

Unified Planning Work Program

Federal Fiscal Year 2015

Boston Region Metropolitan
Planning Organization Draft

May 21, 2014

Boston Region Metropolitan Planning Organization Staff

Directed by the Boston Region
Metropolitan Planning Organization,
which is composed of the:

Massachusetts Department of Transportation
Metropolitan Area Planning Council
Massachusetts Bay Transportation Authority
MBTA Advisory Board
Massachusetts Port Authority
Regional Transportation Advisory Council
City of Boston
City of Beverly
City of Everett
City of Newton
City of Somerville
City of Woburn
Town of Arlington
Town of Bedford
Town of Braintree
Town of Framingham
Town of Lexington
Town of Medway
Town of Norwood
Federal Highway Administration (nonvoting)
Federal Transit Administration (nonvoting)

The comment period for this
document will close on
Wednesday, June 19, at 5:00
PM.

Send comments to the
Chairman of the Boston Region
Metropolitan Planning
Organization via any of the
means listed on page iii of this
document.

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Executive Summary

This Unified Planning Work Program (UPWP) contains information about surface-transportation planning projects that will be conducted in the Boston metropolitan region from October 1, 2014, through September 30, 2015 (federal fiscal year 2015). The UPWP is an essential transportation-planning tool for the region and often a first step in determining whether or not a project will be implemented. It is integrally related to other planning initiatives conducted by the Boston Region Metropolitan Planning Organization (MPO), as well as by the Massachusetts Department of Transportation (MassDOT), the Massachusetts Bay Transportation Authority (MBTA), and the Massachusetts Port Authority (Massport).

The projects in this UPWP will be funded from federal, state, and local sources. This UPWP has been prepared in accordance with the provisions of the “Moving Ahead for Progress in the 21st Century Act” (MAP-21) and with Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) grant application requirements, planning factors, and other guidance. This UPWP contains 89 projects and programs, of which 63 will be carried out by the Central Transportation Planning (CTPS) staff and the Metropolitan Area Planning Council (MAPC) on behalf of the MPO, MassDOT, the MBTA, Massport, and other entities. The remaining 26 projects will be carried out by individual transportation agencies, municipalities, and academic institutions.

The majority of the federal fiscal year (FFY) 2015 UPWP projects have been ongoing since FFY 2014 (or earlier). However, there are several new projects. Those to be undertaken on behalf of the MPO are:

- Addressing Safety, Mobility, and Access on Subregional Priority Roadways: FFY 2015 (page 6-3)
- Bicycle Network Gaps: Feasibility Evaluations (page 6-4)
- Core Capacity Constraints (page 6-10)
- Fairmount Line Station Access Analysis (page 6-16)
- Household-Survey-Based Travel Profiles and Trends: Selected Policy Topics (page 7-14)

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- Low-Cost Improvements to Freeway Bottleneck Locations: FFY 2015 (page 6-24)
- Priority Corridors for LRTP Needs Assessment: FFY 2015 (page 6-31)
- Safety Analysis for Intersections near MAGIC Schools (page 7-40)
- Title VI Service Equity Analyses: Methodology Development (page 7-41)

CTPS also will continue to support projects that are being conducted by MassDOT, the MBTA, and other entities. Examples of these are:

- Green Line Extension: Completion of New Starts Analysis (page 6-20)
- Massachusetts Turnpike Allston Interchange Traffic Study (page 6-26)
- South Station Expansion Project: Support (page 6-34)

The UPWP is intended to serve two purposes: First, to provide information to government officials, local communities, and the general public about surface-transportation planning projects expected to be undertaken in the Boston region. Second, to supply complete budget information to federal and state officials about expenditure of federal metropolitan planning funds for those projects carried out on behalf of the Boston Region MPO. These funds include FHWA metropolitan planning (PL) funds and FTA Section 5303 metropolitan planning funds, which are used to support the MPO's continuing, cooperative, and comprehensive, or "3C," planning process.

The UPWP document is structured as follows. Chapter 1 provides general information about the Boston Region MPO, the transportation-planning process, and the sources of funding for UPWP projects. In addition, it explains the MPO's role in programming these funds, and the process the MPO followed to select the projects it was responsible for programming. Chapter 1 includes a chart depicting the organizational structure of the MPO, a map showing the municipalities that are members of each MAPC subregional group, and a table citing the relationship between MPO-funded UPWP projects and federal planning factors. It also includes a figure showing the UPWP's relationship to other MPO planning documents, current feasibility studies, and other visioning processes.

Chapter 2 provides a status report on the FFY 2014 UPWP projects that were conducted by CTPS and MAPC. It also includes a list of products

and activities related to those projects, and information about how to obtain copies of reports, memoranda, and certification documents.

Chapter 3 includes an index of the FFY 2015 UPWP projects, which are organized by the agency responsible for conducting them.

Chapters 4 through 7 contain project and program descriptions and detailed budget information for all work being conducted by CTPS and MAPC on behalf of the MPO, and for work conducted by CTPS on behalf of other transportation-planning entities.

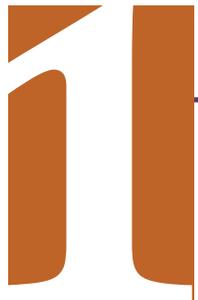
Chapter 8 gives budget summaries of the projects and programs included in Chapters 4 through 7 and other information about the federal funding allocated to projects and programs in this UPWP. This chapter is intended to provide federal and state officials with information necessary for approving the use of funds as documented in the UPWP and for administering contracts.

Appendix A presents brief summaries of project information for other, non-MPO transportation-planning projects that will be conducted in the Boston region. These projects have separate review and approval processes and are outside the purview of the MPO. They are included in the UPWP to provide a more comprehensive picture of what is being planned in the region and to ensure that MPO planning efforts in the region are coordinated with other ongoing work.

Appendix B will be completed following the close of the 30-day public review period and before the final document is presented to the MPO for adoption. It will describe the public participation process used for the development of the draft UPWP and the public workshops that were held during its public review period. It also will present a summary of written comments on the draft UPWP that were received during its review period and the MPO's responses to them.

Appendix C contains the document that was developed by staff to catalog and rate proposed UPWP projects. This document was used by the MPO UPWP Committee and the MPO as a guide in selecting new projects.

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The Transportation Planning and Programming Process in the Boston Region MPO Area

This chapter is intended to give the reader an understanding of how the transportation-planning process is conducted in the Boston Region Metropolitan Planning Organization (MPO) area, including the federal requirements that govern the process, the funding sources used to carry it out, and the implementation of the process from conception to completion.

Section 134 of the Federal-Aid Highway Act and Section 5303 of the Federal Transit Act, as amended, require that urbanized areas, to be eligible for federal funds, conduct a continuing, cooperative, and comprehensive transportation-planning process (3C process) resulting in plans and programs consistent with the planning objectives of the metropolitan area.

1.1 THE BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

The Boston Region MPO area consists of the 101 cities and towns shown on the map that follows the title page of this document. The permanent MPO voting members are the Massachusetts Department of Transportation (MassDOT), the Metropolitan Area Planning Council (MAPC), the Massachusetts Bay Transportation Authority (MBTA), the MBTA Advisory Board, the Massachusetts Port Authority (Massport), the City of Boston, and the Regional Transportation Advisory Council. The elected MPO voting members are municipalities. A municipality from each of the eight MAPC subregions has a seat, and there are four at-large municipal seats. The current elected members are:

- City of Beverly – North Shore Task Force
- City of Everett – At-Large City
- City of Newton – At-Large City
- City of Somerville – Inner Core Committee

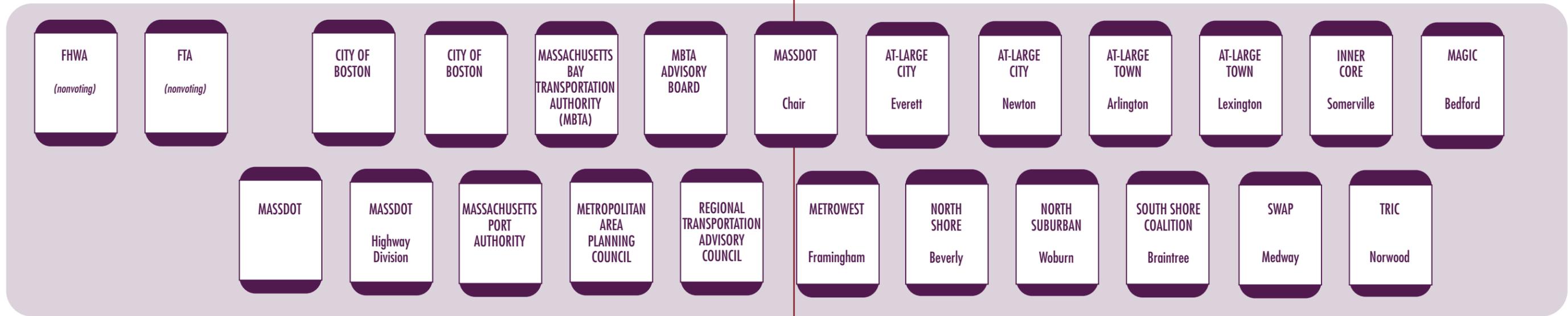
Boston Region MPO

- City of Woburn – North Suburban Planning Council
- Town of Arlington – At-Large Town
- Town of Bedford – Minuteman Advisory Group on Interlocal Coordination
- Town of Braintree – South Shore Coalition
- Town of Framingham – MetroWest Regional Collaborative
- Town of Lexington – At-Large Town
- Town of Medway – SouthWest Advisory Planning Committee
- Town of Norwood – Three Rivers Interlocal Council

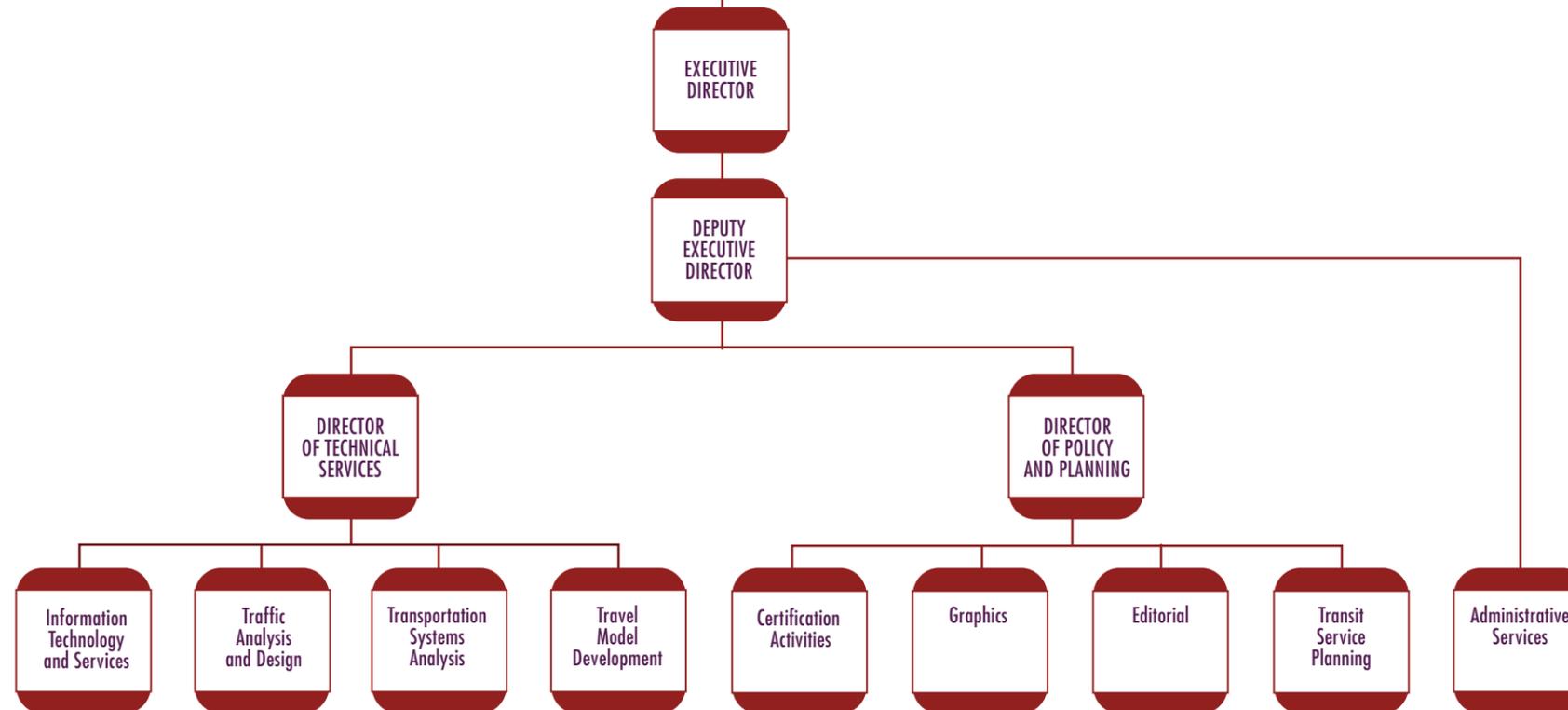
In addition, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) participate in the MPO as advisory (nonvoting) members. Figure 1-1 on the following page shows MPO membership and organization of the Central Transportation Planning Staff (staff to the MPO). Details about MPO voting members are provided below:

- **The Massachusetts Department of Transportation (MassDOT)** includes four Divisions: Highway, Rail and Transit, Aeronautics, and Registry of Motor Vehicles.
 - The **Highway Division** has jurisdiction over the roadways, bridges, and tunnels of the former Massachusetts Highway Department and Massachusetts Turnpike Authority. The Division also has jurisdiction over many bridges and parkways previously under the authority of the Department of Conservation and Recreation. The Highway Division is responsible for the design, construction, and maintenance of the Commonwealth's state highways and bridges. The Division is also responsible for overseeing traffic safety and engineering activities for the state highway system; these activities include operating the Highway Operations Control Center to ensure safe road and travel conditions.
 - The **Rail and Transit Division** is responsible for all rail and transit initiatives, and it oversees the Massachusetts Bay Transportation Authority (MBTA) and all Regional Transit Authorities of the Commonwealth. The MassDOT Board of Directors also serves as the governing board of the MBTA.

MEMBERSHIP OF THE BOSTON REGION METROPOLITAN PLANNING ORGANIZATION



CENTRAL TRANSPORTATION PLANNING STAFF



MassDOT has three seats on the MPO, including one for the Highway Division.

- The **Metropolitan Area Planning Council (MAPC)** is the regional planning agency for the 101 cities and towns in the MAPC/MPO region. It is composed of the chief executive (or her/his designee) of each of the 101 cities and towns in the MAPC region, 21 gubernatorial appointees, and 12 ex officio members. It has statutory responsibility for comprehensive regional planning in its region under Chapter 40B of the Massachusetts General Laws (MGL). It is the Boston Metropolitan Clearinghouse under Section 204 of the Demonstration Cities and Metropolitan Development Act of 1966 and Title VI of the Intergovernmental Cooperation Act of 1968. Also, its region has been designated an economic development district under Title IV of the Public Works and Economic Development Act of 1965, as amended. MAPC's responsibilities for comprehensive planning include responsibilities in the areas of technical assistance to communities, transportation planning, and the development of zoning, land use, demographic, and environmental studies.
- The **Massachusetts Bay Transportation Authority (MBTA)** has the statutory responsibility within its district, under the provisions of Chapter 161A of the MGL, of operating the public transportation system, preparing the engineering and architectural designs for transit development projects, and constructing and operating transit development projects. The MBTA district comprises 175 communities, including all of the 101 cities and towns of the Boston Region MPO area. A seven-member board of directors was appointed by the Governor to be the governing body of both MassDOT and the MBTA, which is part of MassDOT but retains a separate legal existence. The MBTA provides general transit-planning support for projects in this UPWP.
- The **MBTA Advisory Board** was created by the Legislature in 1964 through the same legislation that created the MBTA. The Advisory Board consists of representatives of the 175 cities and towns that compose the MBTA district. Cities are represented by either the city manager or mayor, and towns by the chairperson of the board of selectmen. Specific responsibilities of the Advisory Board include review of and comment on the Program for Mass Transportation (PMT), proposed fare increases, and the annual MBTA Capital Investment Program;

review of the MBTA's documentation of net operating investment per passenger; and review of the MBTA's operating budget.

- The **Massachusetts Port Authority (Massport)** has the statutory responsibility under Chapter 465 of the Acts of 1956, as amended, of planning, constructing, owning, and operating such transportation and related facilities as may be necessary for the development and improvement of commerce in Boston and the surrounding metropolitan area. Massport owns and operates Boston Logan International Airport, Conley Terminal, Cruiseport Boston, Hanscom Field, Worcester Regional Airport, and various maritime/waterfront properties, including parks, in East Boston, South Boston, and Charlestown.
- The **City of Boston, six elected cities (currently Beverly, Braintree, Everett, Newton, Somerville, and Woburn), and six elected towns (currently Arlington, Bedford, Framingham, Lexington, Medway, and Norwood)** represent the 101 municipalities in the Boston Region MPO area. The City of Boston is a permanent MPO member and has two seats. There is one elected municipal seat for each of the eight MAPC subregions and four seats for at-large elected municipalities (two cities and two towns). The elected at-large municipalities serve staggered three-year terms, as do the eight municipalities representing the MAPC subregions. This procedure was established in the MPO's 2011 Memorandum of Understanding.
- The **Regional Transportation Advisory Council**, the MPO's citizen advisory group, provides the opportunity for transportation-related organizations, agencies, and municipal representatives to become actively involved in the decision-making processes of the MPO in the planning and programming of transportation projects in the region. The Advisory Council reviews, comments on, and makes recommendations regarding certification documents. It also serves as a forum for providing information on transportation topics in the region, identifying issues, advocating for ways to address the region's transportation needs, and generating interest among members of the general public in the work of the MPO.

As noted above, two members participate in the Boston Region MPO in an advisory (nonvoting) capacity, reviewing the Long-Range Transportation Plan (LRTP), the Transportation Improvement Program (TIP), the UPWP, and other facets of the MPO's planning process to

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ensure compliance with federal planning and programming requirements:

- The **Federal Highway Administration (FHWA)** and **Federal Transit Administration (FTA)** oversee the highway and transit programs, respectively, of the U.S. Department of Transportation under pertinent legislation and the provisions of the Moving Ahead for Progress in the 21st Century Act (MAP-21).

Two other entities assist MPO members in carrying out the responsibilities of the MPO's 3C planning process through policy implementation, technical support, and public participation:

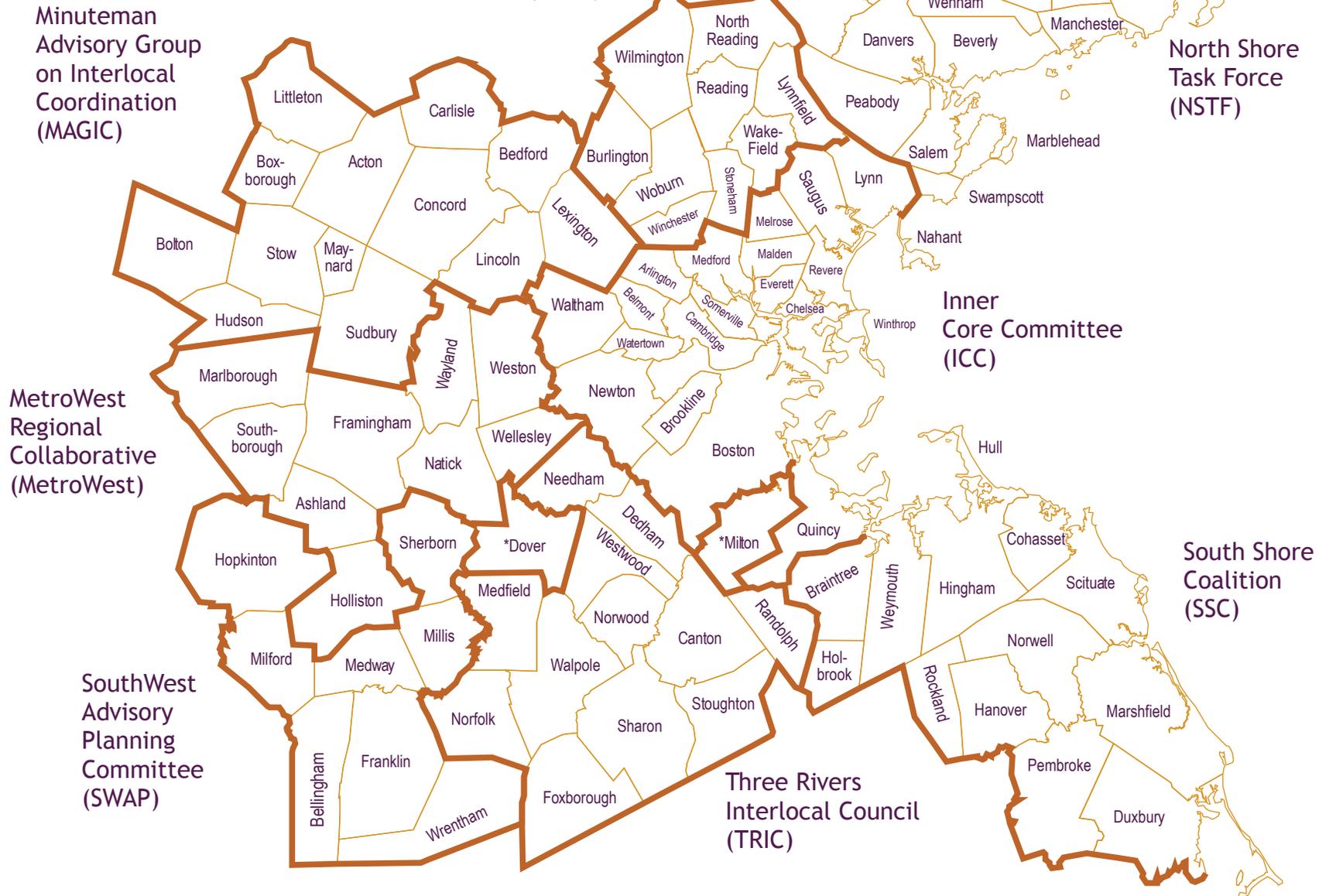
- The **Central Transportation Planning Staff (CTPS)** was created by the MPO to carry out general and 3C transportation-planning activities on behalf of the MPO and to provide agencies with analyses required for the work described in this document and other agency initiatives.
- The **MAPC subregional groups** bring together representatives (usually appointed or elected officials or their staff) of the communities within a subregion of the MAPC region to address shared concerns regarding transportation and land use. MAPC has promoted and supported the formation of subregional groups in order to foster better communication and cooperation among communities. They have played an important role in the MPO's participatory process, including the development of TIP and UPWP project priorities. The MAPC subregional groups and their member municipalities are shown in Figure 1-2.

1.2 THE TRANSPORTATION PLANNING PROCESS

The Boston Region MPO is responsible for carrying out the 3C planning process in the Boston region and has established the following objectives for the process:

- To identify transportation problems and develop possible solutions to them
- To strike a balance between short-range and long-range considerations, so that beneficial incremental actions undertaken now reflect an adequate understanding of probable future consequences and possible future options

**Figure 1-2:
Metropolitan Area Planning Council (MAPC)
Subregional Groups**



*Communities represented by more than one subregional group: Dover is in TRIC and SWAP; Milton is in ICC and TRIC.

- To take into account both regional and local considerations, and both transportation and non-transportation objectives and impacts, in the analysis of project issues
- To assist implementing agencies in putting policy and project decisions into effect in a timely fashion, with adequate consideration of environmental, social, fiscal, and economic impacts and with adequate opportunity for participation by other agencies, local governments, and the public
- To assist implementing agencies in assigning priorities to transportation activities in a manner consistent with the region's needs and resources
- To maintain MPO compliance with the requirements of the Moving Ahead for Progress in the 21st Century Act (MAP-21), the Americans with Disabilities Act (ADA), the Clean Air Act (CAA), the Civil Rights Act of 1964, Executive Order 12898 (regarding environmental justice), Executive Order 13166 (regarding outreach to populations with limited English-language proficiency), and Executive Order 13330 (regarding the coordination of human-services transportation)

1.3 THE UNIFIED PLANNING WORK PROGRAM

This Unified Planning Work Program (UPWP) contains information about surface-transportation planning projects that will be conducted in the Boston metropolitan region during the period from October 1, 2014, through September 30, 2015 (federal fiscal year 2015). The UPWP is an essential transportation-planning tool for the region and often a first step in determining whether or not a project will be implemented. It is integrally related to other planning initiatives conducted by the Boston Region Metropolitan Planning Organization (MPO), as well as by the Massachusetts Department of Transportation (MassDOT), the Massachusetts Bay Transportation Authority (MBTA), and the Massachusetts Port Authority (Massport).

1.3.1 Consistency with Federal Planning Regulations

The Moving Ahead for Progress in the 21st Century Act (MAP-21)

This legislation requires all MPOs to carry out the 3C process (see page 1-1). Activities the MPOs must perform to meet this requirement are:

- Producing the LRTP, the TIP, and the UPWP

- Conducting an inclusive public participation process
- Maintaining transportation models and data resources to support air quality conformity determinations, as well as long-range and short-range planning work and initiatives

The MAP-21 legislation establishes national goals for federal highway programs. These goals include:

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

MAP-21 also establishes performance-based planning as an integral part of the metropolitan planning process. Performance-based planning and programming refers to practices that apply performance-management principles to transportation system policy and investment decisions. In other words, a system-level, data-driven process is used to make decisions about strategies and investments.¹ MAP-21 requires that each MPO establish performance measures and targets that track

¹ *Performance-Based Planning and Programming*, white paper, Cambridge Systematics, prepared for Federal Highway Administration Office of Planning, Environment and Realty, February 15, 2012.

progress toward attainment of critical outcomes for its region and stipulates that these targets should be coordinated with those of relevant state agencies and public transportation providers to ensure consistency.² The Boston Region MPO has begun formalizing the framework of its performance-based planning process, and information about the MPO's work with respect to performance measures is detailed in the Long-Range Transportation Plan (page 5-19), the Transportation Improvement Program (page 5-34), and the Congestion Management Process (page 6-8) project descriptions.

Consistency with Other Federal Legislative Requirements

The 1990 Clean Air Act

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 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.

Transportation control measures (TCMs) identified in the State Implementation Plan (SIP) for the attainment of 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. MPO activities related to air quality are detailed in the Air Quality Conformity Determinations and Support (page 5-12) project descriptions.

Non-discrimination Mandates

The Boston Region Metropolitan Planning Organization (MPO) complies with Title VI of the Civil Rights Act of 1964, the Americans with Disabilities Act (ADA), and other federal and state non-discrimination statutes and regulations in all programs and activities. The MPO does not discriminate on the basis of race, color, national origin, English proficiency, income, religious creed, ancestry, disability, age, gender,

² "The Development of Performance Measures and Performance-Based Planning," memorandum, Boston Region MPO, March 7, 2013.

sexual orientation, gender identity or expression, or military service. The major federal requirements are discussed below.

Title VI of the 1964 Civil Rights Act

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, 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 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 Reporting, the MassDOT Title VI Program, and the MBTA Title VI Program Monitoring project descriptions listed in chapters 5, 6, 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 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 the race, color, national origin, and income level of the populations affected by transportation decisions

- Minimize or mitigate any adverse impact on minority or low-income populations

MPO activities that meet these requirements are discussed in the Transportation Equity/Environmental Justice Support program description on page 5-30.

The Americans with Disabilities Act

Title III of the Americans with Disabilities Act (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. MPO activities that meet these requirements are discussed in Chapter 5.

Executive Order 13330

This executive order, dated February 26, 2004, calls for the establishment of the Interagency Transportation Coordinating Council on Access and Mobility under the aegis of the 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. MPO activities related to the above federal requirements are detailed in Chapter 5.

Consistency with Federal Planning Factors and Other Federal Guidance

Federal Planning Factors

MAP-21 maintains the federal planning factors that were included in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). These planning factors are:

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 the 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

These planning factors are reflected in the Long-Range Transportation Plan visions described on pages 1-19 through 1- 22 and were incorporated in the rating of projects for this UPWP (see Section 1.4.3 of this chapter). Projects specifically relating to these planning factors are detailed in Chapters 4 through 7. A summary of the amount of money being spent for these projects can be found in Chapter 8. Table 1-1 provides a summary of how projects and programs in this UPWP that receive federal formula grant funding to carry out the 3C process address the federal planning factors.

Other Federal Guidance

In addition, this year the FHWA asked MPOs to pay particular attention to the following areas in their UPWPs:

- Continuing support for performance-based practices in metropolitan planning
- Addressing bicycle and pedestrian safety concerns
- Supporting the efficient movement of goods throughout each region and the commonwealth
- Addressing climate change concerns
- Continuing to focus on Title VI, Environmental Justice (EJ), and Limited-English-Proficiency (LEP) programs and requirements, and working to ensure that all members of the community have access
- Making updates to Coordinated Public Transit–Human Service Transportation plans to reflect the current transit network status and MAP-21 requirements
- Continuing to implement recommendations from the recent metropolitan transportation planning certification review

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- Ensuring that at least a third of metropolitan planning funding is spent on activities resulting in tangible products
- Supporting training and professional development of staff on transportation planning topics

The MPO has programmed or otherwise incorporated initiatives into the FFY 2015 UPWP in compliance with this federal guidance; these are included in Chapters 4 through 7.

Continued Support for Performance-Based Planning

The Boston Region MPO is incorporating formalized performance-based planning activities into the development of its Long-Range Transportation Plan (LRTP) and Transportation Improvement Program (TIP). In FFY 2014, MPO staff developed recommendations related to performance-based planning and coordinated with MassDOT and other entities on this topic. Anticipated FFY 2015 activities related to performance-based planning are included in the Long-Range Transportation Plan and Transportation Improvement Program descriptions (pages 5-19 and 5-34, respectively). The MPO coordinates performance-based planning activities in these certification documents with performance monitoring carried out through the Congestion Management Program (described on page 6-8) and through the LRTP and TIP reporting on the MPO's performance goals. The MPO will continue to coordinate with MassDOT, the MBTA, MAPC, and other entities as part of its performance-based planning process, and will address performance management requirements once the final rule on metropolitan and statewide planning is published.

The MPO also considers performance-based planning needs and issues when deciding what activities to fund through the UPWP. The process for selecting new projects for the UPWP, which is discussed in detail in Section 1.4.3, "New Study Selection Process," included an effort to rate proposed projects by focus areas that highlight the MPO's goals, visions, and policies. These focus areas, which were used to support the development of staff and the MPO's UPWP Committee recommendations for new projects for FFY 2015, include an area titled "Supports Performance-Based Planning." Of the new projects recommended for inclusion in this UPWP, one project received a "major consideration" rating in this area and another received a "minor consideration" rating in this area.

Bicycle and Pedestrian Safety

The MPO addresses the safety needs of active transportation modes, such as bicycling and walking, throughout its planning activities. Bicycle and pedestrian safety criteria are used in the TIP project evaluation process, and bicycle and pedestrian needs are considered as part of corridor studies, Community Transportation Technical Assistance projects, Livable Community Workshop Program projects, and bicycle and pedestrian planning work conducted under the Alternative-Mode Planning and Coordination program (see Chapters 6 and 7).

The MPO's Bicycle/Pedestrian Support Activities program specifically targets this issue; activities planned for this program in FFY 2015 include continuing to examine bicycle and pedestrian crash data and continuing to coordinate with state agencies, MAPC, and other entities on bicycle and pedestrian planning for the region (see page 6-6). During FFY 2015, the MPO may consider developing future possible strategic bicycle and pedestrian safety plans as part of this program. Several new studies in this UPWP, including Bicycle Network Gaps: Feasibility Evaluations (page 6-5) and Fairmount Line Station Access Analysis (page 6-16) will also recommend improvements that address bicycle and pedestrian safety needs.

Movement of Goods

The FFY 2015 UPWP includes a Freight Planning Support: FFY 2015 program, detailed on page 7-10, to support the efficient movement of goods. The focus areas used to rate new discrete projects for the FFY 2015 UPWP also include an area called "Support Economic Vitality," which accounts for whether a planning project might support the movement of goods. Of the new projects recommended for inclusion in this UPWP, three projects received a "minor consideration" rating in this area.

Freight elements were also incorporated into *Paths to a Sustainable Region*, the MPO's current Long-Range Transportation Plan (LRTP), and will be addressed in the next LRTP update. In addition, the Regional Transportation Advisory Council has an ongoing freight committee that is supported by the MPO in order to maintain awareness of freight issues and to provide input to the MPO on freight-related matters.

Addressing Climate Change Concerns

The MPO continues to consider climate change in transportation planning through its ongoing work. Through the Air Quality Conformity

Determinations and Support program (page 5-12), the MPO integrates climate-change concerns and emission-reduction opportunities into the LRTP, the TIP, and other activities and continues to coordinate with MassDOT on implementing its GreenDOT policy. MPO staff supports all-hazards planning as part of 3C Planning and MPO Support Activities (page 5-3) and has continued to update its all-hazards data resources.

During FFY 2015, MPO staff will continue to monitor MassDOT vulnerability assessments—including results of the 2013-2014 FHWA-funded climate resilience pilot focused on the Central Artery—and consider opportunities to incorporate findings into the MPO's planning for climate change. As part of its Corridor/Subarea Planning Studies work (page 6-12), MAPC will be conducting mapping to identify roadway segments in environmentally sensitive areas that may need improvements; these improvements could be incorporated into roadway reconstruction projects, such as climate adaption projects. In addition, the MPO will continue to work on its Greenhouse Gas Reduction Strategy Alternatives: Cost-Effectiveness Analysis (page 7-12), which aims to identify transportation investments that are the most cost-effective in reducing GHG emissions.

Civil Rights Programs and Requirements

The MPO's ongoing and continuing projects and programs include elements that address the needs and participation of Title VI, Environmental Justice (EJ), Limited-English-Proficient (LEP), and elderly populations and people with disabilities. The MPO's Transportation Equity/Environmental Justice Support program (page 5-30) is specifically focused on the transportation needs of these populations. Other programs, including 3C Planning and MPO Support (page 5-3), Access Advisory Committee Support (page 5-10), and Provision of Materials in Accessible Formats (page 5-24), include activities that support and encourage the participation of these populations in the transportation decision-making process. In all of these transportation-planning activities, the MPO staff, frequently in collaboration with MAPC, assesses and seeks to improve processes to ensure that people throughout the MPO region have access. CTPS also conducts Title VI analysis for the MPO, MassDOT, and the MBTA, as described in Chapters 5 and 7. While conducting all of these activities, the MPO works in consultation with MassDOT's Office of Diversity and Civil Rights.

The focus areas used to rate new discrete projects for the FFY 2015 UPWP included an area called "Consider Transportation Equity and

Accessibility.” Criteria for this focus area included not only improvements to transportation service and infrastructure serving these populations, but also an element for strengthening the role of these populations in transportation decision making. Of the new projects selected for FFY 2015, the Title VI Service Equity Analyses: Methodology Development and the Fairmount Line Station Access Analysis projects particularly address the participation and needs of these populations.

Updates to Coordinated Human-Services Transportation Plans

In FFY 2015, MPO staff will complete the update of the MPO’s Coordinated Public Transit-Human Services Transportation Plan (CHSTP), which was begun in FFY 2013. More details are included in the Transportation Equity/Environmental Justice Program description, on page 5-30. MPO staff will develop the CHSTP in accordance with MAP-21 requirements and will coordinate with applicable Regional Coordinating Councils, MassDOT, and other entities as part of the planning process.

Recommendations from the Recent Metropolitan Transportation Planning Certification Review

The MPO has implemented the recommendations from its 2011 Transportation Planning Certification Review by the FHWA and FTA in the development of its certification documents, public outreach processes, and other transportation-planning activities. Chapters 4 through 7 detail the initiatives taking place in various MPO programs and projects. The MPO expects to undergo its next Transportation Planning Certification Review in early FFY 2015; the 3C Planning and MPO Support program descriptions (page 5-3) describe activities that will support this review.

Tangible Products of Planning Activities

The MPO meets and exceeds federal guidelines for the expenditure of metropolitan planning funds on tangible products. The MPO considers planning-project feasibility and implementation factors when selecting projects to fund with 3C dollars, including particular locations to study. The MPO maintains a practice of coordinating with MassDOT and other entities, where possible, if there is an opportunity to advance the recommendations developed from studies into tangible products.

Staff Training and Professional Development

The MPO, through its ongoing 3C-funded programs, makes resources available for the MPO staff to maintain its transportation-planning expertise by participating in courses, programs, and workshops offered by the Federal Highway Administration, Federal Transit Administration, Transportation Research Board, and other entities. More information on these topics is available in the Direct Support (page 4-7) and 3C Planning and MPO Support project descriptions (page 5-3).

1.3.2 Coordination with Other Planning Activities

The MPO's Long-Range Transportation Plan (LRTP)

The MPO considered the degree to which a proposed UPWP project would further the visions, policies, objectives, and planning emphasis areas of the MPO's current long-range transportation plan (LRTP), *Paths to a Sustainable Region* which was adopted in 2011, The LRTP visions include:

1. System Preservation, Modernization, and Efficiency

The regional transportation system will be maintained to a state of good repair and will operate with maximum efficiency. It will be reliable and modern and will provide improved mobility regionwide. Automobile dependency will be reduced, and the transit system will serve more people. Modernization of the existing system will provide access and accessibility throughout for all; additions to the transportation system will also be fully accessible for persons of all abilities.

Efficiencies and operational improvements will come through ongoing system preservation, use of intelligent transportation systems (ITS) and other technologies, management and operations strategies, and a balanced program of strategic investments. Innovative approaches will reduce auto dependency and actively promote other modes of transportation.

Expansion of the system will come through strategic investments.

2. Livability

All residents will have the capability of moving affordably between where they live, work, get services, and play using healthy transportation options that promote a healthy lifestyle. Multimodal transportation will serve business, residential, and mixed-use centers. Transportation investments will focus on existing activity

centers, including sites of economic activity and adequate public infrastructure, where density will be encouraged. These centers of community activity will grow in population density and diversity of uses. This density and mixed-use activity will better support new and increased transit services. Investments in bicycle and pedestrian facilities and in accessibility improvements will support healthy lifestyle choices and increase mobility for everyone, including people with disabilities. Community centers will thrive with the implementation of “complete streets” and context-sensitive design principles; urban design changes in community centers will create more human-scale and aesthetically pleasing community environments. The design of the transportation network will protect cultural, historical, and scenic resources, community cohesiveness, and quality of life.

The transportation network will play its part as a foundation for economic vitality. Energy use will be managed efficiently and alternative energy sources used.

3. Mobility

People in most areas of all corridors in the region will have access to transportation to jobs, education and training, health services, and social and recreational opportunities. This includes persons with disabilities, the elderly, youth, minorities, and persons with low incomes or with limited English proficiency. More communities will have more transportation options, both motorized and nonmotorized. The transportation infrastructure will accommodate freight and commercial activity as well as passenger needs. Freight will be moved efficiently by all freight modes.

The transportation system and services will be reliable. Delays, congestion, and travel time will be reduced. Transit ridership and use of sustainable options will be increased. The system will meet people’s needs; funding decisions will be guided by attention to customer service. Existing transit, bicycle, and pedestrian facilities will be linked in a network.

4. Environment

Human and environmental health will be considered in transportation decision making. With transportation investments targeted to areas of existing development, many greenfields will be preserved, many brownfields will be restored and reused, and water and sewer infrastructure and other utilities will be more cost-effectively maintained. Air quality will be improved as the full range of regulated

vehicle emissions (carbon monoxide, nitrogen oxides, volatile organic compounds, and particulates) and carbon dioxide are reduced to required and/or targeted levels. The transportation project design process will avoid or minimize negative impacts to wetlands, soil, water, and other environmental resources. Context-sensitive design principles will be implemented to protect communities' cultural, historical, and scenic resources, community cohesiveness, quality of life, and aesthetic environments.

5. **Transportation Equity**

Low-income and minority residents, as well as the elderly, youth, and persons for whom English is a second language (ESL populations), will enjoy, on a level equitable with others, mobility and access to affordable transportation options that connect them with jobs, educational institutions, and services. Environmental burdens from transportation facilities and services (existing and future) will be minimized for these persons; low-income and minority persons will not be inequitably burdened. Expansion projects will address regional needs.

6. **Climate Change**

The production of greenhouse gas (GHG) emissions by the transportation sector in this region will be reduced to levels that contribute appropriately to the statewide targets set by the Massachusetts Global Warming Solutions Act. The MPO region will have joined with other entities in Massachusetts and the Northeast to slow and perhaps prevent the onset of serious climate change effects. The MPO, in consultation and cooperation with state and federal agencies planning action on GHG reduction, will have adopted GHG reduction goals and taken the steps necessary to meet them. Critical elements of the region's transportation infrastructure that may be vulnerable to the impacts of climate change will have been identified and protected.

7. **Safety and Security**

All modes of the transportation network, passenger and freight, will provide transportation that is safe, personally and operationally, to the maximum feasible degree. The number and severity of crashes will have been reduced. State-of-the practice ITS measures and surveillance communication systems will have been deployed on the transit system to minimize vulnerability to security breaches. Transit malfunctions will have been reduced.

Steps will have been taken to protect the viability of transportation infrastructure critical to emergency response and evacuations necessitated by natural hazards and man-made threats.

These visions, along with MPO policies documented in the LRTP, also have been incorporated in the UPWP focus areas detailed in Section 1.4.3. Work being done to support the LRTP is detailed on page 5-19.

The MPO's Congestion Management Process (CMP)

The purpose of the CMP is to 1) monitor and analyze the performance of facilities and services; 2) develop strategies for the management of congestion based on the results of monitoring; and 3) 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. Projects that help address problems identified in the most recent CMP monitoring were considered for inclusion in this UPWP. Work being done in the FFY 2015 UPWP to support the CMP is detailed on page 6-8.

The MBTA's Program for Mass Transportation (PMT)

In 2009, the MBTA adopted its current PMT, which is the MBTA's long-range capital plan. The PMT was developed with extensive public involvement and was approved by the MBTA Advisory Board. The PMT informs the selection of projects for the UPWP and work included in the UPWP will support the PMT planning process.

MetroFuture

MetroFuture, which was developed by MAPC 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 it was adopted as the future land use scenario for the MPO LRTP, *Paths to a Sustainable Region*. Work being done to support MetroFuture implementation and updates is detailed in the MetroFuture Implementation project description on page 6-29. MetroFuture's goals, objectives, and strategies were considered in the development of this UPWP, including in the UPWP focus areas used to rate proposed new projects.

You Move Massachusetts and We Move Massachusetts

You Move Massachusetts, a statewide initiative designed as a bottom-up approach to transportation planning, developed 10 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 December 2013, MassDOT released *We Move Massachusetts: Planning for Performance* (WMM), a single, multimodal Long-Range Transportation Plan for the Commonwealth of Massachusetts. 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.

GreenDOT and MassDOT's Statewide Mode-Shift Goal

GreenDOT, an initiative that MassDOT launched in June 2010, is a comprehensive environmental responsibility and sustainability policy that has three primary objectives: 1) reducing greenhouse gas (GHG) emissions; 2) promoting the healthy transportation options of walking, bicycling, and public transit; and 3) supporting smart-growth development. GreenDOT applies to MassDOT divisions and contractors, as well as to Massachusetts's MPOs and regional transit authorities (RTAs).

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. These goals include MassDOT's statewide mode-shift goal, which 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 Global Warming Solutions Act. 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.

The goals outlined in the GreenDOT Implementation Plan, including the statewide mode-shift goal, were considered in the development of this UPWP. Multiple projects in this UPWP address GreenDOT sustainability goals, such as the Greenhouse Gas Reduction Strategy Alternatives: Cost-Effectiveness Analysis (page 7-12) and Barriers and Opportunities Influencing Mode Shift (page 7-6) projects.

