

**Unified Planning
Work Program
Federal Fiscal Year 2010**

Metropolitan Planning Organization Draft

August 13, 2009

**Boston Region
Metropolitan Planning Organization Staff**

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

Executive Office of Transportation and Public Works
Massachusetts Bay Transportation Authority
Massachusetts Bay Transportation Authority Advisory Board
Massachusetts Highway Department
Massachusetts Port Authority
Massachusetts Turnpike Authority
Metropolitan Area Planning Council
City of Boston
City of Newton
City of Somerville
Town of Bedford
Town of Braintree
Town of Framingham
Town of Hopkinton
Federal Highway Administration (nonvoting)
Federal Transit Administration (nonvoting)
Regional Transportation Advisory Council (nonvoting)

The MPO fully complies with Title VI of the Civil Rights Act of 1964 and related statutes and regulations in all programs and activities. The MPO does not discriminate on the basis of race, color, national origin, English proficiency, income, religious creed, ancestry, disability, age, gender, sexual orientation, or military service. Any person who believes herself/himself or any specific class of persons to have been subjected to discrimination prohibited by Title VI or related statutes or regulations may, herself/himself or via a representative, file a written complaint with the MPO. A complaint must be filed no later than 30 calendar days after the date on which the person believes the discrimination occurred.

For additional copies of this document or to request it in an accessible format, contact us:

By mail Boston Region Metropolitan Planning Organization
 Certification Activities Group
 10 Park Plaza, Suite 2150
 Boston, MA 02116

By telephone (617) 973-7119 (voice)
 (617) 973-7089 (TTY)

By fax (617) 973-8855

By e-mail mesullivan@ctps.org

Or download it at www.ctps.org/bostonmpo/resources/reports.htm.

This document was funded in part through grants from the Federal Highway Administration and Federal Transit Administration of the U.S. Department of Transportation. The contents of this report do not necessarily reflect the official views or policy of the U.S. DOT.

In the final document, this page will present the Boston Region MPO's most recent self-certification statement.

TABLE OF CONTENTS

Executive Summary	ES-1
1 The Transportation Planning and Programming Process in the Boston Region MPO Area	1-1
2 Status of the Federal Fiscal Year 2009 UPWP Projects Conducted by Boston Region MPO Staff	2-1
3 Index of Projects by Agency	3-1
4 Administration and Resource Management Projects	4-1
5 Certification Requirements	5-1
6 Planning Studies	6-1
7 Technical Support/Operations Analysis Projects	7-1
8 Boston Region MPO Budget and Operating Summaries	8-1
Administration and Resource Management Projects	8-2
Certification Requirements	8-3
Planning Studies	8-4
Technical Support/Operations Analysis Projects	8-5
UPWP Total Budget by Recipient Agency and by Funding Source	8-6
FFY 2010 UPWP by FTA Task and Element	8-7
FFY 2010 UPWP CTPS Schedule and Staff Assignments	8-8
Appendix A Other Boston Region Transportation Planning Projects	A-1
Appendix B Public Participation	B-1
Appendix C Glossary	C-1

EXECUTIVE SUMMARY

This Unified Planning Work Program (UPWP) contains information about surface transportation planning projects that will be conducted in the Boston metropolitan region during the period of October 1, 2009, through September 30, 2010 (federal fiscal year 2010). The UPWP is an essential transportation-planning tool for the region and often a first step in determining whether or not a project will be constructed. It is integrally related to other planning initiatives conducted by the Boston Region Metropolitan Planning Organization (MPO), as well as by transportation agencies such as the Executive Office of Transportation and Public Works (EOT) and the Massachusetts Bay Transportation Authority (MBTA).

The projects in this UPWP will be funded from federal, state, and local sources. It has been prepared in accordance with final regulations governing the implementation of the federal Safe, Accountable, Flexible, Efficient Transportation Act: A Legacy for Users (SAFETEA-LU) and with Federal Highway Administration and Federal Transit Administration grant application requirements and planning emphasis areas. This UPWP contains 79 projects, of which 65 will be carried out by the Central Transportation Planning Staff (CTPS) and the Metropolitan Area Planning Council (MAPC) on behalf of the MPO, EOT and its Office of Transportation Planning, the MBTA, and the Massachusetts Highway Department (MassHighway). The remaining 14 projects will be carried out by individual transportation agencies, municipalities, and academic institutions.

The majority of the FFY 2010 UPWP projects have been ongoing since FFY 2009. However, there are several new projects. Those to be undertaken on behalf of the MPO are:

- I-93 Access and HOV Lane Improvements (Savin Hill/South Bay Area) (page 6-13)
- Low-Cost Improvements to Bottleneck Locations (page 6-14)
- MBTA Bus Route 1 Transit Signal-Priority Study (page 6-16)
- Safety and Operations Analyses at Selected Intersections (page 6-24)
- Community Transportation Technical Assistance Program (page 7-6)
- Emergency Evacuation and Hazard Mitigation Mapping (page 7-7)
- Integrating Land Use in Regional Transportation Models (page 7-9)
- MBTA Core Services Evaluation (page 7-15)
- MPO Freight/Rail Study, Phase 2 (page 7-22)
- Safety Assessments Coordination (page 7-24)

CTPS will also continue to support projects that are being conducted by the EOT and the MBTA: Examples of these are:

- Assembly Square Station Feasibility Study (page 6-5 and Appendix A)
- Green Line Extension Environmental Review Support (page 6-9 and Appendix A)
- Red Line–Blue Line Connector Study Support (page 6-20 and Appendix A)
- South Coast Commuter Rail Extension (page 6-26 and Appendix A)

The UPWP is intended to serve two purposes. The first is to provide information to government officials, local communities, and the general public about all surface-transportation planning projects expected to be undertaken in the Boston region. The second is to provide complete budget information to federal and state officials about the expenditure of federal funds for those projects being carried out by the Boston Region MPO.

The document is structured as follows. Chapter 1 provides general information about the Boston Region MPO, the transportation planning process, and the sources of funding for UPWP projects. In addition, it explains the MPO's role in programming these funds and the criteria the MPO used to evaluate the projects it was responsible for programming in this UPWP. Chapter 1 also contains a graphic that shows the UPWP's relationship to other MPO planning documents as well as to the MBTA's Program for Mass Transportation (PMT), current feasibility studies, and other visioning processes.

Chapter 2 provides a status report on the FFY 2009 UPWP projects that were conducted by CTPS and MAPC. It also includes a list of products for those projects and information on how to obtain copies of reports and certification documents.

Chapter 3 is an index of the FFY 2010 projects. They are organized by the agency responsible for conducting them.

Chapters 4 through 7 contain project descriptions and detailed budget information for all work being conducted by CTPS and MAPC on behalf of the MPO, and for transportation projects being conducted by CTPS on behalf of the individual transportation planning entities mentioned on page ES-1.

Chapter 8 gives budget summaries of the projects included in Chapters 4 through 7 and other information about the status of federal funding in this UPWP. It is intended to provide federal and state officials with information necessary for funding approval and contract administration.

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

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

Appendix C is a glossary of acronyms and transportation terms. An effort has been made to define such terms not only in the glossary but also the first time they appear in a chapter.

1 THE TRANSPORTATION PLANNING AND PROGRAMMING PROCESS IN THE BOSTON REGION MPO AREA

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

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

THE BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

The Boston Region MPO area consists of the 101 cities and towns in the map on the back side of the cover of this document. Its members are the commonwealth's Executive Office of Transportation and Public Works; the cities of Boston, Braintree, Newton, and Somerville; the towns of Bedford, Framingham, and Hopkinton; the Massachusetts Bay Transportation Authority; the Massachusetts Bay Transportation Authority Advisory Board; the Massachusetts Highway Department; the Massachusetts Port Authority; the Massachusetts Turnpike Authority; and the Metropolitan Area Planning Council. In addition, the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and the Regional Transportation Advisory Council participate in the MPO as advisory (nonvoting) members.

- The *Executive Office of Transportation and Public Works (EOT)*, under Chapter 6A of the Massachusetts General Laws (MGL), serves as the principal agency for developing, coordinating, administering, and managing transportation policies, planning, and programs related to design, construction, maintenance, and operations. The agency also is responsible for supervising and managing the Massachusetts Highway Department (including all state agencies within that department), the Massachusetts Aeronautics Commission, the Massachusetts Bay Transportation Authority, the Massachusetts Turnpike Authority, the Massachusetts Port Authority, and the commonwealth's regional transportation authorities.

Chapter 6A of the MGL also established an Office of Transportation Planning within the EOT to serve as the principal source of planning for state-level transportation projects and to work in coordination with the commonwealth's regional planning agencies, which serve as the principal source of planning for local and regional transportation projects.

- The *Massachusetts Bay Transportation Authority (MBTA)* has the statutory responsibility within its district, under the provisions of Chapter 161A of the MGL, of preparing the engineering and architectural designs for transit development projects, constructing and

operating transit development projects, and operating the public transportation system. The MBTA district comprises 175 communities, including all 101 cities and towns of the Boston Region MPO area. The MBTA board of directors consists of a chairman and eight other directors, appointed by the governor. The MBTA will provide general transit planning in support of the projects in this Unified Planning Work Program (UPWP).

- The *Massachusetts Bay Transportation Authority Advisory Board* was created by the Legislature in 1964 through the same legislation that created the MBTA; this legislation was updated as part of Chapter 127 of the Acts of 1999. The Advisory Board consists of representatives of the 175 cities and towns that compose the MBTA district. Cities are represented by either the city manager or mayor, and towns by the chairperson of the board of selectmen. Specific responsibilities of the Advisory Board include approval of the Program for Mass Transportation (PMT), review of proposed fare increases, annual review of the MBTA Capital Investment Program, review of the MBTA's documentation of net operating investment per passenger, and approval of the MBTA's operating budget (with the authority to reduce funding items).
- The *Massachusetts Highway Department (MassHighway)* has the statutory responsibility of designing, constructing, operating, and maintaining the commonwealth's roads and bridges and is charged with collaborating with other agencies and authorities in fields related to transportation development, public safety, and security. MassHighway is under the direction of a commissioner who is appointed by the governor.
- The *Massachusetts Port Authority (Massport)* has the statutory responsibility under Chapter 465 of the Acts of 1956, as amended, of planning, constructing, owning, and operating such transportation and related facilities as may be necessary for the development and improvement of commerce in Boston and the surrounding metropolitan area. Massport owns and operates the seaport, the Tobin Bridge, Logan International Airport, and Hanscom Field.
- The *Massachusetts Turnpike Authority (MassPike)* is authorized to own, construct, maintain, improve, repair, operate, and administer the Massachusetts Turnpike and the Metropolitan Highway System (MHS). The MHS, as defined in Chapter 3 of the Acts of 1997, consists of "the integrated system of roadways, bridges, tunnels, overpasses, interchanges, parking facilities, entrance plazas, approaches, connecting highways, service stations, restaurants, tourist information centers, and administration, storage, maintenance, and other buildings that the authority [owns,] constructs, or operates and maintains pursuant to the provisions of this chapter, which consists of the Boston Extension, the Callahan Tunnel, the Central Artery, the Central Artery North Area, the Sumner Tunnel and the Ted Williams Tunnel, and any additional highway, tunnel, and bridge components as the general court may from time to time determine."
- The *Metropolitan Area Planning Council (MAPC)* The *Metropolitan Area Planning Council* is the regional planning agency for the 101 cities and towns in the MAPC/MPO district. It is composed of the chief executive (or her/his designee) of each of the 101 cities and towns in the MAPC district, 21 gubernatorial appointees, and 12 ex officio members. It has statutory responsibility for comprehensive regional planning in the district under Chapter 40B of the MGL. It is the Boston Metropolitan Clearinghouse under Section 204 of the Demonstration Cities and Metropolitan Development Act of 1966 and Title VI of the Intergovernmental

Cooperation Act of 1968. Also, its district has been designated an economic development district under Title IV of the Public Works and Economic Development Act of 1965, as amended. MAPC's responsibilities for comprehensive planning include responsibilities in the areas of technical assistance to communities, transportation planning, and the development of zoning, land use, demographic, and environmental studies.

- The *City of Boston*, three elected cities (currently *Braintree*, *Newton*, and *Somerville*), and three elected towns (currently *Bedford*, *Framingham*, and *Hopkinton*) represent the region's 101 municipalities in the Boston Region MPO. The City of Boston is a permanent MPO member; the six elected municipalities serve staggered three-year terms as established in the MPO's Memorandum of Understanding, endorsed in December 2001.

Three other members participate in the Boston Region MPO in an advisory (nonvoting) capacity, reviewing the Regional Transportation Plan (RTP), the Transportation Improvement Program (TIP), and the UPWP to ensure compliance with federal planning and programming requirements:

- The *Federal Highway Administration* and *Federal Transit Administration* oversee the highway and transit programs of the U.S. Department of Transportation under pertinent legislation and the provisions of the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).
- The *Regional Transportation Advisory Council*, the MPO's citizen advisory group, provides the opportunity for organizations and municipal representatives to become actively involved in the decision-making processes of the agencies that plan and program transportation services in the region. The Advisory Council reviews, comments on, and makes recommendations regarding certification documents. It also serves as a forum for identifying issues and alternatives, advocates solutions to the region's transportation needs, and generates interest and knowledge among the general public.

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

- The *Transportation Planning and Programming Committee*, acting on behalf of the MPO members, meets regularly to provide ongoing coordination of planning activities taking place within the region. It consists of a representative from each MPO member, with the EOT representative serving as chairperson. The committee is responsible for managing the certification process, making recommendations to the MPO, and supervising MPO operations by providing direction to the Central Transportation Planning Staff (CTPS). This includes overseeing the work described in this UPWP and approval of CTPS's hirings of professional staff. The Advisory Council is a voting member of this committee.
- The *Central Transportation Planning Staff (CTPS)* was created by the MPO to carry out general and 3C transportation planning activities behalf of the MPO and to provide agencies with analyses required for the work described in this document.
- The *MAPC subregional groups (SRGs)* bring together representatives (usually appointed or elected officials or their staff) of the communities within a subregion of the MAPC district to

address shared concerns regarding transportation and land use. MAPC has promoted and supported the formation of SRGs in order to foster better communication and cooperation among communities. They have played an important role in the MPO's participatory process, including the development of TIP and UPWP project priorities.

THE TRANSPORTATION PLANNING PROCESS

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

- To identify transportation problems and develop possible solutions to them
- To strike a balance between short-range and long-range considerations, so that beneficial incremental actions undertaken now reflect an adequate understanding of probable future consequences and possible future options
- To take into account both regional and local considerations, and both transportation and nontransportation objectives and impacts, in the analysis of project issues
- To assist implementing agencies in putting policy and project decisions into effect in a timely fashion, with adequate consideration of environmental, social, fiscal, and economic impacts and with adequate opportunity for participation by other agencies, local governments, and the public
- To assist implementing agencies in assigning priorities to transportation activities in a manner consistent with the region's needs and resources
- To maintain MPO compliance with the requirements of SAFETEA-LU, the Americans with Disabilities Act (ADA), the Clean Air Act (CAA), the Civil Rights Act of 1964, Executive Order 12898 (regarding environmental justice), Executive Order 13166 (regarding outreach to populations with limited English proficiency), and Executive Order 13330 (regarding the coordination of human service transportation)

THE UPWP PROJECT SELECTION PROCESS

Each year the MPO considers projects for inclusion in the annual update of the UPWP through its UPWP Subcommittee, which was established by the Transportation Planning and Programming Committee. For the development of the FFY 2010 UPWP, the MPO drew from the following sources to generate a universe of study ideas for evaluation:

1. Existing planning documents: the Congestion Management Process (CMP) reports, the Program for Mass Transportation (PMT), the Regional Transportation Plan (RTP), the youMove Massachusetts Interim Report, MetroFuture, and recent feasibility studies.)
2. FFY 2009 UPWP comment letters
3. Responses to an insert included in the March 2009 issue of *TRANSREPORT*, which sought feedback on safety and mobility concerns from its more than 2,500 subscribers

4. Consultations with EOT, MAPC, the MBTA, and MassHighway
5. MPO-staff-identified needs

Evaluation Process

The MPO strengthened the link between UPWP studies and the RTP by drawing on the Topics and Visions articulated in the RTP to categorize potential studies and evaluate their consistency with them:

RTP Topics and Visions:

- 1 **System Preservation, Modernization, and Efficiency**
Preserving the existing transportation network and replacing systems once their life span is realized are tasks critical to the promotion and effective management of regional mobility. The vision of the Boston Region MPO is to maintain and manage existing transportation facilities so that they function at their highest possible level of safety and efficiency. In this manner, people using elements of the system will experience the highest possible service level. Application of transportation systems management and intelligent transportation systems (ITS) technologies will be the main tool used to provide information, reduce congestion, and expedite transit service, thereby providing for system reliability, safety, and efficiency. Upgrading to keep in step with evolving standards will help meet the region's changing needs.
- 2 **Mobility**
A coordinated mix of transportation modes and services will give users of the region's transportation system increased opportunities for convenient, reliable, speedy, affordable, and accessible travel. Existing roadway, transit, bicycle, pedestrian, and freight links will be maintained and their serviceability improved. New routes, lines, and connections will serve additional needs. The spectrum of options will serve travelers from different areas of the region with varying needs.
- 3 **Environment**
Transportation planning activities and projects will strive to reduce air quality degradation and other environmental degradations caused by transportation. Vehicle emissions (carbon monoxide [CO], nitrogen oxides [NOx], volatile organic compounds [VOCs], particulates, and carbon dioxide [CO2]) will be reduced by modernizing transit, truck, and automobile fleets, and through increasing transit mode share.

In the process of considering transportation projects, the MPO will take into account the management and minimization of soil and water contamination, such as highway and rail right-of-way runoff, and wetland impacts. Construction of transportation facilities will be planned and carried out in a manner that avoids or minimizes negative impacts to natural resources. Transportation planning will also promote project design that preserves cultural resources such as community character and cohesiveness, quality of life, and historic and scenic resources; protects greenfields, open space, wildlife, and ecosystems; and advances sustainability and health-promoting transportation options. Transportation agencies will work with environmental and cultural resource agencies to achieve these ends.

4 Safety and Security

Safety and security initiatives will be implemented to protect the region from natural and human threats. Transportation infrastructure and its operation will be upgraded on an ongoing basis for the safety and security of all users. Technologies will be employed to manage incidents, conduct emergency response, and support safe evacuations using various transportation modes. Highway and transit infrastructure will be kept in a state of good repair. There will be fewer crashes, due to improved intersection designs and upgrades.

5 Regional Equity

Regional equity and the needs of low-income and minority residents will be assessed through regular activities and technical analyses. Low-income and minority residents will share equally with others in access to the transportation network and its mobility benefits. Environmental burdens from transportation facilities and services will be identified and minimized for all populations.

6 Land Use and Economic Development

Multimodal transportation will serve business, residential, and mixed-use centers. Transit, bicycle, and pedestrian facilities will be linked in a network to a growing inventory of denser residential development, employment and commercial centers, and major destinations. Transportation investments will focus on centers of economic activity and areas with adequate water, sewer, and other public infrastructure. Transportation rights-of-way will be used to maximize public benefits.

Transportation planning will be integrated with land-use and economic-development planning to the greatest extent possible in order to achieve more mobility, foster sustainable communities and transportation, and expand economic opportunities and prosperity. Transportation improvements will be made to facilitate the movement of freight throughout the region.

Next, the MPO further evaluated each study idea in a series of in-house staff discussions and UPWP Subcommittee meetings that explored a variety of issues, such as whether there is current or planned construction in the study area, whether the recommendations of related previous studies (if applicable) have been implemented; and if they have addressed the need identified in the previous studies. Following this evaluation, staff defined the general scope and cost of a potential new study and whether a proposed study is consistent with the following guidelines established by the UPWP Subcommittee:

1. Advances a CMP recommendation or emphasis area
2. Advances a recommendation of the MPO or of a feasibility study
3. Forwards an RTP or PMT project
4. Advances an MPO policy
5. Advances a SAFETEA-LU planning factor or responds to other federal guidance
6. Leads to an implementable TIP project

Following completion of this process, MPO staff presented the results in an evaluation matrix to the UPWP Subcommittee along with a staff recommendation.

The UPWP Subcommittee met five times to consider the development process, project evaluations, and staff recommendations regarding the draft FFY 2010 UPWP and selected a program of projects that was based on the availability of funding and several other factors, described below, including planning priorities, state and federal guidelines, and other considerations. The Transportation Planning and Programming Committee approved the recommendations of the UPWP Subcommittee on June 25, 2009.

Consistency with Federal Planning Regulations

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)

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

- Production of the RTP, the TIP, and the UPWP
- Establishment and oversight of the public participation process
- Maintenance of transportation models and data resources to support air quality conformity determinations as well as long-range and short-range planning efforts

Consistency with Other Federal Legislative Requirements

Title VI of the 1964 Civil Rights Act, Executive Order 12898, Executive Order 13166, and Executive Order 13330

Title VI of the 1964 Civil Rights Act forbids federal agency discrimination on the basis of race, color, national origin, age, sex, disability, or religion. This act and subsequent legislation and implementing regulations provide that persons may not be excluded, denied benefits, or discriminated against on these bases. This applies to all U.S. Department of Transportation programs, policies, and activities. It is the foundation of current environmental justice policies and regulations.

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

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

- Explicitly consider the effects of transportation decisions on minority and low-income populations
- Provide meaningful opportunities for public involvement by members of minority and low-income populations

- Gather (where relevant, appropriate, and practical) demographic information such as the race, color, national origin, and income level of the populations affected by transportation decisions
- Minimize or mitigate any adverse impact on minority or low-income populations

Executive Order 13166, of August 11, 2000, is intended to ensure compliance with Title VI of the Civil Rights Act of 1964 by specifically calling for improved access to federally conducted and federally assisted programs and activities for persons who, as a result of national origin, have limited English proficiency (LEP). To comply with the order, MPOs are required to develop and implement a system by which LEP persons can meaningfully participate in the transportation planning process.

Executive Order 13330, of February 26, 2004, calls for the establishment of the Interagency Transportation Coordinating Council on Access and Mobility under the aegis of the Secretary of Transportation. This order charges the Council with developing policies and methods for improving access for persons with disabilities, low-income persons, and older adults.

The 1990 Clean Air Act

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

Transportation control measures (TCMs) identified in the State Implementation Plan (SIP) for the attainment of air quality standards are federally enforceable and must be given first priority when using federal funds. Such projects include parking freeze programs in Boston and Cambridge, statewide rideshare regulations, rapid transit and commuter rail extension programs, park-and-ride facilities, residential parking sticker programs, and the operation of high-occupancy-vehicle lanes.

The Americans with Disabilities Act

Title III of the Americans with Disabilities Act requires all transportation projects, plans, and programs to be accessible to people with disabilities. At the MPO level, this means that public meetings must be held in accessible buildings and MPO materials must be made available in accessible formats.

Consistency with Federal Planning Factors and Other Federal Guidance

This year the FHWA and FTA asked that the MPO identify its top three bottleneck locations and conduct a study of possible low-cost solutions. This study is included in Chapter 6. Other new initiatives that respond to federal guidance are several safety projects, such as hazard mitigation

mapping and safety assessments, listed in Chapters 6 and 7. Work by both CTPS and MAPC to develop an integrated land use/transportation model is presented in Chapters 5 and 7.

In addition to FHWA and FTA guidance to MPOs that they should continue to enhance their technical capacity and to develop and implement strategies to address environmental justice and LEP issues, the following SAFETEA-LU planning factors were identified:

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency
- Increase the safety of the transportation system for motorized and nonmotorized users
- Increase the security of the transportation system for motorized and nonmotorized users
- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight
- Promote efficient system operation and management for both the transit and highway networks
- Emphasize the preservation of the existing transportation system
- Address safety and security issues in the transportation planning process
- Enhance the technical capacity of the planning process

Projects specifically relating to these planning factors are identified in Chapters 4 through 7. A summary of the amount of money being spent for these projects can be found in Chapter 8.

Coordination with Other Planning Activities

Regional Transportation Plan

The MPO considered the degree to which a proposed UPWP project would forward the policies that guided the development of its RTP. The MPO also reviewed UPWP projects within the context of the recommended projects included in the RTP.

Congestion Management Process (CMP)

The purpose of the CMP (formerly known as the Mobility Management System [MMS]) is to monitor transit, roadway, and park-and-ride facilities in the MPO region and identify “problem” locations. Projects that help address problems identified in the most recent CMP monitoring were considered for inclusion in this UPWP.

The MBTA Program for Mass Transportation (PMT)

In May 2003, the MBTA adopted its current PMT, which is the MBTA’s long-range capital plan. The PMT was developed with extensive public involvement and approved by the MBTA Advisory Board. The PMT includes projects currently under study in this UPWP, and it also

identifies potential studies for inclusion in a future UPWP. The 2009 Program for Mass Transportation is scheduled to be adopted later this year.

youMove Massachusetts

youMove Massachusetts, a statewide initiative designed as a bottom-up approach to transportation planning, developed 10 core themes derived from a broad-based public participation process that articulated the expressed concerns, needs, and aspirations of Massachusetts residents related to their transportation network. These themes form the basis for the *youMove Massachusetts Interim Report*, and were considered in the development of this UPWP.

The figure on the following page depicts how the UPWP relates to the above planning activities. In addition, this coordination is identified in the project listings shown in Chapters 4 through 8.

Consistency with MPO Policies

In choosing projects for inclusion in the UPWP, the UPWP Committee considers the degree to which a project forwards the following MPO policies, which were adopted in January 2006:

System Preservation, Modernization, and Efficiency

To emphasize the preservation, modernization, and efficiency of the existing transportation system, the MPO will:

- A. Put priority on projects that maintain, repair, and modernize existing infrastructure.
- B. Set funding goals for maintaining the system.
- C. Make investments that maximize the efficiency, effectiveness, reliability, and flexibility of the existing transportation system.
- D. Encourage and support, through planning and programming, projects and programs that improve the operation of the existing transportation system through the use of Intelligent Transportation Systems (ITS), new technologies, and transportation systems management (TSM).

