Massachusetts Taxpayers Foundation

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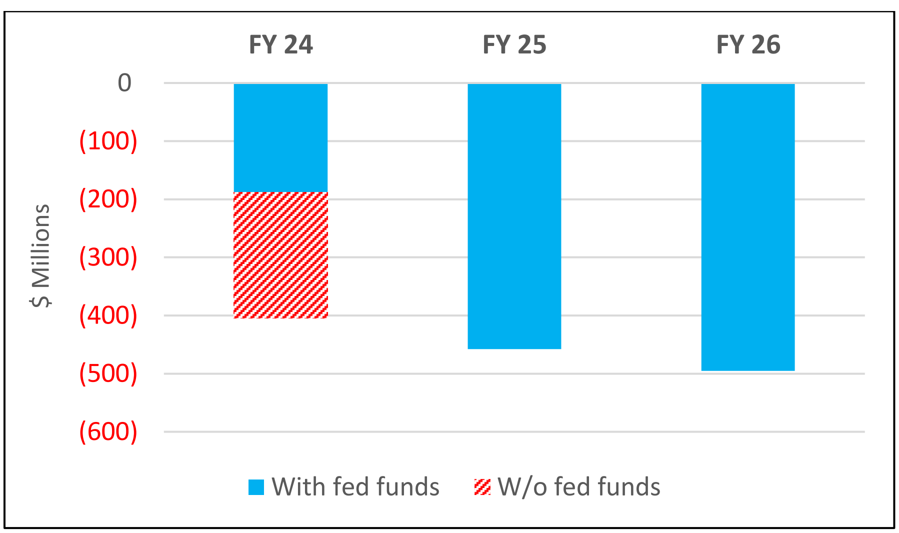
MBTA FINANCES CAST A LONG, RED SHADOW FOR INCOMING LEADERS

Imagine it is January 2023. You're the incoming governor or a legislative leader. You're excited about your plans to meet pressing needs on education, health care, housing, and many other initiatives, all of which require resources. At the same time, you learn that the FY 2024 operating budget presented to the MBTA's governing board shows the Authority to be hundreds of millions of dollars in the red, a budget gap so severe that the MBTA is just months away from facing substantial fare increases or service cuts.

Under its current fare revenue plan (Scenario 3)[1], the MBTA is looking at a budget gap of nearly $200 million in FY 2024, assuming the agency still has $200 million in unspent federal relief funds at its disposal from the $2 billion committed. If the MBTA has to use those federal funds sooner due to a weaker recovery in ridership, free or reduced bus fares, or other needs, that shortfall could reach $400 million.

By FY 2025 – just one year later – with federal operating aid exhausted and the Authority's ability to raise revenues constrained, the MBTA's budget gap soars to $450 million and then to $500 million in FY 2026, leaving the Authority with few options other than layoffs and service cuts (Figure 1).

Figure 1 – MBTA Operating Budget Gaps Soar



[1] See MBTA FY 22 Budget Preview, March 6, 2021, slides 7 and 25.

Commuter rail fare revenues, largely from passes ranging in price from $200 to $400 per month, represented $239 million or 36 percent of total fares in FY 2019. With continued remote or hybrid work reducing ridership (currently down 75 percent from pre-pandemic levels) and commuters unwilling to purchase expensive monthly passes, full fare recovery is unlikely. Reduced fares and more frequent service have caused a bump in ridership but fare revenues will lag pre-pandemic levels for years to come.

This limited recovery in fare revenues, combined with ongoing calls to reduce or eliminate transit fares, portends a revenue crisis for the MBTA. Further darkening this grim fiscal outlook is the fact that even with greatly diminished demand in 2020-2021, the MBTA did not reduce service levels or control operating costs and was therefore unable to preserve funds for future needs.

Nearly $2 billion in federal aid enabled the MBTA to balance four operating budgets, masking the problem for a time. However, the MBTA will soon hit insurmountable operating gaps that expand each year as expenses continue to outpace revenue growth. In FY 2026, for example, expenses are expected to exceed pre-pandemic levels (FY 2019) by more than $600 million while revenues grow by just $100 million.

Controlling operating expenses will be even more challenging as the MBTA must cover $50 million in operating losses from the Green Line Extension (GLX) and South Coast Rail as well as increased costs for pensions and commuter rail operations due to the four-year contract extension.

