

appendix



Policies, Plans, Studies and Data that Inform the Needs Assessment

POLICY AND PLANNING FRAMEWORK

The Boston Region Metropolitan Planning Organization (MPO) operates under a variety of laws, regulations, guidance, policies, and plans that not only shape its activities but also inform its understanding of the region's transportation needs. This appendix presents information about the laws, regulations, guidance, policies, and plans that strongly influence the MPO's activities in the metropolitan transportation planning process and that contributed to the development of the Needs Assessment. Each item indicates which of the MPO's goal areas to which it relates, and when possible, describes how it influenced the Needs Assessment. More details are provided on the major laws, regulations, guidance, policy directives, and plans that guide MPO activities as they generally apply to three or more goal areas. The entries are organized by their geographic scope (federal, state, regional, or local). Those that cover one or two goal areas are summarized in Table A-5. As stated, the MPO's goals are as follows:

- **Safety:** Transportation by all modes will be safe
- **System preservation:** Maintain and modernize the transportation system and plan for its resiliency
- **Capacity management and mobility:** Use existing facility capacity more efficiently and increase transportation options
- **Clean air and sustainable communities:** Create an environmentally friendly transportation system
- **Transportation equity:** Ensure that all people receive comparable benefits from, and are not disproportionately burdened by, MPO investments, regardless of race, color, national origin, age, income, ability, or sex
- **Economic vitality:** Ensure our transportation network provides a strong foundation for economic vitality



FEDERAL LAWS, REGULATION, MANDATES, AND GUIDANCE

Fixing America's Surface Transportation (FAST) Act

Year Enacted: 2015

MPO Goal Areas Addressed: Safety, System Preservation, Capacity Management/Mobility, Clean Air/Sustainable Communities, and Economic Vitality

The FAST Act authorizes federal funding and establishes programs and requirements for surface transportation infrastructure, including roads, bridges, transit systems, and passenger rail. It also includes seven national goals for federal highway programs, which were first established under its predecessor, the Moving Ahead for Progress in the 21st Century Act (MAP-21). These goals include the following:

1. **Safety**—To achieve a significant reduction in traffic fatalities and serious injuries on all public roads
2. **Infrastructure condition**—To maintain the highway infrastructure asset system in a state of good repair
3. **Congestion reduction**—To achieve a significant reduction in congestion on the National Highway System
4. **System reliability**—To improve the efficiency of the surface transportation system
5. **Freight movement and economic vitality**—To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development
6. **Environmental sustainability**—To enhance the performance of the transportation system while protecting and enhancing the natural environment
7. **Reduced project delivery delays**—To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices

These national goals helped to shape the MPO's goals established in *Charting Progress to 2040*, which in turn informed the needs described in this Needs Assessment. Table A-1 shows the relationship between these national goals and the MPO's goals.

Table A-1
National Goal Areas and MPO Goal Areas

National Goal Area	MPO Goal Area
Safety	Safety
Infrastructure Condition	System Preservation
Congestion Reduction	Capacity Management/Mobility
System Reliability	Capacity Management/Mobility
Freight Movement/Economic Vitality	Capacity Management/Mobility and Economic Vitality
Environmental Sustainability	Clean Air/Clean Communities
Reduced Project Delivery Delays	N/A
N/A	Transportation Equity

N/A = not applicable.

Sources: Fixing America's Surface Transportation Act and the Boston Region MPO.

These national goals also relate to performance-based planning and programming (PBPP) provisions first established under MAP-21 and then continued under the FAST Act. PBPP refers to practices that apply performance-management principles to transportation system policy and investment decisions. PBPP employs a system-level, data-driven process and is used to make decisions about strategies and investments. The FAST Act requires states, MPOs, and public transportation operators to monitor progress and set targets for specific measures. The US Department of Transportation (USDOT) has promulgated several rules related to performance measures in response to the FAST Act:

- 23 Code of Federal Regulations (CFR) Part 490: National Performance Management Measures
- 23 CFR Part 924: Highway Safety Improvement Program
- 49 CFR Part 625: Transit Asset Management
- 49 CFR Part 673: Public Transportation Agency Safety Plan

The MPO must establish performance measures and targets that track progress toward the attainment of priority outcomes for the Boston region and coordinate the development of these targets with those of relevant state agencies and public transportation providers to ensure consistency. The MPO has begun to analyze data and establish baselines and targets for federally required performance measures, and information pertaining to these measures (if available) is included in the Safety, System Preservation, Capacity Management/Mobility, Economic Vitality, and Clean Air/Sustainable Communities goals. Tables A-2 and A-3 summarize these measures for transit and highway systems.