Mobility

To improve mobility for people and freight, the MPO will:

- A. Put a priority on projects and programs that increase the availability of transportation options for people and freight by improving connections, access to and within the system, services, and infrastructure to meet needs.
- B. Support projects and programs that improve public transportation service by making it faster, more reliable, and more affordable.
- C. Consider how an improvement to a single mode can make the entire system work better.
- D. Fund projects that expand the existing transportation system's ability to move people and goods in areas identified in the Boston Region Mobility Management System, the MBTA

Relationship of UPWP to Other Transportation Planning Documents

INPUTS

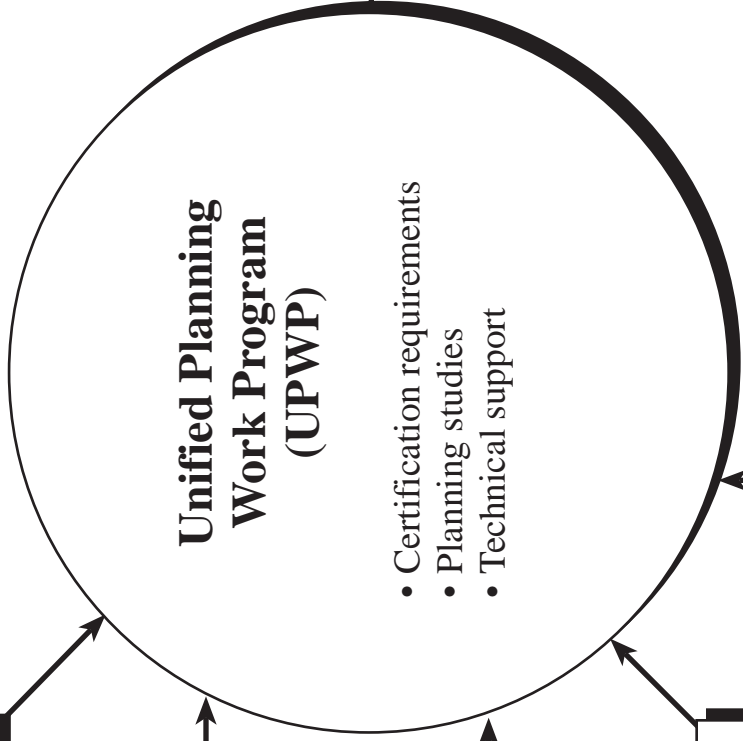
Mobility Management System

Program for Mass Transportation

Regional Transportation Plan

Feasibility Studies

Other Visioning Processes



OUTPUTS

Transportation Improvement Program and Air Quality Conformity Determination

Regional Transportation Plan and Air Quality Conformity Determination

MBTA Capital Investment Program

Program for Mass Transportation, the MPO's Regional Equity Program, MPO and EOT freight studies, and through public comment. This includes encouraging options that manage demand. Adding highway capacity by building general-purpose lanes should be considered only when no better solution can be found and should be accompanied by proponent commitments, developed in the environmental review process, to implement TDM measures.

- E. Assist agencies and communities in planning and implementing projects that provide bicycle and pedestrian routes, networks, and facilities.
- F. Support programs that meet public transportation needs in suburban communities, including improving access to existing public transportation and partnering with others to initiate new intrasuburban services linking important destinations.
- G. Provide better access for all to transportation throughout the region, including for our youth, elderly and people with disabilities, and members of zero-vehicle households. This includes identifying and addressing structural and operational barriers to mobility.
- H. Develop a multimodal, comprehensive plan for freight movement that includes an evaluation of freight infrastructure needs and access to intermodal facilities (air, road, rail, and water).

Environment

To minimize transportation-related pollution or degradation of the environment; promote energy conservation; support preservation of natural resources and community character; and advance sustainability, regional environmental benefits, and health-promoting transportation options, the MPO will:

- A. Give priority to projects that maintain and improve public transportation facilities and services so as to increase public transportation mode share and reduce reliance on automobiles.
- B. Give priority to projects that reduce congestion or manage transportation demand to improve air quality.
- C. Support, through planning and programming, projects that make transportation in the region more sustainable.
- D. Promote the use of low-polluting or alternative fuels, efficient engine technology, or other new, viable technology and resource protections.
- E. Consider environmental issues during project selection; in particular, air quality and reduction of pollutants (carbon monoxide [CO], nitrogen oxides [NO_x], volatile organic compounds [VOCs], particulates, and carbon dioxide [CO₂]), water resources (soil and water contamination, stormwater management, and wetlands impacts), greenfields and open space, and wildlife and ecosystems; and value those that reduce negative impacts.
- F. Recognize value in transportation projects that preserve natural and cultural resources, including visual, historic, aesthetic, noise, community cohesiveness, and quality of life values.
- G. Recognize, in evaluations, projects that respect community character in their purpose and design.
- H. Consult with environmental and cultural resource agencies and entities on environmental

effects, particularly through the existing National Environmental Policy Act (NEPA) and Massachusetts Environmental Policy Act (MEPA) processes.

- I. Encourage, through planning and programming, transportation choices that promote a healthy lifestyle such as walking and bicycling.

Safety and Security

To improve safety and security for all transportation system users and prepare the transportation system for its role in emergency response preparedness, the MPO will:

- A. Support designs and fund projects and programs that address safety problems and enhance safe travel for all system users. This includes designs and projects that encourage motorists, public transportation riders, bicyclists, and pedestrians to share the transportation network safely.
- B. Support, through planning and programming, the installation, operation, upgrading, and timely maintenance of system infrastructure, including ITS, to provide for safety and security.
- C. Participate in regional planning for safety and security initiatives, such as evacuation and contingency measures, and homeland security.

Regional Equity

To promote the equitable sharing of the transportation system's benefits and burdens, and incorporate environmental justice principles into transportation planning and programming activities, the MPO will:

- A. Continue the outreach to communities with a high proportion of low-income and minority residents to identify transportation needs.
- B. Assess regional equity by analyzing mobility, accessibility, and congestion for communities with a high proportion of low-income and minority residents.
- C. Fund projects that address identified regional equity issues and needs.

Land Use and Economic Development

To promote the integration of land use, economic development, and transportation planning to achieve efficiencies; benefits for mobility and the environment, including sustainable communities and transportation; and stronger economic opportunities, the MPO will:

- A. Link transportation planning with land use and economic development plans, particularly in areas identified for economic development by state, regional, and local planning.
- B. Make transportation investments where existing or planned development will encourage public transportation use, walking, and bicycling.
- C. Give priority to projects in areas identified in local and regional plans as being suitable for concentrated development and/or redevelopment, including brownfield redevelopment; support initiatives that increase sustainability.
- D. Consider both existing development and densities in transportation decision-making and give priority to projects that support them.
- E. Consider the appropriate use and maintenance of transportation rights-of-way to maximize public benefits.

- F. Put priority on transportation investments related to existing centers of economic activity; or to areas with adequate water and sewer infrastructure; or to municipal centers or areas targeted for economic development.

Other Considerations

Lastly, selection of projects for the UPWP also takes into consideration the availability of CTPS time and the impact of new projects on the MPO's existing work program and the availability of funds for a project's design and construction.

FUNDING THE PROJECTS

The funding for the projects included in this UPWP (presented in Chapters 4 through 7) comes from a variety of federal and state sources, as described below. The source of funds has important implications with regard to which agency or organization is responsible for programming them as well as the MPO's vote to approve both the UPWP and the subsequent work scopes for the projects included in it. The purview of the MPO's vote is included in each of the funding descriptions.

FHWA 3C Planning (PL)/EOT Local Match These are FHWA planning funds distributed to EOT's Office of Transportation Planning (OTP), according to an allocation formula established by federal legislation, to carry out the 3C planning process. OTP distributes these funds to Massachusetts MPOs according to a formula based on population. The FY 2010 3C PL funding allocation for the Boston Region MPO is \$3,395,800, which includes \$679,160 in state matching funds. The MPO votes on both the use of funds and the use of MPO staff for projects in this funding category.

FHWA Statewide Planning and Research (SPR)/EOT Local Match As in the case of 3C PL funds, FHWA provides SPR funds to OTP according to a distribution formula. OTP uses these funds to carry out planning and research projects throughout the state. This UPWP contains only SPR projects that will be conducted in the Boston Region MPO area. However, OTP provides a complete listing of how these funds are distributed statewide in a document called the SPR Transportation Planning Work Program. SPR funds in the amount of \$492,500 (including \$98,500 in state matching funds) are programmed in this UPWP for projects to be conducted by MPO staff. The MPO's role is to approve use of MPO staff for projects in this category and to make recommendations on work scopes for implementing them. The MPO's role in these projects is crucial to the 3C process because it provides an opportunity to coordinate projects with other, related transportation work efforts that may be planned for the same area.

FTA/EOT, MBTA, and MAPC Local Match FTA provides 3C planning funds for transit projects to MPOs under Section 5303 of the Federal Transit Act. These funds require a local match, are distributed according to an allocation formula, and are administered by MAPC. The allocation in this UPWP, including the total local match for FFY 2010, is \$1,877,300 for projects to be conducted by MPO staff, the MBTA, and MAPC on behalf of the MPO. As with the FHWA 3C PL funds, the MPO votes on both the use of these funds and the use of MPO staff on projects in

this category. This UPWP also includes \$298,900 in FFYs 2007, 2008, and 2009 MBTA Section 5303 funds that are being carried over into FFY 2010.

MBTA The MBTA provides \$351,000 in funding for this UPWP for transit projects to be conducted by MPO staff. As in the case of the SPR funds described above, the MPO's role is to approve the use of MPO staff time for these projects and to make recommendations on the work scopes for implementing them.

EOT Four transit projects, two of which are related to the SIP (Green Line Extension Environmental Review Support, and Red Line–Blue Line Study Support), mentioned earlier in this chapter, are included this UPWP. The Immediate Needs Bill will continue to provide the funding for the work to be conducted during FFY 2010.

Other This UPWP also includes \$195,000 in funding from other sources for work being conducted by MPO staff for MassHighway, the MBTA, and the MetroWest Regional Transit Authority. This amount includes \$136,000 in discretionary grant funds under the FTA Alternatives Analysis Program. The MPO's role is to vote to approve the use of MPO staff time for these projects and to make recommendations on the work scopes for implementing them.

MONITORING THE PROJECTS

The following procedures for monitoring the projects in this UPWP were approved by the MPO's Transportation Planning and Programming Committee:

- *A project work scope* must be approved by the Transportation Planning and Programming Committee prior to the start of any CTPS project activity.
- *Monthly progress reports* on all active projects must be submitted to the respective funding agency by CTPS and/or MAPC. The reports must include the following information for each project:
 - The objectives that had been set for each reporting period
 - The accomplishments of the period
 - Any previous objectives that were not met, including the reasons why and the impact on the project and related projects
 - Any change to the scope, the amount of additional funding necessitated by the change, and the proposed funding source
 - The percentage of the project's work scope completed and the percentage of the project's budget expended
- *A UPWP Status Report* is presented quarterly by CTPS to the Transportation Planning and Programming Committee's UPWP Subcommittee. It compares the UPWP project budgets with actual project spending. The subcommittee then recommends necessary adjustments to the UPWP project budgets to the Transportation Planning and Programming Committee.
- *Transportation Planning and Programming Committee approval* for release of a project's work products is based on whether the objectives stated in the work scope were met, whether

the stated deliverables were produced, and whether the project schedule and budget were adhered to.

AMENDMENTS AND ADMINISTRATIVE MODIFICATIONS TO THE UPWP

Amendments or administrative modifications may be made to the UPWP, when necessary, throughout the year. If an amendment is under consideration, Advisory Council member entities and other interested parties, including any affected communities, are notified. Legal notice is placed in the region's major daily newspaper and posted on the MPO's website at least 30 days in advance of MPO action. Citizens may attend and present comments at the Transportation Planning and Programming Committee and MPO meetings at which amendments are discussed. Administrative modifications may be made on the Transportation Planning and Programming Committee, and, although no public review period is required, one may be provided at the Committee's discretion. They are rare and are only likely to occur in the event of an emergency or to take advantage of an extraordinary funding opportunity.

2 STATUS OF THE FEDERAL FISCAL YEAR 2009 UPWP PROJECTS CONDUCTED BY BOSTON REGION MPO STAFF

During federal fiscal year (FFY) 2009, projects were expected to 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) on behalf of the MPO. For the purpose of reporting here on the status of these projects, they have been divided into four categories:

- *Completed* – These projects are either already completed or expected to be completed by October 1, 2009, when this document goes into effect.
- *Continuing* – This is one of two categories of projects that continue from FFY 2009 into FFY 2010. It is distinctly different than the similar category, “ongoing” (described below), in that it covers planning studies that have specific start and end dates. The percentage completed as of October 1, 2009, for these projects is included in the project descriptions presented in Chapters 6 and 7.
- *Discontinued* – Contrary to expectations when the FFY 2009 UPWP was being developed, work on these projects did not begin during FFY 2009.
- *Ongoing* – These projects support and continue the transportation planning process from year to year and thus have no start or end date.

The tables on the following pages list FFY 2009 projects by category and their budgets for that year. Following the tables is a complete listing of MPO work products resulting from the FFY 2009 UPWP. Information is provided on how to obtain copies of reports approved by the MPO’s Transportation Planning and Programming Committee.

COMPLETED FFY 2009 UPWP PROJECTS WITH FFY 2009 BUDGETS AND FUNDING SOURCES

Project Name	3C PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA	Other	Total FFY 2009 UPWP
2007-08 I-93 North and Southeast Xway HOV Lane Monitoring		57,000						57,000
Massport Transportation Studies							50,000	50,000
MBTA 2008 National Transit Database: Directly Operated						3,000		3,000
MBTA 2008 National Transit Database: Purchased Bus						1,000		1,000
MBTA Dudley South/Silver Line Phase IV Corridor Assessment						63,500		63,500
MBTA ITS Architecture						45,000		45,000
MBTA Post-2007 Fare Increase Analysis						15,000		15,000
MBTA Program for Mass Transportation				15,000		64,000		79,000
Safety Evaluation of TIP Projects	25,000							25,000
UPWP Subtotal	\$25,000	\$57,000		\$15,000		\$191,500	\$50,000	\$338,500

ONGOING FFY 2009 UPWP PROJECTS WITH FFY 2009 BUDGETS AND FUNDING SOURCES

Project Name	3C PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA	Other	Total FFY 2009 UPWP
3C Planning Process and Public Outreach Activities	504,000			271,400				775,400
Air Quality Conformity Determinations	10,400			5,600				16,000
Air Quality Support Activities	32,500			17,500				50,000
Alternative-Mode Planning and Coordination	136,500			58,500				195,000
Assistance to MBTA Development					14,800	47,400		62,200
Bicycle/Pedestrian Studies	67,700							67,700
Boston Region MPO Title VI Reporting	28,000			12,000				40,000
Computer Resource Management	252,600			136,000				388,600
Corridor/Subarea Planning Studies: Land Use Reviews	81,270			34,830				116,100
Data Resources Management	333,100			179,400				512,500
Direct Support	345,000	24,200		55,000		90,000		514,200
Disability Access Support <i>(also includes provision of materials in accessible formats)</i>	50,600			27,200				77,800
Land Use Development Project Reviews	62,760			62,590				125,350
MBTA Rider Oversight Committee Support						11,500		11,500
MetroWest RTA Service Planning Assistance <i>(now called Regional Transportation Authority Planning Assistance)</i>				10,000		30,000	10,000	50,000
Mobility Assistance Program and Section 5310 Review				1,000				1,000
Mobility Management System Monitoring Program <i>(now called Congestion Management Process)</i>	220,000							220,000
MPO/MAPC Liaison and Support Activities	129,500			55,500				185,000
Regional Equity/Environmental Justice Support	61,700			33,300				95,000
Regional Model Enhancement	383,500			206,500				590,000
Regional Transportation Plan	32,500			17,500				50,000
Regional Vision: MetroFuture	70,000			30,000				100,000

ONGOING FFY 2009 UPWP PROJECTS WITH FFY 2009 BUDGETS AND FUNDING SOURCES (CONT.)

Project Name	3C PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA	Other	Total FFY 2009 UPWP
Subregional Support Activities	88,815			38,065				126,880
State Fiscal Years 2009–2011 MBTA Service Benchmarking (<i>now called MBTA Title VI Program Monitoring</i>)					40,000	11,000		51,000
Suburban Mobility/Transportation -Demand Management Support (<i>now included under 3C Planning Process and Public Outreach Activities</i>)				28,000				28,000
Statewide Planning Assistance		555,000						555,000
Transit Operations Analysis				17,000				17,000
Transportation Improvement Program (CTPS)	105,000			45,000				150,000
Transportation Improvement Program (MAPC)	45,500			19,500				65,000
Unified Planning Work Program (CTPS)	36,100			19,500				55,600
Unified Planning Work Program (MAPC)	14,000			6,000				20,000
UPWP Subtotal	\$3,091,045	\$579,200		\$1,386,885	\$54,800	\$189,900	\$10,000	\$5,311,830

CONTINUING FFY 2009 UPWP PROJECTS WITH FFY 2009 BUDGETS AND FUNDING SOURCES

Project Name	3C PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA	Other	Total FFY 2009 UPWP
Arterial Traffic-Signal Improvements and Coordination	45,000							45,000
Assembly Square Station Feasibility Study						42,000		42,000
Green Line Extension Environmental Review Support			20,000					20,000
Inner Suburban Mobility Study				75,000				75,000
Massachusetts Turnpike Authority Boston Ramps Study		75,000						75,000
MBTA 2009 National Transit Database: Directly Operated						65,800		65,800
MBTA 2009 National Transit Database: Purchased Bus						27,700		27,700
MBTA Bus Service Data Collection VI						253,800		253,800
MBTA Commuter Ridership Growth Strategy <i>(to be included under Assistance to MBTA Development)</i>					138,000			138,000
MBTA Systemwide Onboard Passenger Survey						114,400	457,600	572,000
North Shore Transportation Improvements			50,000					50,000
Operational Improvements at Congested & High-Crash Locations	45,000							45,000
Red Line-Blue Line Connector Study Support			75,000					75,000
Route 126 Corridor Study	101,000			15,500				116,500
Route 3 South Corridor Study		75,000						75,000
Silver Line Project Support						50,000		50,000
South Coast Rail Commuter Rail Extension			50,000					50,000
Strategic Visioning for MBTA Bus Service					100,000			100,000
Urban Ring Phase 2 Revised DEIR/DEIS Support		55,000						55,000
UPWP Subtotal	\$191,000	\$205,000	\$195,000	\$90,500	\$238,000	\$553,700	\$457,600	\$1,930,800

DISCONTINUED FFY 2009 UPWP PROJECTS WITH FFY 2009 BUDGETS AND FUNDING SOURCES

Project Name	3C PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA	Other	Total FFY 2009 UPWP
Customer Satisfaction Review for TAP Pilot Program						24,000		24,000
UPWP Subtotal						\$24,000		\$24,000

WORK PRODUCTS OF THE FFY 2009 UPWP

Listed below are the reports, memoranda, and other MPO work products that were associated with the projects in the FFY 2009 UPWP. Memoranda and other work products are produced for the client agency. Reports and certification documents, however, are available at the State Transportation Library. They may also be requested by contacting CTPS at (617) 973-7100 (voice), (617) 973-7089 (TTY), or bostonmpo@ctps.org (e-mail). Many of these work products are available for downloading from the MPO's website, www.bostonmpo.org.

MPO Certification Documents

Air Quality Conformity Determination of the Amendment to the 2007 Regional Transportation Plan (pending approval)

Air Quality Conformity Determination of the Federal Fiscal Years 2010–2013 Transportation Improvement Program (pending approval)

Federal Fiscal Years 2007–10 Transportation Improvement Program Amendments

Federal Fiscal Years 2010–12 Transportation Improvement Program and Determination of Air Quality Conformity (pending approval)

Federal Fiscal Year 2010 Unified Planning Work Program (pending approval)

JOURNEY TO 2030 Transportation Plan of the Boston Region Metropolitan Planning Organization Amendment (pending approval)

CTPS Reports

Alewife Studies, Phase II

Assessment of Dudley South Corridor Bus Service and Potential Improvements

MBTA Transit Signal Priority Study: Arborway Corridor

Federal Fiscal Year 2009 Title VI Report of the Boston Region Metropolitan Planning Organization (pending approval)

Impact Analysis of the 2007 MBTA Fare Increase and Restructuring

Newton Corner Rotary Study, Phase II

Safety and Operational Improvements at Selected Intersections

Toward a Route 28 Corridor Transportation Plan: An Emerging Vision

CTPS Technical Memoranda

Coordinated Human Services Transportation Plan

MBTA Post-2007 Fare Increase Analysis

Ridership and Passenger-Mile Estimates for Fiscal Year 2008 National Transit Database: Purchased Bus

Route 2/Route 16 (Alewife Brook Parkway) Eastbound: Traffic Patterns and MBTA Alewife Station Parking Garage Survey

Regionwide Suburban Transit Opportunities Case Studies (pending approval)

Other CTPS Work Products and Activities

- 2008–2009 I-93 North and Southeast Expressway high-occupancy-vehicle-lane utilization documentation
- Accessible formatting of the JOURNEY TO 2030 amendment, the Transportation Improvement Program and amendments, the Unified Planning Work Program, and meeting minutes and handouts of the Transportation Planning and Programming Committee, the Regional Transportation Advisory Council, and the Access Advisory Committee to the MBTA (AACT)
- Congestion Management Process – Travel-time runs, data collection, intersection analyses, and documentation of park-and-ride lots
- Congestion Mitigation and Air Quality Program analyses
- GIS maps, computer map files, databases, and data analyses
- I-93/I-95 interchange in Woburn: modeling of selected alternative and transit modeling associated with proposed transportation-demand-management improvements
- Green Line Extension Environmental Review Support – New Starts submission development and support to EIR/EIS
- Ground transportation analysis in support of Massport
- MBTA bus trip summary reports of boardings, alightings, and on-time performance of selected bus routes. MBTA bus load-profiles reports of boardings and alightings by stop. Recommendations on service reallocation to respond to demand and improve cost-effectiveness
- MBTA Fiscal Year 2009 National Transit Database: Directly Operated – Sampling of passenger boardings and alightings on randomly selected bus trips, survey of a sampling of rail rapid transit passengers’ trips
- MBTA Fiscal Year 2009 National Transit Database: Purchased Bus – Sampling of passenger boardings and alightings on randomly selected bus trips
- MBTA Rider Oversight Committee – Technical assistance to the MBTA Rider Oversight Committee and attendance at committee and subcommittee meetings

- MBTA Service Benchmarking – Documentation of FFY 2009 MBTA level-of-service performance for selected services and amenities
- MBTA Regional Parking Demand Study – Alternatives analysis support
- MBTA Systemwide Onboard Passenger Survey – Electronic and paper survey instruments for all transit modes, pilot survey to determine whether the length of the survey instrument affects the evenness of the response rate across socioeconomic groups, survey results for bus Route 39
- MPO Bicycle and Pedestrian Interactive Database
- MPO (including the Transportation Planning and Programming Committee and its subcommittees), Regional Transportation Advisory Council, and AACT: meeting minutes, staff support, various memoranda, and database maintenance
- MPO Public Participation Program – Outreach materials supporting development of certification documents and other MPO programs and activities
- MPO website redevelopment (www.bostonmpo.org) and CTPS intranet site maintenance
- National Transportation Week display materials
- Regional Equity Program – Notes on discussions with representatives of low-income and minority neighborhoods
- Silver Line Project Support – New Starts submission development and support to EIR/EIS
- South Coast Commuter Rail Extension – Alternatives analysis support
- Suburban Mobility Program – Letters of solicitation, applications, and committee support
- TIP project information forms, evaluation criteria and matrices, instructional handbook, briefing books for Municipal Input Day and Agency Input Day, and web-based data
- Travel-demand forecasting
- *TRANSREPORT*, the MPO's monthly newsletter
- UPWP outreach materials, evaluation criteria, and FFY 2009 UPWP quarterly reports
- Urban Ring support to draft EIR/EIS
- Walkable Community Program presentation materials and memoranda
- Work scopes for Transportation Planning and Programming Committee approval

MAPC Work Products and Activities

- Creation of a GIS coverage and related database of MAPC-reviewed projects and their mitigation commitments

- Database development of community, subregion, and corridor population and employment, and visual displays and analysis of this information
- GIS technical assistance and support for transportation planning in the region
- Implementation of the statewide bicycle and pedestrian plans, and work on bicycle/pedestrian-related issues, including coordination with relevant national, state, and regional organizations
- Interagency coordination, work scopes, participation in advisory and corridor committees, public participation, 2008 MPO elections, and attendance at relevant meetings
- Participation in a variety of specific project reviews and related activities
- Project evaluations and development of new project evaluation tools
- Provision of information to the MAPC Executive Committee, MAPC officers, and MAPC subregional groups on MPO transportation activities and issues
- Preparation of monthly meeting agendas, coordination with transportation agencies, traffic study reviews, reports to the Transportation Planning and Programming Committee, support for subregion and corridor advisory committee meetings, and prioritization assistance
- Support and technical assistance in developing and implementing the MPO's Suburban Mobility and Transportation Demand Management programs
- Support for the regional Congestion Mitigation/Air Quality Committee, Transportation Demand Management Committee and Transportation Enhancement Selection Committee
- Support for TIP criteria refinement and implementation and for the Transportation Planning and Programming Committee's TIP Criteria Task Force
- Support for the UPWP Subcommittee
- Technical assistance for air quality, transportation enhancement, and mobility assistance programs

3 INDEX OF PROJECTS BY AGENCY

This index of the projects by the agency responsible for leading the work effort is intended both to facilitate finding specific projects in this document and to provide a summary of what parts of this UPWP each agency is conducting.