The drumbeat for new revenues from transit advocates, editorial boards, business leaders, the MBTA board, and others who rely upon public transit gets louder and louder because the risks of a failing transit system to employers and transit-dependent communities are so great. As a leader, you face a Hobbesian choice: raise revenues or accept service cuts that will exacerbate inequities and derail the Greater Boston economy.

You may be able to solve the FY 2024 shortfall with short-term fiscal tactics, such as asking the MBTA to use federal capital funds to cover operating gaps, but such one-time solutions at best buy a year until the next budget. Similar actions have been taken in the past; such tactics will only cause the operating budget gap to be larger while exacerbating the capital budget shortfall.

Despite all the reforms, restructuring, and revenues that have been poured into the system, you face the hard reality that the MBTA's finances were never fundamentally fixed – ever. You're compelled to ask: how much longer can the T function without a complete financial overhaul?

Take a hard look at Figure 1. The trend is unequivocal and unsettling. This is a fiscal calamity.

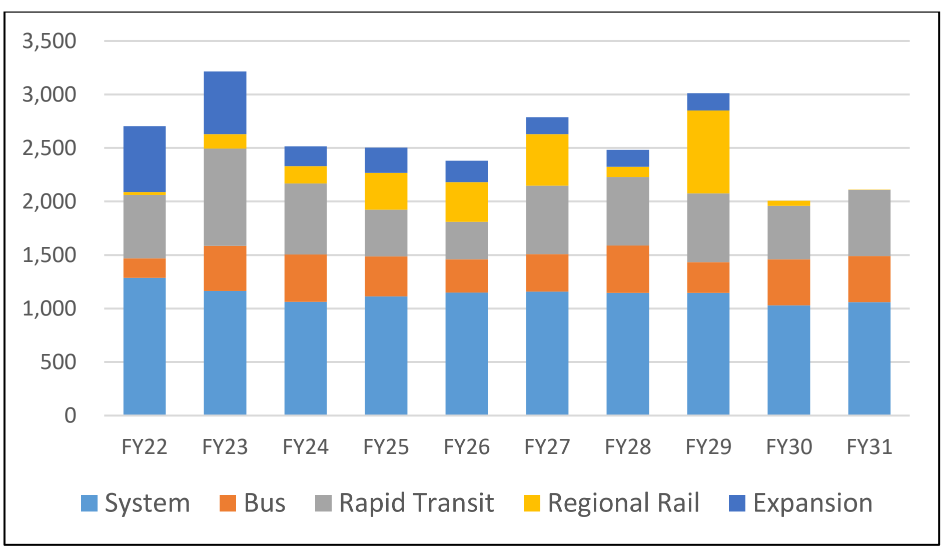
IF ONLY THE NEWS GOT BETTER

As you navigate how to raise the $500 million to cover the looming operating budget deficit, you're reminded that yet another MBTA fiscal crisis looms: the Authority will also face a capital sources cliff in FY 2025. The MBTA estimates its ten-year capital funding needs to maintain the core system at $25 billion, which is twice the amount it has available (see Appendix A or click here for MBTA's presentation to the FMCB). Capital improvements include:

- Bus – fleet and facilities, transition to battery-electric-bus ($3.67 billion)
- Rapid transit
  - Red and Orange Line vehicles and reliability ($3.3 billion)
  - Green Line – vehicles, accessibility, increased capacity ($2.68 billion)
- Regional rail
  - SGR and investments including (B)EMU service on Providence Line, Fairmount Line, and Beverly/Lynn Corridor – ($2.4 billion)
- Systems – ($11.3 billion)
  - Bridges and tunnels
  - Power
  - Accessibility
- Expansions – Completing two current projects – South Coast Rail Phase 1, GLX ($1.45 billion) along with the Red/Blue Connector ($850 million)