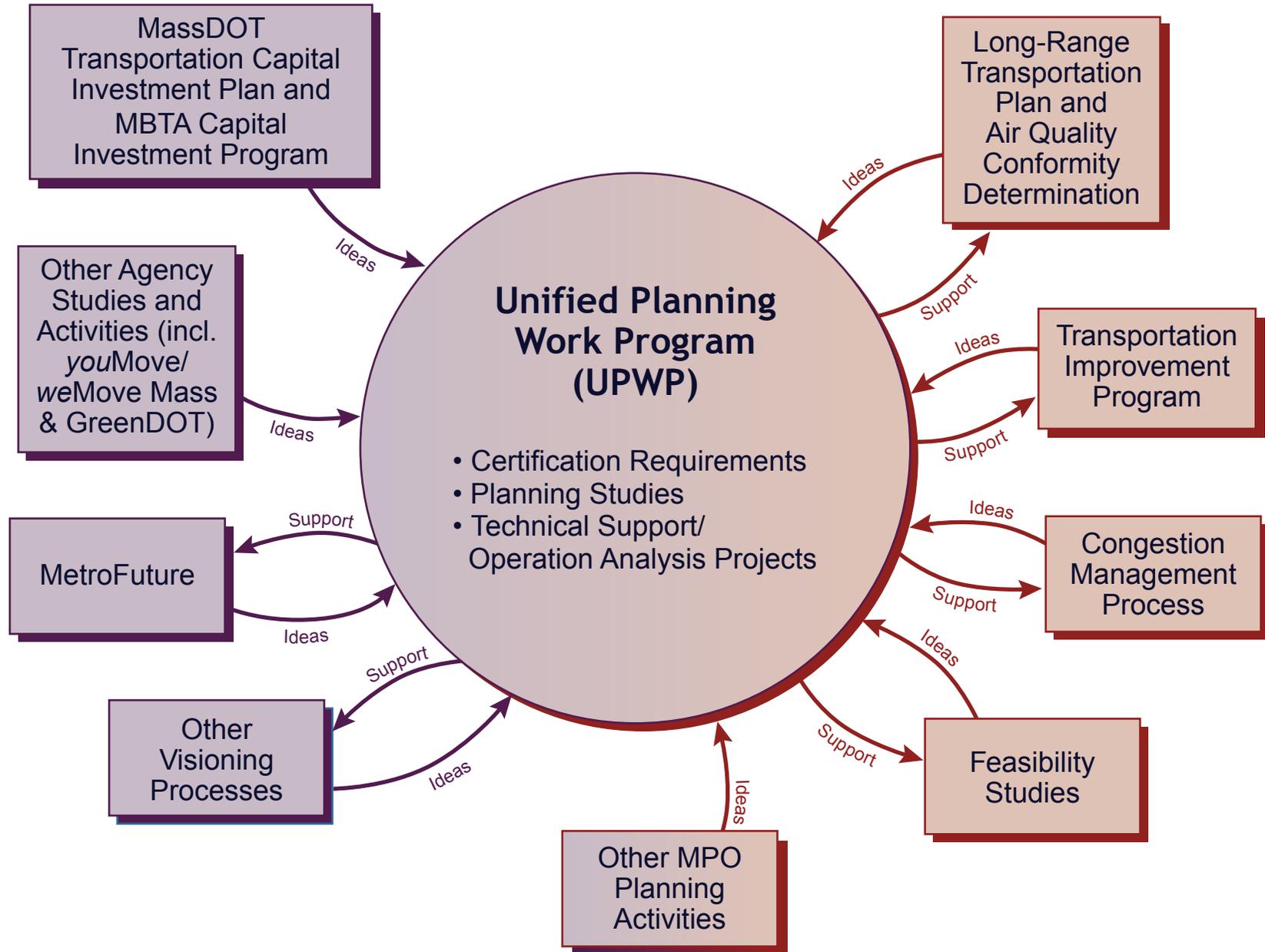
Healthy Transportation Compact

The Healthy Transportation Compact (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.

The 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, and the Commissioner of Public Health 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. The charges of the Healthy Transportation Compact were considered in the development of this UPWP, and MPO activities that relate to the Healthy Transportation Compact are discussed in the MetroFuture Implementation (page 6-29), Alternative-Mode Planning and Coordination (7-3), and Livable Community Workshop Program (page 7-19) descriptions.

Figure 1-3 shows the relationship of the UPWP to other transportation-planning documents, including those described above.

Figure 1-3: Planning Process - Relationship of UPWP to Other Transportation-Planning Documents



1.4 THE UPWP DEVELOPMENT PROCESS

Each year the MPO considers projects for the annual update of the UPWP through its UPWP Committee, which was established by the MPO. The UPWP documents new projects and projects that are continuing from previous UPWPs, and it provides updates on the MPO's ongoing programs that fulfill the 3C process outlined above.

1.4.1 Updates for Ongoing and Continuing Activities

As part of developing the upcoming UPWP, the MPO reviews activities for 1) ongoing projects and programs and 2) discrete (or limited-term) projects and programs that began as part of previous UPWPs. Collectively, these projects and programs include both 3C-funded activities and projects completed on behalf of transportation agencies that serve the Boston region. As part of this process, the MPO staff identifies and develops budgets for continuing activities that will be carried out in the upcoming federal fiscal year.

In addition, MPO staff reviews and revises descriptions of activities to be conducted through the ongoing programs conducted as part of the 3C planning process. If there are changes to the budget of any program as a result of revisions to the planned activities, these are proposed. This annual project 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 projects in the UPWP. After accounting for 3C-funded continuing and ongoing programs, the remaining funding is available for new projects.

To provide a comprehensive perspective of transportation-planning activity occurring in the region, MPO staff members also develop a list of other major transportation-planning activities occurring in the Boston region. This list includes projects that are not funded with MPO funding, but which are being implemented by individual transportation agencies, municipalities, or academic institutions. In some cases, these projects may receive support from MPO staff.

Additional information on funding sources for UPWP projects and programs is available in section 1.5: Funding the Projects.

1.4.2 FFY 2015 UPWP Universe of Proposed New Projects

To develop new planning projects for the FFY 2015 UPWP, the MPO drew from the following sources to generate a universe of proposed new projects for evaluation by MPO staff and the MPO's UPWP Committee:

1. Existing planning documents: the Congestion Management Process (CMP) reports; the Program for Mass Transportation (PMT), the MBTA's long-range capital plan; *Paths to a Sustainable Region*, the MPO's Long-Range Transportation Plan (LRTP); MetroFuture; and recent studies
2. Past guidance received from the Federal Highway Administration and the Federal Transit Administration on addressing planning emphasis areas
3. FFY 2014 UPWP comment letters and project proposals
4. Consultations with MassDOT, MAPC, and the MBTA
5. MPO staff-identified needs

MPO staff also requested planning project suggestions through outreach at MAPC subregional group meetings, at Regional Transportation Advisory Council meetings, and through outreach to the general public at Transportation Improvement Program (TIP)- and UPWP-Development Sessions and at the MPO's "Be Informed, Be Involved" information sessions. Proposed planning projects are documented in the FFY 2015 UPWP Universe of Proposed New Projects, which is available in Appendix C of this UPWP.

1.4.3 New Planning Project Selection Process

After generating a universe of new proposed planning project, MPO staff rated each project in 16 focus areas in order to assess what visions, goals, policies, factors, and priorities that study idea would be likely to advance. These focus areas are based on the MPO's visions and policies, national goals and planning factors, federal guidance, and other state and regional priorities, including those outlined in other regional planning documents. The focus areas include:

1. **Link Land Use and Transportation:** Considers whether the proposed project could support coordination with local and regional land use planning efforts, including MAPC's MetroFuture plan.
2. **Work with Limited Financial Resources:** Considers whether the proposed project could support project prioritization, low-cost transportation improvement strategies, or innovative resource management approaches.
3. **Use a Management and Operations Approach:** Considers whether the proposed project could support management and operations improvements, which might be physical or

technology-based. It also considers whether the project could support transportation demand management, or other strategies that provide low-cost, easy-to-implement solutions, which help avoid the need for capacity expansion.

4. **Protect Air Quality and the Environment:** Considers whether the proposed project could support improvements to air quality, other ecological functions, or energy conservation.
5. **Increase Transit and Healthy-Transportation Mode Share:** Considers whether the proposed project could support increased access and connectivity to bicycle, pedestrian, or transit options, promoting mode share or mode shift where possible.
6. **Encourage Sustainability and Livable Communities:** Considers whether the proposed project could support Complete Streets, context-sensitive transportation project implementation, or the preservation of community resources and cohesiveness.
7. **Advance Mobility and Access, and Reduce Congestion:** Considers whether the proposed project could help close gaps for one or more modes in the transportation network, or could support reductions in delays, congestion, or travel time.
8. **Increase System Reliability:** Considers whether the proposed project could support improvements to transit reliability or nonrecurring roadway congestion.
9. **Increase Transportation Safety and Security:** Considers whether the proposed project could support improved safety for one or more modes, or whether it supports responses to natural or man-made hazards.
10. **Support Economic Vitality:** Considers whether the proposed project could support freight movement or local or regional economic development.
11. **Preserve and Maintain the Transportation System:** Considers whether the proposed project could support bringing one or more modes into a state of good repair or making these modes more efficient.
12. **Consider Transportation Equity and Accessibility:** Considers whether the proposed project could support access, mobility, or participation in decision making for those with disabilities, those in low-income households, minorities, the elderly, youth, or those with limited English proficiency.

13. **Support MetroFuture Implementation:** Considers whether the proposed project could address MAPC's MetroFuture Implementation Strategies.
14. **Support Statewide and Regional Transportation Initiatives:** Considers whether the proposed project could address MassDOT's We Move Massachusetts and GreenDOT Implementation plans, the Healthy Transportation Compact, and other plans and initiatives.
15. **Enhance Technical Capacity, Knowledge, and Insights:** Considers whether the proposed project could support the MPO's understanding of transportation issues and innovations or improves the MPO's planning capacity.
16. **Support Performance-Based Planning:** Considers whether the proposed project could support the MPO's performance-based planning process, including data collection and monitoring.

In addition to conducting focus area reviews, MPO staff defined general scopes and estimated costs for proposed planning projects and considered potential study feasibility issues. MPO staff also noted how the proposed project might support MPO visions and policies, as described in the MPO's Long-Range Transportation Plan, *Paths to a Sustainable Region*, and the functions that proposed projects might perform to support transportation planning in the region. These various factors, along with the availability of funds for new studies, were considered as staff identified a recommended set of new proposed planning projects for review by the UPWP Committee. These proposed projects, their estimated costs, their focus area rating results, their potential relationships to MPO visions and policies, their potential transportation-planning functions, their relationship to the staff recommendation, and supporting comments are all documented in the FFY 2015 UPWP Universe of Proposed New Projects in Appendix C.

The UPWP Committee met six times to consider and provide guidance on the development process, new study ideas, idea ratings, and the staff recommendation for new projects. As part of this series of meetings, the Committee developed its recommendation for a public review Draft FFY 2015 UPWP. The Committee selected a program of studies that was based on the availability of funding and the factors described above, including planning priorities and state and federal guidelines. The MPO approved the UPWP Committee's recommendations for the public review of Draft FFY 2015 UPWP on May 15, 2014.

1.4.4 Finalizing the UPWP

Descriptive and financial information about ongoing, continuing, and new UPWP projects, along with information about the UPWP development process and other major transportation-planning projects occurring in the region, is incorporated into the public review 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. The public review and comment period lasts 30 days, during which time MPO staff members conduct workshops and make presentations at meetings to discuss and collect feedback on the draft document. Comments provided through other venues, including the MPO website, are also compiled during this time and presented to the MPO. Information about the public review process for Draft FFY 2015 UPWP is available in Appendix B.

1.5 FUNDING THE PROJECTS

The funding for the projects included in this UPWP (presented in Chapters 4 through 7) 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, as well as the MPO's vote to approve both the UPWP and the subsequent work scopes for the projects included in it. The purview of the MPO is included in each of the funding descriptions.

- **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 2015 3C PL funding allocation for the Boston Region MPO is \$2,759,060 which includes \$551,812 in state matching funds. The MPO votes on both the use of funds and the use of MPO staff for projects in this funding category.
- **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 contains only SPR projects 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 \$577,000 (including \$115,400 in state matching funds) are programmed in this UPWP for projects to be conducted by MPO staff. The MPO's role is to approve the use of MPO staff for projects in this category and to make recommendations on work scopes for implementing them. The MPO's role in these projects is crucial to the 3C process because it provides an opportunity to coordinate projects with other related transportation work efforts that may be planned for the same area.

- **FTA/MassDOT 3C Planning (§5303) and MAPC 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 2015 FTA allocation, including a total local match for FFY 2015, is \$2,195,360. The total amount programmed in this UPWP for projects to be conducted by MPO staff, MassDOT, and MAPC on behalf of the MPO is \$1,879,670. As is the case for FHWA 3C PL funds, the MPO votes on both the use of these funds and the use of MPO staff on projects in this category.
- **MassDOT** – Funds in the amount of \$298,100 for MassDOT projects are included in this UPWP.
- **MBTA** – The MBTA provides \$463,720 in funding for this UPWP for transit projects to be conducted by MPO staff. As is the case of the SPR funds described above, the MPO's role is to approve the use of MPO staff time for these projects and to make recommendations on the work scopes for implementing them.
- **Other** – This UPWP also includes \$63,000 in funding provided by Massport and the Town of Foxborough for work being conducted by MPO staff on behalf of these entities. The MPO's role is to vote on the use of MPO staff time for these projects and to make recommendations on the work scopes for implementing them.

1.6 MONITORING THE PROJECTS

The following procedures for monitoring the projects in this UPWP were approved by the MPO:

- Project work scopes supported by federal 3C planning funds must be approved by the MPO prior to the start of any CTPS activity.
- Monthly progress reports on all active projects must be submitted to the respective funding agency by CTPS and/or MAPC. The reports must include the following information for each project:
 - Brief narrative describing the work accomplished by task
 - Key personnel attendance at meeting(s) held each week
 - Objectives/planned activities for the next month
 - Percent of work completed by task
 - Some measure of actual resources (hours, funds, etc.) charged to the contract over the past month
 - Comparison of actual cumulative resources expended compared to the contract budget
- A quarterly report is presented by CTPS comparing the UPWP project budgets with the actual project spending.
- MPO approval for release of a 3C-funded project's work products is based on whether the objectives stated in the work scope were met and whether the stated deliverables were produced.

1.7 AMENDMENTS AND ADMINISTRATIVE MODIFICATIONS TO THE UPWP

Amendments and administrative modifications may be made to the UPWP, when necessary, throughout the year. 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. 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 without legal notice or a public review period, although these may be provided at the MPO's discretion.



Status of the Federal Fiscal Year 2014 UPWP Projects Conducted By Boston Region MPO Staff

2.1 INTRODUCTION TO FFY 2014 PROJECTS

During federal fiscal year (FFY) 2014, numerous projects were conducted by the Central Transportation Planning Staff (CTPS) of the Boston Region Metropolitan Planning Organization (MPO) and by the Metropolitan Area Planning Council (MAPC) on behalf of the MPO. For the purpose of reporting here on the status of these projects, they have been divided into three categories:

- **Completed** – These projects are either already completed or expected to be complete by October 1, 2014, when this document goes into effect.
- **Ongoing** – These projects support and continue the transportation-planning process from year to year.
- **Continuing Discrete** – These projects are also continuing from FFY 2014 into FFY 2015. However, they are planning studies that have a specific, limited duration, unlike ongoing programs, which are refreshed each federal fiscal year. The projected percentage completed as of October 1, 2014, for each of these projects is included in the project descriptions presented in Chapters 6 and 7.

2.2 FFY 2014 PROJECT AND BUDGET TABLES AND WORK PRODUCTS

This chapter includes four tables that describe the status of FFY 2014 projects. Tables 2-1 through 2-3 group the projects according to the “completed,” “continuing discrete,” and “ongoing” categories described above and provide FFY 2014 budget information, while Table 2-4 summarizes the funding associated with projects in each of the three categories. This chapter also contains a fifth table, which lists the

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projects that were expected to be completed in FFY 2013 but that actually were completed in FFY 2014. The FFY 2013 budgets are provided in this table.

Following these five tables is a listing of MPO work products and activities resulting from FFY 2014 UPWP projects, along with work products from previous fiscal years, where applicable. Information is provided on how to obtain copies of reports that were approved by the MPO.

TABLE 2-1
Completed FFY 2014 UPWP Projects with FFY 2014 UPWP Budgets

UPWP Project	FFY 2014 UPWP Project ID	FFY 2014 PL Funding	FFY 2014 MPO §5303 Funding	FFY 2014 SPR Funding	FFY 2014 MassDOT Funding	FFY 2014 MassDOT §5303 Funding	FFY 2014 MBTA Funding	FFY 2014 Other Funding	FFY 2014 Total Funding
Accelerated Bridge Program Support	13258	\$0	\$0	\$0	\$10,000	\$0	\$0	\$0	\$10,000
Addressing Safety, Mobility, and Access on Subregional Priority Roadways	13259	\$30,600	\$14,400	\$0	\$0	\$0	\$0	\$0	\$45,000
Addressing Safety, Mobility, and Access on Subregional Priority Roadways: FFY 2014	13265	\$68,000	\$12,000	\$0	\$0	\$0	\$0	\$0	\$80,000
Environmental Justice and Title VI Analysis Methodology Review	11389	\$36,000	\$24,000	\$0	\$0	\$0	\$0	\$0	\$60,000
Freight Planning Support	11145	\$34,600	\$0	\$0	\$0	\$0	\$0	\$0	\$34,600
Green Line Extension Delay: SIP Mitigation	11377	\$0	\$0	\$0	\$3,700	\$0	\$0	\$0	\$3,700
Household-Survey-Based Travel Profiles and Trends	11146	\$12,580	\$5,920	\$0	\$0	\$0	\$0	\$0	\$18,500
MassDOT Road Inventory Supplemental Grant	60616	\$0	\$0	\$0	\$119,000	\$0	\$0	\$0	\$119,000
MassDOT Transit Planning Assistance ^{a,b}	11380	\$0	\$0	\$0	\$0	\$256,120	\$0	\$0	\$256,120
Massport Technical Assistance SFY 2012–14 ^a	22124	\$0	\$0	\$0	\$0	\$0	\$0	\$15,000	\$15,000
MBTA 2013 National Transit Database: Directly Operated	14332	\$0	\$0	\$0	\$0	\$0	\$500	\$0	\$500
MBTA 2013 National Transit Database: Purchased Bus	14333	\$0	\$0	\$0	\$0	\$0	\$500	\$0	\$500
MBTA 2013–14 Title VI Program Monitoring ^b	11385	\$0	\$0	\$0	\$0	\$0	\$80,000	\$0	\$80,000
Methodology for Evaluating the Potential for Limited-Stop Service on Transit Routes	11390	\$0	\$52,000	\$0	\$0	\$0	\$0	\$0	\$52,000

(cont.)

TABLE 2-1
Completed FFY 2014 UPWP Projects with FFY 2014 UPWP Budgets (Continued)

UPWP Project	FFY 2014 UPWP Project ID	FFY 2014 PL Funding	FFY 2014 MPO §5303 Funding	FFY 2014 SPR Funding	FFY 2014 MassDOT Funding	FFY 2014 MassDOT §5303 Funding	FFY 2014 MBTA Funding	FFY 2014 Other Funding	FFY 2014 Total Funding
MetroWest RTA Transit Planning Assistance II	53312	\$0	\$12,500	\$0	\$0	\$0	\$0	\$0	\$12,500
Pedestrian Signal Phasing Study	13264	\$30,000	\$0	\$0	\$0	\$0	\$0	\$0	\$30,000
Priority Corridors for LRTP Needs Assessment: FFY 2014	13262	\$56,000	\$14,000	\$0	\$0	\$0	\$0	\$0	\$70,000
Route 79 Transportation Study: Evaluation of Alternatives	43213	\$0	\$0	\$0	\$9,000	\$0	\$0	\$0	\$9,000
South Coast Commuter Rail FEIR	43212	\$0	\$0	\$0	\$16,000	\$0	\$0	\$0	\$16,000
Safety and Operations Analyses at Selected Intersections: FFY 2014	13261	\$45,630	\$21,470	\$0	\$0	\$0	\$0	\$0	\$67,100
TIP Project Impacts Before-After Evaluations: FFY 2014	12203	\$40,000	\$0	\$0	\$0	\$0	\$0	\$0	\$40,000
Traffic Signal Retiming Program	13263	\$36,000	\$4,000	\$0	\$0	\$0	\$0	\$0	\$40,000
Transportation Investments for Economic Development	11149	\$39,900	\$10,100	\$0	\$0	\$0	\$0	\$0	\$50,000
Total for Completed FFY 2014 UPWP Projects		\$429,310	\$170,390	\$0	\$157,700	\$256,120	\$81,000	\$15,000	\$1,109,520

^aThis UPWP entry reflects a contract that may include multiple individual projects or tasks.

^bDollar amounts shown for these projects include salary, overhead, and direct costs.

FFY = Federal Fiscal Year. FEIR = Final Environmental Impact Report. LRTP = Long-Range Transportation Plan.

MBTA = Massachusetts Bay Transportation Authority. PL = Metropolitan Planning. RTA = Regional Transportation Authority.

SIP = State Implementation Plan. SPR = State Planning and Research. SFY = State Fiscal Year. TIP = Transportation Improvement Program.

TABLE 2-2
Continuing Discrete FFY 2014 UPWP Projects with FFY 2014 UPWP Budgets

UPWP Project	FFY 2014 UPWP Project ID	FFY 2014 PL Funding	FFY 2014 MPO §5303 Funding	FFY 2014 SPR Funding	FFY 2014 MassDOT Funding	FFY 2014 MassDOT §5303 Funding	FFY 2014 MBTA Funding	FFY 2014 Other Funding	FFY 2014 Total Funding
Green Line Extension: Completion of New Starts Analysis	22336	\$0	\$0	\$0	\$0	\$0	\$40,000	\$0	\$40,000
Greenhouse Gas Reduction Strategy Alternatives: Cost-Effectiveness Analysis	11151	\$55,000	\$0	\$0	\$0	\$0	\$0	\$0	\$55,000
Identifying Areas for Mode-Shift Opportunities ^a	11148	\$34,000	\$34,000	\$0	\$0	\$0	\$0	\$0	\$68,000
MassDOT State Planning and Research Program Support ^b	23229, 97101-971XX	\$0	\$0	\$498,000	\$0	\$0	\$0	\$0	\$498,000
MassDOT Title VI Program ^c	13154	\$0	\$0	\$0	\$50,000	\$0	\$0	\$0	\$50,000
MBTA 2014 National Transit Database: Data Collection and Analysis	14340	\$0	\$0	\$0	\$0	\$0	\$120,500	\$0	\$120,500
MBTA Bus Service Data Collection VIII	11384	\$0	\$0	\$0	\$0	\$0	\$150,000	\$0	\$150,000
MBTA Rider Oversight Committee Support	14339	\$0	\$0	\$0	\$0	\$0	\$6,130	\$0	\$6,130
Modeling Support: I-93/I-95 Interchange Improvements North of Boston ^d	73216	\$0	\$0	\$0	\$78,500	\$0	\$0	\$0	\$78,500
South Station Expansion Project: Support	12311, 12320-12323	\$0	\$0	\$0	\$111,500	\$0	\$0	\$0	\$0
Total for Continuing Discrete FFY 2014 UPWP Projects		\$89,000	\$34,000	\$498,000	\$240,000	\$0	\$316,630	\$0	\$1,066,130

^aThis project is listed for FFY 2015 as Barriers and Opportunities Influencing Mode Shift.

^bThis UPWP entry is funded by contracts that support multiple individual projects or tasks. Two contracts support this project; one that began in April 2013 and ended in March 2014, and one that began in May 2014 and will end in March 2015. The dollar amount shown for this project reflects the portions of each contract applicable to FFY 2014, and includes salary, overhead, and direct costs.

^cThis project is listed for FFY 2015 as MassDOT Title VI Program: FFY 2014.

^dThis project is listed for FFY 2015 as I-93/I-95 Interchange Improvements North of Boston: Modeling Support.

FFY = Federal Fiscal Year. MBTA = Massachusetts Bay Transportation Authority. PL = Metropolitan Planning. SPR = State Planning and Research.

TABLE 2-3
Ongoing FFY 2014 UPWP Projects with FFY 2014 UPWP Budgets

UPWP Project	FFY 2014 UPWP Project ID	FFY 2014 PL Funding	FFY 2014 MPO §5303 Funding	FFY 2014 SPR Funding	FFY 2014 MassDOT Funding	FFY 2014 MassDOT §5303 Funding	FFY 2014 MBTA Funding	FFY 2014 Other Funding	FFY 2014 Total Funding
3C Planning and MPO Support	90011- 90900	\$442,830	\$191,370	\$0	\$0	\$0	\$0	\$0	\$634,200
Access Advisory Committee Support	90024	\$58,280	\$27,420	\$0	\$0	\$0	\$0	\$0	\$85,700
Air Quality Conformity Determinations ^a	10112	\$8,840	\$4,160	\$0	\$0	\$0	\$0	\$0	\$13,000
Air Quality Support Activity ^a	90061	\$31,040	\$12,260	\$0	\$0	\$0	\$0	\$0	\$43,300
Alternative-Mode Planning and Coordination	MAPC7	\$117,600	\$53,790	\$0	\$0	\$0	\$0	\$0	\$171,390
Bicycle/Pedestrian Support Activities	13208	\$33,020	\$13,180	\$0	\$0	\$0	\$0	\$0	\$46,200
Boston Region MPO Title VI Reporting	11355	\$9,520	\$4,480	\$0	\$0	\$0	\$0	\$0	\$14,000
Community Transportation Technical Assistance Program	13150, MAPC9	\$48,020	\$23,180	\$0	\$0	\$0	\$0	\$0	\$71,200
Computer Resource Management	60405- 60492	\$251,320	\$107,280	\$0	\$0	\$0	\$0	\$0	\$358,600
Congestion Management Process	11123	\$144,430	\$67,970	\$0	\$0	\$0	\$0	\$0	\$212,400
Corridor/Subarea Planning Studies	MAPC4	\$114,820	\$52,700	\$0	\$0	\$0	\$0	\$0	\$167,520
Data Resources Management	60120- 60600	\$202,540	\$88,260	\$0	\$0	\$0	\$0	\$0	\$290,800
Direct Support	90000	\$57,540	\$22,500	\$43,000	\$0	\$5,000	\$770	\$0	\$128,810

(cont.)

TABLE 2-3
Ongoing FFY 2014 UPWP Projects with FFY 2014 UPWP Budgets (Continued)

UPWP Project	FFY 2014 UPWP Project ID	FFY 2014 PL Funding	FFY 2014 MPO §5303 Funding	FFY 2014 SPR Funding	FFY 2014 MassDOT Funding	FFY 2014 MassDOT §5303 Funding	FFY 2014 MBTA Funding	FFY 2014 Other Funding	FFY 2014 Total Funding
Land Use, Demographics, and Mode Shift in Transportation ^b	MAPC10	\$66,000	\$34,000	\$0	\$0	\$0	\$0	\$0	\$100,000
Land Use Development Project Reviews	MAPC5	\$59,400	\$30,600	\$0	\$0	\$0	\$0	\$0	\$90,000
Livable Community Workshop Program	13801, MAPC8	\$38,400	\$23,220	\$0	\$0	\$0	\$0	\$0	\$61,620
Long-Range Transportation Plan	10101	\$204,000	\$96,000	\$0	\$0	\$0	\$0	\$0	\$300,000
MetroFuture Engagement ^c	MAPC6	\$69,400	\$30,600	\$0	\$0	\$0	\$0	\$0	\$100,000
MPO/MAPC Liaison and Support Activities	MAPC1	\$109,000	\$48,000	\$0	\$0	\$0	\$0	\$0	\$157,000
Provision of Materials in Accessible Formats	90028	\$54,000	\$16,000	\$0	\$0	\$0	\$0	\$0	\$70,000
Regional Model Enhancement	11244	\$553,550	\$236,450	\$0	\$0	\$0	\$0	\$0	\$790,000
Regional Transit Service Planning Technical Support: FFY 2014 ^d	14342	\$0	\$12,000	\$0	\$0	\$0	\$0	\$0	\$12,000
Roadway Safety Audits	11150	\$6,000	\$0	\$0	\$0	\$0	\$0	\$0	\$6,000
Subregional Support Activities	MAPC2	\$109,000	\$48,000	\$0	\$0	\$0	\$0	\$0	\$157,000
Transportation Equity/Environmental Justice Support	11147	\$67,330	\$28,670	\$0	\$0	\$0	\$0	\$0	\$96,000
Transportation Improvement Program	10103	\$118,020	\$51,980	\$0	\$0	\$0	\$0	\$0	\$170,000

(cont.)

**TABLE 2-3
Ongoing FFY 2014 UPWP Projects with FFY 2014 UPWP Budgets (Continued)**

UPWP Project	FFY 2014 UPWP Project ID	FFY 2014 PL Funding	FFY 2014 MPO §5303 Funding	FFY 2014 SPR Funding	FFY 2014 MassDOT Funding	FFY 2014 MassDOT §5303 Funding	FFY 2014 MBTA Funding	FFY 2014 Other Funding	FFY 2014 Total Funding
Travel Data Forecasts	90080	\$3,420	\$1,580	\$0	\$0	\$0	\$0	\$0	\$5,000
Travel Operations Analyses	90040	\$0	\$7,800	\$0	\$0	\$0	\$0	\$0	\$7,800
Unified Planning Work Program (CTPS)	10104	\$63,380	\$28,420	\$0	\$0	\$0	\$0	\$0	\$91,800
Unified Planning Work Program (MAPC)	MAPC3	\$7,000	\$3,000	\$0	\$0	\$0	\$0	\$0	\$10,000
Total for Ongoing FFY 2014 UPWP Projects		\$3,047,700	\$1,364,870	\$43,000	\$0	\$5,000	\$770	\$0	\$4,461,340

^a This project has been incorporated into Air Quality Conformity Determinations and Support for FFY 2015.

^b This project is listed for FFY 2015 as Land Use Data for Transportation Modeling.

^c This project is listed for FFY 2015 as MetroFuture Implementation.

^d This project is listed for FFY 2015 as Regional Transit Service Planning Technical Support.

3C = continuing, cooperative, and comprehensive transportation-planning process. CTPS = Central Transportation Planning Staff. FFY = Federal Fiscal Year.

MAPC = Metropolitan Area Planning Council. MBTA = Massachusetts Bay Transportation Authority. PL = Metropolitan Planning. SPR = State Planning and Research.

TABLE 2-4
FFY 2014 UPWP Project Status and Funding Summary

UPWP Project	FFY 2014 PL Funding	FFY 2014 MPO \$5303 Funding	FFY 2014 SPR Funding	FFY 2014 MassDOT Funding	FFY 2014 MassDOT \$5303 Funding	FFY 2014 MBTA Funding	FFY 2014 Other Funding	FFY 2014 Total Funding
Completed FFY 2014 UPWP Projects ^a	\$429,310	\$170,390	\$0	\$157,700	\$251,120	\$80,600	\$15,000	\$1,104,120
Continuing Discrete FFY 2014 UPWP Projects ^a	\$89,000	\$34,000	\$455,000	\$240,000	\$0	\$316,260	\$0	\$1,134,260
Ongoing FFY 2014 UPWP Projects	\$3,047,700	\$1,364,870	\$43,000	\$0	\$5,000	\$770	\$0	\$4,461,340
Total for FFY 2014 UPWP Projects	\$3,566,010	\$1,569,260	\$498,000	\$397,700	\$256,120	\$397,630	\$15,000	\$6,699,720

^a Dollar amounts shown for these projects include salary and overhead costs.

FFY = Federal Fiscal Year. MBTA = Massachusetts Bay Transportation Authority. PL = Metropolitan Planning. SPR = State Planning and Research.

TABLE 2-5
FFY 2013 UPWP Projects Completed in FFY 2014 with FFY 2013 UPWP Budgets

UPWP Project	FFY 2013 UPWP Project ID	FFY 2013 PL Funding	FFY 2013 MPO \$5303 Funding	FFY 2013 SPR Funding	FFY 2013 MassDOT Funding	FFY 2013 MassDOT \$5303 Funding	FFY 2013 MBTA Funding	FFY 2013 Other Funding	FFY 2013 Total Funding
Bicycle Network Evaluation	11247	\$8,540	\$3,660	\$0	\$0	\$0	\$0	\$0	\$12,200
MassDOT Transit Planning Assistance	11380	\$0	\$0	\$0	\$0	\$251,120	\$0	\$0	\$0
Priority Corridors for LRTP Needs Assessment	13257	\$73,500	\$31,500	\$0	\$0	\$0	\$0	\$0	\$105,000
Regional HOV-Lane Systems Planning Study, Phase II	13256	\$36,000	\$24,000	\$0	\$0	\$0	\$0	\$0	\$60,000
Roadway Network Inventory for Emergency Needs: A Pilot Study	11144	\$13,610	\$11,390	\$0	\$0	\$0	\$0	\$0	\$25,000
Safety and Operations Analyses at Selected Intersections	13260	\$47,390	\$20,310	\$0	\$0	\$0	\$0	\$0	\$67,700
Total for FFY 2013 UPWP Projects Completed in FFY 2014		\$179,040	\$90,860	\$0	\$0	\$251,120	\$0	\$0	\$269,900

FFY = Federal Fiscal Year. HOV = High Occupancy Vehicle. LRTP = Long-Range Transportation Plan. MBTA = Massachusetts Bay Transportation Authority.
 PL = Metropolitan Planning. SPR = State Planning and Research.

2.3 Work Products of the FFY 2014 UPWP

Listed below are reports, memoranda, and other MPO work products and activities associated with the projects in the federal fiscal year (FFY) 2014 UPWP. These projects are either complete or expected to be complete by the end of FFY 2014. Please note that some titles may change as products are finalized. All certification documents and many other work products are or will be available for downloading from the MPO website, www.bostonmpo.org. Work products not found on the MPO website may be requested by contacting CTPS at 617-973-7100 (voice), 617-973-7089 (TTY), or bostonmpo@ctps.org (email). MAPC work products can be found at www.mapc.org.

This list also includes products that were expected to be completed in FFY 2013 or earlier, but were completed or are expected to be complete in FFY 2014. These products are flagged with an asterisk (*).

2.3.1 CTPS Work Products

Certification Documents

Amendment 3 to *Paths to a Sustainable Region*, the Boston Region Metropolitan Planning Organization's Long-Range Transportation Plan

Federal Fiscal Years 2014–17 Transportation Improvement Program Amendments and Administrative Modifications

Federal Fiscal Years 2015–18 Transportation Improvement Program and Determination of Air Quality Conformity

Federal Fiscal Year 2015 Unified Planning Work Program (UPWP)

Update to the Public Participation Program of the Boston Region Metropolitan Planning Organization*

CTPS Reports

Boston Region Metropolitan Planning Organization 2014 Triennial Title VI Report

Environmental Justice and Title VI Analysis Methodology Review: Final Report

Exploring the 2011 Massachusetts Travel Survey: Focus on Journeys to Work

MBTA 2014 Triennial Title VI Report

Potential MBTA Fare Changes in SFY 2015: Impact Analysis

Proposed Freight Planning Action Plan for the Boston Region
MPO: Meeting the Goals and Addressing the Issues (replaced the
MPO Freight Study, Phase II Report)*

CTPS Technical Memoranda

2012 Inventory of Bicycle Parking Spaces and Number of Parked
Bicycles at MBTA Stations

2012-2013 Inventory of Park-and-Ride Lots at MBTA Facilities

2013-2014 I-93 North and Southeast Expressway HOV Lane
Monitoring – memoranda for fall 2013, winter 2014, spring 2014,
and summer 2014

A Preferential Lane on I-93 North: A Conceptual Plan*

Addressing Safety, Mobility, and Access on Subregional Priority
Corridors: Washington Street, Newton

Bicycle Network Evaluation*

Community Transportation Technical Assistance Program: Main
Street (Route 28) from South Street to Washington Street,
Reading

Community Transportation Technical Assistance Program – Town
of Milford

Development of the Pedestrian Environmental Variable (PEV)

Federal Fiscal Year (FFY) 2013 Community Transportation
Technical Assistance Program: Safety Improvements for
Pedestrians and Bicyclists at Glendale Square (Ferry Street and
Elm Street)

Federal Fiscal Year (FFY) 2013 Community Transportation
Technical Assistance Program: Safety Improvements for
Pedestrians and Bicyclists at Park Avenue and Dale Street
Intersection in Revere

MBTA Fiscal Year 2013 National Transit Database: Directly
Operated: Ridership and Passenger-Mile Estimates for Fiscal Year
2013

MBTA Fiscal Year 2013 National Transit Database: Purchased
Bus: Ridership and Passenger-Mile Estimates for Fiscal Year 2013

Methodology for Evaluating the Potential for Limited-Stop Service
on Transit Routes – technical memoranda documenting literature
review, evaluation criteria, and study results and recommendations

Next Steps in the Development of Performance Measures

Pedestrian Signal Phasing Study – technical memoranda summarizing literature review, case studies, and analysis results

Performance Measures – Goals and Objectives and Additional Framework

Priority Corridors for LRTP Needs Assessment – technical memorandum documenting analysis and recommendations for sections of Route 140 in Franklin

Recommended Local Bus Routes at Commuter Rail Stations (for the MetroWest RTA Transit Planning Assistance II Project)

Roadway Network Inventory for Emergency Needs: A Pilot Study

Route 3A Subregional Priority Roadway Study in Cohasset and Scituate*

Route 30 Arterial Segment Study in Framingham and Natick*

Routes 127A/127 Subregional Priority Roadway Study in Gloucester and Rockport

Safety and Operations Analyses at Selected Intersections – FFY 2013: Lexington Street at Beaver Street, Waltham*

Safety and Operations Analyses at Selected Intersections – FFY 2013: North/South Franklin Street (Route 37) at Union Street/Plymouth Street (Route 139), Holbrook

Safety and Operations Analyses at Selected Intersections – FFY 2013: Western Avenue (Route 107) at Washington Street (Route 129), Lynn

Safety and Operations Analyses at Selected Intersections – FFY 2013: Franklin Street (Route 37) at West Street, Braintree

Safety and Operations Analyses at Selected Intersections – FFY 2014 memoranda for selected locations in Milford, Weymouth, and Westwood

TIP Project Impact Before-After Evaluations: FFY 2014 – technical memoranda documenting project evaluations

Traffic Signal Retiming Program – technical memoranda for selected locations

Traffic Signal-Retiming Study for Route 2 in Concord and Lincoln

Transportation Investments for Economic Development – technical memorandum

Other CTPS Work Products and Activities

- Access Advisory Committee to the MBTA (AACT) Support – Materials, coordination, and administrative support for the Access Advisory Committee to the MBTA. Support includes meeting agendas, notices, minutes, correspondence, mailing lists, databases, meeting scheduling and planning, and services for the AACT Board of Directors. Accessibility checklist for MPO meetings and distribution of MPO notices to other entities to facilitate outreach. Forum on Transit Accessibility, including planning, coordination, preparation of materials, outreach, logistics, and implementation.
- Air Quality Support Activity – Coordination and inputs related to the implementation of GreenDOT and the Global Warming Solutions Act. Development of Motor Vehicle Emission Simulator (MOVES) emission factors. Preliminary work pursuing the pilot program Travel Efficiency Assessment Method (TEAMS) in conjunction with MassDOT. Air quality analyses and evaluations of requested projects for various pollutants. Individual project analyses for use in Green DOT implementation.
- All-Hazards Planning – Participation in regional meetings focused on planning for climate-change impacts. Maintaining MPO's All-Hazards Planning data set for use in TIP and LRTP development. Preparing briefings and memoranda for internal or MPO communications, as needed.
- Barriers and Opportunities Influencing Mode Shift – Analysis for quantifying the impacts of various factors on mode shift.
- Bicycle/Pedestrian Support Activities – Updates to MPO bicycle and pedestrian traffic count interactive database. Review of opportunities to improve the MPO's bicycle and pedestrian data collection program.
- Community Transportation Technical Assistance Program – Site visits to municipalities, consultations, recommendations for improvements, and reporting.
- Computer Resource Management – Maintenance and enhancements of CTPS's desktop and server computer systems, computer network, and peripheral devices such as printers, plotters, and mass-storage devices.

- Congestion Management Process – Analysis of purchased speed and travel time data for freeways and arterials. Data collection, analysis, and documentation of park-and-ride lots at MBTA stations. Data collection, analysis, and documentation of bicycle parking at MBTA stations. Support of the CMP Committee, development and application of CMP performance measures for use in the long-range transportation plan, support for the Intersections Improvement Program for the retiming of traffic signals.
- Congestion Mitigation and Air Quality Program analyses and consultation.
- Data Resources Management – Maintenance and enhancement of CTPS's database of standard reference geographic information system (GIS) layers and GIS layers required to carry out particular projects. Database updates with new versions of standard reference GIS layers as released by MassGIS, the MassDOT Office of Transportation Planning, and other agencies. GIS maps, computer map files, tables of socioeconomic and travel-related data, databases, and data analyses.
- Diesel Multiple Unit Feasibility Study – Preparation of model networks and inputs for project analysis.
- Ferry Compact Technical Assistance – Technical assistance to the newly established Massachusetts Ferry Transportation Compact, including memoranda on trends in ferry service and demand estimation techniques used in the ferry industry.
- Green Line Extension Completion of New Starts Analysis – Support to the MBTA on the Green Line Extension FTA New Starts application. Memoranda documenting the model methodology and base-year model calibration. Spreadsheet summaries to support the MBTA in filing New Starts application updates.
- Green Line Extension Delay: SIP Mitigation – Continuing evaluation of mitigation projects for the MBTA.
- Greenhouse Gas Reduction Strategy Alternatives: Cost-Effectiveness Analysis – Research on greenhouse gas (GHG) reduction strategies, inventory of past and current MPO programming within these strategies, and calculations of the cost-effectiveness of various strategies based on cost and projected GHG impact.

- Livable Community Workshop program – Updated Web-based data and maps for the MPO’s livability index. Livable Community Workshops and Walkable Community Workshops in MPO municipalities, including research, site visits, and preparation of materials and memoranda to support and document workshop discussions.
- Long-Range Transportation Plan (LRTP) Needs Assessment Updates – Data gathering and incorporation into the LRTP Needs Assessment databases, tables, and maps. Summary of identified needs to inform scenario planning and LRTP development. Provision of further details on and analysis of information in the current Needs Assessment to provide the most up-to-date information for the MPO and the public; this will include incorporating the MPO regional travel demand model set’s new base year of 2012, which was developed using new census data and updated data sets, and a 2040 no-build scenario.
- Massachusetts Turnpike Allston Interchange Traffic Study – Preparation of model inputs and networks for project analysis.
- Massachusetts Turnpike Boston Ramps Study Technical Support – Review of existing data and analysis, updates to existing conditions analysis, and analysis of future-year project alternatives, as well as model runs to support project team.
- MassDOT Accelerated Bridge Program Project Support – Data analysis and preparation of graphic summaries.
- MassDOT Diversity Posters – Design and production of a series of seven Diversity posters including the following topics: Asian Pacific Islanders; Gay, Lesbian, Bisexual, and Transgender; Disability Awareness; Hispanic Heritage; Native American; Black History; and Women’s History.
- MassDOT Road Inventory File – Assistance to MassDOT, including updates to MassDOT Road Inventory line work and attributes and other inventory enhancements.
- MassDOT Road Inventory Supplemental Grant – Update of street names and aliases for roads in 205 cities and towns, and activity to update and standardize ramp names statewide.
- MassDOT Title VI – Ongoing technical support to the MassDOT Office of Civil Rights to assist in compliance with FHWA and FTA Title VI requirements and response to reporting deficiencies. Support to MassDOT in the preparation of its 2014

Title VI program for the FTA; in the development of MassDOT's public participation plan including its public outreach policies and procedures; and in monitoring the compliance of its subrecipients, among other activities.

- Massport Technical Assistance – Spreadsheet summaries of MBTA Silver Line passenger counts to monitor implementation of free fares at Logan Airport.
- MBTA 2015 Title VI Program Monitoring – Service monitoring to support the MBTA's ongoing Title VI Program.
- MBTA Bus Service Data Collection VIII – MBTA bus trip pointchecks and passenger counts on selected routes. Support to the MBTA in service planning.
- MBTA Fiscal Year 2014 National Transit Database: Data Collection and Analysis – Sampling of passenger boardings and alightings on randomly selected directly-operated and purchased-services bus trips; survey of a sampling of rail rapid transit passengers' trips.
- MBTA Fiscal Year 2015 National Transit Database: Data Collection and Analysis – Sampling of passenger boardings and alightings on randomly selected directly-operated and purchased-services bus trips; survey of a sampling of rail rapid transit passengers' trips.
- MBTA Rider Oversight Committee Support – Technical assistance to the MBTA Rider Oversight Committee and attendance at committee and subcommittee meetings.
- MBTA Service Standards and Service Delivery Policy: Phase I – Update of existing CTPS database that houses MBTA ridership data to incorporate data from automatic passenger counters (APC). Expansion of existing origin-destination model developed by CTPS to create transit trip tables using automated-fare-collection (AFC) data. Development of a system for regularly downloading, analyzing, and summarizing data from the MBTA's automated-fare-collection (AFC) system. Development of cost-allocation models for all MBTA modes for use in determining the cost of various MBTA services to aid the service planning process.
- MBTA Service Standards and Service Delivery Policy: Phase II – Technical memorandum documenting recommended service standards and thresholds. Technical memorandum documenting

the methodology for evaluating service using the metrics developed.

- Modeling Support: I-93/I-95 Interchange Improvements North of Boston – A memorandum documenting the methodology and results of the license plate survey of that interchange. A memorandum documenting the data analyses and results to support the MassDOT Tier 1 Environmental Impact Statement (EIS).
- MPO Public Participation Program – Planning and conducting public outreach activities, including the production of materials that support the development of certification documents and other MPO programs and all other public involvement activities conducted by the MPO. Translation of key documents. Preparation, publication and posting of MPO notices and informational materials. Soliciting and responding to public comments on documents under review and gathering and responding (year-round) to other comments, questions, and requests for information from members of the public. Preparation of press releases and website news flashes.
- MPO Support (including support for the Congestion Management Program Committee, the UPWP Committee, and the Administration and Finance Committee) – Preparation of the FFY 2014 and the 2015 MPO Certification Activities Schedules; meeting planning; communications and coordination with MPO members and interested parties; preparation of meeting agendas, minutes, other meeting materials and informational materials, and various memoranda and presentations; staff support; and database maintenance. Planning for the MPO's recertification review and preparation of related materials.
- MPO Website Development – Posting meeting materials and minutes for all MPO meetings. Deployed Vehicle Miles Traveled (VMT) and Emissions data browser. Updated data for interactive TIP database and bicycle/pedestrian traffic count Web application. Adding entries to regional data catalog.
- Other Accessibility Initiatives – Ensuring that all meeting locations are free of physical barriers for people with limited mobility through the use of a meeting checklist and other means; and training staff to raise awareness of why accessibility is important and how it can be achieved.

