



2019

ACCOUNTABILITY REPORT

ASSESSING THE MBTA'S PROGRESS ON THE STRATEGIC PLAN



Conservation
Law Foundation



The MBTA
Advisory Board



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OVERVIEW

After the winter of 2015 revealed widespread infrastructure and operational deficiencies in Greater Boston’s public transit system, Governor Baker and the Legislature established the Fiscal and Management Control Board (FMCB) to improve the finances, management, and operations of the Massachusetts Bay Transportation Authority (MBTA).

In April 2017, the FMCB adopted its MBTA Strategic Plan, which is a comprehensive set of initiatives to repair and modernize the MBTA. Successfully implementing the Strategic Plan is crucial to creating the 21st century public transportation infrastructure that Greater Boston’s residents and businesses need to sustain economic growth, meet employer and employee needs, and support a high quality of life.

The Greater Boston Chamber of Commerce, the Conservation Law Foundation, and the MBTA Advisory Board partnered to examine the MBTA’s progress towards meeting the FMCB’s Strategic Plan goals. The following Accountability Report (assessment) measures the MBTA’s progress on achieving the Strategic Plan’s priorities and goals that it set for itself, using the MBTA’s own data.

This assessment is intended to hold the MBTA accountable to its goals and to provide support from stakeholders in the business community, the advocacy community, and the 176 municipalities served by the MBTA. In fact, the Strategic Plan itself underscores the role of accountability in the process: “If executed well, the plan is intended to ensure that there is never again a deterioration of our public transit system, and instead, that we are supported and held accountable to continuously improve the vital service we provide.”¹ This is the first annual assessment to inform the budget process and capital investment strategy.

“If executed well, the plan is intended to ensure that there is never again a deterioration of our public transit system, and instead, that we are supported and held accountable to continuously improve the vital service we provide.”

—MBTA Fiscal and Management Control Board Strategic Plan

1 MBTA Fiscal and Management Control Board, *Strategic Plan*, April 2017, p. 2.

KEY FINDINGS

Overall, the MBTA is making progress towards the Strategic Plan goals. The MBTA completed most of its Strategic Plan goals with deadlines on or before December 2018. These include analyzing the system's current and future capacity, selecting a vendor to design and implement a new automated fare collection system, creating an integrated fleet and facilities plan that will guide modernization of the system, and taking significant steps towards stabilizing the operating budget.

While the MBTA is making good progress on management goals, there are several customer-focused and infrastructure-related goals for which the MBTA is behind schedule, most notably improving rider accessibility and increasing capital spending. Several serious challenges remain as the MBTA looks to transition from planning a 21st century transportation system to delivering service improvements to riders.

The MBTA's Capital Investment Plan requires a drastic investment increase. To meet its five-year, \$8 billion Capital Investment Plan the MBTA must double its capital investment from an annual

average of \$767 million from fiscal year 2014 to fiscal year 2018 to an annual average of over \$1.6 billion from fiscal year 2019 though fiscal year 2023. And although the MBTA continues to work towards its key goal of eliminating the State of Good Repair (SGR) backlog in 15 years, it has not estimated the total associated cost. It is therefore impossible to assess the MBTA's progress towards eliminating the SGR backlog.

The MBTA has missed its goals relating to climate resiliency planning and expanding accessibility. The MBTA has not completed a plan to address vulnerability to climate and weather stressors. The MBTA has not developed and implemented expanded accessibility improvements throughout the system.

Successfully implementing the Strategic Plan is crucial to creating a 21st century public transportation infrastructure.

SCORECARD OVERVIEW

PRIORITY AREAS	STRATEGIC GOALS	COMPLETE	ON TRACK	PROGRESSING BUT FACE SIGNIFICANT OBSTACLES	BEHIND SCHEDULE
		✓	●	●	●
FISCAL SUSTAINABILITY	2	0	1	1	0
INFRASTRUCTURE	12	6	1	2	3
CUSTOMERS	24	14	3	0	7
MANAGEMENT	6	4	2	0	0

The scorecard is based on data obtained through December 2018.

ASSESSMENT ORGANIZATION

ASSESSMENT IDENTIFIES FOUR PRIORITY AREAS COMPARED TO 10

The Strategic Plan is comprehensive, providing details and depth for dozens of goals spread among 10 subject areas. This assessment is organized differently than the Strategic Plan in two ways:

STREAMLINED PRIORITY AREAS

First, this assessment streamlines the Strategic Plan's priority areas from 10 categories into the four priority areas in the FMCB's Third Annual Report in 2017: fiscal sustainability, infrastructure, customers, and management.

FOCUSED ON MEASURABLE GOALS

Second, this assessment focuses on the progress of measurable goals that have clear outcomes and timeframes for completion. The Strategic Plan's goals vary in detail and specifics of desired outcomes and the associated timeline. As a result, we can track progress on some goals more easily than others.²

FUTURE ASSESSMENTS WILL INCORPORATE NEW STRATEGIC PLAN GOALS

The Strategic Plan is a dynamic document. The MBTA will achieve certain goals, and it will add new initiatives as it works toward modernization. For future assessments, we will update the assessment to incorporate new or updated FMCB goals. It is our expectation that many of these aspirational goals will become measurable as the MBTA continues to refine its strategic priorities.

