



CHAPTER 1

Coordinating Comprehensive Transportation Planning in the Region: What is the Unified Planning Work Program?

The Boston Region Metropolitan Planning Organization (MPO) plans for the transportation future of the Boston region (Figure 1-1). The MPO is guided by a 25-year vision for a modern, safe, equitable, sustainable, and technologically advanced transportation system for the region, which is described in the MPO's Long-Range Transportation Plan (LRTP), *Charting Progress to 2040*.

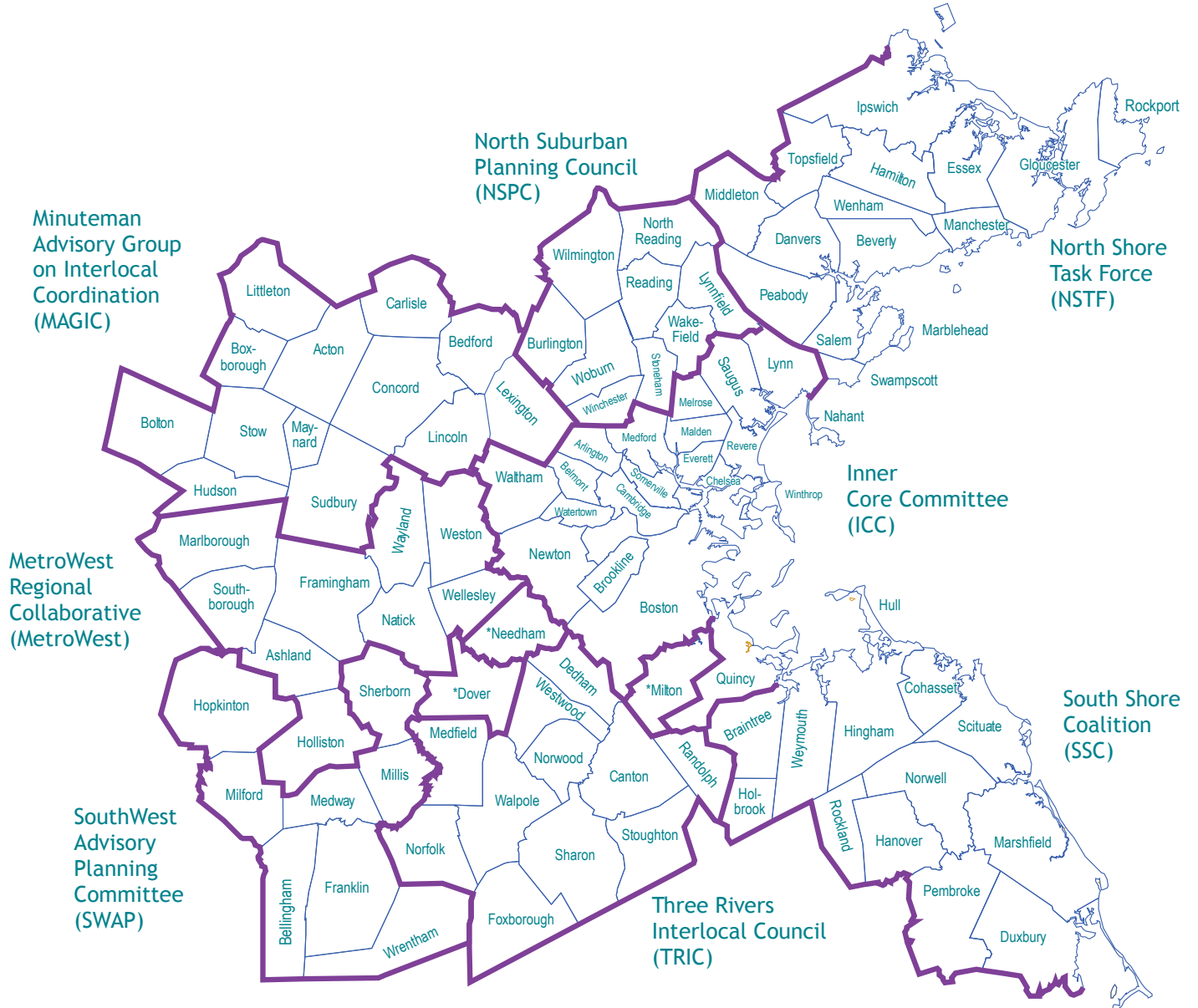
An integral part of achieving this regional vision is the transportation planning work funded through the Unified Planning Work Program (UPWP).