- Other State Planning and Research (SPR) Graphics – Created a DMU (Diesel Multiple Unit) map and a new MBTA Rapid Transit Map. Designed and produced Technical Assistance to the Statewide Planning Unit: On-The-Job Support Services posters.
- Performance Measures and Performance-Based Planning Process – Development of staff recommendation for performance measures and performance-based planning process.
- Planning Topics – Notes documenting research and pertinent information for MPO consideration on topics such as health impacts, all-hazards planning, and economic analyses.
- Provision of Materials in Accessible Formats – Accessible formatting of the Long-Range Transportation Plan, the Transportation Improvement Program and amendments, the Unified Planning Work Program, and meeting agendas, minutes and materials for the MPO, the Regional Transportation Advisory Council, the Access Advisory Committee to the MBTA (AACT), and other materials on request.
- Provision of Materials in Accessible Formats, Accessibility Initiatives – Development and implementation of procedures to ensure that the needs of people with disabilities are accommodated so that they can participate in the MPO's transportation-planning and decision-making processes. Work includes documenting internal accessibility policies and procedures; maintaining and updating document-production standards and templates that allow materials to be easily translated onto paper or into electronic formats that are accessible to people with limited vision; and maintaining an accessible website.
- Regional Model Enhancement, Land Use Enhancements – Began integration of a land-use allocation model (Cube-Land) into the MPO's model suite. Updated land use information in the model set based on latest MAPC data. Coordinated with MAPC to develop accessibility measures needed by Cube Land software; over 40 accessibility metrics have been computed.
- Regional Model Enhancement, Model Updates – Updated the MPO's regional travel demand model set using data from the 2011 Massachusetts Statewide Household Travel Survey. Updates included building separate models for households with

autos and for zero-auto households; creating a new transit skimming process that allows separate skims for transit submodes; expanding the model set's school trip purposes; and reestimating the trip generation, trip distribution, and mode choice models within the model set. Fully reprogrammed travel demand model set in TransCAD. Developed coded highway and transit networks of all appropriate TIP projects. Calibrated the model to be consistent with FTA and FHWA guidelines. Improved the Boston Region MPO's regional model set's external travel pattern forecasting.

- Regional Model Enhancement – Production of memoranda describing regional travel demand model set development and updates.
- Regional Transit Service Planning Technical Support – Technical assistance was provided to regional transportation authorities to promote best practices and to Transportation Management Associations (TMAs) and municipalities to improve transit services. This included production of a memorandum for the Three Rivers Interlocal Council that documented the analysis of transit-related issues in the Route 1/1A corridor in the towns of Dedham, Norwood, Walpole, and Westwood.
- Regional Transportation Advisory Council Support (including the Freight Committee, Program Committee, Membership Committee, LRTP Committee, TIP and UPWP committees, and ad hoc committees) – Support includes meeting planning; scheduling speakers; coordinating with the MPO, conducting the Advisory Council election process; preparing meeting agendas, minutes, materials, and various memoranda; conducting outreach for new members; coordinating the process for the review and revision of the bylaws; providing staff support; database maintenance and meeting preparations for ADA compliance.
- Roadway Safety Audits – Participation in audit teams for roadway safety audits.
- Section 408 Supplement – Developed tools to generate database tables for the RMV's Crash Data System from the Road Inventory. Trained MassDOT OTP staff to perform Road Inventory street name updates from MassGIS/Navteq data. Updated street names and aliases for roads in six cities and towns.

Boston Region MPO

- Socioeconomic projections for future analysis years for the LRTP.
- South Boston Waterfront Transportation Plan: Modeling Support – Data analysis and preparation of electronic data files.
- South Coast Commuter Rail Final Environmental Impact Report (FEIR) – Memoranda documenting the ridership forecasts, mode shift, station activities, and air quality impacts for the FEIR study.
- South Station Expansion – Memoranda documenting CTPS's data-collection work and transfer activities at South Station, Dorchester Avenue sensitivity analysis, market analysis, air quality analysis, environmental justice analysis, and economic impact analysis.
- Statewide Travel Model Assistance – Made updates to various network components in the statewide model in the context of improving the Boston Region MPO's regional model's external travel pattern forecasting, which will be shared with MassDOT. These include updates to network components and inputs relating to roadways, transit, and land use, and network components for areas outside of the boundaries of Massachusetts, including Connecticut, New Hampshire, New York, Rhode Island, and Vermont.
- Transportation Equity/Environmental Justice Program – Transportation needs assessment outreach (including meetings) to organizations and agencies familiar with the needs of environmental justice areas, and memoranda to document the results of the outreach activities. A Human Services and Equity in Transportation Forum, conducted in collaboration with MAPC, was held in January 2014; attendees included members of the public, social service agencies, regional transportation authorities (RTAs), and other transportation agencies. Information was gathered on transportation gaps and needed services during the forum. Other work in this program includes: Continuous updates to transportation equity and environmental justice contact database. Planning for 2015 Forum. Support for MassDOT Division of Rail and Transit Community Transit Grant program, including solicitation notices and project evaluations. Outreach to update the Coordinated Human-Services Transportation Plan, including preparation of maps showing existing transportation infrastructure and services and

preparation of an updated Plan. Updates to information on available TMA and private carrier services.

- Transportation Improvement Program (TIP) – Updates for the Project Funding Application Form in the TIP Interactive Database, evaluation criteria and results, and staff recommendation for the FFYs 2015–18 TIP. Analysis of impacts of TIP projects for performance measure development and greenhouse gas (GHG) emissions. Development and circulation of amendments to the FFYs 2014–17 TIP.
- *TRANSREPORT*, the MPO’s bimonthly newsletter.
- Travel Data Forecasts – Travel data forecasting.
- Travel Operations Analyses – Responses to requests for transit data.
- Unified Planning Work Program (UPWP) – Development of outreach materials, evaluation criteria and process, staff recommendation for the FFY 2015 UPWP, FFY 2014 UPWP quarterly reports, and research to improve the UPWP development and monitoring process.
- Development of work scopes for MPO evaluation and approval and, where applicable, transmission to the Federal Highway Administration and Federal Transit Administration.

2.3.2 MAPC Work Products

MAPC Reports

Priority Development Areas and Priority Preservation Areas in the Metro North Communities of Everett, Malden, Medford, Melrose, Chelsea, and Revere

Framingham Tech Park Sustainable Retrofit

Sullivan Square Land Use Vision and Development Guidelines*

Transit-Oriented-Development Opportunities and Impediments at Gloucester MBTA Station

Wollaston MBTA Station Parking Study

Downtown Foxborough Parking Analysis

Reading Bicycle and Pedestrian Plan

Quincy Bicycle and Pedestrian Plan

Danvers Bicycle and Pedestrian Plan

Boston Region MPO

Beverly Bicycle and Pedestrian Plan

Marlborough Downtown Parking Analysis

Holliston Downtown Parking Analysis

Transportation Demand Management Best Practices and Model
Municipal Bylaw

Other MAPC Work Products and Activities

- Comment letters analyzing major development projects across the region, including:
 - Proposed Suffolk Downs Casino and Hotel Draft Environmental Impact Report (DEIR)
 - Proposed Wynn Everett Casino DEIR
 - Proposed Milford Casino DEIR
 - Proposed Plainridge Slot Parlor DEIR
- Harvard Master Plan for Allston expansion
- Genzyme Master Plan for Framingham expansion
- Mass Central Rail Trail Environmental Notification Form (ENF)
- South Coast Rail Final Environmental Impact Report (FEIR)
- 128 Business Council Smart Bus Technology—Oversight of Clean Air and Mobility Program funding to the 128 Business Council to develop a technology-driven, demand-responsive variable bus route system. Procurement of a vendor to provide a turn-key electronic dispatching system. This project is ongoing.
- Community Transportation Technical Assistance Program – Site visits to municipalities, consultations, and recommendations for improvements.
- Hubway Bicycle Sharing coordination among Boston, Cambridge, Somerville, and Brookline; system implementation and expansion planning.
- Interagency coordination, work scopes, participation in advisory and corridor committees, public participation, 2014 MPO elections, and attendance at relevant meetings. Preparation of monthly meeting agendas, coordination with transportation agencies, traffic study reviews, presentations to the MPO, support for subregion and corridor advisory committee meetings. Provision of information to the MAPC Executive

Committee, MAPC officers, and MAPC subregional groups on MPO transportation activities and issues. TIP criteria evaluations for impact on land use and economic development.

- Land Use Baseline for Bus Rapid Transit (BRT) – Identifying corridors for BRT feasibility.
- Livable Communities Workshops – Engagement with municipalities and recommendations for transportation and land use improvements to be more in line with livability principles.
- MetroFuture community engagement at the local level, updates to the Regional Indicators reports, and continued development of Smart Growth Profiles.
- Regional Trail Network Map and Greenway Planning – Creation of an inventory of off-road and on-road trails in the region and an interactive online map that will help identify priority “gaps” and provide information to evaluate specific segments (trailmap.mapc.org/). This project is ongoing.
- Subregional meetings and forums focused on transportation and economic development.
- UPWP project listings and monthly reports on UPWP activities. Support to CTPS staff in the development of the FFY 2015 UPWP and specific project work scopes. Support to MAPC subregions regarding participation in the UPWP development process.
- MAPC Demographic Projections for regional growth in population and employment to support development of the Long-Range Transportation Plan, including support for the development and analysis of scenario planning process.



Index of Projects by Agency

This index of projects is intended both to facilitate finding specific projects in this document and to provide a summary of the various parts of this UPWP for which each agency is responsible.

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Administration and Resource Management Projects

Chapters 4 through 7 of the UPWP present project descriptions and budget information for transportation-planning work that will be carried out between October 1, 2014, and September 30, 2015. The activities described in these chapters will be conducted by the Central Transportation Planning Staff (CTPS) of the Boston Region Metropolitan Planning Organization (MPO) and by the Metropolitan Area Planning Council (MAPC) acting on behalf of the MPO.

The projects in the UPWP are funded by a variety of federal and state sources. Each project description identifies the project's funding source or sources. With respect to funding, there are two types of projects:

- 1) Projects funded with federal 3C planning funds, to be carried out by CTPS and MAPC. The MPO programs these funds and approves the use of staff time.
- 2) Projects funded from other sources (federal, state, and local), to be carried out by CTPS for an individual transportation agency. The MPO approves the use of staff time for these projects and provides guidance to the implementing entities on their coordination with other planning efforts.

In reviewing the project listings, it is important to remember that the 3C transportation-planning process is a coordinated effort that is often carried out simultaneously by several agencies. For example, when the MBTA hires a consultant to prepare an environmental impact report for a transit project, CTPS may provide the travel-demand and air-quality modeling for the consultant and MAPC may perform land-use analysis. Thus, if the same project is mentioned in more than one place in this UPWP, it is because of this kind of interagency coordination. To help clarify the distinctions between the various work activities, cross-referencing is provided, where appropriate, to show the interrelationship between projects.

Boston Region MPO

The administration and resource management projects, presented in this chapter, are:

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60405-60492	Computer Resource Management	4-3
60120-60600	Data Resources Management	4-5
90000	Direct Support	4-7



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 60405-
60492

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

In order to carry out its functions, CTPS maintains state-of-the-practice computer resources through the following tasks:

60405 System Administration and Computer Room Management: Manage and maintain hardware and software for all CTPS computer systems to ensure that staff has maximum access to the computing resources required for their work. Increased emphasis will be given to the security and integrity of all hardware, software, and data resources. Plan, monitor, and maintain CTPS's computer room space and facilities.

60406 Boston Region MPO Website, www.bostonmpo.org: Develop and maintain a website that provides information regarding the MPO's activities, reports, and studies produced by the MPO and CTPS, a data catalogue, and several interactive-mapping applications. Continue to improve the design of the site, information provided, and accessibility of this communication tool to those who are visually impaired. The website plays a critical role in the MPO's public-participation program by providing information and eliciting public comment. All MPO and Advisory Council meetings and committee meetings and their related meeting materials are posted on the website.

60430 Software Development: Develop computer software to support CTPS's analytical, administrative, and documentation requirements. Maintain and enhance software developed by CTPS and/or others when program maintenance is no longer available from the original vendor.

60465 Staff Assistance and Training: Assist staff in using computer resources; organize and distribute vendor-supplied documentation, and, where appropriate, provide written and online user guides for particular resources.

60470 Liaison with Other Agencies: Work with other public agencies, including MAPC and the Commonwealth's Office of Geographic Information (MassGIS), to encourage sharing of computer and data resources and techniques.

COMPUTER RESOURCE MANAGEMENT [CONT.]



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 60405-60492

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

60475 Computing Resource Purchasing and Maintenance: Purchase and maintain CTPS's computing resources. These include in-house assets such as servers, desktop and laptop computers, tablet and handheld computers, mass-storage devices, networking and communications hardware, printers and plotters, system and application software, and consumable supplies. These also include out-of-house resources, such as software purchased as a service, cloud-based storage, and other cloud-based computing resources.

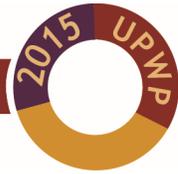
60492 Computer Resource Planning: Update the CTPS Five-Year Plan for Computer Resource Development, in conjunction with developing the next CTPS budget.

FFY 2015 Activities and Expected Work Products: Work on these tasks will continue as described above.

FHWA/FTA Grant Application Task and Element: 44.22.03

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$441,900	\$441,900			\$309,330	\$132,570					



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 60120-60600

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

CTPS provides travel data and analyses at the regional, corridor, and site-specific levels to support regional transportation planning and decision making. The categories below comprise the variety of tasks encompassed by this work:

60120 Travel Data: Data on travel patterns within the region will be processed and analyzed. This includes, but is not limited to, traffic counts, ridership counts, vehicle registration data, and crash data. CTPS’s database of these data will be maintained and kept up to date.

60130 Socio-economic Data: CTPS’s database of data from the U.S. Census Bureau’s decennial census and American Community Survey, and products derived from these data, will be maintained and kept up to date.

60140 Miscellaneous Data: Data from CTPS surveys, field data collection activities, and other miscellaneous sources will be processed and analyzed.

60201 Response to Data Requests: Data will be processed or analyzed upon request to meet the needs of local, state, and federal government agencies and private institutions and firms.

60180 GIS Reference Data: CTPS’s database of standard reference geographic information system (GIS) data from sources including MassDOT, the Commonwealth’s Office of Geographic Information (MassGIS), the U.S. Geological Survey (USGS), the Federal Emergency Management Agency (FEMA), and municipal GIS departments will be maintained and kept up to date.

60600 Geographic Information System/Database Management System

(GIS/DBMS): CTPS will continue to develop and enhance its GIS database. CTPS will coordinate data development and distribution with MassDOT and MassGIS in order to prevent duplication of effort, ensure data quality, and reduce costs. CTPS’s GIS database will be made available to staff through ArcSDE, ArcMap layer files, Web services, and Web applications.

FFY 2015 Activities and Expected Work Products: Databases of standard reference GIS data, socio-economic data, Registry of Motor Vehicles (RMV) data, and travel data; GIS processing tools; tabular and spatial data analyses; Web service and Web applications; responses to data requests.

DATA RESOURCES MANAGEMENT [CONT.]



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 60120-60600

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

FHWA/FTA Grant Application Task and Element: 44.22.01
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$357,300	\$357,300			\$250,110	\$107,190					



STAFF: Central Transportation Planning Staff

CLIENT: Various

ID #: 90000

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

CTPS provides integral direct support to all CTPS projects and functions in the following areas:

Computer Equipment: CTPS computer needs are programmed in the CTPS Five-Year Plan for Computer Resource Development, as amended.

Consultants: Consultants are periodically hired to perform specialized, time-specific tasks as project work demands.

Printing: Project-specific printing costs, such as those for surveys, maps, reports, presentation boards, and other informational materials, are included in this budget.

Travel: Periodically, the U.S. Department of Transportation and other organizations sponsor courses and seminars that enhance the ability of staff to do project work; the costs of registration, travel, and lodging associated with attending such programs are direct-support expenditures. Mileage, tolls, and parking expenses associated with project work are also charged as direct-support expenditures. Additional project work, such as HOV-lane monitoring, is funded through this budget to cover rental vehicles and fuel costs.

Other: There are various expenditures that can arise over the term of this UPWP, such as postage and data processing services. These expenditures can become necessary when producing a project report or conducting a project-specific survey. The costs associated with postage for return mail and services for preparing and processing data for specific projects are direct-support expenditures. Other nonrecurring costs, such as software for specific project work, video-camera equipment for license-plate surveys, or traffic-counting equipment, also may be funded through this line item.

FFY 2015 Activities and Expected Work Products: This includes computer and general office equipment, professional consulting services, in-state project-related travel, out-of-state travel associated with staff attendance at professional and training conferences, and other costs deemed appropriate.

DIRECT SUPPORT [CONT.]



STAFF: Central Transportation

CLIENT: Boston Region MPO

ID #: 90000

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

FHWA/FTA Grant Application Task and Element: 44.27.01
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$82,070	\$82,070			\$37,000	\$22,000	\$18,000	\$100	\$3,500	\$970	\$500



Certification Requirements

The projects in this chapter are categorized as certification requirements because they include work that the Boston Region MPO must do to maintain its certification by the Federal Highway Administration and the Federal Transit Administration. The projects also include activities that are necessary for compliance with federal and state laws, such as the federal Clean Air Act and the Americans with Disabilities Act. The projects in this category are:

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90011-90090	3C Planning and MPO Support	5-3
90024	Access Advisory Committee Support	5-10
10112	Air Quality Conformity Determinations and Support	5-12
11355	Boston Region MPO Title VI Reporting	5-16
11704	Integrating Land Use in Regional Transportation Models	5-18
10101	Long-Range Transportation Plan	5-19
MAPC1	MPO/MAPC Liaison and Support Activities	5-22
90028	Provision of Materials in Accessible Formats	5-24
11244	Regional Model Enhancement	5-25
MAPC2	Subregional Support Activities	5-28
11132	Transportation Equity/Environmental Justice Support	5-30
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Boston Region MPO

Project ID #	Project Name	Page
10104	Unified Planning Work Program (CTPS)	5-38
MAPC4	Unified Planning Work Program (MAPC)	5-40



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 90011-
90090

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

The following projects are called 3C activities because they support the federally mandated continuing, cooperative, and comprehensive transportation-planning process. This process results in the preparation of numerous products and materials and enables MPO operations and decision making.

SUPPORT TO THE MPO

90011 Support to the MPO and Its Committees (\$215,300): Support includes conducting metropolitan planning and implementing planning activities for the MPO. This work is focused on maintaining compliance with federal regulations and requirements. This involves researching, analyzing, and reporting information on 3C planning topics, including those identified in federal reauthorization legislation, and issues related to federal policies, regulations, and guidance, such as responding to possible federal recommendations or requirements for certification documents or MPO recertification. It also involves incorporating new requirements into the MPO's 3C program. MPO staff will continue to implement MAP-21, as guidance from this and future reauthorizations is communicated.

Support to the MPO and its committees includes implementing MPO policies on planning and programming, planning and coordinating delivery of information for MPO decision making, and supporting the work and operation of the MPO and its committees. It involves providing process support for MPO management and for the MPO communications and public participation programs. Staff plans and supports MPO, MPO Committee, and MPO-sponsored meetings. Some tasks include: developing agendas, preparing informational materials, compiling and posting meeting packages, conducting site selection and logistics planning, setting up for meetings, attending meetings, recording and preparing meeting minutes, and completing meeting follow-up activities such as maintaining the information flow for the MPO and the public, and processing approved work scopes.

Technical and process support is also provided to the MPO's Unified Planning Work Program Committee, Administration and Finance Committee, Congestion Management Process Committee, and other ad hoc committees that are formed as needed.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 90011-
90090

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

- The Congestion Management Process Committee meets, as needed, throughout the year to discuss the federally required Congestion Management Process. Activities include developing and reviewing its TIP Intersection Improvement Program and making recommendations to the MPO.
- The Administration and Finance Committee meets periodically to make recommendations to the MPO on the staff's operating budget, legal matters, and other administrative functions.
- The Unified Planning Work Program (UPWP) Committee meets, as needed, throughout the year to develop a UPWP for the upcoming federal fiscal year and monitor expenditures and the progress of programs in the current fiscal year.

In addition, this work includes consultation with other entities and agencies involved with or interested in 3C planning activities; liaison activities between Massachusetts MPOs (with ongoing coordination with those in the Boston Region Urbanized Area); and communication with MAPC subregional groups.

Other activities include the day-to-day oversight of 3C-program-related activities, reports on the progress of projects listed in the UPWP, and responses to requests for information and support.

90013 Recertification Review: FFY 2015 (\$69,800): MPO staff will prepare for and support the MPO in the upcoming federal recertification review. This will include preparing for the review sessions, responding to federal agency requests for information and documentation, creating printed and graphical materials for the reviewers, and developing and participating in presentations and discussions.

90014 Planning Topics (\$13,200): MPO staff provides support related to planning topics such as the 3C planning factors, the MAP-21 National Goals, and other topics highlighted in federal planning guidance, including sustainability, health, freight, economic effects, all-hazards planning, and environmental issues. MPO staff members maintain expertise in these topics so that the MPO will have the capability and flexibility to respond to unforeseen needs in these areas.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 90011-
90090

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Information on these topics is gathered, analyzed, and presented to the MPO in memoranda and white papers for consideration in the development of the Transportation Improvement Program (TIP) and the Long-Range Transportation Plan (LRTP). This project also includes work that is needed to respond to possible new and unforeseen federal guidance and requirements following a certification review.

90019 Subregional Outreach (\$3,700): MPO staff members attend meetings of the MAPC subregional groups to listen to and learn about community issues in the region and to answer questions about the MPO and its activities. This helps staff coordinate subregional issues and concerns into MPO documents.

90021 Regional Transportation Advisory Council Support (\$83,200): The Regional Transportation Advisory Council is the MPO's citizens' advisory committee. MPO staff provides planning and operations support to this body and its committees. This includes planning programs and meetings, scheduling speakers, and preparing and distributing agendas, meeting notices, informational packets, and minutes; helping to conduct meetings; attending and making presentations at meetings; organizing and conducting field trips; soliciting new members; implementing and updating the bylaws; coordinating other activities, such as Advisory Council elections; and maintaining contact lists. MPO staff provides information, updates, and briefings on MPO activities, studies, and reports; requests and coordinates comments on MPO documents; and works with the Advisory Council and its committees as they conduct their programs, planning, and reviews.

90025 TRANSREPORT (\$34,400): The newsletter of the MPO, TRANSREPORT, is an important part of the MPO's public involvement program. MPO staff is responsible for soliciting, researching, and writing articles and for managing all aspects of production: writing and editing, layout, graphics, proofreading, and, for a few recipients, copying and mailing. MPO staff stays current on newsletter software and styles with an eye to making improvements in the newsletter's visual appeal and ability to communicate. MPO staff coordinates the participation of MPO agencies and other interested organizations in the development of articles and is responsible for the newsletter's distribution in accessible format on the MPO website, electronic-



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 90011-
90090

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

transfer formats for email subscribers, and hard-copy format for a small number of special recipients. Once posted on the website, the newsletter can be translated into the region’s most-used languages (other than English) using the website’s Google Translate tool.

90026 Public Participation Process (\$89,400): MPO staff implements the MPO’s Public Participation Program and coordinates and conducts MPO public outreach activities. These activities are opportunities to involve all members of the public, including:

- Local, regional, state and federal officials and agencies
- Transportation, environmental, and social-service advocacy groups
- Seniors, minorities, people with low incomes, people with disabilities, those with limited English proficiency, youth, veterans, and/or people living in zero-vehicle households
- Freight operators
- Transit service providers
- Other interested parties, and other members of the general public

This program is designed to provide information to and collect input from those parties for use by the MPO in its planning, decision making, and in the development of the certification documents. Communication is ongoing and conducted through a variety of means.

Public meetings are important in this process, and several types of meetings are planned and conducted throughout each year. The MPO holds “Be Informed, Be Involved” sessions three-to-four times a year, and conducts a series of TIP- and UPWP-Development Sessions in December and January each year. In addition, the MPO holds workshops and special-issue forums to review draft documents and other plans as a way to gather input that will inform MPO decision making on these items. MPO staff and the Metropolitan Area Planning Council collaborate on public involvement activities whenever possible.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 90011-
90090

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

The MPO's website is another important tool that provides and gathers information for MPO planning and programming. Material on all MPO plans and programs is posted on the website. The MPO also hosts on its website a public-information email address and comment tool so that members of the public may request information and provide input. MPO staff monitors input from this address to coordinate responses and refer comments received. The MPO also solicits input through web-based surveys.

The MPO has been implementing improvements to its public participation program stemming from its 2013 public participation survey and from its research into comparable-MPO best practices. In FFY 2015, the MPO will continue to undertake the following improvements:

- Increase the number of press releases and public notices and website newsflashes regarding ongoing planning products and MPO milestones and events
- Team with other entities to conduct joint programs and outreach
- Integrate the Title-VI-related Four Factor Analysis for guidance on providing materials in languages other than English
- Expand the MPO program to involve limited English proficient persons in the region by instituting a practice of translating critical documents (the Title VI Complaint Process and Form and the MPO-sponsored public-participation meeting notices) into the MPO languages of policy—Spanish, Portuguese and Chinese
- Take additional steps to understand the language and cultural needs of potential meeting attendees when planning meetings
- Make it a standard practice to solicit comments on the public-participation program from meeting participants



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 90011-
90090

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Staff also will undertake other activities that emerge from the MPO's adoption of the updated Public Participation Program. Some major activities may be to:

- Recruit public library support to make MPO information available to members of the public
- Increase our use of graphical materials to provide information
- Offer more web-based surveys when a need for public feedback is identified
- Explore the use of Twitter or Rich Site Summary feeds to enhance communication

Maintaining contact with members of the public requires constant attention to updating the MPO's contact database and listservs. A significant part of the public-participation program involves keeping the contact information current and identifying and including new contacts, particularly those in or representing the communities of minorities, persons with disabilities, low incomes, limited English proficiency, the elderly, veterans, and youth.

The program also involves consultations as specified in federal guidance; arranging, upon request, for the provision of American Sign Language (ASL) and other language interpretation services at meetings; and providing public participation support to MPO member entities.

OTHER 3C PLANNING SUPPORT ACTIVITIES

90012 Professional Development (\$15,000): The MPO staff maintains its technical expertise in part by participation in courses, programs, and workshops offered by the Federal Highway Administration, Federal Transit Administration, Transportation Research Board, Association of Metropolitan Planning Organizations, Institute of Transportation Engineers, and other public and private organizations. Previous professional development endeavors have included topics such as traffic engineering issues and applications, regional modeling, bicycle/pedestrian issues, transit planning, public involvement, environmental justice, air quality, computer operations and maintenance, database applications, and other areas related to the provision of technical support services.

3C PLANNING AND MPO SUPPORT [CONT.]



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 90011-90090

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

90090 General Graphics (\$57,000): Graphics support will be provided to MPO staff and MPO agencies in the design and production of maps, charts, illustrations, report covers, brochures, slides, and photographs; the application of other visualization techniques; and the creation of other products that improve communication.

FFY 2015 Activities and Expected Work Products: Staff will prepare materials—including agendas, minutes, notices, translations, memoranda, reports, correspondence, summaries, website postings, and maps, charts, illustrations and other visual materials—as needed; continue to support the MPO and its committees and the Regional Transportation Advisory Council; conduct communications with the public, including publishing TRANSREPORT; conduct planning to support compliance with federal requirements and guidance, engage in professional-development activities, and remain prepared for unforeseen issues as they arise.

Note: The above activities support all other projects in this UPWP in compliance with the 3C planning process. They foster the implementation of MPO policies, federal planning factors and guidance, the MAP-21 National Goals, and all applicable orders and requirements, including Executive Order 13166 (governing outreach to persons with limited English-language proficiency). This project is supported by the Provision of Materials in Accessible Formats project.

FHWA/FTA Grant Application Task and Element: 44.21.02

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$581,000	\$581,000			\$406,700	\$174,300					

**STAFF:** Central Transportation Planning Staff**CLIENT:** Boston Region MPO**ID #:** 90024**BUDGET:** Not applicable to ongoing projects**STATUS:** Ongoing

MPO staff supports the MBTA in meeting Americans with Disabilities Act (ADA) requirements by providing ongoing support to the Access Advisory Committee to the MBTA (AACT), a user group representing people with disabilities. AACT advises the MBTA on all accessibility matters relating to the use of the MBTA's systemwide fixed-route services and THE RIDE paratransit service by people with disabilities and ensures that users' ideas concerning accessible transportation are heard.

AACT is a member of the MPO's Regional Transportation Advisory Council and MPO staff solicits input from AACT regarding the transportation-planning process.

Staff provides a variety of support services detailed below.

FFY 2015 Activities and Expected Work Products:

- Support regularly scheduled AACT Membership and AACT Executive Board and other related meetings at which attendees advise and comment on projects being planned or implemented throughout the system for commuter rail, rapid transit, surface transit, and paratransit
- Distribute monthly reports on System-Wide Accessibility, the MBTA THE RIDE service statistics, and other materials pertinent to AACT meeting agenda items
- Support the AACT Chair by attending special consultations and other meetings
- Support the activities of the AACT Executive Board of Directors
- Maintain awareness of and provide guidance on the AACT Memorandum of Understanding, AACT bylaws, and disability issues in general
- Coordinate AACT elections and other committee activities, as needed
- Prepare and distribute AACT meeting agendas and minutes, meeting announcements, correspondence, meeting calendars to post in THE RIDE vans, and updated AACT informational materials
- Produce and distribute orientation packets for new AACT members
- Track follow-up for members' requests for information



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 90024

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

- Maintain AACT databases for mailings, attendance log, and membership standing, AACT archives, supplies, and accessible- formatting equipment
- Coordinate briefings on MPO activities
- Produce meeting materials in accessible formats to AACT members and members of the public upon request
- Coordinate forums on transit accessibility
- Update AACT brochure

Note: This project supports MPO public outreach and planning activities presented in this chapter. It is supported by 3C planning support activities, the Provision of Materials in Accessible Formats project, and transportation equity activities described in this chapter.

FHWA/FTA Grant Application Task and Element: 44.21.04
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$86,200	\$86,200			\$60,340	\$25,860					



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 10112

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

This program has two objectives:

- 1) To ensure that the MPO's plans, programs, and projects comply with the Clean Air Act (CAA) of 1990 and its amendments, and allow for the flow of federal funding into the Boston MPO's transportation system.
- 2) To provide ongoing support services for the MPO regarding air quality matters, and maintain technical capability in air quality and climate change, including conformance with federal air quality requirements and the state's climate change policies.

Air Quality Conformity Determinations

Under the Clean Air Act (CAA) of 1990, states must monitor emissions from transportation vehicles and other sources to determine whether ambient emissions levels exceed health-based allowable levels of air pollutants. Areas in which the emissions exceed the allowable levels are designated as nonattainment areas; and the state must develop a State Implementation Plan (SIP) that establishes emissions budgets, which show how the area would reduce emissions sufficiently to comply with the CAA air quality standards. MPOs with nonattainment areas must complete air quality conformity determinations to demonstrate the conformity of transportation plans, programs, and projects with the CAA. Typically, a conformity determination is performed annually for the TIP and every four years for a new LRTP. However, a conformity determination may be required if an LRTP amendment is undertaken during the year. This program covers the tasks needed to demonstrate that an MPO's federally funded transportation programs meet conformity requirements.

The city of Boston, the surrounding cities and towns, and the city of Waltham are classified as maintenance areas for carbon monoxide (CO). A maintenance area is an area that had been in nonattainment but was reclassified as attainment for which a maintenance plan was approved as part of the Massachusetts SIP. Since the Boston area is classified as maintenance, the region must show that, overall, its federally funded transportation programs maintain air quality in a manner consistent with the Massachusetts SIP.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 10112

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

The Boston Region MPO had also previously been classified as a nonattainment area for ozone but was reclassified as an attainment area under the new 2008 ozone standard. Because this was a new standard, a maintenance plan was not required, and the area was not classified as a maintenance area. As an attainment area, the MPO is not required to demonstrate that the LRTP and TIP conform to national standards of two pollutants that form ozone: volatile organic compounds (VOCs) and nitrogen oxides (NO_x).

Other Air Quality Support

This program supports the MPO's expertise in air quality and climate change matters, as well as the MPO's response to changing requirements for planning, analysis, and reporting. This includes initiatives known today, and some capacity for participation in those issues that might emerge during the course of the year. This program also allows for additional support in implementing air-quality-related transportation programs and projects and includes consultation, research, and coordination between CTPS and federal, state, local, and private agencies.

FFY 2015 Activities and Expected Work Products:

Conformity Determinations: These determinations, including a detailed analysis of air quality impacts (carbon monoxide [CO] and carbon dioxide [CO₂]) of the projects in the FFYs 2015–18 Transportation Improvement Program (TIP), any changes to the Long-Range Transportation Plan (LRTP), and any work required for implementing GreenDOT will be performed and presented as noted below. Analysis of volatile organic compounds (VOCs) and nitrogen oxides (NO_x) emissions also will be provided:

- If there are changes to regionally significant projects in the LRTP and the TIP, a systemwide conformity determination will be prepared.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 10112

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

- A detailed project-level analysis will be conducted for each project to receive Congestion Mitigation/Air Quality Program funding in the TIP and those that will help meet the GreenDOT initiative.

Support to MassDOT (including the Highway Division, the Office of Transportation Planning, and the MBTA), and Massport: Activities will include analysis of transportation-control measures (TCMs), park-and-ride facilities, and proposed high-occupancy-vehicle (HOV) projects throughout the Boston Region MPO area; and evaluation of emerging and innovative highway and transit clean-air activities.

Support for Climate-Change Initiatives: Activities will include integrating concerns about climate change and opportunities for emissions reduction into the MPO's planning process relative to: the regional travel demand model set, TIP, project-specific work products, LRTP, Congestion Management Process, UPWP, and performance measures. Staff will work with MassDOT to implement its GreenDOT policy, and will confer with agencies and organizations that are concerned about climate change issues to inform actions in the MPO region.

Mobile-Source Element of the State Implementation Plan (SIP): The Massachusetts Department of Environmental Protection (DEP) is required to submit a SIP to the US Environmental Protection Agency (EPA) documenting strategies and actions designed to bring Massachusetts into compliance with air quality standards, as needed. CTPS support will include:

- Support for amendments or revisions to the Memorandum of Understanding between the MPO and the DEP.
- Support to regional, local, and private entities, and the agencies involved in monitoring, updating, and revising the mobile-source section of the SIP.
- Data collection and analysis to measure existing regional air quality conditions, support development of emission factors, validate emissions inventories and budgets, and evaluate the air quality impacts of policies on long-term growth, transportation, and land use.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 10112

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

- Coordination with DEP to develop statewide regulations and programs that pertain to transportation and air quality.
- Support to regional, local, and private agencies.
- Provision of data and recommendations to MPO agencies regarding funding and implementing transportation programs and projects that have air quality benefits.

Note: This project is supported by 3C planning support activities, the Provision of Materials in Accessible Formats project, and transportation equity and public outreach activities described in this chapter.

FHWA/FTA Grant Application Task and Element: 44.21.03
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$52,100	\$52,100			\$36,470	\$15,630					

**STAFF:** Central Transportation Planning Staff**CLIENT:** Boston Region MPO**ID #:** 11355**BUDGET:** Not applicable to ongoing projects**STATUS:** Ongoing

Title VI of the federal Civil Rights Act prohibits discrimination in programs and activities receiving federal financial assistance on the basis of race, color, and national origin, including those with limited English proficiency (LEP). Both the Federal Transit Administration (FTA) and the Federal Highway Administration (FHWA) require the MPO to develop programs that ensure compliance with Title VI by reaching out to protected populations and involving them in MPO planning and decision making, including development of the UPWP, the Transportation Improvement Program (TIP), and the Long-Range Transportation Plan (LRTP). In addition to the populations given protection under Title VI, FHWA's Title VI/Nondiscrimination Program also prohibits discrimination based on a person's sex, age, disability/handicap, and income status.

The objective of this program is to compile a report documenting Title VI-related activities undertaken by the MPO during the last three years to show that the MPO is fully compliant with the requirements of both the FTA Title VI Circular C 4702.1B and the FHWA Title VI/Nondiscrimination Program.

FFY 2015 Activities and Expected Work Products:

- The MPO will comply with both FTA and FHWA Title VI requirements through the preparation and submittal of reports on implementation of its nondiscrimination programs, as required
- Triennial Title VI Report

Note: This project is supported by 3C planning support activities, the Provision of Materials in Accessible Formats project, public outreach activities, and work promoting transportation equity and environmental justice as presented in this chapter. See Chapter 7 for additional support provided by CTPS to MassDOT and the MBTA for their Title VI compliance.

BOSTON REGION MPO TITLE VI REPORTING [CONT.]



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 11355

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

FHWA/FTA Grant Application Task and Element: 44.21.04
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$17,200	\$17,200			\$12,040	\$5,160					



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 11704

BUDGET: \$67,500

STATUS: 0%

Through this project, CTPS will continue to explore emerging technologies and data sets and their potential to support regional land use and transportation modeling. Staff also will explore ways to build stronger links between the regional travel demand model set and the Cube-Land model. Cube-Land is a land-use allocation model that allows users to project future land-use patterns. CTPS will be using Cube-Land to do land-use allocation forecasting.

As part of this activity, CTPS will coordinate with MAPC. CTPS also will consult with peers and colleagues, including those in other regions, to learn more about best practices and lessons learned based on their experiences with alternative modeling approaches. Collectively, these activities support MPO and other transportation agencies’ planning and technical analysis.

FFY 2015 Activities and Expected Work Products: Exploration of Cube-Land and other tools and datasets to support regional land use and transportation modeling. Coordination with MAPC and other entities.

Note: This project supports regional model enhancement activities presented in this chapter.

FHWA/FTA Grant Application Task and Element: 44.22.03

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$67,500	\$67,500			\$47,250	\$20,250					



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 10101

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Under the current federal funding legislation, Moving Ahead for Progress in the 21st Century Act (MAP-21), a new LRTP must be produced every four years. Although the MPO adopted three amendments to its last LRTP, Paths to a Sustainable Region, one in June 2012, July 2013, and November 2013, the last full LRTP was approved in September 2011. The next LRTP must be adopted by the MPO by September 2015 to coincide with the regional transportation plan schedules of the Commonwealth's other MPOs. The new LRTP will serve as the guiding document for the Boston Region MPO as it plans for the year 2040. It will establish the goals and objectives for the region and will be used by the MPO in making decisions for the future.

A Needs Assessment was developed as part of the Paths to a Sustainable Region LRTP and updated in FFY 2014 for the upcoming LRTP. In FFY 2015, staff will continue updating the Needs Assessment and performing further analysis as new information becomes available. This information can be used by the MPO and staff for future studies, reports, and deliberations.

The MPO will use the needs assessment outputs to develop and analyze land use and transportation scenarios prior to choosing a recommended land-use allocation and ultimately a set of transportation projects that will be recommended for funding in the next LRTP.

Other topics and issues will be researched and information documented in the LRTP—including sections on: the existing transportation system; the MPO's goals, objectives, and performance measures; safety; security; mobility; transportation equity; environment; land use; and economic development, including freight. There will be an air-quality conformity determination and an environmental-justice assessment. Staff will prepare the LRTP document on a schedule to allow the MPO to adopt it in the summer of 2015 and submit it to the federal agencies for approval in September 2015.

In addition, the MPO will continue to develop its performance measures and will incorporate performance-based planning into LRTP, Unified Planning Work Program, and Transportation Improvement Program development and decision making.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 10101

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Implementing Performance-Based Planning

The FFY 2015 LRTP and the FFYs 2016/19 TIP will be the first MPO certification documents to report on the MPO's performance-based planning program and the results of its tracking trends in the region. The LRTP development process will be the method for establishing the MPO's goals and objectives, measures and targets, which, while begun in FFY 2014, will continue throughout FFY 2015 and beyond. The TIP will be an annual monitor for MPO performance targets and additional priority indicators being tracked. Each LRTP will be an opportunity to review and document progress in meeting performance goals and, if needed, make adjustments in the LRTP program to meet those goals.

FFY 2015 Activities and Expected Work Products:

- Provide further detail and analysis in the current Needs Assessment for the most up-to-date information for the MPO and the public.
- Produce summaries of results from alternative land-use and transportation scenarios for the MPO.
- Develop a financial plan to determine revenues that will be available for a financially constrained LRTP.
- Develop all text for the draft LRTP document—including project programming and air-quality information—and circulate the document for public review prior to MPO approval.
- Continue to develop performance measures for the goal and objective themes.
- Incorporate the performance measures into the MPO's performance-based planning process; plan for tracking the MPO's performance on project selection in the LRTP and TIP.
- Conduct outreach to the public on all topics throughout the development of the LRTP; report results to the MPO for use in developing the new LRTP.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 10101

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

- Address any comments or changes from the Federal Highway Administration and Federal Transit Administration or changes to the State Implementation Plan (SIP).

Note: This project is supported by 3C planning support activities, air quality conformity and support activities, the Provision of Materials in Accessible Formats project, and transportation equity and public outreach activities described in this chapter. Also see Chapters 5 and 7 for other CTPS and MAPC activities related to the development of the LRTP.

FHWA/FTA Grant Application Task and Element: 44.23.01
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$271,200	\$271,200			\$189,840	\$81,360					



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC1

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

This project includes working with MPO members and staff to establish work priorities and meeting agendas. It also includes reporting to the MAPC Executive Committee, the MAPC Officers' Transportation Advisory Committee, MAPC Council members, MAPC subregions, and MAPC staff on MPO activities to ensure strong coordination of land use and transportation planning across the region.

Statewide and Regional Planning Committees: MAPC actively participates in statewide, regional planning committees, and task forces to represent the interests of the region, focusing particularly on the critical links between land use and transportation. These committees include the statewide Congestion Mitigation and Air Quality (CMAQ) Consultation Committee; the Massachusetts Association of Regional Planning Agencies (MARPA); Metro Boston Regional ITS Planning; and various MassDOT, MBTA, or municipally led planning initiatives. MAPC also will be actively involved in regional and statewide plans and programs regarding the state's mode-shift goal, GreenDOT implementation, and other climate-change and greenhouse-gas issues as they relate to transportation. Advisory committees may change from year to year as studies are begun or completed, but participation in a variety of advisory committees is ongoing.

Support of the Public Participation Process for Metropolitan Planning

Documents: MAPC provides education and outreach on a wide variety of transportation and land-use-related topics in the region, with emphasis on outreach through the subregions to municipal officials. MAPC also will support CTPS in outreach to environmental-justice, and senior populations, and people with disabilities

MPO Elections: Working with the MBTA Advisory Board, MAPC will coordinate and implement the annual election process for the municipal representatives on the MPO.

Transportation Improvement Program Evaluation and Criteria: MAPC will coordinate with CTPS on the land use and economic development aspects of the TIP evaluations, as well as coordinating with the implementation of the comprehensive regional growth plan, *MetroFuture*.



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC1

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Long-Range Transportation Plan (LRTP) Development: MAPC will work with CTPS on developing the next LRTP, including public outreach, scenario planning, and engaging MPO members in a clear planning process.

MPO Agenda Setting and Coordination: MAPC will work with CTPS and MassDOT on developing MPO meeting agendas and presentations.

FFY 2015 Activities and Expected Work Products: Interagency coordination, work scopes and agendas, participation in advisory and corridor committees, public participation and outreach, reports to the MAPC Officers’ Transportation Advisory Committee and to the Executive Committee, MPO elections, TIP criteria evaluations, LRTP development, and attendance at relevant meetings.

Note: This project supports Long-Range Transportation Plan and Transportation Improvement Program activities presented in this chapter.

FHWA/FTA Grant Application Task and Element: 44.21.02

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$157,000		\$157,000		\$109,000	\$48,000					

PROVISION OF MATERIALS IN ACCESSIBLE FORMATS



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 90028

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

The MPO conducts its transportation-planning activities and public outreach process in accordance with the Americans with Disabilities Act, Section 508 of the Rehabilitation Act as amended in 1998, and other policies and regulations governing accessibility standards. In support of these standards, the MPO produces written and electronic materials in accessible formats. In addition to producing these materials, the MPO will continue to maintain a library of templates that incorporate accessibility guidelines and standards.

FFY 2015 Activities and Expected Work Products:

- Production of materials in accessible formats for public meetings, website postings and as requested
- Ongoing maintenance of accessible document templates
- Development of accessibility guidelines and standards for MPO products

Note: This project supports the development of MPO products for projects throughout this UPWP.

FHWA/FTA Grant Application Task and Element: 44.21.04

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$72,100	\$72,100			\$50,470	\$21,630					

**STAFF:** Central Transportation Planning Staff**CLIENT:** Boston Region MPO**ID #:** 11244**BUDGET:** Not applicable to ongoing projects**STATUS:** Ongoing

CTPS builds and maintains a state-of-the-practice regional travel-demand model set to help assess the area's transportation needs and evaluate alternatives to improve the transportation system. The model set is principally a simulation of travel behavior that emulates the millions of travel-behavior decisions that ultimately produce more than 16 million daily person-trips across the 164 municipalities in the CTPS modeled area. Metrics produced by the model are designed to aid in both policy planning and technical analysis, as well as in meeting federal reporting requirements. The model set is also used by MPO member transportation agencies because this is an extremely robust tool that incorporates data from all the region's transportation agencies (public transportation) and transportation service providers (private transportation) that are within the Boston Region MPO area.