Central Transportation Planning Staff

2009–2010 I-93 North and Southeast Xway HOV Lane Monitoring	6-5
3C Planning Process and Public Outreach Activities	5-2
Air Quality Conformity Determinations	5-5
Air Quality Support Activities	5-6
Arterial Traffic-Signal Improvements and Coordination	6-6
Assembly Square Station Feasibility Study	6-7
Assistance to MBTA Development	7-5
Bicycle/Pedestrian Support Activities	6-8
Boston Region MPO Title VI Reporting	5-7
Community Transportation Technical Assistance Program	7-6
Computer Resource Management	4-2
Congestion Management Process	6-9
Data Resources Management	4-3
Direct Support	4-4
Disability Access Support	5-8
Emergency Evacuation and Hazard Mitigation Mapping	7-7
Green Line Extension Environmental Review Support	6-11
Huntington Avenue, Boston: Traffic and Operations Analysis	6-12
I-93 Access and HOV Lane Improvements (Savin Hill/South Bay Area)	6-13
Inner Suburban Mobility Study	6-14
Low-Cost Improvements to Bottleneck Locations	6-16
Massachusetts Turnpike Boston Ramps Study	6-17
MBTA 2009 National Transit Database: Directly Operated	7-10
MBTA 2009 National Transit Database: Purchased Bus	7-11
MBTA 2010 National Transit Database: Directly Operated	7-12

MBTA 2010 National Transit Database: Purchased Bus	7-13
MBTA Bus Route 1 Transit Signal-Priority Study	6-18
MBTA Bus Service Data Collection VI	7-14
MBTA Core Services Evaluation	7-15
MBTA Fitchburg Line Small Starts Application Support	7-16
MBTA Greenbush Impact Study	7-17
MBTA Program for Mass Transportation (PMT) Benchmarking	7-18
MBTA Rider Oversight Committee Support	7-19
MBTA Systemwide Onboard Passenger Survey	7-20
MBTA Title VI Program Monitoring	6-19
Mobility Assistance Program and Section 5310 Review	7-21
MPO Freight/Rail Study	7-22
North Shore Transportation Improvements	6-20
Operational Improvements at Congested & High-Crash Locations	6-21
Red Line–Blue Line Connector Study Support	6-22
Regional Equity/Environmental Justice Support and Studies	5-11
Regional Model Enhancement	5-13
Regional Transportation Authority Service Planning Assistance	7-23
Regional Transportation Plan	5-15
Route 126 Corridor Study	6-24
Route 3 South Corridor Study	6-25
Safety and Operations Analyses at Selected Intersections	6-26
Safety Assessments Coordination	7-24
Silver Line Project Support	6-27
South Coast Commuter Rail Extension	6-28
Statewide Planning Assistance	7-25
Strategic Visioning for MBTA Bus Service	7-26
Transportation Improvement Program (CTPS)	5-18
Travel Operations Analysis	7-27
Unified Planning Work Program (CTPS)	5-21
Urban Ring	6-29

Colleges and Universities

Region One University Transportation Center	A-4
---	-----

Executive Office of Transportation and Public Works

I-95 South Corridor Study	A-3
Red Line–Blue Line Connector Study	A-4
Urban Ring Phase 2	A-5

Executive Office of Transportation and Public Works and MassHighway

Massachusetts Turnpike Authority Boston Ramps Study A-4
Route 3 South

Executive Office of Transportation and Public Works and MBTA

Green Line Extension Environmental Review A-2
North Shore Draft Environmental Impact Statement A-4
South Coast Rail A-5

MassHighway

Intelligent Transportation Systems Development and Implementation A-3

MBTA

Assembly Square Orange Line Station A-2
State of Good Repair Capital Asset Assessment A-5

Metropolitan Area Planning Council

Alternative-Mode Planning and Coordination 7-2
Battle Road Scenic Byway A-2
Corridor/Subarea Planning Studies: Land Use Reviews 6-10
Integrating Land Use in Regional Transportation Models 7-9
Land Use Development Project Reviews 6-15
MPO/MAPC Liaison and Support Activities 5-9
Regional Vision Implementation: MetroFuture 6-23
Subregional Support Activities 5-17
Transportation Improvement Program (MAPC) 5-20
Unified Planning Work Program (MAPC) 5-22

4 ADMINISTRATION AND RESOURCE MANAGEMENT PROJECTS

Chapters 4 through 7 present project descriptions and budget information for transportation planning work that will be carried out between October 1, 2009, and September 30, 2010. The activities described in these chapters will be conducted by the Central Transportation Planning Staff (CTPS) of the Boston Region Metropolitan Planning Organization, by other agencies acting on behalf of the MPO, or by the Metropolitan Area Planning Council (MAPC).

As described in Chapter 1, 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:

- Projects funded with federal 3C planning funds, to be carried out by CTPS or other agencies acting on behalf of the MPO. The MPO programs these funds and approves the use of staff time.
- 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 efforts, cross-referencing is provided, where appropriate, to show the interrelationship among projects.

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

Project ID #	Project Name	Page
60415–60492	Computer Resource Management	4-2
60110–60600	Data Resources Management	4-3
90000	Direct Support	4-4

COMPUTER RESOURCE MANAGEMENT



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Metropolitan Planning Organization

ID #: 60415–60492

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:

60415 Computer Room Management and Single-User Computer Support:

- Planning, monitoring, and maintaining computer room space and facilities.
- Performing the purchase and maintenance of CTPS computer hardware, systems and applications software, and any other equipment that supports single-user computers.
- Creating new computer procedures that support CTPS analytical, administrative, and documentation tasks. Maintaining and enhancing computer procedures where program maintenance and enhancement are no longer available from the original vendor.

60435 Computer Servers and Network Support:

- Performing the purchase and maintenance of server hardware and systems and application software, as well as any other equipment that supports the use of servers.
- Performing the purchase and maintenance of all CTPS network and communications software, as well as any other equipment that supports the use of network and communications equipment.

60455 Systems Administration and Other Computer Resources Support:

- Managing and maintaining hardware and software resources for all CTPS computer systems. Increased emphasis will be given to the security and integrity of all hardware, software, and data resources.
- Assisting staff in the use of computer resources, organizing and distributing vendor-supplied manuals, and, where appropriate, providing written and online user guides for particular resources.
- Purchasing computer-related items, supplies, and equipment, including maintenance contracts for computer resources, where appropriate.

60492 Computer Resource Planning: Updating the CTPS Five-Year Plan for Computer Resource Development in coordination with the development of the next CTPS budget.

FFY 2010 Activities and Expected Work Products: Work on these tasks will continue as described above.

FHWA/FTA Grant Application Task and Element: 44.22.03

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$402,000		\$402,000	\$281,400			\$120,600				

DATA RESOURCES MANAGEMENT



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Metropolitan Planning Organization

ID #: 60110–60600

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

CTPS provides travel data and analyses at the regional, corridor, and site-specific levels. The variety of tasks encompassed by this work may be grouped within the following categories:

60110 Resources Management: CTPS will maintain and improve a database that includes census data; updated travel, infrastructure, and service data; and products of CTPS analysis. CTPS will continue to refine the database for its geographic information system (GIS) and will obtain land use, statewide digital orthophotography, and other data as they become available. Available historical, transportation, land use, and socioeconomic data will also be compiled.

60120 Travel Data: Data on travel patterns within the region will be processed and analyzed. Data handled as part of this project include, but are not limited to, ridership survey data, traffic counts, ridership counts, and crash data.

60130 Socioeconomic Data: CTPS will continue to process census data and to analyze patterns indicated by historical changes. Web-enabled software and other technical tools to enhance data extraction, analysis, and presentation will also be developed.

60140 Miscellaneous Data: Data coming from CTPS surveys and other sources on subjects such as land use, local zoning regulations and other geographic factors, vehicle registration, and transit service 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.

60600 Geographic Information System/Database Management System (GIS/DBMS): CTPS will continue to develop databases for use with its GIS/DBMS. CTPS will also coordinate database development and data distribution with state transportation agencies in order to prevent duplication of effort, ensure data quality, and reduce costs. The GIS/DBMS software capabilities will be made available to additional staff through training programs and the development of Web-enabled software applications. Assistance will also be given in identifying aspects of MPO work that can benefit from specific GIS/DBMS capabilities.

FFY 2010 Activities and Expected Work Products: GIS maps, computer map files, consolidated databases, data analyses, and responses to data requests.

FHWA/FTA Grant Application Task and Element: 44.22.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$474,000		\$474,000	\$331,800			\$142,200				



DIRECT SUPPORT

STAFF: Central Transportation Planning Staff

CLIENT: Boston Region MPO/MassHighway/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.

Consultant: A consultant will be hired to assist CTPS in migrating to an activity-based travel demand model.

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 (the Federal Highway and Federal Transit Administrations) and other organizations sponsor courses and seminars that enhance the ability of staff to do project work; the costs of registration, travel, and living accommodations associated with attending such programs are direct support expenditures. Mileage expenses associated with project work are also charged as direct-support expenditures; however, these expenditures do not require prior approval. Additional project work such as HOV 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 survey to obtain data that are sufficiently current and project-specific. The costs associated with postage for return mail, and services for preparing and processing data for specific projects are direct-support expenditures.

FFY 2010 Activities and Expected Work Products: Computer and general office equipment, professional consulting services, in-state project-related travel, and out-of-state travel associated with staff attendance at professional and training conferences.

FHWA/FTA Grant Application Task and Element: 44.27601

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$205,000		\$205,000	\$123,000	\$22,500		\$56,500			\$3,000	

5 CERTIFICATION REQUIREMENTS

The projects in this chapter are categorized as certification requirements because they include work that the 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 Americans with Disabilities Act. The projects in this category are:

Project ID #	Project Name	Page
90011-90090	3C Planning Process and Public Outreach Activities	5-2
10112	Air Quality Conformity Determinations	5-5
90061	Air Quality Support Activities	5-6
11355	Boston Region MPO Title VI Reporting	5-7
90024&28	Disability Access Support	5-8
MAPC 1	MPO/MAPC Liaison and Support Activities	5-9
11132	Regional Equity/Environmental Justice Support and Studies	5-11
11244	Regional Model Enhancement	5-13
10101	Regional Transportation Plan	5-15
MAPC 2	Subregional Support Activities	5-17
10103	Transportation Improvement Program (CTPS)	5-18
MAPC 3	Transportation Improvement Program (MAPC)	5-20
10104	Unified Planning Work Program (CTPS)	5-21
MAPC 4	Unified Planning Work Program (MAPC)	5-22

**STAFF:** Central Transportation Planning Staff**CLIENT:** Boston Region Metropolitan Planning Organization**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, coordinated, and cooperative transportation-planning process.

Support to the MPO

90011 Support to the MPO and Its Subcommittees: (\$184,200) Support includes conducting metropolitan planning and implementing planning activities for the MPO. This involves researching, analyzing, and reporting information on 3C planning topics, including those identified in federal reauthorization legislation, and communicating issues related to federal policies, regulations, and guidance, such as responding to possible federal recommendations or requirements for MPO recertification. It also includes implementing MPO policies on planning and programming; preparing information for MPO decision making; supporting the work of the Transportation Planning and Programming Committee and its subcommittees; and providing process support, such as developing agendas for meetings, preparing informational materials, compiling meeting packages, recording minutes of meetings, conducting public outreach, managing the MPO website, preparing and distributing the MPO's monthly newsletter, and maintaining the mailing lists and e-mail listserves. Extensive technical support is provided to the MPO's Suburban Mobility/Transportation Demand Management and Congestion Mitigation Air Quality Programs.

In addition, this work includes consultation with other entities and agencies involved in 3C planning activities; liaison activities between other 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 and reporting on progress of projects listed in the UPWP, and the establishment of work priorities in light of MPO needs.

90014 Planning Topics: (\$36,800) CTPS provides support related to planning topics such as the 3C planning factors and other topics highlighted in federal planning guidance, including safety, security, freight, operations and management, and sustainability and environmental issues. Staff maintain expertise in these topics so that the MPO will have the capability to keep current in them and the 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 Transportation Improvement Program (TIP) and Regional Transportation Plan (RTP) development. This project includes work needed to respond to possible new federal guidance and requirements following certification review.

Public Outreach Activities

90019 Subregional Outreach: (\$9,900) CTPS staff attend meetings of the MAPC subregional groups to keep them abreast of MPO activities and to coordinate subregional issues and concerns into the development of MPO documents.

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

90021 Regional Transportation Advisory Council Support: (\$39,800) The Regional Transportation Advisory Council is the MPO's citizen advisory committee. CTPS provides support to this body and its committees. This includes preparing agendas, minutes, and meeting summaries, attending meetings, organizing field trips, coordinating activities, scheduling speakers, maintaining mailing lists, and producing and distributing meeting notices and packets. CTPS provides information, updates, and briefings on MPO activities, requests and coordinates comments on MPO documents, and works with the Council and its committees as they conduct their planning and reviews.

90025 TRANSREPORT: (\$80,700) *TRANSREPORT*, the newsletter of the MPO, 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 printing. 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 standard print, accessible formats, and electronic transfer formats. CTPS offers a Spanish version of the newsletter, when requested.

90026 Public Participation Process: (\$78,600) CTPS will implement the MPO Public Participation Program and coordinate and conduct the MPO public outreach activities. These activities are opportunities to (1) provide information to regional and local officials, agencies, and members of the public and (2) collect input from those parties for use by the MPO in its planning and in development of the certification documents. Communication will be ongoing and through a variety of means. The program also involves expanding consultations as specified in federal guidance; improving informational materials; reviewing and modifying procedures as appropriate to increase the program's effectiveness; providing upon request ASL and language interpretation services at meetings; preparing and distributing printed materials in Spanish and other languages; and providing public participation support to MPO member entities. It also includes maintaining and updating the contact database and listserves.

90027 Boston Region MPO Website, www.bostonmpo.org: (\$64,700) For the public, for federal, state, and local officials, and for businesses, the MPO's website provides further access to the MPO and to transportation planning information. The website is critical infrastructure for the MPO's public involvement program. This work will support its usefulness and responsiveness for this purpose. It not only provides information to the public, but serves as an avenue for eliciting ideas and a method for soliciting input. CTPS posts documents and data that are suitable for the site, monitors its use, keeps track of feedback, and performs necessary updating and maintenance of the site. CTPS will continue to improve the design and navigability of the site and to expand its use for communication with the public.

3C PLANNING PROCESS AND PUBLIC OUTREACH ACTIVITIES [CONT.]



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Metropolitan Planning Organization

ID #: 90011-90090

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Other 3C Planning Support Activities

90012 Professional Development: (\$9,900) The MPO staff maintains its technical expertise in part by participation in courses, programs, and workshops offered by the Federal Highway and Transit Administrations, the Transportation Research Board, the Association of Metropolitan Planning Organizations, the Institute of Transportation Engineers, and other public and private organizations. Previous professional development endeavors have included topics such as traffic engineering issues and applications, regional modeling, bicycle/pedestrian issues, transit planning, public involvement, environmental justice, and air quality analysis.

90023 Document Production Standards: (\$13,900) Ensuring the high quality of the written documents produced by the MPO staff requires, in addition to the review of documents by an editor, certain other kinds of work; it is the latter work that is provided for here. It includes maintaining a stylebook and standard formats and creating templates and other guide materials that help the staff both to follow the agency standards and to meet universal standards of correctness and suitability. In addition, personnel are given individual assistance as needed. Finally, compliance with procedures for the editing of documents is monitored.

90090 General Graphics: (\$109,500) 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 2010 Activities and Expected Work Products: In order to support the MPO, its committees and subcommittees, the Regional Transportation Advisory Council, and AACT, staff will continue to conduct activities and provide materials as described above.

The above activities support all other projects in this UPWP and compliance with the 3C planning process. They foster the implementation of MPO policies, federal planning factors and guidance, and Executive Order 13166 (governing outreach to persons with limited English proficiency).

FHWA/FTA Grant Application Task and Element: 44.21.02

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$628,000		\$628,000	\$432,000			\$196,000				

AIR QUALITY CONFORMITY DETERMINATIONS



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Metropolitan Planning Organization

ID #: 10112

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Analysis and documentation to demonstrate the conformity of plans, programs, and projects with the 1990 Clean Air Act (CAA) are provided annually. The Boston region has been classified as a nonattainment area for the eight-hour ozone standard. The city of Boston, the surrounding cities and towns, and the city of Waltham are classified as maintenance areas for carbon monoxide (CO). To continue receiving federal transportation funding, the region must show that, overall, its federally funded transportation programs improve air quality in a manner consistent with the Massachusetts State Implementation Plan (SIP).

FFY 2010 Activities and Expected Work Products: Conformity determinations, including a detailed analysis of air quality impacts (volatile organic compounds [VOCs], nitrogen oxides [NOx], carbon monoxide [CO], and carbon dioxide [CO₂]) of the projects in amendments to the 2007 RTP and the FFYs 2010–2013 TIP, and in the 2011–2014 TIP, will be performed and presented as follows:

- *System-Level:* A systemwide conformity determination will be prepared for regionally significant projects in the RTP, its amendment, and the TIPs. The conformity determination will show a 2000 base year, as well as “build” networks for 2010, 2020, and 2030 for VOCs, NOx, and CO₂; for CO it will show build networks for 2010, 2020, and 2030, in the maintenance areas only.
- *Project-Level:* A detailed analysis of the potential VOC, CO, CO₂, and NOx impacts of each project to receive Congestion Mitigation/Air Quality Program funding in the TIP will be conducted in accordance with U.S. Department of Transportation and U.S. Environmental Protection Agency (EPA) guidelines. The specifics of the analysis will be determined through consultation between the state’s transportation and environmental agencies.

FHWA/FTA Grant Application Task and Element: 44.21.03

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$16,900		\$16,900	\$11,600			\$5,300				

**STAFF:** Central Transportation Planning Staff**CLIENT:** Boston Region Metropolitan Planning Organization**ID #:** 90061**BUDGET:** Not applicable to ongoing projects**STATUS:** Ongoing

This project complements the Air Quality Conformity Determinations of the RTP and the TIP described previously. It also provides for research and analysis regarding climate change and its impacts within the MPO region. It 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 2010 Activities and Expected Work Products

Support to EOT, MassHighway, MassPike, Massport, and the MBTA: Activities will include analysis of transportation control measures (TCMs), park-and-ride facilities, and proposed high-occupancy-vehicle (HOV) projects throughout the region, 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 model, the TIP, project-specific work products, the RTP, the Congestion Management Process, and the UPWP. Staff will develop a white paper outlining current and proposed activities at the state and federal levels to reduce greenhouse-gas emissions that will affect MPO activities. Staff will also confer with agencies and organizations that are concerned about climate-change issues and obtain knowledge and ideas for improvements.

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.
- Continued staff support to the agencies involved in monitoring, updating, and revising the mobile-source section of the SIP.
- Analysis of existing regional air quality conditions, assistance to MassHighway and EOT in data collection, and validation of DEP's air quality inventories and emission budgets. In addition, CTPS will evaluate policies on long-term growth, transportation, and land use, and other public policies that may affect air quality.
- Continued coordination with DEP in developing statewide regulations and programs for ridesharing, and other regulations and programs that pertain to transportation and air quality.
- Support to regional, local, and private agencies.
- Continued participation in the Transportation Task Force of the SIP Steering Committee.

AIR QUALITY SUPPORT ACTIVITIES [CONT.]**STAFF:** Central Transportation Planning Staff**CLIENT:** Boston Region Metropolitan Planning Organization**ID #:** 90061**BUDGET:** Not applicable to ongoing projects**STATUS:** Ongoing

- Provision of data and recommendations to the MPO agencies regarding funding and implementation of transportation programs and projects that have air quality benefits.

FHWA/FTA Grant Application Task and Element: 44.21.03**FFY 2010 Budget**

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$68,600		\$68,600	\$47,200			\$21,400				

BOSTON REGION MPO TITLE VI REPORTING**STAFF:** Central Transportation Planning Staff**CLIENT:** Boston Region Metropolitan Planning Organization**ID #:** 11355**BUDGET:** Not applicable to ongoing projects**STATUS:** Ongoing

Title VI of the Civil Rights Act provides that persons must not be excluded, denied benefits, or discriminated against on the basis of race, color, national origin, age, sex, disability, or religion. Federal regulations governing its implementation require the MPO to report on how it is followed—and how minority populations are involved—in MPO planning and decision making, including development of the UPWP, TIP, and RTP.

FFY 2010 Activities and Expected Work Products: The MPO will comply with Title VI regulations through the preparation and submittal of reports as required.

This project is supported by public outreach activities and regional equity/environmental justice work presented in this chapter.

FHWA/FTA Grant Application Task and Element: 44.24.01**FFY 2010 Budget**

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$5,000		\$5,000	\$3,400			\$1,600				

DISABILITY ACCESS SUPPORT**STAFF:** Central Transportation Planning Staff**CLIENT:** Boston Region Metropolitan Planning Organization**ID #:** 90024&28**BUDGET:** Not applicable to ongoing projects**STATUS:** Ongoing

90028 Provision of Materials in Accessible Formats: One requirement of the 1990 Americans with Disabilities Act (ADA) is that government agency material that is distributed to the public be made available in accessible formats, in a timely manner, upon request. CTPS fulfills this requirement with regard to materials that it produces, providing documents in whatever formats are requested—large print, Braille, audiocassette, or compact disc (CD). CTPS also reformats documents produced by MPO members at their request and advises members on the subject of providing materials in accessible formats.

90024 Access Advisory Committee Support: In addition, CTPS supports the MBTA in meeting 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 and THE RIDE paratransit services by people with disabilities and ensures that users’ ideas concerning accessible transportation are heard.

FFY 2010 Activities and Expected Work Products:

- Staff support for regularly scheduled AACT and related meetings at which attendees advise and comment on projects being planned or implemented systemwide for commuter rail, rapid transit, surface transit, and paratransit
- Distribution of monthly reports on systemwide accessibility, MBTA RIDE service and statistics, and other materials pertinent to AACT meeting agenda items
- Preparation and distribution of AACT meeting agendas and minutes, meeting announcements, correspondence, meeting calendars to post in RIDE vans, and an updated AACT brochure
- Distribution of an orientation packet for new AACT members
- Continued maintenance of AACT databases for mailings, meeting attendance, and membership standing; and maintenance of AACT archives, supplies, and accessible-formatting equipment
- Production of MPO materials in accessible formats, as requested

This project supports MPO public outreach and planning activities presented in this chapter.

FHWA/FTA Grant Application Task and Element: 44.21.04**FFY 2010 Budget**

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA §5303 Carryover	MBTA	Other
\$103,500		\$103,500	\$71,200			\$32,300				



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region Metropolitan Planning Organization

ID #: MAPC 1

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

This project includes: reporting to the MAPC Executive Committee, the Officers Transportation Advisory Committee, Council members and committees, MAPC subregions, and staff on MPO activities; reporting to the MPO and its committees and subcommittees on transportation and land use issues identified in the communities and subregions; working with MAPC and MPO/TPPC members to identify and review transportation planning issues, including their regional implications.

Liaison and support activities also include ongoing participation with and support to the MPO/TPPC in establishing work priorities and agendas. Participation with and support to its subcommittees includes chairing the TIP Criteria and Suburban Mobility/Transportation Demand Management Subcommittees.

Statewide and Corridor Committees: MAPC actively participates in statewide committees and task forces to represent the interests of the region, including the Statewide Enhancement Committee, the CMAQ Consultation Committee, the Statewide Household Travel Survey Advisory Committee and the Statewide Bicycle/Pedestrian Committee. MAPC also expects to be actively involved in regional and statewide studies on climate-change and greenhouse-gas issues as they relate to transportation. MAPC is also an active participant on a number of advisory committees to ongoing corridor and subregional studies. Advisory committees may change from year to year as studies are begun or completed, but participation in a variety of advisory committees is an ongoing task.

MAPC, through its participation in the Massachusetts Association of Regional Planning Agencies (MARPA), as well as MARPA's Statewide Transportation Managers Committee, works to strengthen communication and coordination with its counterpart RPAs around the state. MAPC coordinates with other RPAs that compose the Boston Transportation Management Area. As the certification documents are developed in the coming year, including the Transportation Improvement Program (TIP) and the expected revision of the Regional Transportation Plan (RTP), MAPC will direct particular attention toward including land use planning issues in these documents as well as coordinating with the implementation of the comprehensive regional growth plan, MetroFuture.

Support of the Public Participation Process for Metropolitan Planning Documents: MAPC participates in the Public Involvement Subcommittee of the TPPC, which is charged with developing and evaluating new public involvement programs for the region. MAPC provides education and outreach on a wide variety of transportation-related topics in the region. MAPC is also an active participant in the Regional Transportation Advisory Council (RTAC) meetings.

MPO Elections: Working with the MBTA Advisory Board, MAPC coordinates and implements the election process for the local representatives on the MPO.



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region Metropolitan Planning Organization

ID #: MAPC 1

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Recertification: In FY 2010, MAPC will work with elected officials, state and federal representatives, the Regional Transportation Advisory Council and other interested parties to review and suggest possible revisions to the MPO Memorandum of Understanding. Staff will contact municipal officials, the business community, community-based organizations, and the MAPC subregions for input and advice.

Community Transportation Technical Assistance Program: At subregional meetings and at a variety of public events, such as those held on the TIP and UPWP, community officials often identify transportation issues that are of concern and ask for advice on how to proceed. In this program a team of CTPS and MAPC engineers and planners will meet with communities to learn more about specific problems and provide advice to communities on next steps. This might include a review of existing data or how to collect what is needed. It could also involve a field visit to better understand the identified problem. Some general types of solutions might be recommended, along with contact information for the appropriate person with whom to follow up. Descriptions of the various planning processes at MHD, the MBTA, and the MPO and of how communities can get involved might be appropriate. This is not design or even a planning study, but a way to help communities who may have a problem quickly get an answer on what to do next. MAPC will advertise the program to MPO communities and expects to spend up to five person-days per community on each problem.

FY 2010 Activities and Expected Work Products: Interagency coordination, work scopes, participation in advisory and corridor committees, public participation, reports to the MAPC Officers Transportation Advisory Committee and to the Executive Committee, MPO elections, MPO recertification and recommendations for a revised MOU, and attendance at relevant meetings.

This project supports the 3C planning process activities outlined in this chapter, as well as the development of the RTP, the TIP, and the UPWP. It is also closely coordinated with the MetroFuture project described in Chapter 6. The CTPS component of this program is described on page 7-6.

FHWA/FTA Grant Application Task and Element: 44.21.02

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
	\$185,000	\$185,000	\$123,950			\$61,050				

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

The primary purpose of this project is to foster awareness and consideration of regional equity/environmental justice transportation needs in MPO planning and programming, specifically in relation to the RTP, the UPWP, the TIP, the CMP, air quality conformity determinations, environmental impact studies, and project specific work products. This will be done primarily through continued outreach to minority and low income populations. Community organizations will be interviewed to identify transportation needs, solicit ideas for improvements, and expand the universe of possible entities to be contacted.

Work will also include continued assessment of the transportation needs of the low-income and elderly population and managing the region's Coordinated Human-Services Transportation Plan and conducting the related outreach, particularly that supporting three Federal Transit Administration programs which target low-income populations, elderly individuals, and people with disabilities in the region: Job Access and Reverse Commute, New Freedom, and Transportation for Elderly Individuals and Individuals with Disabilities. In addition, CTPS staff will potentially focus on the following two topics, gathering specific information and preparing appropriate documentation and reports:

Transportation Needs Assessment of Low-Income and Minority Elderly Population: This study would examine the transportation needs of low-income and minority elderly people and identify potential approaches to addressing their mobility problems. Tasks include: analyzing distribution of low-income and minority elderly households; identifying travel need characteristics and destinations by trip type; determining appropriate transportation services and comparing to existing services; identifying potential providers.

Opportunities for Combining Job Access/Reverse Commute and Low-Income and Minority Elderly Transportation Services: The study will explore the potential for coordinating existing transportation services to meet both the needs of low-income and minority elderly individuals and the needs of low-income and minority individuals for employment-related trips. This will include: identifying existing job access/reverse commute and elderly transportation services; determining the distribution of low-income and minority elderly households; identifying travel need characteristics and destinations by trip type for both groups; and assessing the appropriateness of sharing vehicles/providers.

FFY 2010 Activities and Expected Work Products: In addition to performing the tasks identified above, CTPS will assist the MPO in applying previously adopted environmental justice measures to evaluate the achievement of the MPO's regional equity goals. As part of this work, the staff will also:

- Continue MPO outreach to minority and low-income communities
- Continue to use year 2000 census data, where available; analyze other pertinent data; and/or develop information and data through direct interviews with affected populations or interest groups



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Metropolitan Planning Organization

ID #: 11132

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

- Monitor developments at the Association of Metropolitan Planning Organizations and the U.S. Department of Transportation and participate in workshops, conferences, and seminars, as appropriate
- Provide summaries of interviews and other updates to the Transportation Planning and Programming Committee of the MPO
- Conduct environmental justice analyses as required

This work is related to the work on the RTP and project programming for the TIP presented in this chapter.