The UPWP is a financial plan that the MPO produces annually in compliance with the federally mandated metropolitan planning process. This process requires transportation decision-making in urbanized areas based on a continuing, comprehensive, and cooperative planning process (the 3C process) that involves coordination of state and local governments as well as the public.

The UPWP documents the federal funding that will be spent on surface transportation studies and programs in the Boston region during a given federal fiscal year (FFY). This plan also serves as the basis for financing the ongoing work of the staff to the Boston Region MPO.

This chapter explains the UPWP, its connection to the overall regional vision developed in the LRTP, and how the planning work of the MPO is funded.

Figure 1-1: Boston Region MPO Municipalities Map



*Several communities are represented by more than one subregional group. Dover is in TRIC and SWAP; Milton and Needham are in ICC and TRIC.

1.1 WHAT DOES THE UPWP DO?

As the basis for transportation planning at the Boston Region MPO, the UPWP prioritizes federal funding for transportation planning work that will be implemented in the 101-municipality area of the Boston region. This work is conducted by the Central Transportation Planning Staff (CTPS), staff to the MPO, or by the staff of the MPO member agency, the Metropolitan Area Planning Council (MAPC) and primarily consists of four parts:

1. **Certification requirements and other administration activities:** The UPWP includes activities that the MPO must conduct in order to remain certified as an MPO by the federal government, and to be eligible to receive and distribute federal transportation dollars. Work in this category includes preparing federally required financial plans, including the LRTP and the Transportation Improvement Program (TIP); the LRTP allocates funding for regionally significant transportation construction projects and programs over a 25-year period, while the TIP allocates funding for projects to be implemented in the near-term of the next five years. Air quality conformity and environmental justice-related compliance associated with the LRTP and TIP are also included in this category. Other administrative work funded through the UPWP includes data and computer resources management as well as maintenance of the MPO's regional travel demand model, which is used to forecast the potential impacts and changes the transportation system will have on traffic congestion and transit ridership. See Chapters 5 and 8 for more detail on these areas of work.
2. **Ongoing/continuing work programs:** These are areas of work that support technical analyses and planning studies for cities and towns in the region. Examples of these ongoing/continuing programs include Bicycle and Pedestrian Support Activities, Regional Transit Service Planning Technical Support, and Community Transportation Technical Assistance. See Chapter 6 for more detail on these studies and technical analyses.
3. **New studies:** Every year, a certain amount of funding is available for new studies to be undertaken by MPO staff. These efforts are conducted to enhance the knowledge of the practice, to enhance analytical methods, and to evaluate strategies. Examples of these studies in the FFY 2017 UPWP include Planning for Connected and Autonomous Vehicles, Study of Promising Greenhouse Gas Reduction Strategies, and Safety Effectiveness of Safe Routes to School Programs. See Chapter 6 for more detail on these new studies.
4. **Agency Studies and Technical Analyses:** CTPS conducts planning analyses and studies funded by state transportation agencies, including the Massachusetts Department of Transportation (MassDOT), the Massachusetts Bay Transportation Authority (MBTA), and the Massachusetts Port Authority (Massport). These agency-funded studies are described in more detail in Chapter 7.

1.2 HOW ARE FUNDING DECISIONS MADE?

The MPO's UPWP Committee works with the MPO staff to develop the UPWP for the upcoming FFY. Numerous sources of guidance are considered when compiling the UPWP and making decisions about the new and ongoing work that will be carried out. Additionally, as described in further detail in Section 1.3, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) provide funding each year for UPWP studies and programs in the upcoming FFY. The amount of available funding plays an important role in determining what work will be done in a given FFY.

1.2.1 The Guiding Vision of the LRTP

The chief framework that directs decisions about what to fund through the UPWP includes the goals and objectives of the LRTP, which guide the MPO in its overall decision-making. As described in more detail in Section 1.2.2, each new proposed study is evaluated based on how it helps the region achieve the goals and objective outlined in the LRTP.