MPO staff plans to undertake or continue the following activities associated with the Boston Region MPO travel-demand model set:

- Continue to refine the model based on the 2011 Massachusetts Statewide Travel Survey. This update covers all aspects of the model, such as trip generation, trip-distribution (origin/destination) patterns, mode choice, and trip assignment. This includes continued refinements to recent enhancements that specifically model the activities of zero-auto households.
- Evaluate the need to update geographic coverage of the model. This evaluation would consider the continued expansion of the MBTA service; and the continued population and employment growth in border communities, which has led to an ongoing increase in the number of trips entering/exiting the region—to work, shop, or for recreation.
- Research how the state-of-the-practice for travel-demand modeling is evolving and develop strategies to enhance the regional model in keeping with these advances.

**STAFF:** Central Transportation Planning Staff**CLIENT:** Boston Region MPO**ID #:** 11244**BUDGET:** Not applicable to ongoing projects**STATUS:** Ongoing

- Continually update the model software to keep pace with changes in simulation technology, and enhancements made by the software vendor (Caliper) to the regional modeling software (TransCAD).
- Continue to update model inputs as new data becomes available.
- Continue to estimate/develop new model capability, and then calibrate and validate the model set as needed.
- Develop adequate model documentation.
- Provide technical support and training to those who are using the model.
- Improve the model's ability to 1) compute highway and arterial congestion and the impacts of congestion on mode and route selection; 2) compute transit congestion; 3) analyze environmental justice issues; and 4) predict mobile air quality emissions.

These activities support projects in this UPWP that rely on the regional model set for travel forecasting and analysis, particularly analysis in support of the Long-Range Transportation Plan (LRTP) and the Transportation Improvement Program (TIP).

Additional regional model enhancement activities may include:

- Continue to refine the link between the regional travel model and the Cube-Land (land use allocation) model, and examine the potential for using Cube-Land to do land use forecasting.
- Build a better modeling process to predict external-internal travel, and internal-external travel.
- Build a better modeling process to predict external-external, thru travel.
- Update the Boston Logan International Airport ground access model to reflect the latest survey data.
- Update the MPO's truck model to use the latest land use and survey data.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 11244

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

- Convert the truck and Logan ground access models to run in TransCAD. Examine the benefits associated with building a parking choice model for Boston and surrounding communities.
- Re-examine and make needed improvements to the MPO’s transit parking choice model.
- Examine the use of tour-based modeling capability to enhance the model’s sensitivity to human behavior and analyze how behavior plays a role in the need to travel, trip chaining, and mode selection.

FFY 2015 Activities and Expected Work Products: Incorporate new or advanced techniques into the current regional travel-forecasting model set in TransCAD and maintain a well-calibrated 2010 base-year and a future-year regional model set. Develop and update model documentation. Provide technical support to others, as needed.

Note: These activities support projects in this UPWP that rely on the regional travel demand model set for travel forecasting and analysis, particularly the air quality conformity determinations for the LRTP and the TIP presented in this chapter. Also see the Integrating Land Use into Regional Transportation Models and Chapter 7 for activities related to coordinating land use and transportation modeling.

FHWA/FTA Grant Application Task and Element: 44.22.03

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$699,300	\$699,300			\$489,510	\$209,790					

SUBREGIONAL SUPPORT ACTIVITIES



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC2

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

The Metropolitan Area Planning Council (MAPC) region consists of 101 cities and towns. The region is subdivided into eight geographic areas that are represented by subregional councils comprising municipal officials, business leaders, community-based organizations, and other local participants (see page 1-X). MAPC staff planners are assigned as coordinators to each of the subregional groups to assist members in developing an understanding of subregional and regional transportation and land-use issues.

Subregions are encouraged to recommend subregional projects and priorities for the Transportation Improvement Program (TIP), the Long-Range Transportation Plan (LRTP), and the UPWP. Subregional coordinators and MAPC transportation staff report back to the MPO through formal and informal communications. MAPC subregional groups will continue to participate in local corridor advisory committees whenever these committees are appropriate vehicles for working on projects in their areas. The subregions will continue to advance Priority Development Area and Priority Preservation Area planning and mapping activities.

MAPC staff ensures timely discussions of transportation-related issues by placing the topics on the monthly agendas, by leading and participating in the discussions, and by distributing appropriate documents and notices relating to region-wide and statewide transportation meetings.

FFY 2015 Activities and Expected Work Products: Preparation of monthly meeting agendas for transportation topics at subregional meetings, coordination with transportation agencies, reviews of transportation studies in subregions, support for subregional and corridor advisory committee meetings, and assistance in setting subregional transportation priorities. This project supports community involvement in development of transportation-planning documents.

SUBREGIONAL SUPPORT ACTIVITIES [CONT.]



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC2

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

FHWA/FTA Grant Application Task and Element: 44.21.02
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$157,000		\$157,000		\$109,000	\$48,000					

**STAFF:** Central Transportation Planning Staff**CLIENT:** Boston Region MPO**ID #:** 11132**BUDGET:** Not applicable to ongoing projects**STATUS:** Ongoing

The purpose of this program is to foster awareness and consideration of transportation-equity and the transportation needs of environmental-justice populations in MPO planning and programming, particularly in relation to the Long Range Transportation Plan (LRTP), the Unified Planning Work Program (UPWP), the Transportation Improvement Program (TIP), the Congestion Management Process (CMP), air quality conformity determinations, environmental impact studies, and project-specific work products of the MPO. The goal of the transportation equity/environmental justice program is to maintain compliance with the federal and state requirements and guidelines regarding Civil Rights. The program also seeks to stimulate the participation of low-income, minority, elderly, and limited English language proficient (LEP) populations in the MPO process.

Gathering input and generating participation from low-income, minority, elderly, and limited English language proficient (LEP) populations will be accomplished through several means, which are discussed below. The first is continued outreach to minority and low-income populations, elders, and LEP populations. Staff will continue its program of holding a regional forum and scheduling MPO meetings and Transportation Equity interviews in the MPO communities of concern. This year, staff will ask to attend regularly scheduled meetings held by umbrella social service groups working in and representing MPO communities of concern and selected meetings conducted through the statewide mobility program. Attending these meetings will give staff an opportunity to meet and begin a working relationship with community advocates and to hear about transportation needs, challenges, and successful initiatives. Staff will conduct a survey of individual community organizations to identify transportation needs and solicit ideas for transportation and program improvements. Information gathered through these and other recent initiatives targeted at low-income, minority, LEP, and elderly populations will be analyzed and presented.

Staff supports the development of the TIP and LRTP in their applications of the adopted environmental justice definitions for the LRTP and TIP, in project evaluations, and in conducting LRTP analysis of benefits and burdens. Staff will use the results of the



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 11132

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

MPO's Title VI Four Factor Analysis process in order to identify languages into which critical MPO information should be translated, including languages used for outreach meeting notifications and some executive summaries.

Staff will continue to support Federal Transit Administration programs that target low-income populations, elderly individuals, and people with disabilities in the region. Currently, this means helping MassDOT to publicize its Community Transit Grant Program solicitation and evaluate the program's grant applications. MPO staff will continue to coordinate with MassDOT's Office of Diversity and Civil Rights as part of activities to provide for consistency and coordination in implementation of Title VI-related processes, procedures, and activities.

Staff will complete the update of the Coordinated Public Transit Human Services Transportation Plan (CHSTP) begun in FFY 2013. For the CHSTP, work will include mapping important locations in communities of concern and identifying transportation options in those areas. Staff will continue to identify and map major destinations (for example, hospitals, government agencies, schools, social service agencies, and grocery stores) within selected environmental justice areas of concern in the MPO region, and other important destinations identified in the CHSTP outreach activities to MPO communities of concern. Mapping will include an overlay of existing public and active transportation options in those areas (like walking and biking). This work will be useful in documenting transportation gaps and needs. A region-wide forum will be conducted to seek information on these destinations, transportation services and facilities, and identified gaps. Staff will collaborate with MAPC in conducting the regional forum.

As budget permits, staff will conduct special studies and analyses during the year. Their results will be reported to the MPO in technical memoranda. This year staff plans to continue the following special study: Household Survey-Based Comparisons between Income and Racial Groups. The study would analyze the 2011 Massachusetts Household Travel Survey data (including variables such as trip



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 11132

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

length, number of trips, types of trips, and modes used) for low-income and minority households and compare them with data from non-minority and higher-income households to identify any differences. This information will be useful in identifying transportation needs and supporting transportation project programming decisions. Another possible study is determining the transportation options available to older MPO area residents.

FFY 2015 Activities and Expected Work Products:

- Continue MPO outreach to minority, low-income, and LEP communities by various means, including forums, meetings and small group interviews
- Monitor developments at the U.S. Department of Transportation regarding Civil Rights, Title VI, and Environmental Justice, and participate in workshop conferences, and seminars, as appropriate
- Prepare summaries of interviews and other updates to the MPO
- Publicize the Community Transit Grant Program solicitation for projects and help to evaluate applicant proposals
- Complete the update of the CHSTP
- Analyze the Massachusetts Household Travel Survey data, if budget permits
- Complete environmental justice analyses as needed
- Produce additional maps and technical memoranda

Note: This project is supported by 3C planning support activities, the Provision of Materials in Accessible Formats project, and public outreach activities described in this chapter.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 11132

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

**FHWA/FTA Grant Application Task and Element: 44.21.04
FFY 2015 Budget**

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$111,900	\$111,900			\$78,330	\$33,570					



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 10103

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

The Boston Region MPO's Transportation Improvement Program (TIP) presents a multiyear, financially constrained program of planned investments in the metropolitan area's transportation system. Although federal regulations require the TIP to be updated every four years, Massachusetts and its MPOs have committed to producing annual updates.

Development of the FFYs 2016–2019 TIP: The MPO staff coordinates the collection of TIP project-funding requests, evaluates project-funding requests, proposes programming current and new projects based on anticipated funding levels, supports the MPO in its decision making about programming and in developing a draft document, and facilitates public review of the draft document before the MPO endorses the final TIP.

Outreach and Compilation of the Universe of Projects: MPO staff communicates with the 101 cities and towns in the region through TIP-and-UPWP Workshops, MAPC subregional meetings, and correspondence with municipal TIP contacts and chief elected officials to gather existing and new TIP funding requests. MPO staff compiles the projects into a Universe of Projects list for the MPO.

Based on the list of project funding requests, MPO staff will compile and update information on each project for the TIP Interactive Database. Data inputs and updates will consist of mapping the project boundaries, inventorying pavement condition, documenting the extent of bicycle and pedestrian accommodations, computing crash rates, documenting traffic volumes, calculating greenhouse gas (GHG) impacts, and compiling other background information. The TIP Interactive Database integrates frequently updated information from the MPO, the Massachusetts Department of Transportation (MassDOT) divisions, municipal TIP Contacts, members of the general public, and MPO staff in order to inform TIP evaluations.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 10103

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Project Evaluation: The MPO uses TIP project evaluation criteria to identify projects that will help the region attain the visions and policies, and goals and objectives established by the LRTP. The MPO's evaluation criteria enhance decision making for transportation projects in the region by establishing a transparent, inclusive, and data-driven process. The evaluation results are posted on the MPO website to allow project proponents to review the ratings and provide feedback.

A review of the project evaluation criteria is conducted each year. In FFY 2015, further adjustments will be made as needed, particularly by incorporating changes in the criteria that resulted from the MPO's performance measurements.

Staff Recommendation: Staff develops a recommendation that proposes how to prioritize the MPO's Regional Target funding. MPO staff first prepares a First-Tier List of Projects using the results of the evaluation ratings and project-readiness information. Staff then develops the staff recommendation giving strong consideration to the First-Tier List of Projects, and accounts for cost (to comply with the fiscal-constraint requirement).

In addition to preparing a staff recommendation, MPO staff also prepares and presents the Statewide Infrastructure Items and Bridge Programs, and the capital programs for the MBTA, the Cape Ann Transportation Authority (CATA), and the MetroWest Regional Transit Authority (MWRTA) for the MPO's consideration.

TIP Document Preparation and Endorsement: Staff prepares a draft TIP that maintains compliance with federal regulations and requirements for a 30-day public review and comment period. During the public comment period, MPO staff compiles and summarizes comments on the draft TIP and relays the comments to the MPO for its consideration and endorsement of the final TIP document.

Amendments and Administrative Modifications: Typically, there are multiple occasions throughout the year when projects experience cost or schedule changes, which require an amendment or administrative modification to the TIP. MPO staff manages all public review processes regarding TIP amendments and administrative modifications, including posting TIP materials on the website.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 10103

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

For these actions, MPO staff collects information on the project(s) involved, the change(s) needed, and the reason(s) for the change(s). Staff prepares draft TIP tables that reflect the proposed changes and indicate their rationale. Staff briefs the MPO on the proposed changes to the TIP. The MPO reviews, discusses, and takes appropriate action regarding public review of the proposed changes. Staff also compiles and summarizes comments on the proposed amendment. MPO staff relays public comments to the MPO for its consideration prior to endorsement of the TIP amendment. Staff estimates as many as six amendments and/or administrative modifications to the TIP during FFY 2015.

Implementing Performance-Based Planning: The FFYs 2016/19 TIP and the FFY 2015 LRTP are the MPO certification documents that initially will report on the MPO's implementation of its performance-based planning program and the results of tracking trends in the region. Staff has incorporated a chapter in the FFY 2015/18 TIP that provides the regulatory background for this work. The LRTP development process will be the method for establishing the MPO's goals and objectives, measures and targets. The FFYs 2016/19 TIP will explain the performance-based planning framework set up in the program's initial year, and will set measures and targets to establish performance-measurement baselines. Targets will be monitored and additional priority indicators will be tracked beginning in the fall 2015. Results will be reported during the development of the FFYs 2017/20 TIP.

FFY 2015 Activities and Expected Work Products: The FFYs 2016–19 TIP, and amendments and administrative modifications to the FFYs 2015–18 TIP, will be prepared as described above. The interactive TIP database for tracking projects will be maintained and enhanced to support the development and tracking of performance measures. The performance-based planning process will be explained and the monitoring and tracking program will be launched.

Note: This project is supported by 3C planning support activities, air quality conformity and support activities, the Provision of Materials in Accessible Formats project, and transportation equity and public outreach activities described in this chapter. MAPC work efforts related to the TIP are also presented in this chapter under MPO/MAPC Liaison and Support Activities.

TRANSPORTATION IMPROVEMENT PROGRAM [CONT.]



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 10103

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

FHWA/FTA Grant Application Task and Element: 44.25.01
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$174,400	\$174,400			\$122,080	\$52,320					

**STAFF:** Central Transportation Planning Staff**CLIENT:** Boston Region MPO**ID #:** 10104**BUDGET:** Not applicable to ongoing projects**STATUS:** Ongoing

The Boston Region MPO produces an annual Unified Planning Work Program (UPWP). This document outlines the transportation-planning activity, for all surface-transportation modes, that is expected to be undertaken in the region during a given federal fiscal year. It also includes detailed budget information on the expenditure of federal planning funds.

The MPO's UPWP development and implementation activities are focused on 1) complying with federal regulations and requirements; and 2) supporting a framework that provides the MPO with the information it needs to conduct planning processes and activities that lead to the achievement of its visions, policies, goals, and objectives. MPO staff prepares materials for and coordinates all phases of this work, including soliciting, evaluating, and recommending study ideas; conducting background research; preparing budgets and project descriptions; coordinating document development with the MPO's UPWP Committee; responding to federal guidance; and preparing draft and final documents. MPO staff members are responsible for coordination of public participation in the UPWP process, distribution of the draft UPWP, preparation of the final UPWP, and administrative modifications and amendments. MPO staff also prepares quarterly reports on the implementation of the UPWP. Staff also may have an expanded role in advancing information about work scopes for studies to be conducted by MPO staff.

FFY 2015 Activities and Expected Work Products:

- Amendments and administrative modifications to the FFY 2015 UPWP, as necessary
- Development of, and public outreach for, the FFY 2016 UPWP, as described above
- Planning for and attendance at relevant meetings
- Quarterly implementation reports for the FFY 2015 UPWP
- Other information materials as needed



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 10104

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Note: This project is supported by 3C planning support activities, the Provision of Materials in Accessible Formats project, and transportation equity and public outreach activities described in this chapter. MAPC work efforts related to the UPWP are also presented in this chapter.

FHWA/FTA Grant Application Task and Element: 44.21.01

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$102,200	\$102,200			\$71,540	\$30,660					

UNIFIED PLANNING WORK PROGRAM [MAPC]



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC3

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

This UPWP task supports MAPC’s management and oversight of UPWP-funded planning studies, projects, and programs, which include preparing updates and budget information in monthly reports to MassDOT.

MAPC also assists with the annual development of the UPWP and supports, in coordination with MassDOT and CTPS, the development of UPWP project ideas and specific work scopes. Through community liaison and subregional support activities, staff also will help communities identify and develop studies to be included in the UPWP.

FFY 2015 Activities and Expected Work Products: MAPC staff will prepare UPWP project listings and monthly reports on UPWP activities. MAPC will provide assistance with the annual development of the UPWP and support for the development of specific work scopes. Staff will also provide assistance to communities in identifying and developing studies to be included in the UPWP through community liaison and subregional support activities.

Note: This project supports CTPS UPWP activities presented in this chapter.

FHWA/FTA Grant Application Task and Element: 44.21.01

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$10,000		\$10,000		\$7,000	\$3,000					



Planning Studies

The projects in this chapter are planning studies that will be conducted during federal fiscal year 2015. They are technical in nature and may include support for larger projects that are described in Appendix A: Other Boston Region Transportation-Planning Projects.

Project ID #	Project Name	Page
13266	Addressing Safety, Mobility, and Access on Subregional Priority Roadways: FFY 2015	6-3
11250	Bicycle Network Gaps: Feasibility Evaluations	6-5
13208	Bicycle/Pedestrian Support Activities	6-6
11123	Congestion Management Process	6-8
23326	Core Capacity Constraints	6-10
MAPC4	Corridor/Subarea Planning Studies	6-12
11249	Fairmount Line Station Access Analysis	6-16
43321	Foxborough Transit Feasibility Study	6-18
22336	Green Line Extension: Completion of New Starts Analysis	6-20
73216	I-93/I-95 Interchange Improvements North of Boston: Modeling Support	6-21
MAPC5	Land Use Development Project Reviews	6-22
13268	Low-Cost Improvements to Freeway Bottlenecks: FFY 2015	6-24
53219	Massachusetts Turnpike Allston Interchange Traffic Study	6-26

Boston Region MPO

Project ID #	Project Name	Page
22125	Massport Technical Assistance: SFY 2015	6-28
MAPC6	MetroFuture Implementation	6-29
13267	Priority Corridors for LRTP Needs Assessment: FFY 2015	6-31
23325	South Boston Waterfront Transportation Plan: Modeling Support	6-33
12311, 12320-12323	South Station Expansion Project: Support	6-34



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 13266

BUDGET: \$110,000

STATUS: 0%

During MPO outreach, MAPC subregional groups identify transportation problems and issues that concern them. Often these issues are related to bottlenecks or lack of safe access to transportation facilities in their area. These issues can affect livability, quality of life, crash incidence, and air quality along an arterial and its side streets. If problems are not addressed, mobility, access, safety, economic development, and air quality are compromised.

To address comments from the MAPC subregional groups, MPO staff will identify priority arterial bottleneck locations (or a series of locations) in the MPO region, with an emphasis on the issues identified by the relevant subregional groups, and will develop recommendations for low-cost improvements. Special attention will be paid to the need for and feasibility of bus service along these arterial segments. Staff will consider numerous strategies to improve arterials, including examining and evaluating any or all of the following factors: traffic signals (equipment, retiming, redesign, and coordination); bus stop locations; processing buses through traffic lights; location and management of pedestrian crossings and signals, including Americans with Disabilities Act (ADA) requirements; travel lane utilization by motorized and bicycle traffic; speed limit assessment; and access management. These corridor improvements could be recommended to implementing agencies and funded through various federal, state, and local sources, separately or in combination.

This project constitutes an additional phase of Addressing Safety, Mobility, and Access on Subregional Priority Roadways, which was included in the FFY 2013 and FFY 2014 UPWPs.

FFY 2015 Activities and Expected Work Products: Data collection, technical analysis, development of recommendations and documentation for selected corridors.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 13266

BUDGET: \$110,000

STATUS: 0%

FHWA/FTA Grant Application Task and Element: 44.24.01
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$110,000	\$110,000			\$66,000	\$44,000					

BICYCLE NETWORK GAPS: FEASIBILITY EVALUATIONS



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 11250

BUDGET: \$55,000

STATUS: 0%

The MPO's regional Bicycle Network Evaluation, which is currently underway, will result in a list of gaps that were designated "high priority" based on how well they scored against criteria to assess their potential to improve bicycle connectivity. This project will follow through on that study by conducting more detailed feasibility evaluations of up to three identified high-priority gaps. Deliverables will include a memorandum documenting study results and recommendations for the selected locations. The identified recommendations ultimately could become Transportation Improvement Program (TIP) projects or projects funded by state, local, or other funding sources.

FFY 2015 Activities and Expected Work Products: Selection of gaps for study, data collection, technical analysis, development of recommendations for improving network connections, and creation of presentations and memoranda.

FHWA/FTA Grant Application Task and Element: 44.22.02

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$55,000	\$55,000			\$55,000						



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 13208

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

MPO staff supports the MPO's and the region's needs for bicycle and pedestrian planning through ongoing data collection, analysis, and technical assistance. In addition to the items listed below, during the UPWP year, other bicycle and pedestrian planning studies often are identified collaboratively by MPO members, communities, bicycle and pedestrian advisory groups, and CTPS.

FFY 2015 Activities and Expected Work Products: Technical assistance, data collection, analysis, review of materials, and attendance at state, regional, and local forums and committee meetings. Tasks not related directly to separate studies or activities may include the following:

- Coordinate with state agencies, MAPC, other MPOs, the Safe Routes to School.
- Program at MassRIDES, WalkBoston, MassBike, Livable Streets, municipalities, and other groups regarding bicycle and pedestrian planning for the region.
- Conduct and collect bicycle and pedestrian volumes at selected on-road and off-road facilities.
- Examine bicycle and pedestrian crash data at the intersection, corridor, and regional level. This work supports the development of strategies to address bicycle and pedestrian safety problems.
- Provide ongoing technical support on current tools and practices to communities on bicycle and pedestrian issues with a particular focus on promoting safety.
- Conduct technical analyses to quantify the impacts of proposed bicycle facilities, including air quality improvements, reductions in vehicle miles traveled, and parking needs.
- Examine potential routes, both on- and off-road, to increase the connectivity of the existing transportation system, including trails, on-road facilities, and public transit.
- Consider development of future possible strategic bicycle and pedestrian safety plans.

BICYCLE/PEDESTRIAN SUPPORT ACTIVITIES [CONT.]



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 13208

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

FHWA/FTA Grant Application Task and Element: 44.22.02
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$40,000	\$40,000			\$28,000	\$12,000					



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 11123

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

The MPO's Congestion Management Process (CMP) is a federally mandated requirement, seeking to monitor congestion, mobility, and safety needs and recommend appropriate strategies. The CMP is developed in an integrated manner with the development of the certification documents: the Long-Range Transportation Plan (LRTP), the Transportation Improvement Program (TIP), and the Unified Planning Work Program (UPWP), to ensure coherent strategy evaluation and implementation.

The CMP in the Boston Region MPO area follows federal guidelines and recommendations from the MPO's CMP Committee to set goals, objectives, and performance measures; identify congested locations; determine the causes of congestion; develop sets of alternative strategies to mitigate congestion; evaluate the potential of the different strategies; recommend the strategies that best address the causes and impacts of congestion; coordinate with and support development of the TIP, LRTP, and UPWP; and develop needs priorities for planning studies. Depending on CMP Committee recommendations, monitoring and analysis will continue for highways, arterial roads, park-and-ride lots, freight movements, bicycle and pedestrian facilities. CMP activities will include using electronic travel-time and speed data to monitor roadways, identifying existing conditions, and recommending appropriate improvements in accordance with federal guidance.

FFY 2015 Activities and Expected Work Products: CMP activities will include monitoring, needs assessment, and strategy recommendations for multimodal facilities and services, including:

- Using electronic travel-time and speed data to monitor MPO arterials and freeways
- Mapping/tabulation electronic data for analysis and performance evaluation

CONGESTION MANAGEMENT PROCESS [CONT.]



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 11123

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

- Coordinating with the MPO's certification activities, UPWP, TIP and LRTP
- Supporting the CMP Committee of the MPO

Note: This project informs decisions related to the LRTP and the TIP and identifies areas requiring additional study through the UPWP.

FHWA/FTA Grant Application Task and Element: 44.22.02

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$92,000	\$92,000			\$64,400	\$27,600					

CORE CAPACITY CONSTRAINTS



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 23326

BUDGET: \$120,000

STATUS: 0%

The transportation system, which encompasses the roadway network and the MBTA transit system, is heavily utilized within the city of Boston and its surrounding communities. Congestion on roadways and crowding on the transit system are a result of density of land use, trip-making activity associated with the different land-use types, and the capacity of each transportation mode to handle trip making during specific times of day. Through this study, MPO staff will examine existing and future conditions of the transportation system in the region's core area, how it could accommodate future growth, and what capacity constraints exist or may arise. This analysis could support ongoing long-range planning and improvement activities.

This study will include three components:

- 1) First, this study would document current conditions in the core area that have existing or potential constraints on the roadway and transit system during peak periods. The core area is defined as the city of Boston and several neighboring communities (to include the cities of Cambridge and Somerville). The transit system would consist of only the major fixed-route MBTA modes. The roadway system would potentially consist of roads that are of a high functional class. The morning peak period is from 9:00 AM to 12:00 noon; and the evening peak period is from 3:00 PM to 6:00 PM. The constraints would be based on performance metrics to be determined; for transit, these could include load factors (carrying capacities) that exceed MBTA service levels and volume-to-capacity ratios for the higher-functional-class roadways.
- 2) Next, the study will build upon the first step and examine a future year (possibly 2040) and its developments. The future year would include future transportation projects as they exist in the current adopted Long-Range Transportation Plan. As

¹ The term "functional class" refers to a class within a hierarchy that the Federal Highway Administration (FHWA) uses to group roadways according to the character of traffic service that they are intended to provide. Roadways with a high functional class are designed for higher traffic volumes, among other characteristics.

CORE CAPACITY CONSTRAINTS [CONT.]



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 23326

BUDGET: \$120,000

STATUS: 0%

future development or redevelopment occurs in an area, it leads to changes in the types of land use, and the types of trips people make, in the region. Changes in trip-making activity have the potential to put more stress on the transportation system than it has today. The product of this task will be to quantify which developments would impact which transit submodes or elements of the roadway network in the future, and to what degree.

- 3) The third task will be to review the process of assessing transit investments in order to mitigate the impact of transportation development on the network. Local planning processes and environmental reviews often call for transportation mitigation as a contingency for issuing a permit. However, the way in which these mitigation efforts impact transit is not clear. This task will examine this process and identify its strengths and weaknesses.

FFY 2015 Activities and Expected Work Products: Examination of existing and projected future conditions on the roadway and transit system in the cities of Boston, Cambridge, and Somerville, using the regional travel demand model set and other tools as necessary. Analysis of existing practices for mitigating the impact of transportation development on the transit system. Creation of memoranda to document findings.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$120,000	\$120,000			\$50,000	\$70,000					



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC4

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

This UPWP task includes funding to support MAPC's work on several corridor and subarea studies in the region. Some of these projects will be funded jointly through the UPWP and the District Local Technical Assistance program.

Opportunities for and Impediments to Creating Transit-Oriented Development (\$70,000): MAPC will continue to plan work that can support transit-oriented development (TOD). MAPC will use demographic data to identify two or three existing transit stations (subway or commuter rail) or high-volume bus corridors that have the potential to support TOD. MAPC will analyze these sites and identify their development potential, along with impediments to development, such as existing zoning, inadequate pedestrian connections, outdated parking requirements, existing levels of travel demand management (TDM) implementation, and infrastructure elements. MAPC then will offer recommendations about how to improve the sites' potential for TOD. Where applicable, MAPC will conduct a market analysis to determine whether the market can support additional development at the chosen station areas or in the chosen corridors. MAPC will work closely with the MBTA, CTPS, MassDOT, land owners, and the municipalities in which the stations or corridors are located.

FFY 2015 Activities and Expected Work Products: Analysis to identify transit stations or bus corridors with the potential to support TOD, market analysis, mapping and visualization products, demographic and vehicle-miles-traveled data for chosen station areas or corridors, community engagement, recommendations to overcome impediments to TOD, technical support to municipalities.

Right Size Parking Tool (\$70,000): MAPC will create an online parking tool that will provide MassDOT, MBTA, municipalities, developers, non-profits, and the general public with information to better understand the parking supply and demand of multi-family housing developments in their communities. Parking has a direct impact on overall development costs, and can hinder developers who are looking to construct multi-family housing by investing in a particular area. A better understanding of parking supply and demand could help communities achieve a parking balance, and thereby assist in the state's goal of creating 10,000 new housing units each year.



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC4

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

This project also could benefit local air quality and reduce congestion by providing information that municipalities and developers can use when deciding whether to reduce the total number of parking spaces required as a component of a new development. In locations where parking requirements are reduced, the number of households with one or more vehicles could decline, resulting in higher percentages of walking, biking, and transit ridership.

To carry out this project, MAPC, in partnership with three to four municipalities, will identify a statistically significant number of multi-family housing developments to survey. Parking-related data from these surveys will be incorporated into the parking tool, which will be a fully interactive online resource accessible to the public and municipal planners. A parking calculator included in the tool will allow users to input information about a particular development project to determine the estimated parking ratio for the project, the estimated costs of constructing the parking, annual Greenhouse Gas Emissions, and estimated annual vehicle miles traveled associated with the parking ratio, and other data. Users could use this data to compare the parking and parking-related measures associated with a proposed development project to existing similar projects within their communities or around the region. When developing this parking tool, MAPC also will research how traffic circulation may be affected because of changes in parking availability across various community types. As part of this project, MAPC will educate municipal decision makers, developers, and the public about the impact of parking locally and regionally. This project also will receive support from the Massachusetts Department of Housing and Community Development.

FFY 2015 Activities and Expected Work Products: Development of online parking tool. Surveys to collect parking data for identified developments. Parking-related educational activities for municipal decision makers, developers, and the public. Research related to the relationship between parking availability and impacts on traffic circulation.



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC4

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Stream Crossing Inventory for Local Roads (\$16,300): This program involves mapping critical local roadway segments that are eligible for federal funding in a pilot watershed in the region, along with information on where environmentally sensitive resources are located. Examples of these resources include cold-water fisheries, wetlands, and fish runs. MAPC will identify which roadway segments or locations may be adversely affected by undersized culverts or other roadway elements. This information could be used to support municipal efforts to identify transportation infrastructure likely in need of improvement; such improvements could be incorporated into local roadway reconstruction projects, which could include climate-adaption projects.

FFY 2015 Activities and Expected Work Products: Data collection of both roadway infrastructure and environmental data, such as layers utilized within the Conservation Assessment and Prioritization System (CAPS) program at the University of Massachusetts, and other data sources. MAPC's Development Database and Priority Preservation and Priority Development Areas analyses, if available for the pilot watershed, could be used to identify proposed development that could either contribute to degradation and/or bear the brunt of flooding and roadway damage from undersized drainage systems. GIS-based analysis to determine the most critical intersections where roadways and hardened trails, cross rivers, streams, freshwater, and coastal wetlands. Preparation of a report summarizing results of the analysis and offering recommendations for next steps.

Land Use Baseline for Bus Rapid Transit (BRT) (\$11,540): MassDOT and the MBTA are working with the Institute for Transportation and Development Policy (ITDP) to identify major bus corridors in Greater Boston that have the potential to be upgraded to high-quality bus rapid transit (dedicated lanes, pre-pay, consolidated stops). After MassDOT, MBTA and ITDP identify the corridors, MAPC will perform a land-use baseline analysis to document the existing housing units, households, population, number of jobs, types of jobs, square footage of development, and other information that can be used in the future to determine if an implemented BRT upgrade has supported additional growth in its corridor.

CORRIDOR/SUBAREA PLANNING STUDIES [CONT.]



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC4

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

FFY 2015 Activities and Expected Work Products: Baseline data collection and mapping.

FHWA/FTA Grant Application Task and Element: 44.23.01

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$167,480		\$167,480		\$112,180	\$55,300					



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 11249

BUDGET: \$40,000

STATUS: 0%

The 9.2-mile Fairmount Line is an MBTA commuter rail service running from South Station in Boston's central business district (CBD) to Readville, passing through the following neighborhoods: Downtown Boston, South Boston, Roxbury, Dorchester, Mattapan, and Hyde Park. Until 2012, there were only four stations outside of Boston's CBD: Uphams Corner, Morton Street, Fairmount, and Readville. As part of the Fairmount Line Improvements Program, the MBTA has opened three new stations: Talbot Avenue, Newmarket, and Four Corners/Geneva. A fourth station, at Blue Hill Avenue, is currently under construction. The Boston Redevelopment Authority (BRA) and other entities are currently engaged in various planning activities for the Fairmount Line Corridor. These activities include a corridorwide study and plans to improve connections between stations and their surrounding neighborhoods, particularly Uphams Corner, Four Corners/Geneva, and Blue Hill Avenue.

In this study, MPO staff will build upon this planning work by analyzing safety problems and other possible impediments to bicycle and pedestrian access to as many as four Fairmount Line stations that are not currently being studied. Using this analysis, MPO staff will generate recommendations for improving bicycle and pedestrian connections to these stations. This study will also build on a previous MPO study of bicycle and pedestrian access for the Morton Street station. These results could provide valuable information for the City of Boston and others in their ongoing efforts to support the success of the Fairmount Line and the surrounding corridor. This work could also enhance transportation access for neighboring communities, including for low-income and minority populations and for those with limited English proficiency, in the vicinity of the Fairmount Line.

FFY 2015 Activities and Expected Work Products: Analysis of bicycle and pedestrian impediments to accessing Fairmount Line stations, development of recommendations for improving network connections, and creation of presentations and memoranda.

FAIRMOUNT LINE STATION ACCESS ANALYSIS [CONT.]



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 11249

BUDGET: \$40,000

STATUS: 0%

FHWA/FTA Grant Application Task and Element: 44.24.01
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$40,000	\$40,000			\$32,000	\$8,000					



STAFF: Central Transportation Planning Staff

CLIENT: Town of Foxborough

ID #: 43321

BUDGET: \$47,750

STATUS: 47%

The Town of Foxborough received a state fiscal year (SFY) 2014 award from MassDOT’s Community Transit Grant Program to determine the need for and the feasibility of transit service to and from jobs in Foxborough, and to explore the need for reverse commuting in Mansfield north of the commuter rail station. The Town has requested that CTPS study the need for, and examine the feasibility of, transit services that would transport people with low incomes to and from work and employment-related activities. These services could support reverse-commute options, as well as travel for elderly people, people with disabilities, veterans, and people without cars. Study activities may include:

- Analysis of transit potential based on demographic data; identification of major employers, commercial centers, and community services; analysis of journey-to-work data for residents and employees; and estimation of the number and location of transit-dependent residents
- Inventory of existing transit services in Foxborough and surrounding communities
- Assessment of the feasibility of various types of suburban transit service in Foxborough
- Recommendations for transit service and identification of next steps

FFY 2015 Activities and Expected Work Products: Feasibility analyses for suburban transit service, and recommendations. Development of memoranda and meeting attendance, as needed.

Note: See Appendix A for additional information.



STAFF: Central Transportation Planning Staff

CLIENT: Town of Foxborough

ID #: 43321

BUDGET: \$47,750

STATUS: 47%

FHWA/FTA Grant Application Task and Element: Not Applicable
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$25,000	\$25,000									\$25,000



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 22336

BUDGET: \$191,740

STATUS: 95%

This project is to provide planning and modeling assistance to the Massachusetts Bay Transportation Authority (MBTA), which is completing work on a Federal Transit Administration (FTA) New Starts submission for the Green Line Extension. This transit capital project will include an extension of Green Line service from a relocated Lechmere Station through Cambridge to Somerville and Medford, with a spur to Union Square in Somerville.

CTPS will continue to provide needed analytical support for the state and federal environmental review documents. The work also includes continuing support for the New Starts submission and, using the most current data, to update the Boston Region MPO regional model set to produce the most accurate and timely results.

FFY 2015 Activities and Expected Work Products: CTPS will continue to support the MBTA with its New Starts application and submission. Memoranda will be produced as requested and required. CTPS will answer any questions the FTA may have about the travel demand analysis results.

Note: This work is related to a recommended, regionally significant project that is identified in the Long-Range Transportation Plan (LRTP) and included in the MBTA's Program for Mass Transportation (PMT). Also see Appendix A.

FHWA/FTA Grant Application Task and Element: 44.23.02
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$12,000	\$12,000								\$12,000	

LAND USE DEVELOPMENT PROJECT REVIEWS [CONT.]



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC5

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

FHWA/FTA Grant Application Task and Element: 44.23.02
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$90,000		\$90,000		\$59,400	\$30,600					



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC5

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

This UPWP task includes funding to support MAPC’s review of potential development projects in the region. In particular, projects will be reviewed for consistency with MetroFuture, impacts on the transportation network and projects identified in the Transportation Improvement Program (TIP) and Long-Range Transportation Plan (LRTP), and for consistency with the MPO’s livability goals and the Commonwealth’s sustainable-development principles.

MAPC tracks all projects reviewed in the region under the Massachusetts Environmental Policy Act (MEPA), and provides a regional-planning analysis to the Secretary of Energy and Environmental Affairs for all developments considered to have significant impact. Special attention is given to local zoning ordinances and regulations that serve to reduce auto travel by encouraging carpooling, transit, and other travel-demand management techniques. MAPC also will recommend appropriate mitigation measures. MAPC coordinates these reviews with MassDOT, and works with MassDOT to identify updated requirements to be included in Transportation Impact Assessments that developers must conduct.

MAPC also reviews notices of “offered railroad property” from MassDOT, consults with municipalities as necessary, and provides appropriate input. Often, these notices involve rail trails, but they also may involve other types of proposed developments.

FFY 2015 Activities and Expected Work Products: Analysis and write-up of MEPA reviews, development of mitigation recommendations, coordination with municipalities and transportation agencies, maintenance and update of MAPC’s development database, and input into the project evaluations for the TIP and LRTP. In addition, MAPC will continue to review and respond to notices of offered railroad property.

LAND USE DEVELOPMENT PROJECT REVIEWS [CONT.]



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC5

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

FHWA/FTA Grant Application Task and Element: 44.23.02
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$90,000		\$90,000		\$59,400	\$30,600					



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 13268

BUDGET: \$40,000

STATUS: 0%

In this study, MPO staff will coordinate with MassDOT to identify one or more freeway bottleneck locations in the region, and examine low-cost countermeasures. This study would support efforts to minimize congestion while maximizing the effectiveness of limited financial resources.

In the past, MPO staff analyzed several freeway bottleneck locations in two consecutive studies, titled Low-Cost Improvements to Bottlenecks Phases I and II; they were very well received by MassDOT and the FHWA. Previous study locations included sections of I-95 in Weston and Burlington and sections of Route 3A in Braintree and near the Hingham-Weymouth line. A few study recommendations already have been implemented and staff has been interviewed by FHWA consultants about the successful implementations.

In FFY 2015, staff will identify study locations, with the support of the Congestion Management Process, and professional judgment regarding the potential for low-cost improvements. Staff will research and brainstorm low-cost countermeasures for these locations, which may include: using the shoulder as a peak-hour lane, re-striping travel lanes in merge areas to improve traffic flow, implementing ramp metering, improving traffic-signal timing, and improving dissemination of traffic information to drivers.

FFY 2015 Activities and Expected Work Products: Staff will identify study locations, describe their characteristics, assess qualitatively varied low-cost treatments, and recommend appropriate low-cost measures for solving bottleneck problems. Products will include data and maps describing the geographic location and duration of each bottleneck, and one or more memoranda and presentations documenting findings and recommendations.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 13268

BUDGET: \$40,000

STATUS: 0%

FHWA/FTA Grant Application Task and Element: 44.24.01
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$40,000	\$40,000			\$40,000						



STAFF: Central Transportation Planning Staff

CLIENT: MassDOT

ID #: 53219

BUDGET: \$220,000

STATUS: 60%

The Massachusetts Turnpike (MassPike) has passed through Allston for nearly half a century. Its alignment and accompanying interchange configuration in Allston were shaped by the layout of the abutting Beacon Park freight rail yard. Recently, ownership of the Beacon Park rail yard changed following the cessation of freight rail operations at the facility. This presents an opportunity to straighten the MassPike's alignment, replace the structurally deficient and outdated 50-year-old viaduct, preserve space for commuter rail operations, and reconfigure the roadway transportation network to optimize the site's development.

MassDOT wishes to investigate conceptual options for straightening the MassPike, and reconfiguring exit and entrance ramps and some local roads in the Allston-Brighton toll plaza area. CTPS has been asked to provide assistance to MassDOT in this endeavor. This project will support MassDOT and the study team by assessing existing traffic conditions and travel patterns in the study area, and by providing modeling results and analyses for use in evaluating various proposed construction plans for the MassPike Allston interchange area for the horizon year of 2035. CTPS also will provide subarea highway volume forecasts, air-quality analysis, environmental-justice analysis, and economic-impact analysis. The results will be summarized in sufficient detail to allow the study team to realistically compare alternatives.

FFY 2015 Activities and Expected Work Products: CTPS will support the project team by performing modelling work, summarizing results and documenting the analysis, as needed and requested.

Note: See Appendix A for additional information.



STAFF: Central Transportation Planning Staff

CLIENT: MassDOT

ID #: 53219

BUDGET: \$220,000

STATUS: 60%

FHWA/FTA Grant Application Task and Element: 44.23.02
 FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$84,000	\$84,000						\$84,000			



STAFF: Central Transportation Planning Staff

CLIENT: Massport

ID #: 22125

BUDGET: \$50,000

STATUS: Contract¹

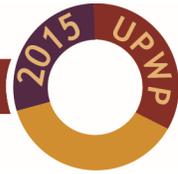
CTPS will provide technical assistance to Massport’s Department of Economic Planning and Development during FFY 2015, which will support Massport in its desire to examine and improve ground-access options. Activities may include support for Logan Airport ground-access planning, ground-access model development, and related data-collection and analysis; analysis related to Logan Airport; air-quality analysis, and support for additional, to-be-determined transportation-planning activities. This work may be redirected or modified in response to emerging issues.

FFY 2015 Activities and Expected Work Products: Work activities and products will be determined by Massport.

¹This UPWP entry reflects a contract that will include multiple individual projects or tasks.

FHWA/FTA Grant Application Task and Element: Not Applicable
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$37,500	\$37,500									\$37,500



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC6

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

MetroFuture, the comprehensive land-use plan for Metro Boston, was adopted as the future land-use scenario for the MPO's Long-Range Transportation Plan, *Paths to a Sustainable Region*, in FFY 2011. This UPWP task will continue to support the implementation of MetroFuture's local transportation and land-use elements around increasing community engagement in MAPC's local planning work, with an emphasis on reaching diverse groups of people. It also will identify transportation and land-use best practices by evaluating the different approaches and strategies used in MAPC's work, and through case studies of positive models from around the region.

Building Constituencies for Local Decisions that Enable Livable Communities and Sustainable Transportation: MAPC will continue to work with municipal officials and residents at the local level to seek changes in land use that will enable livable communities and sustainable transportation. This will include engaging the public in planning and dialogue that enhances corridor planning, identifying priority development and preservation areas, and other decision making to enhance the land-use / transportation connection. Task outputs are expected to include engagement of at least 500 people in at least ten different events or activities.

Honing MAPC's Practice of Planning for Livable Communities and Sustainable Transportation: With five years of experience in implementing MetroFuture, MAPC has a body of work to examine for best practices. This work will evaluate the approaches and strategies used in MAPC's transportation and land-use planning work, with a particular emphasis on those projects that were undertaken as part of the Metro Boston Sustainable Communities Initiative (SCI). (In FFY 2010, MAPC secured a \$4 million SCI planning award on behalf of the region from the federal partnership of the US Department of Transportation (US DOT), the US Department of Housing and Urban Development (HUD), and the US Environmental Protection Agency (EPA) to implement MetroFuture to further federal sustainability goals.) Lessons learned will be documented in a fashion that would facilitate their application to future work of a similar nature. Task outputs are expected to include at least five sets of guidelines to support the application of lessons learned to future work.



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC6

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Showcasing Positive Models of Livable Communities and Sustainable

Transportation: Best practices for land-use planning, which include local and state practices from across the country, provide both ideas and “proof of concept.” MAPC will identify such best practices and employ appropriate means to promote their use in the region. Through case studies, the Friends of MetroFuture Walks and Talks series, and other opportunities as appropriate, MAPC will feature municipal, regional, and other supporters who have advanced livable communities and sustainable transportation in greater Boston using approaches that could be instructive to others. Task outputs are expected to include at least five case studies or events featuring best practices.

Updating MetroFuture Objectives and Strategies: As it nears its sixth anniversary, MetroFuture’s goals remain as “bold but achievable” as ever. Intervening studies—including those undertaken as part of the Metro Boston Sustainable Communities Regional Planning Grant “gap-filling” activities—and greater data availability, however, make it incumbent upon MAPC to augment and update the objectives that were defined for each goal when MetroFuture was adopted in December 2008. Beyond that, implementation successes and evolving opportunities to advance change mean that the strategies to achieve the MetroFuture goals need to be updated. This work would support updates in each component of the MetroFuture plan. Task outputs are expected to include major updates to least two objectives or strategies; and minor updates to at least five objectives or strategies.

FFY 2015 Activities and Expected Work Products: Public engagement, guidelines for applying lessons learned, case studies identifying best practices, and updated MetroFuture objectives and strategies.