FHWA/FTA Grant Application Task and Element: 44.21.04

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA §5303 Carryover	MBTA	Other
\$115,400		\$115,400	\$79,400			\$36,000				

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

CTPS builds and maintains a state-of-the-practice regional travel-demand model set for predicting the impact of regionally significant transportation improvements and land use policies on travel demand and air quality in eastern Massachusetts. This model set is used by the Boston Region MPO and other transportation agencies to perform travel forecasting and air quality conformity determinations. It is a highly sophisticated, data-intensive planning support tool that relies on computer representations of regional transportation systems.

Objectives of the current work program are to:

- Monitor and understand changes in federal requirements as they affect MPO modeling procedures
- Research ways in which the state of the practice is changing and develop modifications in modeling approach to meet those requirements
- Acquire and process data so that the work program can be executed
- Estimate, calibrate, and validate the current model set as an ongoing activity
- Document the model set so that it can be understood and replicated at the technical level
- Document the modeling process so that its capabilities and limitations can be understood by the lay person

Land Use Allocation Model Development, Phase 1: Population and employment forecasts, which are provided by MAPC, are key inputs to the travel forecasting models. There is a need to develop the capability to model the impact of land use on transportation and vice versa. One of the tasks for FFY 2010 is to complete Phase 1 of a two-phase effort designed to implement a land use allocation model that would simulate the interaction between land use and transportation. The work will incorporate significant advances in land use allocation modeling techniques that have been made in North America over the last 10 years and take advantage of additional data that expand upon what was previously available. CTPS will collaborate with MAPC on Phase 1 of this effort to determine the following:

- What information is needed by the MPO as an output from such a model?
- What land use allocation models are currently in use by various MPO's in the country?
- How would each of these models successfully meet identified needs?
- Would some alternative to a formal model, such as a Delphi method, prove more useful?

Massachusetts Statewide Household Travel Survey: CTPS shares oversight responsibilities for the statewide household survey, which is currently underway with the assistance of NuStats LLC as the consultant on this project. The purpose of the survey is to provide an



STAFF: Central Transportation Planning Staff

CLIENT: Executive Office of Transportation and Public Works

ID #: 11244

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

accurate representation of household-based travel and demographic characteristics to be used to update existing travel demand estimation models, develop future models, and serve as an important source of information for transportation planning and policy decisions. In addition to providing data for rebuilding the model's existing travel modes, the household survey will allow for the development of an activity-based model set, an emerging form of travel model that more accurately represents travelers' decision processes.

FFY 2010 Activities and Proposed Work Products:

- Incorporate new or advanced techniques into the regional travel-forecasting model set
- Evaluate available options for replacing EMME/2 software and incorporate the CTPS model set in the selected new software
- Develop a well-calibrated 2008 base-year regional model set
- Evaluate land use allocation modeling techniques and develop a plan of action for Phase 2, if appropriate
- Provide a memorandum presenting a summary of land use allocation models currently in use.
- Continue household survey oversight responsibilities with EOT
- Continue pre-survey activities, including working with the consultant to develop a sampling plan and a survey instrument, beginning a publicity campaign, and conducting and evaluating the results of a pilot survey
- Begin and continue the main survey through FFY 2010

This effort supports projects in this UPWP that rely on the regional model for travel forecasting and analysis, particularly the air quality conformity determinations for the RTP and the TIP presented in this chapter. Also see Chapter 7 for MAPC activities related to the development of a land use allocation model, as described above.

FHWA/FTA Grant Application Task and Element: 44.22.03

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$639,900		\$639,900	\$440,300			\$199,700				

**STAFF:** Central Transportation Planning Staff**CLIENT:** Boston Region Metropolitan Planning Organization**ID #:** 10101**BUDGET:** Not applicable to ongoing projects**STATUS:** Ongoing

Regional Transportation Plan Amendment: JOURNEY TO 2030, The Boston Region MPO's current Regional Transportation Plan (RTP), sets forth a 23-year, financially constrained plan for federally funded surface transportation improvements. The MPO adopted this RTP in April 2007. At that time, the MPO determined that an RTP amendment would be required within the next fiscal year, based on issues and comments that arose through the RTP development process. The issues that are being addressed in this amendment include:

- Revisions to the 2030 demographic forecasts for inclusion in the transportation demand model based on MetroFuture.
- Changes to the recommended list of projects reflecting the revisions to the SIP for Attainment of Air Quality Standards approved by EPA and DEP. The RTP is required to include the projects that are in the SIP.
- Revisions to the Finance Plan for the RTP and subsequent changes to the set of recommended projects as needed.
- Discussion of illustrative projects.

Work on the RTP amendment was included in the FFYs 2008 and 2009 UPWPs and contained a discussion of these issues with analyses, document preparation, and outreach to the public on results of revised scenarios modeled by the MPO. This work included presenting to the public the projected benefits to the region and to environmental justice communities resulting from the recommended RTP projects and programs.

New Regional Transportation Plan: Federal planning regulations require MPOs to update their long-range transportation plan every four years. Although the Boston Region MPO will be adopting an amendment to the JOURNEY TO 2030 Plan, the MPO is required to have a new RTP in place by June 2011. Work will start on this new RTP in FFY 2010 with analyses, document preparation, and outreach to the public on results of future scenarios modeled by the MPO. This will include presenting to the public the projected benefits to the region and to environmental justice communities resulting from the recommended RTP projects and programs. The new document will include discussion on topics identified in the new transportation legislation or federal guidance, such as corridor planning and climate-change issues.

FFY 2010 Activities and Expected Work Products:

- Revisions to the RTP
- Review of documents to be used in the development of the long-range plan (Congestion Management Process, Program for Mass Transportation, documents on intelligent transportation systems and safety and security programs, etc.)
- Review of finances over the next 25 years including capital, maintenance, and operations and management revenues and expenditures



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Metropolitan Planning Organization

ID #: 10101

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

- Ongoing consideration of the MPO’s regional equity/environmental justice input, MetroFuture recommendations, and consultation with the Regional Transportation Advisory Council
- Additional analyses as requested by the Transportation Planning and Programming Committee
- Model runs, as required, for project selection, environmental justice, air quality conformity, and climate change
- Public outreach for RTP development to the expanded list of consulting parties
- Preparation of informational materials and draft and final documents.

This project is supported by 3C planning process support activities, the air quality work, and the accessible formats project presented in this chapter. It will also be closely coordinated with the MPO’s Title VI project and regional equity/environmental justice project in this chapter.

FHWA/FTA Grant Application Task and Element: 44.23.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$271,900		\$271,900	\$187,100			\$84,800				



SUBREGIONAL SUPPORT ACTIVITIES

STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region Metropolitan Planning Organization

ID #: MAPC 2

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

The MAPC region consists of 101 cities and towns. This region has been subdivided into eight geographic areas that are represented by subregional councils comprising municipal officials, business leaders, community-based organizations, and other local participants. 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.* These include the policies, goals, and objectives of the RTP, and the coordinators also explain the TIP, the Congestion Management Process transportation-demand-management opportunities, and the Program for Mass Transportation. In addition, the coordinators actively engage subregional council members in MetroFuture.

Subregions are encouraged to recommend subregional projects and priorities for the TIP, the RTP, 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 area. MAPC staff ensure that timely discussions of transportation-related issues occur by placing the topics on the monthly agendas, by leading and participating in the discussions, and by distributing appropriate documents and notices relating to regionwide and statewide transportation meetings.

* In the case of the MetroWest Growth Management Committee, the subregion is independently staffed and provides subregional services under an agreement with MAPC. MAPC pays 25% of the director's salary.

FFY 2010 Activities and Expected Work Products: Preparation of monthly meeting agendas for transportation topics at subregional meetings, coordination with transportation agencies, reviews of traffic studies in subregions, reports to the Transportation Planning and Programming Committee, support for subregional and corridor advisory committee meetings, and assistance in setting project priorities.

This project supports community involvement in the development of transportation planning documents.

FHWA/FTA Grant Application Task and Element: 44.21.02

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA §5303 Carryover	MBTA	Other
	\$245,000	\$245,000	\$164,150			\$64,350				

**STAFF:** Central Transportation Planning Staff**CLIENT:** Boston Region Metropolitan Planning Organization**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 proposed improvements to 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 annual updates.

Development: TIP development is ongoing throughout the year, with the updating of the MPO's project database occurring weekly. The projects in the database are sorted on several criteria to provide a smaller subset for consideration for TIP programming. This subset includes projects programmed in the previous TIP, enhancement projects, transportation-demand- management projects, projects that address a specific safety concern or need, and projects that are at 25 percent design or higher. CTPS reviews and evaluates all of these projects based on the TIP criteria (see Appendix B of the TIP). In addition, the MPO conducts both municipal and agency TIP Days to offer both groups an opportunity for input into the draft TIP development process. After a preliminary evaluation by staff, the MPO reviews the assessment and staff recommendations and develops a draft TIP, which is released for a public comment period, typically in July. After consideration of public comments, the TIP is finalized in August.

Project Evaluation: The project evaluation process for the TIP continues to evolve, and MPO participation in MassHighway's project development process continues to develop, as called for in MassHighway's *Project Development and Design Guide*. CTPS will continue to conduct project evaluations for the MPO's Transportation Planning and Programming Committee and to support the Committee's TIP Criteria Task Force in reviewing and assessing the efficacy of the TIP project evaluation process. Changes to the project evaluation criteria were implemented during the development of the FFYs 2010-2013 TIP. Further adjustments will occur as needed.

Information Flow: CTPS will continue to collect, and disseminate to the MPO, project status information, financial and cost data, public comments, and information on process-related issues. CTPS provides "relevant, timely, and comprehensive" information, including project planning, design, and construction status updates, to the MPO. Additionally, staff continue to provide a consistent information flow back to the MPO municipalities through mail, e-mail and telephone communication via the municipally appointed TIP contacts.

Public Review: Staff are responsible for dissemination of the TIP for public review; the release of the circulation draft, as well as all amendments, is announced in *TRANSREPORT* and in press releases and legal notices to print media and through notification to the MPO's listserv subscribers. The draft document is made available on the MPO website and at all public libraries in the Boston area. It is also mailed directly to municipal officials, legislators, libraries, the Regional Transportation Advisory Council, and MAPC subregion representatives in the 101 MPO municipalities. Notices of public meetings and outreach concerning the TIP are sent (via e-mail and U.S. mail) to regional contacts and interested parties. Public meetings are held at locations around the region during the public review period.



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Metropolitan Planning Organization

ID #: 10103

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Certification: CTPS performs all tasks necessary for TIP certification, including:

- Preparing and producing all TIP-related informational materials and analysis, and draft and final documents
- Coordinating public review of all drafts and preparing responses to comments
- Scheduling and staffing meetings of the MPO; the Transportation Planning and Programming Committee and its TIP Criteria Subcommittee; the Regional Transportation Advisory Council; and MPO workshops, open houses, and “how to” seminars
- Conducting outreach to the MAPC subregions

Adjustments/Amendments: CTPS drafts amendments and/or administrative adjustments and handles all procedural steps necessary to properly adopt and certify them. (See Public Review, on the previous page.)

GIS Support: GIS support will include the creation of TIP coverages and mapping, data collection for project evaluation, and production of maps.

FFY 2010 Activities and Expected Work Products: Document development, project evaluation, information-flow update and management, coordination of public review and certification, and GIS support for the FFYs 2011–2014 TIP and for amendments and/or adjustments to the FFYs 2010–2013 TIP; attendance at relevant meetings, and maintenance of a database for tracking projects.

CTPS and MAPC work efforts related to the TIP are also presented in this chapter.

FHWA/FTA Grant Application Task and Element: 44.25.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA §5303 Carryover	MBTA	Other
\$174,200		\$174,200	\$119,800			\$54,400				



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region Metropolitan Planning Organization

ID #: MAPC 3

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

MAPC chairs the TIP Criteria Subcommittee of the TPPC, where criteria to assist in the evaluation of TIP projects were developed for the MPO and applied most recently to the FFY 2009–2012 TIP. These criteria were reviewed, evaluated, and revised in FFY 2009 and major changes are not anticipated in FFY 2010. Any changes adopted by the TPPC will be applied beginning with the FFY 2010 TIP annual element. MAPC will apply the revised economic development and land use criteria, which are consistent with MetroFuture, for the TIP. Additional work may be done to develop criteria for the MPO to use in determining whether to encourage proponents to pursue proposed projects through the TIP.

Development of the TIP is accomplished through work with other RPAs and MPO members and with state and federal agencies, elected officials, MAPC subregions, MAPC Council members, community representatives, TIP contacts, and private providers of transportation. Representatives of the business community, local institutions, and community-based organizations are also consulted. This is an important information and education function of the 3C planning process. MAPC works with the communities and MPO members to insure that the information needed for project selection using the TIP criteria will be made available in a timely fashion.

FFY 2010 Activities and Expected Work Products: MAPC expects to continue to work with the TPPC and the TIP Criteria Subcommittee to improve the use and application of these criteria as a tool to assist in MPO programming decisions.

CTPS work efforts related to the TIP are also presented in this chapter.

FHWA/FTA Grant Application Task and Element: 44.25.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
	\$55,000	\$55,000	\$36,850			\$18,150				

UNIFIED PLANNING WORK PROGRAM (CTPS)



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Metropolitan Planning Organization

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 transportation planning activity, for all surface transportation modes, anticipated to be undertaken in the region during the UPWP period. It also includes detailed budget information on the expenditure of federal planning funds.

CTPS coordinates all phases of this work, from document development and budget preparation to public review and submittal to federal agencies for certification. Staff is responsible for dissemination of the UPWP for public review; the release of the circulation draft, as well as all amendments, are announced in *TRANSREPORT*, in press releases and legal notices to print media, and through notification to the MPO’s listserv subscribers. The draft document is made available on the MPO website and at all public libraries in the Boston area. It is also mailed directly to municipal officials, legislators, libraries, the Regional Transportation Advisory Council, and MAPC subregion representatives in the 101 MPO municipalities. Notice of public meetings and outreach concerning the UPWP is sent (via e-mail and U.S. mail) to regional contacts and interested parties. Public meetings are then held around the region during the public review period. CTPS also coordinates the review and endorsement of any amendments to the UPWP.

FFY 2010 Activities and Expected Work Products: Any amendments and adjustments to the FFY 2010 UPWP; development of, and public outreach for, the FFY 2011 UPWP, as described above; attendance at relevant meetings; quarterly implementation reports; and other information materials as needed.

This project is supported by 3C planning support activities, the accessible formats project, and environmental justice and public outreach activities described in this chapter.

MAPC work efforts related to the TIP are also presented in this chapter.

FHWA/FTA Grant Application Task and Element: 44.21.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$80,700		\$80,700	\$55,000			\$25,200				

UNIFIED PLANNING WORK PROGRAM (MAPC)



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region Metropolitan Planning Organization

ID #: MAPC 4

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

MAPC prepares UPWP project listings and budget information for activities it expects to conduct using federal highway and transit funds and provides monthly reports to the MPO's Transportation Planning and Programming Committee and MassHighway on these activities. MAPC also provides general project information on transportation-related activities funded from other sources.

MAPC, through its work on the Transportation Planning and Programming Committee, is also involved in the development of the annual UPWP work program. As work scopes for specific projects are developed, MAPC assists, when appropriate, in developing these scopes, especially whenever the project involves a link between transportation and land use issues.

FFY 2010 Activities and Expected Work Products: Prepare UPWP project listings and monthly reports on UPWP activities for the Transportation Planning and Programming Committee. Provide assistance on the annual development of the UPWP and support for the development of specific work scopes. Provide assistance to communities in identifying and developing studies to be included in the UPWP, through community liaison and subregional support activities.

CTPS work efforts related to the TIP are also presented in this chapter.

FHWA/FTA Grant Application Task and Element: 44.21.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
	\$15,000	\$15,000	\$10,050			\$4,950				

6 PLANNING STUDIES

The projects in this chapter are planning studies that will be conducted during federal fiscal year 2010. Their locations are shown on the map on page 6-3. They are technical in nature and may include support for larger projects that are described in Appendix A: Other Boston Region Transportation Planning Projects. In instances where this occurs, the project description refers the reader to Appendix A.

Project ID #	Project Name	Page
23223	2009–2010 I-93 North and Southeast Xway HOV Lane Monitoring	6-5
13243	Arterial Traffic-Signal Improvements and Coordination	6-6
23316	Assembly Square Station Feasibility Study	6-7
13208	Bicycle/Pedestrian Support Activities	6-8
11138	Congestion Management Process	6-9
MAPC 5	Corridor/Subarea Planning Studies: Land Use Reviews	6-10
22328	Green Line Extension Environmental Review Support	6-11
23317	Huntington Avenue, Boston: Traffic and Operations Analysis	6-12
22122	I-93 Access and HOV Lane Improvements (Savin Hill/South Bay	6-13
11362	Inner Suburban Mobility Study	6-14
MAPC 6	Land Use Development Project Reviews	6-15
13247	Low-Cost Improvements to Bottleneck Locations	6-16
22205	Massachusetts Turnpike Boston Ramps Study	6-17
23313	MBTA Bus Route 1 Transit Signal-Priority Study	6-18
11361	MBTA Title VI Program Monitoring	6-19
82104	North Shore Transportation Improvements	6-20
13244	Operational Improvements at Congested & High-Crash Locations	6-21
22331	Red Line–Blue Line Connector Study Support	6-22
MAPC 7	Regional Vision Implementation: MetroFuture	6-23
43108	Route 126 Corridor Study	6-24
33225	Route 3 South Corridor Study	6-25
13246	Safety and Operations Analyses at Selected Intersections	6-26
23311	Silver Line Project Support	6-27
43211	South Coast Commuter Rail Extension	6-28
22332	Urban Ring	6-29



STAFF: Central Transportation Planning Staff

CLIENT: Executive Office of Transportation

ID #: 23223

BUDGET: \$60,000

STATUS: 0%

The Massachusetts Department of Environmental Protection regulation 310 CMR 7.37 calls for quarterly monitoring of the southbound high-occupancy-vehicle (HOV) lane of I-93 North and the reversible HOV lane of the Southeast Expressway. The monitoring is performed in order to assess compliance with a set travel-time-savings threshold. The work consists of collecting travel-time and vehicle-occupancy data and analyzing it to calculate anticipated time savings and occupancy changes over time.

FFY 2010 Activities and Expected Work Products:

- Collect travel-time data on a quarterly basis for the HOV and associated general-purpose lanes and analyze them to calculate travel-time savings
- In the spring and fall, collect vehicle-occupancy data and analyze them to report changes, if any
- Write four technical memoranda annually (one for each season) to document data collection, analysis, and results

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$60,000		\$60,000		\$60,000						



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Metropolitan Planning Organization

ID #: 13243

BUDGET: \$45,000

STATUS: 58%

The Mobility Management System (predecessor to the Congestion Management Process) inventories revealed that many MPO arterials can benefit from traffic-signal coordination. If traffic-signal timing is rarely reviewed, it can result in outdated timing patterns that do not reflect current traffic and pedestrian needs. Signals that lack coordination (when qualified) or are inadequately coordinated force motorists to stop at multiple adjacent signals, resulting in significant travel delays. This study is part of a program of periodic reviews of corridor signal-timing plans for improved operations and coordination. Priority is being given to high-volume and high-crash-rate arterials.

FFY 2010 Activities and Expected Work Products: Staff will analyze the data collected during the FFY 2009 UPWP and present the results and study recommendations in a final report to the Transportation Planning and Programming Committee and to appropriate implementing entities.

This project will inform decisions related to the Regional Transportation Plan (RTP) and the Transportation Improvement Program (TIP).

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA §5303 Carryover	MBTA	Other
\$19,000		\$19,000	\$19,000							

ASSEMBLY SQUARE STATION FEASIBILITY STUDY**STAFF: Central Transportation Planning Staff****CLIENT: MBTA****ID #: 23316****BUDGET: \$42,000****STATUS: 70%**

CTPS will assist the MBTA with the preparation of a New Starts application for the construction of a new Orange Line Station at Assembly Square in Somerville. The new station would be located between the existing Wellington Station in Medford and Sullivan Square Station in the Charlestown section of Boston.

FFY 2010 Activities and Expected Work Products: Activities and work products associated with this project will continue as described above using MBTA FFY 2008 Section 5303 funds.

This project is related to an ongoing, regionally significant project identified in the RTP and is included in the MBTA's Program for Mass Transportation (PMT).

FHWA/FTA Grant Application Task and Element: 44.23.02

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA §5303 Carryover	MBTA	Other
\$13,000		\$13,000						\$13,000		

BICYCLE/PEDESTRIAN SUPPORT ACTIVITIES



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Metropolitan Planning Organization

ID #: 13208

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

In addition to the items below, during the UPWP year, other bicycle and pedestrian planning studies often are identified collaboratively among MPO members, communities, and bicycle/pedestrian advisory groups.

FFY 2010 Activities and Expected Work Products: Technical assistance, data collection, review of materials, and attendance at state, regional, and local forums and committee meetings. The staff also plans to undertake the following tasks:

Walkable Communities Workshops: (\$25,000) This well-established MPO-supported program provides technical assistance on pedestrian and bicycle issues and makes recommendations for improvements. Six or more workshops in volunteer communities will be conducted this year.

Ongoing Bicycle and Pedestrian Work Program: (\$45,000) Tasks not related directly to separate studies include the following:

- Coordination with state agencies, MAPC, other MPOs, the Safe Routes to Schools Program at MassRIDES, WalkBoston, MassBike, and other groups with regard to bicycle and pedestrian planning for the region
- Design, collection, and organization of bicycle/pedestrian volumes and crash data, including trail data collection and an update of the May 2005 counts
- Ongoing provision of state-of-the-art planning and technical support to communities on bicycle/pedestrian issues, as requested
- Update of the Pan-Massachusetts Challenge bicycle map used for the Jimmy Fund ride
- Examination of potential routes, both on- and off-road, to increase the use and connectivity of the existing transportation system, including trails, roadway facilities, and public transit

FHWA/FTA Grant Application Task and Element: 44.22.02

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$70,000		\$70,000	\$49,000			\$21,000				

CONGESTION MANAGEMENT PROCESS



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Metropolitan Planning Organization

ID #: 11138

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

The Congestion Management Process (CMP) (previously Mobility Management System) in the Boston Region MPO area will be refocused according to federal guidelines to identify congested locations, determine the causes of congestion, develop sets of alternative strategies to mitigate congestion, evaluate the potential of the different strategies, and recommend the strategies that best address the causes and impacts of congestion. Monitoring and analysis will continue for highways, arterial roads, transit services, park-and-ride lots, and bicycle/pedestrian facilities. The CMP will coordinate closely with the development of the Regional Transportation Plan (RTP), assist with prioritizing the Transportation Improvement Program (TIP), and contribute study ideas for the Unified Planning Work Program (UPWP). A new work program outlining the tasks for the next CMP cycle will include intermodal connectors; identification of existing conditions and a recommendation on appropriate improvements in accordance with federal guidance. During work scope development, consideration will also be given to conducting an inventory of transportation management association services.

FFY 2010 Activities and Expected Work Products: Staff will continue CMP activities, including:

- Defining CMP study area
- Defining goals and objectives that match the policies, goals and objectives of the RTP
- Monitoring facilities and services and identifying congestion problems
- Identifying management, operations, and other types of strategies to address congestion
- Coordinating with RTP, TIP, and UPWP staff to support development of these documents

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

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$201,000		\$201,000	\$201,000							



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region Metropolitan Planning Organization

ID #: MAPC 5

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

This UPWP task includes funding to support MAPC's work on corridor studies in the region. Two corridor studies have begun in FFY 2009 and will be completed in FFY 2010. The Route 128 corridor study anticipates major development proposals in five municipalities along the roadway northwest of Boston. The study will project the impacts (including traffic impacts) of this development and recommend appropriate mitigation and investments to cope with these impacts. Elected municipal officials, along with MAPC, constitute the steering committee for this study. The Route 9 study is a phase 2 follow up of previous work, again focused on the impacts of development anticipated along the roadway. The Route 128 and Route 9 projects are funded jointly by the UPWP and the District Local Technical Assistance (DLTA) program. Under the DLTA project budgets confirmed to date, the Route 9 project will be allocated \$27,500 from the UPWP, and the Route 128 project will be allocated \$33,160 from the UPWP, based on a combination of FFY 2009 and 2010 funds. Other DLTA projects still under consideration (e.g., Mystic River Corridor, Salem-Peabody Corridor) may also be funded through a combination of DLTA and UPWP funds, depending upon the details of the scope. Other corridor studies may also be identified for FFY 2010.

FY 2010 Activities and Expected Work Products: MAPC will work with the corridor communities and other stakeholders to document problems and develop recommendations for transportation and land use changes.

FHWA/FTA Grant Application Task and Element: 44.23.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
	\$100,000	\$100,000	\$67,000			\$33,000				

GREEN LINE EXTENSION ENVIRONMENTAL REVIEW SUPPORT



STAFF: Central Transportation Planning Staff

CLIENT: Executive Office of Transportation

ID #: 22328

BUDGET: \$300,000

STATUS: 33%

This project is a legal commitment under the amended State Implementation Plan, and includes 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 and conduct other design-related activities that include travel demand forecasting.

This work is related to a recommended, regionally significant project identified in the RTP, and is included in the PMT. Also see Appendix A.

FHWA/FTA Grant Application Task and Element: 44.23.02

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$200,000		\$200,000			\$200,000					



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 23317

BUDGET: \$35,000

STATUS: 49%

The purpose of this study is to assist the MBTA’s consultant with identifying intersection and other traffic management improvements to reduce bus delays along this corridor. The focus of FFY 2009 work was on intersection identification and data collection. In FFY 2010 CTPS will conduct an analysis of existing conditions at Huntington Avenue intersections.

FFY 2010 Activities and Expected Work Products: Activities and work products associated with this project will continue as described above using MBTA FFY 2008 Section 5303 funds.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$18,000		\$18,000						\$18,000		



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Metropolitan Planning Organization

ID #: 22122

BUDGET: \$80,000

STATUS: 0%

The Southeast Expressway is the highest-volume express highway in metropolitan Boston, with individual sections handling as many as 250,000 vehicles per day (in the Neponset area), and with very slow traffic both northbound in the morning and southbound during the afternoon. However, virtually all of the congestion mitigation that is feasible in the narrow, heavily developed right-of-way has been done. Nevertheless, improvement may be possible near Savin Hill and in the area somewhat to the north of Savin Hill. The foci of this study will be:

- Connecting the Southeast Expressway and Central Artery/Tunnel High-Occupancy-Vehicle facilities
- Adding on-ramp capacity to the Southeast Expressway from South Bay
- Double tracking of the commuter rail facility through the JFK/UMass station area

FFY 2010 Activities and Expected Work Products: Activities associated with this project will be conducted as described above, and a report documenting study results will be prepared.

