



CHAPTER 3

Regulatory Framework

The Boston Region Metropolitan Planning Organization (MPO) plays a critical role in helping the region move closer to achieving federal, state, and regional transportation goals and policies. Therefore, a central step in producing the Unified Planning Work Program (UPWP) is ensuring that the MPO's planning activities align with federal and state regulatory guidance. This chapter describes all of the regulations taken into consideration by the MPO during the development of the federal fiscal year (FFY) 2017 UPWP.

3.1 FEDERAL REGULATIONS AND GUIDANCE

3.1.1 Fixing America's Surface Transportation (FAST) Act: National Goals

The purpose of the national transportation goals (23 United States Code [USC] 150) is to increase the accountability and transparency of the Federal-Aid Highway Program as well as to improve decision-making through performance-based planning and programming. The national transportation goals include:

1. **Safety:** Achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
2. **Infrastructure condition:** Maintain the highway infrastructure asset system in a state of good repair.
3. **Congestion reduction:** Achieve a significant reduction in congestion on the National Highway System.
4. **System reliability:** Improve the efficiency of the surface transportation system.
5. **Freight movement and economic vitality:** 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:** Enhance the performance of the transportation system while protecting and enhancing the natural environment.

7. **Reduced project delivery delays:** Reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion by eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

3.1.2 FAST Act: Planning Factors

Because transportation planning studies are programmed for funding in the UPWP, specific consideration is given to the federal planning factors (23 USC 134). The FAST Act added two new planning factors to the eight factors established in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) transportation legislation. In accordance with the legislation, studies and strategies undertaken by the MPO shall

1. support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
2. increase the safety of the transportation system for all motorized and nonmotorized users.
3. increase the ability of the transportation system to support homeland security and to safeguard the personal security of all motorized and nonmotorized users.
4. increase accessibility and mobility of people and freight.
5. 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.
6. enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
7. promote efficient system management and operation.
8. emphasize the preservation of the existing transportation system.
9. improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.
10. enhance travel and tourism.

Table 3-1 illustrates how studies and ongoing work conducted by the MPO and funded through federal formula grant programs address the federal planning factors.

TABLE 3-1: 3C-funded UPWP Studies and Programs: Relationship to Federal Planning Factors

Federal Planning Factor	Certification Activities								Technical Analyses					Planning Studies								Administration, Resource Management, and Transportation Data Collection											
	3C Planning and MPO Support	L RTP	TIP	Unified Planning Work Program (CTPS and MAPC)	Air Quality Conformity and Support Activities	Boston Region MPO Title VI Reporting	Congestion Management Process	Freight Planning Support	Transportation Equity/Environmental Justice Support	Bicyclist/Pedestrian Support Activities	Community Transportation Technical Assistance	Regional Transit Service Planning Technical Support	Land Use Development Project Reviews	Using GTFS to Find Shared Segments with Excessively Irregular Headways	Addressing Safety, Mobility, and Access on Subregional Priority Roadways	Addressing Priority Corridors from the Long-Range Transportation Plan Needs Assessment	Low Cost Improvements to Express-Highway Bottleneck Locations	Safety Effectiveness of Safe Routes to School Programs	Planning for Connected and Autonomous Vehicles	Study of Promising GHG Reduction Strategies	MPO Staff-Generated Research Topics	Alternative Mode Planning and Coordination (MAPC)	MetroFuture Implementation (MAPC)	Corridor/Subarea Planning Studies (MAPC)	Access Advisory Committee Support	Provision of Materials in Accessible Formats	Regional Model Enhancement	Transit Data Support	Traffic Data Support	Roadway Safety Audits	MPO/MAPC Liaison Activities	Land Use Data for Transportation Modeling	Subregional Support Activities
1 Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.	X	X	X	X			X	X						X	X	X		X				X											X
2 Increase the safety of the transportation system for all motorized and nonmotorized users.	X	X	X	X			X	X		X	X			X	X	X	X	X			X							X	X	X			
3 Increase the ability of the transportation system to support homeland security and to safeguard the personal security of all motorized and nonmotorized users.	X	X	X	X			X								X	X	X	X												X			
4 Increase accessibility and mobility of people and freight.	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X
5 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.	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				X	X	X		X	X	X
6 Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X		X		X	X						X	X	X				X
7 Promote efficient system management and operation.	X	X	X	X			X	X			X	X	X	X	X	X	X	X	X		X						X	X	X				
8 Emphasize the preservation of the existing transportation system.	X	X	X	X				X							X	X	X	X	X									X	X				X
9 Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.	X	X	X	X	X					X			X	X	X						X	X	X	X									
10 Enhance travel and tourism.	X	X	X	X						X	X	X	X	X	X	X		X		X	X	X	X				X	X					

