



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:

Project ID #	Project Name	Page
60405-60492	Computer Resource Management	4-X
60120-60600	Data Resources Management	4-X
90000	Direct Support	4-X



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.



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.



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.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO/MassDOT/MBTA

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.



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:

Project ID #	Project Name	Page
90011-90090	3C Planning and MPO Support	5-X
90024	Access Advisory Committee Support	5-X
10112	Air Quality Conformity Determinations	5-X
11355	Boston Region MPO Title VI Reporting	5-X
11704	Integrating Land Use in Regional Transportation Models	5-X
10101	Long-Range Transportation Plan	5-X
MAPC1	MPO/MAPC Liaison and Support Activities	5-X
90028	Provision of Materials in Accessible Formats	5-X
11244	Regional Model Enhancement	5-X
MAPC2	Subregional Support Activities	5-X
11132	Transportation Equity/Environmental Justice Support	5-X
10103	Transportation Improvement Program	5-X
10104	Unified Planning Work Program (CTPS)	5-X

Project ID #	Project Name	Page
MAPC4	Unified Planning Work Program (MAPC)	5-X



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: (\$XXX,XXX) 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. CTPS 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 program. 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 minutes of meetings, 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 to 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, reporting on the progress of projects listed in the UPWP, and responding to requests for information and support.

90013 Recertification Review: FFY 2015: (\$XX,XXX) CTPS 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: (\$XX,XXX) CTPS provides support related to planning topics such as the 3C planning factors, the MAP-21 National Goals, and other topics



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CLIENT: Boston Region MPO

ID #: 90011-
90090

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

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. CTPS 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.

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: (\$X,XXX) CTPS staff members attend meetings of the MAPC subregional groups to listen to and learn about community issues in the region and to be available to answer questions about the MPO and its activities. This helps staff coordinate subregional issues and concerns into the development of MPO documents.

90021 Regional Transportation Advisory Council Support: (\$XX,XXX) The Regional Transportation Advisory Council is the MPO's citizens' advisory committee. CTPS 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; assisting in conducting 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. CTPS 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.



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CLIENT: Boston Region MPO

ID #: 90011-
90090

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

90025 TRANSREPORT: (\$XX,XXX) The newsletter of the MPO, TRANSREPORT, is an important part of the MPO's public involvement program. CTPS 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. CTPS stays current on newsletter software and styles with an eye to making improvements in the newsletter's visual appeal and ability to communicate. CTPS 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-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: (\$XX,XXX) CTPS 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.

**STAFF:** Central Transportation Planning Staff**CLIENT:** Boston Region MPO**ID #:** 90011-
90090**BUDGET:** Not applicable to ongoing projects**STATUS:** Ongoing

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-Building Workshops 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. CTPS and the Metropolitan Area Planning Council collaborate on public involvement activities whenever possible.

The MPO’s website is another important tool to provide and gather 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 to provide members of the public an avenue to request information and provide input. CTPS monitors the input from this address and coordinates both responses and referral of 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 undertaking the following improvements:

- ⟨ Increasing the number of press releases and public notices and website newflashes regarding ongoing planning products and MPO milestones and events
- ⟨ Teaming with other entities to conduct joint programs and outreach
- ⟨ Integrating the Title-VI related Four Factor Analysis for guidance on provision of materials in languages other than English
- ⟨ Expanding 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.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 90011-
90090

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

⟨ Taking additional steps to understand language and cultural needs of potential meeting attendees when planning meetings.

Other activities that emerge from the MPO's adoption of the updated Public Participation Program will also be undertaken. Some major activities may be:

- ⟨ Recruiting public library support in making MPO information available to members of the public
- ⟨ Increasing our use of graphical materials to provide information
- ⟨ Offering more web-based surveys when a need for public feedback is identified
- ⟨ Exploring 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. Work to keep the contact information current and to identify and include new contacts, particularly those in or representing the community of minorities, persons with disabilities, low incomes, limited English proficiency, and the elderly, veterans, and youth is a significant part of the public participation program.

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: (\$XX,XXX) 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



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 90011-
90090

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

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.