FUTURE ASSESSMENTS WILL INCLUDE OTHER STRATEGIC PLAN DOCUMENTS

Finally, additional strategic planning by the MBTA and Massachusetts Department of Transportation (MassDOT) occurs outside of the FMCB's published Strategic Plan. In determining progress, we reviewed other documents such as the MBTA's Focus40 Investment Plan and its five-year Capital Investment Plan. An updated version of the Strategic Plan should consolidate all MBTA strategic initiatives into one master plan. No specific goals from Focus40 or the Capital Investment Plan were included in this year's scorecard because this assessment focuses on goals with deadlines on or before December 2018.

STRATEGIC PLAN CATEGORIES

CONDENSED INTO FOUR PRIORITY AREAS

FISCAL SUSTAINABILITY

- Fiscal Sustainability

INFRASTRUCTURE

- Infrastructure
- Safety
- Environment

CUSTOMERS

- Customers
- Accessibility
- Capacity

MANAGEMENT

- Management
- Workforce
- Governance

² For example, a key measurable goal in the Fiscal Sustainability section is to “[g]enerate \$100 million in non-fare, own-source revenue by FY2021.” MBTA Fiscal and Management Control Board, *Strategic Plan*, April 2017, p. 27. Please note that the Strategic Plan also includes goals that this assessment categorizes as “aspirational goals” because they seek to improve aspects of the MBTA but do not provide clear outcomes or timeframes. For example, one stated goal in the Management section is to “[a]ttract and retain a world-class management team.” MBTA Fiscal and Management Control Board, *Strategic Plan*, April 2017, p. 16. Since this assessment focuses on measurable progress, it does not evaluate progress on these abstract or general priorities. The MBTA's fiscal year (FY) runs from July 1 through June 30.

SCORECARD

STATUS KEY

COMPLETE



ON TRACK



PROGRESSING



BEHIND SCHEDULE



GOAL/SUBGOAL

GOAL DATE

STATUS

PROGRESS NOTES

FISCAL SUSTAINABILITY

Generate \$100 million in non-fare, own-source revenue

FY21



The MBTA set its non-fare, own-source revenue budget at \$101.6 million in fiscal year 2019. If it can generate the budgeted revenue, then it will be two years ahead of its Strategic Plan goal of \$100 million by fiscal year 2021.

Eliminate reliance on annual appropriation for operating support

Ongoing



In fiscal year 2018, the MBTA balanced its budget for the first time in 10 years. However, the MBTA is projecting a \$36.5 million deficit for fiscal year 2019, which will be funded by Additional State Assistance. Furthermore, the MBTA continues to face fiscal challenges – most notably a growing pension liability – that it will need to address in future years to avoid returning to large structural deficits on an annual basis.

INFRASTRUCTURE

Expand capital delivery capacity to achieve a minimum of \$1 billion in annual State of Good Repair (SGR) spending

FY21



In fiscal year 2018, the MBTA spent only \$720 million of its \$790 million goal on SGR projects. The fiscal year 2019 budget plans to meet the SGR spend goal of \$850 million, putting the MBTA back on track to achieve \$1 billion in SGR spending by fiscal year 2021.

Eliminate SGR backlog in 15 years

FY32



The plan to eliminate the SGR backlog in 15 years is based on an outdated and flawed 2015 estimate of \$7.3 billion. Until the 2015 estimate is updated, it will be impossible to understand if the MBTA is truly on track to eliminate the SGR backlog by fiscal 2032.

Identify gaps in project management capacity

2017



The MBTA conducted an enterprise controls gap report in spring 2017.

Implement Project Management Information System (PMIS)

2018



The MBTA adopted E-Builder, a project management information system, in 2018. As of October 2018, there were 150 Capital Investment Plan projects in E-builder and 592 total users. Full implementation is expected by the end of 2019.

Modernize the business and information management processes of MBTA asset management

2017



The adoption of E-Builder was a key step in modernizing the capital program.

Hire project director to modernize business processes and information management

2017



The MBTA hired a PMIS Project Director who was onboarded in January 2019.













Develop budget and implementation plan to modernize business processes and information management

2017















The MBTA has a plan for the implementation of E-builder that runs through 2019.