Figure 1-2 shows the goals and objectives in the MPO's most recent LRTP, *Charting Progress to 2040*, endorsed by the MPO in July 2015.

Figure 1-2: LRTP Goals and Objectives

CENTRAL VISION STATEMENT	
<p>The Boston Region Metropolitan Planning Organization envisions a modern transportation system that is safe, uses new technologies, provides equitable access, excellent mobility, and varied transportation options—in support of a sustainable, healthy, livable, and economically vibrant region.</p>	
GOALS	OBJECTIVES
SAFETY	
<p>Transportation by all modes will be safe</p>	<ul style="list-style-type: none"> • Reduce number and severity of crashes, all modes • Reduce serious injuries and fatalities from transportation • Protect transportation customers and employees from safety and security threats <p>(Note: The MPO action will be to incorporate security investments into capital planning.)</p>
SYSTEM PRESERVATION	
<p>Maintain the transportation system</p>	<ul style="list-style-type: none"> • Improve condition of on- and off-system bridges • Improve pavement conditions on MassDOT-monitored roadway system • Maintain and modernize capital assets, including transit assets, throughout the system • Prioritize projects that support planned response capability to existing or future extreme conditions (sea level rise, flooding, and other natural and security-related man-made hazards) • Protect freight network elements, such as port facilities, that are vulnerable to climate-change impacts
CLEAN AIR/CLEAN COMMUNITIES	
<p>Create an environmentally friendly transportation system</p>	<ul style="list-style-type: none"> • Reduce greenhouse gases generated in the Boston region by all transportation modes as outlined in the Global Warming Solutions Act • Reduce other transportation-related pollutants • Minimize negative environmental impacts of the transportation system • Support land use policies consistent with smart and healthy growth

GOALS (cont.)	OBJECTIVES (cont.)
---------------	--------------------

<p>CAPACITY MANAGEMENT/ MOBILITY</p>	
---	--

Use existing facility capacity more efficiently and increase healthy transportation capacity

- Improve reliability of transit
- Implement roadway management and operations strategies, constructing improvements to the bicycle and pedestrian network, and supporting community-based transportation
- Create connected network of bicycle and accessible sidewalk facilities (at both regional and neighborhood scale) by expanding existing facilities and closing gaps
- Increase automobile and bicycle parking capacity and usage at transit stations
- Increase percentage of population and places of employment within one-quarter mile of transit stations and stops
- Increase percentage of population and places of employment with access to bicycle facilities
- Improve access to and accessibility of transit and active modes
- Support community-based and private-initiative services and programs to meet last mile, reverse commute and other non-traditional transit/transportation needs, including those of the elderly and persons with disabilities
- Eliminate bottlenecks on the freight network
- Enhance intermodal connections
- Emphasize capacity management through low-cost investments; give priority to projects that focus on lower-cost O&M-type improvements such as intersection improvements and Complete Streets solutions

<p>TRANSPORTATION EQUITY</p>	
-------------------------------------	--

Provide comparable transportation access and service quality among communities, regardless of income level or minority population

- Target investments to areas that benefit a high percentage of low-income and minority populations
- Minimize any burdens associated with MPO-funded projects in low-income and minority areas
- Break down barriers to participation in MPO-decision making