Table A-2
Federally Required Performance Measures for Transit Systems

National Goal	Relevant MPO Goal Area	Transit Performance Area or Asset Category	Performance Measure
Safety	Safety	Fatalities	Total number of reportable fatalities and rate per total vehicle revenue-miles by mode
Safety	Safety	Injuries	Total number of reportable injuries and rate per total vehicle revenue-miles by mode
Safety	Safety	Safety Events	Total number of reportable events and rate per total vehicle revenue-miles by mode
Safety	Safety	System Reliability	Mean distance between major mechanical failures by mode
Infrastructure Condition	System Preservation	Equipment	Percent of vehicles that have met or exceeded their ULB
Infrastructure Condition	System Preservation	Rolling Stock	Percent of revenue vehicles within a particular asset class that have met or exceeded their ULB
Infrastructure Condition	System Preservation	Infrastructure	Percent of track segments with performance restrictions
Infrastructure Condition	System Preservation	Facilities	Percent of facilities within an asset class rated below 3.0 on the FTA's Transit Economic Requirements Model scale

FTA = Federal Transit Administration. MPO = metropolitan planning organization. ULB = useful life benchmark.
Sources: National Public Transportation Safety Plan (January 2017), the Public Transportation Agency Safety Plan Rule (49 Code of Federal Regulations Part 673), and the final Transit Asset Management Rule (49 CFR Part 625).

Table A-3
Federally Required Highway Performance Measures

National Goal	Relevant MPO Goal Areas	Highway Performance Area	Performance Measure
Safety	Safety	Injuries and Fatalities	<ul style="list-style-type: none"> Number of fatalities Fatality rate per 100 million VMT Number of serious injuries Serious injury rate per 100 million VMT Number of nonmotorized fatalities and nonmotorized serious injuries
Infrastructure Condition	System Preservation	Pavement Condition	<ul style="list-style-type: none"> Percent of pavements on the Interstate System in good condition Percent of pavements on the Interstate System in poor condition Percent of pavements on the non-Interstate NHS in good condition Percent of pavements on the non-Interstate NHS in poor condition
Infrastructure Condition	System Preservation	Bridge Condition	<ul style="list-style-type: none"> Percent of NHS bridges by deck area classified as in good condition Percent of NHS bridges by deck area classified as in poor condition
System Reliability	Capacity Management/Mobility	Performance of the National Highway System	<ul style="list-style-type: none"> Percent of person-miles traveled on the interstate system that are reliable Percent of person-miles traveled on the non-interstate NHS that are reliable
System Reliability, Freight Movement, and Economic Vitality	Capacity Management/Mobility, Economic Vitality	Freight Movement on the Interstate System	Truck Travel Time Reliability Index
Congestion Reduction	Capacity Management/Mobility	Traffic Congestion	<ul style="list-style-type: none"> Annual hours of peak hour excessive delay per capita (for travel on NHS roadways) Percent of non-SOV travel
Environmental Sustainability	Clean Air/Clean Communities	On-Road Mobile Source Emissions	Total emissions reduction of on-road mobile source emissions (for applicable pollutants and precursors) ^a

^a As of the Federal Highway Administration's 2017 Congestion Mitigation and Air Quality Improvement (CMAQ) Program performance requirements applicability determination, the Boston Region MPO area contains an area designated as in maintenance for carbon monoxide, so the MPO is currently required to comply with this performance measure requirement. NHS = National Highway System. SOV = single-occupancy vehicle. VMT = vehicle-miles traveled. Sources: Highway Safety Improvement Program Rule (23 CFR 924), National Performance Management Measures Rule (23 CFR 490).

The FAST Act also lists a set of transportation planning factors that must be considered in the transportation planning process. It continues and builds on a set of factors established in prior legislation—the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users*. Table A-4 lists these transportation planning factors along with the related MPO goal areas. These planning factors also informed the type of information that is included in the Economic Vitality, Capacity Management/Mobility, Safety, Clean Air/Clean Communities, and System Preservation chapters in this Needs Assessment.

**Table A-4
Federal Planning Factors and Related MPO Goal Areas**

Federal Planning Factor	MPO Goal Area
Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency	Economic Vitality
Increase the safety of the transportation system for all motorized and nonmotorized users	Safety
Increase the ability of the transportation system to support homeland security and to safeguard the personal security of all motorized and nonmotorized users	Safety
Increase accessibility and mobility of people and freight	Capacity Management/Mobility, Economic Vitality
Protect and enhance the environment, promote energy conservation, improve quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns	Clean Air/Clean Communities, Economic Vitality
Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight	Capacity Management/Mobility
Promote efficient system management and operation	Capacity Management/Mobility
Emphasize the preservation of the existing transportation system	System Preservation
Improve the resiliency and reliability of the transportation system and reduce or mitigate storm water impacts of surface transportation	System Preservation, Capacity Management/Mobility, Clean Air/Clean Communities
Enhance travel and tourism	N/A

Source: Boston Region MPO.