SCORECARD

GOAL/SUBGOAL	GOAL DATE	STATUS	PROGRESS NOTES
Develop a plan for targeted interventions to address vulnerability of assets and services to climate and weather stressors	2018		The MBTA considers climate resiliency as a factor when making capital investment decisions, but the MBTA currently lacks one vulnerability plan. A project is underway to determine total insured value and assess vulnerabilities of MBTA assets. This will be the framework for the comprehensive analysis, which is scheduled for completion in 2020.
<i>Utilize new and existing data to assess vulnerability of assets and services; identify feasible resiliency actions</i>	2018		
<i>Develop plan for targeted interventions for vulnerable services and assets</i>	2018		
Implement positive train control (PTC) for the Commuter Rail system (PTC is a federally mandated rail safety system)	2020		The MBTA is expected to meet the December 2020 deadline to install PTC on the entire Commuter Rail system.
<i>Complete PTC hardware installation</i>	2018		PTC hardware installation was completed in December 2018 and testing is underway.
CUSTOMERS			
Establish a target for the necessary capacity on the core system to meet increased ridership due to economic growth	2017		The future demand and capacity analysis was completed in December 2017.
Develop integrated fleet procurement and replacement plan with integrated procurement and life-cycle maintenance by the summer of 2017	2017		The MBTA created an Integrated Fleet and Facilities Plan (IFFP), which provides a framework for restoring vehicles and maintenance facilities to a state of good repair within 15 years while also increasing capacity to meet the future demand predicted in the 2017 capacity analysis.
Reinvent the bus system moving from comprehensive service planning to network-wide redesign	2019		This work is occurring as part of the Better Bus Project, which is scheduled to simplify the bus network in 2019 and implement increased service in 2020 and later. The 2020 assessment will measure whether the Better Bus Project remains on schedule.
<i>Partnerships with municipalities</i>	2019		In 2018, the MBTA formed partnerships to test dedicated bus lanes in Arlington, Boston, Everett, and Cambridge.
<i>Provide customer amenities on high demand, high frequency corridors</i>	2017		The MBTA is making improvements to bus stations through the Capital Investment Plan and is exploring additional improvements through the Better Bus Project.
<i>Pilot district and implement service changes</i>	2018		In 2018, the MBTA conducted pilots for dedicated bus lanes, late night service, and early morning service.
<i>Network-wide plan to address changing demographics and land use patterns</i>	2019		The MBTA expects to complete a network simplification for the bus system in 2019.

SCORECARD

GOAL/SUBGOAL	GOAL DATE	STATUS	PROGRESS NOTES
Have a new Automated Fare Collection system in place (AFC 2.0)	2021		
— <i>Request for Qualifications for Integrator and Design Build Letter of Intent</i>	2016		In 2018, the MBTA finalized a 13-year contract with the consortium of Cubic John Laing for the design, implementation, and operations of AFC 2.0. This design is the first Public-Private Partnership for the MBTA and is scheduled to implement an upgraded system by 2021.
— <i>Shortlisted Integrator Proposals</i>	2016		
— <i>Request for Proposals for Integrator</i>	2016		
— <i>Integrator Selection</i>	2017		
Develop and begin implementation of strategy for expanding accessibility	2018		
— <i>Continue investment in the accessibility of the fixed-route system with the Plan for Accessible Transit Infrastructure (PATI) and develop a dynamic catalogue of all meaningful barriers to access system-wide</i>	2018		A comprehensive update on the PATI plan is expected at the end of the first quarter of 2019, slightly behind the target goal. Draft recommendations are in use to inform capital decisions. Increasing accessibility is a key aspect of modernizing the MBTA system and the PATI documents will be an important guide for making smart capital investments.
— <i>Improve access to Commuter Rail by pursuing “good access” vs. “perfect access” with regulators</i>	2018		
— <i>Develop clear design and maintenance guidelines to ensure compliance with the Americans with Disabilities Act and Massachusetts Architectural Access Board standards and other relevant regulations</i>	2018		
Institutionalize accessibility improvements throughout the system	2019		
— <i>Document role of Department of System-Wide Accessibility to ensure its engagement on all public-facing projects</i>	2018		
— <i>Document current approach to elevator maintenance. Assess impact of accelerating elevator replacements on maintenance costs. Establish elevator/escalator replacement plan</i>	2018		

SCORECARD

GOAL/SUBGOAL	GOAL DATE	STATUS	PROGRESS NOTES
Embrace a mobility management philosophy, provide education and incentives to customers to encourage use of fixed-route services whenever possible	2018	✓	The MBTA conducted a pilot to encourage use of fixed-route service. This pilot was discontinued when it was found to be ineffective at changing passengers' mode of transportation.
<i>Expand pilot by 2018 for free fare on fixed-route to select RIDE eligible customers</i>	2018	✓	
Improve the quality and cost-effectiveness of The RIDE	Ongoing	✓	<p>Implementation of The RIDE Access Center (TRAC) centralized call center took longer than initially planned. As of June 1, 2018, Transdev took full control of TRAC and continues to train employees and improve services. TRAC now serves as a one-stop location for scheduling trips with The RIDE.</p> <p>This pilot was extended until July 1, 2019. The pilot was successful in reducing per-trip costs. However, the pilot also increased the total number of trips taken on The RIDE, increasing the aggregate cost of providing this service.</p>
<i>Implement The RIDE Access Center centralized call center (TRAC)</i>	2017	✓	
<i>Expand Uber/Lyft/Taxi pilots to improve quality and lower per-trip costs of The RIDE</i>	Ongoing	✓	
MANAGEMENT			
Develop holistic information systems for workforce management	2019	●	<p>Beginning in 2019, the HASTUS software will be used to schedule bus and rail drivers.</p> <p>The MBTA completed its upgrade to PeopleSoft 9.2 in July 2017.</p> <p>MASSDOT has adopted a Human Resources Strategic Plan that addresses talent attraction, compensation, management training, and hiring practices.</p>
<i>Implement new HASTUS workforce management software by 2019</i>	2019	●	
<i>Implement Peoplesoft payroll upgrade</i>	2017	✓	
<i>Implement workforce planning</i>	2017	✓	
Implement workforce supervisor and management training program	2017	✓	MassDOT and the MBTA have implemented several new training programs since the release of the Strategic Plan.
Develop and implement a comprehensive, outsourced management training program	2017	✓	

DRILLING DOWN ON KEY GOALS

The following sections provide additional analysis of select goals from the Strategic Plan. It is not a comprehensive evaluation of progress on all strategic initiatives; rather, it examines key goals that are crucial to modernizing the MBTA. The goals in this section are organized into four groups: projects that are complete, projects that are on track, projects that are progressing but face significant obstacles, and projects that are behind schedule. Many of these goals contain subgoals, which are discussed in more detail in the scorecard section of this assessment.