FHWA/FTA Grant Application Task and Element: 44.23.02

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$80,000		\$80,000	\$40,000			\$40,000				



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Metropolitan Planning Organization

ID #: 11362

BUDGET: \$75,000

STATUS: 45%

Over the past few decades, inner suburban communities in the MBTA service area along the Route 128 beltway have grown considerably, in terms of both residential and commercial/office development. As a result, substantial intrasuburban travel demands have developed in a nominally circumferential sense. These changes in travel demands suggest a need to reexamine the orientation of bus services in inner suburban communities.

One specific area of interest that this study will address is the potential for new transit “hubs,” or common service corridors that directly serve densely developed commercial and residential centers and promote circumferential connectivity. The experiences of other similarly sized metropolitan areas in serving inner-suburban travel markets will be reviewed with respect to vehicle types used, service frequency, span of service, and coverage. This study will also consider the institutional and capital requirements associated with any reorientation or expansion of fixed-route service, whether provided by the MBTA or another entity. It will also take into consideration existing and planned land use development along the Route 128 corridor.

FFY 2010 Activities and Work Products: CTPS staff will analyze existing and past transit services, define potential new routes, and estimate the costs of providing such services. Two technical memoranda will be produced, and the final report will be submitted to the Transportation Planning and Programming Committee for approval.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$34,000		\$34,000				\$34,000				



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region Metropolitan Planning Organization

ID #: MAPC 6

BUDGET: Not applicable for ongoing projects

STATUS: Ongoing

Regionally significant land use development projects will be reviewed with respect to state and regional land use goals and development policies and the projects’ impacts on the transportation system. In particular, projects will be reviewed for consistency with MetroFuture, the regional plan for the Boston region, and for consistency with the Commonwealth’s sustainable-development principles and MAPC’s smart-growth principles. The project reviews will also be used to determine whether a proposed development will have a positive or negative impact on balanced regional development. MAPC tracks all projects reviewed in its region under the 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 will also recommend appropriate mitigation measures. MAPC will continue to participate in a variety of specific project review activities in FFY 2010, including detailed analyses of large-scale projects with significant regional and subregional impacts. In a limited number of cases, MAPC will participate in local review processes for regionally significant projects as a way of becoming involved earlier in the project in order to have a greater impact.

MAPC also reviews notices of “offered railroad property” from EOT, consults with municipalities as necessary, and provides appropriate input. Often, these involve rail trails, but they may also involve other types of proposed development. In addition, MAPC staffs the Metropolitan Highway System Advisory Board, conducting reviews of projects occurring on or above Massachusetts Turnpike property.

FY 2010 Activities and Expected Work Products: MAPC will continue to participate in project reviews and related activities, work with MEPA staff to increase their value, coordinate MEPA comments with transportation agencies, where possible, and more closely coordinate its MEPA project review process with MetroFuture’s goals and recommendations. MAPC will also track project information for the reviews it conducts in order to provide data on development trends in the region. In addition, MAPC will continue to review and respond to notices of offered railroad property.

FHWA/FTA Grant Application Task and Element: 44.23.02

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
	\$70,900	\$70,900	\$45,550			\$25,350				

LOW-COST IMPROVEMENTS TO BOTTLENECK LOCATIONS



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Metropolitan Planning Organization

ID #: 13247

BUDGET: \$30,000

STATUS: 0%

The impetus for this study is a recommendation made by the Federal Highway Administration to identify the three worst bottlenecks in the region and study low-cost countermeasures. CTPS staff will identify three bottlenecks that are among the worst in the region, relying on professional judgment and data from the Congestion Management Process. Professional judgment will be an important component of the bottleneck selection process due to the varying results often produced by different ways of measuring travel delay. Staff will then identify potential low-cost countermeasures, which may include: using the shoulder as a peak hour lane, re-striping travel lanes in merge areas to improve traffic flow, ramp metering, improving traffic signal timing, and improving the dissemination of traffic information to drivers.

FFY 2010 Activities and Expected Work Products: Activities associated with this project will be conducted as described above, and a report documenting study results will be prepared.

This project will inform decisions related to the RTP and the TIP.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA §5303 Carryover	MBTA	Other
\$30,000		\$30,000	\$30,000							



STAFF: Central Transportation Planning Staff

CLIENT: Executive Office of Transportation

ID #: 22205

BUDGET: \$75,000

STATUS: 0%

The Office of Transportation Planning (OTP) is conducting a study that will evaluate and address issues of connectivity between the Boston neighborhoods of Back Bay and the Fenway, the Longwood Medical Area, and the section encompassing the Seaport District, Logan Airport, and the Central Artery. The anticipated growth in these areas and neighborhoods, combined with traffic generated by the existing educational, medical, community, and cultural institutions, the convention center, and area residents, could lead to worsening congestion on the local roadway and regional highway system.

FFY 2010 Activities and Expected Work Products: CTPS will support alternatives analysis work for this project.

See Appendix A for related work being conducted by EOT and MassHighway.

FHWA/FTA Grant Application Task and Element: 44.23.02

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$75,000		\$75,000		\$75,000						

MBTA BUS ROUTE 1 TRANSIT SIGNAL-PRIORITY STUDY



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Metropolitan Planning Organization

ID #: 23313

BUDGET: \$125,000

STATUS: 0%

MBTA bus Route 1 from Harvard Square in Cambridge to Dudley Square in Roxbury is one of the busier routes in the system. The corridor along which this bus route travels, Massachusetts Avenue (Route 2A), is a multilane roadway with an on-street parking lane in both directions. Transit signal priority (TSP) could improve bus operations for the route by reducing travel times and improving schedule adherence. CTPS will evaluate existing traffic and bus operations along the bus route or parts of the route and identify TSP and other traffic-signal recommendations to improve both bus and traffic operations. A traffic-simulation model will be utilized to evaluate both the existing conditions and proposed improvements. CTPS will be responsible for carrying out the project and will work in collaboration with EOT, the MBTA, and the cities of Boston and Cambridge.

FFY 2010 Activities and Expected Work Products: Tasks will include identifying the corridor to be studied in collaboration with the MBTA; collecting existing traffic, transit, pedestrian/bicycle, and other data; developing a model to evaluate TSP improvements; and documenting findings in a technical memorandum.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$50,400		\$50,400				\$50,400				

MBTA TITLE VI PROGRAM MONITORING**STAFF: Central Transportation Planning Staff****CLIENT: MBTA****ID #: 11361****BUDGET: Not applicable for ongoing projects****STATUS: Ongoing**

CTPS will provide the MBTA with technical assistance in collecting data on, and conducting assessments of, comparative service quality in targeted minority and low-income communities versus nonminority and non-low-income communities. Information on crowding, schedule adherence, shelter placement, scheduled service frequency, service coverage, access to key destinations, vehicle age and condition, parking facilities, and other topics will be gathered and used in the assessments. In addition, the impacts of proposed transit service changes on targeted minority and low-income communities will be reviewed. These activities help fulfill annual monitoring required as part of the MBTA Title VI Program. All transit modes will be addressed, and the assessments will be compiled triennially for Federal Transit Administration reporting.

FFY 2010 Activities and Work Products: CTPS will provide documentation of selected level-of-service evaluations for FFY 2010 MBTA revenue service and amenities, and will prepare a summary report for the MBTA.

FHWA/FTA Grant Application Task and Element: 44.24.01**FFY 2010 Budget**

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA §5303 Carryover	MBTA	Other
\$50,000		\$50,000					\$50,000			



STAFF: Central Transportation Planning Staff

CLIENT: Executive Office of Transportation

ID #: 82104

BUDGET: To be determined

STATUS: Ongoing

EOT and the MBTA are working toward completion of a draft environmental impact statement to identify a locally preferred alternative (LPA) for the Revere-to-Lynn corridor. The two main alternatives involve: (1) running parallel to the length of the existing commuter rail line with a trestle through Rumney Marsh, and (2) using the narrow gauge right-of-way that travels near the Point of Pines neighborhood and then parallels the existing rail line in Lynn. Pending a decision on an LPA, project advancement may require additional support work.

FFY 2010 Activities and Expected Work Products: Staff will define alternatives, calibrate the model to existing conditions, evaluate alternatives, and document findings.

This project supports MBTA work efforts described in Appendix A. It is also related to an ongoing, regionally significant project identified in the RTP and is included in the PMT.

FHWA/FTA Grant Application Task and Element: 44.23.02

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA §5303 Carryover	MBTA	Other
\$10,000		\$10,000			\$10,000					



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Metropolitan Planning Organization

ID #: 13244

BUDGET: \$45,000

STATUS: 86%

The level of service along an arterial roadway is largely dictated by the quality of flow through its intersections. This study, which began in FFY 2009 focuses on isolated, highly congested intersections with signals and high crash rates. Mobility Management System monitoring indicates that often drivers must stop at a red light when there are no vehicles or pedestrians at the crossing street, or drivers may have to wait through more than one signal cycle to proceed through the intersection. These conditions indicate that pavement sensors are either lacking or broken , or that signal-timing adjustments are needed.

This project is an integral part of the Massachusetts Highway Safety Improvement Program (which began October 1, 2008), and is also a SAFETEA-LU Safety and Security focus area. It will improve difficult or inappropriate operational conditions and promote safety and air quality.

FFY 2010 Activities and Expected Work Products: Staff will analyze the data collected during the FFY 2009 UPWP and present the results and study recommendations in a final report to the Transportation Planning and Programming Committee and to appropriate implementing entities.

This project will inform decisions related to the RTP and the TIP.

FHWA/FTA Grant Application Task and Element: 44.23.02

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$7,000		\$7,000	\$7,000							

RED LINE–BLUE LINE CONNECTOR STUDY SUPPORT**STAFF:** Central Transportation Planning Staff**CLIENT:** Executive Office of Transportation**ID #:** 22331**BUDGET:** \$75,000**STATUS:** 60%

Design for this project is a legal commitment under the proposed amendment to the State Implementation Plan. It will involve the development of a draft environmental impact report as well as planning and engineering documents for a 0.4-mile extension of the Blue Line from Government Center Station to the Charles/MGH Station on the Red Line.

FFY 2010 Activities and Expected Work Products: CTPS will provide analytical support for EOT’s advancement of the project into the state environmental review process, including travel demand forecasting.

This work is related to a recommended design project identified in the RTP.

Also see Appendix A for related work.

FHWA/FTA Grant Application Task and Element: 44.23.02

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA §5303 Carryover	MBTA	Other
\$45,000		\$45,000			\$45,000					



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region Metropolitan Planning Organization

ID #: MAPC 7

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 Regional Transportation Plan, JOURNEY TO 2030, in FFY 2008. This UPWP task will support the implementation of MetroFuture, particularly in relation to its transportation and land use elements for FFY 2010. One of the core strategies of MetroFuture is to expedite transportation improvements through cost savings, revenue enhancements, transparent public decision-making, and coordination of land use and transportation decisions. MetroFuture will study other transportation systems and draw on internal and external expertise regarding the Massachusetts model to recommend improvements in transparency, accountability, and cost controls. MAPC will also work with local and state policy makers to align land use decisions with transportation investment.

The MetroFuture plan will prioritize corridor planning by creating systematic mechanisms to coordinate state and local actions across disciplines in corridors where key transportation improvements are anticipated. This will involve, among other things, efforts to bridge any gaps that may exist among state, regional, and local planning efforts, or between transportation and other infrastructure investments. MAPC corridor planning efforts will also seek to link state policies with local land use regulations. MetroFuture data will be used to identify and promote areas in the region where development should be prioritized in order to create the density necessary to support public transit. Conversely, this also means indicating areas where conservation of undeveloped land rather than development should be promoted. This upfront planning will help to map out where transit extensions or roadway improvements are necessary and help to create a long-term vision for transportation investment in the region.

FY 2010 Activities and Work Products: Short- and longer-term recommendations for implementing the transportation and land use components of MetroFuture have been adopted. Implementation efforts will focus on three areas:

- Supporting implementation, particularly in relation to its transportation and land use elements
- Evaluating the success of our efforts to implement such elements
- Evaluating related indicators of change in the region

FHWA/FTA Grant Application Task and Element: 44.23.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
	\$135,000	\$135,000	\$90,450			\$44,550				

ROUTE 126 CORRIDOR STUDY**STAFF:** Central Transportation Planning Staff**CLIENT:** Boston Region Metropolitan Planning Organization**ID #:** 43108**BUDGET:** \$116,500**STATUS:** 42%

CTPS is conducting a corridor study of Route 126 from Bellingham to Framingham, which began in FFY 2009. It includes an analysis of multimodal transportation alternatives to ensure future mobility. The safety of pedestrians using the shopping centers near the intersection of Hartford Avenue and Route 126 are also being addressed. To limit the costs of this analysis, the study focuses on key sections /intersections that have been determined in discussions with the SWAP and MetroWest subregions.

FFY 2010 Activities and Expected Work Products: Staff will continue the activities associated with this study, including:

- Conducting an analysis of improvements
- Developing recommendations
- Conducting Task Force Meetings
- Writing, editing, and presenting a final report

This project will inform decisions related to the RTP and the TIP.

FHWA/FTA Grant Application Task and Element: 44.23.02

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA §5303 Carryover	MBTA	Other
\$68,000		\$68,000	\$68,000							

ROUTE 3 SOUTH CORRIDOR STUDY**STAFF:** Central Transportation Planning Staff**CLIENT:** MassHighway**ID #:** 33225**BUDGET:** \$75,000**STATUS:** 24%

This project consists of the addition of a general-purpose travel lane generally between Exit 16/Route 18 in Weymouth and Exit 11/Route 14 in Duxbury, replacing the shoulder's peak-hour use as a third lane. The current effort is the completion of a supplemental draft environmental impact report/environmental assessment.

FFY 2010 Activities and Expected Work Products: CTPS will provide updated traffic projections to support the publication of the document for public review.

See Appendix A for related work being conducted by EOT and MassHighway.

FHWA/FTA Grant Application Task and Element: 44.23.02

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$57,000		\$57,000								\$57,000

SAFETY AND OPERATIONS ANALYSES AT SELECTED INTERSECTIONS



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Metropolitan Planning Organization

ID #: 13246

BUDGET: \$64,100

STATUS: 0%

The purpose of this study is to act on the recommendation of the MPO’s CMP (Congestion Management Process) to address safety and congestion problems at intersections in the MPO region. Of two similar studies in previous funding years, one is now complete and the other is under development. Municipalities in the region are very receptive to this type of study as it gives them a head start on conceptual design solutions for intersections in need of attention for safety and congestion. These locations are usually selected by staff from the “conceptual” and “pre-TIP” categories in the TIP. The final selection is based on interest expressed by city and town officials. Recommendations are usually of the “operations and management” type, ranging from pavement markings for vehicles, bicycles, and pedestrians, to traffic signal designs and lane assignments for traffic.

FFY 2010 Activities and Expected Work Products: A detailed work scope defining the intersections to be analyzed and the work products of tasks associated with the study will be presented to the Transportation Planning and Programming Committee for approval.

FHWA/FTA Grant Application Task and Element: 44.23.02

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA §5303 Carryover	MBTA	Other
\$64,100		\$64,100	\$64,100							

SILVER LINE PROJECT SUPPORT**STAFF: Central Transportation Planning Staff****CLIENT: MBTA****ID #: 23311****BUDGET: \$427,600****STATUS: 90%**

CTPS will continue to assist the MBTA with Silver Line planning, including the annual New Starts Report for Silver Line Phase III and support in the preparation of a draft environmental impact statement/environmental impact report.

FFY 2010 Activities and Expected Work Products: Activities and work products associated with this project will continue as described above.

This project is related to an ongoing, regionally significant project identified in the RTP and is included in the PMT.

FHWA/FTA Grant Application Task and Element: 44.23.02

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA §5303 Carryover	MBTA	Other
\$15,000		\$15,000							\$15,000	

SOUTH COAST COMMUTER RAIL EXTENSION



STAFF: Central Transportation Planning Staff

CLIENT: Executive Office of Transportation

ID #: 43211

BUDGET: \$300,400

STATUS: 70%

EOT and the MBTA are developing state and federally required environmental review documents and a smart-growth corridor plan for the South Coast Rail project, which would restore passenger rail service between the cities of Fall River and New Bedford and downtown Boston. The project would include the construction of passenger stations and terminal layover facilities.

FFY 2010 Activities and Expected Work Products: Tasks associated with this project will be conducted as requested by EOT.

This work is related to a recommended, regionally significant project identified in the RTP.

Also see Appendix A for related work.

FHWA/FTA Grant Application Task and Element: 44.23.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$86,000		\$86,000			\$86,000					

URBAN RING**STAFF:** Central Transportation Planning Staff**CLIENT:** Executive Office of Transportation**ID #:** 22332**BUDGET:** \$315,000**STATUS:** Ongoing

CTPS will continue to support EOT's work on the state and federal environmental reviews for the Urban Ring project.

FFY 2010 Activities and Expected Work Products: CTPS will provide new travel-demand forecasting to reflect any changes to the region's demographic assumptions.

This work is related to a project included in the RTP and the PMT. Also see Appendix A for EOT and MBTA work related to this project.

FHWA/FTA Grant Application Task and Element: 44.23.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA §5303 Carryover	MBTA	Other
\$5,000		\$5,000		\$5,000						

7 TECHNICAL SUPPORT/OPERATIONS ANALYSIS PROJECTS

The projects in this chapter will be conducted during federal fiscal year 2010. They are technical in nature and may include support for larger projects that are described in Appendix A: Other Boston Region Transportation Planning Projects. In instances where this occurs, the project description refers the reader to Appendix A.

Project ID #	Project Name	Page
MAPC 8	Alternative-Mode Planning and Coordination	7-2
11347	Assistance to MBTA Development	7-5
13150	Community Transportation Technical Assistance Program	7-6
11140	Emergency Evacuation and Hazard Mitigation Mapping	7-7
MAPC 9	Integrating Land Use in Regional Transportation Models	7-9
14311	MBTA 2009 National Transit Database: Directly Operated	7-10
14310	MBTA 2009 National Transit Database: Purchased Bus	7-11
14311	MBTA 2010 National Transit Database: Directly Operated	7-12
14310	MBTA 2010 National Transit Database: Purchased Bus	7-13
11360	MBTA Bus Service Data Collection VI	7-14
11366	MBTA Core Services Evaluation	7-15
62303	MBTA Fitchburg Line Small Starts Application Support	7-16
32308	MBTA Greenbush Impact Study	7-17
11365	MBTA Program for Mass Transportation (PMT) Benchmarking	7-18
14303	MBTA Rider Oversight Committee Support	7-19
14309	MBTA Systemwide Onboard Passenger Survey	7-20
11111	Mobility Assistance Program and Section 5310 Review	7-21
11139	MPO Freight/Rail Study	7-22
53307&53308	Regional Transportation Authority Service Planning Assistance	7-23
13248	Safety Assessments Coordination	7-24
11124	Statewide Planning Assistance	7-25
11363	Strategic Visioning for MBTA Bus Service	7-26
90040	Travel Operations Analysis	7-27



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region Metropolitan Planning Organization

ID #: MAPC 8

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 for 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. Efforts in the coming year will continue to focus on implementing regional bicycle and pedestrian programs, on advancing the Suburban Mobility and TDM programs of the MPO, and on adding and updating sections of the Toolkit for Sustainable Mobility.

Bicycle and Pedestrian Programs

Implementation of bicycle and pedestrian improvements will continue to be pursued in the development of the TIP and through assistance to communities preparing and implementing projects through various funding programs. MAPC will specifically focus on developing program concepts to increase pedestrian mobility in the MAPC region for consideration and support by the Boston Region MPO. The Regional Pedestrian and Bicycle Plans will be implemented on an ongoing basis. MAPC will continue to operate and administer the Boston Region MPO bike rack program and will develop and propose to the MPO a similar program for improvements to pedestrian transportation. The Alewife Bicycle and Pedestrian Access Study will be monitored on a regular basis for implementation.

Bike Share Program Implementation: Working with the City of Boston, MAPC has developed a request for proposal (RFP) to install and operate bicycle-sharing kiosks at locations in the city and beyond. The bike-share vendor for this project is likely to be selected before the end of the calendar year. Implementation efforts need to be undertaken by MAPC to guide the process through FFY 2010. Working initially with officials from the cities of Boston, Cambridge, and Somerville, MAPC will implement a program that can eventually be expanded to include neighboring communities.

Technical Assistance with Local Bicycle-Planning Initiatives: MAPC will provide technical support, as requested, to communities seeking to augment portions of the regional bicycle network, as identified in the 2007 Regional Bicycle Plan. MAPC will also begin an initiative to work with the communities in the region to implement the MPO portion of the Bay State Greenway, as recommended in the 2007 Massachusetts Statewide Bicycle Transportation Plan. (The Greenway is a series of long-distance on- and off-road bicycle routes that connect throughout the state. An example of such a system is the Route Verte in Quebec, Canada (www.routeverte.com/rv/index_e.php).



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region Metropolitan Planning Organization

ID #: MAPC 8

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Suburban Mobility and Transportation Demand Management Programs

MAPC will continue to chair the Suburban Mobility/TDM Subcommittee, including promotion and project proposal reviews. It will continue to participate in the current review of the statewide enhancement process, ongoing efforts to improve the Congestion Mitigation Air Quality Improvement (CMAQ) programming process, and any subsequent reorganization of the MPO's CMAQ review process.

Suburban Mobility Program: MAPC will continue to work with the MPO to implement its Suburban Mobility/TDM Program and to undertake community-based transit planning in the MAPC region. This program funds services that improve the mobility of residents in areas currently un-served or under-served by transit. MAPC will also continue to work with the Suburban Mobility/TDM Subcommittee and CTPS to identify promising locations and ideas for future projects and to provide technical support and assistance to municipalities in developing these projects.

Congestion Mitigation and Air Quality Improvement (CMAQ): The federal CMAQ Program provides funding to the Boston Region MPO for projects that reduce automobile congestion and improve air quality in the region. MAPC work under this program includes coordinating with the MPO and the region's municipalities to identify potential projects eligible for funding and providing technical support and assistance to municipalities in developing these projects. MAPC will continue to work with the Suburban Mobility/TDM Subcommittee, cities and towns, and agencies to suggest useful program concepts across modes for the CMAQ annual targets. It will also work with the MPO and state agencies to implement improvements to the CMAQ program. Additionally, MAPC is a member of the Statewide CMAQ Consultation Committee, which is responsible for reviewing potential projects and approving their eligibility.

Transportation Enhancement Program

MAPC provides technical assistance and project review for municipalities and organizations proposing enhancements to the existing transportation system, screens proposals for completeness, and provides staff support for the Regional Enhancements Committee. MAPC will continue visits to project application sites, gathering photo documentation and meeting on-site with proponents to more fully understand the proposed projects. This information is then shared with the Regional Enhancements Committee to help it make more fully informed decisions on project proposals. In addition, MAPC expects to continue to participate in the efforts undertaken by EOT to improve the implementation of the Enhancements Program.



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region Metropolitan Planning Organization

ID #: MAPC 8

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Toolkit for Sustainable Mobility

In FFY 2010 MAPC will continue to work with municipalities and other stakeholders to add to the Toolkit for Sustainable Mobility. This toolkit provides guidelines and best practices for communities that wish to adopt practices leading to more-sustainable methods of getting around. To date, toolkits covering local parking issues and developer mitigation tools have been completed and are available on MAPC’s website.

The components on Parking and Development Mitigation will be updated and expanded as needed in FFY 2010. MAPC will also complete additional toolkit components on local applications of “complete streets” concepts. “Complete streets” are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists, and transit riders of all ages and abilities must be able to safely move along and across a complete street. This toolkit will help communities apply these concepts to all roadway projects. The toolkit will include a comprehensive review of what this concept means, local practices and measures, legal authority, and liability concerns.

The toolkit has led to requests by communities and subregions for additional information and presentations. Based on past community interest, MAPC has allocated in this budget sufficient resources to provide technical assistance on parking issues to six communities, for up to three days each. This assistance will include participating in meetings, providing information, assisting with parking study design, and revising zoning regulations. This work will be coordinated with the CTPS project described on page 7-6 .

FY 2010 Activities and Expected Work Products: MAPC will continue this ongoing work effort as described above, supporting the MPO subcommittee, and developing new implementation strategies.

FHWA/FTA Grant Application Task and Element: 44.22.02

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
	\$195,000	\$195,000	\$130,650			\$64,350				



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 11347

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

In addition to other projects presented in this UPWP, the MBTA has identified a number of other issues that also warrant further analysis and review. Examples of types of projects that may be included are:

- Allston/Brighton Bus Improvements
- Commuter rail Ridership Growth Strategy
- Comprehensive Automatic-Fare-Collection Non Interaction Study
- Fitchburg Commuter Rail Line Station Consolidation
- Fitchburg Commuter Rail Line, Gardner/Wachusettts Extension
- Foxborough Commuter Rail Full-time Service Analysis
- MBTA Systemwide Travel-Time-Improvements Action Plan
- Plaistow Commuter Rail Line Restoration
- Post 2009 Fare Increase Impact Analysis
- Technical support to the MBTA Rapid Transit Infrastructure Program
- Graphics and Editing Support to CTPS Transit Service Planning

FFY 2010 Activities and Work Products: Detailed work scopes outlining the new FFY 2010 projects listed above will be presented to the Transportation Planning and Programming Committee for approval to proceed. The projects will utilize \$16,950 in FFY 2007 Section 5303 carryover funds, \$60,000 in FFY 2008 MBTA Section 5303 carryover funds, \$76,000 in FFY 2009 MBTA Section 5303 carryover funds, and \$257,900 in FFY 2010 MBTA Section 5303 funds.

This project will further the implementation of the Regional Transportation Plan (RTP) and the Program for Mass Transportation (PMT).

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$410,800		\$410,800						\$257,900	\$152,900	



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Metropolitan Planning Organization

ID #: 13150

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Local community officials often identify transportation issues about which they would like to have technical advice. In this pilot project, a team of CTPS and MAPC engineers and planners will provide such advice. The team will meet with community officials to learn more about specific problems and provide advice on next steps. There will usually be a site visit to better understand the potential problem. Some general types of solutions might be recommended, along with contact information on whom to follow up with. The advice might relate to such things as parking, traffic calming, walking or bicycling, or bus-stop-related issues that the community might have identified. Descriptions of the various planning processes at MassHighway, the MBTA, and the MPO, and how communities can get involved, might be appropriate. In any event, these are not design or planning studies that would be performed by the MPO staff. Rather, this is a mechanism for providing quick-response advice to communities on next steps for resolving the issues they have identified. This work will advance the MPO’s goals for system preservation, modernization and efficiency; mobility; and land use and economic development. It will also be consistent with the MPO’s CMP and other staff-identified needs.

FFY 2010 Activities and Work Products: This service will be publicized through various channels, and 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 Deputy Technical Director. Teams of professionals will be dispatched to client municipalities, and memoranda on the consultations will document the work, recommendations, and outcomes.

Depending on how well utilized the service is and on what participants perceive the benefits to be, a determination will be made at the end of the year as to whether the program is worth continuing.

