4.3% <sup>3</sup>	0.25%	1.03%	\$338.1m
Motor Vehicle Sales and Use Tax	4.15%	0.50%	1.05%	\$119.3m
Gas and Diesel Fuel Sales Tax	5.1%/6% <sup>4</sup>	0.50%	0.89% <sup>5</sup>	\$85.7m
Deed & Mortgage Recordation Tax	\$0.25/\$100 <sup>6</sup>	\$0.05/\$100	0.50% <sup>7</sup>	\$73.2m
Insurance Premium Tax	2.25%	0.25%	5.53%	\$70.0m
Priority Transportation Fund	-	Up to 100% of surplus revenues	-	\$67.4 m <sup>8</sup>
Motor Vehicle License Fee	\$40.75	\$5.00	0.00%	\$36.7m
Internet Sales Tax	-	0.25%	6.07% <sup>9</sup>	\$24.1m
Real Estate Transfer Tax	\$0.05/\$100 <sup>10</sup>	\$0.01/\$100	0.50% <sup>5</sup>	\$6.8m

\*FY18-FY27 Estimates: WSP

<sup>3</sup> 4.3% is the state rate, effective total rate is 5.3% statewide, and 6% in NoVA and Hampton Roads; tax rate is 2.5% statewide for food

<sup>4</sup> 5.1% for gasoline; 6% for diesel state rate. Effective total rate 7.2%/8.1% in NoVA and Hampton Roads.

<sup>5</sup> Growth rate from the state forecast on the gas tax. Base price from EIA.

<sup>6</sup> Effective rate is \$0.33 /\$100 of deed and mortgage value for most jurisdictions (option of 1/3 additional local rate)

<sup>7</sup> Conservative 0.5% growth used to replace negative observed CAGRs

<sup>8</sup> Average for PTF is from FY25-FY27. Surplus revenues, revenues after debt service, are not available until FY 25.

<sup>9</sup> Only 2014-2018 data available, CAGR based on that time series

<sup>10</sup> Effective rate is \$0.10/\$100 of deed value (5 cents state rate, 5 cents local rate). Additional \$0.15/\$100 congestion relief fee in NoVA.

**Figure 10: Estimated Revenue Potential – Northern Virginia Regional Revenues**

Northern Virginia Sources	Existing Regional Tax Rate	Increased Tax Rate	Growth Rate	Average Annual Revenue Estimated*
Retail Sales and Use Tax – NoVA	0.7% <sup>11</sup>	0.50%	2.64%	\$204.4m
Retail Sales and Use Tax – WMATA Jurisdictions <sup>12</sup>	0.7%	0.50%	2.62%	\$155.7m
Fuel Sales Tax Increase after Floor Implementation	2.1%	1.2%	EIA Forecast	\$30.6m
Fuel Sales Tax Floor Implementation	2.1%	Floor	EIA Forecast	\$25.1m
Utility Bill Fees	-	\$12/year	1.32%/1.66% <sup>13</sup>	\$12.0m
Real Estate Transfer Tax	\$0.15/\$100 <sup>14</sup>	\$0.02/\$100	0.83%	\$6.1m

\*FY18-FY27 Estimates: WSP

<sup>11</sup> 4.3% is the state rate, effective total rate is 5.3% statewide, and 6% in NoVA and Hampton Roads; tax rate is 2.5% statewide for food

<sup>12</sup> Rate increase for WMATA jurisdictions only. Loudoun County is included starting 2022. Growth rate for WMATA jurisdictions is slightly lower than for NoVA as a whole.

<sup>13</sup> Residential Growth Rate/Commercial Growth rate

<sup>14</sup> \$0.15/\$100 is NoVA Congestion Relief Fee, coupled with the statewide rate of \$0.10/\$100, the effective rate is \$0.25/\$100 in NoVA

**Figure 11: Estimated Revenue Potential – Hampton Roads Regional Revenues**

Hampton Roads Sources	Existing Regional Tax Rate	Increased Tax Rate	Growth Rate	Average Annual Revenue Estimated*
Retail Sales and Use Tax	0.7% <sup>15</sup>	0.15%	1.03%	\$23.6m
Fuel Sales Tax Increase after Floor Implementation	2.1%	1.2%	EIA Forecast	\$21.1m
Fuel Sales Tax Floor Implementation	2.1%	Floor	EIA Forecast	\$17.3m
Utility Bill Fees	-	\$12/year	0.5%/0.5%	\$6.5m
Real Estate Transfer Tax	-	\$0.02/\$100	1.00%	\$1.4m