FHWA/FTA Grant Application Task and Element: 44.23.01

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$100,000		\$100,000		\$69,400	\$30,600					



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: TBD

BUDGET: \$110,000

STATUS: 0%

The study of a roadway corridor or corridor segment is a logical way to address regional multimodal transportation needs, including those expected from potential future developments. It allows a corridor to be evaluated comprehensively: Pedestrians, bicyclists, motorists, and public-transportation users all are considered, using a holistic approach to the analyzing the problems and recommending associated improvements. Typically, this type of study is multimodal; It addresses issues, analyzes services, and makes recommendations for areas within the roadway’s right-of-way, accounting for the needs of abutters and other users.

Through this study, staff will recommend conceptual improvements for one or more corridors, or several small sections within a corridor, that the CMP and the LRTP identified as part of the needs-assessment process. Staff will select locations for study—considering municipal, subregional, and other public feedback—and collect data, conduct technical analysis, and develop recommendations for improvements. The recommendations will be forwarded to implementing agencies, which may choose to fund improvements through various federal, state, and local sources, separately or in combination.

This project will constitute an additional phase of the Priority Corridors for Long- Range Transportation Plan (LRTP) Needs Assessment project. Previous iterations were funded in the FFYs 2012, 2013, and 2014 UPWPs.

FFY 2015 Activities and Expected Work Products: Study location selection, data collection, technical analysis, development of recommendations for improvements, and creation of presentations and memoranda.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: TBD

BUDGET: \$110,000

STATUS: 0%

FHWA/FTA Grant Application Task and Element: 44.23.01
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$110,000	\$110,000			\$66,000	\$44,000					



STAFF: Central Transportation Planning Staff

CLIENT: MassDOT

ID #: 23325

BUDGET: \$80,230

STATUS: 98%

In recent years, substantial public infrastructure investment has catalyzed transformation of the South Boston Waterfront. Many large projects have enhanced the district’s redevelopment. The massive change associated with such redevelopment presents a challenge—how to create a balanced and integrated multimodal transportation system capable of serving the district for its long-term success. A Better City (ABC), in conjunction with Massport, the Massachusetts Convention Center Authority (MCCA), the City of Boston, and MassDOT, has solicited professional services to provide integrated multimodal transportation planning to serve multiple user groups (e.g., employees, residents, conventioners and other visitors, maritime industrial businesses) and involves all major stakeholders, public and private. The plan will provide for anticipated growth in commercial, tourist, and residential development, including expanding the Boston Convention and Exhibition Center, and will accommodate the equally important needs of the maritime industrial activities of the Port of Boston.

CTPS has been asked to provide modeling support to the project team to examine the existing roadway and transit conditions and future-year forecasts, and assist the project team in developing such planning described above.

FFY 2015 Activities and Expected Work Products: Continue to coordinate with the project team, and respond to comments and questions as requested.

Note: See Appendix A for additional information.

FHWA/FTA Grant Application Task and Element: 44.23.01

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$1,500	\$1,500						\$1,500			



STAFF: Central Transportation Planning Staff

CLIENT: MassDOT Office of Transportation Planning

ID #: 12311, 12320
-12323

BUDGET: \$350,000

STATUS: 98%

Boston's South Station is the premier passenger hub in New England, serving rail passengers from the Northeast Corridor and beyond, connecting them to local and intercity destinations. South Station offers commuters and travelers not only Amtrak and MBTA commuter rail service, but also intercity bus, MBTA rapid transit, and MBTA bus-rapid transit services. At present, however, South Station operates above its design capacity for efficient train operations and convenient passenger queuing. In addition, South Station lacks sufficient ancillary vehicle storage capacity, constraining operations today and limiting future growth. Several recent transportation studies have highlighted the existing limitations at South Station and how they impede expansion of local, regional, and Northeast Corridor-wide rail service. In order to realize the proposed increase in Amtrak high-speed and intercity passenger service outlined in the Northeast Corridor Plan, South Station and its support facilities need to be expanded and improved. In addition, the Commonwealth of Massachusetts is planning a number of major commuter rail expansion projects, and greater capacity at South Station is a prerequisite for the full realization of these plans. MassDOT's South Station Expansion project will make possible all of these rail improvements for the benefit of not only Boston and New England but also the entire Northeast Corridor.

To date, CTPS has collected and analyzed data, supported the project team in developing and testing scenarios for expanding South Station, and supported the project team in developing the Draft Environmental Impact Report (DEIR).

FFY 2015 Activities and Expected Work Products: CTPS will continue to support the project team by responding to questions and comments.

Note: See Appendix A for Additional Information.

SOUTH STATION EXPANSION PROJECT: SUPPORT [CONT.]



STAFF: Central Transportation Planning Staff

CLIENT: MassDOT Office of Transportation Planning

ID #: 12311, 12320
-12323

BUDGET: \$350,000

STATUS: 95%

FHWA/FTA Grant Application Task and Element: 44.23.01
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$20,000	\$20,000						\$20,000			



Technical Support/Operations Analysis Projects

The projects in this chapter will be conducted during federal fiscal year 2015. They are technical in nature and may include support for larger projects, which are described in Appendix A: Other Boston Region Transportation-Planning Projects.

Project ID #	Project Name	Page
MAPC7	Alternative-Mode Planning and Coordination	7-3
11148	Barriers and Opportunities Influencing Mode Shift	7-7
13150, MAPC9	Community Transportation Technical Assistance Program	7-9
11145	Freight Planning Support: FFY 2015	7-10
11151	Greenhouse Gas Reduction Strategy Alternatives: Cost-Effectiveness Analysis	7-12
11152	Household-Survey-Based Travel Profiles and Trends: Selected Policy Topics	7-14
14344	Intercity Bus and Rail Maps	7-16
MAPC10	Land Use Data for Transportation Modeling	7-17
13801, MAPC8	Livable Community Workshop Program	7-19
Varies by Project	MassDOT Statewide Planning and Research Program Support	7-21
13154	MassDOT Title VI Program: FFY 2014	7-23

Project ID #	Project Name	Page
13156	MassDOT Title VI Program: FFY 2015	7-24
Varies by Project	MassDOT Transit Planning Assistance	7-25
14340	MBTA 2014 National Transit Database: Data Collection and Analysis	7-26
14341	MBTA 2015 National Transit Database: Data Collection and Analysis	7-28
14345	MBTA 2016 National Transit Database: Data Collection and Analysis	7-30
11378	MBTA 2014 Review of Fare Structure, Tariffs, and Policy	7-32
11393	MBTA 2015 Review of Fare Structure, Tariffs, and Policy	7-33
11384	MBTA Bus Service Data Collection VIII	7-34
14339	MBTA Rider Oversight Committee Support	7-35
11394	MBTA Title VI Program Monitoring: FFY 2015	7-36
11395	MBTA Title VI Program Monitoring: FFY 2016	7-37
14346	Regional Transit Service Planning Technical Support	7-38
11150	Roadway Safety Audits	7-39
TBD	Safety Analysis for Intersections Near MAGIC Schools	7-40
TBD	Title VI Service Equity Analyses: Methodology Development	7-41
90080	Travel Data Forecasts	7-43
90040	Travel Operations Analyses	7-44



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC7

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

MAPC provides alternative-mode transportation-planning support to the Boston Region MPO and municipalities in the region. This work benefits bicycle and pedestrian transportation, encourages transit in areas currently underserved by the region's existing regional transit authorities (RTAs), and identifies and supports transportation demand management (TDM) strategies.

Transportation Management Association (TMA) Support: MAPC will continue to work with various transportation management associations in the region (TMAs), including the 128 Business Council and the MetroWest/495 TMA. MAPC will coordinate with municipalities and businesses to help them participate in TMAs and to expand services. Work will include support for developing technology to increase transit ridership, corridor-level data analysis to support planning, and coordination activities such as scheduling meetings and events to encourage increased local participation in TMAs. Work will be coordinated with CTPS, MassDOT, MassRIDES, and MassCommute.

Transportation Demand Management (TDM) Best Practices and Municipal Bylaw Implementation: This work program is a follow-up to research MAPC has conducted on developing a set of best practices for TDM strategies at the local level. MAPC has developed a draft municipal bylaw for use in cities and towns in Massachusetts to encourage more local support of TDM measures. MAPC will identify five suburban communities to work with to adopt a TDM bylaw.

Bike Share Program Implementation: MAPC will continue to work with the Cities of Boston, Cambridge, and Somerville and the Town of Brookline to implement the regional Hubway Bike Share system. The system has grown to include 1,250 bicycles at 125 stations. Seed funding for the program came from the MPO's Clean Air and Mobility Program, a separate Federal Transit Administration Bus Livability award, and local support from the municipalities. The bike share vendor for this project, Alta Bike Share, was selected through a second competitive procurement by MAPC in FFY 2014. Working with officials from the four municipalities as well as institutions in the greater Boston area, MAPC will continue to implement a program that can be expanded to neighboring municipalities.



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC7

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Local Bicycle and Pedestrian Plans and Technical Assistance in Selected Communities: MAPC will continue to work with selected municipalities to develop local bicycle and pedestrian plans. MAPC will provide technical support to identify implementable steps that municipalities, MassDOT, the Massachusetts Department of Conservation and Recreation (DCR), and other entities can take to advance bicycle and pedestrian infrastructure in specific locations. MAPC also will provide small-scale technical assistance to municipalities that are seeking support. This work continues the implementation efforts of the MPO's 2007 Regional Bicycle Plan and 2010 Regional Pedestrian Plan.

Local Parking Management Plans in Selected Communities: MAPC will work with selected municipalities to develop local parking-management plans in order to address the problems municipalities face from not managing their parking supply in commercial areas and to provide better parking availability. The goals of this work are to stimulate the local economy; help municipalities plan for greater land-use density with decreased parking ratios; benefit local air quality and reduce congestion by managing parking supply and demand and creating places where people can park once and then walk to multiple destinations. In locations where parking requirements can be reduced, the number of households with one or more vehicles could decline, which could result in higher percentages of walking, biking, and transit ridership. The work product for this project would include recommendations to municipalities in the form of a report.

Electric Vehicle Fleet Modernization: MAPC will research the best available electric vehicles for municipal fleets; then conduct a procurement on behalf of the 101 cities and towns in the region to provide them with the opportunity to replace municipally owned vehicles with electric- or electric-hybrid alternatives. MAPC will plan events and outreach to educate municipal officials about the benefits of electric vehicles on air quality and climate change.



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC7

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Regional Greenway Planning and Mapping: MAPC will continue to work with MassDOT, CTPS, municipalities, and trail organizations to better develop and implement portions of a regional bicycle and pedestrian network of off-road and on-road connections (a greenway) that form a contiguous system around greater Boston. Trail development is occurring in greater frequency in most of the communities in the Boston region. The trails consist of shared-use paths along former railroad rights-of-way, hiking trails through conservation land, and historic corridors connecting points of interest. The binding theme of all of the proposed and completed corridors is creating attractive places to walk, bike, or otherwise travel through low-traffic or traffic-free green areas. These greenways are often local in nature; however, if all of these separate projects can be brought into a regional system, a world-class regional network can be created.

FFY 2015 Activities and Expected Work Products: Data collection, research and analysis to support TMA expansion; completed bicycle and pedestrian plans in selected municipalities, technical support for bicycle and pedestrian improvements; support for regional trail and greenway development; implementation of the regional bike share program; work to help five municipalities adopt a TDM bylaw; research and procurement of electric vehicles; events to educate municipalities about the benefits of electric vehicles; parking-management plans in selected communities.

FHWA/FTA Grant Application Task and Element: 44.22.02

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$170,000		\$170,000		\$102,600	\$67,400					



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 11148

BUDGET: \$68,000

STATUS: 70%

CTPS will continue work begun in FFY 2014 on a project that aims to produce information to enable diverse groups, including planners, policy makers, and laypersons, to better understand the opportunities for, and barriers to, influencing mode shift. Mode shift refers to shifting travelers away from single-occupant-vehicle (SOV) trips to other modes, such as transit, walking, and bicycling. This project is listed in the FFY 2014 UPWP as “Identifying Areas for Mode Shift Opportunities.”

MPO staff will focus its analysis on shifts from SOV trips to transit trips. Intuitive knowledge suggests, and research has corroborated, that transit usage correlates to population density, employment levels, proximity to transit, land use, quantity of transit service provided, the price of competing modes, and parking policies (among a wide range of other factors). MPO staff, however, has not yet adequately described how each of these factors affect transit mode share in the Boston metropolitan region. This project will draw upon the comprehensive, robust methodologies and datasets available to the Boston Region Metropolitan Planning Organization (MPO), primarily the recently updated regional travel demand model, to quantify the impacts of various factors on mode share.

This project will continue to be undertaken in partnership with the Metropolitan Area Planning Council (MAPC), which will focus on evaluating the potential for mode shift from SOVs to bicycling and walking.

Documenting this information could serve to foster thoughtful, well-informed discussion about the potential effectiveness of policies for achieving positive mode shifts. This endeavor would support the Commonwealth’s mode shift goals, as documented in the GreenDOT Implementation Plan.

FFY 2015 Activities and Expected Work Products: Analysis and documentation on the impacts of various factors on mode share. Coordination with MAPC.

Note: This project will be coordinated with MAPC activities described under Land Use Data to Support Transportation Modeling.

BARRIERS AND OPPORTUNITIES INFLUENCING MODE SHIFT [CONT.]



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 11148

BUDGET: \$68,000

STATUS: 70%

FHWA/FTA Grant Application Task and Element: 44.24.01
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$20,700	\$20,700			\$14,490	\$6,210					



STAFF: Central Transportation Planning Staff & Metropolitan Area
Planning Council

CLIENT: Boston Region MPO

ID #: 13150,
MAPC9

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Local community officials often identify transportation issues of concern about which they would like to have technical advice. In this project, a team of CTPS and MAPC engineers and planners will meet with community officials to learn more about specific problems and provide advice on next steps or on such things as parking, traffic calming, walking, bicycling, and bus-stop-related issues that the community might have identified. In many cases, there will be a site visit to better understand the potential problem, review existing data, and make suggestions on further data that may be needed. General types of solutions, along with appropriate follow-up and contact information, might be recommended. Descriptions of the various planning processes at MassDOT, the MBTA, the MPO, and MAPC, and guidance on how communities can get involved, might also be provided. The project may produce conceptual designs for some project locations. The project is a mechanism for providing quick-response advice to communities for resolving the issues they have identified.

This work will advance the MPO's goals of system preservation, modernization, and efficiency; mobility; and land use and economic development. It will also be consistent with the MPO's Congestion Management Process (CMP) and other staff-identified needs. It will also include a safety component in which staff will respond to community requests to conduct analyses at crash locations and will recommend possible mitigation strategies.

FFY 2015 Activities and Expected Work Products: Town requests for technical assistance will be solicited early in FFY 2015. The number of technical assistance cases will depend on the funding amount. MAPC and CTPS will coordinate and collaborate on a case-by-case basis. It is expected that two to five person-days will be spent on each community problem identified. Requests for services will be fielded and prioritized by the CTPS and MAPC staff. Teams of professionals will be dispatched to client municipalities, and memoranda on the consultations will document the work, recommendations, and outcomes.

COMMUNITY TRANSPORTATION TECHNICAL ASSISTANCE PROGRAM [CONT.]



STAFF: Central Transportation Planning Staff & Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: 13150, MAPC9

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

FHWA/FTA Grant Application Task and Element: 44.24.01
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$68,700	\$38,700	\$30,000		\$47,090	\$21,610					



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 11145

BUDGET: Not applicable to ongoing projects

STATUS: 0%

As part of its FFY 2014 UPWP, the Boston Region Metropolitan Organization established a formal freight-planning program. The freight analysis within the framework of this program will be ongoing, and conducted on a multiyear basis. In September 2013, MPO staff proposed a Freight Planning Action Plan, which presented possible studies for one or more of the MPO's freight planning goals. The goals for MPO freight planning are to:

- Fulfill the Boston Region MPO's freight-planning needs.
- Complement state and other official planning efforts.
- Study specific freight-related issues.
- Fulfill new analysis requirements of the current federal surface transportation legislation.
- Address the lack of freight data for the MPO region, including developing enhanced technical capabilities for MPO staff to use in estimating freight demand.

In FFY 2014, MPO staff conducted analyses of freight needs and activity for the Beacham Street corridor and surrounding areas in Everett and Chelsea. The MPO will look to the Freight Planning Action Plan to determine future activities for the MPO's freight-planning program. In its freight-planning activities, MPO staff will incorporate input from stakeholders representing the freight shipping community in the Boston region to learn about obstacles and transportation needs for freight movement.

FFY 2015 Activities and Expected Work Products: Potential issues to study include those related to hazmat truck routing in the Boston MPO region or another freight corridor in the region; both subjects are included in the FFY 2013 Freight Planning Action Plan.

¹ "Proposed Freight Planning Action Plan for the Boston Region MPO: Meeting the Goals and Addressing the Issues," memorandum, Boston Region MPO, September 12, 2013.

FREIGHT PLANNING SUPPORT: FFY 2015 [CONT.]



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 11145

BUDGET: Not applicable to ongoing projects

STATUS: 0%

FHWA/FTA Grant Application Task and Element: 44.21.05
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$41,000	\$41,000			\$41,000						



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 11151

BUDGET: \$55,000

STATUS: 85%

The objective of this project, which began in FFY 2014, is to research various transportation strategies that support the reduction of greenhouse gas (GHG) emissions in order to identify transportation investments that are the most cost effective in reducing GHG emissions. Some examples of GHG reduction strategies are projects that improve traffic flow, support fleet upgrades, or shift travelers from single-occupant vehicles to biking, walking, or taking transit. This work is consistent with the MPO's goals in the area of environmental sustainability and MassDOT's GreenDOT initiative. Study tasks include:

- Conducting a literature review and research into work performed by federal, state, and regional transportation agencies; universities; and advocacy and nonprofit organizations that could yield information on the GHG impacts and the costs of implementing various reduction strategies across all transportation modes.
- Inventorying past and current MPO programming within the context of identified strategies and quantifying the projected GHG impacts using various tools, such as the MPO's regional travel demand model, and the US Environmental Protection Agency's (EPA) Motor Vehicle Emissions Simulator (MOVES).
- Coordinating with Transportation Improvement Program (TIP) activities to estimate the GHG impacts of bicycle and pedestrian projects.
- Calculating the cost effectiveness of particular transportation strategies and identifying those strategies that are most effective at reducing GHG emissions.

FFY 2015 Activities and Expected Work Products: Complete calculations of the cost effectiveness of particular transportation-related GHG reduction strategies and produce memoranda and presentations.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

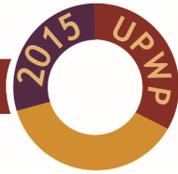
ID #: 11151

BUDGET: \$55,000

STATUS: 85%

FHWA/FTA Grant Application Task and Element: 44.24.01
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$7,700	\$7,700			\$5,390	\$2,310					



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 11152

BUDGET: \$75,000

STATUS: 0%

In 2011, the Massachusetts Travel Survey obtained travel information from about 15,000 households across the state—10,400 of them located in the Boston Region MPO model region. A similar survey, administered only in the Boston region, had been performed in 1991. These kinds of travel surveys generally are performed primarily to obtain data with which to build or rebuild travel models; and Boston Region MPO staff indeed are engaged in rebuilding the MPO’s model set with the data from the 2011 survey.

In addition to their use in model building, the data from these household travel surveys represent a rich source of information about the travel behavior of Massachusetts householders, and as such, provide an opportunity for MPO staff and others to gain valuable insights that are particularly useful in the transportation-planning process. To that end, the FFY 2013 UPWP contained a study entitled Household-Survey-Based Travel Profiles and Trends that was intended to be the first step in “mining” the information from the 2011 survey. However, it actually went further than that. Ultimately, this study yielded a general profile of household travel behavior as measured in 2011, yet it also compared the characteristics of work trips reported and described in 2011 to those reported in the earlier 1991 survey.

Now that the initial study of the 2011 travel survey is complete, MPO staff will commence a second, more selective study during FFY 2015. In this study, selected topics of policy, programming, or other interest to the MPO will serve as the basis for further exploring the 2011 survey data. Possible topics could include active transportation, environmental justice, air quality and greenhouse gas emissions, and the propensity to utilize transit services. In all cases, the object will be to examine the survey data for insights about travel behavior that then could be used by the MPO to inform its decision making when developing policies and funding projects and programs in the LRTP and TIP. In each case, the deliverable will be a report documenting the MPO staff’s findings and their implications.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 11152

BUDGET: \$75,000

STATUS: 0%

FFY 2015 Activities and Expected Work Products: Analysis of Massachusetts Travel Survey data to answer research questions on policy, programming, and other topics of interest to the MPO. Development of memoranda and presentations.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$75,000	\$75,000			\$48,000	\$27,000					

INTERCITY BUS AND RAIL MAPS



STAFF: Central Transportation Planning Staff

CLIENT: MassDOT

ID #: 14344

BUDGET: \$70,270

STATUS: 43%

MassDOT has requested CTPS to develop a series of new rail and bus network maps for New England, including: a map citing all of the New England states, individual maps for each New England state, and a schematic map. These maps will be posted on MassDOT’s website.

FFY 2015 Activities and Expected Work Products: Map development and maps for all the New England states, individual maps for each New England state, and a schematic map for the website.

FHWA/FTA Grant Application Task and Element: 44.24.01
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$40,000	\$40,000						\$40,000			



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC10

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

In FFY 2015, MAPC will support the MPO's planning and decision making by compiling data for the land-use model development, refining population and employment projections, and conducting analysis to support transportation modeling, plan development, and project evaluation.

Long-Range Transportation Plan (LRTP) Development: MAPC Data Services staff will continue to work with CTPS to refine TAZ-level household and population projections for the LRTP and support the scenario modeling process.

Land-Use Allocation Model Development: MAPC will continue to help integrate a land-use allocation model with the regional transportation demand model, working closely with CTPS and MassDOT.

Development Database: MAPC will continue to inventory development projects that are being planned across the region. MAPC has created an interactive website to work closely with our municipal partners. MAPC will open the data in the development database further by using a public data application programming interface (API) and improving the speed or ease with which members of the public can retrieve data from the database.

Barriers and Opportunities Influencing Mode Shift: MAPC will continue to analyze opportunities to encourage mode shift from single-occupant-vehicles (SOVs) to other modes. MAPC will focus on evaluating the potential for mode shift from SOVs to bicycling and walking, and will coordinate with CTPS where appropriate.

FFY 2015 Activities and Expected Work Products: Data development and analysis, documentation, and mapping products to support advanced transportation modeling; analysis to support identifying opportunities to encourage mode shift.

LAND USE DATA FOR TRANSPORTATION MODELING [CONT.]



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC10

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Note: This project supports Long-Range Transportation Plan (LRTP) development activities presented in Chapter 5. CTPS's work to identify opportunities for encouraging mode shift is described under Barriers and Opportunities Influencing Mode Shift.

FHWA/FTA Grant Application Task and Element: 44.22.03
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$80,000		\$80,000		\$53,600	\$26,400					

LIVABLE COMMUNITY WORKSHOP PROGRAM



STAFF: Central Transportation Planning Staff & Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: 13801,
MAPC8

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

This program furthers the goals of the state’s Healthy Transportation Compact and federal guidance, which encourages MPOs to think about how the built environment, mobility, affordability, health, and quality of life in a community are related to one another.

This means offering information, analysis, and technical assistance from a number of different perspectives, such as active transportation, transit, parking, air quality, environment, land use, transit-oriented development, urban design, and public health. The program seeks to support livability via several primary components: regional forums, workshops, and online resources, described below.

Regional Forums and Workshops: MAPC and CTPS will identify communities to participate in the workshops through regional forums and discussions at subregional meetings. MAPC and CTPS will work with municipalities interested in promoting livability locally. They will conduct a “livability” assessment and then, with this information, conduct a workshop with local planning staff and residents to identify short- and long-term recommendations that will improve livability in the municipality, including specific steps to facilitate active transportation modes, access to transit (if applicable), and coordinated land use and transportation solutions. Staff will update and develop toolkits on topics such as parking policies, complete streets, funding opportunities, public engagement, and transit-oriented development. In addition, because the workshops will seek to involve people with a broad range of interests and expertise (elected officials, planning and health boards, conservation commissions, public safety, public works and school representatives, engineering departments, chambers of commerce and businesses, community groups, and interested individuals), it is hoped that the workshops would stimulate community-based discussion of other livability-related topics and locally based actions.

LIVABLE COMMUNITY WORKSHOP PROGRAM [CONT.]



STAFF: Central Transportation Planning Staff & Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: 13801, MAPC8

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Online Resources: Staff will update and expand the MPO Livability Indicators Database. The database serves as an online resource for exploring data associated with livability throughout the Boston region. The database provides access to data, by municipality, related to demographics, transportation options, existing transportation patterns, and other topics related to livability. The purpose is to facilitate a better understanding of the conditions that support livability. Staff will conduct research, provide analysis, and update the indicators.

FFY 2015 Activities and Expected Work Products:

- Outreach through regional forums and local workshops to be held in selected MPO municipalities
- “Livability” analysis of selected areas
- Recommendations and ideas for municipalities to use to improve local livability
- Updated Livability Indicators database
- Development and distribution of toolkits

FHWA/FTA Grant Application Task and Element: 44.21.05

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$54,600	\$39,600	\$15,000		\$32,720	\$21,880					



STAFF: Central Transportation Planning Staff

CLIENT: MassDOT Office of Transportation Planning

ID #: Varies by Project

BUDGET: \$577,000

STATUS: Contract¹

CTPS provides support to MassDOT’s Statewide Planning and Research (SPR) Program as requested. This work includes studies, analyses, and technical assistance. Projects that are either already underway or currently expected to begin during FFY 2015 are listed below. Additional projects may be added during FFY 2015.

- 2014/2015 I-93 North and Southeast Expressway HOV Lane Monitoring
- All-Electronic Tolling (AET Modeling) and Staff Support
- Boston Ramps/Back Bay/Bowker Overpass
- Bus Marshall Plan/System Map Assistance
- Cape Cod Canal Study: Miscellaneous Assistance
- Cape Cod Flyer: Miscellaneous Technical Assistance
- Diversity Posters
- Ferry Compact
- Miscellaneous Graphics
- Road Inventory Physical Attribute/ Miscellaneous Bicycle Updates
- Route 128 Study: Miscellaneous Modeling Assistance
- Statewide Travel Model Assistance

FFY 2015 Activities and Expected Work Products: Activities and work products will depend on tasks requested by MassDOT’s Office of Transportation Planning. Projects of appropriate scope will be submitted to the MPO before proceeding.

Note: See Appendix A for additional information on several of the projects described above.

¹ This UPWP entry reflects a contract that will include multiple individual projects or tasks.



STAFF: Central Transportation Planning Staff

CLIENT: MassDOT Office of Transportation Planning

ID #: Varies by Project

BUDGET: \$577,000

STATUS: Contract¹

FHWA/FTA Grant Application Task and Element: 44.24.01
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$559,000	\$559,000					\$559,000				



STAFF: Central Transportation Planning Staff

CLIENT: MassDOT

ID #: 13154

BUDGET: \$169,900

STATUS: 60%

MassDOT, as a recipient of federal funds through both the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA), is required to comply with Title VI of the Civil Rights Act of 1964 and with protections enacted through several additional laws and executive orders that prohibit discrimination on the basis of gender, age, income and disability. CTPS will continue to provide technical support to MassDOT in the implementation of its Title VI Program for both the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA).

FFY 2015 Activities and Work Products: Staff will provide technical support to MassDOT as described above.

Note: For more information on Title VI efforts carried out by MPO staff, see Boston Region MPO Title VI Reporting, Transportation Equity/Environmental Justice Support, MassDOT Title VI Program: FFY 2015, MBTA Title VI Program Monitoring: FFY 2015 and MBTA Title VI Program Monitoring: FFY 2016.

FHWA/FTA Grant Application Task and Element: 44.21.04
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$70,000	\$70,000						\$70,000			

MASSDOT TITLE VI PROGRAM: FFY 2015



STAFF: Central Transportation Planning Staff

CLIENT: MassDOT

ID #: 13156

BUDGET: \$40,000

STATUS: 0%

MassDOT, as a recipient of federal funds through both the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA), is required to comply with Title VI of the Civil Rights Act of 1964 and with protections enacted through several additional laws and executive orders that prohibit discrimination on the basis of gender, age, income and disability. CTPS will continue to provide technical support to MassDOT in the implementation of its Title VI Program for both the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). In addition, CTPS will support MassDOT in developing its Triennial Title VI/Nondiscrimination Program for FHWA.

FFY 2015 Activities and Work Products: Staff will provide technical support to MassDOT as described above.

Note: For more information on Title VI efforts carried out by MPO staff, see Boston Region MPO Title VI Reporting, Transportation Equity/Environmental Justice Support, MassDOT Title VI Program: FFY 2014, MBTA Title VI Program Monitoring: FFY 2015 and MBTA Title VI Program Monitoring: FFY 2016.

FHWA/FTA Grant Application Task and Element: 44.21.04

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$40,000	\$40,000						\$40,000			

MASSDOT TRANSIT PLANNING ASSISTANCE



STAFF: Central Transportation Planning Staff

CLIENT: MassDOT Office of Transportation Planning

ID #: Varies by Project

BUDGET: \$268,270

STATUS: Contract¹

CTPS provides transit-planning assistance to MassDOT and the MBTA by conducting various studies under MassDOT’s Federal Transit Administration (FTA)-funded Section 5303 Program. This assistance may include:

- Short-term and ongoing analysis of projects and proposals, including travel-demand modeling, impact analyses, air quality analyses, traffic engineering analyses, and other types of quick-response analyses.
- Preparation of supporting data, graphics, maps, and other materials for MassDOT studies and presentations.
- Support of environmental document preparation for projects under development.

During FFY 2015, CTPS expects to continue work on the MBTA Service Standards and Service Delivery Policy and the Diesel Multiple Unit Feasibility Study. Other projects will be added as requested by MassDOT’s Office of Transportation Planning.

FFY 2015 Activities and Expected Work Products: Activities and work products will depend on tasks requested by MassDOT’s Office of Transportation Planning. Projects of appropriate scope will be submitted to the MPO before proceeding.

¹ This UPWP entry reflects a contract that will include multiple individual projects or tasks.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$264,770	\$264,770							\$264,770		



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 14340

BUDGET: \$121,490

STATUS: 97%

For many years, in support of the MBTA's National Transit Database (NTD) submittals to the Federal Transit Administration (FTA), CTPS has produced passenger-miles and boardings estimates for MBTA services. The objectives of this project are to develop these estimates for:

- 1) Directly operated MBTA transportation modes (including motor bus, trackless trolley, heavy and light rail, and bus rapid transit).
- 2) Purchased-service bus routes (that is, local routes for which the MBTA contracts with a private carrier).

CTPS also verifies MBTA estimates of the average passenger trip length for its commuter rail mode.

The data that forms the basis of these estimates are collected in a variety of ways:

- Ridechecks on buses (including buses used in contracted MBTA local bus service) and trackless trolleys. Conditional upon FTA approval, the MBTA will pursue the use of its automatic passenger counter (APC) data to estimate the unlinked passenger trips and passenger miles traveled on its buses.
- Electronic passenger fare-mix counts from automated fare-collection (AFC) faregates at heavy- and light-rail subway stations and fareboxes on motor bus and trackless-trolley routes.
- Fare-mix counts of passengers on surface light rail, including counts of passengers boarding through rear doors or otherwise failing to interact with the farebox.
- Passenger surveys on the heavy- and light-rail systems and on the Silver Line Waterfront to determine origin and destination information.
- Commuter rail ridership data via passenger counts.



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 14340

BUDGET: \$121,490

STATUS: 97%

The MBTA will be submitting its state fiscal year (SFY) 2014 National Transit Database estimates of passenger boardings and passenger miles for various transit modes to the FTA with the aid of CTPS during FFY 2015. The final technical memorandum will be completed during FFY 2015.

FFY 2015 Activities and Expected Work Products: Technical memorandum for the MBTA summarizing estimates of passenger miles and boardings for both purchased transportation services and directly operated bus, trackless trolley, heavy- and light-rail services for SFY 2014 NTD reporting.

FHWA/FTA Grant Application Task and Element: 44.24.01
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$3,000	\$3,000								\$3,000	



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 14341

BUDGET: \$130,000

STATUS: 5%

For many years, in support of the MBTA's National Transit Database (NTD) submittals to the Federal Transit Administration (FTA), CTPS has produced passenger-miles and boardings estimates for MBTA services. The objectives of this project are to develop these estimates for:

- 1) Directly operated MBTA transportation modes (including motor bus, trackless trolley, heavy and light rail, and bus rapid transit).
- 2) Purchased-service bus routes (that is, local routes for which the MBTA contracts with a private carrier).

CTPS also will verify MBTA estimates of the average passenger trip length for its commuter rail mode.

The data that form the basis of these estimates are collected in a variety of ways:

- Ridechecks on buses (including buses used in contracted MBTA local bus service) and trackless trolleys. Conditional upon FTA approval, the MBTA will pursue the use of its automatic passenger counter (APC) data to estimate the unlinked passenger trips and passenger miles traveled on its buses.
- Electronic passenger fare-mix counts from automated fare-collection (AFC) faregates at heavy- and light-rail subway stations and fareboxes on motor bus and trackless-trolley routes.
- Fare-mix counts of passengers on surface light rail, including counts of passengers boarding through rear doors or otherwise failing to interact with the farebox.
- Passenger surveys on the heavy- and light-rail systems and on the Silver Line Waterfront to determine origin and destination information.
- Commuter rail ridership data via passenger counts.



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 14341

BUDGET: \$130,000

STATUS: 3%

The MBTA will be submitting its state fiscal year (SFY) 2015 National Transit Database estimates of passenger boardings and passenger miles for various transit modes to the FTA with the aid of CTPS during FFY 2016. The final technical memorandum will be completed in FFY 2016.

FFY 2015 Activities and Expected Work Products:

CTPS will complete FFY 2015 data collection.

- Ridechecks will be conducted for the trackless-trolley and bus portions of the SFY 2015 National Transit Database reporting. Bus portions include bus routes operated as part of the MBTA’s contracted local bus service. Ridecheck data to be collected for bus routes will include boardings and alightings by stop, farebox readings (for contracted bus routes), trip-level travel times, departure and arrival times, and intermediate-stop arrival times. APC data may serve as an alternative to ridechecks if approved by the FTA.
- For heavy and light rail, origin-and-destination surveys will be conducted, and fare-mix data will be obtained.

Results of the data collection and the estimation of passenger-miles and boardings will be documented.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$88,000	\$88,000								\$88,000	



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 14345

BUDGET: \$135,000

STATUS: 0%

For many years, in support of the MBTA's National Transit Database (NTD) submittals to the Federal Transit Administration (FTA), CTPS has produced passenger-miles and boardings estimates for MBTA services. The objectives of this project are to develop these estimates for:

- 1) Directly operated MBTA transportation modes (including motor bus, trackless trolley, heavy and light rail, and bus rapid transit).
- 2) Purchased-service bus routes (that is, local routes for which the MBTA contracts with a private carrier).

CTPS also will verify MBTA estimates of the average passenger trip length for its commuter rail mode.

The data that form the basis of these estimates will be collected in a variety of ways:

- Ridechecks on buses (including buses used in contracted MBTA local bus service) and trackless trolleys. Conditional upon FTA approval, the MBTA will pursue the use of its automatic passenger counter (APC) data to estimate the unlinked passenger trips and passenger miles traveled on its buses.
- Electronic passenger fare-mix counts from automated fare-collection (AFC) faregates at heavy- and light-rail subway stations and fareboxes on motor bus and trackless-trolley routes.
- Fare-mix counts of passengers on surface light rail, including counts of passengers boarding through rear doors or otherwise failing to interact with the farebox.
- Passenger surveys on the heavy- and light-rail systems and on the Silver Line Waterfront to determine origin and destination information.
- Commuter rail ridership data via passenger counts.



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 14345

BUDGET: \$135,000

STATUS: 0%

The MBTA will be submitting its state fiscal year (SFY) 2016 National Transit Database estimates of passenger boardings and passenger miles for various transit modes to the FTA with the aid of CTPS during FFY 2017. The final technical memorandum will be completed in FFY 2017.

FFY 2015 Activities and Expected Work Products:

CTPS will begin FFY 2016 data collection.

- Ridechecks will be conducted for the trackless-trolley and bus portions of the SFY 2016 National Transit Database reporting. Bus portions include bus routes operated as part of the MBTA’s contracted local bus service. Ridecheck data to be collected for bus routes will include boardings and alightings by stop, farebox readings (for contracted bus routes), trip-level travel times, departure and arrival times, and intermediate-stop arrival times. APC data may serve as an alternative to ridechecks if approved by the FTA.
- For heavy and light rail, origin-and-destination surveys will be conducted, and fare-mix data will be obtained.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$31,250	\$31,250								\$31,250	



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 11378

BUDGET: \$141,040

STATUS: 57%

In federal fiscal year (FFY) 2014, CTPS analyzed the potential impacts of changes in fare structure and tariffs for a proposed MBTA state fiscal year (SFY) 2015 fare increase. CTPS provided technical assistance to the MBTA by forecasting ridership, revenue, air quality, and socioeconomic impacts of potential changes in the MBTA’s fare structure and tariffs, and conducted the required Title VI fare equity analysis. In FFY 2014, CTPS also has been assisting the MBTA and its consultants by conducting a comprehensive review of its fare structure; it is expected that CTPS will continue to support this endeavor in FFY 2015 and analyze any proposed changes in fare structure and tariffs.

FFY 2015 Activities and Expected Work Products: Conduct analyses as requested. Participate in meetings, provide technical support, and develop documentation and other communication materials, as requested.

FHWA/FTA Grant Application Task and Element: 44.24.01
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$60,000	\$60,000								\$60,000	



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 11393

BUDGET: \$100,000

STATUS: 0%

CTPS has provided technical assistance to the MBTA in forecasting ridership, revenue, air quality, and socioeconomic impacts of potential changes in the MBTA's fare structure and tariffs, most recently in 1991, 2000, 2004, 2007, and 2012, 2013, and 2014. CTPS expects to continue to perform technical assistance in this area.

FFY 2015 Activities and Expected Work Products: Conduct analyses as requested. Participate in meetings, provide technical support, and develop documentation and other communication materials, as requested.

FHWA/FTA Grant Application Task and Element: 44.24.01
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$100,000	\$100,000								\$100,000	



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 11384

BUDGET: \$450,000

STATUS: 31%

In order to assess bus service changes that are included in the biennial MBTA service plans, the MBTA requires ongoing data collection on its bus system. The data collected by CTPS as part of this project also support future MBTA service plans, through which bus routes undergo comparative evaluations for cost-effectiveness, crowding, schedule adherence, and other indicators. Work may also include support for improving the ridecheck database so that it will be compatible with new software and data sources. CTPS also may provide analytical assistance to the MBTA, as requested.

FFY 2015 Activities and Expected Work Products:

- Pointchecks on bus routes and other data collection, as requested by the MBTA for planning purposes
- Improvements to the ridecheck database
- Analytical assistance, as requested

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$110,000	\$110,000								\$110,000	

MBTA RIDER OVERSIGHT COMMITTEE SUPPORT



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 14339

BUDGET: \$24,500

STATUS: TBD

The MBTA general manager established a Rider Oversight Committee (ROC) in 2004 to provide ongoing public input on a number of different issues, including strategies for increasing ridership, development of new fare structures, and prioritization of capital improvements. CTPS supports the MBTA by providing technical assistance to the ROC on an ongoing basis. Over the past several years, the assistance provided by CTPS has included analyzing the revenue and ridership impacts of potential fare and service changes, providing the MBTA with ridership statistics, offering insights into the MBTA’s planning processes, providing data analysis, and attending committee meetings at which staff may respond directly to ROC members’ questions.

FFY 2015 Activities and Expected Work Products: CTPS will continue to provide technical assistance to the MBTA Rider Oversight Committee and attend committee and subcommittee meetings.

FHWA/FTA Grant Application Task and Element: 44.21.02

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$6,000	\$6,000								\$6,000	



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 11394

BUDGET: \$65,000

STATUS: 5%

CTPS will provide the MBTA with technical assistance by collecting data on and conducting assessments of the level of service provided in minority communities compared to nonminority areas to support the MBTA’s compliance with Title VI requirements. Staff will collect data on service indicators such as service coverage; vehicle load; vehicle headway; on-time performance; bus shelter locations and conditions; distribution and operability of automated fare collection (AFC) faregates and fare vending machines; distribution of AFC retail sales terminals; station elevator and escalator locations and operability; and vehicle age and condition. These activities will help to fulfill monitoring required as part of the MBTA’s ongoing Title VI Program. The results of the analyses will be reported internally at the MBTA and will be folded into future triennial Federal Transit Administration (FTA) reporting.

FFY 2015 Activities and Expected Work Products: CTPS will provide documentation of selected level-of-service evaluations for FFY 2015 MBTA revenue service and amenities.

Note: For more information on Title VI efforts carried out by MPO staff, see Boston Region MPO Title VI Reporting, Transportation Equity/Environmental Justice Support, MassDOT Title VI Program: FFY 2014, MassDOT Title VI Program: FFY 2015, and MBTA Title VI Program Monitoring: FFY 2016.

FHWA/FTA Grant Application Task and Element: 44.21.04
FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$49,000	\$49,000								\$49,000	

MBTA TITLE VI PROGRAM MONITORING: FFY 2016



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 11395

BUDGET: \$67,000

STATUS: 0%

CTPS will provide the MBTA with technical assistance in collecting data on and conducting assessments of the level of service (LOS) provided in minority communities compared to nonminority areas to support the MBTA’s compliance with Title VI requirements. Data will be collected on service indicators such as service coverage; vehicle load; vehicle headway; on-time performance; bus shelter locations and conditions; the distribution and operability of automated fare collection (AFC) faregates and fare vending machines; the distribution of AFC retail sales terminals; station elevator and escalator locations and operability; and vehicle age and condition. These activities will help fulfill the monitoring required as part of the MBTA’s ongoing Title VI Program. The results of the analyses will be reported internally at the MBTA and will be folded into future triennial Federal Transit Administration (FTA) reporting.

FFY 2015 Activities and Expected Work Products: CTPS will provide documentation of selected LOS evaluations for FFY 2016 MBTA revenue service and amenities.

Note: For more information on Title VI efforts carried out by MPO staff, see Boston Region MPO Title VI Reporting, Transportation Equity/Environmental Justice Support, MassDOT Title VI Program: FFY 2014, MassDOT Title VI Program: FFY 2015, and MBTA Title VI Program Monitoring: FFY 2015.

FHWA/FTA Grant Application Task and Element: 44.21.04 FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$3,500	\$3,500								\$3,500	



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 14342

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

The MPO has a policy of supporting transit services and taking steps to reduce single-occupant-vehicle travel in the region. To support this policy, MPO staff provides regional transit authorities (RTAs) in the region with technical support to promote best practices and assistance to address issues of ridership, cost-effectiveness, route planning, and other service characteristics. The MPO also extends support to transportation-management associations (TMAs), MAPC subregions, and municipalities seeking to improve the existing transit services that they operate or fund.

FFY 2015 Activities and Expected Work Products: MPO staff will provide technical assistance to the RTAs, TMAs, MAPC subregions, and municipalities as described above.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$12,100	\$12,100				\$12,100					

ROADWAY SAFETY AUDITS



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 11150

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

A Roadway Safety Audit (RSA), as defined by the Federal Highway Administration, is a formal safety performance examination of an existing or future road or intersection by an independent audit team. Additionally, MassDOT guidelines require an RSA to be conducted where Highway Safety Improvement Program (HSIP)-eligible crash clusters are present. The RSA examines the location to develop both short- and long-term recommendations to improve safety for vehicles, pedestrians, and bicyclists. These recommendations help communities identify safety improvements that can be implemented in the short term, and determine if more substantial improvements also are needed as part of a larger, long-term improvement process.

Audit teams include MassDOT headquarters and district office staff, MassDOT consultants, and CTPS staff, as requested. This program supports MPO staff participation in RSAs. In the RSA process, the audit team: 1) reviews available crash data; 2) meets and communicates with local officials, planners, engineers, and other stakeholders; 3) visits the site to observe traffic operations and identifies safety issues; and 4) develops and documents recommendations.

FFY 2015 Expected Activities and Work Products: Participation in audit teams as requested by MassDOT.

FHWA/FTA Grant Application Task and Element: 44.23.02

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$13,100	\$13,100			\$13,100						

SAFETY ANALYSIS FOR INTERSECTIONS NEAR MAGIC SCHOOLS



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 13269

BUDGET: \$22,250

STATUS: 0%

This mapping project aims to provide information to support understanding of the impacts of school transportation on regional road systems in the Minuteman Advisory Group on Interlocal Coordination (MAGIC) subregion. This activity is intended to target the MPO and other entities’ attention—and local, state, or federal funding—to those intersections which have safety problems and are within the walk zone of schools.

This mapping activity includes the following anticipated steps:

- Identifying and mapping signalized intersections within a 2-mile radius of each school in the MAGIC subregion, using existing data.
- Identifying and mapping major, federal-aid-eligible arterial routes with intersections within this 2 mile radius.
- Identifying and mapping the top three high crash locations within this 2-mile buffer of each school.

Depending on budget and data availability, MPO staff will also incorporate information regarding traffic volumes around MAGIC-area schools.