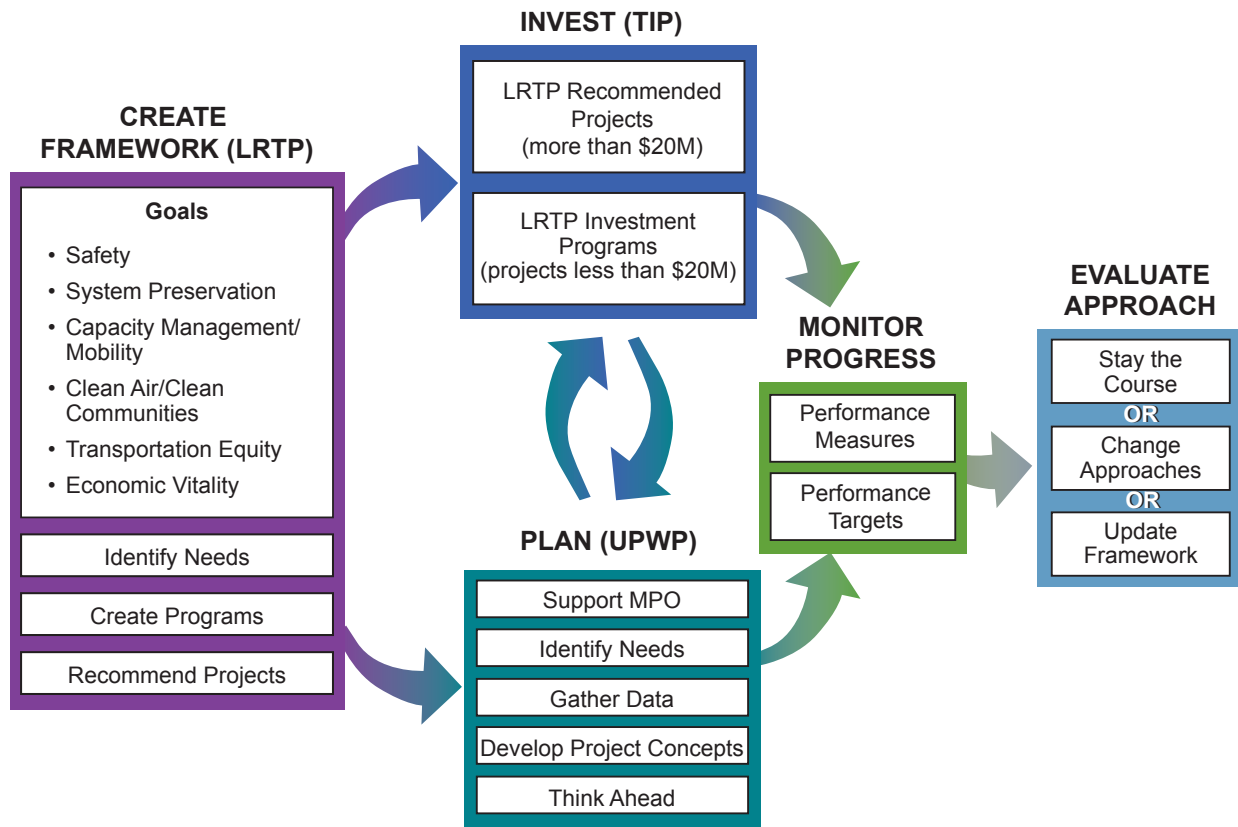
<p>ECONOMIC VITALITY</p>	
---------------------------------	--

Ensure our transportation network provides a strong foundation for economic vitality

- Respond to the mobility needs of the 25–34-year-old workforce
- Minimize the burden of housing and transportation costs for residents in the region
- Prioritize transportation investments that serve targeted development sites
- Prioritize transportation investments consistent with the compact-growth strategies of MetroFuture

Figure 1-3 depicts the relationship between the framework established in the LRTP, the planning foundation of the MPO (the UPWP), the near-term investment plan of the MPO (the TIP), and the feedback loop for monitoring progress towards the region’s goals as well as continuously evaluating our approach to achieving them.

Figure 1-3: Links Between LRTP, TIP, and UPWP



1.2.2 The Process of Creating and Monitoring the UPWP

Each year, the UPWP Committee considers new studies for funding. The UPWP documents these new studies (as well as studies that are continuing from previous UPWPs), and it provides updates on the MPO’s ongoing programs that fulfill the federally required 3C transportation-planning process.

The UPWP Committee met with the MPO staff five times in FFY 2016 to consider and provide guidance on the UPWP development process, including proposed budgets for ongoing and continuing activities, new study ideas, and the prioritization of these ideas. These meetings resulted in the Committee’s recommendation for the Draft FFY 2017 UPWP. The MPO approved the UPWP Committee’s recommendations for the public review of Draft FFY 2017 UPWP on May 19, 2016.

Below are more details about the process for selecting studies and programs for the FFY 2017 UPWP.