\*Hampton Roads Transit provided revenue estimates for Retail Sales and Use Tax and Real Estate Transfer Tax. Other FY18-FY27 Estimates: WSP

### 3.4 Prospective Funding Packages

Based on the principles outlined in Section 3.2, the Revenue Advisory Board reviewed and assessed multiple packages to fund transit capital needs that provide an average of \$130 million to \$140 million in additional annual revenue:

- **Package 1 – Adjust existing statewide sources**
  - Deed and Mortgage Recordation Tax
  - Priority Transportation Fund
  - Real Estate Transfer Tax
- **Package 2 – Adjust single statewide funding source**
  - Package 2a: Statewide Retail Sales and Use Tax
  - Package 2b: Statewide Fuel Sales Tax
- **Package 3 – Adjust existing state and regional revenues**
  - Statewide
    - Deed and Mortgage Recordation Tax
    - Priority Transportation Fund
    - Real Estate Transfer Tax
  - Northern Virginia and Hampton Roads
    - Fuel Sales Tax Floor
    - Increase of the regional Fuel Sales Tax after implementation of a floor
    - Retail Sales and Use Tax

<sup>15</sup> 4.3% is the state rate, effective total rate is 5.3% statewide, and 6% in NoVA and Hampton Roads; tax rate is 2.5% statewide for food



- **Package 4 – Adjust state and regional revenues with a floor on the fuel sales tax in Northern Virginia and Hampton Roads**
  - Deed and Mortgage Recordation Tax
  - Priority Transportation Fund
  - Real Estate Transfer Tax

Each funding package is described more in detail in Appendix C.

## 4 Which Projects?

A project prioritization process for capital needs will allow the Commonwealth to allocate and assign limited resources into those investments that are most critical and that achieve policy objectives of maintaining a state of good repair of existing assets. It also provides funding for new investments that meet performance criteria and achieve benefits related to congestion mitigation, economic development, accessibility, safety, environmental quality, and land use.

### 4.1 Project Prioritization Principles

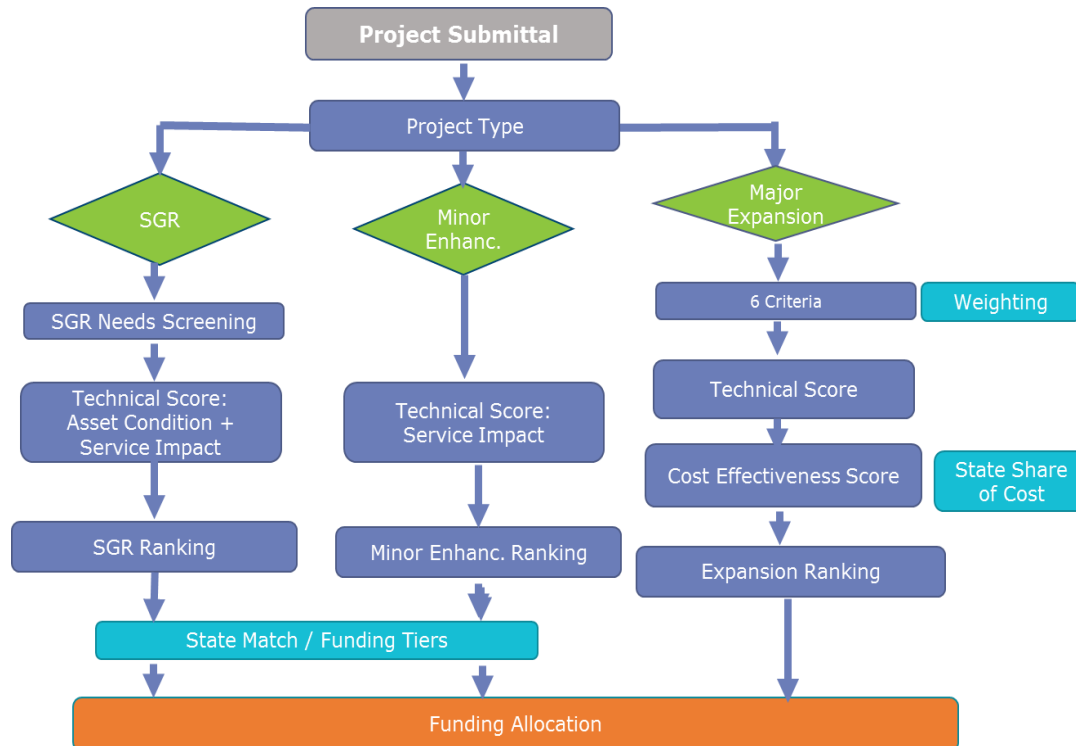
The Revenue Advisory Board established the following principles of project prioritization to guide its work:

- It is possible and desirable to prioritize transit capital projects using technical scoring/ranking based on quantitative and qualitative measures.
- The policy and provisions of such a prioritization process should be developed by the Commonwealth Transportation Board, in a manner similar to Smart Scale, via Board policy to allow for ongoing process improvement.
- The Revenue Advisory Board has identified an illustrative approach to prioritization and provides the following recommendations for work moving forward:
  - For the purpose of scoring and ranking, projects should be grouped into three categories:
    - State of Good Repair
    - Minor Enhancement
    - Major Expansion
  - Scoring criteria for State of Good Repair should be based on a combination of asset condition (from existing asset management processes – federal and state) and service impact.
  - Scoring criteria for Minor Enhancement should be based on service impact.
  - Scoring criteria for Major Expansion should be based conceptually on the Smart Scale factor areas and transit focused measures to allow for portability of project applications between programs.
  - Cost effectiveness should be considered only for Major Expansion projects.
  - The statewide prioritization process should only apply to capital funds collected and allocated statewide.
- While this analysis has recommended criteria and measures for the prioritization, the detailed measures and data sources required to implement this process should be finalized by the Commonwealth Transportation Board after a more thorough analysis of the implications on individual capital projects in the Six Year Improvement Program. This review should be conducted with the Transit Service Delivery Advisory Committee and through outreach to transit partners across the Commonwealth.

## 4.2 Project Prioritization Process

For the purpose of prioritization, Revenue Advisory Board recommends three separate prioritization processes with different criteria and scoring processes by project type.

**Figure 12: Project Prioritization Process**



Transit capital projects can be classified into three types:

1. *State of Good Repair*: refers to projects or programs to replace or rehabilitate an existing asset
2. *Minor Enhancement*: refers to projects or programs adding capacity, new technology, or one meeting the following criteria:
  - Project cost is less than \$2 million OR
  - For expansion vehicles, a minor enhancement entails a fleet increase of less than five vehicles or less than 5 percent of the fleet size, whichever is lower
3. *Major Expansion*: refers to new projects or programs that add, expand, or improve service, with a project cost exceeding \$2 million

Examples of capital assets included in each project type are identified in the chart below.

**Figure 13: Capital Assets Examples**

State of Good Repair	Minor Enhancement	Major Expansion
<ul style="list-style-type: none"> <li>• Vehicle Replacement               <ul style="list-style-type: none"> <li>– Replacement buses</li> <li>– Replacement vans</li> </ul> </li> <li>• Administrative/Maintenance Facilities               <ul style="list-style-type: none"> <li>– Rehabilitation/Renovation of bus maintenance facility</li> </ul> </li> <li>• Customer Facilities               <ul style="list-style-type: none"> <li>– Bus shelters</li> <li>– Bus stop accessibility</li> <li>– Bus route signage</li> </ul> </li> <li>• Maintenance Equipment and Parts               <ul style="list-style-type: none"> <li>– Spare parts</li> <li>– Hybrid bus batteries</li> <li>– Shop equipment</li> </ul> </li> <li>• Technology/systems/communications               <ul style="list-style-type: none"> <li>– Fare payment systems and hardware</li> <li>– Safety/surveillance/security equipment and systems</li> <li>– Software and hardware to support AVL, payroll and administration, planning and scheduling, real-time passenger information and reporting</li> </ul> </li> <li>• Other               <ul style="list-style-type: none"> <li>– Debt service</li> <li>– Capital cost of contracting</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Vehicles – minor fleet expansion</li> <li>• New bus shelters</li> <li>• Route signage (bus stop sign)</li> <li>• Purchase digital bus stop signage</li> <li>• New fare collection equipment</li> <li>• New software, hardware, systems</li> <li>• Minor real estate acquisition</li> <li>• Capital project development (engineering and design, construction management)</li> </ul>	<ul style="list-style-type: none"> <li>• Construction of administrative/maintenance facility</li> <li>• Construction of transit/transfer center</li> <li>• Vehicle – major fleet expansion</li> <li>• New station entrance</li> <li>• BRT/LRT corridor</li> </ul>

State of Good Repair projects will be screened initially using asset condition and age data to determine whether there is a legitimate need for asset replacement/rehabilitation and based upon federal requirements for Transit Asset Management. For more information on this methodology, please see **Section 4.3**.