FFY 2015 Activities and Expected Work Products: Data gathering, mapping, and development of supporting documentation.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$22,250	\$22,250			\$14,400	\$7,850					

**STAFF:** Central Transportation Planning Staff**CLIENT:** Boston Region MPO**ID #:** 11396**BUDGET:** \$55,000**STATUS:** 0%

As outlined in Federal Transit Administration (FTA) Circular 4702.1B (released in 2012), providers of public transportation must develop written procedures to evaluate, prior to implementation, any and all service changes that exceed the transit provider's major service change policy to determine whether those changes would have a disparate impact based on race, color, or national origin. The FTA defines the typical measure of disparate impact as a comparison between the proportion of persons in the protected class who are adversely affected by the service change and the proportion of persons not in the protected class who are adversely affected. As defined by the FTA, the disparate-impact analysis is limited to a cursory look at whether the minority percentage of the population of the area or service affected by the change (for example, the population within a quarter mile of a bus route) is greater than the minority percentage of the population of the entire service area (for example, the entire MBTA service area).

However, this approach to the equity analysis fails to examine the true impacts of service changes. The intent of this project is to provide more meaningful information about the effects of proposed service changes on protected populations. This project will develop an innovative methodology for analyzing the potential adverse effects of a major service change by using standardized metrics. The findings of this project could help to ensure congruity across all procedures and policies related to Title VI service equity analysis. The study results also could enhance the MPO's Title VI and transportation-equity-related work, as well as Title VI work conducted on behalf of MassDOT and the MBTA.

This project will deliver its findings in the form of a technical memorandum. The report will contain:

- A Title VI methodology for assessing major service changes
- A list of metrics to be used in the equity analysis of major service changes, outlined for each type of major service change



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 11396

BUDGET: \$55,000

STATUS: 0%

- Guidelines for evaluating each equity analysis metric

FFY 2015 Activities and Expected Work Products: Development and documentation of a Title VI methodology and metrics for assessing major service changes, and guidelines for their application.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$55,000	\$55,000				\$55,000					

TRAVEL DATA FORECASTS



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 90080

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

In the vast majority of requests for additional transportation planning and traffic engineering analysis, the amount of effort is significant, and a specific scope of work is developed for those projects. Occasionally, public and private institutions and their consultants ask CTPS to perform various quick-response analyses or to provide data. Accounting for these requests, which is expected to require less than two person-days per request, is done under this general project description.

FFY 2015 Activities and Expected Work Products: Work products will depend on the tasks requested by the MPO agencies, the general public, consultants, or other parties.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$7,800	\$7,800			\$5,460	\$2,340					

TRAVEL OPERATIONS ANALYSES



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 90040

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

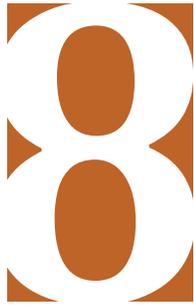
Through the performance of various planning studies for the MBTA, CTPS has accumulated a large amount of transit ridership, revenue, and service data. This project involves providing data to interested parties and performing various short-term analyses using available data, upon request.

FFY 2015 Activities and Expected Work Products: CTPS will respond to requests from public agencies, municipalities, members of the public, and other parties.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2015 Budget

FFY15 Total Budget	FUNDING RECIPIENT(S)			FUNDING SOURCE(S)						
	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
\$7,900	\$7,900				\$7,900					



Boston Region MPO Budget and Operating Summaries

This chapter contains overall budget information by recipient agency and funding source for the projects listed in Chapters 4 through 7. The information is presented according to the same UPWP categories used in those chapters.

Administration and Resource Management Projects	\$881,270
Certification Requirements	\$2,559,100
Planning Studies	\$1,186,980
Technical Support/Operations Analysis Projects	\$2,060,370
Total	\$6,687,720

The funding for the projects listed in Chapters 4 through 7 comes from the following sources, which are described in Chapter 1:

FHWA 3C Planning (PL)/MassDOT Local Match	\$3,406,240
FHWA Statewide Planning and Research (SPR)/MassDOT Local Match	\$577,000
FTA/MassDOT and MAPC Local Match	\$1,879,660
MassDOT	\$289,100
MBTA	\$463,720
Other	\$63,000
Total	\$6,687,720

On the following pages, the funding information presented in the preceding chapters is summarized in four tables, one for each UPWP category. These tables are followed by a one-page summary showing the entire budget by recipient agency and funding source, and a table showing the federally designated elements and tasks for projects

Boston Region MPO

utilizing Section 5303 funding. The purpose of these summaries is to assist federal and state contract administrators in reviewing the overall work program in detail. Charts presenting schedules and staff assignments for CTPS projects in this UPWP will be included in the finalized UPWP.

**TABLE 8-1: FFY 2015 Unified Planning Work Program Budget Summary –
Administration and Resource Management Projects**

UPWP Project	FFY 2015 UPWP Project ID	FFY 2015 UPWP Total Budget	Funding Recipient(s)			Funding Source(s)							
			CTPS	MAPC	MassDOT	PL	MPO §5303	SPR	MassDOT	MassDOT §5303	MBTA	Other	
Computer Resource Management	60405- 60492	\$441,900	\$441,900	\$0	\$0	\$309,330	\$132,570	\$0	\$0	\$0	\$0	\$0	\$0
Data Resources Management	60120- 60600	\$357,300	\$357,300	\$0	\$0	\$250,110	\$107,190	\$0	\$0	\$0	\$0	\$0	\$0
Direct Support	90000	\$82,070	\$82,070	\$0	\$0	\$37,000	\$22,000	\$18,000	\$100	\$3,500	\$970	\$500	
Administration and Resource Projects Subtotal		\$881,270	\$881,270	\$0	\$0	\$596,440	\$261,760	\$18,000	\$100	\$3,500	\$970	\$500	

CTPS = Central Transportation Planning Staff. FFY = Federal Fiscal Year. MBTA = Massachusetts Bay Transportation Authority. PL = Metropolitan Planning. SPR = State Planning and Research.

**TABLE 8-2: FFY 2015 Unified Planning Work Program Budget Summary –
Certification Requirements**

UPWP Project	FFY 2015 UPWP Project ID	FFY 2015 UPWP Total Budget	Funding Recipient(s)			Funding Source(s)						
			CTPS	MAPC	MassDOT	PL	MPO §5303 Funding	SPR	MassDOT	MassDOT §5303	MBTA	Other
3C Planning and MPO Support	90011-90090	\$581,000	\$581,000	\$0	\$0	\$406,700	\$174,300	\$0	\$0	\$0	\$0	\$0
Access Advisory Committee Support	90024	\$86,200	\$86,200	\$0	\$0	\$60,340	\$25,860	\$0	\$0	\$0	\$0	\$0
Air Quality Conformity Determinations and Support	10112	\$52,100	\$52,100	\$0	\$0	\$36,470	\$15,630	\$0	\$0	\$0	\$0	\$0
Boston Region MPO Title VI Reporting	11355	\$17,200	\$17,200	\$0	\$0	\$12,040	\$5,160	\$0	\$0	\$0	\$0	\$0
Integrated Land Use in Regional Transportation Models	11704	\$67,500	\$67,500	\$0	\$0	\$47,250	\$20,250	\$0	\$0	\$0	\$0	\$0
Long-Range Transportation Plan	10101	\$271,200	\$271,200	\$0	\$0	\$189,840	\$81,360	\$0	\$0	\$0	\$0	\$0
MPO/MAPC Liaison and Support Activities	MAPC1	\$157,000	\$0	\$157,000	\$0	\$109,000	\$48,000	\$0	\$0	\$0	\$0	\$0
Provision of Materials in Accessible Formats	90028	\$72,100	\$72,100	\$0	\$0	\$50,470	\$21,630	\$0	\$0	\$0	\$0	\$0
Regional Model Enhancement	11124	\$699,300	\$699,300	\$0	\$0	\$489,510	\$209,790	\$0	\$0	\$0	\$0	\$0
Subregional Support Activities	MAPC2	\$157,000	\$0	\$157,000	\$0	\$109,000	\$48,000	\$0	\$0	\$0	\$0	\$0
Transportation Equity/Environmental Justice Support	11147	\$111,900	\$111,900	\$0	\$0	\$78,330	\$33,570	\$0	\$0	\$0	\$0	\$0
Transportation Improvement Program	10103	\$174,400	\$174,400	\$0	\$0	\$122,080	\$52,320	\$0	\$0	\$0	\$0	\$0
Unified Planning Work Program (CTPS)	10104	\$102,200	\$102,200	\$0	\$0	\$71,540	\$30,660	\$0	\$0	\$0	\$0	\$0
Unified Planning Work Program (MAPC)	MAPC3	\$10,000	\$0	\$10,000	\$0	\$7,000	\$3,000	\$0	\$0	\$0	\$0	\$0
Certification Requirements Subtotal		\$2,559,100	\$2,235,100	\$324,000	\$0	\$1,789,570	\$769,530	\$0	\$0	\$0	\$0	\$0

CTPS = Central Transportation Planning Staff. FFY = Federal Fiscal Year. MAPC = Metropolitan Area Planning Council. MBTA = Massachusetts Bay Transportation Authority. PL = Metropolitan Planning. SPR = State Planning and Research.

TABLE 8-3: FFY 2015 Unified Planning Work Program Budget Summary – Planning Studies

UPWP Project	FFY 2015 UPWP Project ID	FFY 2015 UPWP Total Budget	Funding Recipient(s)			Funding Source(s)						
			CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
Addressing Safety, Mobility, and Access on Subregional Priority Roadways: FFY 2015	13266	\$110,000	\$110,000	\$0	\$0	\$66,000	\$44,000	\$0	\$0	\$0	\$0	\$0
Bicycle Network Gaps: Feasibility Evaluations	11250	\$55,000	\$55,000	\$0	\$0	\$55,000	\$0	\$0	\$0	\$0	\$0	\$0
Bicycle/Pedestrian Support Activities	13208	\$40,000	\$40,000	\$0	\$0	\$28,000	\$12,000	\$0	\$0	\$0	\$0	\$0
Congestion Management Process	11123	\$92,000	\$92,000	\$0	\$0	\$64,400	\$27,600	\$0	\$0	\$0	\$0	\$0
Core Capacity Constraints	23326	\$120,000	\$120,000	\$0	\$0	\$50,000	\$70,000	\$0	\$0	\$0	\$0	\$0
Corridor/Subarea Planning Studies	MAPC4	\$167,480	\$0	\$167,480	\$0	\$112,180	\$55,300	\$0	\$0	\$0	\$0	\$0
Fairmount Line Station Access Analysis	11249	\$40,000	\$40,000	\$0	\$0	\$32,000	\$8,000	\$0	\$0	\$0	\$0	\$0
Foxborough JARC Transit Study	43321	\$25,000	\$25,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$25,000
Green Line Extension: Completion of New Starts Analysis	22336	\$12,000	\$12,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,000	\$0
I-93/I-95 Interchange Improvements North of Boston: Modeling Support	73216	\$42,500	\$42,500	\$0	\$0	\$0	\$0	\$0	\$42,500	\$0	\$0	\$0
Land Use Development Project Reviews	MAPC5	\$90,000	\$0	\$90,000	\$0	\$59,400	\$30,600	\$0	\$0	\$0	\$0	\$0
Low-Cost Improvements to Freeway Bottleneck Locations: FFY 2015	13268	\$40,000	\$40,000	\$0	\$0	\$40,000	\$0	\$0	\$0	\$0	\$0	\$0
Massachusetts Turnpike Allston Interchange Traffic Study	53219	\$84,000	\$84,000	\$0	\$0	\$0	\$0	\$0	\$84,000	\$0	\$0	\$0
Massport Technical Assistance: SFY 2015	22125	\$37,500	\$37,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$37,500
MetroFuture Implementation	MAPC6	\$100,000	\$0	\$100,000	\$0	\$69,400	\$30,600	\$0	\$0	\$0	\$0	\$0
Priority Corridors for LRTP Needs Assessment: FFY 2015	13267	\$110,000	\$110,000	\$0	\$0	\$66,000	\$44,000	\$0	\$0	\$0	\$0	\$0
South Boston Waterfront Transportation Plan: Modeling Support	23325	\$1,500	\$1,500	\$0	\$0	\$0	\$0	\$0	\$1,500	\$0	\$0	\$0

(cont.)

TABLE 8-3: FFY 2015 Unified Planning Work Program Budget Summary – Planning Studies (Continued)

UPWP Project	FFY 2015 UPWP Project ID	FFY 2015 UPWP Total Budget	CTPS	MAPC	MassDOT	PL	MPO §5303	SPR	MassDOT	MassDOT §5303	MBTA	Other
South Station Expansion Project: Support	12311, 12320- 12323	\$20,000	\$20,000	\$0	\$0	\$0	\$0	\$0	\$20,000	\$0	\$0	\$0
Planning Studies Subtotal		\$1,186,980	\$829,500	\$357,480	\$0	\$642,380	\$322,100	\$0	\$148,000	\$0	\$12,000	\$62,500

CTPS = Central Transportation Planning Staff. FFY = Federal Fiscal Year. JARC = Job Access and Reverse Commute. LRTP = Long-Range Transportation Plan. MAPC = Metropolitan Area Planning Council.

MBTA = Massachusetts Bay Transportation Authority. SFY = State Fiscal Year. SPR = State Planning and Research.

**TABLE 8-4: FFY 2015 Unified Planning Work Program Budget Summaries –
Technical Analysis / Operations Support Projects**

UPWP Project	FFY 2015 UPWP Project ID	FFY 2015 UPWP Total Budget	Funding Recipient (s)			Funding Source(s)							
			CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other	
Alternative-Mode Planning and Coordination	MAPC7	\$170,000	\$0	\$170,000	\$0	\$102,600	\$67,400	\$0	\$0	\$0	\$0	\$0	\$0
Barriers and Opportunities Influencing Mode Shift	11148	\$20,700	\$20,700	\$0	\$0	\$14,490	\$6,210	\$0	\$0	\$0	\$0	\$0	\$0
Community Transportation Technical Assistance Program	13150, MAPC9	\$68,700	\$38,700	\$30,000	\$0	\$47,090	\$21,610	\$0	\$0	\$0	\$0	\$0	\$0
Freight Planning Support	11145	\$41,000	\$41,000	\$0	\$0	\$41,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Greenhouse Gas Reduction Strategy Alternatives: Cost-Effectiveness Analysis	11151	\$7,700	\$7,700	\$0	\$0	\$5,390	\$2,310	\$0	\$0	\$0	\$0	\$0	\$0
Household-Survey-Based Travel Profiles and Trends: Selected Policy Topics	11152	\$75,000	\$75,000	\$0	\$0	\$48,000	\$27,000	\$0	\$0	\$0	\$0	\$0	\$0
Intercity Bus and Rail Maps	14344	\$40,000	\$40,000	\$0	\$0	\$0	\$0	\$0	\$40,000	\$0	\$0	\$0	\$0
Land Use Data for Transportation Modeling	MAPC10	\$80,000	\$0	\$80,000	\$0	\$53,600	\$26,400	\$0	\$0	\$0	\$0	\$0	\$0
Livable Community Workshop Program	13801, MAPC8	\$54,600	\$39,600	\$15,000	\$0	\$32,720	\$21,880	\$0	\$0	\$0	\$0	\$0	\$0
MassDOT SPR Program Support	Varies by Project	\$559,000	\$559,000	\$0	\$0	\$0	\$0	\$559,000	\$0	\$0	\$0	\$0	\$0
MassDOT Title VI Program: FFY 2014	13154	\$70,000	\$70,000	\$0	\$0	\$0	\$0	\$0	\$70,000	\$0	\$0	\$0	\$0
MassDOT Title VI Program: FFY 2015	13156	\$40,000	\$40,000	\$0	\$0	\$0	\$0	\$0	\$40,000	\$0	\$0	\$0	\$0
MassDOT Transit Planning Assistance	Varies by Project	\$264,770	\$264,770	\$0	\$0	\$0	\$0	\$0	\$0	\$264,770	\$0	\$0	\$0
MBTA 2014 National Transit Database: Data Collection and Analysis	14340	\$3,000	\$3,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,000	\$0	\$0
MBTA 2015 National Transit Database: Data Collection and Analysis	14341	\$88,000	\$88,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$88,000	\$0	\$0

(cont.)

**TABLE 8-4: FFY 2015 Unified Planning Work Program Budget Summaries –
Technical Analysis / Operations Support Projects (Continued)**

UPWP Project	FFY 2015 UPWP Project ID	FFY 2015 UPWP Total Budget	CTPS	MAPC	MassDOT	PL	MPO \$5303	SPR	MassDOT	MassDOT \$5303	MBTA	Other
MBTA 2016 National Transit Database: Data Collection and Analysis	14345	\$31,250	\$31,250	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$31,250	\$0
MBTA 2014 Review of Fare Structure, Tariffs, and Policy	11378	\$60,000	\$60,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$60,000	\$0
MBTA 2015 Review of Fare Structure, Tariffs, and Policy	11393	\$100,000	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000	\$0
MBTA Bus Service Data Collection VIII	11384	\$110,000	\$110,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$110,000	\$0
MBTA Rider Oversight Committee Support	14339	\$6,000	\$6,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,000	\$0
MBTA Title VI Program Monitoring: FFY 2015	11394	\$49,000	\$49,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$49,000	\$0
MBTA Title VI Program Monitoring: FFY 2016	11395	\$3,500	\$3,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,500	\$0
Regional Transit Service Planning Technical Support	14346	\$12,100	\$12,100	\$0	\$0	\$0	\$12,100	\$0	\$0	\$0	\$0	\$0
Roadway Safety Audits	11150	\$13,100	\$13,100	\$0	\$0	\$13,100	\$0	\$0	\$0	\$0	\$0	\$0
Safety Analysis for Intersections near MAGIC Schools	13269	\$22,250	\$22,250	\$0	\$0	\$14,400	\$7,850	\$0	\$0	\$0	\$0	\$0
Title VI Service Equity Analyses: Methodology Development	11396	\$55,000	\$55,000	\$0	\$0	\$0	\$55,000	\$0	\$0	\$0	\$0	\$0
Travel Data Forecasts	90080	\$7,800	\$7,800	\$0	\$0	\$5,460	\$2,340	\$0	\$0	\$0	\$0	\$0
Travel Operations Analyses	90040	\$7,900	\$7,900	\$0	\$0	\$0	\$7,900	\$0	\$0	\$0	\$0	\$0
Technical Support/Operations Analysis Projects Subtotal		\$2,060,370	\$1,765,370	\$295,000	\$0	\$377,850	\$258,000	\$559,000	\$150,000	\$264,770	\$450,750	\$0

CTPS = Central Transportation Planning Staff. FFY = Federal Fiscal Year. MAGIC = Minuteman Advisory Group on Interlocal Coordination.

MBTA = Massachusetts Bay Transportation Authority. PL = Metropolitan Planning. SPR = State Planning and Research.

TABLE 8-5: FFY 2015 UPWP Budget By Recipient Agency

UPWP Category	UPWP Total	CTPS								MAPC		
		Total CTPS Funding	PL Funding ^a	MPO \$5303 Funding ^a	SPR Funding ^a	MassDOT Funding	MassDOT \$5303 Funding ^a	MBTA Funding	Other Funding	Total MAPC Funding	PL Funding ^a	MPO \$5303 Funding ^a
Administration and Resource Management Projects	\$881,270	\$881,270	\$596,440	\$261,760	\$18,000	\$100	\$3,500	\$970	\$500	\$0	\$0	\$0
Certification Requirements	\$2,559,100	\$2,235,100	\$1,564,570	\$670,530	\$0	\$0	\$0	\$0	\$0	\$324,000	\$225,000	\$99,000
Planning Studies	\$1,186,980	\$829,500	\$401,400	\$205,600	\$0	\$148,000	\$0	\$12,000	\$62,500	\$357,480	\$240,980	\$116,500
Technical Support/Operations Analysis Projects	\$2,060,370	\$1,765,370	\$196,650	\$144,200	\$559,000	\$150,000	\$264,770	\$450,750	\$0	\$295,000	\$181,200	\$113,800
Total	\$6,687,720	\$5,711,240	\$2,759,060	\$1,282,090	\$577,000	\$298,100	\$268,270	\$463,720	\$63,000	\$976,480	\$647,180	\$329,300

^a Funds include local match.

CTPS = Central Transportation Planning Staff. FFY = Federal Fiscal Year. MBTA = Massachusetts Bay Transportation Authority. PL = Metropolitan Planning. SPR = State Planning and Research.

TABLE 8-6: FFY 2015 UPWP Budget by Funding Source

UPWP Category	UPWP Total	Federal Highway Administration (FHWA) Funding							Federal Transit Administration (FTA) Funding						Non-Federal Funding				
		Total FHWA PL and SPR FFY 2015 with Match	CTPS		MAPC		SPR		Total FTA with Match	CTPS		MAPC		MassDOT		Total Non-Federal	MassDOT	MBTA	Other
			FFY 2015 PL Federal Funds	MassDOT PL Match	FFY 2015 PL Federal Funds	MassDOT PL Match	FFY 2015 SPR Federal Funds	MassDOT SPR Match		MPO FFY 2015 \$5303 Federal Funds	MPO FFY 2015 \$5303 Match	MPO FFY 2015 \$5303 Federal Funds	MPO FFY 2015 \$5303 Match	FFY 2015 \$5303 Federal Funds	MassDOT FFY 2015 Match				
Administration and Resource Management Projects	\$881,270	\$614,440	\$477,152	\$119,288	\$0	\$0	\$14,400	\$3,600	\$265,260	\$209,408	\$52,352	\$0	\$0	\$2,800	\$700	\$1,570	\$100	\$970	\$500
Certification Requirements	\$2,559,100	\$1,789,570	\$1,251,656	\$312,914	\$180,000	\$45,000	\$0	\$0	\$769,530	\$536,424	\$134,106	\$79,200	\$19,800	\$0	\$0	\$0	\$0	\$0	\$0
Planning Studies	\$1,186,980	\$642,380	\$321,120	\$80,280	\$192,784	\$48,196	\$0	\$0	\$322,100	\$164,480	\$41,120	\$93,200	\$23,300	\$0	\$0	\$222,500	\$148,000	\$12,000	\$62,500
Technical Support/Operations Analysis Projects	\$2,060,370	\$936,850	\$157,320	\$39,330	\$144,960	\$36,240	\$447,200	\$111,800	\$522,770	\$115,360	\$28,840	\$91,040	\$22,760	\$211,816	\$52,954	\$600,750	\$150,000	\$450,750	\$0
Total Funds Programmed	\$6,687,720	\$3,983,240	\$2,207,248	\$551,812	\$517,744	\$129,436	\$461,600	\$115,400	\$1,879,660	\$1,025,672	\$256,418	\$263,440	\$65,860	\$214,616	\$53,654	\$824,820	\$298,100	\$463,720	\$63,000

CTPS = Central Transportation Planning Staff. FFY = Federal Fiscal Year. MBTA = Massachusetts Bay Transportation Authority. PL = Metropolitan Planning. SPR = State Planning and Research.

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TABLE 8-7: Programmed FFY 2015 Federal Transit Administration \$5303 Funding by Element and Task

Projects by Element and Task	FFY 2015 UPWP Project ID	Federal Transit Administration (FTA) Funding by Agency with Local Match						
		FTA \$5303 Total	CTPS		MAPC		MassDOT	
			Federal	Local	Federal	Local	Federal	Local
44.21.00 Program Support and Administration		\$427,690	\$254,952	\$63,738	\$87,200	\$21,800	\$0	\$0
21.01 Unified Planning Work Program	10104, MAPC3	\$33,660	\$24,528	\$6,132	\$2,400	\$600	\$0	\$0
21.02 3C Planning Process and Public Outreach Activities								
3C Planning and MPO Support	90011- 90090	\$174,300	\$139,440	\$34,860	\$0	\$0	\$0	\$0
MPO/MAPC Liaison Support Activities	MAPC1	\$48,000	\$0	\$0	\$38,400	\$9,600	\$0	\$0
Subregional Support Activities	MAPC2	\$48,000	\$0	\$0	\$38,400	\$9,600	\$0	\$0
21.03 Environment/Climate Change Support Air Quality Conformity Determinations and Support	10112	\$15,630	\$12,504	\$3,126	\$0	\$0	\$0	\$0
21.04 Support to Targeted Populations								
Access Advisory Committee Support	90024	\$25,860	\$20,688	\$5,172	\$0	\$0	\$0	\$0
Boston Region MPO Title VI Reporting	11355	\$5,160	\$4,128	\$1,032	\$0	\$0	\$0	\$0
Provision of Materials in Accessible Formats Transportation Equity/Environmental Justice Support	90028 11147	\$21,630 \$33,570	\$17,304 \$26,856	\$4,326 \$6,714	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0
21.05 Livable Community Workshop Program	13801, MAPC8	\$21,880	\$9,504	\$2,376	\$8,000	\$2,000	\$0	\$0
General Development and Comprehensive 44.22.00 Planning		\$603,200	\$407,520	\$101,880	\$75,040	\$18,760	\$0	\$0
22.01 Data Resources Management	60120- 60600	\$107,190	\$85,752	\$21,438	\$0	\$0	\$0	\$0
22.02 Alternative-Mode Program Support								
Alternative-Mode Planning and Coordination	MAPC7	\$67,400	\$0	\$0	\$53,920	\$13,480	\$0	\$0
Bicycle/Pedestrian Support Activities	13208	\$12,000	\$9,600	\$2,400	\$0	\$0	\$0	\$0
Congestion Management Process	11123	\$27,600	\$22,080	\$5,520	\$0	\$0	\$0	\$0
22.03 Technical Capacity Management								
Computer Resources Management	60405- 60492	\$132,570	\$106,056	\$26,514	\$0	\$0	\$0	\$0
Land Use Data for Transportation Modeling	MAPC10	\$26,400	\$0	\$0	\$21,120	\$5,280	\$0	\$0
Integrating Land Use in Regional Transportation Models	11704	\$20,250	\$16,200	\$4,050	\$0	\$0	\$0	\$0
Regional Model Enhancement	11124	\$209,790	\$167,832	\$41,958	\$0	\$0	\$0	\$0
44.23.00 Long-Range Transportation Planning		\$241,860	\$100,288	\$25,072	\$93,200	\$23,300	\$0	\$0
23.01 Systems-Level Planning								
Corridor/Subarea Planning Studies	MAPC4	\$55,300	\$0	\$0	\$44,240	\$11,060	\$0	\$0
Long-Range Transportation Planning	10101	\$81,360	\$65,088	\$16,272	\$0	\$0	\$0	\$0
MetroFuture Implementation	MAPC6	\$30,600	\$0	\$0	\$24,480	\$6,120	\$0	\$0
Priority Corridors for LRTP Needs Assessment: FFY 2015	13267	\$44,000	\$35,200	\$8,800	\$0	\$0	\$0	\$0
23.02 Project-Level Planning								
Land Use Development Project Reviews	MAPC5	\$30,600	\$0	\$0	\$24,480	\$6,120	\$0	\$0

(cont.)

TABLE 8-7: Programmed FFY 2015 Federal Transit Administration \$5303 Funding by Element and Task (Continued)

Projects by Element and Task	FFY 2015 UPWP Project ID	FTA \$5303 Total	Federal	Local	Federal	Local	Federal	Local
44.24.00 Short-Range Transportation Planning		\$529,090	\$203,456	\$50,864	\$8,000	\$2,000	\$211,816	\$52,954
24.01 Special Activities								
Addressing Safety, Mobility, and Access on Subregional Priority Roadways: FFY 2015	13266	\$44,000	\$35,200	\$8,800	\$0	\$0	\$0	\$0
Barriers and Opportunities Influencing Mode Shift	11148	\$6,210	\$4,968	\$1,242	\$0	\$0	\$0	\$0
Community Transportation Technical Assistance Program	13150, MAPC9	\$21,610	\$9,288	\$2,322	\$8,000	\$2,000	\$0	\$0
Core Capacity Constraints	23326	\$70,000	\$56,000	\$14,000	\$0	\$0	\$0	\$0
Fairmount Line Station Access Analysis	11249	\$8,000	\$6,400	\$1,600	\$0	\$0	\$0	\$0
Greenhouse Gas Reduction Strategy Alternatives: Cost-Effectiveness Analysis	11151	\$2,310	\$1,848	\$462	\$0	\$0	\$0	\$0
Household-Survey-Based Travel Profiles and Trends: Selected Policy Topics	11152	\$27,000	\$21,600	\$5,400	\$0	\$0	\$0	\$0
MassDOT Transit Planning Assistance	Varies by Project	\$264,770	\$0	\$0	\$0	\$0	\$211,816	\$52,954
Regional Transit Service Planning Technical Support	14342	\$12,100	\$9,680	\$2,420	\$0	\$0	\$0	\$0
Safety Analysis for Intersections near MAGIC Schools	TBD	\$7,850	\$6,280	\$1,570	\$0	\$0	\$0	\$0
Title VI Service Equity Analyses: Methodology Development	TBD	\$55,000	\$44,000	\$11,000	\$0	\$0	\$0	\$0
Travel Data Forecasts	90080	\$2,340	\$1,872	\$468	\$0	\$0	\$0	\$0
Travel Operations Analyses	90040	\$7,900	\$6,320	\$1,580	\$0	\$0	\$0	\$0
44.25.00 Transportation Improvement Program		\$52,320	\$41,856	\$10,464	\$0	\$0	\$0	\$0
25.01 Transportation Improvement Program	10103	\$52,320	\$41,856	\$10,464	\$0	\$0	\$0	\$0
44.27.00 Other Activities		\$25,500	\$17,600	\$4,400	\$0	\$0	\$2,800	\$700
27.01 Direct Support	90000	\$25,500	\$17,600	\$4,400	\$0	\$0	\$2,800	\$700
Total Boston Region MPO 5303 Funds Programmed		\$1,879,660	\$1,025,672	\$256,418	\$263,440	\$65,860	\$214,616	\$53,654

3C = continuing, cooperative, and comprehensive transportation-planning process. CTPS = Central Transportation Planning Staff. FFY = Federal Fiscal Year.

LRTP = Long-Range Transportation Plan. MAGIC = Minuteman Advisory Group for Interlocal Coordination.

Appendix A: Other Boston Region Transportation-Planning Projects

This appendix consists of brief descriptions of planning studies that will be conducted in the Boston Region Metropolitan Planning Organization (MPO) area by individual agencies, such as MassDOT and the MBTA, during FFY 2015. MPO funding will not be used for these studies, although in certain instances an agency or one of its consultants may contract with MPO staff (the Central Transportation Planning Staff [CTPS]) to provide support for the preparation of an environmental impact report or a large-scale study. For these projects, CTPS support work is described in Chapters 4 through 7, with a cross-reference to the project listing in this appendix. Likewise, projects listed in this appendix indicate whether there is a CTPS component. An example of this is MassDOT's South Station Expansion Project; CTPS support work for that project is described in Chapter 6, and the project itself is presented in this appendix.

The projects in this appendix are not subject to the MPO's public participation process. Rather, they follow their own public processes, some of which may be required by the Massachusetts Environmental Policy Act (MEPA). They are included here to provide a more complete picture of all the surface-transportation planning projects occurring in the region.

A.1 OTHER BOSTON REGION TRANSPORTATION-PLANNING PROJECTS

Allston I-90, Massachusetts Turnpike Interchange Improvement Project

Agency: MassDOT

The proposed project consists of an Interchange Improvement Project to address the structural and geometric deficiencies of the I-90 Allston Interchange between Cambridge Street and Commonwealth Avenue in the City of Boston. Context-Sensitive Design Alternatives will be discussed and developed for further evaluation in an environmental document that will ensure that the reconstructed interchange and ramp configurations will continue to support the vehicular loading conditions and provide safe and reliable transportation access. The existing viaduct has severely deteriorated, and alternatives under consideration for its replacement will provide MassDOT the opportunity to reconfigure the Allston Interchange, which dates from the 1965 extension of the Massachusetts Turnpike to downtown Boston. This project includes the provision of improving the alignment of I-90 between Cambridge Street and Commonwealth Avenue when all-electronic tolling (AET) is implemented. Provisions for improved access through the project area for alternative modes of transportation will also be considered.

CTPS will support the Allston I-90 Massachusetts Turnpike Interchange Improvement Project through work on the Massachusetts Turnpike Allston Interchange Traffic Study (page 6-26).

Boston Mobility Plan

Agency: Various

The goal of this multiyear planning process is to envision the City of Boston's long-term transportation future and recommend policies and projects that will support improved and equitable access to jobs, education, and health care. The focus of the Boston Mobility Plan will be to improve roadway safety, alleviate congestion, promote alternatives to cars, and build new transit connections. The plan will be linked to economic revitalization and ongoing climate change initiatives. The Boston Transportation Department will lead an interagency team for the Mobility Plan, which will be driven by a far-reaching public engagement process.

Cape Cod Canal Study

Agency: MassDOT

The purpose of the Cape Cod Canal Transportation Study is to identify improvements to the transportation system in the area surrounding the Cape Cod Canal in Bourne and Sandwich, Massachusetts, including the construction of new Cape Cod Canal crossings. The study will entail the development and analysis of a full range of transportation alternatives to address the identified transportation needs. The alternatives considered will include new Cape Cod Canal crossings; highway, interchange, and non-highway improvements; and other options and design elements that improve access in all modes. The alternatives will be evaluated using criteria that relate to the study's goals and objectives. The study will result in the production of a final report that includes the study's analytical findings; a recommended plan of future scheduled transportation improvements (short-term, medium-term, and long-term); preliminary cost estimates for these improvements; and a comprehensive implementation plan for the recommended improvements.

CTPS will support the Ferry Compact through the MassDOT Statewide Planning and Research Program Support project (page 7-21).

Central Broadway Streetscape Improvements

**Agency: City of
Somerville**

The City of Somerville will be studying existing transportation needs, and evaluating and preparing an urban streetscape design that improves safety and function along Central Broadway. It will also foster a distinctive sense of place along Central Broadway that builds on the character of the Winter Hill neighborhood.

**Downtown Framingham Traffic Impact
Analysis**

Agency: MassDOT

The Towns of Framingham and Ashland are concurrently developing projects to improve access across the CSX Boston Line/MBTA Worcester Line through their respective communities. Many major roads used for north-south travel in each community cross the railroad at grade and are significantly disrupted by the frequent crossings of CSX freight trains, MBTA commuter rail trains, and Amtrak trains along

the railroad corridor. These disruptions have a negative effect on each community's quality of life, public safety, and economic development.

MassDOT's Highway Division and Office of Transportation Planning are conducting a study of the area as part of an Environmental Notification Form (ENF). The purpose of the study is to evaluate the impacts that several proposed modifications to the rail crossing intersections would have on traffic congestion and travel patterns in the downtown Framingham area.

**Downtown Framingham Strategy
Development**

Agency: MAPC

At the request of the MassDOT Office of Transportation Planning (OTP), MAPC will develop a comprehensive strategy for the Town of Framingham to build upon the vision established for downtown Framingham in August 2009, as described in the *Downtown Study Final Report*. MAPC will manage the overall process and be responsible for ensuring that specific implementation recommendations and final products are delivered, as well as managing sub-consultants and their final product delivery schedule. Specific outcomes and products of this process will include:

1. A detailed market analysis and real estate analysis, which will include information on the development feasibility of key parcels and a development phasing document;
2. Analysis of possible value-capture mechanisms that could help fund infrastructure improvements in downtown Framingham;
3. A zoning analysis, which will make specific recommendations for changes to existing zoning that would allow development consistent with the downtown vision to take place;
4. Identification of the key multimodal transportation and public-realm improvements needed to catalyze development on the sites identified through the real estate analysis;
5. Activities to inform and involve the public at key decision points during the process

**Dudley Square Complete Streets
Design Project**

Agency: City of Boston

The Dudley Square Complete Streets Design Project is a Boston Transportation Department (BTD)-led initiative and community-planning

process that will develop roadway, intersection, and streetscape design plans for construction in Dudley Square. The initiative aims to modernize existing conditions and bolster the ongoing municipal and private investment projects in Dudley Square, including the Ferdinand Building and the former Area B-2 police station site. The project will consider a range of improvements for traffic, parking, buses, pedestrians, bicycles, accessibility, and the overall safety and aesthetics of the streets and sidewalks. Special emphasis will be given to developing plans that improve the multimodal environment of Dudley Square and build upon previous planning initiatives. The geographic limits of work are generally bounded by Dudley Street between Shawmut Avenue and Harrison Avenue, Washington Street between Shawmut Extension and Melnea Cass Boulevard, and Warren Street between Kearsarge Avenue and Washington Street.

Fairmount Planning Initiatives

Agency: Various

State transportation agencies are partnering with federal agencies, the City of Boston, and neighborhood-based organizations on a number of planning initiatives designed to improve access to transit and promote sustainable development in the Fairmount Corridor. These initiatives, which are underway as the MBTA completes major infrastructure improvements and three of the four planned new stations on the Fairmount Line, include:

- *Fairmount Corridor Business Development and Transit Ridership Growth Strategy*: Fairmount CDC Collaborative with the MBTA has received a Transportation, Community and System Preservation grant to improve the transit service connection to job development in the Fairmount Corridor.
- *Fairmount Indigo Corridor Planning Initiative*: The Boston Redevelopment Authority is spearheading this planning process, which involves the participation of community and agency stakeholders. A vision for Corridor land use and neighborhood change that is focused on enhanced transit is being developed, along with an action plan for targeted redevelopment and public infrastructure upgrades at station areas.

Ferry Compact

Agency: Various

The Ferry Compact's principal mission is to identify an overall vision for the ferry system in Massachusetts that improves the transportation of

people, goods, and vehicles by water. The Compact's membership—which includes MassDOT, the MBTA, Massport, the Massachusetts General Court, the Steamship Authority, the Seaport Advisory Council, the Boston Harbor Association, and several Boston region municipalities—is a mix of state agencies, state and local elected officials, and other organizations that are dedicated to improving ferry transportation in the commonwealth. For more information, visit MassDOT's Ferry Compact website.

CTPS will support the Ferry Compact through the MassDOT Statewide Planning and Research Program Support project (page 7-21).

Foxborough JARC Transit Feasibility Study

Agency: Town of Foxborough

The Town of Foxborough received a state fiscal year (SFY) 2014 award—funded with Federal Transit Administration Job Access and Reverse Commute (JARC, Section 5316) funding—from MassDOT's Community Transit Grant Program to study the need for and feasibility of transit service to and from jobs in Foxborough and to explore the need for reverse commuting in Mansfield north of the commuter rail station. The Town of Foxborough, with a population of 16,865, currently has no fixed-route transit service. As a community with an aging population that is a net importer of jobs, including low-wage jobs, there is potential for transit to benefit those who work in town as well as transit-dependent residents.

CTPS will support the Foxborough JARC Transit Feasibility Study through the Foxborough JARC Transit Feasibility Study project (page 6-18).

Green Line Extension Project New Starts Application Development

Agency: MassDOT/MBTA

The Green Line Extension (GLX) project is an initiative to extend existing MBTA Green Line service from a relocated Lechmere Station in East Cambridge to Somerville and Medford with a spur to Union Square in Somerville. The purpose of this project is to boost transit ridership, improve air quality, ensure equitable distribution of transit services, and support opportunities for smart-growth initiatives and sustainable development in Cambridge, Somerville, and Medford. The project is required by the State Implementation Plan (SIP) and fulfills a

longstanding commitment of the Central Artery/ Tunnel project to increase public transit.

The Federal Transit Administration (FTA) New Starts program provides grants for new and expanded rail, bus rapid transit, and ferry systems that reflect local priorities to improve transportation options in key corridors. In June 2012, FTA approved entry of the GLX Project into the Preliminary Engineering phase of project development under the New Starts Program. This approval makes MassDOT and the MBTA eligible to apply for New Starts funding from FTA to reimburse expenditures associated with the GLX project. The final authority to seek reimbursements, however, depends on the GLX project's being able to successfully continue to compete against other public transit projects within the New Starts program. For this to occur, the Green Line Extension project must continue to advance the design and complete the tasks associated with applying for New Starts Funding, including updating data for New Starts criteria.

CTPS will support the Green Line Extension project's New Starts application development through the Green Line Extension: Completion of New Starts Analysis project (page 6-20).

I93/I95 Interchange Improvements Project

Agency: MassDOT

The Massachusetts Department of Transportation (MassDOT) intends to redesign and reconstruct the I-93/I-95 interchange to improve traffic flow and safety. The I-93/I-95 interchange lies at the center of a regional highway network serving Massachusetts and the rest of New England. It is also an important facility for the local communities of Woburn, Reading, Stoneham, Wakefield, and neighboring towns. This interchange experiences heavy traffic volumes during peak hours. Delays are common during peak commuting times, with traffic often backed up dangerously from the ramps onto the mainline highways.

An in-depth planning study of the I-93/I-95 interchange, completed in 2007, analyzed and recommended several short-term and long-term improvement alternatives. As a part of the required National Environmental Policy Act (NEPA) and Massachusetts Environmental Policy Act (MEPA) processes, and to complete an Environmental Impact Statement (EIS) and Environmental Impact Report (EIR), MassDOT now desires to refine and develop variations of the alternative interchange configurations as well as evaluating the potential

for improvements that are expected to enhance mobility and safety for users.

CTPS will support the I93/I95 Interchange Improvements Project through the I-93/I-95 Interchange Improvements North of Boston: Modeling Support project (page 6-21).

Intelligent Transportation Systems: Development and Implementation

Agency: MassDOT

MassDOT is engaged in planning, developing, and implementing intelligent transportation systems (ITS) to more effectively operate the transportation system in Massachusetts. MassDOT's Office of Transportation Planning conducts ITS planning, as described in the State Planning and Research Program, Part I. Current planning activities include implementing a statewide ITS planning program, deploying a recently completed statewide ITS strategic plan, maintaining and updating the regional ITS architectures for metropolitan Boston and other regions within the state, increasing awareness of ITS within the transportation community and among related stakeholders, planning activities in support of the use of ITS as a tool for improving system performance and function, and providing assistance in planning for the use of ITS for all modes.

MassDOT's Highway Division established the ITS Programs Unit within the Statewide Operations Division to design, develop, implement, and maintain ITS systems for the state highway system. The ITS Programs Unit works with consultants and contractors on these rapidly evolving technologies. Current activities in the Boston region include operation of the Statewide Traffic Operations Center in South Boston, operation of the high-occupancy-vehicle (HOV) lanes on I-93 into Boston from the north and south, expansion of the real-time travel monitoring (RTTM) system deployment, operation of the Massachusetts Interagency Video Information System (MIVIS) and advanced traveler-information system, and development of an Advanced Transportation Management System.

Metro North Planning and Technical Assistance

Agency: MAPC

The Metro North region is a grouping of nine urban communities, including the Charlestown and East Boston neighborhoods in the city of Boston; the Cities of Somerville, Medford, Everett, Malden, Melrose, Chelsea, Revere; and the town of Winthrop. This region is seen by many as having the highest capacity to support additional housing and

job growth in the greater Boston area. Following national development trends, the greater Boston area is seeing demand for more multifamily housing located in urban areas and in close proximity to accessible-transportation options. The Metro North region is well positioned to benefit from development activity, but also faces significant challenges. These communities have a higher concentration of lower-income households than other parts of the greater Boston area and are some of the most diverse communities in the MAPC region. Access to employment, and quality transportation options to reach employment opportunities, is a critical challenge for the residents in these communities.

Pending receipt of a Transportation Investments for Generating Economic Recovery (TIGER) grant, MAPC will provide multimodal transportation planning—and look at ways to better connect housing, jobs, education centers, shopping, and open spaces—for the Metro North region. This planning will focus on how to best utilize the existing capacity of our transportation system. The result will provide ladders of opportunity for the current and future residents of these communities by increasing access to jobs and work force housing. MAPC will also provide technical assistance to the Metro North region to create comprehensive visions and plans for development and preservation areas. These visions and plans will focus on understanding the market for new development, regulatory barriers to advancing development in these areas, and infrastructure needs to support the type of development and open space opportunities that are valued and needed by the community.

McCarthy Overpass (Grounding McGrath) Environmental Review

Agency: MassDOT

Following the completion of *Grounding McGrath: Determining the Future of the Route 28 Corridor (Grounding McGrath Study)*, MassDOT will develop state and federal environmental review documents as part of the project development process for the preferred alternative for this project.

NEC FUTURE

Agency: Federal Railroad Administration

NEC FUTURE is a comprehensive federal planning effort, launched by the Federal Railroad Administration in February 2012, to define,

evaluate, and prioritize future investments in the Northeast Corridor (NEC). The FRA has initiated a comprehensive planning process for future investment in the corridor through 2040. The NEC FUTURE program includes both a Service Development Plan (SDP) and a broad environmental analysis known as a Tier 1 Environmental Impact Statement, or EIS. These studies will help provide a road map to a better transportation solution for the Northeast. For more information, visit the NEC Future website.

New England University Transportation Center (Region One) **Agency: Colleges and Universities**

The New England University Transportation Center (Region One) is a research consortium which includes the Massachusetts Institute of Technology (lead university), Harvard University, and the state universities of Massachusetts, Connecticut, and Maine. It is funded by the USDOT's University Transportation Centers (UTC) Program. The New England UTC conducts multiyear research programs that seek to assess and make improvements to transportation safety, as well as develop a systems-level understanding of livable communities. For further information, visit the New England University Transportation Center's website.

Northern New England Intercity Rail Initiative **Agency: MassDOT**

This study of the Inland Route High-Speed Rail Corridor will examine more frequent and higher-speed intercity passenger rail service on the 160.2-mile corridor between Boston, Massachusetts, and New Haven, Connecticut, via Springfield, Massachusetts. It will also examine the corresponding ridership potential and necessary infrastructure improvements necessary for developing a Tier 1 Draft Environmental Impact Statement (DEIS) and companion Service Development Plan. This study will be coordinated with the effort to upgrade the Springfield–New Haven line, which is being led by the State of Connecticut, using the analysis and design previously developed for that segment of the corridor, to the extent possible. Improvements to the Inland Route will facilitate initiation of passenger train service along a second route between Boston and New York at speeds comparable to the existing Amtrak regional trains that travel along the Northeast Corridor. This study will be integrated into the companion effort led by the State of Vermont to study intercity passenger rail service between Boston and Montreal via the Inland Route.