90090 General Graphics: (\$XX,XXX) Graphics support will be provided to CTPS 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.

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.



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 with attendance at special consultations and other meetings
- Support the activities of the AACT Executive Board of Directors
- Maintain awareness of and guidance on the AACT Memorandum of Understanding, AACT bylaws, and disability issues in general
- Coordinate AACT elections and other committee activities, as needed



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 90024

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

- 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
- Maintain AACT databases for mailings, attendance log, and membership standing and maintain 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

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.



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 to maintain a technical capability in air quality and climate change, including conforming to 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 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 that 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 the 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 re-classified 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 non-attainment area for ozone but was re-classified 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 are in conformity with the two pollutants that form ozone: volatile organic compounds (VOCs) and nitrogen oxides (NO_x).

Other Air Quality Support

This program also 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 also 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 the implementation of GreenDOT will be performed and presented as noted below. Analysis of volatile organic compounds [VOCs] and nitrogen oxides [NO_x] emissions will also 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 in meeting 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 climate-change concerns and emission-reduction opportunities into the MPO's planning process in relation to the regional travel demand model set, the TIP, project-specific work products, the LRTP, the Congestion Management Process, the UPWP, and performance measures. Staff will also work with MassDOT to implement their 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 U.S. 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.
- Staff support to regional, local, and private entities, and to the agencies involved in monitoring, updating, and revising the mobile-source section of the SIP.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 10112

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

- 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.
- Coordination with DEP in developing 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 implementation of transportation programs and projects that have air quality benefits.

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.

**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.

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.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Boston Region MPO

ID #: 11704

BUDGET: TBD

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.



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. Work in federal fiscal year 2015 will include continued updating of the Needs Assessment and further analysis as new information becomes available. This information can be used by the MPO and staff in studies, reports, and deliberations in the future.

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. These include 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. MPO staff will continue to use various tools, such as the MPO's regional travel demand model set, the TREDIS economic impact assessment and cost-benefit analysis tool, and other tools to support plan development. There will be an air quality conformity determination and an environmental justice assessment. Staff will prepare the LRTP document on a schedule to allow for adoption by the MPO in the summer of 2015 and submission to the federal agencies for approval in September 2015.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 10101

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

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

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 implementation of its performance based planning program and the results of its tracking of trends in the region. The LRTP development process will be the method for establishment of 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 and circulate this and the finance, project programming and air quality information for public review prior to MPO approval.

⟨ Continue to develop performance measures for the goal and objective themes



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 10101

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

⟨ Continue to develop performance measures for the goal and objective themes

⟨ Continue to explore and use various tools, such as TREDIS, to support plan development.

⟨ 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.

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

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.



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.

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

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



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

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



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 aid in assessing the area's transportation needs and to 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 which ultimately produce over 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 to aid in meeting federal reporting requirements. The model set is also used by MPO member transportation agencies because the model set is extremely robust as it 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 has plans to undertake or to 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 the geographic coverage of the model. This evaluation considers the continued expansion of the MBTA service, and the continued population and employment growth in border communities. This growth has led to a continued 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 with 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) to analyze environmental justice issues; and 4) predict mobile air quality emissions.

⟨ Identify shortcomings in the existing model data and develop work programs to collect the needed additional data.

These activities support projects in this UPWP that rely on the regional model set for travel forecasting and analysis, particularly the 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 linkage 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.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO

ID #: 11244

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

⟨ 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.

⟨ 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 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 regional model set and a future year model set. Develop and update model documentation. Provide technical support to others, as needed.



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.

**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

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 #: 10103

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

The Boston Region MPO’s Transportation Improvement Program (TIP) is a document that 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 of current and new projects based on anticipated funding levels, supports the MPO in its decision making regarding programming and in the development of a draft document, and facilitates public review of the draft document before MPO endorsement of 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 incorporating changes in the criteria resulting 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 to consider.

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 relay the comments to the MPO for their consideration and endorsement of the final TIP document.