United States Department of Transportation Code of Federal Regulations (CFR)—Metropolitan Transportation Planning and Programming Regulations

Year Enacted: 23 CFR Parts 450 (2016); 23 CFR Parts 450 (1996); 49 CFR Part 613 (2016). These are updated as needed.

MPO Goal Areas Addressed: Safety, System Preservation, Capacity Management/Mobility, Clean Air/Sustainable Communities, Economic Vitality, Transportation Equity

The United States CFR—especially in 23 CFR Parts 450 and 500 and 49 CFR Part 613—documents the administrative rules and regulations that define how MPOs and other entities carry out their transportation planning processes. To receive federal transportation dollars, MPOs are required to carry out a “continuing, cooperative, and comprehensive” (3C) transportation planning process, which includes the development of its certification documents: the Long-Range Transportation Plan (LRTP), the Transportation Improvement Program (TIP), and the Unified Planning Work Program. The processes for the TIP and LRTP are to

- Encourage and promote safe and efficient development, management, and operation of surface transportation systems to serve the mobility needs of people and freight (including accessible pedestrian walkways, bicycle transportation facilities, and intermodal facilities that support intercity transportation, including intercity buses and intercity bus facilities and commuter vanpool providers);
- Foster economic growth and development and take resiliency needs into consideration, while minimizing transportation-related fuel consumption and air pollution; and
- Encourage continued development and improvement of metropolitan transportation planning processes as guided by the transportation planning factors (see the description of the FAST Act).

MPOs must also conduct an inclusive public participation process for its certification documents, which includes meaningful public engagement with those who have been traditionally underserved by the transportation planning process; maintain transportation models and data resources to support air quality conformity determinations; carry out ongoing programs, such as a congestion management process; and conduct long-range and short-range planning work. The MPO has established the following objectives for carrying out the 3C planning process in the region. These objectives include:

- Identify transportation problems and develop possible solutions
- Balance short-range and long-range considerations so that decisions that lead to beneficial incremental actions adequately reflect an understanding of probable future consequences and possible future options

- Represent both regional and local considerations, as well as both transportation and nontransportation objectives and impacts (such as land use and economic impacts) in the analysis of project issues
- Assist implementing agencies in effecting timely policy and project decisions with adequate consideration of environmental, social, fiscal, and economic impacts, and with adequate opportunity for participation by other agencies, local governments, and the public
- Help implementing agencies prioritize transportation activities in a manner; consistent with the region's needs and resources
- Comply with the requirements of the FAST Act, the Americans with Disabilities Act of 1990 (ADA), the Clean Air Act, the Civil Rights Act of 1964, Executive Order (EO) 12898 (regarding environmental justice), EO 13166 (regarding non-English language accommodations), and EO 13330 (regarding the coordination of human services transportation)

Americans with Disabilities Act (ADA)

Year Enacted: 1990

MPO Goal Areas Addressed: Safety, System Preservation, Capacity Management/Mobility, Clean Air/Sustainable Communities, Economic Vitality, Transportation Equity

Title III of the ADA “prohibits states, MPOs, and other public entities from discriminating on the basis of disability in the entities’ services, programs, or activities,” and requires all transportation projects, plans, and programs to be accessible to people with disabilities. To satisfy these requirements, all MPO meetings, documents, and services are accessible to people with a disability. The MPO also considers the mobility needs of persons with disabilities throughout the planning process, which includes public engagement and data analysis to better understand transportation needs, and the programming of capital projects in the MPO’s planning documents to help ensure that the MPO’s investments meet these needs. These needs are documented in the Transportation Equity chapter (Chapter 8) in the context of the other goal areas.

Title VI of the Civil Rights Act of 1964

Year Enacted: 1964

MPO Goal Areas Addressed: Safety, System Preservation, Capacity Management/Mobility, Clean Air/Sustainable Communities, Economic Vitality, Transportation Equity

Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, and national origin (minority populations) in all activities, policies, and programs undertaken by recipients of federal funding, including intentional (disparate treatment) and unintentional (disparate impact) discrimination. The MPO considers the transportation needs of minority populations throughout all areas of the planning process and projected programming and selection, including the LRTP Needs Assessment. The needs of minority populations are also documented in the Transportation Equity chapter in the context of each of the other goal areas.

Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and in Low-Income Populations

Year Enacted: 1994

MPO Goal Areas Addressed: Safety, System Preservation, Capacity Management/Mobility, Clean Air/Sustainable Communities, Economic Vitality, Transportation Equity

The Environmental Justice (EJ) EO requires that each federal agency achieve EJ by identifying and addressing any disproportionately high adverse human health or environmental effects on minority or low-income populations, including interrelated social and economic effects resulting from its programs, policies, and activities.

On April 15, 1997, the USDOT issued its *Final Order to Address Environmental Justice in Minority Populations and Low-Income Populations*. The Order was updated in 2012 with DOT Order 5610.2(a), which provided clarification while still maintaining the original framework and procedures. Among other provisions, this order calls for programming and planning activities to meet the following requirements:

- Explicitly consider the effects of transportation decisions on minority and low-income populations
- Provide meaningful opportunities for public involvement for minority and low-income populations
- Gather demographic information such as the race, color, national origin, and income level of the populations affected by transportation decisions
- Avoid, minimize, or mitigate adverse impacts on minority or low-income populations

The MPO considers the transportation needs of minority and low-income populations throughout the MPO's planning process and project programming and selection, including the LRTP Needs Assessment. The needs of minority and low-income populations are documented in the Transportation Equity chapter in the context of each of the other goal areas.



Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency

Year Enacted: 2000

MPO Goal Areas Addressed: Safety, System Preservation, Capacity Management/Mobility, Clean Air/Sustainable Communities, Economic Vitality, Transportation Equity

This EO extends Title VI protections to people who, because of their national origin, have limited English proficiency (LEP). Specifically, it calls for improved access to federally conducted and federally assisted programs and activities, and requires MPOs to develop and implement a system by which people with LEP can meaningfully participate in the MPO's planning process. In 2002, the Department of Justice guidance (*Guidance to Federal Financial Assistance Recipients Regarding Title VI Prohibition Against National Origin Discrimination Affecting Limited English Proficient Persons*) subsequently requires recipients of federal funding to develop Language Assistance Plans that document the organization's process for providing meaningful language access to people with LEP who access their services and programs. The MPO considers the transportation needs of people with LEP throughout all areas of its planning process, project selection and programming, including the LRTP Needs Assessment. The transportation needs of people with LEP are documented in the Transportation Equity chapter in the context of each of the other goal areas.

Age Discrimination Act of 1975

Year Enacted: 1975

MPO Goal Areas Addressed: Safety, System Preservation, Capacity Management/Mobility, Clean Air/Sustainable Communities, Economic Vitality, Transportation Equity

The Age Discrimination Act of 1975 prohibits discrimination on the basis of age in programs or activities that receive federal financial assistance. To comply with this law, the MPO considers the transportation needs of youth (age 17 or younger) and the elderly (age 75 and older) across all areas of the MPO planning process and project selection and programming, including the LRTP Needs Assessment. The needs of the youth and elderly populations are documented in the Transportation Equity chapter in the context of each of the other goal areas.

STATE REQUIREMENTS, POLICY DIRECTIVES, AND PLANS

Choices for Stewardship: Recommendations to Meet the Transportation Future—Created by the Commission on the Future of Transportation in the Commonwealth

Year Enacted: 2018

MPO Goal Areas Addressed: Safety, System Preservation, Capacity Management/Mobility, Clean Air/Sustainable Communities, Economic Vitality, Transportation Equity

This report explores the expected changes in demographics, technology, land use, energy use, climate, and other factors that may affect transportation in Massachusetts between 2020 and 2040. The report also includes several potential scenarios, based on trends, and recommendations based on the results of scenario planning. These recommendations also include the implications for traditionally underserved populations, both potential impacts that may disproportionately burden these populations and those impacts that may benefit them.

Global Warming Solutions Act and Related Plans and Policies

Year Enacted: 2008

MPO Goal Areas Addressed: System Preservation, Capacity Management and Mobility, Clean Air/Sustainable Communities

The Global Warming Solutions Act (GWSA), signed into law in 2008, is a comprehensive regulatory program to address climate change in Massachusetts, and it makes the Commonwealth a leader in setting aggressive and enforceable greenhouse gas (GHG) reduction targets and implementing policies and initiatives to achieve these targets. The GWSA established emission reductions targets for specific sectors, including transportation, and it recommended strategies for adapting to climate change.