**Pre-Engineering for Union
Square in Somerville**

Agency: City of Somerville

The purpose of the study is to evaluate existing transportation analyses and recommend a design for roadway and utility improvements in and around Union Square. In 2002, Edwards and Kelcey (E&K) completed the Union Square Transportation Plan, which identified several potential options for improving transportation traffic flow, pedestrian and bike safety, open space, and public bus service throughout the Square. The recommendations were based on community consensus that came out of the study. In 2009, Howard/Stein-Hudson compiled more detailed transportation-related data, which resulted in three recommendations and a functional design report for the then-preferred alternative. The City wishes to advance transportation and infrastructure improvements to the Square by having a consultant reevaluate all findings, identify all other possible design alternatives, add utility improvement design work, and recommend a design solution that would be documented in a report. Public meetings will be held to solicit significant public input and, using that information combined with the empirical data collected, develop and present the recommended design solutions. The consultant, working with the City and all other partners, will be required to develop a phased implementation plan for the design improvements.

**Preparing for Transit in the 21st
Century**

Agency: City of Somerville

The US Department of Housing and Urban Development (HUD) has awarded the City of Somerville a \$1.8 million Community Challenge Planning Grant to support the City's Preparing for Transit in the 21st Century project. This grant provides for comprehensive city planning in Somerville in conjunction with the Green Line Extension project, which will extend the Green Line from Lechmere Station into the City of Somerville and build six new transit stations. The activities of Preparing for Transit in the 21st Century include completing a citywide comprehensive plan, station area planning and implementation, rewriting the Somerville Zoning Ordinance, streamlining the permitting process, and creating a land bank for affordable housing. Planning work is near completion, with implementation the next step.

Route 107 Corridor Study

Agency: MassDOT

The purpose of this study is to evaluate operational and potential geometric improvements that would address the existing issues and mitigate the potential future impacts of new retail development along Route 107 in the cities of Lynn and Salem. The project extends from Wilson Street in Salem to Maple Street in Lynn. A plan for future transportation improvements (short-term, medium-term, and long-term), based on an alternatives analysis, will be the end product of this project.

Route 128 Study

Agency: MassDOT

The purpose of this study is to create a Route 128 Corridor Plan that will create a master plan for transportation investments and land use regulations, which in turn will result in ongoing development that supports economic growth and environmental health while improving multimodal transportation, reducing traffic congestion, and making it easier to travel within the corridor. The corridor consists of the communities of Waltham, Weston, Lincoln, Lexington, and Burlington, and it will be further defined in the course of the study. By identifying actions that can be taken locally, regionally, and by state government, this study will create an implementation plan. In addition, the study will develop recommendations for an equitable procedure for assessing, collecting, and utilizing transportation mitigation projects or funds from development projects that are proposed for the study area and that are undergoing permitting, including but not limited to MEPA review.

**Rutherford Avenue – Sullivan Square
Design Project, Charlestown**

Agency: City of Boston

The City of Boston is proceeding with the redesign of the Rutherford Avenue corridor in Charlestown, which extends about 1.5 miles from the North Washington Street Bridge to Sullivan Square and provides a critical connection between Everett, Somerville, and other suburbs north and east of Boston, and Boston’s downtown business area. The corridor’s highway-like design is inconsistent with present-day circumstances, and the function and design of the Sullivan Square rotary is problematic. Pedestrian mobility is limited and bicycle travel is not compatible with the high-speed road. The corridor is 8 to 10 lanes wide (120 to 140 feet), which has created a significant barrier to areas on either side of the roadway, such as the Bunker Hill Community College, Paul Revere Park, the Hood Business Park employment area, and MBTA rapid transit stations.

There are significant transit-oriented development (TOD) opportunities along the corridor, and public investment in new infrastructure will provide support for the development of commercial and residential uses that otherwise would be unlikely or unable to locate in the area. A number of major structural elements in the corridor were constructed more than 60 years ago; they are approaching the end of their life cycle and will need to be replaced. With the completion of the Central Artery/Tunnel (CA/T) project and more traffic now remaining on facilities such as I-93 and US Route 1, a dramatic reduction in traffic volumes along Rutherford Avenue presents a unique opportunity to transform the corridor's character from a 1950s automobile-oriented facility to a 21st-century multimodal urban boulevard corridor that will attract private developments.

**South Boston Waterfront Sustainable
Transportation Plan**

Agency: Various

Substantial public infrastructure investment has catalyzed the transformation of the South Boston Waterfront in recent years. Many large projects—such as the Ted Williams Tunnel, the Seaport Access Road, and the Boston Convention and Exhibition Center (BCEC)—have enhanced the district's redevelopment. To date, some 30 million square feet of development has been built or planned with room for an additional 15 million square feet.

The massive change associated with such redevelopment presents a challenge—how to create a balanced and integrated multimodal transportation system capable of serving the district for its long-term success. A South Boston Transportation Study was commissioned in 2000, in the midst of some of the major construction in the area, by the City of Boston and Massport. There is a need for a better unified district plan given the realities of the current situation and future forecasts. A Better City (ABC), in conjunction with Massport, the Massachusetts Convention Center Authority (MCCA), the City of Boston, and MassDOT, has recently solicited professional services to provide transportation planning that takes an integrated multimodal approach that serves multiple user groups (for example, employees, residents, conventioners and other visitors, and maritime industrial businesses) and involves all major stakeholders, public and private. The plan will provide for anticipated growth in commercial, tourist, and residential development (including expansion of the BCEC), and will also accommodate the equally important needs of the maritime industrial activities of the Port of Boston.

CTPS will support the South Boston Waterfront Sustainable Transportation Plan through work on the South Boston Waterfront Transportation Plan: Modeling Support project (page 6-33).

South Coast Rail Project

Agency: Various

The South Coast Rail project will restore passenger rail transportation from South Station in Boston to the South Coast of Massachusetts, including the cities of Taunton, New Bedford, and Fall River. The Final Environmental Impact Statement/Report (FEIS/R) was issued in September 2013, and the state was authorized to advance permitting in November 2013. The project will include 10 new stations, modifications at Canton Junction and Stoughton, and two layover facilities at the end of both the Fall River Secondary leg at Weaver's Cove East and at the end of the New Bedford Mainline leg at Wamsutta.

The next steps for the project will include advancing the preliminary engineering and permitting processes, which will include a final Wetlands Mitigation Plan that must be approved by the US Army Corps of Engineers prior to the issuance of their Record of Decision (ROD). These activities will be led by the MBTA. MassDOT and the MBTA are also moving forward with several projects that have independent utility (separate, complete projects), including upgrading and/or replacing grade crossings and replacing several rail bridges.

The Metropolitan Area Planning Council (MAPC), the Old Colony Planning Council (OCPC), and the Southeastern Regional Planning and Economic Development District (SRPEDD) are continuing to provide technical assistance—for projects that address and support new zoning, housing needs and production plans, corridor studies, economic development, land use strategy and permitting—to communities and stakeholders within the project area. This technical assistance is supported by grants provided by MassDOT and the Executive Office of Housing and Economic Development (EOHED). SRPEDD also directs the South Coast Rail Task Force, which is composed of appointed members from the 31 communities in the South Coast Rail Corridor, as well as regional transit authorities and environmental groups. Visit the South Coast Rail webpage for more information on this project.

South Station Expansion Project

Agency: MassDOT

The 13 tracks currently available at Boston's South Station significantly constrain current and future rail mobility not only within Massachusetts

but throughout New England and Amtrak's Northeast Corridor. South Station operates above its design capacity for efficient train operations and orderly passenger queuing, and lacks comfortable, modern facilities for passenger queuing, leaving riders standing in the elements as they wait to board their trains.

This project will complete all necessary alternatives analysis, environmental review, and preliminary engineering (approximately 30 percent design) required for the expansion of South Station and for the development of a new midday commuter rail layover facility. The project will include planning and designing an enhanced passenger environment at South Station through improved streetscape and pedestrian, bicycle, local transit, and vehicular facilities in and around South Station, including the reopening of Dorchester Avenue at the station for public use. The project will consider opportunities for joint public-private development above an expanded South Station, and will also include a plan for the relocation of the existing US Postal Service General Mail Facility, which must be moved to accommodate the station's expansion.

CTPS will support the South Station Expansion Project through work on the South Station Expansion Project: Support project (page 6-34).

Transit Asset Management FTA Pilot Program **Agency: MBTA**

The MBTA, with an award provided by the FTA through the Transit Asset Management (TAM) Pilot Program, is putting in place systems for maintaining condition inventory and for monitoring and prioritizing transit infrastructure. The program includes:

1. Preparing a transit asset management plan
2. Developing a capital asset inventory
3. Performing condition assessments for assets and the system as a whole
4. Implementing decision-support tools for investment prioritization
5. Establishing annual performance targets and measuring performance against them

This FTA Pilot Program work is intended to serve as a model for other US transit agencies in meeting the asset management requirements of MAP-21 (Moving Ahead for Progress in the 21st Century Act, the current federal multiyear transportation authorization legislation).

Appendix B: Public Participation

Public involvement in the development of the FFY 2015 UPWP followed the procedures set forth in the MPO's adopted "Public Participation Plan for the Boston Region Metropolitan Planning Organization." These procedures are designed to ensure early and continued public involvement in the transportation-planning process.

The steps for developing this year's UPWP began in November 2013, when staff requested study suggestions through outreach at Metropolitan Area Planning Council (MAPC) subregional group meetings. As part of this outreach, attention was paid to the extensive needs assessment that was conducted during the development of the MPO's Long-Range Transportation Plan, *Paths to a Sustainable Region*. Staff also sought suggestions at Regional Transportation Advisory Council meetings and through outreach to the general public at Transportation Improvement Program (TIP)-UPWP Development Sessions and at the MPO's "Be Informed, Be Involved" information sessions. These suggestions, along with comments received during the FFY 2013 review period and inputs from recent planning documents, were considered in the draft FFY 2015 UPWP development process, which is described in detail in Chapter 1. This process culminated in the MPO's UPWP Committee's recommending a budget and a set of new studies for inclusion in the public-review draft FFY 2015 UPWP, which was subsequently approved for public circulation by the MPO.

Following the MPO's approval on May 15 for circulating the public-review draft FFY 2014 UPWP, the document was posted for downloading from the MPO's website, www.bostonmpo.org. Notice of its availability and of a 30-day period for public review and comment was sent to the MPO's email contact list (MPOinfo) and was posted on the MPO's website and in the MPO's newsletter, *TRANSREPORT*. Included in the MPOinfo email list are the chief elected officials and

Boston Region MPO

planning directors of the region's 101 municipalities; the Regional Transportation Advisory Council; the MAPC subregional groups; participants in the MPO's transportation equity work; state legislators; public libraries in the region; and many other interested parties. A press release in English, Spanish, Portuguese, and Mandarin Chinese was sent to local and regional media outlets in the region.

During the review period, the MPO will hold two public workshops, in Reading and Randolph, as well as two workshops in Boston, for discussion of the draft FFY 2015 UPWP and for gathering input from members of the public about their planning priorities. MPO staff has also presented the new studies included in the draft FFY 2015 UPWP to the Regional Transportation Advisory Council.

A summary of the written comments received during the review period will be prepared for MPO consideration after the comment period closes on June 19. The MPO is scheduled to endorse a final FFY 2015 UPWP at a meeting that is currently scheduled for June 26, 2014. The summary of comments and the MPO's responses will be included in this appendix in the endorsed FFY 2015 UPWP.

Appendix C: Federal Fiscal Year 2015 UPWP Universe of Proposed New Projects

This appendix includes the FFY 2015 UPWP Universe of Proposed New Projects, which documents the proposed new discrete projects that MPO staff and MAPC staff collected or developed for the FFY 2015 UPWP. This document includes introductory information, an index, and individual entries for each proposed project.

The entries include the proposed project's name, description, cost estimate, which staff will carry out the project (CTPS, MAPC or both), and comments that provide supporting information. The entries also describe:

- How the proposed project might support MPO visions and policies, as described in the MPO's Long-Range Transportation Plan, *Paths to a Sustainable Region*
- The functions that proposed projects might perform to support transportation planning in the region
- Whether the project proposal has been categorized as a low, medium, or high priority by Boston Region MPO staff. The ratings that each proposed project has received using focus areas that reflect MPO visions and policies (as articulated in the MPO's Long-Range Transportation Plan), national goals and planning factors, federal guidance, and other regional priorities.

For more information on how the Universe of Proposed New Projects has been used in the UPWP development process, please see Chapter 1 of this document.

Draft Federal Fiscal Year (FFY) 2015 UPWP Universe of Proposed New Projects

Proposed Project Notes - May 21, 2014

Universe Contents

This document contains the individual proposed project descriptions submitted by Boston Region Metropolitan Planning Organization (MPO) staff for the Federal Fiscal Year (FFY) 2015 Unified Planning Work Program (UPWP), along with proposed project descriptions from Metropolitan Area Planning Council (MAPC) staff and proposed project descriptions created in response to suggestions from various regional transportation stakeholders and members of the public. These descriptions are preceded by an index. Individual project descriptions contain:

- Details on the proposed project's purpose, approach, and deliverables
- Additional comments on the proposed project, where applicable
- Information on anticipated project staff and an estimated range of anticipated costs
- Information about the functions that proposed projects could perform to support transportation planning in the region
- Information on Long-Range Transportation Plan vision topics that could be addressed by the proposed project
- Results of UPWP focus area reviews

FFY 2015 UPWP Focus Areas

For the past several years, the UPWP project selection process has made use of focus areas as a way of examining how proposed projects could advance the visions, goals, and/or policies of the MPO, federal and state agencies, and MAPC. MPO staff conduct a focus area review for each proposed project, which is a qualitative assessment based on the content of the proposals. Projects are noted as giving each focus area "primary" or "secondary" consideration or are noted as "not applicable." When MPO staff and the UPWP Committee create their recommendations for proposed new projects for the next UPWP, the results of these focus area reviews are considered, along with a number of other factors, including survey feedback from MPO staff and UPWP Committee members, guidance from federal and state agencies, and study feasibility and implementation issues.

The focus areas for FFY 2015 UPWP proposed new projects include:

1. **Link Land Use and Transportation:** Considers whether the proposed project could support coordination with local and regional land use planning efforts, including MAPC's MetroFuture plan.

Continued on following page

Draft Federal Fiscal Year (FFY) 2015 UPWP Universe of Proposed New Projects

Proposed Project Notes - May 21, 2014 (continued)

FFY 2015 UPWP Focus Areas (continued)

2. **Work with Limited Financial Resources:** Considers whether the proposed project could support project prioritization, low-cost transportation improvement strategies, or innovative resource management approaches.
3. **Use a Management and Operations Approach:** Considers whether the proposed project could support management and operations improvements, which might be physical or technology-based. It also considers whether the project could support transportation demand management, or other strategies that provide low-cost, easy-to-implement solutions, which help avoid the need for capacity expansion.
4. **Protect Air Quality and the Environment:** Considers whether the proposed project could support improvements to air quality, other ecological functions, or energy conservation.
5. **Increase Transit and Healthy-Transportation Mode Share:** Considers whether the proposed project could support increased access and connectivity to bicycle, pedestrian, or transit options, promoting mode share or mode shift where possible.
6. **Encourage Sustainability and Livable Communities:** Considers whether the proposed project could support Complete Streets, context-sensitive transportation project implementation, or the preservation of community resources and cohesiveness.
7. **Advance Mobility and Access, and Reduce Congestion:** Considers whether the proposed project could help close gaps for one or more modes in the transportation network, or could support reductions in delays, congestion, or travel time.
8. **Increase System Reliability:** Considers whether the proposed project could support improvements to transit reliability or nonrecurring roadway congestion.
9. **Increase Transportation Safety and Security:** Considers whether the proposed project could support improved safety for one or more modes, or whether it supports responses to natural or man-made hazards.

Continued on following page

Draft Federal Fiscal Year (FFY) 2015 UPWP Universe of Proposed New Projects

Proposed Project Notes - May 21, 2014 (continued)

FFY 2015 UPWP Focus Areas (continued)

10. **Support Economic Vitality:** Considers whether the proposed project could support freight movement or local or regional economic development.
11. **Preserve and Maintain the Transportation System:** Considers whether the proposed project could support bringing one or more modes into a state of good repair or making these modes more efficient.
12. **Consider Transportation Equity and Accessibility:** Considers whether the proposed project could support access, mobility, or participation in decision making for those with disabilities, those in low-income households, minorities, the elderly, youth, or those with limited English proficiency.
13. **Support MetroFuture Implementation:** Considers whether the proposed project could address MAPC's MetroFuture Implementation Strategies.
14. **Support Statewide and Regional Transportation Initiatives:** Considers whether the proposed project could address MassDOT's *weMove Massachusetts* and GreenDOT Implementation plans, the Healthy Transportation Compact, and other plans and initiatives.
15. **Enhance Technical Capacity, Knowledge, and Insights:** Considers whether the proposed project could support the MPO's understanding of transportation issues and innovations or improves the MPO's planning capacity.
16. **Support Performance-Based Planning:** Considers whether the proposed project could support the MPO's performance-based planning process, including data collection and monitoring.

Draft FFY 2015 UPWP Universe of Proposed New Projects

Project Index - May 21, 2014

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Draft FFY 2015 UPWP Universe of Proposed New Projects

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Draft FFY 2015 UPWP Universe of Proposed New Projects

A-1. Addressing Safety, Mobility and Access for Subregional Priority Roadways: FFY 2015

Proposed Project Group:	Roadway Network Performance	FFY 2015 UPWP Staff Evaluation:	High
Proposed Project Staff:	CTPS	Selected for FFY 2015 UPWP:	Yes
Estimated Project Cost:	\$110,000	Proposed FFY 2015 Budget:	\$110,000
L RTP Vision Topics Addressed:	Environment; Livability; Mobility; Safety and Security; System Preservation, Modernization, and Efficiency		
Project Function:	Support to Regional Transportation Stakeholders		

Project Description:

During MPO outreach, MAPC subregional groups identify transportation problems and issues that concern them. Often these issues are related to bottlenecks or lack of safe access to transportation facilities in their area. These issues can affect livability, quality of life, crash incidence, and air quality along an arterial and its side streets. If problems are not addressed, mobility, access, safety, economic development, and air quality are compromised.

To address comments from the MAPC subregional groups, MPO staff will identify priority arterial bottleneck locations (or a series of locations) in the MPO region, with an emphasis on the issues identified by the relevant subregional groups, and will develop recommendations for low-cost improvements. Special attention will be paid to the need for and feasibility of bus service along these arterial segments. Staff will consider numerous strategies to improve arterials, including examining and evaluating any or all of the following factors: traffic signals (equipment, retiming, redesign, and coordination); bus stop locations; processing buses through traffic lights; location and management of pedestrian crossings and signals, including Americans with Disabilities Act (ADA) requirements; travel lane utilization by motorized and bicycle traffic; speed limit assessment; and access management. These corridor improvements could be recommended to implementing agencies and funded through various federal, state, and local sources, separately or in combination.

Project Comments:

In the Addressing Safety, Mobility, and Access for Subregional Priority Roadways study included in the FFY 2013 and FFY 2014 UPWPs, MPO staff conducted analyses of Routes 127/127A in Gloucester and Rockport and of Route 3A in Cohasset and Scituate. MPO staff will study a segment of Washington Street in the City of Newton as part of the Addressing Safety, Mobility, and Access for Subregional Priority Roadways: FFY 2014 study included in the FFY 2014 UPWP.

MPO staff gathers information on candidate corridors as part of outreach for the UPWP, and refers to corridors suggested in past years when making study selections.

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Draft FFY 2015 UPWP Universe of Proposed New Projects

A-1. Addressing Safety, Mobility, and Access for Subregional Priority Roadways: FFY 2015 (continued)

UPWP Focus Area	Rating
1. Link Land Use and Transportation	Secondary
2. Work with Limited Financial Resources	Secondary
3. Use a Management and Operations Approach	Primary
4. Protect Air Quality and the Environment	Secondary
5. Increase Transit and Healthy-Transportation Mode Share	Secondary
6. Encourage Sustainable Communities and Livability	Secondary
7. Advance Mobility and Access, and Reduce Congestion	Primary
8. Improve System Reliability	Secondary

UPWP Focus Area	Rating
9. Increase Transportation Safety and Security	Primary
10. Support Economic Vitality	Secondary
11. Preserve and Maintain the Transportation System	Primary
12. Consider Transportation Equity and Accessibility	N/A
13. Support MetroFuture Implementation	Primary
14. Support Statewide and Regional Transportation Initiatives	Primary
15. Enhance Technical Knowledge, Capacity, and Insights	N/A
16. Support Performance-Based Planning	N/A

Draft FFY 2015 UPWP Universe of Proposed New Projects

A-2. Low-Cost Improvements to Freeway Bottleneck Locations: FFY 2015

Proposed Project Group:	Roadway Network Performance	FFY 2015 UPWP Staff Evaluation:	High
Proposed Project Staff:	CTPS	Selected for FFY 2015 UPWP:	Yes
Estimated Project Cost:	\$40,000	Proposed FFY 2015 Budget:	\$40,000
L RTP Vision Topics Addressed:	Mobility; System Preservation, Modernization, and Efficiency		
Project Function:	Support to Regional Transportation Stakeholders		

Project Description:

Several freeway bottleneck locations were analyzed in two consecutive studies in the past, titled Low-Cost Improvements to Bottlenecks Phases I and II, and they were very well received by MassDOT and the Federal Highway Administration (FHWA). Previous study locations included sections of I-95 in Weston and Burlington and sections of Route 3A in Braintree and near the Hingham-Weymouth line. A few study recommendations have been implemented already and staff have been interviewed by FHWA consultants about their successful implementation. In this study, staff will coordinate with MassDOT to identify additional locations to study in FFY 2015. Potential deliverables could include memoranda and presentations documenting recommendations for improving freeway bottlenecks.

Project Comments:

As part of the Low Cost Improvements to Bottleneck Locations study included in the FFY 2010 UPWP, MPO staff analyzed I-95 ramps at interchanges in Weston and Burlington, and locations along Route 3 in Braintree and at the Hingham-Weymouth Town Line. Through the Low Cost Improvements to Bottleneck Locations: Phase II study, which was included in the FFY 2011 UPWP, MPO staff analyzed a section of I-95 between Waltham and Lexington, and an additional portion of I-95 near Burlington.

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Draft FFY 2015 UPWP Universe of Proposed New Projects

A-2. Low-Cost Improvements to Bottleneck Locations: FFY 2015 (continued)

UPWP Focus Area	Rating	UPWP Focus Area	Rating
1. Link Land Use and Transportation	N/A	9. Increase Transportation Safety and Security	Secondary
2. Work with Limited Financial Resources	Primary	10. Support Economic Vitality	Secondary
3. Use a Management and Operations Approach	Primary	11. Preserve and Maintain the Transportation System	Secondary
4. Protect Air Quality and the Environment	Secondary	12. Consider Transportation Equity and Accessibility	N/A
5. Increase Transit and Healthy-Transportation Mode Share	N/A	13. Support MetroFuture Implementation	N/A
6. Encourage Sustainable Communities and Livability	N/A	14. Support Statewide and Regional Transportation Initiatives	Primary
7. Advance Mobility and Access, and Reduce Congestion	Primary	15. Enhance Technical Knowledge, Capacity, and Insights	N/A
8. Improve System Reliability	Secondary	16. Support Performance-Based Planning	N/A

Draft FFY 2015 UPWP Universe of Proposed New Projects

A-3. Priority Corridors for LRTP Needs Assessment: FFY 2015

Proposed Project Group:	Roadway Network Performance	FFY 2015 UPWP Staff Evaluation:	High
Proposed Project Staff:	CTPS	Selected for FFY 2015 UPWP:	Yes
Estimated Project Cost:	\$110,000	Proposed FFY 2015 Budget:	\$110,000
LRTP Vision Topics Addressed:	Environment; Mobility; Safety and Security; System Preservation, Modernization, and Efficiency		
Project Function:	MPO Planning, Support to Regional Transportation Stakeholders		

Project Description:

Corridor analysis is a logical way to approach transportation studies in the region. Possible corridors of critical and strategic concern might best be viewed in a programmatic way. An arterial management roadway improvement effort would recommend conceptual improvements for corridors that the Congestion Management Process (CMP) and the Long-Range Transportation Plan (LRTP) identified as part of the needs assessment process. These corridor improvements could be recommended to implementing agencies and funded through various federal, state, and local sources, separately or in combination.

This project would constitute an additional phase of the Priority Corridors for Long-Range Transportation Plan (LRTP) Needs Assessment project. Previous iterations were funded in the FFYs 2012, 2013, and 2014 UPWPs.

A particular corridor or several small sections of multiple corridors could be selected for study. Deliverables would likely include memoranda and presentations documenting recommendations for corridor improvements, as in past years.

Project Comments:

Depending on the timing of updates to the MPO's Long-Range Transportation Plan Needs Assessment, this project could make use of an updated list of candidate corridor locations. MPO staff also considers municipal, subregional, and other public feedback when selecting study corridors.

In the Priority Corridors for LRTP Needs Assessment study included in the FFY 2012 UPWP, MPO staff conducted analyses of Route 114 in Danvers and Route 203 in Boston. MPO staff studied Route 30 in Framingham and Natick, and Route 2 in Concord and Lincoln, as part of the Priority Corridors for LRTP Needs Assessment study included in the FFY 2013 UPWP. MPO staff will study sections of Route 140 in Franklin through the Priority Corridors for LRTP Needs Assessment: FFY 2014 study.

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Draft FFY 2015 UPWP Universe of Proposed New Projects

A-3. Priority Corridors for LRTP Needs Assessment: FFY 2015 (continued)

UPWP Focus Area	Rating	UPWP Focus Area	Rating
1. Link Land Use and Transportation	N/A	9. Increase Transportation Safety and Security	Primary
2. Work with Limited Financial Resources	Secondary	10. Support Economic Vitality	N/A
3. Use a Management and Operations Approach	Secondary	11. Preserve and Maintain the Transportation System	Primary
4. Protect Air Quality and the Environment	Secondary	12. Consider Transportation Equity and Accessibility	N/A
5. Increase Transit and Healthy-Transportation Mode Share	Secondary	13. Support MetroFuture Implementation	Primary
6. Encourage Sustainable Communities and Livability	N/A	14. Support Statewide and Regional Transportation Initiatives	Primary
7. Advance Mobility and Access, and Reduce Congestion	Primary	15. Enhance Technical Knowledge, Capacity, and Insights	N/A
8. Improve System Reliability	N/A	16. Support Performance-Based Planning	N/A

Draft FFY 2015 UPWP Universe of Proposed New Projects

B-1. Regional Bicycle Crash Self-Reporting Survey

Proposed Project Group:	Active Transportation	FFY 2015 UPWP Staff Evaluation:	Low
Proposed Project Staff:	CTPS	Selected for FFY 2015 UPWP:	No
Estimated Project Cost:	\$55,000	Proposed FFY 2015 Budget:	\$0
L RTP Vision Topics Addressed:	Safety and Security		
Project Function:	MPO Planning; Support to Regional Transportation Stakeholders; Contribution to Transportation Knowledge		

Project Description:

In 2009, the City of Boston's "Boston Bikes" initiative conducted a survey of more than 2,500 cyclists on crashes taking place from 2005 through 2009, titled the "Boston Bikes Accident Survey." Respondents were asked to report every crash, including seemingly insignificant incidents (such as cyclists falling over and getting up uninjured), in order to capture the characteristics of crashes that did not involve Boston Emergency Medical Services (EMS) or Boston Police Department (BPD) attention. Data collected through this self-reported survey included the crash cause, location, and severity, and the types of bicycle accommodations at the crash location. The results of this survey were used in concert with BPD and EMS data in the analysis documented in Boston Bike's 2013 "Boston Cyclist Safety Report."

This study would propose to apply the Boston Bikes Accident Survey approach to collect data from other parts of the region, in order to complement other sources of bicycle crash data currently available to the MPO. Using data collected via this regionwide survey, as well as other data sources (potentially including the Boston Bikes survey results), MPO staff would analyze trends in bicycle crashes and how they could relate to available bicycle accommodations and other transportation network characteristics.

Project deliverables would include a report documenting the survey approach and an analysis of the results. This information could be used to inform MPO staff's bike-planning activities, particularly by enhancing the available information on safety issues that could be taken into account during the planning process. It could also support the MPO's prioritization of infrastructure projects. These results could also be used by the region's transportation stakeholders in incorporating safety considerations into bicycle accommodation and Complete Streets planning efforts.

Project Comments:

None.

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Draft FFY 2015 UPWP Universe of Proposed New Projects

B-1. Regional Bicycle Crash Self-Reporting Survey (continued)

UPWP Focus Area	Rating	UPWP Focus Area	Rating
1. Link Land Use and Transportation	N/A	9. Increase Transportation Safety and Security	Primary
2. Work with Limited Financial Resources	N/A	10. Support Economic Vitality	N/A
3. Use a Management and Operations Approach	N/A	11. Preserve and Maintain the Transportation System	N/A
4. Protect Air Quality and the Environment	N/A	12. Consider Transportation Equity and Accessibility	N/A
5. Increase Transit and Healthy-Transportation Mode Share	Primary	10. Support MetroFuture Implementation	Secondary
6. Encourage Sustainable Communities and Livability	Secondary	11. Support Statewide and Regional Transportation Initiatives	Primary
7. Advance Mobility and Access, and Reduce Congestion	N/A	12. Enhance Technical Knowledge, Capacity, and Insights	Primary
8. Improve System Reliability	N/A	13. Support Performance-Based Planning	Primary

Draft FFY 2015 UPWP Universe of Proposed New Projects

B-2. Bicycle Network Gaps: Feasibility Evaluations

Proposed Project Group:	Active Transportation	FFY 2015 UPWP Staff Evaluation:	High
Proposed Project Staff:	CTPS	Selected for FFY 2015 UPWP:	Yes
Estimated Project Cost:	\$55,000	Proposed FFY 2015 Budget:	\$55,000
L RTP Vision Topics Addressed:	Livability; Mobility; Safety and Security		
Project Function:	Support to Regional Transportation Stakeholders		

Project Description:

The MPO's regional Bicycle Network Evaluation, currently underway, will result in a recommended list of high-priority gaps that should be addressed to develop a more connected regional network. This project would follow through on that study by conducting more detailed feasibility evaluations of two of the identified high-priority gaps. Deliverables would include a report documenting study results and recommendations for the selected locations. The identified recommendations could ultimately become Transportation Improvement Program (TIP) projects or projects funded by state, local, or other funding sources.

Project Comments:

None.

UPWP Focus Area	Rating
1. Link Land Use and Transportation	N/A
2. Work with Limited Financial Resources	Secondary
3. Use a Management and Operations Approach	N/A
4. Protect Air Quality and the Environment	Secondary

UPWP Focus Area	Rating
9. Increase Transportation Safety and Security	Secondary
10. Support Economic Vitality	N/A
11. Preserve and Maintain the Transportation System	N/A
12. Consider Transportation Equity and Accessibility	N/A

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Draft FFY 2015 UPWP Universe of Proposed New Projects

B-2. Bicycle Network Gaps: Feasibility Evaluations (continued)

UPWP Focus Area	Rating	UPWP Focus Area	Rating
5. Increase Transit and Healthy-Transportation Mode Share	Primary	13. Support MetroFuture Implementation	Primary
6. Encourage Sustainable Communities and Livability	Secondary	14. Support Statewide and Regional Transportation Initiatives	Primary
7. Advance Mobility and Access, and Reduce Congestion	Primary	15. Enhance Technical Knowledge, Capacity, and Insights	N/A
8. Improve System Reliability	N/A	16. Support Performance-Based Planning	N/A

Draft FFY 2015 UPWP Universe of Proposed New Projects

B-3: Community Pedestrian Network Studies

Proposed Project Group:	Active Transportation	FFY 2015 UPWP Staff Evaluation:	High
Proposed Project Staff:	CTPS	Selected for FFY 2015 UPWP:	No
Estimated Project Cost:	\$40,000	Proposed FFY 2015 Budget:	\$0
L RTP Vision Topics Addressed:	Livability; Mobility; Safety and Security; System Preservation, Modernization, and Efficiency		
Project Function:	Serve Regional Transportation Stakeholders		

Project Description:

This project would provide support to several municipalities within the MPO region that are interested in examining opportunities to improve their community-wide pedestrian network. Using municipal inventories of sidewalks and other data resources, MPO staff would work with communities to conduct an assessment of existing pedestrian transportation connections, including sidewalks, paths, and crosswalks, and identifying opportunities to improve these connections. This analysis would be coordinated with work done by the Metropolitan Area Planning Council (MAPC), MassRIDES through the Massachusetts' Safe Routes to School Program, and other stakeholders, where appropriate. Deliverables would include reports documenting pedestrian network inventories, analysis results, and recommendations for improvement. The results of these pedestrian network assessments could be used to support community-level Complete Streets improvement efforts, which could be funded with federal, state, local, or other capital funding.

Project Comments:

The recently-passed transportation bond bill includes a Complete Streets certification program. Communities that are certified under this program would be eligible to receive funding to regularly and routinely include Complete Streets design elements and infrastructure on locally funded roads. MPO staff anticipates that this program would make \$50 million available to communities during a five-year-period. The certification requirements for municipalities would include:

- Adoption of a Complete Streets bylaw, ordinance, or administrative policy
- Coordination with MassDOT to confirm the accuracy of a baseline pedestrian and bicycle accommodations inventory in order to identify priority projects
- Development of procedures to follow when conducting municipal road repair, upgrades, or expansion projects on public rights-of-way to incorporate Complete Streets elements

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Draft FFY 2015 UPWP Universe of Proposed New Projects

B-3: Community Pedestrian Network Studies (continued)

Project Comments (continued):

- Establishment of a municipal review process for all private development proposals to ensure that Complete Streets components are incorporated into new construction
- Establishment of municipal goals for an increased mode share for walking, cycling, and public transportation, where applicable, to be met within five years, and development of a program to reach that goal
- Annual progress reporting to MassDOT

The results of these Community Pedestrian Network studies could be a resource to municipalities when applying for, or maintaining certification under, this anticipated Complete Streets certification program.

UPWP Focus Area	Rating
1. Link Land Use and Transportation	Secondary
2. Work with Limited Financial Resources	Secondary
3. Use a Management and Operations Approach	N/A
4. Protect Air Quality and the Environment	N/A
5. Increase Transit and Healthy-Transportation Mode Share	Primary
6. Encourage Sustainable Communities and Livability	Secondary
7. Advance Mobility and Access, and Reduce Congestion	Primary
8. Improve System Reliability	N/A

UPWP Focus Area	Rating
9. Increase Transportation Safety and Security	Primary
10. Support Economic Vitality	N/A
11. Preserve and Maintain the Transportation System	Primary
12. Consider Transportation Equity and Accessibility	Secondary
10. Support MetroFuture Implementation	Primary
11. Support Statewide and Regional Transportation Initiatives	Primary
12. Enhance Technical Knowledge, Capacity, and Insights	Secondary
13. Support Performance-Based Planning	Secondary

Draft FFY 2015 UPWP Universe of Proposed New Projects

B-4. Fairmount Line Station Access Analysis

Proposed Project Group:	Active Transportation	FFY 2015 UPWP Staff Evaluation:	N/A
Proposed Project Staff:	CTPS	Selected for FFY 2015 UPWP:	Yes
Estimated Project Cost:	\$75,000	Proposed FFY 2015 Budget:	\$40,000 (see comments)
LRTP Themes Addressed:	Livability; Mobility; Safety and Security		
Project Function:	Support to Regional Transportation Stakeholders		

Project Description:

The 9.2-mile Fairmount Line is a MBTA commuter rail service running from South Station in Boston's central business district (CBD) to Readville, passing through the following neighborhoods: Downtown Boston, South Boston, Roxbury, Dorchester, Mattapan, and Hyde Park. Until 2012, there were only four stations outside of Boston's CBD: Upham's Corner, Morton Street, Fairmount, and Readville. As part of the Fairmount Line Improvements Program, the MBTA has opened three new stations: one at Talbot Avenue (in 2012), one at Newmarket (in 2013), and one at Four Corners/Geneva (in 2013). A fourth station at Blue Hill Avenue is currently under construction.

This proposed project would help promote the success of the Fairmount Line by analyzing possible impediments to walking or biking for areas within a quarter-mile of each of the eight stations mentioned above. Information generated through this study could be used to support the City of Boston in making the stations more accessible to bicyclists and pedestrians, and to make the Fairmount line a continued success overall.

Project Comments:

This project has been suggested by Rafael Mares with the Conservation Law Foundation (CLF). Mr. Mares recommended conducting this study in FFY 2015, if possible, while the station improvements are still relatively recent.

MPO staff would analyze a subset of the Fairmount Line stations outside of the CBD for \$40,000, as MPO staff have analyzed the Morton Street station as part of a past study, and the Boston Redevelopment Authority and its planning partners have or will be studying connections to the Uphams Corner, Four Corners/Geneva, and Blue Hill Avenue stations.

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Draft FFY 2015 UPWP Universe of Proposed New Projects

B-4. Fairmount Line Station Access Analysis (continued)

UPWP Focus Area	Rating	UPWP Focus Area	Rating
1. Link Land Use and Transportation	N/A	9. Increase Transportation Safety and Security	Primary
2. Work with Limited Financial Resources	N/A	10. Support Economic Vitality	N/A
3. Use a Management and Operations Approach	N/A	11. Preserve and Maintain the Transportation System	Secondary
4. Protect Air Quality and the Environment	Secondary	12. Consider Transportation Equity and Accessibility	Secondary
5. Increase Transit and Healthy-Transportation Mode Share	Primary	13. Support MetroFuture Implementation	Primary
6. Encourage Sustainable Communities and Livability	Secondary	14. Support Statewide and Regional Transportation Initiatives	Primary
7. Advance Mobility, Access, and Congestion Reduction	Primary	15. Enhance Technical Knowledge, Capacity, and Insights	N/A
8. Improve System Reliability	N/A	16. Support Performance-Based Planning	N/A

Draft FFY 2015 UPWP Universe of Proposed New Projects

C-1. Safety Analysis at Intersections near MAGIC Schools

Proposed Project Group:	Safety and Security	FFY 2015 UPWP Staff Evaluation:	High
Proposed Project Staff:	CTPS	Selected for FFY 2015 UPWP:	Yes
Estimated Project Cost:	\$75,000 - \$100,000	Proposed FFY 2015 Budget:	\$22,250
L RTP Vision Topics Addressed:	Livability; Mobility; Safety and Security		
Project Function:	Support to Regional Transportation Stakeholders		

Project Description:

The proposed study would provide information to support understanding of the impacts of school transportation on regional road systems in the Minuteman Advisory Group on Interlocal Coordination (MAGIC) subregion. This activity would fulfill two purposes:

1. Enable the MPO and others to target local and state/federal funding to those intersections which have safety problems and are within the walk zone of schools
2. Help Boston Region MPO municipalities, MPO members, and state officials in considering opportunities to avoid costs when addressing intersection safety and congestion issues around schools. This information would help these stakeholders to better consider alternatives to upgrading intersections (or doing widenings) to address capacity/congestion issues; and focus energy and financial investment on a mode shift to school buses, walking, and biking

The base mapping effort would include several steps:

1. Identify and map all signalized intersections within a 2-mile radius of each school
2. Identify and map major arterial routes with intersections within the 2 mile radius (those on the federal-aid-eligible list)
3. Map high crash intersections within this 2-mile buffer of each school.
4. Do a data review of any available level-of-service (LOS) traffic studies that capture the LOS of these intersections and map those intersections (for which we have data) that are currently at LOS C or worse
5. Identify and flag the intersections within these buffers that are high volume (perhaps using a threshold of greater than 10,000 vehicles per day)

After conducting these initial mapping steps, staff would refine the list of key intersections to a subset for which staff would obtain data from the school departments on how students get to school (percent who are bused, driven, walk, or ride bicycles.)

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Draft FFY 2015 UPWP Universe of Proposed New Projects

C-1. Safety Analysis at Intersections near MAGIC Schools (continued)

Project Description (continued):

Information on the patterns of student cycling, walking, or busing (particularly if use of these modes is low) could be compared to the results of the safety analysis to improve stakeholders' understanding of traffic and safety issues around particular schools. Deliverables would include the maps of the school and safety data.

Project Comments:

This proposal is based on a suggestion provided by Michelle Ciccolo (Town of Hudson), which was presented at the January 16 MAGIC Subregion meeting. MPO staff would undertake a portion of the proposed project scope, which include several elements of the base mapping activities, for \$22,250. The MPO might consider pursuing further analysis of student commuting patterns as part of a future UPWP.

UPWP Focus Area	Rating	UPWP Focus Area	Rating
1. Link Land Use and Transportation	Secondary	9. Increase Transportation Safety and Security	Primary
2. Work with Limited Financial Resources	Primary	10. Support Economic Vitality	N/A
3. Use a Management and Operations Approach	Primary	11. Preserve and Maintain the Transportation System	N/A
4. Protect Air Quality and the Environment	N/A	12. Consider Transportation Equity and Accessibility	N/A
5. Increase Transit and Healthy-Transportation Mode Share	Secondary	13. Support MetroFuture Implementation	Primary
6. Encourage Sustainable Communities and Livability	Primary	14. Support Statewide and Regional Transportation Initiatives	Primary
7. Advance Mobility and Access, and Reduce Congestion	Primary	15. Enhance Technical Knowledge, Capacity, and Insights	Secondary
8. Improve System Reliability	N/A	16. Support Performance-Based Planning	N/A

Draft FFY 2015 UPWP Universe of Proposed New Projects

D-1. Community and Human-Services Transportation Support

Proposed Project Group:	Transportation Equity and Accessibility	FFY 2015 UPWP Staff Evaluation:	High
Proposed Project Staff:	CTPS	Selected for FFY 2015 UPWP:	No
Estimated Project Cost:	\$45,000	Proposed FFY 2015 Budget:	\$0
L RTP Vision Topics Addressed:	Livability; Mobility; Regional Equity		
Project Function:	Support to Regional Transportation Stakeholders, Contribution to Transportation Knowledge		

Project Description:

This project would look at practices that successful community and human-service agencies (such as agencies that provide transportation and councils on aging) use to plan, coordinate, and manage their transportation services. These could include exploration of programs and projects, operational practices, or software or other technology. The study would also look at issues such as who participates and who pays for or subsidizes the services. Information-gathering techniques would include a literature review and, potentially, consultations with transportation service providers. Documentation of these successful practices would include case studies. Materials produced by MPO staff would not only suggest practices, but also provide some guidance to service providers on how to apply for Community Transit Grants.

Possible deliverables could include:

- A white paper/report/guidebook for community and human-service transportation providers, such as councils on aging and others, which would document practices and provide guidance
- Guidance materials to support transportation service providers in completing Community Transit Grant applications

Project Comments:

None.

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Draft FFY 2015 UPWP Universe of Proposed New Projects

D-1. Community and Human-Services Transportation Support (continued)

UPWP Focus Area	Rating
1. Link Land Use and Transportation	N/A
2. Work with Limited Financial Resources	Primary
3. Use a Management and Operations Approach	Secondary
4. Protect Air Quality and the Environment	N/A
5. Increase Transit and Healthy-Transportation Mode Share	Primary
6. Encourage Sustainable Communities and Livability	Secondary
7. Advance Mobility and Access, and Reduce Congestion	Primary
8. Improve System Reliability	N/A

UPWP Focus Area	Rating
9. Increase Transportation Safety and Security	N/A
10. Support Economic Vitality	N/A
11. Preserve and Maintain the Transportation System	N/A
12. Consider Transportation Equity and Accessibility	Primary
13. Support MetroFuture Implementation	Primary
14. Support Statewide and Regional Transportation Initiatives	Primary
15. Enhance Technical Knowledge, Capacity, and Insights	Primary
16. Support Performance-Based Planning	N/A

Draft FFY 2015 UPWP Universe of Proposed New Projects

D-2. Title VI Service Equity Analyses: Methodology Development

Proposed Project Group:	Transportation Equity and Accessibility	FFY 2015 UPWP Staff Evaluation:	High
Proposed Project Staff:	CTPS	Selected for FFY 2015 UPWP:	Yes
Estimated Project Cost:	\$55,000	Proposed FFY 2015 Budget:	\$55,000
L RTP Vision Topics Addressed:	Mobility; Regional Equity		
Project Function:	MPO Planning, Support to Regional Transportation Stakeholders; Contribution to Transportation Knowledge		
Project Description:			

As outlined in FTA C 4702.1B (released in 2012), providers of public transportation must develop written procedures to evaluate, prior to implementation, any and all service changes that exceed the transit provider's major service change policy to determine whether those changes will have a disparate impact based on race, color, or national origin. The Federal Transit Administration (FTA) defines the typical measure of disparate impact as a comparison between the proportion of persons in the protected class who are adversely affected by the service change and the proportion of persons not in the protected class who are adversely affected. As defined by the FTA, the disparate impact analysis is limited to a cursory look at whether the minority percentage of the population of the area or service affected by the change (for example, the population within a quarter mile of a bus route) is greater than the minority percentage of the population of the entire service area (for example, the entire MBTA service area). The required analysis is outlined, as follows, in FTA C 4702.1B:

“When a transit provider uses ridership as the comparison population, the transit provider will compare the ridership of the affected route(s) with the ridership of the system. For example, if the ridership of affected route(s) is 60 percent minority and the system ridership is 40 percent minority, then changes to the route(s) may have a disparate impact. When a transit provider uses the population of the service area as the comparison population, it will compare the population in Census blocks or block groups served by the affected route(s) with the population in the service area. For example, if affected route(s) serves Census blocks that are 40 percent minority and the service area is 45 percent minority, there would likely not be a disparate impact.”