Developing the New Federal Fiscal Year UPWP

To develop new planning studies for the FFY 2017 UPWP, the MPO drew from the following sources to generate a universe of proposed new studies for evaluation by MPO staff and the MPO's UPWP Committee.

1. **Public outreach:** Meetings were held to gain input from subregional planning groups in the region. These groups, which are organized by an MPO member agency, MAPC, involve municipal representatives focused on regional planning topics (Figure 1-1). Two additional targeted TIP and UPWP public meetings were held in the region in December 2015 and January 2016.
2. **Regional Transportation Advisory Council (Advisory Council):** MPO staff met with the Advisory Council, an independent body that brings public viewpoints and advice on transportation planning to the MPO, to present preliminary drafts of the FFY 2017 Universe of New Studies and gain ideas and input on transportation planning priorities.
3. **UPWP Committee:** MPO staff met with the UPWP Committee of the MPO throughout the development of the UPWP. The committee oversaw the entire document development process and contributed to the generation and analysis of new study ideas.
4. **Existing planning documents:** Various plans and programs developed and conducted by the MPO and other state agencies document transportation issues that require further study. These include the Congestion Management Process (CMP), which monitors the transportation network to identify locations and sources of congestion; the Program for Mass Transportation (PMT), the MBTA's long-range capital plan; the MPO's long-range planning documents, including the former LRTP, *Paths to a Sustainable Region*, and the LRTP Needs Assessment for the current LRTP, *Charting Progress to 2040*; MetroFuture, a long-range plan for smart growth developed by the MAPC; and other recent studies.
5. **Past guidance:** The FHWA and FTA issue guidance on addressing the planning emphasis areas.
6. FFY 2016 UPWP public comment letters and study proposals.
7. Consultations with MassDOT, the MBTA, and MAPC.
8. MPO staff-identified needs.

In an effort to increase public input into the Universe of New Studies, the MPO has new and additional public involvement planned in coming years, including using more social media, holding outreach meetings with advocacy groups, conducting outreach at more convenient locations, and concentrating outreach on traditionally less-involved municipalities in the region.

Proposed planning studies are documented in the FFY 2017 UPWP Universe of Proposed New Studies (see Appendix C). Selected studies for FFY17 are summarized in Table 1-1 and described in detail in Chapter 6.

Evaluating and Selecting New Studies

Each new proposed study in the Universe of New Studies was evaluated based on the following criteria: how it helps the region accomplish the LRTP goals, the mode(s) it addresses, the scale of the study, the time frame and type of impact it is anticipated to result in, whether it furthers some body of existing work, and whether it has been funded in the past or is a completely new idea.

The evaluation process provides an important tool for the MPO and stakeholders to understand the amount of spending on studies across the following criteria:

- **Focus on LRTP goal areas:** whether a study addresses, either as a primary focus or a secondary focus, one of the six LRTP goal areas:
 - o Safety
 - o System Preservation
 - o Clean Air/Clean Communities
 - o Transportation Equity
 - o Capacity Management/Mobility
 - o Economic Vitality
- **Mode:** whether a study primarily addresses roadway, bicycle and pedestrian, or transit issues.
- **Study scale:** whether a study primarily impacts one or two specific communities in the region or the region as a whole.
- **Time frame and type of impact:** whether a study results in research and findings that enhance the state of the transportation planning practice in the Boston Region, low-cost/short-term implementation of improvements, or long-term implementation (for transportation studies leading to construction projects that have to go through the MassDOT design process).
- **Connection to existing work:** whether a study furthers analysis or conclusions developed from a previous study.
- **Continuing or new study:** whether a study has been conducted previously at a specific location/roadway and is being conducted again at a new location, or whether a study is a completely new idea that has never been undertaken by the MPO.

In addition to the study evaluation process, MPO staff defined general scopes and estimated costs for proposed planning studies and considered potential study feasibility issues. These various factors, along with the availability of funds for new studies, were considered as staff identified a recommended set of new proposed planning studies for review by the UPWP Committee. The FFY 2017 Universe of Proposed Studies, along with the estimated costs of each study, the evaluation results of how each supports the LRTP goals, and any supporting comments about each study are documented in the FFY 2017 UPWP Universe of Proposed New Studies in Appendix C.