In keeping with this law, the Massachusetts Executive Office of Energy and Environmental Affairs, in consultation with other state agencies and the public, developed the *Massachusetts Clean Energy and Climate Plan for 2020*. This implementation plan, released in 2010 (and updated in 2015), establishes the following targets for overall statewide GHG emission reductions:

- 25 percent reduction below statewide 1990 GHG emission levels by 2020
- 80 percent reduction below statewide 1990 GHG emission levels by 2050

In January 2015, the Massachusetts Department of Environmental Protection promulgated regulation 310 CMR 60.05, GWSA Requirements for the Transportation Sector and the Massachusetts Department of Transportation (MassDOT). This regulation places a range of obligations on MassDOT and MPOs to support achieving the state's climate change goals through the programming of transportation investments. In particular, GHG impacts must be a selection criterion for projects considered for programming in the TIP.

Massachusetts Freight Plan

Year Enacted: 2017

MPO Goal Areas Addressed: Safety, Capacity Management/Mobility, and Economic Vitality

The Massachusetts Freight Plan identifies a vision for “a multimodal freight system that is safe, secure, resilient, efficient, reliable, and sustainable, and one that catalyzes economic development while supporting the continued competitiveness of the Commonwealth.” The Freight Plan identifies critical freight corridors and networks, important facilities, bottleneck locations, as well as key issues impacting the freight system. It uses a scenario-based approach to inform freight-related strategies and policies and identify freight projects for inclusion in future Massachusetts Capital Improvement Plans.

weMove Massachusetts: Planning for Performance

Year Enacted: 2014

MPO Goal Areas Addressed: System Preservation, Capacity Management/Mobility, Clean Air/Sustainable Communities, Economic Vitality

weMove Massachusetts (WMM) is MassDOT's statewide strategic multimodal plan. The initiative is a product of the transportation reform legislation of 2009 and the youMove Massachusetts civic engagement process. In May 2014, MassDOT released *WMM: Planning for Performance*, a single, multimodal LRTP for Massachusetts. WMM identifies policy priorities (including infrastructure maintenance), access to jobs and opportunities, quality of life, and sustainability. It also incorporates performance management into investment decision-making to calculate the differences in performance outcomes resulting from different funding levels available to MassDOT.

Massachusetts State Rail Plan

Year Enacted: 2018

MPO Goal Areas Addressed: Safety, System Preservation, Capacity Management, and Economic Vitality

The Massachusetts State Rail Plan is the 20-year plan for the statewide rail system. It describes the state’s policy for freight and passenger rail transportation, serves as the basis for investments within Massachusetts, and establishes the mechanism to coordinate with adjoining states for corridor planning and investment strategies. It also describes the state’s existing rail system, future trends, forecasts, needs, and opportunities.

MassMoves

Year Enacted: 2017

MPO Goal Areas Addressed: Safety, System Preservation, Capacity Management/Mobility, Clean Air/Sustainable Communities, Transportation Equity, Economic Vitality

The MassMoves initiative involved a series of public workshops held between January and April 2017 that were designed to engage citizens across the Commonwealth about their ideas for a twenty-first century transportation system. This initiative was a component of the Massachusetts Senate’s Commonwealth Conversations forums. MPO staff reviewed feedback from MassMoves when developing the Needs Assessment.

REGIONAL REQUIREMENTS, POLICY DIRECTIVES, AND PLANS

Metropolitan Area Planning Council’s *MetroFuture*/Regional Plan (Update—*MetroCommon 2050*)

Year Enacted: 2008/Underway

MPO Goal Areas Addressed: Safety, System Preservation, Capacity Management/Mobility, Clean Air/Sustainable Communities, Transportation Equity, Economic Vitality

MetroFuture, which was developed by the Metropolitan Area Planning Council (MAPC) and adopted in 2008, is the long-range plan for land use, housing, economic development, and environmental preservation for the Boston region. It includes a vision for the region’s future and a set of strategies for achieving that vision. *MetroFuture* is the foundation for land-use projections used in the MPO’s LRTP, *Charting Progress to 2040*. MAPC is now developing *MetroCommon*, the next regional plan, which will build off of *MetroFuture* and include an updated set of strategies for achieving sustainable growth and equitable prosperity. The MPO will continue to consider *MetroFuture*’s goals, objectives, and strategies in its planning and activities, and will monitor *MetroCommon* as it develops.