3C = continuing, comprehensive, and cooperative transportation-planning process. CTPS = Central Transportation Planning Staff. GHG = greenhouse gas. GTFS = General Transit Feed Specification. L RTP = Long-Range Transportation Plan. MAPC = Metropolitan Area Planning Council. MPO = Metropolitan Planning Organization. TIP = Transportation Improvement Program. UPWP = Unified Planning Work Program. X = applicable.



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3.1.3 Federal Planning Emphasis Areas

Each year, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) issue guidance for MPOs to consider when preparing their UPWPs. For FFY 2017, FHWA and FTA guidance includes:

- **Responding to recommendations in the most recent federal certification review:** The FHWA and the FTA conducted a Transportation Planning Certification Review of the Boston Region MPO's transportation planning process in December 2014. In response to recommendations received at the review, the MPO considered specific new studies in the FFY 2017 Universe of Projects.
- **Ensuring that at least one-third of UPWP funds results in tangible products:** The MPO meets and exceeds federal guidelines for expenditure of metropolitan planning funds that result in tangible products. The MPO considers feasibility and potential for implementation of study recommendations when selecting studies to fund with continuing, comprehensive, and cooperative (3C) dollars and when selecting particular locations to study. Tangible products resulting from UPWP-funded studies are described in the summary tables at the beginning of Chapters 5 through 8.
- **Focusing on developing safe bicycle and pedestrian networks:** The MPO addresses the safety needs of users of active transportation modes (e.g., bicyclists and pedestrians) throughout its planning activities. Specific programs and studies that address bicycle and pedestrian needs are described in detail in Chapter 6: Boston Region MPO Planning Studies and Technical Analyses.
- **Creating a performance-based planning and programming system:** The MPO coordinates performance-based planning activities in the Long-Range Transportation Plan (LRTP) and in the Transportation Improvement Program (TIP), with work carried out through the MPO's Congestion Management Process. Performance-based planning is discussed in detail in Chapter 5: Certification Requirements.
- **Working towards regional models of collaboration:** In addition to the Boston Region MPO, MPOs in the Boston urbanized area (UZA) include the Merrimack Valley, Northern Middlesex, Old Colony, Southeastern Massachusetts, and others. The existing memorandum of understanding (MOU) is being updated, and will continue to describe areas of cooperation and coordination among MPOs in the Boston UZA, including sharing draft certification documents for review, notifications of meetings, and attending one another's MPO meetings.
- **Focusing on Ladders of Opportunity and providing access to essential services:** The MPO monitors and considers access to essential services (e.g., employment, health care, education, and recreation destinations) through a variety of activities. Chapter 5 discusses certification requirements that address

Ladders of Opportunity and include Boston Region MPO Title VI Reporting and Transportation Equity/Environmental Justice Support. Chapter 6 discusses planning studies and technical analyses, such as Addressing Safety, Mobility, and Access on Subregional Priority Roadways and Community Transportation Technical Assistance. These studies focus on enhancing access to essential services throughout the region. Additionally, Chapter 7 discusses Agency and Other Client Funded Transportation Planning Studies, which focus on increasing access to transit and enhancing mobility for the region.

- **Tracking the geographic distribution of UPWP-funded studies and target TIP projects:** In January 2015, MPO staff analyzed the distribution of metropolitan planning funds and federal transportation improvement funds programmed across the 101 municipalities in the Boston Region MPO area for FFYs 2008 through 2013. This analysis was transmitted to the FHWA and the FTA, and MPO staff is currently updating this information to be current through projected investment through FFY 2021. For the TIP, this analysis is examined as a dollar value per municipality. For the UPWP, this analysis is examined as a number of studies completed for specific municipalities within the region. MPO staff will use this information to better target its FFY 2017 outreach towards municipalities that have been found to have low representation of UPWP studies and TIP projects.