Table 1-1 shows the studies in the FFY 2017 Universe that were chosen for funding in FFY 2017. These are described in more detail in Chapter 6.

Updates to Ongoing and Continuing Activities

In addition to the process of selecting new discrete transportation planning studies, the MPO reviews activities for ongoing programs and work. MPO staff identifies and develops budgets for these continuing programs that will be carried out in the upcoming FFY. If there are changes to the budget of any program as a result of revisions to planned activities, these changes are proposed.

Examples of ongoing and continuing activities include work that is required of the MPO, including certification requirements (see Chapter 5), administration and resource management activities (see Chapter 8), and ongoing technical assistance to municipalities (see Chapter 6).

Additionally, in FFY 2017, the MPO decided to include a new ongoing program in the UPWP. Described in detail in Chapter 8, the UPWP Study Recommendation Tracking Database will track the status of recommendations advanced through UPWP studies on an annual basis.

The annual study and program review and budget development process defines the amount of 3C funding (from federal grants that support the 3C process) that is available for new studies in the UPWP. After accounting for 3C-funded continuing and ongoing programs, the remaining funding is available for new studies.

Table 1-1
FFY 2017 New Discrete Funded Studies

Universe ID	Category	Project Name	Estimated Cost	Page Number
A-7	Active transportation	Safety Effectiveness of Safe Routes to School Programs	\$80,000	6-2
B-7	Land use, environment, and economy	Study of Promising Greenhouse Gas Reduction Strategies	\$55,000	6-4
C-1	Multimodal mobility	Addressing Safety, Mobility, and Access on Subregional Priority Roadways	\$110,000	6-7
C-3	Multimodal mobility	Low-Cost Improvements to Express-Highway Bottleneck Locations	\$50,000	6-9
C-4	Multimodal mobility	Addressing Priority Corridors from the Long-Range Transportation Plan Needs Assessment	\$110,000	6-5
C-6	Multimodal mobility	Planning for Connected and Autonomous Vehicles	\$50,000	6-11
E-7	Transit	Using General Transit Feed Specification (GTFS) to Find Shared Segments with Excessively Irregular Headways	\$25,000	6-12
F-1	Other technical support	MPO Staff-Generated Research Topics	\$30,000	6-13
	Total		\$510,000	

Public Review of the Draft UPWP

Descriptive and financial information about ongoing and new UPWP studies, along with information about the UPWP development process and other major transportation-planning studies occurring in the region, are incorporated into the draft UPWP. Once the MPO votes to release the draft for public review, MPO staff posts the document for downloading from the MPO website (www.bostonmpo.org) and provides notice of its availability through various media and MPO communication outlets.

As noted above, public outreach forms a major part of the input into the UPWP each FFY. After the draft UPWP is approved by the MPO, there is a 30-day public comment period. During this time, MPO staff members solicit public input through the MPO website, social media outlets, open houses, and public meetings held in conjunction

with MassDOT and the MBTA. All public comments received during this period are compiled and presented to the MPO. Information about the public review process for the Draft FFY 2017 UPWP is available in Appendix B.

Monitoring Progress of UPWP Studies

The following procedures for monitoring the studies in the FFY 2017 UPWP were approved by the MPO:

- Work programs supported by federal 3C planning funds must be approved by the MPO prior to expenditure.
- Work scopes supported by other funds (e.g., agency) for CTPS work must be approved by the MPO with the assurance that the new work will not impact the MPO-funded work by CTPS.
- Monthly progress reports on all active studies and work programs must be submitted to the respective funding agency (FHWA or FTA) by the agency conducting the work (CTPS and/or MAPC). The reports must include the following information for each study or work program:
 - o Brief narrative describing the work accomplished
 - o Key personnel attendance at meeting(s) held each week
 - o Objectives and planned activities for the next month
 - o Percent of work completed
 - o Some measure of actual resources (e.g., hours, funds, etc.) charged to the contract over the past month
 - o Comparison of actual cumulative resources expended compared to the contract budget
- CTPS presents a quarterly report comparing the UPWP study budgets with the actual spending.
- MPO approval for release of a 3C-funded study's work products is based on whether the objectives stated in the work program were met and whether the stated deliverables were produced.