RailVision

Year Enacted: Underway

MPO Goal Areas Addressed: System Preservation, Capacity Management/Mobility, and Economic Vitality

Currently underway, the Massachusetts Bay Transportation Authority's (MBTA's) *RailVision* will identify cost-effective strategies to transform the MBTA's existing commuter rail system to better support improved mobility and economic competitiveness in the Boston region. Slated to be completed in 2019, *RailVision* will evaluate costs, ridership potential, operational feasibility of alternatives, as well as public feedback to develop a vision of the future of the MBTA's commuter rail system. Currently, seven alternatives have been proposed.

MBTA Strategic Plan

Year Enacted: 2017

MPO Goal Areas Addressed: Safety, System Preservation, Capacity Management/Mobility, and Economic Vitality

The MBTA Strategic Plan sets forth the MBTA's vision, mission, and values and establishes specific objectives for the agency. Among the most critical priorities identified by the MBTA are:

- Reinventing the bus service to improve reliability and amenities
- Redesigning the bus network
- Eliminating the State of Good Repair backlog in 15 years
- Installing a new automated fare collection system by 2021, along with a new fare structure that increases revenue, ridership, and affordability
- Increasing non-fare, own-source revenue
- Completing planning for fleets, facilities, and service

Focus40

Year Enacted: 2019

MPO Goal Areas Addressed: System Preservation, Capacity Management and Mobility

Focus40 is the MBTA's 20-year investment plan to position the agency to meet the needs of the greater Boston area through 2040. The *Focus40* process created a long-term investment vision that recognizes current infrastructure challenges and the shifting demographics, changing climate, and evolving technology that may alter the role that the MBTA plays in Greater Boston. *Focus40* emphasizes 1) improving system performance and reliability; 2) supporting economic growth; 3) supporting inclusive growth; 4) mitigating and adapting to climate change; and 5) providing a seamless multimodal experience. The MPO will consider *Focus40* recommendations when making transit capital investment programming decisions in the TIP and LRTP.

LOCAL REQUIREMENTS, POLICY DIRECTIVES, AND PLANS

GoBoston 2030

Year Enacted: 2017

MPO Goal Areas Addressed: Safety, System Preservation, Capacity Management/Mobility, Clean Air/Sustainable Communities Transportation Equity, Economic Vitality

GoBoston 2030 is the City of Boston's long-term mobility plan, and is based on an extensive, multiyear public visioning process. It was developed according to the guiding principles of equity, economic opportunity, and climate responsiveness, and includes goals related to expanding access, improving safety, and ensuring reliability. The final plan includes both a vision framework and an action plan, the latter of which includes projects and policies designed to achieve the plan's performance goals.

Metro Boston Regional Climate Change Adaptation Strategy Report

Year Enacted: 2015

MPO Goal Areas Addressed: System Preservation, Clean Air/Sustainable Communities, Transportation Equity

MAPC released a revised version of its *Metro Boston Regional Climate Change Adaptation Strategy Report* in 2015 to support implementation of one of the goals of *MetroFuture*, which is that "the region will be prepared for and resilient to natural disasters and climate change." This report includes a Vulnerability Assessment for the region as well as goals and action steps to support adaptation and resilience for multiple sectors, including infrastructure.



OTHER LAWS, REQUIREMENTS, POLICIES, AND PLANS, BY GOAL AREA

Table A-5 lists the laws, regulations, guidance, policies, and plans that address fewer than three MPO goal areas, organized by geographic scope.