This project will be conducted in coordination with MAPC activities outlined on page 7-4 under Toolkit for Sustainable Mobility.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$15,000		\$15,000	\$7,500			\$7,500				



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Metropolitan Planning Organization

ID #: 11140

BUDGET: \$35,000

STATUS: 0%

This study advances the MPO’s Safety and Security policy of protecting the region from natural and human threats, and addresses the SAFETEA-LU planning factor for security. It will involve mapping of the transportation network and projects proposed for MPO funding with overlays of local and/or regional evacuation routes, critical infrastructure related to evacuation and security planning, and areas prone to natural hazards. It will also provide additional information for the MPO’s decision-making processes and for evacuation planning.

The study will collect information as it becomes available from MAPC’s work with the Northeast Homeland Security Advisory Council (NERAC), from the two other Homeland Security Councils in the MPO region (should they choose to participate), and from other evacuation and security planning initiatives in the region.

Understanding the relationship between evacuation routes and proposed TIP and RTP projects will help the MPO determine if planned transportation projects would improve infrastructure for emergency management functions and evacuation or would serve critical infrastructure. This information will be used as inputs to the MPO’s project rating system for identifying whether projects “serve an evacuation plan or emergency management function.” Evacuation planners could also use this information to identify certain work zones that could impede traffic during an evacuation.

Mapping evacuation routes in comparison to natural hazard zones will provide information needed to plan for alternate evacuation routes in the event that infrastructure fails or is impassible due to flooding or other natural events. This information will also be useful to evacuation planners for assessing which areas would need to be evacuated in advance of a weather event (such as a hurricane or major flooding) and for advising the public whether they should evacuate or shelter in place. Such maps might also be used in the preparation of regional evacuation guides.

Comparing the transportation network and proposed projects to natural hazard zones will help determine if transportation infrastructure and planned transportation facilities lie in areas prone to flooding, hurricane surges, or other natural threats. This information will be used to plan adaptive measures to protect infrastructure from weather impacts.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other

EMERGENCY EVACUATION AND HAZARD MITIGATION MAPPING (CONT.)



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Metropolitan Planning Organization

ID #: 11140

BUDGET: \$35,000

STATUS: 0%

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA §5303 Carryover	MBTA	Other
\$35,000		\$35,000	\$31,400			\$3,600				



STAFF: Metropolitan Area Planning Council

CLIENT: Boston Region Metropolitan Planning Organization

ID #: MAPC 9

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

In FFY 2010, MAPC will explore emerging technologies and datasets and their potential to support regional land use and transportation modeling. Specifically, MAPC will evaluate available land use allocation models and will make a determination on how to proceed, including a plan of action for implementation of the chosen strategy in FFY 2011. This process will be conducted in coordination with CTPS and its evaluation of activity-based modeling, so that the two agencies can develop truly integrated land use and transportation models. Such models will support better estimates of the “feedback loops” between transportation investments and development patterns. An important activity for this process will be consultation with peers and colleagues in other regions to learn more about best practices and lessons learned based on their experiences with alternative modeling approaches.

Concurrent with this work, MAPC will also conduct additional activities related to a regional development database and will continue research based on geocoded odometer readings from the Registry of Motor Vehicles (RMV).

A regional development database is needed to integrate data from the many different state, regional, and local entities that collect information about projects in the development pipeline. Such a database would provide a much stronger understanding of potential future development to inform both transportation planning and land use policy activities. The products of MAPC’s work in FFY 2010 will be an inventory of information sources and a strategy for ongoing data collection and integration.

MAPC will explore the factors that influence driving patterns through continued research using vehicle miles traveled data for 16 million vehicles, compiled by MassGIS from RMV data. Analysis of the VMT data will provide a better understanding of the fine-scale land use patterns that influence driving behavior, and may also provide a tool for estimating potential transportation impacts of proposed projects, as a complement to results from conventional transportation models. The product of this work will be a research brief summarizing findings.

FFY 2010 Activities and Expected Work Products: MAPC will continue this work effort as described above, in coordination with CTPS activities outlined on page 5-13.

FHWA/FTA Grant Application Task and Element: 44.22.03

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
	\$50,000	\$50,000	\$33,500			\$16,500				



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 14311

BUDGET: \$88,900

STATUS: 98%

The objective of this project is to develop estimates of passenger boardings and passenger-miles for directly operated bus, trackless trolley, heavy rail, and light rail services. The data that form the basis of the estimates are collected through onboard ridechecks, station turnstile observations, and passenger surveys. The MBTA will be submitting its SFY 2009 National Transit Database estimates of passenger boardings and passenger-miles for various transit modes to the FTA with the aid of CTPS. The final reports, however, will not be completed until FFY 2010.

FFY 2010 Activities and Work Products: Staff will prepare final reports on SFY 2009 passenger-miles and boardings estimates for heavy rail, light rail, motorbus, and trolley bus services.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$2,000		\$2,000							\$2,000	



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 14310

BUDGET: \$37,100

STATUS: 97%

Project Description: The objective of this project is to develop estimates of passenger boardings and passenger-miles for bus routes operated as part of the Suburban Transportation program and other contracted MBTA local bus service. The data that form the basis of the estimates will be collected through onboard ridechecks. The MBTA will be submitting its SFY 2009 National Transit Database estimates of passenger boardings and passenger-miles to the FTA with the aid of CTPS. The final reports, however, will not be completed until FFY 2010.

FFY 2010 Activities and Work Products: Staff will prepare passenger-miles and boardings estimates for SFY 2009 purchased transportation services.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA §5303 Carryover	MBTA	Other
\$1,000		\$1,000							\$1,000	



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 14311

BUDGET: \$86,300

STATUS: 24%

The objective of this project is to develop estimates of passenger boardings and passenger-miles for directly operated bus, trackless trolley, heavy rail, and light rail services. The data that form the basis of the estimates will be collected through onboard ridechecks, station turnstile observations, and passenger surveys. The MBTA will be submitting its SFY 2010 National Transit Database estimates of passenger boardings and passenger-miles for various transit modes to the FTA with the aid of CTPS. The final reports, however, will not be completed until FFY 2011.

FFY 2010 Activities and Expected Work Products: Ridechecks will be conducted for the bus and trackless-trolley portions of the SFY 2010 National Transit Database reporting. For heavy and light rail, origin-and-destination surveys will be conducted, and fare-mix data will be obtained.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$66,000		\$66,000							\$66,000	



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 14310

BUDGET: \$37,100

STATUS: 22%

The objective of this project is to develop estimates of passenger boardings and passenger-miles for bus routes operated as part of the Suburban Transportation program and other contracted MBTA local bus service. The data that form the basis of the estimates will be collected through onboard ridechecks. The MBTA will be submitting its SFY 2010 National Transit Database estimates of passenger boardings and passenger-miles to the FTA with the aid of CTPS. The final reports, however, will not be completed until FFY 2011.

FFY 2010 Activities and Expected Work Products: Ridechecks will be conducted onboard a random sample of bus trips.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$29,000		\$29,000							\$29,000	

MBTA BUS SERVICE DATA COLLECTION VI**STAFF: Central Transportation Planning Staff****CLIENT: MBTA****ID #: 11360****BUDGET: \$321,500****STATUS: 50%**

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 as part of this project also support future MBTA service plans: bus routes undergo comparative evaluations for cost-effectiveness, crowding, schedule adherence, and other indicators.

FFY 2010 Activities and Work Products: CTPS will produce summaries of boardings, alightings, and on-time performance for selected bus routes and will recommend service reallocation to respond to demand and improve cost-effectiveness.

Results from this work will also be used to update the regional model that is used to develop RTP and the PMT.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA §5303 Carryover	MBTA	Other
\$160,000		\$160,000							\$160,000	

MBTA CORE SERVICES EVALUATION**STAFF:** Central Transportation Planning Staff**CLIENT:** Boston Region Metropolitan Planning Organization**ID #:** 11366**BUDGET:** \$102,200**STATUS:** 0%

This study will evaluate how the MBTA could adapt its services in response to changing demographics, increasing environmental awareness, the current economic downturn, and the sobering fiscal realities faced by the Authority. All of these contribute to changing expectations about how transit might be used/provided and how far riders are willing to walk to access service. With these new realities in mind, the study will research the different markets currently served by the MBTA and identify—or perhaps re-define—the constituencies that it is the core mission of the Authority to serve. For non-core markets, the study will explore other mobility options that could be adopted and evaluate whether the current Suburban Mobility program has been successful in providing alternatives. In keeping with potential changes to MBTA services, the study will also evaluate whether the existing service standards should be revised to reflect new approaches to providing mobility in the region.

FY 2010 Activities and Work Products: A detailed work scope outlining the tasks and work products associated with this project will be presented to the Transportation Planning and Programming Committee for approval during FFY 2010.

FHWA/FTA Grant Application Task and Element: 44.24.01**FFY 2010 Budget**

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$102,200		\$102,200				\$102,200				

MBTA FITCHBURG LINE SMALL STARTS APPLICATION SUPPORT



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 62303

BUDGET: \$40,000

STATUS: 0%

This project involves providing planning and modeling assistance to the MBTA Fitchburg Line Small Starts Application study team, which consists of the MBTA, EOT, and the Montachusett Regional Transit Authority (MART). As part of this work, CTPS will perform a user benefit analysis for up to five model scenarios and assist the MBTA with preparing a Federal Transit Administration Small Starts grant application.

FFY 2010 Activities and Expected Work Products: CTPS will continue to support this project, as requested by EOT and MART.

Also see page 7-5 for additional projects related to the Fichburg Commuter Rail Line.

FHWA/FTA Grant Application Task and Element: 44.23.02

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$20,000		\$20,000							\$20,000	



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 32308

BUDGET: \$40,500

STATUS: 23%

MBTA began commuter rail service on the Greenbush commuter rail line on October 31, 2007. The objective of this study is to examine the impacts of the Greenbush Line on travel patterns and on transportation facilities already operating in the area. CTPS will analyze passenger counts on other transportation facilities in the same area before and after Greenbush implementation. CTPS will also conduct post-implementation passenger counts on the Greenbush Line and will survey current passengers to determine how their commuting patterns have been affected by the opening of this new service.

FFY 2010 Activities and Work Products: CTPS will analyze the results of the passenger survey and the “before and after” data and will produce a final report that discusses the findings. This project is funded with \$31,000 in FFY 2009 Section 5303 carryover funds.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$31,000		\$31,000						\$31,000		



STAFF: Central Transportation Planning Staff

CLIENT: MBTA

ID #: 11365

BUDGET: \$43,600

STATUS: 29%

The purpose of this study is to establish a baseline for evaluating the MBTA’s progress in improving service, as compared to peer agencies and to itself over time. The MBTA reports on various performance indicators on a monthly basis. Of these, selected indicators will be used to establish a baseline against which future comparisons of MBTA performance trends can be made. In addition, as a part of the Program for Mass Transportation (PMT) planning process, CTPS and the MBTA identified several targets and benchmarks that correlate to PMT evaluation criteria. CTPS will select certain of the targets and benchmarks and determine the metric by which each will be measured. These metrics will act as the baseline against which the MBTA’s progress toward achieving the goals of the PMT can be measured.

CTPS will collect baseline data for MBTA performance indicators and PMT targets and benchmarks. CTPS will also identify peer agencies and will collect performance data for each. All of the results will be organized in relation to general themes identified in the PMT. In addition, CTPS will interview representatives from the peer agencies to determine general policies and practices of each in relationship to the PMT themes.

FFY 2010 Activities and Work Products: CTPS will determine and document which of the MBTA’s performance indicators and PMT targets/benchmarks to evaluate. It will also determine the metrics for measuring each target/benchmark. CTPS will research and select peer agencies for the purpose of comparison and will determine which performance measures will be used for peer comparisons. Data collection will begin, as will interviews regarding peer agency policies and practices.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$31,000		\$31,000						\$31,000		

MBTA RIDER OVERSIGHT COMMITTEE SUPPORT**STAFF:** Central Transportation Planning Staff**CLIENT:** MBTA**ID #:** 14303**BUDGET:** Not applicable to ongoing projects**STATUS:** Ongoing

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.

FFY 2010 Activities and Work Products: CTPS will continue to provide technical assistance to the MBTA Rider Oversight Committee and attend committee and subcommittee meetings.

FHWA/FTA Grant Application Task and Element: 44.21.02

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$8,000		\$8,000							\$8,000	

MBTA SYSTEMWIDE ONBOARD PASSENGER SURVEY**STAFF: Central Transportation Planning Staff****CLIENT: MBTA****ID #: 14309****BUDGET: \$1,035,000****STATUS: 80%**

In the 12 years since the last set of comprehensive onboard passenger surveys was conducted for the MBTA, the Boston region has experienced significant demographic shifts, transit fare policy changes, and major roadway improvements (namely the Central Artery/Tunnel project). Additionally, the MBTA transit system has grown, adding new commuter rail and bus rapid transit (BRT) services. Gauging how these changes have influenced passenger behavior and characteristics is critical to effective and efficient transportation planning.

The MBTA has been awarded a discretionary grant under the FTA's Alternatives Analysis Program for a new systemwide onboard survey of the rapid transit, bus, BRT, commuter rail, and water transportation services. The results of this survey will provide the MBTA, state and federal agencies, consultants, and the public with more up-to-date analytical tools to effectively and efficiently conduct transportation-planning activities. In particular, these new survey data will enhance CTPS' ability to validate and calibrate the Boston Region MPO's regional travel demand model.

FFY 2010 Activities and Work Products: Complete data verification, data processing and expansion, and data interpretation and analysis. Prepare final reports by service category.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$170,000		\$170,000							\$34,000	\$136,000



STAFF: Central Transportation Planning Staff

CLIENT: Executive Office of Transportation and Public Works

ID #: 11111

BUDGET: Not applicable to ongoing projects

STATUS: Ongoing

Pre-applications and final applications from organizations located in the Boston Region MPO area for funding under the Federal Transit Administration’s Section 5310 program and the state’s Mobility Assistance Program will be reviewed for their consistency with regional goals. These programs award, to eligible organizations, capital grants for providing transportation services to elderly individuals and people with disabilities. Staff will comment in detail on each application, attend all relevant meetings, and participate in the selection of funding recipients.

FFY 2010 Activities and Expected Work Products: Evaluations of grant applications and guidance to program participants.

FHWA/FTA Grant Application Task and Element: 44.21.04

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA §5303 Carryover	MBTA	Other
\$1,000		\$1,000				\$1,000				

MPO FREIGHT/RAIL STUDY**STAFF: Central Transportation Planning Staff****CLIENT: Boston Region Metropolitan Planning Organization****ID #: 11139****BUDGET: \$40,000****STATUS: 0%**

This study of freight activities in the Boston Region MPO area will advance the recommendations of the Executive Office of Transportation and Public Works (EOT) Statewide Freight Plan and Statewide Rail Plan studies, upon their expected completion by the end of this calendar year.

Its products will provide additional information needed for understanding and evaluating freight activities in the region and possible identification of freight projects for consideration by the MPO, EOT, and other state agencies involved in the environment and economic development. This project may also identify actionable programs for consideration for the MPO Regional Transportation Plan and Transportation Improvement Program.

FFY 2010 Activities and Work Products: Following the completion of the Massachusetts Statewide Freight Plan and Statewide Rail Plan, staff will prepare a work scope for a study that will further the recommendations identified in these plans and present it to the Transportation Planning and Programming Committee for approval.

FHWA/FTA Grant Application Task and Element: 44.24.01**FFY 2010 Budget**

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$40,000		\$40,000	\$40,000							



STAFF: Central Transportation Planning Staff

CLIENT: Boston Region Metropolitan Planning Organization

ID #: 53307&53308

BUDGET: \$80,000

STATUS: 90%

53307 MetroWest RTA Service Planning Assistance: CTPS will provide support to the MetroWest Regional Transit Authority (MWRTA) in evaluating its transit services and in identifying improvements to present routes and schedules or possible new routes that could be implemented without increasing the net operating cost of the system. In particular, the MWRTA has requested technical assistance with its evaluation of a redesign of its network as a pulse system, with buses on all routes departing simultaneously from a hub in the Natick Collection/Shoppers World commercial area. The work for this federal fiscal year is funded with \$6,000 in FFY 2007 MBTA Section 5303 funds, which is matched by \$2,000 from the MetroWest Regional Transit Authority.

53308 Ongoing Planning Assistance to MPO Regional Transportation Authorities: Following completion of the work described above, staff will continue to provide assistance to the MWRTA in implementing study recommendations and, upon request, assist the Cape Ann Transportation Authority. The project will be funded with \$10,000 in FFY 2010 MPO Section 5303 funds.

FFY 2010 Activities and Expected Work Products: The staff will complete final recommendations of service improvements and provide ongoing support, as needed.

FHWA/FTA Grant Application Task and Element: 44.24.01

FFY 2010 Budget

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$16,000		\$16,000				\$10,000		\$4,000		\$2,000

SAFETY ASSESSMENTS COORDINATION**STAFF:** Central Transportation Planning Staff**CLIENT:** Boston Region Metropolitan Planning Organization**ID #:** 13248**BUDGET:** Not applicable to ongoing projects**STATUS:** Ongoing

The purpose of this ongoing program is twofold: to identify and prioritize crash locations in the region and to select annually a few locations for analysis and mitigation recommendations. MAPC and CTPS will decide the following:

- Data categories
- Measure of effectiveness to use for developing priorities
- Facility type to attach the data to (intersection, arterial, other)

A website will be developed to display this information, and updates will be scheduled as new data become available.

FFY 2010 Activities and Work Products: Based on priority, a number of selected locations for improvements will be examined. Staff will perform fieldwork, attend meetings with municipal officials, and possibly collect more detailed crash data and turning movement counts.

FHWA/FTA Grant Application Task and Element: 44.24.01**FFY 2010 Budget**

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$10,000		\$10,000	\$10,000							

STATEWIDE PLANNING ASSISTANCE**STAFF:** Central Transportation Planning Staff**CLIENT:** Executive Office of Transportation and Public Works**ID #:** 11124**BUDGET:** Not applicable to ongoing projects**STATUS:** Ongoing

Work on this project is performed as requested by the state's Office of Transportation Planning (EOT Planning). CTPS will provide general technical assistance on EOT Planning activities. This assistance may include:

- Short-term and ongoing analysis of projects and proposals, including travel demand modeling, impacts analyses, air quality analyses, traffic engineering analyses, and other types of quick-response analyses for MassHighway
- Preparation of supporting data, graphics, maps, and other materials for EOT studies and presentations
- Technical assistance on EOT Planning activities, such as development of travel demand models and development of the Statewide Transportation Plan
- Support of environmental document preparation for projects under development

In addition, CTPS will assist EOT in the development, maintenance, updating, and improvement of databases for certain facilities throughout the Commonwealth, describing their location, type, development status, and other characteristics. These facilities may include bicycle, rail, park-and-ride, and roadway assets. The assistance will also include coordination with other data-producing sources and integration of their differing data designs to ensure useful databases.

FFY 2010 Activities and Expected Work Products: Activities and work products will depend on tasks requested by EOT Planning. Projects of appropriate scope will be submitted to the Transportation Planning and Programming Committee before proceeding. CTPS will assist EOT in the development, maintenance, updating, and improvement of databases for certain facilities throughout the Commonwealth, describing their location, type, development status, and other characteristics. These facilities may include bicycle, rail, park-and-ride, and roadway assets. The assistance will also include coordination with other data-producing sources and integration of their differing data designs to ensure useful databases.

FHWA/FTA Grant Application Task and Element: 44.24.01**FFY 2010 Budget**

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA §5303 Carryover	MBTA	Other
\$330,000		\$330,000		\$330,000						

STRATEGIC VISIONING FOR MBTA BUS SERVICE**STAFF: Central Transportation Planning Staff****CLIENT: MBTA****ID #: 11363****BUDGET: \$100,000****STATUS: 62%**

The purpose of this project is to determine future strategies that the MBTA could adopt to continuously improve the performance of the present bus network, including the Key Route system. Specifically, CTPS will identify those segments where bus travel time is exceptionally longer than the comparable journey by auto in the same corridor; study payment methods by bus route and determine what bus routes have the highest level of farebox interaction, which can slow down bus service; study the number of bus trips dropped by route, determine what conditions resulted in trips not being operated, and identify possible strategies for selecting which trips would be dropped in emergency conditions; review average stop distance by route for local (non-express) segments of routes and review peer data and industry data to develop an optimal standard for bus stop spacing; and review recent ridership on segments of routes closest to rapid transit stations and compare to pre-2006 ridership to determine if the post-2006 fare restructuring has resulted in an increase in short trips via bus to rapid transit stations. In addition, CTPS will review the existing Key Routes to screen for ease of BRT implementation.

FFY 2010 Activities and Work Products: CTPS will prepare tables that compare bus travel time to auto travel time corridor by corridor and payment methods by bus route and/or bus service area. Summaries will be developed of average stop distance and bus trips not operated by route. In addition, ridership before and after the 2007 change in fare structure will be compared for bus stops within a 1-mile range of rapid transit stations. This project will use MBTA FFY 2009 Section 5303 carryover funds.

FHWA/FTA Grant Application Task and Element: 44.24.01**FFY 2010 Budget**

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA \$5303 Carryover	MBTA	Other
\$62,000		\$62,000						\$62,000		

TRAVEL OPERATIONS ANALYSIS**STAFF:** Central Transportation Planning Staff**CLIENT:** Boston Region Metropolitan Planning Organization**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 ridership, revenue, and service data. This project involves performing various short-term analyses using the available data, upon request.

FFY 2010 Activities and Expected Work Products: CTPS will respond to data requests from public agencies, municipalities, and members of the public.

FHWA/FTA Grant Application Task and Element: 44.24.01**FFY 2010 Budget**

Funding Recipient(s)		FFY 10 Total Budget	Funding Source(s)							
CTPS	MAPC		PL	SPR	EOT	MPO §5303	MBTA §5303	MBTA §5303 Carryover	MBTA	Other
\$3,000		\$3,000				\$3,000				

8 BOSTON REGION MPO BUDGET AND OPERATING SUMMARIES

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

Administration and Resource Management Projects	\$1,081,000
Certification Requirements	2,519,100
Planning Studies	1,563,400
Technical Support/Operations Analysis Projects	1,788,000
EOT Section 5303 Local Match*	<u>260,850</u>
<i>Total</i>	\$7,212,350

Funding for the MPO projects in this UPWP comes from the following sources, which are described in Chapter 1:

FHWA 3C Planning (PL) and EOT Local Match	\$3,395,800
FHWA Statewide Planning and Research (SPR) and EOT Local Match	492,500
FTA/EOT, MAPC, and MBTA, with Local Match to Section 5303	2,437,050
EOT	341,000
MBTA	351,000
Other	<u>195,000</u>
<i>Total</i>	\$7,212,350

On the following pages, the funding information presented in the preceding chapters is summarized in four tables. These tables are followed by a one-page summary showing the entire budget by recipient agency and funding source. The next table in this chapter shows the grant application categories for Section 5303 funding, as required by the Federal Transit Administration. The purpose of these summaries is to assist federal and state contract administrators in reviewing the overall budget in detail.

The last table in the chapter presents a schedule and staff assignments for CTPS projects in this UPWP. This schedule is subject to revision, particularly for new projects whose work scopes have not yet been developed.

* EOTPW Section 5303 matching funds have been applied to the UPWP categories as a whole rather than to individual projects.