Once an asset is deemed eligible for State of Good Repair, the funding request will be scored based on asset condition and service impact criteria. Once all projects are scored, the projects will be prioritized from highest to lowest score.

The process to prioritize Minor Enhancement projects will score each individual project based on service impact criteria. After scoring, similar to the State of Good Repair process, the Minor Enhancement applications will be prioritized from highest to lowest score.

The process to score Major Expansion projects will take into account the six criteria, similar to Smart Scale, required under HB 1359: congestion mitigation, economic development, accessibility, safety, environmental quality, and land use. The objectives of each criterion are listed in the below table. Scoring will be assigned by criterion and a total score calculated by applying the desired weighting factors (i.e., all factors have the same weight, or variable weight that provide more or less importance to certain criteria). The share of state costs will be applied to calculate cost-effectiveness, which will then be used to prioritize projects.

<b>Criterion</b>	<b>Objective</b>
Congestion Mitigation	Reduce delay, improve transportation system reliability, and encourage transit use
Economic Development	Support existing economies and enhance opportunity for economic development
Accessibility	Enhance worker and overall household access to jobs and other opportunities, and provide multiple and connected modal choices
Safety	Address multimodal safety concerns and improve transit safety and security
Environmental Quality	Reduce emissions and energy consumption by providing modal choices, and minimize natural resources impacts
Land Use	Improve consistency of the connection between local comprehensive plans and land use policies with transit investments

### **4.3 Use of Transit Asset Management (TAM) for State of Good Repair**

Transit agencies receiving federal financial assistance under 49 U.S.C. Chapter 53 are now required to develop transit asset management (TAM) plans. Agencies operating rail and/or those with more than 100 vehicles on fixed or non-fixed routes (Tier I agencies) are required to develop their own TAM plans. Smaller operators (less than 100 vehicles operating on fixed or non-fixed routes), sub-recipients of Section 5311 funds, and American Indian Tribes are considered Tier II agencies. Tier II agencies may develop their own plans or participate in a group TAM plan. DRPT is sponsoring a group plan for Tier II agencies, of which, nearly all Tier II agencies in the Commonwealth are participating in. TAM reporting will be mandatory starting in 2018 (with optional reporting starting in 2017).

At a minimum<sup>16</sup> TAM plans shall include the following information:

- An inventory of assets
- A condition assessment of inventoried assets
- Description of a decision support tool
- A prioritized list of investments

As transit operators will be required to provide data to meet the condition assessment requirements for TAM plans, this data will further support the proposed State of Good Repair scoring and prioritization process developed in response to HB 1359. Transit operators that receive state funding, regardless of whether or not they receive federal funds, provide asset data directly to DRPT through an online asset management system known as “TransAM.” Transit agencies use of TAM plans and TransAM will support implementation for the State of Good Repair portion of the proposed prioritization process.

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<sup>16</sup> Required from Tier I and Tier II agencies. Tier I agencies must comply with five additional elements in their TAM plans.

## 5 How Should Funds Be Allocated To Capital Projects?

### 5.1 Principles for Transit Capital Program Structure

The Revenue Advisory Board developed the following principles to guide its work in developing a prioritized funding allocation program:

- Funding should be separated into two programs – one for State of Good Repair/Minor Enhancement and one for Major Expansion.
- A floor (minimum percentage) should be established for the percentage of total funds that will be directed to State of Good Repair, e.g. 80 percent of available funding. This amount will be split into State of Good Repair and Minor Enhancement, with no more than 5 percent of these funds going to Minor Enhancement.
- The remaining percentage of the total funds (e.g. percent of available funds) would be provided for Major Expansion projects.
- The Commonwealth Transportation Board should have the discretion to move funding from Major Expansion and Minor Enhancement into State of Good Repair, based on funding needs.
- Minor Enhancement projects would be defined as a relatively minor addition to an existing fleet, expansion to an existing facility, or a smaller project in dollar value. Exact thresholds and definitions will be determined at a later date, following additional industry input.
- A single consistent match rate should be applied across asset types within each group, in order to provide greater predictability in funding. This would shift away from the existing tiered match rates that vary by year or by asset. The match rate should be high enough to ensure that selected projects are fully funded, e.g. percent for all projects. The exact match rate can be set at a later date following additional industry input.
- State of Good Repair and Minor Enhancement projects should be matched at a higher rate than Major Expansion projects.
- Local matching requirements (minimum of four percent) should remain part of the program structure.