Table A-5

Specific Laws, Regulations, Guidance, and Policies by Goal Area

Policy or Plan	Year Enacted	Description	Safety	System Preservation	Capacity Management and Mobility	Clean Air/Sustainable Communities	Transportation Equity	Economic Vitality
Federal								
Public Transportation Agency Safety Plan Rule—49 CFR Part 673	2018	Establishes requirements for recipients of federal transit funds to develop public transportation agency safety plans. These plans describe strategies for minimizing person and property exposure to unsafe conditions and include targets for transit safety performance measures.	X					
National Public Transportation Safety Plan	2017	Outlines a framework to guide the national effort to manage safety risks and hazards within the US public transportation system. It describes the FTA's SMS approach and identifies safety performance measures.	X					
Opportunity Zones Program	2017	The US Tax Cut and Jobs Act of 2017 created this program to provide incentives for investment in low-income communities. An opportunity zone is a geographic area in which individuals can gain favorable tax treatment on their capital gains by investing those funds (through a private Opportunity Fund) into economic activities in the area.						X
Highway Safety Improvement Program Rule—23 CFR Part 494	2016	Details policy, planning, implementation, and evaluation requirements for States and MPOs who spend dollars provided by the federal Highway Safety Improvement Program.	X					
Public Transportation Safety Rule—49 CFR Part 670	2016	Establishes rules for carrying out FTA's Public Transportation Safety Program.	X					
Transit Asset Management Rule—49 CFR Part 625	2016	Requires entities that receive funding from FTA to develop transit asset management plans, report asset information to the NTD annually, and to set targets and monitor asset conditions for established performance measures.		X				
FHWA Environmental Justice Reference Guide	2015	Provides guidance for recipients of financial assistance from the FHWA for complying with federal Title VI and EJ requirements.					X	
FTA Circular 9070.1G: Enhanced Mobility of Seniors and Individuals with Disabilities Program Guidance and Application Instructions	2014	Describes the development of the CPT-HST that identifies the specific transportation needs for elderly individuals and people with a disability. The MPO is responsible for developing the CPT-HST for the Boston region.					X	
FTA Circular 4307.1: Environmental Justice Policy Guidance for FTA Recipients	2012	Provides guidance to recipients of FTA financial assistance with guidance for incorporating EJ principles into activities that receive funding from FTA.					X	
FTA Circular 4702.1B: Title VI Requirements and Guidelines for FTA Recipients	2012	Provides recipients of FTA financial assistance with guidance for carrying out USDOT Title VI regulations.					X	
The Clean Air Act Amendments of 1990 (Title II) and Related Regulations	1990	Forms the basis of the US air pollution control policy, with certain requirements for MPOs.				X		
United States Environmental Protection Agency 40 CFR Parts 51 and 93—Conformity Regulation	Updated as needed	EPA-issued regulations requiring nonattainment and maintenance areas to demonstrate that their LRTPs are consistent with the SIP for attaining air quality standards.				X		
State								
Massachusetts State Implementation Plan	Ongoing	Discusses the state's status with respect to air quality standards and strategies it will follow to improve or maintain its status. It informs the MPO's assessment of air quality and transportation management needs.				X		
Municipal Vulnerability Grant Program	Ongoing	Provides support to Massachusetts municipalities to plan for resiliency and implement climate change adaptation. The state awards municipalities with funding to complete vulnerability assessments and develop resiliency plans.						

Policy or Plan	Year Enacted	Description	Safety	System Preservation	Capacity Management and Mobility	Clean Air/Sustainable Communities	Transportation Equity	Economic Vitality
Massachusetts FHWA Transportation Asset Management Plan	Forthcoming	Federally required risk-based asset management plan for the NHS to improve asset condition and system performance. Elements include information on the condition of NHS pavements and bridges, condition performance targets, and supporting investment strategies. MassDOT submitted an initial plan to FHWA in 2018 and will be submitting a fully compliant plan in 2019, per federal requirements.		X				
Massachusetts Statewide FTA Transit Asset Management Plans	Forthcoming	Transit providers that receive federal financial assistance must develop TAM plans that include asset inventories and condition assessment; processes and tools that support investment prioritization; and a prioritized list of projects and programs to improve transit SGR. MassDOT will coordinate the development of a TAM Plan for smaller transportation providers that receive FTA Section 5310 funds, which support mobility for seniors and persons with disabilities.		X				
Massachusetts Bicycle Plan	2019	Plan advances bicycling statewide for everyday travel—particularly for short trips of three miles or less—to the broadest base of users and free of geographic inequities.			X			
Massachusetts Pedestrian Plan	2019	Plan recommends policies, programs, and projects for MassDOT to guide decision-making and capital investments, as well as develop guidance for municipalities to improve walkability in local communities.			X			
Massachusetts State Hazard Mitigation and Climate Adaptation Plan	2018	Serves as an update to the state's existing 2013 State Hazard Mitigation Plan and is also driven by the state EO No. 569, "Establishing an Integrated Climate Change Strategy for the Commonwealth." It addresses the state's federally mandated hazard mitigation plan requirements and results in the first statewide climate adaptation plan.		X		X		
Massachusetts Strategic Highway Safety Plan	2018	Identifies key roadway safety issues and needs in the state; sets goals and objectives for safety outcomes; and identifies strategies for improving safety.	X					
Housing Choice Initiative	2017	A state program that rewards municipalities that have produced a certain amount of new housing units in the last five years and that have adopted best practices related to housing production that will sustain a twenty-first century workforce and increase access to opportunity for Massachusetts residents.						X
Environmental Justice Policy of the Executive Office of Energy and Environmental Affairs	2017	Makes environmental justice an integral consideration in the implementation of all state environmental programs.					X	
Massachusetts EO 569: An Integrated Climate Change Strategy for the Commonwealth	2016	Requires state-specific executive agency activities to create a strategy to mitigate and reduce greenhouse gas emissions and to build resilience and adapt to the impacts of climate change. Transportation system preservation-related requirements include publishing a Climate Adaptation Plan.				X		
Community Compact Program	2015	A voluntary agreement between the state and municipalities in which a municipality agrees to implement at least one best practice selected from several areas, including housing and economic development, economic competitiveness, and sustainable development and land protection.						X
Department of Environmental Protection GHG Regulation	2015	Requires that MPO's calculate GHG reductions associated with all projects programmed in the LRTP and TIP and report that information to MassDOT.				X		
Massachusetts EO on Environmental Justice	2014	Directs the Executive Office of Energy and Environmental Affairs to update its EJ policy, define "environmental justice population," and provide updated data and maps of EJ populations to the public.					X	
Healthy Transportation Policy Directive	2013	Requires all state transportation projects to increase bicycling, transit and walking options.			X			
Massachusetts "Toward Zero Deaths" Goal	2013	This long-term goal, which is identified in the SHSP, is to eliminate fatalities and serious injuries on Massachusetts roadways.	X					