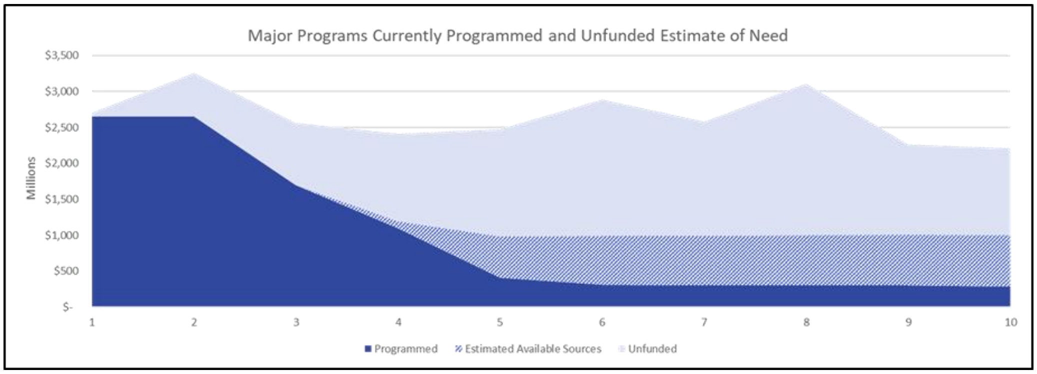
Figure 2 shows what's needed on the five modes over a 10-year period. This is not a capital investment plan; rather, it is a framework to address the core capital investments needed to maintain and modernize bus, regional rail, rapid transit, systems, and the GLX, South Coast Rail, and Red/Blue Connector.

Figure 2 – MBTA Core Capital Needs, FY 2022 – FY 2031



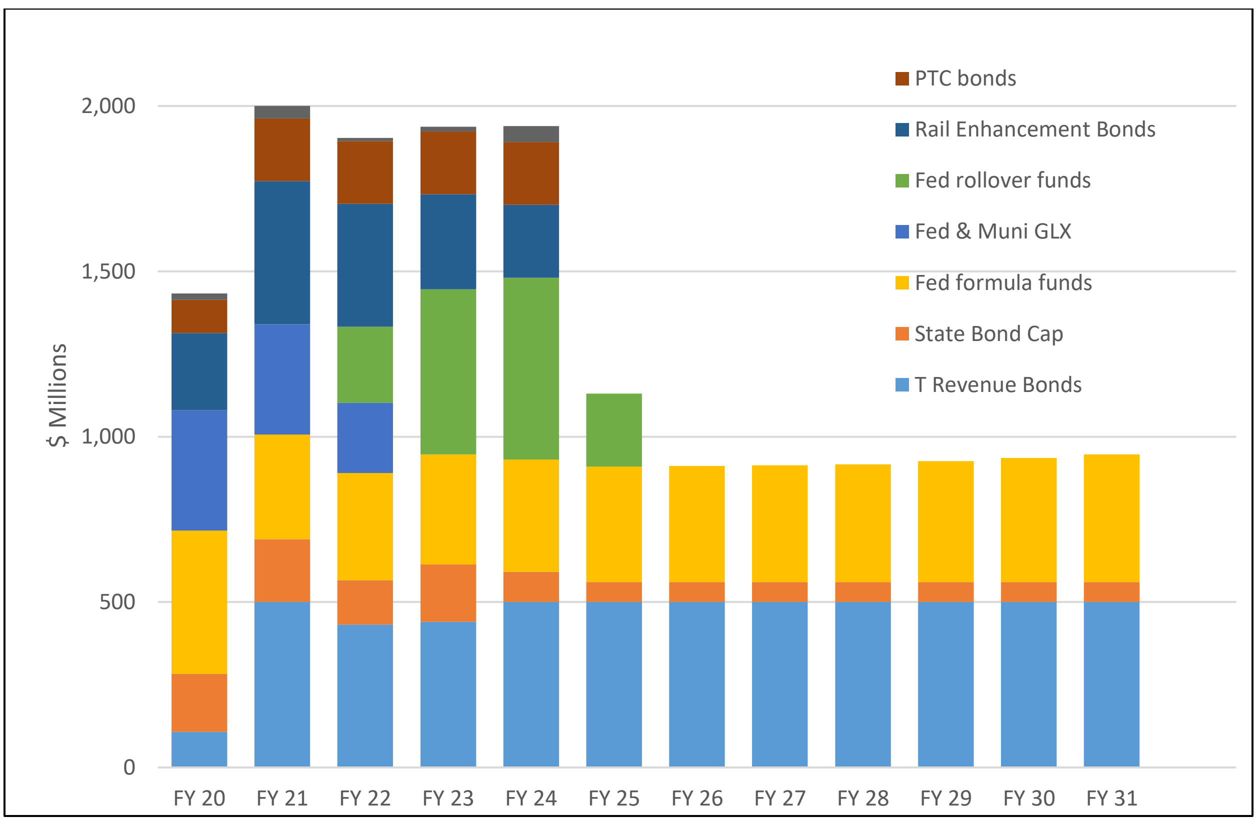
Unfortunately, as shown in Figures 3 and 4, available sources to pay for these investments begin to substantially decline starting in FY 2025.