3.1.4 1990 Clean Air Act Amendments

Air quality conformity determinations must be performed for capital improvement projects that receive federal funding and for those that are considered regionally significant, regardless of the funding source. These determinations must show that projects in the MPO's LRTP and TIP will not cause or contribute to any new air quality violations, will not increase the frequency or severity of any existing air quality violations in any area, and will not delay the timely attainment of the air quality standards in any area.

In the most recent LRTP, *Charting Progress to 2040*, the air quality conformity determination concluded that the emission levels from the Boston area carbon monoxide (CO) maintenance area, including emissions resulting from implementation of the LRTP, are in conformance with the State Implementation Plan (SIP) according to state and federal conformity criteria. Specifically, the CO emissions for the build scenarios of the MPO's regional travel demand model set are less than the projections for analysis for the years 2020 through 2040 for the nine cities in the Boston CO maintenance area. In accordance with Section 176(c)(4) of the Clean Air Act as amended in 1990, the Boston Region MPO has completed this review and hereby certifies that the LRTP, and its latest conformity determination, conditionally conforms with federal (40 CFR Part 93) and Massachusetts (310 CMR 60.03) regulations and is consistent with the air quality goals in the Massachusetts SIP.

Transportation control measures identified in the SIP for attaining air quality standards are federally enforceable and must be given first priority when using federal funds. Such projects include the parking-freeze program in Boston, the statewide rideshare program, rapid transit and commuter rail extension programs, park-and-ride facilities, residential parking-sticker programs, and the operation of high-occupancy-vehicle lanes. The United States Environmental Protection Agency 40 CFR Parts 51 and 93 Conformity Regulation established the policy, criteria, and procedures for demonstrating air quality conformity in the MPO region.

As of April 1, 2016, the Boston Region MPO has been classified as attainment for CO. Therefore, the MPO is in attainment for all of the criteria pollutants (ozone and CO) and is not required to perform air quality analyses for these pollutants as part of the LRTP and TIP. The MPO, however, is still required to report on the TCMs as part of air quality conformity determinations in these documents. In addition, the MPO is still required to perform air quality analyses for carbon dioxide as part of the state's Global Warming Solutions Act (see below).

3.1.5 Non-discrimination Mandates

The Boston Region MPO complies with Title VI of the Civil Rights Act of 1964, the American with Disabilities Act of 1990 (ADA), and other federal and state non-discrimination statutes and regulations in all programs and activities. The MPO, as well as its plans and programs, does not discriminate on the basis of race, color, national origin, English-language proficiency, income, religious creed, ancestry, disability, age, gender, sexual orientation, gender identity or expression, or military service. The major federal requirements are discussed below.

Title VI of the Civil Rights Act of 1964

This statute requires that no person be excluded from participation in, be denied the benefits of, or be subjected to discrimination on the basis of race, color, or national origin, under any program or activity provided by an agency receiving federal financial assistance.

Executive Order 13166, dated August 11, 2000, extends Title VI protections to persons who, as a result of national origin, have limited English-language 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 LEP persons can meaningfully participate in the transportation-planning process.

MPO activities that meet these requirements are discussed in the Boston Region MPO Title VI Report, the Massachusetts Department of Transportation (MassDOT) Title VI Program, and the Massachusetts Bay Transportation Authority (MBTA) Title VI Program Monitoring. These projects are discussed in more detail in Chapters 5 and 7.

Environmental Justice Executive Orders

Executive Order 12898, dated February 11, 1994, further expands upon Title VI, requiring each federal agency to achieve environmental justice by identifying and addressing any disproportionately high adverse human health or environmental effects, including interrelated social and economic effects, of its programs, policies, and activities on minority or low-income populations.