The following assessment measures the MBTA's progress on achieving the Strategic Plan's priorities and goals that it set for itself, using the MBTA's own data.



|| Customer Category

GOAL

CAPACITY ANALYSIS AND INTEGRATED FLEET AND FACILITIES PLAN

TARGET DATE

2017

One key aspect of implementing a capital plan for the MBTA is to understand current and future ridership demands. The MBTA completed a future demand and capacity analysis in December 2017, meeting a Strategic Plan goal. Building off this understanding of future ridership demand, the MBTA created the Integrated Fleet and Facilities Plan (IFFP), which provides a framework for restoring buses, trains, ferries, and maintenance facilities to a state of good repair within 15 years while also increasing capacity to meet the future demand predicted in the 2017 capacity analysis.

Ensuring the system is upgraded to current technology and mechanical capabilities is an essential aspect of modernizing the MBTA and providing 21st century transit infrastructure for Greater Boston. The IFFP is a crucial planning document for achieving this goal, but it is “fiscally-unconstrained,” which means there is no assigned funding. The next step of this process, which is vital to create lasting change at the MBTA, is to implement the IFFP through future Capital Investment Plans and operating budgets.



GOAL

EMBRACE A MOBILITY MANAGEMENT PHILOSOPHY; IMPROVE QUALITY & COST EFFECTIVENESS OF THE RIDE

TARGET DATE

2017, 2018, AND ONGOING

The RIDE is the MBTA's federally-mandated door-to-door paratransit service. This assessment examines three goals aimed at improving the quality and cost-effectiveness of The RIDE.

First, the MBTA sought to encourage the use of fixed-route service over door-to-door paratransit whenever possible. The MBTA fulfilled the goal of the Strategic Plan by implementing a pilot that offered free fixed-route services to The RIDE eligible customers. However, the pilot was ineffective at changing customers' mode of transportation and was discontinued.

Second, in 2016, the MBTA began implementing The RIDE Access Center (TRAC), a centralized call center for reservations, scheduling, and dispatching paratransit services. Although the full transition of call center services to TRAC took longer than initially expected, TRAC now manages all scheduling inquiries for The RIDE.

Finally, the MBTA implemented a pilot program with Lyft, Uber, and taxis to reduce the per-trip cost of The RIDE by replacing rides from the dedicated fleet with subsidized rides through private services. This pilot program began in September 2016 and was extended to July 1, 2019. The pilot has succeeded at its stated goal of reducing the per-trip cost. However, the pilot also increased the total number of trips taken on The RIDE, increasing the aggregate cost of providing this service.

Since its inception, the FMCB has focused on improving the cost effectiveness of The RIDE. The fiscal year 2019 budget for The RIDE is \$110.1 million, an increase of 13.3 percent over the fiscal year 2018 budget. This growth includes a greater investment in the TRAC call center and the Lyft, Uber, and taxi pilot program. Compared to the high-water mark of \$113.5 million in fiscal year 2012, the MBTA has reduced The RIDE budget by approximately 3 percent in nominal dollars.

Although the fiscal year 2019 budget is below the high-water mark, the additional costs from both the TRAC call center and the pilot program mean the MBTA needs to continue to control costs while also improving service for those riders who depend on The RIDE.

|| Fiscal Sustainability Category

GOAL

GENERATE \$100 MILLION IN NON-FARE, OWN-SOURCE REVENUE

TARGET DATE

FY2021

Part of balancing the budget requires increasing self-generated revenue from sources other than fares, referred to as non-fare, own-source revenue. Through a combination of increased revenue from leasing real estate holdings, parking fees, and advertising sales, the MBTA raised its non-fare, own-source revenue from \$30 million in fiscal year 2015 to \$88 million in fiscal year 2018, a nearly three-fold jump in as many years. The MBTA set its non-fare, own-source revenue budget at \$101.6 million in fiscal year 2019. At midyear, the MBTA has generated \$44 million non-fare, own-source revenue. If it can generate the budgeted revenue at \$101.6 million in the next several months, then the MBTA will have achieved its Strategic Plan goal two years early.

The MBTA raised its non-fare, own-source revenue from \$30 million in fiscal year 2015 to \$88 million in fiscal year 2018, a nearly three-fold jump.

|| Customers Category

GOAL

REINVENT THE BUS SYSTEM

TARGET DATE

2019

The Strategic Plan includes several initiatives pertaining to the redesign of the MBTA bus network. Since the Strategic Plan was published, the bus improvement goals were incorporated into the Better Bus Project, an effort to improve the bus system as a whole. The MBTA has already completed important work on this project, including pilot programs to test early-morning service, late-night service, and dedicated bus lanes in Arlington, Boston, Everett, and Cambridge.

Over the course of 2019, the MBTA plans to continue the Better Bus Project by implementing service improvement plans and redesigning the bus network. The Better Bus Project aims to consolidate duplicative routes, improve bus stop spacing, and eliminate route variations that do not work.