Figure 3 – MBTA's Estimate of Capital Programs: What's Unfunded (light blue)[2]



That's because the one-time infusion of over $4 billion in state and federal funds from FY 2020 to FY 2024 to pay for a range of projects – Red and Orange Line vehicles and improvements, GLX, and South Coast Rail – has been exhausted as projects are completed. While some federal rollover funds remain in FY 2025, by FY 2026 the MBTA's capital capacity is limited to Federal Formula funds, the sale of revenue bonds and a small commitment from the state within its borrowing capacity.

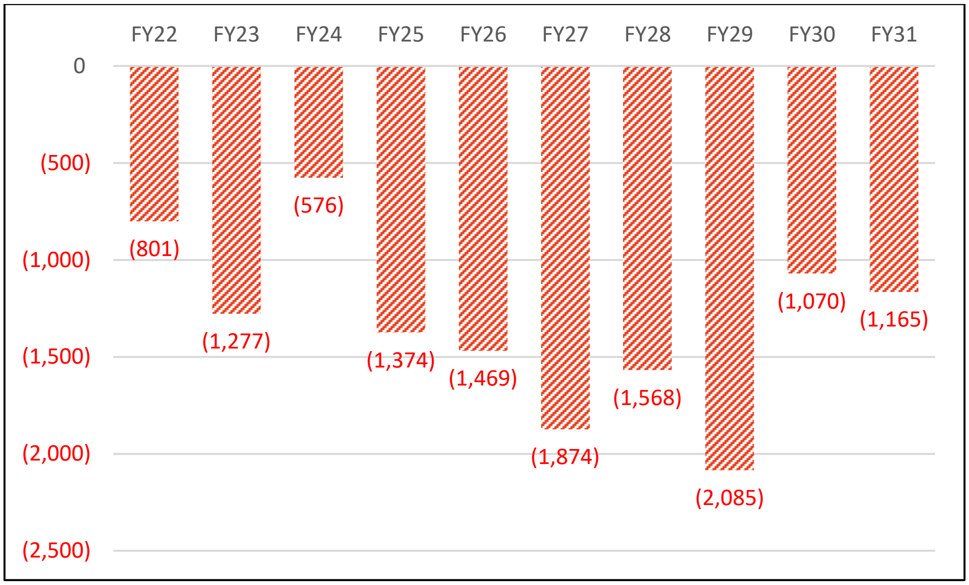
Figure 4 – MBTA Available Capital Sources, FY 20 – FY 32



[2] Years 1 – 10 on the X axis correlate to FY 2022 – FY 2031 in this document.

This means that the MBTA, which can only rely on committed capital sources, must build capital plans based on less than $1 billion in available sources annually starting in FY 2026. That pushes the 10-year capital shortfall for basic state of good repair, modernization, and accessibility spending to $13 billion during FY 2022 – FY 2031 (Figure 5).

Figure 5 – $13 billion gap to achieve basic state of good repair and modernization goals



A review of previous financing options suggests that the MBTA would need approximately $500 million in new, dedicated revenues to finance the sale of $13 billion in bonds while also covering increased debt service costs.

But even $25 Billion Falls Short of What the MBTA Needs (and Advocates Want)

As daunting as a $13 billion gap seems, it significantly understates the size and nature of the problem. The 10-year investment framework does not include the full costs of addressing climate change. Nor does it include funds for new expansion projects other than the Red/Blue Connector.

Climate Change

The MBTA's 10-year, $25 billion capital needs estimate does not include full electrification of the commuter rail system, a key step to reduce greenhouse gas emissions. The estimate also includes only a small portion of the MBTA's climate resiliency needs. That's a serious problem in an area where sea level rise and coastal storms put much of the MBTA's infrastructure at risk.

And that risk is now. The impacts of climate change reached new levels of urgency, according to the *Sixth Assessment Report* by the U.N.'s Intergovernmental Panel on Climate Change (IPCC). Described as a "code red for humanity" by U.N. Secretary-General António Guterres, the report affirmed that climate change is occurring earlier and faster than expected.