On April 15, 1997, the U.S. Department of Transportation (DOT) issued its Final Order to Address Environmental Justice in Minority Populations and Low-Income Populations. Among other provisions, this order requires programming and planning activities to

- explicitly consider the effects of transportation decisions on minority and low-income populations.
- provide meaningful opportunities for public involvement by members of minority and low-income populations.
- gather (where relevant, appropriate, and practical) demographic information such as race, color, national origin, and income level of populations affected by transportation decisions.
- minimize or mitigate any adverse impact on minority or low-income populations.

The 1997 Final Order was updated in 2012 with DOT Order 5610.2(a) which provided clarification while maintaining the original framework and procedures.

The ADA

Title III of the ADA requires all transportation projects, plans, and programs to be accessible to people with disabilities. At the MPO level, this means that public meetings must be held in accessible buildings and be conducted in a manner that provides for accessibility. MPO materials must also be made available in accessible formats.

Executive Order 13330

Executive Order 13330, dated February 26, 2004, calls for the establishment of the Interagency Transportation Coordinating Council on Access and Mobility under the aegis of the US Secretary of Transportation. This executive order reinforces both environmental justice and ADA requirements by charging the council with developing policies and methods for improving access for persons with disabilities, low-income persons, and older adults.

3.2 STATE GUIDANCE AND TRANSPORTATION PRIORITIES

As described in Chapters 6 through 8, much of the work funded through the UPWP focuses on encouraging mode shift and diminishing GHG emissions through improving transit service, enhancing bicycle and pedestrian networks, and studying

emerging transportation technologies. All of this work helps the Boston Region contribute to statewide progress towards the priorities discussed throughout this section.

3.2.1 You Move Massachusetts and We Move Massachusetts

You Move Massachusetts, a statewide initiative designed as a bottom-up approach to transportation planning, developed ten core themes derived from a broad-based public participation process that articulated the expressed concerns, needs, and aspirations of Massachusetts residents that are related to their transportation network. These themes were considered in the development of this UPWP.

We Move Massachusetts (WMM) is MassDOT's statewide strategic multimodal plan. The initiative is a product of the transportation reform legislation of 2009, You Move Massachusetts civic engagement process, wider outreach to environmental justice and Title VI communities, and other outreach activities. In May 2014, MassDOT released We Move Massachusetts: Planning for Performance (WMM), the Commonwealth of Massachusetts' 2040 LRTP. WMM identifies high-level policy priorities, which were considered in the development of this UPWP. WMM also incorporates performance management into investment decision-making to calculate the differences in performance outcomes resulting from different funding levels available to MassDOT. In the future, MassDOT will use the scenario tool, described in WMM, to update and refine investment priorities.

3.2.2 Global Warming Solutions Act

The Global Warming Solutions Act (GWSA) makes Massachusetts a leader in setting aggressive and enforceable greenhouse gas (GHG) reduction targets and implementing policies and initiatives to achieve these targets. 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 on December 29, 2010, establishes the following targets for overall statewide GHG emissions:

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

3.2.3 GreenDOT

GreenDOT, an initiative that MassDOT launched in June 2010, is a comprehensive environmental responsibility and sustainability policy that has three primary objectives:

- reduce GHG emissions
- promote the healthy transportation options of walking, bicycling, and public transit

- support smart-growth development

GreenDOT applies to MassDOT divisions and contractors, as well as to Massachusetts's MPOs and regional transit authorities. It responds to several critical laws and policies, which include:

- The GWSA of 2008, which establishes legally enforceable requirements that Massachusetts significantly reduce its GHG emissions
- The Healthy Transportation Compact (HTC), which is discussed in section 3.2.5
- Executive Orders 484 (Leading by Example) and 515 (Environmental Purchasing Policy), which require state agencies to invest public resources in ways that support environmental sustainability by conserving energy and water, implementing efficiency measures, and producing or purchasing renewable energy

The GreenDOT Implementation Plan serves as the framework for incorporating the sustainability principles of GreenDOT into MassDOT's core business practices. The plan details 16 broad sustainability goals and related measurable tasks and performance indicators.