FFY 2010 UNIFIED PLANNING WORK PROGRAM BUDGET SUMMARIES

ADMINISTRATION AND RESOURCE MANAGEMENT PROJECTS

	Funding Recipient		FFY 10 Budget	Funding Source										
	CTPS	MAPC		3C PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA Carryover \$5303	MBTA	Other			
Computer Resource Management	402,000		402,000	281,400				120,600						
Data Resources Management	474,000		474,000	331,800				142,200						
Direct Support	205,000		205,000	123,000	22,500			56,500						3,000
Total	\$1,081,000		\$1,081,000	\$736,200	\$22,500			\$319,300						\$3,000

FFY 2010 UNIFIED PLANNING WORK PROGRAM BUDGET SUMMARIES

CERTIFICATION REQUIREMENTS

	Funding Recipient		FFY 10 Budget	Funding Source								
	CTPS	MAPC		3C PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA Carryover \$5303	MBTA	Other	
3C Planning Process and Public Outreach Activities	628,000		628,000	432,000			196,000					
Air Quality Conformity Determinations	16,900		16,900	11,600			5,300					
Air Quality Support Activities	68,600		68,600	47,200			21,400					
Boston Region MPO Title VI Reporting	5,000		5,000	3,400			1,600					
Disability Access Support (also includes provision of materials in accessible formats)	103,500		103,500	71,200			32,300					
MPO/MAPC Liaison and Support Activities		185,000	185,000	123,950			61,050					
Regional Equity/Environmental Justice Support	115,400		115,400	79,400			36,000					
Regional Model Enhancement	639,900		639,900	440,200			199,700					
Regional Transportation Plan	271,900		271,900	187,100			84,800					
Subregional Support Activities	174,200	160,000	160,000	107,200			52,800					
Transportation Improvement Program (CTPS)			174,200	119,800			54,400					
Transportation Improvement Program (MAPC)		55,000	55,000	36,850			18,150					
Unified Planning Work Program (CTPS)	80,700		80,700	55,500			25,200					
Unified Planning Work Program (MAPC)		15,000	15,000	10,050			4,950					
Total	\$2,104,100	\$415,000	\$2,519,100	\$1,725,450			\$793,650					

FFY 2010 UNIFIED PLANNING WORK PROGRAM BUDGET SUMMARIES

PLANNING STUDIES

	Funding Recipient			Funding Source							
	CTPS	MAPC	FFY 10 Budget	3C PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA Carryover \$5303	MBTA	Other
2009-2010 I-93 North and Southeast Xway HOV Lane Monitoring	60,000		60,000		60,000						
Arterial Traffic-Signal Improvements and Coordination	19,000		19,000	19,000							
Assembly Square Station Feasibility Study	13,000		13,000							13,000	
Bicycle/Pedestrian Support Activities	70,000		70,000	49,000			21,000				
Congestion Management Process	201,000		201,000	201,000							
Corridor/Subarea Planning Studies: Land Use Reviews	100,000	100,000	100,000	67,000			33,000				
Green Line Extension Environmental Review Support	200,000		200,000			200,000					
Huntington Avenue, Boston: Traffic and Operations Analysis	18,000		18,000						18,000		
I-93 Access and HOV Improvements (Savin Hill/South Bay Area)	80,000		80,000	40,000			40,000				
Inner Suburban Mobility Study	34,000		34,000				34,000				
Land Use Development Project Reviews		70,900	70,900	45,550			25,350				
Low-Cost Improvements to Bottleneck Locations	30,000		30,000	30,000							
Massachusetts Turnpike Boston Ramps Study	75,000		75,000		75,000						
MBTA Bus Route 1 Transit Signal-Priority Study	50,400		50,400				50,400				
MBTA Title VI Program Monitoring	50,000		50,000					50,000			
North Shore Transportation Improvements	10,000		10,000			10,000					
Operational Improvements at Congested & High-Crash Locations	7,000		7,000	7,000							
Red Line-Blue Line Connector Study Support	45,000		45,000			45,000					
Regional Vision Implementation: MetroFuture		135,000	135,000	90,450			44,550				
Route 126 Corridor Study	68,000		68,000	68,000							
Route 3 South Corridor Study	57,000		57,000							57,000	
Safety and Operations Analyses at Selected Intersections	64,100		64,100	64,100							
Silver Line Project Support	15,000		15,000							15,000	
South Coast Commuter Rail Extension	86,000		86,000			\$86,000					
Urban Ring	5,000		5,000		\$5,000						
Total	\$1,357,500	\$135,000	\$1,563,400	\$681,100	\$140,000	\$341,000	\$248,300	\$50,000	\$18,000	\$28,000	\$57,000

FFY 2010 UNIFIED PLANNING WORK PROGRAM BUDGET SUMMARIES

TECHNICAL SUPPORT/OPERATIONS ANALYSIS PROJECTS

	Funding Recipient		FFY 10 Budget	Funding Source							
	CTPS	MAPC		3C PL	SPR	EOT	MPO \$5303	MBTA \$5303	MBTA Carryover \$5303	MBTA	Other
Alternative-Mode Planning and Coordination		195,000	195,000	130,650			64,350				
Assistance to MBTA Development	410,800		410,800					257,900	152,900		
Coordinated Technical Assistance to Communities	15,000		15,000	7,500			7,500				
Emergency Evacuation and Hazard Mitigation Mapping	35,000		35,000	31,400			3,600				
Integrating Land Use into Regional Transportation Models		50,000	50,000	33,500			16,500				
MBTA 2009 National Transit Database: Directly Operated	2,000		2,000							2,000	
MBTA 2009 National Transit Database: Purchased Bus	1,000		1,000							1,000	
MBTA 2010 National Transit Database: Directly Operated	66,000		66,000							66,000	
MBTA 2010 National Transit Database: Purchased Bus	29,000		29,000							29,000	
MBTA Bus Service Data Collection VI	160,000		160,000							160,000	
MBTA Core Services Evaluation	102,200		102,200			102,200					
MBTA Fitchburg Line Small Starts Application Support	20,000		20,000							20,000	
MBTA Greenbush Impact Study	31,000		31,000						31,000		
MBTA Program for Mass Transportation Benchmarking	31,000		31,000						31,000		
MBTA Rider Oversight Committee Support	8,000		8,000							8,000	
MBTA Systemwide Onboard Passenger Survey	170,000		170,000							34,000	136,000
Mobility Assistance Program and Section 5310 Review	1,000		1,000			1,000					
Regional Transportation Authority Service Planning Assistance	16,000		16,000			10,000			4,000		2,000
Safety Assessments Coordination	10,000		10,000	10,000							
Statewide Freight/Rail Study, Phase 2	40,000		40,000	\$40,000							
Statewide Planning Assistance	330,000		330,000		330,000						
Strategic Visioning for MBTA Bus Service	62,000		62,000						62,000		
Travel Operations Analysis	3,000		3,000			3,000					
Total	\$1,543,000	\$245,000	\$1,788,000	\$253,050	\$330,000	\$208,150	\$257,900	\$280,900	\$320,000	\$138,000	

ESTIMATED FFY 2010 UPWP TOTAL BUDGET BY AGENCY

Category	UPWP Total	MAPC					CTPS					EOT			
		Total MAPC	PL*	MPO \$5303*	Total CTPS	PL*	SPR*	MPO \$5303*	MBTA \$5303*	MBTA \$5303** Carryover	MBTA		Other		
Administration and Resource Mgt.	1,081,000				1,081,000	736,200	22,500	319,300			3,000				
Certification Requirements	2,519,100	415,000	278,050	136,950	2,104,100	1,447,400		656,700							
Planning Studies	1,563,400	305,900	203,000	102,900	1,257,500	478,100	140,000	145,400	50,000	18,000	28,000	57,000	341,000		
Tech. Support/Oper. Analysis	1,788,000	245,000	164,150	80,850	1,543,000	88,900	330,000	127,300	257,900	280,900	320,000	138,000			
EOT \$5303 Local Match	260,850														260,850
Total	\$7,212,350	\$965,900	\$645,200	\$320,700	\$5,985,600	\$2,750,600	\$492,500	\$1,248,700	\$307,900	\$298,900	\$351,000	\$195,000	\$341,000	\$195,000	\$260,850

* Includes Local Match, which is presented below.

** Includes Local Match for projects using FFYs 2007, 2008, and 2009 \$5303 carryover funds as described on pages 6-12, 7-5, 7-15, 7-18, 7-19, 7-23, and 7-26.

ESTIMATED FFY 2010 UPWP TOTAL BUDGET BY FUNDING SOURCE

Category	UPWP Total	Highway Sources				Transit Sources					Other			
		Total Highway	PL	SPR	EOTPW PL and SPR Match	Total Transit	MPO \$5303 (Federal)	MBTA \$5303 (Federal)*	MBTA \$5303 Carryover (Federal)*	MAPC \$5303 (Match)		MBTA \$5303 (Match)	EOT	
Administration and Resource Mgt.	1,081,000	758,700	588,960	18,000	151,740	322,300	319,300						3,000	
Certification Requirements	2,519,100	1,725,450	1,380,360		345,090	793,650	766,260		27,390					
Planning Studies	1,563,400	821,100	544,880	112,000	164,220	685,300	227,760	33,300	12,000	20,540	22,700	341,000	28,000	57,000
Tech. Support/Oper. Analysis	1,788,000	583,050	202,440	264,000	116,610	1,066,950	191,980	172,000	187,200	16,170	179,600	320,000	320,000	138,000
EOT \$5303 Local Match	260,850					260,850						260,850		
Total	\$7,212,350	\$3,888,300	\$2,716,640	\$394,000	\$777,660	3,129,050	\$1,505,300	\$205,300	\$199,200	\$64,100	\$202,300	\$601,850	\$351,000	\$195,000

* Projects using FFYs 2007, 2008, and 2009 \$5303 carryover funds are presented on pages 6-12, 7-5, 7-15, 7-18, 7-19, 7-23, and 7-26.

FFY 2010 UNIFIED PLANNING WORK PROGRAM BY FTA ELEMENT AND TASK

Estimated Budget, FTA § 5303 by Agency (in \$1,000s)

UPWP Number Projects by Elements and Tasks		FTA	MAPC		CTPS	MBTA*		EOT
		\$5303 Total	Fed	Local	Fed	Fed	Local	Local
44.21.00	Program Support and Administration	436.000	95.040	23.760	317.200			
21.01	Unified Planning Work Program	30.150	3.960	0.990	25.200			
21.02	3C Plan, Process and Public Outreach Activities	196.000			196.000			
	Subregional Activities	52.800	42.240	10.560				
	MAPC/MPO Liaison Support	61.050	48.840	12.210				
21.03	Environmental/Climate Change Support							
	Air Quality Conformity Determinations	5.300			5.300			
	Air Quality Support Activities	21.400			21.400			
21.04	Support to Targeted Populations							
	Disability Access Support	32.300			32.300			
	Mobility Assistance Program & §5310 Review	1.000			1.000			
	Reg. Equity/Env. Justice Support & Studies	36.000			36.000			
44.22.00	Gen. Dev. And Comprehensive Planning	564.350	64.680	16.170	483.500			
22.01	Data Resources Management	142.200			142.200			
22.02	Alternative-Mode Program Support							
	Alternative-Mode Coordination	64.350	51.480	12.870				
	Bicycle Pedestrian Support Activities	21.000			21.000			
22.03	Technical Capacity Enhancement							
	Computer Resources Management	120.600			120.600			
	Integrating Land Use in Reg. Transp. Models	16.500	13.200	3.300				
	Regional Model Enhancement	199.700			199.700			
44.23.00	Long-Range Transportation Planning	227.700	82.360	20.540	124.800			
23.01	Systems-Level Planning							
	Corridor/Subarea Studies: Land Use Reviews	33.000	26.400	6.600				
	Regional Transportation Plan	84.800			84.800			
	Regional Vision: MetroFuture	44.550	35.640	8.910				
23.02	Project-Level Planning							
	Land Use Development Project Reviews	25.350	20.320	5.030				
	I-93 Access and HOV Improvements	40.000			40.000			
	Assembly Square Station Feasibility Study	13.000				8.670	4.330	
44.24.00	Short-Range Transportation Planning	1079.950	0.000	0.000	212.300	404.500	202.300	260.850
24.01	Special Activities							
	Assistance to MBTA Development	410.800				274.000	136.800	
	Boston Region MPO Title VI Reporting	1.600			1.600			
	Coordinated Tech. Assist. to Communities	7.500			7.500			
	Evacuation & Hazard Mitigation Mapping	3.600			3.600			
	Huntington Ave. Boston: Traffic & Ops. Anal.	18.000				12.000	6.000	
	Inner Suburban Mobility	34.000			34.000			
	MBTA Bus Route 1 Transit Signal-Priority	50.400			50.400			
	MBTA Core Services Evaluation	102.200			102.200			
	MBTA Greenbush Impact Study	31.000				20.675	10.325	
	MBTA PMT Benchmarking	31.000				20.675	10.325	
	MBTA Title VI Program Monitoring	50.000				33.350	16.650	
	RTA Service Planning Assistance	14.000			10.000	2.500	1.500	
	Strategic Visioning for MBTA Bus Service	62.000				41.300	20.700	
	Travel Operations Analysis	3.000			3.000			
44.25.00	Transportation Improvement Program	72.550	14.520	3.630	54.400			
25.01	Transportation Improvement Program (TIP)	72.550	14.520	3.630	54.400			
44.27.00	Other Activities	56.500	0.000	0.000	56.500	0.000	0.000	
27.01	Direct Support	56.500			56.500			
GRAND TOTAL		2437.050	256.600	64.100	1248.700	404.500	202.300	260.850

* Includes MBTA FFYs 2007, 2008, and 2009 § 5303 carryover funds as described on pages 6-12, 7-5, 7-15, 7-18, 7-19, 7-23, and 7-26.

Metropolitan Planning (PL) Fund Distribution

Federal funds only

	Berkshire	Boston	Cape Cod	Central	Merrimac	Montachusett	NMiddlesex	Old Colony	Pioneer	Southeast	Subtotal	TOTAL
Distribution Factor	0.01164	0.57587	0.01410	0.06661	0.04482	0.01739	0.04904	0.03402	0.09824	0.08827		1.00
Distribution Factor, updated 2003	0.00936483	0.527864225	0.03542297	0.07439209	0.05285859	0.02654686	0.04695953	0.050057062	0.08474535	0.091788493		1.00
Distribution Factor, updated 2007	0.04928403	0.34335966	0.06128872	0.08719251	0.07114080	0.05890295	0.06758006	0.07044230	0.09461633	0.09619265		1.00
	8,029,652											
2007 FISCAL year allocation	402,692	2,692,546	517,773	689,873	594,774	478,573	568,722	582,402	735,596	766,701	8,029,652	8,029,652
Auth. RPA Distribution	341,920	2,274,240	447,854	665,600	510,392	524,000	483,415	509,440	649,257	624,000	7,030,118	7,030,118
De-Oblig								(98,415)			(98,415)	(98,415)
Balance	231,213	1,660,294	717,680	264,343	1,005,540	491,251	1,832,376	1,319,949	602,888	1,342,782	9,468,315	9,468,315
	8,243,226											
2008 FISCAL year allocation	406,259	2,830,391	505,217	718,748	586,430	485,550	557,078	580,672	779,944	792,938	8,243,226	8,243,226
Auth. RPA Distribution	365,752	2,547,651	454,779	646,928	527,484	436,973	501,518	522,291	701,828	713,699	7,418,903	7,418,903
De-Oblig											0	0
Oblig.				53,890							53,890	53,890
Balance	271,720	1,943,034	768,117	390,052	1,064,486	539,829	1,887,936	1,378,329	681,004	1,422,021	10,346,528	10,346,528
	8,374,270											
2009 FISCAL year allocation	412,718	2,875,386	513,248	730,174	595,752	493,269	565,934	589,903	792,343	805,543	8,374,270	8,374,270
Auth. RPA Distribution (92% OA)	379,700	2,645,356	472,188	671,760	548,092	453,808	520,659	542,711	728,955	741,100	7,704,328	7,704,328
De-Oblig								(188,994)			(188,994)	(188,994)
Oblig.											0	0
Balance	304,738	2,173,065	809,177	448,466	1,112,146	579,290	1,933,210	1,236,528	744,391	1,486,464	10,827,475	10,827,475
	8,507,425											
2010 FISCAL year allocation	419,280	2,921,107	521,409	741,784	605,225	501,112	574,932	599,283	804,941	818,352	8,507,425	8,507,425
Auth. RPA Distribution (93% OA)	389,931	2,716,629	484,911	689,859	562,859	466,035	534,687	557,333	748,595	761,067	7,911,905	7,911,905
De-Oblig												
Oblig.	(124,227)	(865,484)	(154,486)	(219,780)	(179,320)	(148,473)	(170,345)	(177,559)	(238,493)	(242,466)	(2,520,633)	(2,520,633)
Balance	209,861	1,512,059	691,190	280,611	975,192	465,896	1,803,111	1,100,918	562,244	1,301,282	8,902,362	8,902,362

Explanation of each line in the segment for each year

2007 FISCAL year allocation = Distribution of the annual apportionment

 Auth. RPA Distribution = Authorized funding for the year

 De-Oblig = Any deobligation. Entered as a negative number

 Balance = the unobligated balance for each MPO

Special Notes:

If any additional authorization of funds were made in any particular year, an additional row was inserted to record them

In FFY 2005 there were two authorizations, one at the beginning of the year and one in September before the end of the year.

In 1998 the amounts received under the congressional legislations, STEA -97 and Tea -21 are listed separately and added together.

In 2001 the de-obligations were made at the request of FHWA to make the authorized amounts equal to the amounts in the UPWP.

In 2007, MARPA revised the formula to include 40% takedown, 30% as a % of urban pop, and 30% as a % of total pop. The percentage shown is the result of the new formula.

This new formula was derived differently than the 2003 version.

In 2009, the Omnibus Appropriations Act, Pub L. No. 11-8, Division I, Title I required each state to identify unobligated balances to be rescinded.

Massachusetts needed to rescind a total of \$54,647,719. Of this amount, \$2,520,633 was unobligated Metropolitan Planning funds.

**FFY 2010 UNIFIED PLANNING WORK PROGRAM
CTPS SCHEDULE AND STAFF ASSIGNMENTS**

The charts below present estimated schedules and staff assignments for the projects in this UPWP. They are subject to revision as the projects move through implementation. All projects are supported by the Administrative Group, the Editing Group, and the Graphics Group and overseen by the CTPS Directors.

Project #	ONGOING PLANNING ACTIVITIES	Analytical Studies Group	Certification Activities Group	Information Technology and Services Group	Transit Service Planning Group	Traffic Analysis and Design Group	Travel Model Application Group	Travel Model Development Group	FY 2010 UPWP Status
90011&90019-90029	3C Planning Process and Public Outreach Activities		✓			✓	✓	✓	Ongoing
10112	Air Quality Conformity Determinations		✓				✓	✓	Ongoing
90061	Air Quality Support Activities		✓						Ongoing
11347	Assistance to MBTA Development				✓		✓		Ongoing
13208	Bicycle/Pedestrian Studies		✓	✓		✓			Ongoing
11355	Boston Region MPO Title VI Reporting		✓						Ongoing
60400-92	Computer Resource Management			✓					Ongoing
11138	Congestion Management Process			✓		✓			Ongoing
60110-600	Data Resources Management			✓					Ongoing
90024	Disability Access Support		✓						Ongoing
22328	Green Line Extension Environmental Review Support						✓		Ongoing
13396	MBTA Rider Oversight Committee Support				✓				Ongoing
11361	MBTA Title VI Program Monitoring		✓		✓				Ongoing
11111	Mobility Assistance Program and §5310 Review		✓						Ongoing
11131&32	Regional/Environmental Justice Support		✓				✓		Ongoing
11244	Regional Model Enhancement							✓	Ongoing
53307 & 53308	Regional Transit Authority Service Planning Assistance				✓				Ongoing
10101	Regional Transportation Plan	✓	✓	✓		✓	✓	✓	Ongoing
11124	Statewide Planning Assistance	✓	✓	✓		✓	✓		Ongoing
10103	Transportation Improvement Program (CTPS)		✓	✓		✓			Ongoing
90040	Travel Operations Analysis				✓				Ongoing
10104	Unified Planning Work Program (CTPS)	✓	✓	✓	✓	✓	✓	✓	Ongoing

**FFY 2010 UNIFIED PLANNING WORK PROGRAM
CTPS SCHEDULE AND STAFF ASSIGNMENTS**

Project #	STUDIES CURRENTLY UNDERWAY	Analytical Studies Group	Certification Activities Group	Information Technology and Services Group	Transit Service Planning Group	Traffic Analysis and Design Group	Travel Model Application Group	Travel Model Development Group	Anticipated Completion Date
13243	Arterial Traffic-Signal Improvements and Coordination					✓			Nov. 2009
23316	Assembly Square Station Feasibility Study						✓		Oct. 2009
23317	Huntington Avenue, Boston: Traffic and Operations Analysis					✓			Sep. 2010
11362	Inner Suburban Mobility Study			✓	✓				Dec. 2009
11360	MBTA Bus Service Data Collection VI				✓				Dec. 2009
14311	MBTA 2009 National Transit Database: Directly Operated				✓				Nov. 2009
14310	MBTA 2010 National Transit Database: Purchased Bus				✓				Nov. 2009
14316	MBTA 2010 National Transit Database: Directly Operated				✓				Oct. 2010
14315	MBTA 2010 National Transit Database: Purchased Bus				✓				Oct. 2010
62303	MBTA Fitchburg Line Small Starts Application Support						✓		Oct. 2009
23315	MBTA Greenbush Impact Study				✓				Dec. 2009
14309	MBTA Systemwide Onboard Passenger Survey				✓				Dec. 2009
82104	North Shore Transportation Improvements						✓		TBD*
13244	Operational Improvements at Congested and High-Crash Locations					✓			Oct. 2009
22331	Red Line-Blue Line Connector Study Support						✓		Dec. 2009
43108	Route 126 Corridor Study					✓			Mar. 2010
23311	Silver Line Project Support						✓		Dec. 2009
11363	Strategic Visioning for MBTA Bus Service				✓				Sep. 2010

**FFY 2010 UNIFIED PLANNING WORK PROGRAM
CTPS SCHEDULE AND STAFF ASSIGNMENTS**

Project #	STUDIES WITH WORK SCOPES TO BE DEVELOPED	Analytical Studies Group	Certification Activities Group	Information Technology and Services Group	Transit Service Planning Group	Traffic Analysis and Design Group	Travel Model Application Group	Travel Model Development Group	Anticipated Completion Date
23223	2009-2010 I-93 North and Southeast Xway HOV Lane Monitoring					✓			TBD*
13150	Coordinated Technical Assistance to Communities		✓		✓	✓			TBD*
11140	Emergency Evacuation and Hazard Mitigation Mapping		✓	✓		✓			TBD*
22122	I-93 Access and HOV Improvements (Savin Hill/South Bay Area)	✓							TBD*
13247	Low-Cost Improvements to Bottleneck Locations	✓				✓			TBD*
23313	MBTA Bus Route 1 Transit Signal-Priority Study					✓			TBD*
11366	MBTA Core Services Evaluation				✓				TBD*
11365	MBTA Program for Mass Transportation Benchmarking				✓				TBD*
22205	Massachusetts Turnpike Boston Ramps Study							✓	TBD*
11139	MPO Freight/Rail Study	✓	✓			✓	✓		TBD*
13248	Safety Assessments Coordination		✓			✓			TBD*
22332	Urban Ring						✓		TBD*

* Schedule to be determined at the time of work scope development.

APPENDIX A

OTHER BOSTON REGION TRANSPORTATION PLANNING PROJECTS

The following are brief descriptions of planning studies that will be conducted in the Boston Region MPO area by individual agencies, such as MassHighway or the MBTA. MPO funding will not be used for these studies, although in certain instances an agency or one of its consultants may contract with MPO staff (CTPS) to provide support work for the preparation of an environmental-impact report or a large-scale study. For these projects, CTPS support work is described in Chapters 4 through 7, with a cross-reference to the project listing in this appendix. Likewise, projects listed in this appendix indicate whether there is a CTPS component. An example of this is the Executive Office of Transportation (EOT) Red Line–Blue Line Connector Study; CTPS support work is described in Chapter 6, and the EOT project itself is presented in this appendix.

The projects in this appendix are not subject to the Boston Region MPO’s public participation process. Rather, they follow their own public processes with established citizen advisory committees, as required by the Massachusetts Environmental Policy Act (MEPA). They are included here to provide a more complete picture of all the surface transportation planning projects occurring in the region.

Assembly Square Orange Line Station

Agency: MBTA

This initiative involves an impact analysis and the design of a new Orange Line station at Assembly Square. The City of Somerville is working in close coordination with the MBTA to determine the potential of such a station and the possibility of a public-private partnership to construct it.

See Chapter 6 for related work being conducted by CTPS.

Battle Road Scenic Byway

Agency: MAPC

MAPC and the communities of Arlington, Lexington, Lincoln, and Concord, the Minute Man National Historic Park (MMNHP), and the Massachusetts Executive Office of Transportation and Public Works (EOT) are collaborating to develop a corridor management plan (CMP) for the Battle Road Scenic Byway: Road to Revolutions.

The Massachusetts General Court designated the Byway on November 6, 2006 to recognize, protect, and enhance the unique historic, scenic, cultural, and recreational resources along Battle Road. With the support of and through joint efforts with the Towns and the National Park Service, MAPC applied for and successfully obtained a grant from the Federal Highway Administration's Scenic Byways program to develop the CMP. Transportation staff will provide assistance as needed.

Green Line Extension Environmental Review

Agency: EOT

An extension of Green Line service from a relocated Lechmere Station through Cambridge to Somerville and Medford is a legal commitment under the amended State Implementation Plan. This effort involves the development of state and federal environmental review documents. www.mass.gov/greenlineextension

See Chapter 6 for related work being conducted by CTPS.

I-95 South Corridor Study

Agency: EOT

The I-95 South Corridor Transportation Study is being conducted by EOT's Office of Transportation Planning. This study is evaluating and addressing transportation issues in the I-95 corridor from Route 128 in Canton to the Rhode Island state line. The study area also includes the Route 1 corridor from the Boston city line to the Rhode Island state line, and I-495 from Route 1A in Wrentham to Route 140 in Mansfield. A full range of alternatives, including interchange, highway, and non-highway improvements as well as multimodal options, are being developed and analyzed as the study progresses. A recommended plan of future transportation improvements (short-term and long-term), based on the alternatives analysis, will be the end product of this project. www.mass.gov/i95southinfo

Intelligent Transportation Systems: Development and Implementation

Agency: EOT

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

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

Massachusetts Turnpike Authority Boston Ramps Study

Agency: EOT & MassHighway

EOT's Office of Transportation Planning is conducting a study to evaluate and address connectivity issues between three Boston neighborhoods—the Back Bay, Fenway, and the Longwood Medical Area—and the Seaport District, Logan Airport, and Interstate 93 serving points north and south of the city. The anticipated growth in these neighborhoods, combined with traffic generated by the existing educational institutions, medical community, convention center, cultural community, and residents, could lead to worsening congestion issues on local roadways and the regional highway system.

The study's primary focus is to investigate the potential for new or revised access to/from the express highway system using Interstate 90 (the Massachusetts Turnpike) from east of Commonwealth Avenue to just west of Interstate 93. A full range of ramp alternatives are being developed and analyzed as the study progresses. A recommended plan of future transportation improvements (short-term and long-term), based on the alternatives analysis, will be the end product of this study. www.eot.state.ma.us/planning/bostonramps

See Chapter 6 for related work being conducted by CTPS.

North Shore Draft Environmental Impact Statement (DEIS)

Agencies: EOT & MBTA

EOT and the MBTA are working toward completion of a draft environmental impact statement for a project that will identify a locally preferred alternative (LPA) for the Revere-to-Lynn

corridor. The two main alternatives involve: (1) running parallel to the length of the existing commuter rail line with a trestle through Rumney Marsh, and (2) using the narrow-gauge right-of-way that runs near the Point of Pines neighborhood and then parallels the existing rail line in Lynn. Pending a decision on an LPA, project advancement may require additional support work.

See Chapter 6 for related work being conducted by CTPS.

Red Line–Blue Line Connector Study

Agency: EOT

Design for this project is a legal commitment under the amended State Implementation Plan. It involves the development of a DEIR/DEIS and engineering documents for a 0.4-mile extension of the Blue Line from Bowdoin Station to the Charles/MGH station on the Red Line.

www.eot.state.ma.us/redblue

See Chapter 6 for related work being conducted by CTPS.

Region One University Transportation Center Universities Research Program

Colleges and Universities

Research programs involving educational institutions such as Harvard University, the Massachusetts Institute of Technology, and the University of Massachusetts are conducted at the Region One University Transportation Center. For further information on specific projects, contact Paula Magliozzi at (617) 253-0753.

Route 3 South

Agencies: EOT & MassHighway

This project consists of the addition of a general-purpose travel lane generally between Exit 16/Route 18 in Weymouth and Exit 11/Route 14 in Duxbury, replacing the shoulder's peak-hour use as a third lane. The current effort is the completion of a supplemental draft environmental impact report/environmental assessment.

See Chapter 6 for related work being conducted by CTPS.

South Coast Rail Project

Agencies: EOT & MBTA

EOT and the MBTA are developing state and federally required environmental review documents and a smart-growth corridor plan for the South Coast Rail project, which would restore passenger rail service between the cities of Fall River and New Bedford and downtown Boston. The project includes the construction of passenger stations and terminal layover facilities. www.mass.gov/southcoastrail

See Chapter 6 for related work being conducted by CTPS.

State-of-Good-Repair Capital Asset Assessment

Agency: MBTA

The MBTA is updating an inventory of infrastructure assets. The inventory will be used in capital budgeting and long-term asset maintenance planning.

Urban Ring

Agency: EOT

The Urban Ring Phase 2 is a proposed major new bus rapid transit (BRT) system that would run in a circumferential corridor through residential neighborhoods, employment centers, and medical and educational institutions in Boston, Brookline, Cambridge, Chelsea, Everett, Medford, and Somerville. It would provide faster and more direct transit connections between points in the corridor and from the MBTA's existing radial rapid transit system to destinations in the corridor. As a result, the Urban Ring would improve transit access, travel times, and capacity, while also reducing crowding in the central subway system and offering opportunities for transit-oriented and smart-growth development. www.mass.gov/theurbanring

See Chapter 6 for related work being conducted by CTPS.