So while climate resiliency costs to preserve MBTA's assets remain unknown, the risks are glaringly clear. In a 2016 report, sea level rise in Boston was projected to increase by 4 to 8 inches by 2030 after rising 9 inches over the previous century.[3] If sea level rise continues its nonlinear growth pattern combined with more storms of greater intensity, the MBTA could face a series of catastrophic events.

A recent report, supported by the MBTA, examined this exact possibility. It concluded that in the event of a 100-year storm in 2030, "The entirety of the Blue and Silver Lines, as well as a significant portion of the Red Line, and a portion of the Orange Line are inundated. Of particular importance on the Red Line are the projected flooding of the main rail yard, Cabot Yard, and the right-of-way at JFK/UMass station. Orient Heights Yard on the Blue Line is completely inundated under this exposure scenario."[4,5] MBTA service capacity would be reduced by one third for an extended period of time, stranding many transit-dependent riders.

While the full costs to make the system resilient are unknown, some discreet costs indicate the enormous scale of the challenge. Electrifying the commuter rail system has been estimated to cost $6 billion[6], of which approximately $2 billion is included in the MBTA's 10-year cost estimate, leaving $4 billion in net new costs.

Required spending on resiliency and redundancy for the Red and Blue lines to mitigate the potential damage to those key lines between 2022 and 2031 would likely run from $2 billion to $3 billion. Add in staffing to properly manage a doubling of spending on capital projects, and it's realistic to conclude that climate change investments could reach $7 billion. That brings total capital investment needs to $32 billion, which is $20 billion more than is currently available.

Expansions

This $25 billion capital needs estimate does not include expansion projects sought by different advocates, including:

- East / West High Speed Rail
- South Coast Rail Phase 2
- South Station Expansion
- Other projects being proposed

[3] Climate Ready Boston, Final Report, December 2016, p.6.
[4] *Resilience of Rapid Transit Networks in the Context of Climate Change*, Michael V. Martello, Master's Thesis submitted to Department of Civil and Environmental Engineering, MIT, May 2020, p. 94-95. See also: *Rising seas pose an 'existential threat' to MBTA, study warns*, Andrew Brinker, The Boston Globe, July 26, 2021.
[5] This study used a 1 in 100 year storm model with sea level rise of 8.2 inches because "When designing against flood risk in the US, a return period of 100 years is typical (ASCE, 2015) and corresponds to Type A or Type V FEMA flood zone (both of which have a 1% annual chance of inundation based on historical data; FEMA, 2019), p. 94.
[6] Ready to Move in Massachusetts: A Blueprint for Delivering Major Transportation Projects through the Biden Infrastructure Plan, A Better City, p. 5.

Priorities and Capacity

It is clear that expansion projects cannot siphon resources and capacity from essential spending without further damaging the system. In other words, the current system must come first and the MBTA needs resources and capacity layered on top of the $32 billion before undertaking a major new transit project.

Further, although the MBTA has raised its capital spending to $1.9 billion a year with great effort, it will need to more than double annual capital capacity to $4 billion just to maintain, modernize, and improve accessibility while protecting its assets from the effects of climate change. That is a substantial jump and it comes with additional operating costs.

Federal Infrastructure Funding - $2.5 billion for public transit?

As of this writing, the infrastructure bill has passed the Senate but the timeline to finalize a bill and get it to the President's desk remains unclear. The bill's impact on MBTA finances is also uncertain. Sources have estimated that public transit in Massachusetts would receive approximately $2.5 billion in new funds over five years[7], but that is far from clear. According to an American Public Transit Association (APTA) Legislative Alert, the Boston urbanized area will receive a total of $2.07 billion in Federal Formula funds covering fiscal years 2022 – 2026.[8] That is only $370 million more than the $1.7 billion the MBTA estimated it would receive from the Fast Act, the current authorization bill.

Much of the remaining transit funds in the infrastructure bill are tied to competitive grants that require annual applications and MBTA matching funds. A breakdown of the $1.2 trillion bipartisan infrastructure bill can be found here.

Obviously, additional federal infrastructure funds are welcome as the MBTA's investment needs are so great. However, it is worth keeping in mind that even if the MBTA were to secure $2.0 billion in additional federal support, a federal requirement for matching MBTA funds would limit the benefit and the gap in capital sources would still exceed $18 billion.