3.2.4 MassDOT's Statewide Mode-Shift Goal

MassDOT's statewide mode-shift goal aims to triple the current mode shares of bicycling, public transit, and walking by 2030. The statewide mode-shift goal is an important part of MassDOT's strategy for meeting the Commonwealth's commitments under the GWSA. In 2013, MassDOT built upon the mode shift goal by passing the Healthy Transportation Policy Directive to formalize its commitment to the implementation and maintenance of transportation networks that serve all modes. The directive will ensure that all MassDOT projects are designed and implemented in a way that provides all customers access to safe and comfortable walking, bicycling, and transit options.

3.2.5 Healthy Transportation Compact

The HTC is a key requirement of the Massachusetts landmark transportation reform legislation that took effect on November 1, 2009. It is an interagency initiative that will help ensure that the transportation decisions the Commonwealth makes balance the needs of all transportation users, expand mobility, improve public health, support a cleaner environment, and create stronger communities.

Participating agencies work together to achieve positive health outcomes through the coordination of land use, transportation, and public health policy. HTC membership is made up of the Secretary of Transportation or designee (co-chair), the Secretary of Health and Human Services or designee (co-chair), the Secretary of Energy and

Environmental Affairs or designee, the MassDOT Highway Administrator or designee, the MassDOT Transit Administrator or designee, the Commissioner of Public Health or designee, and the Secretary of Housing and Economic development or designee. The HTC will also promote improved coordination among the public sector, private sector, and advocacy groups, as well as among transportation, land use, and public health stakeholders.

3.3 REGIONAL GUIDANCE AND TRANSPORTATION PRIORITIES

3.3.1 The MBTA's Program for Mass Transportation (PMT)

The MBTA's latest PMT, Focus40, is under development. Focus40 is the 25-year strategic vision for MBTA investments. This process will engage customers— as well as elected officials, major employers and business leaders, academic institutions, the advocacy community, and other stakeholders— in developing a financially responsible, long-term investment strategy that positions the MBTA to better serve the region of today, as well as the Greater Boston region of 2040. Focus40 will be an open and frank conversation about a number of critical issues, including:

- necessary investments in the state of good repair, including actions that keep our system operating well and working safely
- the Commonwealth's financial capacity to expand the system's footprint
- the potential for transformative change on local streets through strong partnerships between the MBTA and municipalities
- the Boston region in 2040: shifting demographics, new technology, and climate change may all impact how the MBTA must operate in the years leading up to 2040

In the first phase of the development of Focus40, MassDOT released the State of the System series, which provides a clear picture of where the MBTA stands today in terms of asset inventory, condition, and service performance. The second phase of the Focus40 effort is centered on developing a better understanding of the world in which the MBTA will be operating in the years leading up to 2040. A variety of trends in demographics, technology, and climate may require that the MBTA function differently in the coming years than it does today. Finally, Focus40 will work with the public and stakeholders to develop and evaluate various investment strategies that will address current and future needs.

During development of the MPO's next LRTP, the MPO will consider the findings and recommendations for transit investments in Focus40. These will provide important input for future scenario planning and investment decisions in the LRTP.

3.3.2 MetroFuture

MetroFuture, which was developed by the Metropolitan Area Planning Council and adopted in 2008, is the long-range plan for land use, housing, economic development, and environmental preservation in the Boston region. It includes a vision for the region's future and a set of strategies for achieving that future, and is the foundation for land use projections used in the MPO's LRTP, *Charting Progress to 2040*. Work being done to support MetroFuture implementation and updates is detailed in the MetroFuture Implementation project description in Chapter 6. MetroFuture's goals, objectives, and strategies were considered in the development of this UPWP.

3.3.3 The MPO's Congestion Management Process (CMP)

The purpose of the CMP is to monitor and analyze the performance of facilities and services, develop strategies for the management of congestion based on the results of monitoring, and move those strategies into the implementation stage by providing decision-makers in the region with information and recommendations for the improvement of transportation system performance. The CMP monitors roadways and park-and-ride facilities in the MPO region for safety, congestion, and mobility, and identifies "problem" locations. Studies that help address problems identified in the most recent CMP monitoring were considered for inclusion in this UPWP, including Priority Corridors for LRTP Needs Assessment: FFY 2017. Work that is currently being performed in accordance with the FFY 2017 CMP is detailed in Chapter 5.