Using this approach, projects will be funded in order of priority until all funds are exhausted. Consequently, the number of projects receiving state funding will be dependent upon the selected state participation rate. As with the Smart Scale prioritization process, the Commonwealth Transportation Board would retain the flexibility to fund projects with a lower rating if warranted by other considerations or local priorities.

## 5.2 Transit Capital Assistance Program Structure

For the purpose of this analysis, the Revenue Advisory Board examined several options for program structure. To ensure the primary focus is on State of Good Repair, the Revenue Advisory Board determined the program structure should be:

- 80 percent: State of Good Repair and Minor Enhancements, as the primary focus of the transit capital program; and
- 20 percent: Major Expansion

Within the 80 percent allocated to State of Good Repair and Minor Enhancements, a floor or minimum threshold should be established for the percentage of total funds that will be directed to State of Good Repair. This amount will be split into State of Good Repair and Minor Enhancement, with no more than five percent of these funds going to Minor Enhancements.

The remaining percentage of the total funds (e.g. 20 percent of available funds if 80 percent is allocated to State of Good Repair and Minor Enhancements) would be allocated to Major Expansion projects. The Commonwealth Transportation Board should have the discretion to move funding from Major Expansion and Minor Expansion into State of Good Repair, based on funding needs; the opposite transfer, from State of Good Repair to Major Expansion, should not be allowed.

Minor Enhancement projects would be defined as a relatively minor addition to an existing fleet, expansion to an existing facility, or a small project in dollar value. Exact thresholds and definitions will be determined at a later date, following additional industry input.



**Figure 14: Transit Capital Program Structure**

	<b>State of Good Repair and Minor Enhancement (80%)</b>		<b>Expansion (20%)</b>
	<b>SGR (95%)</b>	<b>Minor Enhancement (5%)</b>	
	<p>Funding can move from Expansion to SGR</p> <p>Funding cannot move from SGR to Expansion</p>		
<b>Funding Level</b>	Minimum funding level (floor) for SGR Funding can be moved from expansion to SGR based on need		Funding level to be determined based on review of needs, funding can be moved to SGR but not from SGR to expansion
<b>Illustrative State Match</b>	up to 80%	up to 80%	up to 50%

### 5.3 State Participation Rate

In order to provide transit agencies with greater funding predictability, a single consistent state participation rate should be applied across asset types within each project type (e.g. State of Good Repair, Minor Enhancement, and Major Expansion). This would mark a shift away from the existing tiered state participation rates which vary by year by asset type regardless of whether it is a State of Good Repair replacement or expansion asset. The state participation rate should be high enough to ensure that selected projects are fully funded.

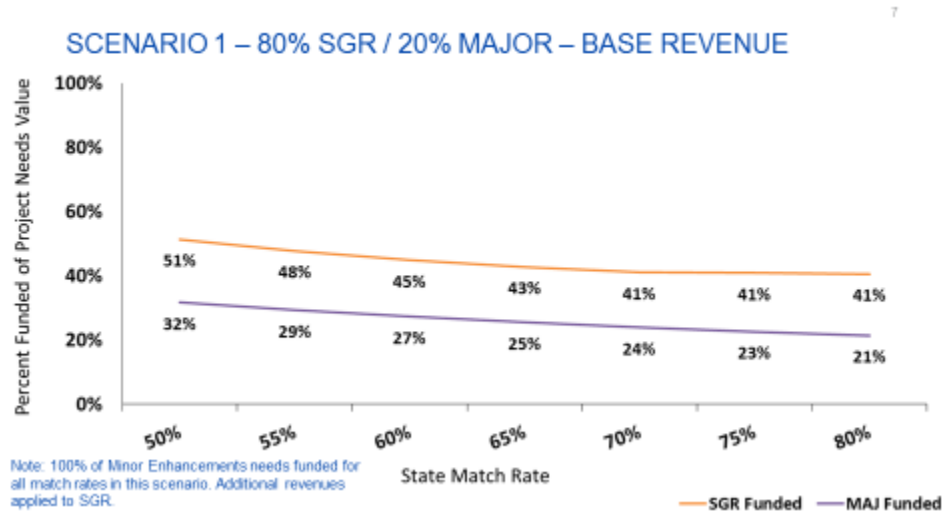
The state participation rates set for State of Good Repair and Minor Enhancement projects should be higher than the rate set for Major Expansion projects. The exact state participation rate will be set at a later date following additional industry input. Local matching requirements (minimum of four percent) should remain part of the program structure.