CONCLUSION

In the spring of 2023, lawmakers will have a brief window to fund an operating budget gap to avoid fare increases or sizable service cuts. The MBTA urgently needs **$500 million** in non-appropriated annual revenues to balance its operating budget, an amount that will escalate if fares are reduced and/or capital spending scales to $4 billion.

Lawmakers must also grapple with the capital sources cliff that, if left unaddressed, will prevent the MBTA from preserving, modernizing, and protecting its infrastructure. The Authority needs

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[7] The Infrastructure Investment and Jobs Act will Deliver for Massachusetts.

[8] *FTA Projection Formula Rub, FY 22-FY 26*, APTA, page 1.

a commitment of approximately **$700 million to $800 million** in dedicated revenues to finance $18 billion to $20 billion in borrowing to fund critical capital investments.

Taken together, that's **$1.2 billion to $1.3 billion** in additional annual resources. The MBTA needs that commitment by 2023 in order to finalize its FY 2024 operating budget and develop its next capital investment plan.

These fiscal challenges plaguing the MBTA are not new. As MTF noted in its 2015 report, *The T: The End of Its Line*, the Authority already faced a structural operating and capital budget cliff, a view seconded by the Governor's Special Panel that was convened after the calamitous winter of 2015. The MBTA has made significant progress since then, including improved governance, greater transparency, achieving annual capital spending of $2 billion, and expanded and improved service.

But just as the IPCC report warned that the impacts of climate change are hitting harder and faster than forecast, so too are the crises facing the MBTA's operating and capital budgets. They are deeper and more intransigent with limited time before the next calamity strikes.

This report has laid out a stark reality. Patches and quick fixes cannot buy enough time, nor can the MBTA fix this. The MBTA's future depends on the actions you and others take.

SO WHAT DO YOU DO?

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Appendix A - MBTA 10 Year Unconstrained Capital Investment Framework

Resequencing of major programs will likely be needed to help level-out future unfunded needs, but additional funds are necessary to achieve basic state of good repair and modernization goals

MAJOR PROGRAMS: TOTAL FUNDING ESTIMATED NEEDS													
Mode	**Program**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**FY27**	**FY28**	**FY29**	**FY30**	**FY31**	**TOTAL**	**Notes**
Bus	Bus Transformation	$181	$422	$445	$374	$310	$350	$444	$287	$430	$430	**$3,674**	Includes facilities and future fleet procurements
Rapid Transit	Red / Orange Line Transformation	$364	$636	$428	$280	$139	$347	$333	$333	$229	$229	**$3,314**	Continued vehicle and SGR investments and vehicle acceptance
	Green Line Transformation	$230	$272	$234	$157	$212	$292	$307	$311	$271	$390	**$2,677**	Includes accessibility, SGR, vehicle procurement, and future capacity investments
Rail	Rail Transformation	$25	$135	$163	$344	$370	$480	$94	$774	$46	$3	**$2,433**	Planning, SGR, and future transformation investments
Systemwide	Bridge and Tunnel	$202	$202	$202	$202	$202	$202	$202	$202	$202	$202	**$2,022**	
	Power	$269	$233	$313	$140	$171	$188	$185	$185	$69	$98	**$1,850**	
	Accessibility	$67	$104	$82	$306	$302	$305	$295	$295	$295	$295	**$2,348**	Includes rapid transit station, commuter rail and bus investments, Green Line work included in GLT
	Resiliency	$0	$50	$50	$50	$100	$100	$100	$100	$100	$100	**$750**	Placeholder to reflect future resiliency work
	Other Assets*	$749	$626	$464	$464	$464	$464	$464	$464	$464	$464	**$5,086**	Includes BL, Fare Transformation, Technology, Safety/Security, The RIDE, Ferry, and Mattapan Line, as well as SGR investments across all modes
Expansion	GLX, SCR, and Expansion Project Development	$608	$563	$163	$79	$41	$0	$0	$0	$0	$0	**$1,454**	Includes funding currently programmed for expansion projects in the FY22 CIP
	Red-Blue Connector	$10	$21	$21	$158	$160	$160	$160	$160	$0	$0	**$850**	Current total project cost, divided evenly across years included in the project timeline
Total		**$2,705**	**$3,264**	**$2,566**	**$2,555**	**$2,470**	**$2,888**	**$2,583**	**$3,111**	**$2,106**	**$2,211**	**$26,458**	

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