Amendments and Administrative Modifications: There are typically multiple occasions throughout the year when projects experience cost or schedule changes requiring an amendment or administrative modification to the TIP. MPO staff manages all public review processes regarding TIP amendments and administrative modifications, including the posting of 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 reasons for the changes. 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 their 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 will initially report on the MPO's implementation of its performance based planning program and the results of its tracking of 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 establishment of 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 up measures and targets and 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.

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.



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

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.



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.

This project supports CTPS UPWP activities presented in this chapter.



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 (under development). New discrete projects will be added to this chapter once approved by the MPO.

Project ID #	Project Name	Page
13208	Bicycle/Pedestrian Support Activities	6-X
11123	Congestion Management Process	6-X
MAPC4	Corridor/Subarea Planning Studies	6-X
43321	Foxborough Transit Feasibility Study	6-X
12324	FRA NEC FUTURE: Modeling Support	6-X
22336	Green Line Extension: Completion of New Starts Analysis	6-X
73216	I-93/I-95 Interchange Improvements North of Boston: Modeling Support	
MAPC5	Land Use Development Project Reviews	6-X
53219	Massachusetts Turnpike Allston Interchange Traffic Study	6-X
22124	Massport Technical Assistance: SFY 2015	6-X
MAPC6	MetroFuture Implementation	6-X
23325	South Boston Waterfront Transportation Plan: Modeling Support	6-X
12311, 12320-12323	South Station Expansion Project: Support	6-X

**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.



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, and 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/tabulating of electronic data for analysis and performance evaluation
- Coordinating with the MPO’s certification activities, UPWP, TIP, and LRTP
- Supporting the CMP Committee of the MPO

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



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:

(\$XX,XXX) 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 (\$XX,XXX): 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



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC4

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

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. 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 (\$XX,XXX): 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): (\$XX,XXX) 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.



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.



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 FFY 2014 award—made up of Job Access and Reverse Commute (FTA Section 5316) funding from MassDOT’s Community Transit Grant Program—to determine 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 has requested that the CTPS study the need for, and examine the feasibility of transit, services that would transport people with low incomes to and from jobs 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.



STAFF: Central Transportation Planning Staff

CLIENT: Federal Railroad Administration and AECOM

ID #: 12324

BUDGET: \$149,970

STATUS: 70%

The project will consist of supporting MassDOT and the Federal Railroad Administration in North East Corridor FUTURE (NEC FUTURE), which is a comprehensive planning effort to define, evaluate and prioritize future investments in the northeast corridor. As part of the NEC FUTURE planning effort a Service Development Plan and an Environmental Impact Statement will be developed. CTPS will assist in developing these plans and documents by providing modeling support to the project team to gauge the impact that NEC FUTURE will have on travel within the Boston region. CTPS will model land use scenarios as well as service scenarios.

FFY 2015 Activities and Expected Work Products: CTPS will support the project team by preparing model inputs, service plans and analysis of results, and will produce memoranda.



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.

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.



STAFF: Central Transportation Planning Staff

CLIENT: MassDOT

ID #: 73216

BUDGET: \$157,000

STATUS: 50%

The I-93/I-95 interchange north of Boston was built in the early 1970s using then-current design standards and serving substantially lower volumes than the roadway experiences today. As the number of vehicles increases, merges and weaves become congested to a greater extent. This interchange has been ranked among the five worst crash sites in Massachusetts in terms of safety between 2006 and 2010. 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), MassDOT's Highway Division will develop an environmental document that will evaluate transportation improvements at the I-93/ I-95 interchange in the towns of Reading, Stoneham, and Wakefield and the city of Woburn. CTPS will model and analyze a set of alternatives, including interchange improvements, transit service improvements, and other types of improvements, using the Boston Region MPO's regional travel-demand model set.

FFY 2015 Activities and Expected Work Products: Tasks associated with this project will be conducted as requested by MassDOT.



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.



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.



STAFF: Central Transportation Planning Staff

CLIENT: Massport

ID #: 22124

BUDGET: TBD

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.



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.



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.



STAFF: Central Transportation Planning Staff

CLIENT: MassDOT Office of Transportation Planning

ID #: 12311, 12320
-12323

BUDGET: \$350,000

STATUS: 95%

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.