### 5.4 Illustrative Scenarios

The prioritization and program structure approach was applied to test the methodology. Projects received funding in rank order by score, until funding was exhausted by project type (e.g. State of Good Repair, Minor Enhancement, and Major Expansion). The graphs below show the range of match rates between 50 percent and 80 percent and demonstrate that the variation in the percentage of projects funded in that range is negligible – less than ten percent. Therefore, the state participation rates should be established high enough to enable transit agencies to support the completion of their projects, similar to Smart Scale. As noted in Section

5.2, the Commonwealth Transportation Board should retain the ability to move funding from Major Expansion to State of Good Repair to meet priorities.

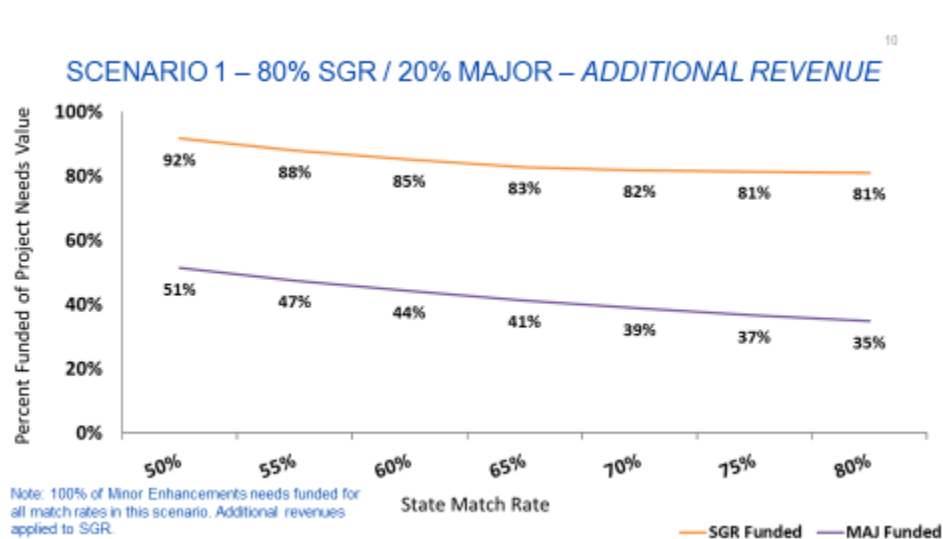
**Figure 15: Project Funding in Allocation Scenario 1, with Base Revenue**



Source: WSP

Figure 16 presents the same scenario but assumes the state transit capital program receives additional revenue as described in section 3.4.

**Figure 16: Project Funding in Allocation Scenario 1, with Additional Revenue**



Source: WSP

Graphs presenting other scenarios are included in Appendix E.

## 6 Recommendations

The Revenue Advisory Board makes the following recommendations regarding revenues, transit capital program structure, and allocation of funds:

- In order to meet the transit capital funding needs of the Commonwealth, additional funding must be identified. Without additional revenue, the transit capital program will be unable to maintain a state of good repair for existing transit capital assets.
- A combination of sustainable and dedicated revenue sources, including both state and regional sources, should be considered. The majority of these funds should be from statewide sources recognizing the statewide impact of transit services. Regional funds should be dedicated to transit needs and prioritized within the region of collection.
- Scarce transit capital resources should be prioritized by project, based on quantifiable measures. The Revenue Advisory Board has developed an illustrative prioritization process that should be considered with further input from the Commonwealth Transportation Board and the Transit Service Delivery Advisory Committee.
- The transit capital program should be structured into two programs: i) State of Good Repair and Minor Enhancement; and ii) Major Expansion. A minimum of 80 percent of program funding should be allocated to State of Good Repair, with flexibility to add the remaining 20 percent to State of Good Repair as warranted.
- A new allocation process should provide a fair and equitable distribution of funding across the Commonwealth. Local agencies need to have a dependable methodology. The recommended rate of participation of 80 percent for State of Good Repair projects will ensure project completion, similar to Smart Scale.
- WMATA capital needs are not fully factored into this analysis and will require additional consideration in the revenue approach.