Amendments and Administrative Modifications to the UPWP

If necessary, amendments and administrative modifications may be made to the UPWP throughout the year. All 3C documents (TIP, LRTP, UPWP, etc.) endorsed by MPOs must follow standardized procedures regarding amendments and/or administrative adjustments. If an amendment is under consideration, the Regional Transportation Advisory Council and other interested parties, including any affected communities, are notified. The MPO follows the procedures specified in the MPO's Public Participation Plan.

Below are general guidelines regarding the conditions that constitute an administrative adjustment or amendment to the UPWP.

**Table 1-2
UPWP Amendment and Administrative Adjustment Guidelines**

UPWP Administrative Adjustment	UPWP Amendment
Reallocation of budget funds	Addition or Removal of UPWP task(s)
Change in start/completion dates within the originally intended federal fiscal year(s)	Change in start/completion dates, outside of originally intended federal fiscal year(s)
Adjustment to project scope	Significant change in project scope, cost, and/or time allocation

All proposed administrative adjustments and amendments must be presented to the MPO for consultation prior to endorsement. Both adjustments and amendments must be voted on by the MPO members and amendments must be released for 30-day public comment period prior to endorsement. Members of the public may attend and present comments at UPWP Committee meetings and MPO meetings, at which amendments and administrative modifications are discussed. Administrative modifications may be made by the MPO a public review period, although this can be provided at the MPO's discretion.

When submitting the standard Budget Reallocation Request form to MassDOT OTP, all fields must be filled out with clear indication that the MPO was consulted prior to submission. Back up documentation must be submitted, including the UPWP description of the task(s) affected, original budget, revised budget, and justification for request.

A change to a project scope, budget, and/or project schedule is considered significant when it alters the original intent of the project or intended deliverables of the project.

Other Regionally-Significant Transportation Planning Studies

To provide a comprehensive perspective of transportation planning in the Boston region, the UPWP also includes a list of other major transportation planning activities in the region. This list includes projects that are not funded with the MPO's planning funds, but which are being funded and implemented by individual transportation agencies, municipalities, or academic institutions. Often, these efforts also use the expertise and tools CTPS is uniquely able to provide. These are described in Appendix A.

1.3 HOW IS THE WORK FUNDED?

The funding for the studies and programs included in this UPWP (presented in Chapters 5 through 8) comes from a variety of federal and state sources, as described below. The source of funds has important implications with regard to which agency or organization is responsible for programming them and for the MPO's vote to approve both the UPWP and the subsequent work programs for the studies. The chapters of this UPWP are organized based on funding source: MPO-funded (3C-funded) studies and agency/other client-funded studies.

- **FHWA 3C Planning (PL)/MassDOT Local Match:** These are FHWA planning funds distributed to MassDOT's Office of Transportation Planning (OTP), according to an allocation formula established by federal legislation, to carry out the 3C planning process. OTP distributes these funds to Massachusetts MPOs according to a formula based on population. The FFY 2017 3C PL funding allocation for the Boston Region is \$3,546,663, which includes \$709,332 in state matching funds.
- **FTA 3C Planning (§5303)/MassDOT Local Match:** FTA provides 3C planning funds for transit projects to MPOs under Section 5303 of the Federal Transit Act. These funds require a local match, are distributed according to an allocation formula, and are administered by MassDOT. The FFY 2017 FTA allocation for the Boston Region, including a total local match, is \$2,210,858. The total amount programmed in this UPWP for studies to be conducted by MPO staff, MassDOT, and MAPC on behalf of the MPO is \$1,892,936. Of the total FTA 3C funds allocated to the region, MassDOT, MAPC, and the MPO receive a portion, as described below:
 - o **MPO FTA 3C Planning (§5303)/MassDOT Local Match:** The total amount of FTA funds, including a local match, programmed in this UPWP for work conducted by MPO staff is \$1,291,141.
 - o **MassDOT FTA 3C Planning (§5303)/MassDOT Local Match:** The total amount of FTA funds, including a local match, allocated to MassDOT for FFY 2017 is \$270,167. MassDOT uses these funds to issue a contract to the MPO for transit planning assistance throughout the FFY (referred to as MassDOT Transit Planning Assistance).
 - o **MAPC FTA 3C Planning (§5303)/MassDOT Local Match:** A portion of the Boston Region FTA allocation also goes to MAPC. MAPC uses these funds to conduct their transit-planning studies programmed through the UPWP. The total amount of FTA funds, including a local match, allocated to MAPC for FFY 2017 is \$331,629.
- **FHWA Statewide Planning and Research (SPR)/MassDOT Local Match:** As in the case of 3C PL funds, FHWA provides SPR funds to OTP according to a distribution formula. OTP uses these funds to carry out planning and research projects throughout the state. This UPWP describes only the SPR studies that