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 (under development). New discrete projects will be added to this chapter once approved by the MPO.

Project ID #	Project Name	Page
MAPC7	Alternative-Mode Planning and Coordination	7-X
11148	Barriers and Opportunities Influencing Mode Shift	7-X
13150, MAPC9	Community Transportation Technical Assistance Program	7-X
11145	Freight Planning Support	7-X
11151	Greenhouse Gas Reduction Strategy Alternatives: Cost-Effectiveness Analysis	7-X
14344	Intercity Bus and Rail Maps	7-X
MAPC10	Land Use Data for Transportation Modeling	7-X
13801, MAPC8	Livable Community Workshop Program	7-X
Varies by Project	MassDOT Statewide Planning and Research Program Support	7-X
13154	MassDOT Title VI Program: FFY 2014	7-X
13156	MassDOT Title VI Program: FFY 2015	7-X

Project ID #	Project Name	Page
Varies by Project	MassDOT Transit Planning Assistance	7-X
14340	MBTA 2014 National Transit Database: Data Collection and Analysis	7-X
14341	MBTA 2015 National Transit Database: Data Collection and Analysis	7-X
14345	MBTA 2016 National Transit Database: Data Collection and Analysis	7-X
11378	MBTA 2014 Review of Fare Structure, Policy, and Tariffs	7-X
11393	MBTA 2015 Review of Fare Structure, Policy, and Tariffs	7-X
11384	MBTA Bus Service Data Collection VIII	7-X
14339	MBTA Rider Oversight Committee Support	7-X
11394	MBTA Title VI Program Monitoring: FFY 2015	7-X
11395	MBTA Title VI Program Monitoring: FFY 2016	7-X
14342	Regional Transit Service Planning Technical Support: FFY 2015	7-X
11150	Roadway Safety Audits	7-X
90080	Travel Data Forecasts	7-X
90040	Travel Operations Analyses	7-X



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: 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: 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



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC7

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

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.

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.



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC7

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

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.

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.

**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.

This project will be supported by MAPC activities described under Land Use Data to Support Transportation Modeling (page 7-XX).



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.



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 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 to guide work for this program. The goals for MPO freight planning, which shaped this Freight Planning Action Plan, 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 Action Plan.

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



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: MassDOT

ID #: 14344

BUDGET: TBD

STATUS: 43%

MassDOT has requested that CTPS develop a series of new rail and bus network maps for New England. These maps include a map covering all the New England states, individual maps for each New England state, and a schematic map which will be posted on the MassDOT 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 web.



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 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.

Barriers and Opportunities for 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.



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region MPO

ID #: MAPC10

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

This project supports Long-Range Transportation Plan (LRTP) development activities presented in Chapter 5. Work done under the “Opportunities for and Barriers to Influencing Mode Shift” portion of this project will support work being conducted under Opportunities for and Barriers to Influencing Mode Shift (page 7-XX).



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.



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



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.

- 20142015 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.

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

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.



STAFF: Central Transportation Planning Staff

CLIENT: MassDOT

ID #: 13156

BUDGET: TBD

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.



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.



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.



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 14341

BUDGET: TBD

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: TBD

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.



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 14345

BUDGET: TBD

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: TBD

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.



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 SFY 15 fare increase. CTPS 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 and conducted the required Title VI fare equity analysis. In FFY 2014, CTPS has also been assisting the MBTA and its consultants in 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.



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 11393

BUDGET: TBD

STATUS: 0%

MPO staff 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. It is expected that MPO staff will continue 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.

**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



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.



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 11394

BUDGET: TBD

STATUS: 5%

CTPS will provide the MBTA with technical assistance in collecting data on and conducting assessments of the level of service provided in minority communities compared to non-minority 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 location and operability; vehicle age and condition; and . 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.



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 11395

BUDGET: TBD

STATUS: 0%

CTPS will provide the MBTA with technical assistance in collecting data on and conducting assessments of the level of service provided in minority communities compared to non-minority 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 location 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 2016 MBTA revenue service and amenities.



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.



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.



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.



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.