This approach to the equity analysis fails to examine the true impacts of service changes. The intent of this project is, in service equity analyses, to go beyond whether or not a change is occurring, and provide more meaningful information about the impacts of that change on protected populations. This project will develop an innovative methodology for analyzing the potential adverse effects of a major service change based on the use of standardized metrics. The end result of this project will ensure congruity across all procedures and policies related to Title VI service equity analysis.

This project would deliver its findings in the form of a technical memorandum. The report could contain:

- A complete and comprehensive Title VI methodology for assessing major service changes
- A definitive list of metrics to be used in the equity analysis of major service changes, outlined for each type of major service change
- Guidelines for evaluating each equity analysis metric

Draft FFY 2015 UPWP Universe of Proposed New Projects

D-2. Title VI Service Equity Analyses: Methodology Development (continued)

Project Description (continued):

The results from this project could enhance the MPO's Title VI and transportation-equity-related work, as well as Title VI work conducted on behalf of MassDOT and the MBTA.

Project Comments:

None.

UPWP Focus Area	Rating
1. Link Land Use and Transportation	N/A
2. Work with Limited Financial Resources	N/A
3. Use a Management and Operations Approach	N/A
4. Protect Air Quality and the Environment	N/A
5. Increase Transit and Healthy-Transportation Mode Share	Secondary
14. Encourage Sustainable Communities and Livability	N/A
15. Advance Mobility and Access, and Reduce Congestion	Primary
8. Improve System Reliability	N/A

UPWP Focus Area	Rating
9. Increase Transportation Safety and Security	N/A
10. Support Economic Vitality	N/A
11. Preserve and Maintain the Transportation System	N/A
12. Consider Transportation Equity and Accessibility	Primary
13. Support MetroFuture Implementation	N/A
14. Support Statewide Transportation Initiatives	Primary
15. Enhance Technical Knowledge, Capacity, and Insights	Primary
16. Support Performance-Based Planning	Primary

Draft FFY 2015 UPWP Universe of Proposed New Projects

E-1. Core Capacity Constraints

Proposed Project Group:	Land Use, Environment, and Economy	FFY 2015 UPWP Staff Evaluation:	High
Proposed Project Staff:	CTPS	Selected for FFY 2015 UPWP:	Yes
Estimated Project Cost:	\$120,000	Proposed FFY 2015 Budget:	\$120,000
L RTP Vision Topics Addressed:	Livability; Mobility; System Preservation, Modernization, and Efficiency		
Project Function:	Support to Regional Transportation Stakeholders		

Project Description:

The transportation system is heavily utilized within the city of Boston and its surrounding communities. The transportation system encompasses the roadway system and the MBTA transit system. The congestion on roadways and crowding on the transit system are a function of the density of land use, the trip-making activity associated with the different land use types, and the capacity of the different transportation modes to handle the trip making during specific times of the day.

The proposed study will examine three perspectives of how utilized our transportation system is and how it could accommodate future growth:

1. The first part of this study would be to document for current conditions where there are existing or potential constraints on the roadway and transit system in the core area during the peak periods. The core area is defined as the city of Boston and several neighboring communities. The transit system would consist of only the major fixed-route MBTA modes. The roadway system would potentially consist of higher-functional-class roadways. The peak periods consist of the peak AM and PM 3-hour times. The constraints would be based on performance metrics to be determined, but for transit they could include load factors (carrying capacities) that exceed the MBTA service levels and volume-to-capacity ratios for the higher-functional-class roadways.
2. The second part of this study would build on part one and examine a future year (possibly 2040) and its developments. The future year would include future transportation projects as they exist in the current adopted Long-Range Transportation Plan. As future development or redevelopment occurs in the area, it leads to changes in the land use types and trip-making activity in the region. This change in trip-making activity has the potential to stress the transportation system more than it currently is stressed today. The product of this task would be to quantify what developments would have impacts on what transit submodes or elements of the roadway network and to what degree in the future.
3. The third task is a review of the process of assessing transit investments for the purpose of mitigating the transportation impacts of development. Local planning processes and environmental reviews often call for transportation mitigation as a contingency for issuing a permit. However, the way in which these mitigation efforts impact transit is not clear. This task will examine this process and identify the strengths and weaknesses.

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Draft FFY 2015 UPWP Universe of Proposed New Projects

E-1. Core Capacity Constraints (continued)

Project Description (continued):

Deliverables could include memoranda that document the findings from each of the three steps.

The proposed study could complement the Needs Assessment chapter of the Long-Range Transportation Plan by helping the MPO understand how the land use changes in the core would impact the transportation system in 2040.

Project Comments:

The cost of the project is a function of the geography and transit modes examined and could be scaled to include more or less analysis activity.

This proposed UPWP study is based on a discussion between CTPS staff and a group of state senators and representatives on Dec 20, 2013. This group included Sen. William Brownsberger, Rep. Jay Livingstone, Rep. Byron Rushing, and Rep. Gloria Fox. They would like to better understand the constraints of the transportation system in the core area and how it affects their constituents.

Following the development of the proposed study idea, Sen. William Brownsberger sent a letter (dated 1/30/14) requesting a study for the UPWP, which would accomplish three items:

1. Document, for current condition, where there are capacity constraints on the transportation systems in the city of Boston and the surrounding communities. The transportation systems are defined in the roadway system and the MBTA transit system.
2. Quantify how future developments will impact transportation systems. To what extent will congestion limit future development?
3. Examine possible major transportation system investments with an emphasis on transit investments in the study area. Will they be sufficient to meet projected demand?

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Draft FFY 2015 UPWP Universe of Proposed New Projects

E-1. Core Capacity Constraints (continued)

UPWP Focus Area	Rating
1. Link Land Use and Transportation	Primary
2. Work with Limited Financial Resources	N/A
3. Use a Management and Operations Approach	N/A
4. Protect Air Quality and the Environment	N/A
5. Increase Transit and Healthy-Transportation Mode Share	Secondary
6. Encourage Sustainable Communities and Livability	Secondary
7. Advance Mobility and Access, and Reduce Congestion	Primary
8. Improve System Reliability	N/A

UPWP Focus Area	Rating
9. Increase Transportation Safety and Security	N/A
10. Support Economic Vitality	Secondary
11. Preserve and Maintain the Transportation System	Primary
12. Consider Transportation Equity and Accessibility	N/A
13. Support MetroFuture Implementation	Secondary
14. Support Statewide and Regional Transportation Initiatives	Primary
15. Enhance Technical Knowledge, Capacity, and Insights	Secondary
16. Support Performance-Based Planning	N/A

Draft FFY 2015 UPWP Universe of Proposed New Projects

E-2. Watertown: Development Impacts on Transportation

Proposed Project Group:	Land Use, Environment, and Economy	FFY 2015 UPWP Staff Evaluation:	Low
Proposed Project Staff:	CTPS and MAPC	Selected for FFY 2015 UPWP:	No
Estimated Project Cost:	\$55,000	Proposed FFY 2015 Budget:	\$0
L RTP Themes Addressed:	Livability; Mobility; System Preservation, Modernization, and Efficiency		
Project Function:	Support to Regional Transportation Stakeholders		

Project Description:

The Town of Watertown is concerned about how new developments along the Arsenal Street and Pleasant Street corridor in Watertown would impact transportation capacity and service in the study area. The Town seeks technical assistance in three areas:

1. Quantifying the extent of development that could occur in the study area
2. Identifying what transportation problems might occur because of these developments
3. Developing mitigation ideas for the roadway and transit networks that serve the study area

Potential products of this cooperative effort between MAPC and CTPS, which may be documented in reports and memoranda, may include:

1. Lists of developments and trip-generation data
2. Analyses of trip flows and the origins of people coming to the study area
3. Information about the location and severity of anticipated transportation problems because of expected increases in travel generated by the new developments
4. Identification of roadway and transit network mitigation ideas to address increased travel demand

Project Comments:

None.

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Draft FFY 2015 UPWP Universe of Proposed New Projects

E-2. Watertown: Development Impacts on Transportation (continued)

UPWP Focus Area	Rating	UPWP Focus Area	Rating
1. Link Land Use and Transportation	Primary	9. Increase Transportation Safety and Security	N/A
2. Work with Limited Financial Resources	N/A	10. Support Economic Vitality	Secondary
3. Use a Management and Operations Approach	N/A	11. Preserve and Maintain the Transportation System	Primary
4. Protect Air Quality and the Environment	N/A	12. Consider Transportation Equity and Accessibility	N/A
5. Increase Transit and Healthy-Transportation Mode Share	Secondary	13. Support MetroFuture Implementation	Secondary
6. Encourage Sustainable Communities and Livability	Secondary	14. Support Statewide and Regional Transportation Initiatives	Primary
7. Advance Mobility, Access, and Congestion Reduction	Primary	15. Enhance Technical Knowledge, Capacity, and Insights	N/A
8. Improve System Reliability	N/A	16. Support Performance-based Planning	N/A

Draft FFY 2015 UPWP Universe of Proposed New Projects

F-1. Evaluation of Information-Technology-Based Programs for Encouraging Mode Shift

Proposed Project Group:	Transit	FFY 2015 UPWP Staff Evaluation:	High
Proposed Project Staff:	CTPS	Selected for FFY 2015 UPWP:	No
Estimated Project Cost:	\$55,000	Proposed FFY 2015 Budget:	\$0
LRTP Vision Topics Addressed:	Livability; Mobility		
Project Function:	Contribution to Transportation Knowledge		

Project Description:

The core idea of this project is to investigate the utility of new technologies and software applications for tracking and evaluating the effectiveness of transportation demand management strategies in encouraging mode shift.

As part of the GreenDOT initiative, MassDOT has adopted the NuRide program, which rewards individuals when they walk, bike, telecommute, carpool, take transit, or work a compressed week and record these trips in their NuRide account. Companies, transportation management associations and organizations (TMAs/TMOs), and public agencies also employ transportation demand management (TDM) strategies and may have implemented information-technology-based (IT-based) systems to track the transportation habits of individuals within their organizations and reward them for changing to modes other than the single-occupant vehicle.

This study would research, inventory, and review available IT-based systems for evaluating the effectiveness of transportation demand management strategies and document their use in the MPO region. This would be accomplished by identifying:

- Tools and methods that organizations currently use to manage transportation demand
- The extent to which systems that have been implemented to quantify or track mode shift have been employed
- Key personnel who coordinate the transportation demand programs
- Policies and rewards that have been used to encourage mode shift

The potential for IT-based platforms for encouraging mode shift in the MPO region would also be considered.

This project would present its findings in report format. It would likely contain:

- Literature review
- Summary of a survey of companies, TMA/TMOs, and public agencies
- Evaluations and expected benefits of identified IT-based systems and their implementation

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Draft FFY 2015 UPWP Universe of Proposed New Projects

F-1. Evaluation of Information-Technology-Based Programs for Encouraging Mode Shift (continued)

Project Comments:

MPO staff proposed to explore this topic as part of the Greenhouse Gas Reduction Strategy Alternatives: Cost Effectiveness Analysis, which is currently underway.

UPWP Focus Area	Rating	UPWP Focus Area	Rating
1. Link Land Use and Transportation	N/A	9. Increase Transportation Safety and Security	N/A
2. Work with Limited Financial Resources	N/A	10. Support Economic Vitality	N/A
3. Use a Management and Operations Approach	Primary	11. Preserve and Maintain the Transportation System	N/A
4. Protect Air Quality and the Environment	N/A	12. Consider Transportation Equity and Accessibility	N/A
5. Increase Transit and Healthy-Transportation Mode Share	Primary	13. Support MetroFuture Implementation	N/A
6. Encourage Sustainable Communities and Livability	N/A	14. Support Statewide and Regional Transportation Initiatives	Primary
7. Advance Mobility, Access, and Reduce Congestion	Primary	15. Enhance Technical Knowledge, Capacity, and Insights	Primary
8. Improve System Reliability	N/A	16. Support Performance-Based Planning	N/A

Draft FFY 2015 UPWP Universe of Proposed New Projects

F-2. Non-Fixed-Route Transportation Services: Lessons for Transit Agencies

Proposed Project Group:	Transit	FFY 2015 UPWP Staff Evaluation:	Low
Proposed Project Staff:	CTPS	Selected for FFY 2015 UPWP:	No
Estimated Project Cost:	\$55,000	Proposed FFY 2015 Budget:	\$0
LRTP Vision Topics Addressed:	Livability; Mobility; Regional Equity		
Project Function:	Support to Regional Transportation Stakeholders; Contribution to Transportation Knowledge		

Project Description:

Non-fixed-route services such as taxis (and other similar services), THE RIDE, and other human-servicee-transportation providers take people where they want to go when they want to go there. Data about the origins and destinations of customers using these services could provide useful information for transit service planners.

In a past study, CTPS used taxi origin-destination data (along with other data sources) to determine where transit dollars might be best spent to improve the MBTA's early-morning service. This proposed study would broaden the scope of the aforementioned study to include all-day taxi data and other non-fixed-route service origin-destination data to determine where the fixed-route transit system is inadequately serving potential riders. This study would focus on areas with concentrated taxi origins and destinations, as these are the areas with the most potential for supporting fixed-route transit service.

Some people with disabilities can use fixed-route bus and rail public transportation services for some or all trips. Building on the concept described above, origin-destination data from THE RIDE could reveal possible changes to fixed-route service that would help increase some of THE RIDE users' abilities to live independently while using the fixed-route system. This study would look at the question: could the MBTA eliminate geographic barriers to using the fixed-route system by filling gaps in the existing service? This study would be sensitive to the fact that even if a fixed-route service is available, some RIDE customers may be unable to use the fixed-route system and would still require paratransit service. The results from this portion of the study could end in recommendations for additional transit stops, modifications to routes during certain hours, and new routes or route variations.

This project would also explore the history of non-fixed-route transportation services in the region and create an inventory of agencies or organizations that maintain taxi-based origin-destination data, including documentation of the licensing structures of service providers, the current state of the system, and up-and-coming trends in flexible transportation. This information could be used to evaluate potential fixed-route and flexible-route options for providing service.

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Draft FFY 2015 UPWP Universe of Proposed New Projects

F-2. Non-Fixed Route Transportation Services: Lessons for Transit Agencies (continued)

Project Description (continued):

Overall, this project would address MPO interests in supporting transportation access for underserved populations, particularly people with disabilities, as well as mode shift in general. It could also provide information to support service planning by the region's RTAs.

Data needs for this project include taxicab origin-destination data (Wednesday, Friday, Saturday, and Sunday), which might not exist for areas outside of Boston; and THE RIDE origin-destination data (Wednesday, Friday, Saturday, and Sunday). This project's findings will be in the form of a report. The report could contain:

- Maps depicting current origin-destination data
- Maps depicting where current transit services fail to meet demand
- A review of the characteristics of locations with notable non-fixed-route demand
- A dataset of taxi stands, pickup and drop-off locations, and other taxi-related data
- A history of taxicabs, demand-response services, and new services

Project Comments:

None.

UPWP Focus Area	Rating
1. Link Land Use and Transportation	N/A
2. Work with Limited Financial Resources	Secondary
3. Use a Management and Operations Approach	Secondary
4. Protect Air Quality and the Environment	N/A
5. Increase Transit and Healthy-Transportation Mode Share	Primary

UPWP Focus Area	Rating
9. Increase Transportation Safety and Security	N/A
10. Support Economic Vitality	N/A
11. Preserve and Maintain the Transportation System	N/A
12. Consider Transportation Equity and Accessibility	Primary
13. Support MetroFuture Implementation	Secondary

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Draft FFY 2015 UPWP Universe of Proposed New Projects

F-2. Non-Fixed-Route Transportation Services: Lessons for Transit Agencies (continued)

UPWP Focus Area	Rating	UPWP Focus Area	Rating
6. Encourage Sustainable Communities and Livability	N/A	14. Support Statewide and Regional Transportation Initiatives	Primary
7. Advance Mobility and Access, and Reduce Congestion	Primary	15. Enhance Technical Knowledge, Capacity, and Insights	Primary
8. Improve System Reliability	N/A	16. Support Performance-Based Planning	N/A

Draft FFY 2015 UPWP Universe of Proposed New Projects

F-3. Universal Unlimited Transit Pass / EcoPass Program Feasibility Study

Proposed Project Group:	Transit	FFY 2015 UPWP Staff Evaluation:	Medium
Proposed Project Staff:	CTPS	Selected for FFY 2015 UPWP:	No
Estimated Project Cost:	\$55,000	Proposed FFY 2015 Budget:	\$0
LRTP Vision Topics Addressed:	Livability; Mobility		
Project Function:	Support to Regional Transportation Stakeholders; Contribution to Transportation Knowledge		

Project Description:

This project would be a feasibility study on the development of a universal, unlimited fare product which would encourage mode shift and have a revenue-neutral or revenue-positive impact.

In the current financial environment, revenue-neutral options or revenue-stabilizing options to fare products are important to many public transit operators. One strategy proposed and implemented in other regions of the country is to implement a deeply-discounted group pass (DDGP) program that would be available to a broad range of employers, including universities, private corporations, and government entities. There is evidence that a deeply-discounted group pass program could have a positive impact on revenue, given correct pricing, and may influence mode choice.

This project would further research into deeply-discounted group passes. Particularly, this study would investigate: the structures and administrative requirements of these programs, characteristics of successful programs, pricing scheme(s), and possible implementation regimes. Investigation into additional groups that could participate in this kind of program would be included—for example, tourists, out-of-area visitors, or hotel guests.

The MBTA has been exploring the concept of universal university pass programs, and has worked with Boston University MBA students to explore the potential of such a program. Additionally, MIT has piloted a Mobility Pass project, which goes beyond the provision of transit passes to incorporate strategies to encourage mode shift. Observations from the MIT Mobility Pass program suggest that the implementation of this kind of program is likely to support regional mode shift, and further research and discussion about these potential impacts would be explored.

This project will present its findings in report format. It would likely contain:

- Literature review
- Survey of transit agencies that have implemented this type of program, including estimations of ridership and revenue impacts
- Evaluation of positive impacts and challenges
- Development of schema or menu of programs developed
- Responsibilities of the organizations involved in the program
- Expected benefits from implementation of the program

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Draft FFY 2015 UPWP Universe of Proposed New Projects

F-3. Universal Unlimited Transit Pass / EcoPass Program Feasibility Study (continued)

Project Comments:

None.

UPWP Focus Area	Rating	UPWP Focus Area	Rating
1. Link Land Use and Transportation	N/A	9. Increase Transportation Safety and Security	N/A
2. Work with Limited Financial Resources	Primary	10. Support Economic Vitality	N/A
3. Use a Management and Operations Approach	N/A	11. Preserve and Maintain the Transportation System	N/A
4. Protect Air Quality and the Environment	N/A	12. Consider Transportation Equity and Accessibility	N/A
5. Increase Transit and Healthy-Transportation Mode Share	Primary	13. Support MetroFuture Implementation	Primary
6. Encourage Sustainable Communities and Livability	N/A	14. Support Statewide and Regional Transportation Initiatives	Primary
7. Advance Mobility and Access, and Reduce Congestion	Primary	15. Enhance Technical Knowledge, Capacity, and Insights	Primary
8. Improve System Reliability	N/A	16. Support Performance-Based Planning	N/A

Draft FFY 2015 UPWP Universe of Proposed New Projects

F-4. Hudson / Marlborough Suburban Mobility Study

Proposed Project Group:	Transit	FFY 2015 UPWP Staff Evaluation:	Low
Proposed Project Staff:	CTPS	Selected for FFY 2015 UPWP:	No
Estimated Project Cost:	\$35,000	Proposed FFY 2015 Budget:	\$0
L RTP Themes Addressed:	Livability; Mobility; Regional Equity		
Project Function:	Support to Regional Transportation Stakeholders		

Project Description:

The Town of Hudson proposes a suburban mobility study that would evaluate transit options within Hudson and between Hudson and Marlborough. Currently, Hudson only has a door-to-door, pre-scheduled van service for seniors, which is provided by its Council on Aging. It recently has become a member of the MetroWest Regional Transit Authority, which provides bus service in Marlborough. The Town of Hudson notes that the lack of public transportation and the high number of households in Hudson that do not have access to a vehicle, make it challenging for members of many households to get around.

The proposed study would analyze existing travel patterns and potential demand for service within Hudson and between Hudson and Marlborough, evaluate options for providing transit connections, and recommend approaches for providing transit service. The Town requests information about the cost of proposed route options, and what portion of those costs would need to be paid by the municipality or other grants, as the municipality does not presently pay a Cherry Sheet assessment for RTA services. Study findings and recommendations for improving transit service between Hudson and Marlborough would be documented in a memorandum.

Project Comments:

This proposal is based on a written request for a study from the Town of Hudson. The Town reports that five percent of households do not have access to a vehicle, and that Hudson also includes a high proportion of low-income households, elderly persons, and persons with disabilities.

Hudson and Marlborough are in two different MAPC subregions: Hudson is part of the Minuteman Advisory Group for Interlocal Coordination (MAGIC), and Marlborough is part of the MetroWest Regional Collaborative. The Town of Hudson notes that it has been many years since an analysis examining transit opportunities between the two subregions has been performed, which has made collaboration on concrete ideas for needed public transit services difficult.

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Draft FFY 2015 UPWP Universe of Proposed New Projects

F-4. Hudson / Marlborough Suburban Mobility Study (continued)

Project Comments, continued:

The Town of Hudson reported several observations regarding transit needs between the two communities:

- Because of the high concentration of commercial zones in both Hudson and Marlborough, residents travel back and forth between these two communities daily. Both Hudson and Marlborough have multiple shopping plazas, which also are major employers for lower-income residents.
- Based on the major cross-town commuting patterns along State Route 85—which connects Southborough and Marlborough through Hudson and on to Berlin and Bolton—there are opportunities along this corridor for transit alternatives.

Hudson was included in MAPC's 2011 MAGIC Suburban Mobility Transit Study, which evaluated communities in the MAGIC region for their potential to support different types of transit service. This study examined reverse- and traditional-commuting patterns, suburb-to-suburb commuting, and daily-needs trips. Hudson scored "High" on suburb-to-suburb commuting and daily-needs trips, and the Town believes that this indicates a need to evaluate the suburban mobility of Hudson and nearby Marlborough. This MAGIC Suburban Mobility study also found that Hudson has high population and employment densities compared to other MAGIC communities, citing that many commuting trips both originate and end in Hudson.

UPWP Focus Area	Rating
1. Link Land Use and Transportation	Secondary
2. Work with Limited Financial Resources	N/A
3. Use a Management and Operations Approach	N/A
4. Protect Air Quality and the Environment	Secondary

UPWP Focus Area	Rating
9. Increase Transportation Safety and Security	N/A
10. Support Economic Vitality	N/A
11. Preserve and Maintain the Transportation System	N/A
12. Consider Transportation Equity and Accessibility	Secondary

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Draft FFY 2015 UPWP Universe of Proposed New Projects

F-4. Hudson / Marlborough Suburban Mobility Study (continued)

UPWP Focus Area	Rating	UPWP Focus Area	Rating
5. Increase Transit and Healthy-Transportation Mode Share	Primary	13. Support MetroFuture Implementation	Secondary
6. Encourage Sustainable Communities and Livability	Secondary	14. Support Statewide and Regional Transportation Initiatives	Secondary
7. Advance Mobility, Access, and Congestion Reduction	Primary	15. Enhance Technical Knowledge, Capacity, and Insights	N/A
8. Improve System Reliability	N/A	16. Support Performance-Based Planning	N/A

Draft FFY 2015 UPWP Universe of Proposed New Projects

G-1. Household-Survey-Based Travel Profiles and Trends: Selected Policy Topics

Proposed Project Group:	Other Technical Support	FFY 2015 UPWP Staff Evaluation:	High
Proposed Project Staff:	CTPS	Selected for FFY 2015 UPWP:	Yes
Estimated Project Cost:	\$75,000	Proposed FFY 2015 Budget:	\$75,000
L RTP Vision Topics Addressed:	N/A (study topics not specified)		
Project Function:	MPO Planning, Contribution to Transportation Knowledge		

Project Description:

In 2011, the Massachusetts Travel Survey obtained travel information from about 15,000 households across the state, with 10,400 of them located in the Boston Region MPO model region. A similar survey, administered just in the Boston region, had been performed in 1991. These kinds of travel surveys are undertaken primarily to obtain data with which to build or rebuild travel models, and Boston Region MPO staff are indeed currently engaged in rebuilding the MPO's model set with the data from the 2011 survey.

In addition to their use in model building, the data from these household travel surveys represent a rich source of information about the travel behavior of Massachusetts householders, and as such, provide an opportunity for MPO staff and others to gain valuable insights of particular use in the transportation planning process. To that end, the FFY 2013 UPWP contained a study entitled Household-Survey-Based Travel Profiles and Trends that was intended as the first step in "mining" the information from the 2011 survey. It actually went further than that. The study yielded a general profile of household travel behavior as measured in 2011, but it also compared the characteristics of work trips reported on and described in 2011 to those reported in the earlier 1991 survey.

Now that the initial study of the 2011 travel survey has been completed, a second, more selective study is proposed for FFY 2015. In this proposed study, selected topics of particular interest to the MPO will serve as the basis for further exploration of the 2011 survey data. These topics will relate to policy and programming interests of the MPO. One suggested topic concerns nonmotorized travel. The survey could be analyzed in order to answer questions such as the following:

- What are the characteristics of those individuals who choose to travel by walking and biking?
- What kinds of trips do they make?
- How long are those trips, and what are the other salient characteristics of them?
- Why are these individuals choosing to utilize nonmotorized modes instead of motorized ones?
- How can the MPO use these insights in its policy development and programming in such a way as to encourage more such travel behavior?

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Draft FFY 2015 UPWP Universe of Proposed New Projects

G-1. Household-Survey-Based Travel Profiles and Trends: Selected Policy Topics (continued)

Project Description (continued):

Other possible topics of particular interest to the MPO pertain to environmental justice, air quality and greenhouse gas emissions, and the propensity to utilize transit. The household survey could be used to analyze any of these topics in a way similar to the nonmotorized topic could be analyzed. In all cases, the object would be to examine the survey data for insights about travel behavior that could then be used by the MPO to inform its decision-making when developing policies and funding projects and programs in the Long-Range Transportation Plan (LRTP) and Transportation Improvement Program (TIP). Up to three policy topics could be examined with the available budget. In each case, the potential deliverable would be a report documenting the MPO staff's findings and their implications.

Project Comments:

None.

UPWP Focus Area	Rating	UPWP Focus Area	Rating
1. Link Land Use and Transportation	N/A	9. Increase Transportation Safety and Security	N/A
2. Work with Limited Financial Resources	N/A	10. Support Economic Vitality	N/A
3. Use a Management and Operations Approach	N/A	11. Preserve and Maintain the Transportation System	N/A
4. Protect Air Quality and the Environment	N/A	12. Consider Transportation Equity and Accessibility	N/A
5. Increase Transit and Healthy-Transportation Mode Share	N/A	13. Support MetroFuture Implementation	Secondary
6. Encourage Sustainable Communities and Livability	N/A	14. Support Statewide and Regional Transportation Initiatives	Secondary
7. Advance Mobility and Access, and Reduce Congestion	N/A	15. Enhance Technical Knowledge, Capacity, and Insights	Primary
8. Improve System Reliability	N/A	16. Support Performance-Based Planning	Secondary

Draft FFY 2015 UPWP Universe of Proposed New Projects

G-2. Public Health and Transportation Data Exploration

Proposed Project Group:	Other Technical Support	FFY 2015 UPWP Staff Evaluation:	Low
Proposed Project Staff:	CTPS	Selected for FFY 2015 UPWP:	No
Estimated Project Cost:	\$55,000	Proposed FFY 2015 Budget:	\$0
LRTP Vision Topics Addressed:	Livability		
Project Function:	MPO Planning; Contribution to Transportation Knowledge		

Project Description:

Through this project, MPO staff would conduct an exploration of public health data available through national, state, regional, local, academic, and other sources that could be used in future analyses of the relationship between transportation and public health in the region. Examples include data available from OurHealthyMass, a state-level Web resource, as well as through the Centers for Disease Control and Prevention (CDC) or the Environmental Protection Agency (EPA). MPO staff will assess these tools for applicability to MPO planning activities and how they could be integrated with existing MPO transportation data resources. Deliverables will include a white paper describing data sources that are applicable to MPO work and next steps for integrating these resources into MPO activities. This white paper could also discuss future analysis activities that the MPO could undertake, or could include an example of a type of transportation and public health analysis.

Project Comments:

None.

UPWP Focus Area	Rating
1. Link Land Use and Transportation	N/A
2. Work with Limited Financial Resources	N/A
3. Use a Management and Operations Approach	N/A
4. Protect Air Quality and the Environment	N/A

UPWP Focus Area	Rating
9. Increase Transportation Safety and Security	N/A
10. Support Economic Vitality	N/A
11. Preserve and Maintain the Transportation System	N/A
12. Consider Transportation Equity and Accessibility	N/A

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Draft FFY 2015 UPWP Universe of Proposed New Projects

G-2. Public Health and Transportation Data Exploration (continued)

UPWP Focus Area	Rating	UPWP Focus Area	Rating
5. Increase Transit and Healthy-Transportation Mode Share	Secondary	13. Support MetroFuture Implementation	Secondary
6. Encourage Sustainable Communities and Livability	Primary	14. Support Statewide and Regional Transportation Initiatives	Secondary
7. Advance Mobility and Access, and Reduce Congestion	N/A	15. Enhance Technical Knowledge, Capacity, and Insights	Primary
8. Improve System Reliability	N/A	16. Support Performance-Based Planning	Secondary

Draft FFY 2015 UPWP Universe of Proposed New Projects

G-3. MPO Staff Independent Research and Idea Development

Proposed Project Group:	Other Technical Support	FFY 2015 UPWP Staff Evaluation:	Low
Proposed Project Staff:	CTPS	Selected for FFY 2015 UPWP:	No
Estimated Project Cost:	\$35,000	Proposed FFY 2015 Budget:	\$0
L RTP Vision Topics Addressed:	N/A (no topics specified)		
Project Function:	MPO Planning;, Contribution to Transportation Knowledge		

Project Description:

This program would support staff work on a topic that relates to metropolitan transportation planning and something the MPO produces, and that is of great interest to the staff member. The topic may not be covered by a UPWP ongoing program or discrete project, and so would need this more-open avenue for advancement. Staff would complete an application (reviewed by managers and directors) for some MPO funding to do independent research on a topic of professional interest and potential use in the metropolitan transportation-planning program. This program would have benefits for the MPO's information needs and for staff's professional development. Having the opportunity to be awarded a grant in this program could result in a think-tank like quality that could yield highly creative solutions to transportation-planning problems.

Deliverables would include memoranda detailing staff findings and their applicability to MPO activities.

Project Comments:

None.

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Draft FFY 2015 UPWP Universe of Proposed New Projects

G-3. MPO Staff Independent Research and Idea Development (continued)

UPWP Focus Area	Rating
1. Link Land Use and Transportation	N/A
2. Work with Limited Financial Resources	N/A
3. Use a Management and Operations Approach	N/A
4. Protect Air Quality and the Environment	N/A
5. Increase Transit and Healthy-Transportation Mode Share	N/A
6. Encourage Sustainable Communities and Livability	N/A
7. Advance Mobility, Access, and Reduce Congestion	N/A
8. Improve System Reliability	N/A

UPWP Focus Area	Rating
9. Increase Transportation Safety and Security	N/A
10. Support Economic Vitality	N/A
11. Preserve and Maintain the Transportation System	N/A
12. Consider Transportation Equity and Accessibility	N/A
13. Support MetroFuture Implementation	N/A
14. Support Statewide and Regional Transportation Initiatives	N/A
15. Enhance Technical Knowledge, Capacity, and Insights	Primary
16. Support Performance-Based Planning	Secondary

Draft FFY 2015 UPWP Universe of Proposed New Projects

H-1. Electric Vehicle Research and Procurement for Municipal Fleets

Proposed Project Group:	MAPC Proposed Projects	FFY 2015 UPWP Staff Evaluation:	N/A
Proposed Project Staff:	MAPC	Selected for FFY 2015 UPWP:	Yes
Estimated Project Cost:	\$10,000	Proposed FFY 2015 Budget:	\$10,000
L RTP Themes Addressed:	Environment; Climate Change		
Project Function:	Support to Regional Transportation Stakeholders		

Project Description:

MAPC would research the best available electric vehicles for municipal fleets; then conduct a procurement on behalf of the 101 cities and towns in the region to provide them with the opportunity to replace municipally owned vehicles with electric or electric hybrid alternatives. MAPC would plan events and outreach to educate municipal officials about the benefits of electric vehicles on air quality and climate change.

Project Comments:

This activity would be covered under MAPC's Alternative-Mode Planning and Coordination project group in the UPWP.

UPWP Focus Area	Rating	UPWP Focus Area	Rating
1. Link Land Use and Transportation	N/A	9. Increase Transportation Safety and Security	N/A
2. Work with Limited Financial Resources	N/A	10. Support Economic Vitality	N/A
3. Use a Management and Operations Approach	N/A	11. Preserve and Maintain the Transportation System	N/A
4. Protect Air Quality and the Environment	Primary	12. Consider Transportation Equity and Accessibility	N/A

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H-1. Electric Vehicle Research and Procurement for Municipal Fleets (continued)

UPWP Focus Area	Rating	UPWP Focus Area	Rating
5. Increase Transit and Healthy-Transportation Mode Share	N/A	13. Support MetroFuture Implementation	Primary
6. Encourage Sustainable Communities and Livability	N/A	14. Support Statewide and Regional Transportation Initiatives	Secondary
7. Advance Mobility and Access, and Reduce Congestion	N/A	15. Enhance Technical Knowledge, Capacity, and Insights	Primary
8. Improve System Reliability	N/A	16. Support Performance-Based Planning	N/A

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H-2. Local Parking Management Plans in Selected Communities

Proposed Project Group:	MAPC Proposed Projects	FFY 2015 UPWP Staff Evaluation:	N/A
Proposed Project Staff:	MAPC	Selected for FFY 2015 UPWP:	Yes
Estimated Project Cost:	\$40,000	Proposed FFY 2015 Budget:	\$40,000
L RTP Themes Addressed:	Environment; Livability		
Project Function:	Support to Regional Transportation Stakeholders		

Project Description:

MAPC would work with selected municipalities to develop local parking-management plans to provide better parking availability to stimulate local economic prosperity and to help municipalities plan for greater land use density with decreased parking ratios. The goal of this work program is to address the problems municipalities face from not managing their parking supply in commercial areas. This work would benefit local air quality and congestion by managing parking supply and demand and creating places where people can park once and then walk to multiple destinations. In locations where parking requirements can be reduced, the number of households with one or more vehicles could decline, which could result in higher percentages of walking, biking, and transit ridership. The work product for this project would include recommendations to municipalities in the form of a report.

Project Comments:

This activity would be covered under MAPC’s Alternative-Mode Planning and Coordination project group in the UPWP.

UPWP Focus Area	Rating	UPWP Focus Area	Rating
1. Link Land Use and Transportation	Primary	9. Increase Transportation Safety and Security	N/A
2. Work with Limited Financial Resources	N/A	10. Support Economic Vitality	Secondary
3. Use a Management and Operations Approach	N/A	11. Preserve and Maintain the Transportation System	N/A
4. Protect Air Quality and the Environment	Secondary	12. Consider Transportation Equity and Accessibility	N/A

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H-2. Local Parking Management Plans in Selected Communities (continued)

UPWP Focus Area	Rating	UPWP Focus Area	Rating
5. Increase Transit and Healthy-Transportation Mode Share	Secondary	13. Support MetroFuture Implementation	Primary
6. Encourage Sustainable Communities and Livability	Primary	14. Support Statewide and Regional Transportation Initiatives	N/A
7. Advance Mobility and Access, and Reduce Congestion	Primary	15. Enhance Technical Knowledge, Capacity, and Insights	N/A
8. Improve System Reliability	N/A	16. Support Performance-Based Planning	N/A

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H-3. Right-Size Parking Tool

Proposed Project Group:	MAPC Proposed Projects	FFY 2015 UPWP Staff Evaluation:	N/A
Proposed Project Staff:	MAPC	Selected for FFY 2015 UPWP:	Yes
Estimated Project Cost:	\$70,000	Proposed FFY 2015 Budget:	\$70,000
L RTP Themes Addressed:	Environment; Livability		
Project Function:	Support to Regional Transportation Stakeholders		

Project Description:

MAPC would create an online parking tool that would provide municipalities, developers, non-profits, and the general public with the information and ability to understand the parking supply and demand of multi-family housing developments in their communities. Parking has a direct impact on overall development costs, and can hinder developers looking to construct multi-family housing. A better understanding of parking supply and demand would help communities achieve a parking balance, and assist in the state's goal of creating 10,000 new housing units each year. This project also could benefit local air quality and congestion by providing information that municipalities and developers could use to decide to reduce the total number of parking spaces required as a component of a new development. In turn, the less stringent parking requirements would create less traffic and congestion, and benefit local and regional air quality. In such locations, the number of households with one or more vehicles could decline, resulting in higher percentages of walking, biking, and transit ridership.

This tool would allow municipalities, state officials, developers, and residents to see existing parking supply and demand across a municipality and determine the appropriate amount of parking to provide as part of a development. It also might be used by municipalities to set minimum and maximum parking requirements for different types of developments or uses. Not only would the tool assist users when considering a current development, it also would help determine how much parking may be required when planning for future growth around the municipality. The parking tool would live primarily online in order to be interactive and widely accessible from any location. This project would include accompanying documentation that describes the research and analytic methods for developing the tool.

The Parking Tool would be a fully interactive online resource accessible to the public that would have specific focus areas with which to influence local and regional decision making:

1. Data Collection and Representation – MAPC, in partnership with the three-to-four municipalities, would identify a statistically significant number of multi-family housing developments to survey. MAPC would survey both the total amount of parking constructed as part of the development, as well as an on-site night-time survey of the parking being utilized by residents. Developments identified would include varying years of construction, a mix of rental and owner-occupied properties, a mix of bedroom types and sizes, and a mixture of levels of affordability. The developments

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H-3. Right-Size Parking Tool (continued)

Project Description, continued:

would also have different locational qualities such as being near a downtown, having access to different types of transit, or being located near a highway or interstate. Having a mixture of development types and locations would allow MAPC to understand how demographic and locational factors impact the amount of parking constructed and the amount of parking utilized by residents.

Once the surveying work is complete, this information would be entered into an online mapping platform that would allow the public to see which developments were surveyed, the characteristics of that development, the total amount of parking constructed, and the total amount of parking utilized on site. This initial set of data points alone could help inform existing opinions about the state of parking in a municipality.

2. Education – The second component of the parking tool is to educate decision makers, developers, and the public about the impact of parking locally and regionally. This would be accomplished in a few different ways. The first would be the through the release of the online mapping platform that would allow users to review each development surveyed by MAPC and the supporting data points related to each development. This data would assist in forming the basis for a regional conversation around parking requirements and the appropriateness of establishing parking requirements relative to the location and characteristics of development projects.

The second piece of the online tool would provide users with the ability to input information about a proposed development and its location to find existing developments that share similar characteristics. Users could compare the two developments based on the total size, number of units, unit mix, affordability, amount of parking, and location to help determine if the amount of parking provided is appropriate compared to the utilization of existing parking at developments with similar characteristics.

The third piece would be an online parking calculator module that would be a component of the overall parking tool website. The parking calculator would allow users to input information about a particular development project to determine the estimated parking ratio for the project, the estimated costs of constructing the parking, annual Greenhouse Gas Emissions, estimated annual Vehicle Miles Traveled, and more. The proposed development project being evaluated could then be compared to other existing development projects in the community or around the region to see how the parking and parking-related measures compare.

3. Local and Regional Policy – It is MAPC's hope that this online parking tool and unique sets of data would assist residents, developers, planners, and officials in making decisions at the local level when it comes to right-sizing parking. At the regional level, this information is critical to informing how transportation, land use, zoning, and environmental policies could be adjusted to reflect more accurate and appropriate parking supplies. Without this information, parking decisions are being made in a vacuum where developments are considered one at a time for approval often without considering the cumulative impact on the host community and surrounding communities. Our municipalities are asking for the hard data to support more flexible parking regulations, and this tool would play an important role in bringing that information to the public.

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H-3. Right-Size Parking Tool (continued)

Project Comments:

This activity would be covered under MAPC's Corridor and Subarea Planning Studies project group in the UPWP.

UPWP Focus Area	Rating	UPWP Focus Area	Rating
1. Link Land Use and Transportation	Primary	9. Increase Transportation Safety and Security	N/A
2. Work with Limited Financial Resources	N/A	10. Support Economic Vitality	Secondary
3. Use a Management and Operations Approach	N/A	11. Preserve and Maintain the Transportation System	N/A
4. Protect Air Quality and the Environment	Secondary	12. Consider Transportation Equity and Accessibility	N/A
5. Increase Transit and Healthy-Transportation Mode Share	Secondary	13. Support MetroFuture Implementation	Primary
6. Encourage Sustainable Communities and Livability	Primary	14. Support Statewide and Regional Transportation Initiatives	N/A
7. Advance Mobility and Access, and Reduce Congestion	Secondary	15. Enhance Technical Knowledge, Capacity, and Insights	Secondary
8. Improve System Reliability	N/A	16. Support Performance-Based Planning	N/A

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H-4. Stream Crossing Inventory for Local Roads

Proposed Project Group:	MAPC Proposed Projects	FFY 2015 UPWP Staff Evaluation:	N/A
Proposed Project Staff:	MAPC	Selected for FFY 2015 UPWP:	Yes
Estimated Project Cost:	\$16,300	Proposed FFY 2015 Budget:	\$16,300
L RTP Themes Addressed:	Climate Change; Environment; Safety and Security; System Preservation, Modernization, and Efficiency		
Project Functions:	MPO Planning; Support to Regional Transportation Stakeholders		

Project Description:

This concept is based on planning conducted by MAPC's sister regional planning agency (RPA), the Southeastern Regional Planning and Economic Development District's (SRPEDD) Geographic Roadway Runoff Inventory Program (GRIPP), which has been funded by SRPEDD's UPWP. This program includes the mapping of critical roadway segments that are eligible for federal funding, and the mapping of areas where environmentally sensitive resources are located—cold water fisheries, wetland resources, anadromous fish runs (for fish that migrate up river from the sea), etc.—and which may be adversely affected, which could help users identify transportation infrastructures likely in need of improvement.

In a pilot watershed, MAPC would undertake an effort similar to GRIPP to:

- Prioritize local roads, before construction or rehabilitation projects, in order to avoid “status quo” designs that do not account for ecosystem restoration or climate-change impacts (increased precipitation and flooding);
- Provide critical environmental analysis—largely unavailable to municipal staff—which would allow for more informed decisions regarding stormwater management and roadway drainage projects; and
- Identify potential sites for retrofitting, in order to address existing problems.

Anticipated work undertaking this inventory would include the following overarching tasks:

1. Data collection of both roadway infrastructure and environmental data, such as layers utilized within the Conservation Assessment and Prioritization System (CAPS) program at the University of Massachusetts, and other data sources.
2. Utilization of the MAPC Development Database and MAPC's Priority Preservation and Priority Development Areas analyses, if available, to identify proposed development that could either contribute to degradation and/or bear the brunt of flooding and roadway damage from undersized drainage systems.

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H-4. Stream Crossing Inventory for Local Roads (continued)

Project Description (continued):

3. GIS-based analysis of a compilation of the above data to determine the most critical intersections where roadways and hardened trails cross rivers, streams, and freshwater or coastal wetlands.
4. Preparation of a report summarizing results of the analysis and offering recommendations for next steps (e.g., working with partners to evaluate identified culverts for retrofit opportunities, identify sources of funding, etc.).

Benefits of this project could include a compilation and analysis of critical transportation and environmental data, which are rarely combined, to begin to best:

1. Improve transportation networks
2. Reduce public-safety hazards
3. Restore aquatic habitats
4. Create more resilient communities and stream systems
5. Plan for climate change

In addition, the project would advance MAPC’s and partners’ knowledge of aquatic ecological values and impairments, and transportation and public-safety vulnerabilities.

Project Comments:

This activity would be covered under MAPC’s Corridor and Subarea Planning Studies project group in the UPWP.

UPWP Focus Area	Rating
1. Link Land Use and Transportation	N/A
2. Work with Limited Financial Resources	Secondary

UPWP Focus Area	Rating
9. Increase Transportation Safety and Security	Primary
10. Support Economic Vitality	N/A

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H-4. Stream Crossing Inventory for Local Roads (continued)

UPWP Focus Area	Rating	UPWP Focus Area	Rating
3. Use a Management and Operations Approach	N/A	11. Preserve and Maintain the Transportation System	Primary
4. Protect Air Quality and the Environment	Primary	12. Consider Transportation Equity and Accessibility	N/A
5. Increase Transit and Healthy-Transportation Mode Share	N/A	13. Support MetroFuture Implementation	Secondary
6. Encourage Sustainable Communities and Livability	Secondary	14. Support Statewide and Regional Transportation Initiatives	Primary
7. Advance Mobility and Access, and Reduce Congestion	N/A	15. Enhance Technical Knowledge, Capacity, and Insights	Primary
8. Improve System Reliability	Secondary	16. Support Performance-Based Planning	Secondary