The first major step of this project occurred on January 28, 2019, when the MBTA released a State of the System report along with 47 cost-neutral near-term service change proposals that will impact 63 different bus routes out of a total of 180 routes. These proposals all follow one of four principles for change: combine similar services, minimize route variations, shorten routes, and straighten routes. The MBTA estimates that these changes will save riders thousands of commuting hours in the aggregate each week. The MBTA will take public comment on these 47 proposals through March with the FMCB voting to finalize the near-term service changes in April.

The MBTA also has an open Request for Proposals seeking consultants to work on the bus network redesign. This redesign will apply knowledge gathered from the pilot programs and the near-term changes across the system to improve bus service. In the coming months, the FMCB will need to award this contract and decide on the level of investment for fiscal year 2020 and beyond.

GOAL

NEW AUTOMATED FARE COLLECTION SYSTEM

TARGET DATE

IMPLEMENTED IN 2021 WITH INTERMEDIATE GOALS IN 2016 AND 2017

The implementation of a new Automated Fare Collection system (AFC 2.0) is intended to result in a new fare structure, remove cash from on board interactions, and replace CharlieCards with smartphones or contactless credit cards. The MBTA began public discussions on the fare structure in 2019 and expects a new structure following AFC 2.0 implementation by 2021.

The process for selecting a contractor occurred during 2016 and 2017, positioning the MBTA to remain on schedule for full implementation by 2021. In March 2018, the MBTA finalized a 13-year contract with the consortium of Cubic | John Laing for design, implementation, and operations of AFC 2.0. Importantly, this design is the first public-private partnership for the MBTA so its performance will determine whether similar partnerships result in the future. The MBTA is collecting public input on AFC 2.0.

|| Management Category

GOAL

HUMAN RESOURCES INFORMATION MANAGEMENT; TRAINING PROGRAMS

TARGET DATE

2017 AND 2019

As part of the Strategic Plan, the MBTA and MassDOT worked to modernize both workforce management and training. One of the most significant improvements will be the implementation of the HASTUS software management system for scheduling bus and rail drivers, which transitions the MBTA from a paper scheduling system to an electronic scheduling system. Once implemented in 2019, the HASTUS software will modernize the scheduling process and is anticipated to reduce the number of dropped bus and rail trips.

Over the last two years, MassDOT and the MBTA have instituted several new training programs. These programs are primarily professional development and training for managers and supervisors and include Lean 6Sigma White Belt, Lean 6Sigma Green Belt, the Bus Garage Leadership program in conjunction with Massachusetts community colleges, and the “Hiring the Best People” online course. Although the human resources goals were targeted for completion in 2017, all programs were implemented in 2018.

DRILLING DOWN ON KEY GOALS



RED AND ORANGE LINE CARS

One highly anticipated capital initiative underway is the procurement of new fleets for the Red Line and Orange Line. The total cost of the new vehicle procurement programs for the Red and Orange Lines is slightly more than \$1 billion. The Orange Line will increase its rolling stock by more than 25 percent, from 120 to 152 vehicles, with the complete transition to all new cars by 2022. The Red Line will increase its rolling stock by just over 15 percent, from 218 to 252 vehicles, with the complete transition to all new cars by 2023.

At the time of this assessment, both fleet procurement projects are underway, with slight delays regarding an interim target date for testing the new cars. The MBTA announced that issues with the testing of new Orange Line cars will delay the rollout of the first set of cars from January 2019 until spring 2019. Notwithstanding the postponed testing timeline, the MBTA reports that the production schedule and pace of assembly for the 2022 transition are not delayed. In addition to the new cars, in October 2018, the MBTA awarded a contract to upgrade the signal systems for both the Orange Line and Red Line. This \$351 million project is expected to be completed by spring 2022.

Completing the fleet and switch upgrades are key components of the ultimate goal to reduce headways and increase capacity on the Red Line and Orange Line. If successfully implemented, the Red Line will reduce headways from 4.5 minutes to 3 minutes, creating a 50 percent increase in capacity, or 30,000 passengers per peak hour. The Orange Line will reduce headways from 6 minutes to 4.5 minutes, creating a 40 percent increase in capacity, or nearly 5,000 passengers per peak hour.

|| Fiscal Sustainability Category

GOAL

ELIMINATE RELIANCE ON ANNUAL APPROPRIATION FOR OPERATING SUPPORT

TARGET DATE

ONGOING

In fiscal year 2018, the MBTA balanced its budget for the first time in 10 years. This is a noteworthy accomplishment considering that, at the time of the FMCB's creation, the structural deficit was projected to be \$335 million in fiscal year 2018.

The balanced budget is the result of \$235 million in cost containment and \$100 million in increased revenue. The cost containment steps include: reducing overtime, changing maintenance processes to reduce supply costs, reducing debt service costs, and renegotiating labor agreements with the MBTA's two largest unions. Additional revenue is another fiscal sustainability metric that is further described in the Completed Goals section.