will be conducted in the Boston Region MPO area; however, OTP provides a complete listing of how these funds are distributed statewide in a document called the SPR Transportation-Planning Work Program. SPR funds in the amount of \$572,000 (including \$114,400 in state matching funds) are programmed in this UPWP for studies to be conducted by MPO staff. The MPO's role in these studies is crucial to the 3C process because it provides an opportunity to coordinate studies with other related transportation work efforts that may be planned for the same area.

- **MassDOT:** Funds in the amount of \$642,900 for MassDOT studies are included in this UPWP.
- **MBTA:** The MBTA provides \$1,061,819 in funding for this UPWP for transit studies to be conducted by CTPS.
- **Massport:** This UPWP also includes \$53,150 in funding provided by Massport for work being conducted by CTPS on its behalf.



This page intentionally blank

Table 1-3: FFY 2017 Unified Planning Work Program Budget—Summary of FFY 2017 Budgets for CTPS

3C Studies & Programs by Budget Categories	FFY 2017 CTPS 3C PL Funds	FFY 2017 CTPS Section 5303 Funds	FFY 2017 CTPS Budget
Administration and Resource Management Projects	\$1,149,853	\$563,977	\$1,713,830
MPO Certification Requirements	\$1,069,369	\$430,872	\$1,500,241
MPO Funded Planning Studies and Technical Analyses	\$133,874	\$87,546	\$221,420
New Discrete Studies and Ongoing Program	\$370,382	\$159,625	\$530,000
Direct Support	\$155,000	\$71,500	\$226,500
Total for CTPS 3C Studies and Programs (including salary, overhead, direct support)	\$2,878,477	\$1,313,521	\$4,191,998

Agency Funded CTPS Work	Agency Funds	Direct Support	FFY 2017 CTPS Budget
MassDOT SPR Funds	\$559,500	\$12,500	\$572,000
MassDOT Section 5303 Funds	\$264,170	\$6,000	\$270,170
MassDOT Other Funds	\$642,400	\$500	\$642,900
MBTA Funds	\$1,052,089	\$20,230	\$1,072,319
Massport Funds	\$52,900	\$250	\$53,150
Total for Agency-Funded Project Work	\$2,571,059	\$39,480	\$2,610,539

CTPS Budget (3C + Agency)	\$6,802,537
--------------------------------------	--------------------

Table 1-4: FFY 2017 Unified Planning Work Program Budget—Summary of FFY 2017 Budgets for MAPC

3C Studies & Programs by MAPC Budget Categories	FFY 2017 MAPC PL Funds	FFY 2017 MAPC Section 5303 Funds	FFY 2017 MAPC Budget
MAPC Planning Studies and Technical Analyses	\$367,815	\$206,229	\$574,044
MAPC Administration, Resource Management, and Support Activities	\$306,051	\$125,400	\$431,451
MAPC Total FFY 2017 Funds Programmed	\$673,866	\$331,629	\$1,005,495

3C Budget (CTPS + MAPC)	\$5,197,493
TOTAL PROGRAMMED IN FFY 2017 (CTPS Budget + MAPC Budget)	\$7,808,032

3C = Continuing, Comprehensive, and Cooperative. CTPS = Central Transportation Planning Staff. FFY = federal fiscal year.
 MAPC = Metropolitan Area Planning Council. MassDOT = Massachusetts Department of Transportation. MBTA = Massachusetts Bay Transportation Authority.
 MPO = Metropolitan Planning Organization. PL = Federal Highway Administration transportation planning funds. SPR = MassDOT Statewide Planning and Research Program.