Policy or Plan	Year Enacted	Description	Safety	System Preservation	Capacity Management and Mobility	Clean Air/Sustainable Communities	Transportation Equity	Economic Vitality
Accelerated Bridge Program	2008	Legislation for this program was passed with the goal of reducing Massachusetts's backlog of structurally deficient bridges below 450 by September 30, 2016.		X				
MassDOT Project Development and Design Guide	2006	Defines the standards to which state-funded projects are expected to adhere.	X		X			
TIP Greenhouse Gas Assessment and Reporting Guidance	2017	MassDOT guidance for evaluating GHG emissions in the LRTP and the TIP that requires MPOs to provide an air-quality analysis, calculating CO ₂ emissions for all TIP projects and for the LRTP.				X		
Regional								
Congestion Management Process	Ongoing	The CMP 1) monitors and analyzes performance of roadway facilities and services; 2) develops strategies to manage congestion based on the results of monitoring; and 3) moves those strategies toward implementation by providing decision-makers in the region with information and recommendations to improve the transportation system's performance.			X			
Coordinated Public Transit–Human Services Transportation Plan	Forthcoming (2019)	Documents the MPO region's unmet human-service transportation needs. It is prepared by the MPO to allow organizations in the region to be eligible to receive funding from FTA's Section 5310 program, which provides capital and operations funding for services for the elderly and people with disabilities.			X		X	
Municipal Climate Action Plans	2016 and later	Municipalities throughout the MPO region are developing plans to enhance resiliency and support adaptation in response to climate change.		X		X		
Climate Justice for the City of Boston: Visioning Policies and Processes	2018	Provides an overview of how future climate change projections could affect Boston neighborhoods, the status of Boston's climate activities, and the social and economic vulnerabilities that currently exist and that may be exacerbated by climate change.				X	X	
MBTA, MWRTA, and CATA Transit Asset Management Plans	2018	These transportation agencies will create TAM plans to comply with the TAM Rule.		X				
State of Equity in Metro Boston Policy Agenda	2018	Describes policies to advance local and regional policy changes that address disparities in transportation, public health, and housing (among others areas) in the MAPC region.					X	
MAPC Regional Climate Strategy	2015	Provides recommendations for local, regional, and state action for reducing vulnerability to the impacts of climate change.		X		X		
Local								
Greenovate Boston	2014	Describes Boston's climate action plan for reaching its goals of reducing greenhouse gas emissions 25 percent by 2020 and carbon neutral by 2050.				X		

CATA = Cape Ann Transit Authority. CO₂ = Carbon Dioxide. CFR = code of federal regulations. CMP = congestion management process. CPT-HST = Coordinated Public Transit–Human Services Transportation. EJ = environmental justice. EO = Executive Order. EPA = Environmental Protection Agency. FHWA = Federal Highway Administration. FTA = Federal Transit Administration. GHG = greenhouse gas. LRTP = Long-Range Transportation Plan. MAPC = Metropolitan Area Planning Council. MassDOT = Massachusetts Department of Transportation. MBTA = Massachusetts Bay Transportation Authority. MPO = metropolitan planning organization. MWRTA = Metrowest Regional Transit Authority. NTD = National Transit Database. SGR = State of Good Repair. SHSP = Strategic Highway Safety Plan. SIP = State Implementation Plan. SMS = Safety Management System. TAM = transportation asset management. TIP = Transportation Improvement Program. USDOT = United States Department of Transportation.
Source: Boston Region MPO.