As a result of eliminating the structural deficit in fiscal year 2018, the full \$127 million that the state commits in annual support to assist with operating expenses (referred to as Additional State Assistance) was instead redirected to the Capital Spending Lock Box. The Lock Box is a flexible funding source for capital projects and maintenance at the MBTA and is in addition to the five-year capital plan.³ To date, the MBTA has deposited more than \$400 million in Additional State Assistance into the Lock Box, adding more than \$200 million in funding to capital projects.⁴

Despite a balanced budget in fiscal year 2018, the MBTA is projecting a \$36.5 million deficit for fiscal year 2019, which will be funded by Additional State Assistance. As a result, in fiscal year 2019, the MBTA expects to redirect only \$90.5 million to the Capital Spending Lock Box. The return to relying on Additional State Assistance demonstrates that the MBTA must continue to focus on cost containment and increasing own-source revenues, another key metric. Furthermore, the MBTA continues to face fiscal challenges – most notably a growing pension liability – that it will need to address in future years to avoid returning to large structural deficits on an annual basis. Even with increased revenue from the proposed fare increase, the MBTA expects to rely on Additional State Assistance to balance the fiscal year 2020 budget.

In fiscal year 2018, the MBTA balanced its budget for the first time in 10 years, a noteworthy accomplishment.

³ The MBTA established the Capital Maintenance Fund "Lock Box" in 2016, and it is funded mostly from savings in the operating budget. Money from this fund is available immediately to fund projects not included in the five-year Capital Investment Plan. Selected projects are meant to be near-term and have a direct customer benefit.

⁴ The \$400 million total is a combination of State Assistance that was directly deposited to the Lock Box, State Assistance that was redirected after savings in the operating budget, and additional access to the state's bond cap. The \$300 million unspent balance remains available for future "Pay-Go" projects that will be funded outside the Capital Investment Plan.

|| *Infrastructure Category*

GOAL

EXPAND CAPITAL DELIVERY CAPACITY
AND ELIMINATE STATE OF GOOD REPAIR
BACKLOG IN 15 YEARS

TARGET DATE

2021 AND 2032, WITH INTERMEDIATE
GOALS IN 2017 AND 2018

Eliminating infrastructure deficiencies and bringing the system to a state of good repair is the most important strategic priority to prevent delays and ensure the MBTA is a reliable 21st century transit system. Executing the five-year, \$8 billion Capital Investment Plan is the first step in reaching this goal and should remain the key focus of the FMCB until its term expires in 2020.⁵

Despite the success to date at increasing capital investments, questions remain about the MBTA's ability to ramp up its spending of available funding, successfully execute the five-year Capital Investment Plan, and eliminate the SGR backlog in 15 years. The ambitious Capital Investment Plan calls for increasing capital investment from an annual average of \$767 million between fiscal year 2014 and fiscal year 2018 to an annual average of over \$1.6 billion between fiscal year 2019 and fiscal year 2023.

The Strategic Plan has two major goals focused on returning the system to a state of good repair. The first goal is to increase capital spending to reach a minimum of \$1 billion in annual SGR spending by 2021. The second is to eliminate the SGR backlog in 15 years, a more aggressive approach compared to the prior 25-year plan. To successfully achieve these SGR spending goals, the Strategic Plan also calls for modernizing the business practices within the MBTA capital program.

Since the creation of the FMCB, the MBTA made significant progress on improving business practices within the capital project management and delivery system. Improved practices can speed up procurement, design, and management. The improved practices are necessary for the MBTA to spend the full allotment of its capital funding. The most significant change is the implementation of a new Project Management Information System (PMIS). Throughout 2019, the MBTA will transition all projects to E-Builder, a construction management software system, which will allow the MBTA to better manage its capital projects and, as a result, increase its capital expenditure capacity.

A direct result of this focus on improving capital delivery practices is that the MBTA increased its capital investment from \$631 million in fiscal year 2014 to \$875 million in fiscal year 2018. Of that, more than 80 percent, or \$720 million, was used to address a backlog of maintenance. In some cases these investments also modernize the system, as with the new Red Line and Orange Line cars. The MBTA is working to execute an ambitious five-year, \$8 billion Capital Investment Plan, which includes \$6.7 billion in SGR spending.⁶

Though spending increased, reaching \$1 billion in spending per year within just two fiscal years is still challenging. For example, the \$720 million in SGR spending during fiscal year 2018 was less than the \$790 million goal for SGR projects.

⁵ The Legislature has the authority to change the expiration date of the FMCB.

⁶ The five-year Capital Investment Plan includes projects we discuss in this assessment such as the Red Line and Orange Line improvement projects, Automated Fare Collection 2.0, and various SGR projects, as well as other major projects not discussed here. The \$8 billion plan also includes \$1.2 billion for the Green Line Extension project.

The fiscal year 2019 budget sets an SGR spending goal of \$850 million. It is important that the MBTA meets this goal for fiscal year 2019 if it hopes to remain on track to spend \$1 billion in annual SGR spending by 2021 and invest \$8 billion over five years.

However, even if the MBTA meets its fiscal year 2019 SGR spending goal of \$850 million, the annual targets to eliminate the SGR backlog in 15 years are based on an outdated and flawed 2015 SGR backlog estimate of \$7.3 billion. This estimate has no factor for inflation over the 15-year period and does not include the commuter rail system, which will require substantial investment in the coming years to reach a state of good repair. Furthermore, as the FMCB notes in its December 2018 update to the Strategic Plan, the MBTA has to transition its capital investment

strategy from one that emphasizes repairs to one that combines repairs, changes, and upgrades that will create a modern system.⁷ While this approach will improve the future state of the system, it will also significantly increase the capital spending needs over the 15-year period.

The MBTA may not have an accurate SGR backlog estimate until the full implementation of a new Asset Management Information System scheduled for December 2020. By this time, the MBTA will already have adopted its five-year Capital Investment Plan through fiscal year 2025. If significant new SGR investments are identified at this time, it will be challenging to meet the goal of eliminating the SGR backlog by fiscal year 2032.



7 MBTA Fiscal and Management Control Board, [MBTA Strategic Plan Update](#), December 2018, p. 4.

DRILLING DOWN ON KEY GOALS



GREEN LINE EXTENSION

The Green Line Extension (GLX) project is not part of the 2017 Strategic Plan and, therefore, is not included in our assessment. However, since the publishing of the Strategic Plan, GLX has progressed.

After years of attempting to get the project off the ground, GLX was paused indefinitely in 2015 due to significant increases in the cost estimate. In 2017, the FMCB approved a design-build contract that mitigated some of those increases. The approved contract for design and construction of the first phase of GLX totaled \$1.082 billion, under the affordability limit of \$1.319 billion. The ground breaking for the first phase of GLX occurred on June 25, 2018 and work began to extend the Green Line to Somerville and College Avenue in Medford.

As of January 2019, the first phase of the project was on schedule to begin service on a portion of the line and generate revenue in December 2021, however, the MBTA has more work to do on the second phase to terminate the GLX at Mystic Valley Parkway in Medford. The GLX project and associated costs include the procurement of 24 additional cases, one of which is already in service. Once the first phase is complete, the GLX is projected to increase ridership by more than 50,000 passenger trips per day.

|| *Infrastructure Category*

GOAL

DEVELOP A PLAN FOR TARGETED INTERVENTIONS TO ADDRESS CLIMATE AND WEATHER VULNERABILITIES

TARGET DATE

2018

There was no substantial update to the MBTA's climate vulnerability work since the publishing of the Strategic Plan, missing the goal to develop a plan for targeted interventions for vulnerable services and assets by December 2018.

The delay in completing a targeted plan for intervention is particularly concerning when one considers the importance of the current five-year Capital Investment Plan. Without an understanding of future threats to the system, the MBTA cannot ensure that the current and near-term investments are preparing the system for the challenges presented by rising sea levels and increasingly powerful storms that are expected to damage transit infrastructure in the coming years. While the MBTA considers climate resiliency during project selection and design, it lacks a comprehensive understanding that would be a useful tool for designing and prioritizing capital projects.

The report from the Commission on the Future of Transportation in the Commonwealth also highlights the importance of this work with its recommendation to “[m]ake all current and future critical state and municipal transportation infrastructure resilient to a changing climate.”⁸

|| *Customers Category*

GOAL

DEVELOP A STRATEGY FOR INSTITUTIONALIZED EXPANDED ACCESSIBILITY

TARGET DATE

2018

The Strategic Plan highlights several initiatives surrounding the Department of System-Wide Accessibility and the Plan for Accessible Transit Infrastructure (PATI). At the time of publishing, there were no public updates on this work, although one is expected in early 2019, a few months behind schedule. Like climate resiliency, accessibility is a key aspect of capital planning that is considered on a project-by-project basis but lacks a comprehensive plan. As the MBTA undertakes its ambitious five-year capital plan, it must make investments that continue to increase accessibility across the system.

Strategic Plan delays have the potential to compound upon each other and hinder the completion of other major initiatives.

The climate resiliency and accessibility projects are the latest in a series of initiatives that were completed behind schedule or that remain incomplete and are currently behind schedule.

Other projects that either finished late or are behind schedule include the development of management training programs, the full implementation of TRAC, and the Focus40 planning effort. While proper completion of these projects is more important than meeting a scheduled deadline, the MBTA and FMCB should be cautious because delays have the potential to compound upon each other and, in the aggregate, hinder the completion of other major initiatives.

⁸ The Commission on the Future of Transportation in the Commonwealth, *Choices for Stewardship: Recommendations to Meet the Transportation Future Volume 1*, December 2018, p. 57.

LOOKING AHEAD

CONTINUING THE PROGRESS

The MBTA is at an inflection point as it moves toward project and plan implementation. Planning for the future is inextricably linked to transportation improvements, but our public transit system also faces urgent challenges right now. The FMCB's Fourth Annual Report states: "We expect 2019 to be a turning point during which customers see results from the last three years of effort."⁹ Transitioning the MBTA from a mindset of planning to a mindset of results is central to restoring the public's confidence in the MBTA and ensuring its long-term success.

Breakdowns and delays in service are still common, which is especially problematic because the MBTA is now competing for riders who have numerous transportation options. As the MBTA continues to plan for long-term success in 2040 and beyond, it is important to prioritize short-term investments that improve the customer experience.¹⁰



9 MBTA Fiscal and Management Control Board, [Fourth Annual Report](#), December 2018, p. 5.

10 The Commission on the Future of Transportation in the Commonwealth summed up the need for short-term improvements when it wrote, "The Commonwealth must continue to focus on modernizing its existing public transit assets, including vehicles, to prepare the current system to perform better long before 2040." The Commission on the Future of Transportation in the Commonwealth, [Choices for Stewardship: Recommendations to Meet the Transportation Future Volume 1](#), December 2018, p. 33.

LOOKING AHEAD

|| Focus Areas for 2020 Assessment

Next year's assessment of the Strategic Plan progress will continue to focus on major initiatives, including achieving stability in the operating budget and executing the \$8 billion, five-year Capital Investment Plan. It will also examine progress on several key initiatives that, if well implemented, will contribute toward the MBTA meeting the Strategic Plan goals:

UPDATE STRATEGIC PLAN

The MBTA plans to conduct its first biennial update of the Strategic Plan in 2019. The updated 2019 Strategic Plan will be the basis for the next assessment.

CAPITAL PLANNING

One of General Manager Steve Poftak's first actions was to order a 60 to 90-day review of the Capital Program's business practices and project pipeline.¹¹ The MBTA should use the findings of this review to expedite projects that improve the rider experience. As part of this effort, the MBTA should accelerate its efforts to determine an accurate cost estimate of the SGR backlog, using both an inflation factor and a modernization-and-repair lens.

ORANGE LINE CARS

The MBTA expects some new Orange Line cars to enter service in spring 2019. This project has already suffered from interim delays in 2019, so the progress will be monitored as the MBTA works to meet its deadline of a new Orange Line fleet by 2022.

RED LINE CARS

The MBTA expects the first delivery of Red Line cars in November 2019. Considering the interim delays to date with the Orange Line cars, it is important that Red Line cars are delivered and put into service on schedule.

BETTER BUS PROJECT

There are several milestones anticipated in 2019 related to the Better Bus Project. In fall 2019, the MBTA plans to implement several cost-neutral, near term changes to improve service. Additionally, the MBTA will need to plan its systemwide redesign and make important decisions about the level of financial investments in the Better Bus Project as it enters fiscal year 2020.

HASTUS SOFTWARE SCHEDULING

In 2019, the MBTA will implement the HASTUS scheduling system for rail and bus drivers. If properly implemented, this system will modernize bus and train scheduling and provide more reliable service to riders.

PLAN FOR ACCESSIBLE TRANSIT INFRASTRUCTURE

The PATI plan is behind schedule. Accessibility is closely linked to capital investments, so with the MBTA's capital investment push in the coming years it should make significant progress on this work in 2019.

CLIMATE RESILIENCY ANALYSIS

The MBTA is behind schedule in performing a comprehensive analysis of the system's vulnerability to climate change and planning targeted interventions. With severe weather already affecting parts of the system, the climate resiliency work must be accelerated in 2019 to ensure that capital projects are properly designed. The FMCB and MBTA should prepare the MBTA's infrastructure for climate resiliency in the short-term and plan for longer-term success.

¹¹ General Manager Poftak requested a review of all fiscal year 2019 capital projects, project ownership and accountability, the reporting tools needed to adequately track all projects, organizational capacity and capability, project planning, and scheduling bottlenecks and diversions.

LOOKING AHEAD

POSITIVE TRAIN CONTROL

Implementing PTC on the MBTA Commuter Rail system is a \$459 million project that must be completed by December 2020 to meet federal safety standards. The project will be monitored throughout 2019 to ensure it remains on schedule and on budget.

SET A POST-FMFCB GOVERNANCE STRUCTURE

The FMFCB has demonstrated the value of an independent, dedicated board that meets regularly and publicly. Though the FMFCB recommended a governance structure for when it expires in 2020, there is no clear plan for if and when the structure will be finalized. Having a structure in place is critical to ensure the important progress since 2015 continues into the next decade.

DATA ACCESS AND TRANSPARENCY

This assessment relies on publicly-available data including presentations to the FMFCB, the MBTA's annual operating budget, and the five-year Capital Investment Plan, which were posted to the FMFCB website following the publication of the Strategic Plan on April 24, 2017. This assessment relies on additional information from the MBTA on select initiatives.

Much of the information needed to evaluate the MBTA's progress to date can be accessed only by sorting through and reviewing the agendas of FMFCB meetings. This is a long and tedious process that inhibits the MBTA's accountability to riders and other stakeholders. We recommend that the FMFCB and MBTA make this important information more easily accessible for the general public.

To be sure, the FMFCB has improved transparency compared to the former governance structure. By improving public access to important information and regularly reporting on the MBTA's progress, the FMFCB and the MBTA can strengthen public confidence.



ABOUT THE GREATER BOSTON CHAMBER OF COMMERCE

The Greater Boston Chamber of Commerce is the convener, voice and advocate of our region's business community, committed to making Greater Boston the best place for businesses and people to thrive. It helps its members and Greater Boston succeed by convening and connecting the business community; researching, developing and advocating for public policies that contribute to our region's economic success; and providing comprehensive leadership development programs designed to grow strong business and civic leaders. Learn more at BostonChamber.com.



ABOUT THE CONSERVATION LAW FOUNDATION

CLF protects New England's environment for the benefit of all people. We use the law, science and the market to create solutions that preserve our natural resources, build healthy communities, and sustain a vibrant economy. We're working to cut pollution from our cars and trucks, create alternatives to driving, and push for more affordable and equitable public transit options across New England. To learn more about our work, visit www.clf.org.



ABOUT THE MBTA ADVISORY BOARD

The MBTA Advisory Board was created in the same legislation that created the MBTA to serve as oversight and voice of the communities served by the MBTA. We monitor the MBTA's spending and capital plans and track the performance of the MBTA's service. The MBTA Advisory Board advocates on behalf of its members and on behalf of the transit riding public. Learn more at mbtaadvisoryboard.org.