APPENDIX B PUBLIC PARTICIPATION

Public involvement in the development of the FFY 2010 UPWP followed the procedures set forth in the MPO's adopted "Public Participation Process for Planning Documents in the Boston MPO," which are designed to ensure early and continued public involvement in the transportation planning process. Steps to develop this year's UPWP began in February 2009, when MPO staff met with the UPWP Subcommittee of the MPO's Transportation Planning and Programming Committee to discuss the process for developing the UPWP. This process, which is described in detail in Chapter 1, included roundtable discussions to review the safety and mobility concerns that were sent in response to an insert in the March issue of *TRANSREPORT*, the MPO's newsletter. In addition, staff reviewed comments received during FFY 2009 UPWP review period and recent planning documents such as *you Move Massachusetts*, the Program for Mass Transportation and MetroFuture. Staff then identified potential studies and presented them to the UPWP Subcommittee of the MPO's Transportation Planning and Programming Committee. The Subcommittee met four more times to review the budgets for ongoing work and to recommend new studies for inclusion in the draft UPWP to the Transportation Planning and Programming Committee for approval.

Upon the approval of a circulation draft UPWP by the Transportation Planning and Programming Committee on June 25, 2009, notice of its availability and a 30-day period for public review and comment on it was published, in English, in the *Boston Globe*, the *Bay State Banner*, and *TRANSREPORT*, the MPO's newsletter. The notice was also published, in Spanish, in the two major Spanish-language newspapers in the region, *La Semaña* and *El Mundo*. In addition, notices were sent to the MPO's e-mail listserve and to municipal officials in the region. Press releases in English and in Spanish were sent to local and regional newspapers. The draft document was distributed to the chief elected officials and planning directors of the region's 101 municipalities, the Regional Transportation Advisory Council, the Metropolitan Area Planning Council's subregional groups, participants in the MPO's regional equity work, and state legislators. The document was available for viewing at public libraries in the region and for downloading from the Boston MPO website, www.bostonmpo.org.

During the review period, the MPO sponsored two open houses for discussion of the draft UPWP and for gathering input from members of the public about their planning priorities. The open houses were held at the State Transportation Building in Boston. In addition, staff presented the draft UPWP to the Regional Transportation Advisory Council and following subregional groups of the Metropolitan Area Planning Council: the Inner Core Committee, the North Shore Task Force, the North Suburban Planning Council, and the SouthWest Advisory Planning Committee and the South Shore Coalition.

A summary of the comments received during the review period and the MPO's responses to them are presented on the following pages. The comments are in order by the name of the organization or community making the comment.

*A summary of written comments received the review period for the draft FFY 2010
UPWP and of the MPO responses to them will be included here in the final
UPWP.*

APPENDIX C GLOSSARY

The following terms, acronyms, and abbreviations are used in planning documents produced by the Boston Region Metropolitan Planning Organization. Acronyms and abbreviations are listed separately, after the list of terms.

Sources: With each definition, the source is given if it is outside the MPO. Key to the citations: AC Transit—Alameda-Contra Costa Transit District; APTA—American Public Transportation Association; Mineta—Mineta Transportation Institute at San Jose State University; NCDOT—North Carolina Department of Transportation Public Transportation Division.

3C process - A continuing, comprehensive transportation-planning process carried out cooperatively by metropolitan planning organizations as they plan for the future and program federal transportation funds for studies, projects, and programs in their region.

Access Advisory Committee to the MBTA (AACT) - Consumer group that provides input to the MBTA on the transportation concerns of people with disabilities and assists in monitoring the MBTA's ADA compliance. Also provides input to the MPO on accessibility matters.

accessibility - Ability to reach a destination or use a facility or service without being impeded by physical or other barriers due to auditory, visual, mobility, or cognitive disabilities.

accessible station - A station that provides ready access, and does not have physical barriers that prohibit and/or restrict access by individuals with disabilities, including individuals who use wheelchairs. (APTA)

accessible vehicle - A public transportation revenue vehicle that does not restrict access, is usable, and provides allocated space and/or priority seating for individuals who use wheelchairs. (APTA)

adult base cash fare - The minimum cash fare paid by an adult for one transit ride; excludes transfer charges, zone or distance charges, express service charges, peak-period surcharges, and reduced fares. (APTA)

Americans with Disabilities Act (ADA) - Federal legislation prohibiting discrimination on the basis of disability and requiring accessible transportation services.

arterial - A highway serving primarily through traffic and also providing access to abutting properties.

average fare - The overall average amount per ride paid by cash-fare passengers and pass users on a given service, equal to combined total cash-fare and pass revenue divided by total riders.

average farebox deposit - Total cash-fare revenue from a given service divided by combined total cash-fare passengers and pass users. This average can be used to calculate subsequent total ridership from cash-fare revenue alone.

average speed - Vehicle revenue miles divided by vehicle revenue hours. (APTA)

average trip length - The average distance ridden for an unlinked passenger trip by time period (weekday, Saturday, Sunday), computed as passenger-miles divided by unlinked passenger trips. (APTA)

bus - Bus mode uses vehicles powered by diesel, gasoline, battery, or alternative fuel engines contained within the vehicle. (APTA)

bus rapid transit (BRT) - A type of limited-stop service developed in the 1990s that relies on technology to help speed up the service. It combines the quality of rail transit and the flexibility of buses. It can operate on exclusive transitways, high-occupancy-vehicle lanes, expressways, or ordinary streets. A BRT line combines intelligent-transportation-systems technology, priority for transit, rapid and convenient fare collection, and integration with land use policy in order to substantially upgrade bus system performance. (APTA)

busway (or bus lane) - A roadway reserved for buses only. It may be a grade-separated (meaning it is above or below the level of the public street or other roadway) or a controlled-access roadway. (APTA)

capital costs - Expenses incurred that are related to the purchase of facilities, vehicles, and equipment.

Capital Investment Program (CIP) - The MBTA's five-year capital expenditures plan.

carbon monoxide (CO) - A colorless, tasteless gas produced primarily by the combustion of organic fuels in transportation and industrial activities. Overly high levels of CO reduce oxygen in the bloodstream, preventing normal respiration. CO emissions are regulated by the Clean Air Act Amendments of 1990.

Central Transportation Planning Staff (CTPS) - The staff of the Boston Region Metropolitan Planning Organization (MPO). CTPS provides technical and policy-analysis support for transportation planning in the MPO area.

Clean Air Act Amendments of 1990 (CAAA) - Federal legislation that establishes allowable levels for various air pollutants. Where these standards are not attained, officials must take specified actions within a set time frame or face sanctions, such as the loss of federal highway funds.

commuter rail (also called metropolitan rail, regional rail, or suburban rail) - An electric- or diesel-propelled multicar railway utilizing exclusive rights-of-way for urban passenger train service consisting of local, short-distance travel, operating between a central city and adjacent suburbs. Service must be operated on a regular basis by or under contract with a transit operator for the purpose of transporting passengers within urbanized areas, or between urbanized areas and outlying areas. Such rail service, using either locomotive-hauled or self-propelled railroad passenger cars, is generally characterized by multitrip tickets, specific station-to-station fares, and usually only one or two stations in the central business district. Intercity rail service is excluded, except for that portion of such service that is operated by or under contract with a public transit agency for predominantly commuter services, which means that for any given trip segment (i.e., the distance between any two stations), more than 50 % of the average daily ridership travels on the train at least three times a week. (APTA)

complementary paratransit service - Complementary paratransit service is required by law for those disabled persons and others not able to use fixed-route service. Generally it must operate in the same areas and during the same hours. The fare is limited to twice the fixed-route fare. Service may be provided by the fixed-route bus agency or by a completely separate agency. (APTA)

conformity - The requirement that state or metropolitan transportation plans, programs, and projects be consistent with the State Implementation Plan for attaining air quality standards. A conformity finding by the U.S. Environmental Protection Agency is required as part of the federal review of Regional Transportation Plans and Transportation Improvement Programs.

Congestion Mitigation and Air Quality Improvement Program (CMAQ) - A federal funding program that directs funding to projects that contribute to meeting National Ambient Air Quality Standards. Generally, CMAQ funds cannot be used for projects that result in the construction of new capacity available to single-occupant vehicles.

demand response (or demand responsive) service – Demand response (also called paratransit or dial-a-ride) is composed of passenger cars, vans, or small buses operating in response to calls from passengers or their agents to the transit operator, who then dispatches a vehicle to pick up the passengers and transport them to their destinations. A demand response operation is characterized by the following: (a) the vehicles do not operate over a fixed route or on a fixed schedule except, perhaps, on a temporary basis to satisfy a special need; and (b) typically, the vehicle may be dispatched to pick up several passengers at different pick-up points before taking them to their respective destinations and may even be interrupted en route to these destinations to pick up other passengers. The following types of operations fall under the above definitions provided they are not on a scheduled fixed-route basis: many origins–many destinations, many origins–one destination, one origin–many destinations, and one origin–one destination. The transit agency may limit the service to certain people, such as persons with disabilities, their attendants and companions, and seniors, or it may be available to anyone. Some such services operate during late-night and weekend hours in place of fixed-route services. (APTA)

Department of Conservation and Recreation (DCR) - Agency that maintains 15,000 acres of parkland, numerous public beaches, and 650 miles of parkways within the Boston region. DCR is the successor to the Metropolitan District Commission.

Department of Environmental Protection (DEP) - The state regulatory agency within the Executive Office of Energy and Environmental Affairs charged with protecting the natural environment of the commonwealth.

directly operated service - Service provided by a transit agency using its own employees, as opposed to service operated under contract by a separate company.

discretionary funds - Federal funds that are distributed based upon agency action or congressional action, rather than upon an established formula.

environmental impact statement (EIS) - Document developed as part of a federal environmental review process that studies all impacts likely to result from a project, including a major transportation project. Impacts include those on the natural environment, as well as impacts on the economy and society and those on the built environment of historical and aesthetic significance.

environmental justice - Balancing the benefits and burdens of government policies and actions so that no racial, ethnic, or socioeconomic community bears a disproportionate share of the negative environmental consequences. The MPO works to provide an equitable distribution of transportation benefits and burdens and encourages full participation by minority and low income communities in advising the MPO during its planning and decision-making process.

Environmental Protection Agency (EPA) - The federal agency charged with protecting the nation's environmental quality. The agency reviews all Regional Transportation Plans and Transportation Improvement Programs to ensure compliance with the Clean Air Act Amendments of 1990.

Executive Office of Energy and Environmental Affairs (EOEEA) - The cabinet agency that oversees energy and environmental issues for the state and is responsible for State Implementation Plan adoption.

Executive Office of Transportation and Public Works (EOTPW) - The cabinet agency that sets state policies and plans for all modes of transportation and that oversees public transit services, general aviation programs, and the state and local highway network. This agency is also the chair of the Boston Region Metropolitan Planning Organization.

expressway - A multilane, divided highway without traffic signals and with limited access and egress.

fare mix - The percentage distribution of passengers by fare payment method on a given service. This information is obtained by sample observations onboard vehicles that have onboard fare collection, and at fare collection areas of stations with off-vehicle fare collection.

fare recovery ratio (farebox recovery ratio) - Measure of the proportion of operating expenses covered by passenger fares; found by dividing farebox revenue by total operating expenses for each mode and/or systemwide. (Mineta)

Federal Highway Administration (FHWA) - The federal agency that administers federal highway programs. The agency reviews all Regional Transportation Plans, Transportation Improvement Programs, and Unified Planning Work Programs to ensure compliance with federal planning and funding requirements.

Federal Transit Administration (FTA) - The federal agency that administers federal transit programs. The agency reviews all Transportation Plans, Transportation Improvement Programs, and Unified Planning Work Programs to ensure compliance with federal planning and funding requirements.

fixed-route service - Service provided on a repetitive, fixed-schedule basis along a specific route, with vehicles stopping to pick up and deliver passengers to specific locations; each fixed-route trip serves the same origins and destinations, unlike demand responsive service. Includes route deviation service, where revenue vehicles deviate from fixed routes on a discretionary basis. (APTA)

flexible funds - Transportation-funding categories that may be used for either highway or transit programs. Within the Boston region, highway funds have been flexed to the MBTA to fund commuter rail extensions, transit station improvements, and park-and-ride facilities.

formula funds - Funds distributed on a quantified basis according to legislative or administrative criteria.

GIS - geographic information systems

heavy rail (transit) – Generally applies to higher speed, multicar rail transportation that utilizes exclusive, grade separated rights-of-way in subway tunnels, on the surface, or on elevated structures. The MBTA's Red Line is an example of heavy rail.

high occupancy vehicle (HOV) - A vehicle carrying two or more persons. Examples of high occupancy vehicles are a bus, vanpool, and carpool. These vehicles sometimes have exclusive traffic lanes called “HOV lanes,” “busways,” “transitways,” or “commuter lanes.” (APTA)

high occupancy vehicle (HOV) lane - A lane designated for the exclusive use of high occupancy vehicles, such as carpools, vanpools, other ridesharing modes, and buses.

highway Safety Management Program (HSMP) - A method for evaluating highway safety needs and making recommendations to address deficiencies.

intelligent transportation system (ITS) - Computer and communications technology that provides real-time information to operators of vehicles about transportation system conditions. Also includes technologies that identify, monitor, or control vehicles.

intermodal (multimodal) - Those issues or activities that involve or affect more than one mode of transportation, including transportation connections and choices, and cooperation and coordination between various modes. (APTA)

intermodal planning - Planning that reflects a focus on connectivity between modes as a means of facilitating linked trip-making.

JOURNEY TO 2030 - The current Boston Region MPO's long-range transportation plan (and a certification document), which defines the overarching vision for the future of transportation in the region, establishes principles and policies that will lead to the achievement of that vision, and allocates projected revenue to transportation programs and projects that reflect those principles and policies.

key station plan - A document designating critical transit facilities needed to expand accessibility for individuals with disabilities and to meet ADA requirements.

land use - The purpose for which land or the structures on the land are being utilized; for example: commercial, residential, retail.

layover - Time built into a schedule between arrival at the end of a route and the departure for the return trip, used for the recovery of delays and preparation for the return trip. (Mineta)

level of service (LOS) - A qualitative measure used to characterize the operating conditions of a transportation service as perceived by its users. Most commonly applied to traffic operations, where designations range from A (best) to F (worst).

linked trip - A trip from origin to destination on the transit system. Even if a passenger must make several transfers during a journey, the trip is counted as one linked trip on the system. (NCDOT)

major investment study (MIS) - An alternatives analysis required to support decisions on significant transportation investments. The purpose of an MIS is to examine the possible impacts and consequences of various alternatives to address an identified transportation need at the subarea or corridor level.

Massachusetts Bay Transportation Authority (MBTA) - Authority that provides public-transportation service in eastern Massachusetts. A member of the Boston Region Metropolitan Planning Organization.

Massachusetts Bay Transportation Authority (MBTA) Advisory Board - Legislatively created group representing the 175 cities and towns within the MBTA service district. Powers include: approval or reduction of the MBTA budget; approval of the Program for Mass Transportation; approval of changes to the fare structure; approval of the appointment of the general manager and three MBTA board members. A member of the Boston Region Metropolitan Planning Organization.

Massachusetts Environmental Policy Act (MEPA) Unit - Section of the Executive Office of Energy and Environmental Affairs responsible for administration of the Massachusetts Environmental Policy Act, which establishes a process for evaluating impacts from a public or private infrastructure project and for identifying steps to be taken to avoid or minimize negative impacts. This process may require preparation of an environmental impact report. MEPA permits are required for most large transportation projects.

Massachusetts Highway Department (MassHighway) - Agency responsible for the design, construction, and maintenance of state highways and bridges. A member of the Boston Region Metropolitan Planning Organization.

Massachusetts Port Authority (Massport) - Agency charged with operating and developing major commercial maritime and aviation facilities in the Boston region. Owns and operates Logan Airport, Hanscom Field, maritime terminals located in the Port of Boston, and the Tobin Bridge. A member of the Boston Region Metropolitan Planning Organization..

Massachusetts Turnpike Authority (MassPike) - Agency responsible for the operation of the Massachusetts Turnpike, the Metropolitan Highway System, which consists of the I-90 east of Route 128, and the three harbor tunnels (Sumner, Callahan, and Ted Williams). A member of the Boston Region Metropolitan Planning Organization.

MassRIDES - Organization implementing the Executive Office of Transportation and Public Works' statewide travel options program that provides free assistance to commuters, employers, students, and other traveler markets.

Metropolitan Area Planning Council (MAPC) - Regional comprehensive-planning agency for the Boston metropolitan area, comprising 101 communities. Composed of officials from cities, towns, and state agencies, and independent gubernatorial appointees. A member of the Boston Region Metropolitan Planning Organization.

metropolitan planning organization - The regional organization responsible, under federal regulations, for comprehensive transportation planning and for programming of federal funds for projects and programs in an urbanized area. Work products include the Regional Transportation Plan, Transportation Improvement Program, and Unified Planning Work Program.

Mobility Management System (MMS) - A method for evaluating the level of congestion on the region's transportation system and for identifying strategies that will reduce this congestion. Federal regulations refer to this program as the congestion management process.

mode - A particular means of transportation (for example, transit, automobile, bicycle, walking).

multimodal - See **intermodal**.

multimodal planning - Planning that reflects consideration of more than one mode to serve transportation needs in a given area.

National Ambient Air Quality Standards (NAAQS) - Federal standards that set allowable concentrations and exposure limits for pollutants such as ozone, carbon monoxide, and particulate matter.

National Environmental Policy Act (NEPA) - Federal legislation that requires agencies to give full consideration to environmental effects in planning and implementing federal programs and that may require the preparation of an environmental impact statement. NEPA permits are required for most large transportation projects.

nitrogen oxides (NOx) - Precursor emission that forms from high-temperature combustion processes. Reacts with volatile organic compounds in the presence of heat and sunlight to form ozone.

nonattainment area - A geographic region that the Environmental Protection Agency has designated as failing to meet National Ambient Air Quality Standards. The Boston area has been designated as being in “moderate nonattainment” for the eight-hour standard.

operating expenses - The expenses associated with the operation of the transit agency, and classified by function or activity and the goods and services purchased. (APTA)

ozone - A colorless gas with a sweet odor that is not a direct emission from transportation sources, but is formed when volatile organic compounds (VOCs) and nitrogen oxides (NOx) from car exhaust and from certain industrial emissions combine in the presence of sunlight. Ground-level ozone is associated with smog conditions and initiates damage to lungs, trees, crops, and materials. Regulated by the Clean Air Act Amendments of 1990.

paratransit - Any one of a variety of smaller, flexibly scheduled and routed, demand responsive transportation services using low capacity vehicles. Primarily used by persons for whom use of standard mass transit services is difficult or impossible.

park-and-ride facility - A parking garage and/or lot used for parking passengers’ automobiles, either free or for a fee, while they use transit agency facilities. Park-and-ride facilities are generally established as collector sites for rail or bus service. Park-and-ride facilities may also serve as collector sites for vanpools and carpools, and as transit centers. (APTA)

passenger fares - Revenue earned from carrying passengers in regularly scheduled and demand response service. Passenger fares include: the base fare; zone premiums; express-service premiums; extra-cost transfers; and quantity-purchase discounts applicable to the passenger’s ride. (APTA)

passenger-miles - Passenger-miles is the cumulative sum of the distances ridden by each passenger. (APTA)

pass-ride value - The average revenue per trip obtained from pass users. This figure is calculated from pass sales figures and from survey data on the number of trips by mode that pass users make per day or per week.

pointcheck - An observation of the arrival times, departure times, and passenger loads of a transit service at a single location.

Program for Mass Transportation (PMT) - A long-range plan prepared by the Massachusetts Bay Transportation Authority and approved by the MBTA Advisory Board. It describes scheduled MBTA capital projects.

pulse system - A transit system in which vehicles from all or several routes simultaneously converge at a central location at regular intervals (such as hourly or half-hourly) to allow passengers to transfer directly between vehicles arriving on any of the routes and vehicles departing on any of the others.

purchased transportation - Transportation service provided to a public transit agency or governmental unit by a public or private transportation provider based on a written contract. The provider is obligated in advance to operate public transportation services for a public transit agency or governmental unit for a specific monetary consideration. Purchased transportation does not include franchising, licensing operation, management services, cooperative agreements, or private conventional bus service. (APTA)

Regional Transportation Advisory Council - Citizen group that advises the Boston Region Metropolitan Planning Organization on transportation issues and reviews the Regional Transportation Plan, Transportation Improvement Program, and Unified Planning Work Program. Composed of state agencies, municipalities, and civic and private associations with an interest in regional transportation planning.

Regional Transportation Plan - A long-range certification document that identifies facilities and programs that should function as an integrated metropolitan transportation system and includes a financial plan that demonstrates how the long-range plan can be implemented. The plan must show that the current system can be operated and maintained over the long term, as well as recommend capital expansion projects to be constructed.

reverse commuting - Movement in a direction opposite the main flow of traffic, such as from the central city to a suburb during the morning peak period. (APTA)

ridership - The number of rides taken by people using a public transportation system in a given time period. (Mineta)

ridesharing - A form of transportation, other than that provided by a transit agency, in which more than one person shares the use of the vehicle, such as a van or car, to make a trip. Also known as “carpooling” or “vanpooling.” (APTA)

Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) - The federal legislation governing federally funded surface transportation projects and planning through 2010. Provides the framework and contemporary guidance for metropolitan transportation planning and the programming of federal funds.

single occupant vehicle (SOV) - A vehicle containing only the driver and no other passengers.

State Implementation Plan (SIP) - A document that contains procedures detailing how a state will attain or maintain compliance with National Ambient Air Quality Standards. Prepared by the state and submitted to the U.S. Environmental Protection Agency for approval.

State Transportation Improvement Program (STIP) - A short-range transportation-planning document detailing the federally assisted projects planned to be undertaken in a given three-year period. By federal law, the STIP consists of a compilation of regional MPO transportation improvement programs and a list of projects to be undertaken outside of MPO boundaries.

station - A passenger boarding/alighting facility with a platform, which may include stairs; elevators; escalators; passenger controls (e.g., faregates or turnstiles); canopies; wind shelters; lighting; signs; and buildings with a waiting room, ticket office or machines, restrooms, or concessions. Includes all fixed-guideway passenger facilities (except for on-street cable car and light rail stops), including busway passenger facilities; underground, at-grade, and elevated rail stations; and ferryboat terminals. Includes transportation/transit/transfer centers, park-and-ride facilities, and transit malls with the above components, including those only utilized by motor buses. Does not include bus, light rail, or cable car stops (which are typically on-street locations at the curb or in a median, sometimes with a shelter, signs, or lighting). (APTA)

timecheck - An observation of the arrival times, departure times, and passenger loads of a transit service at multiple locations, usually the start and end of the route and at least one midpoint.

Title VI - Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin in programs and activities receiving federal financial assistance.

transportation analysis zone (TAZ) - An area delineated by state and/or local transportation officials for tabulating transportation-related data, especially journey-to-work and place-of-work statistics. A TAZ usually consists of one or more census blocks, block groups, or census tracts.

transfer surcharge - An extra fee charged . . . when boarding another transit vehicle to continue a trip. (APTA)

transportation control measure (TCM) - Actions, usually found in a State Implementation Plan, that improve traffic flow or reduce vehicle use or congestion with the objective of reducing air pollutant emissions.

transportation demand management (TDM) - In its most general form, any action or actions that attempt to control or alter existing travel patterns or choices. Included in this group is a wide

range of strategies, such as promoting ridesharing, requiring alternative work hours or flextime, and increasing travel costs for single-occupant vehicles.

Transportation Improvement Program (TIP) - A short-range certification document of transportation projects, consistent with the Regional Transportation Plan, to receive federal capital funding. The Boston Region MPO's TIP shows projects to be funded within the region during a given four-year period.

transportation management area (TMA) - Defined by the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) as any urban area with a population over 200,000. Within a TMA, all transportation plans and programs must be based on the 3C process. The TMA boundary affects the responsibility for the selection of transportation projects that receive federal funds.

transportation management association (TMA) - A voluntary association of public agencies and private firms that develop, fund, or implement transportation programs or services in a given area.

Transportation Planning and Programming Committee - A standing committee of the Boston Region Metropolitan Planning Organization (MPO) comprising a designated representative of each MPO agency and a representative of the Regional Transportation Advisory Council. The committee reviews and approves the preparation and distribution of reports, studies, and other documents, including the Regional Transportation Plan, Transportation Improvement Program, and Unified Planning Work Program, and recommends the approval of these and other actions to the MPO.

Unified Planning Work Program (UPWP) - A certification document that contains a description of all proposed transportation-related planning activities and air quality planning activities undertaken in a metropolitan region in a given year.

unlinked passenger trips - The number of passengers who board public transportation vehicles. When a count is conducted to ascertain this number, passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination. (APTA)

unlinked trip - A trip on a particular mode or vehicle; any segment of a linked trip.

vehicle-miles - The miles a vehicle travels from the time it pulls out from its garage to go into revenue service to the time it pulls in from revenue service. They are often called platform-miles. For conventional scheduled services, they include revenue miles and deadhead miles. (APTA)

volatile organic compounds (VOCs) - A group of chemicals that react in the atmosphere with nitrogen oxides in the presence of heat and sunlight to form ozone. Examples include gasoline fumes and oil-based paints.

List of Acronyms and Abbreviations

AACT	Access Advisory Committee to the MBTA
ADA	Americans with Disabilities Act
AFC	automated fare collection
APC	automatic passenger counter
BMS	bridge management system
BRT	bus rapid transit
BTPR	Boston Transportation Planning Review
CA/T	Central Artery/Tunnel
CAAA	Clean Air Act Amendments of 1990
CMAQ	Congestion Mitigation/Air Quality
CMP	congestion management program
CO	carbon monoxide
CTPS	Central Transportation Planning Staff
DCR	Department of Conservation and Recreation
DEP	Department of Environmental Protection
DOER	Department of Energy Resources
FHWA	Federal Highway Administration
EIS	environmental impact statement
EOEEA	Executive Office of Environmental Affairs
EOTPW	Executive Office of Transportation and Public Works
EPA	Environmental Protection Agency
FTA	Federal Transit Administration
HOV	high-occupancy vehicle
HSMP	Highway Safety Management Program
IMS	Intermodal Facilities and Systems Management System
ISTEA	Intermodal Surface Transportation Efficiency Act of 1997
ITS	intelligent transportation systems
LOS	level of service
MAPC	Metropolitan Area Planning Council
MassHighway/MHD	Massachusetts Highway Department
MassPike/MTA	Massachusetts Turnpike Authority
Massport/MPA	Massachusetts Port Authority
MBTA	Massachusetts Bay Transportation Authority
MEPA	Massachusetts Environmental Policy Act
MIS	major investment study
MMS	Mobility Management System
MOE	measure of effectiveness
MPO	metropolitan planning organization
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NOx	nitrogen oxides

NTD	National Transit Database
NTS	National Transportation System
PMS	pavement management system
PMT	Program for Mass Transportation
RPA	regional planning agency
RTA	regional transit authority
RTP	Regional Transportation Plan
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SAR	Strategic Assessment Report
SIP	State Implementation Plan
SOV	single-occupant vehicle
STIP	State Transportation Improvement Program
3C	comprehensive, continuous, and cooperative
TAZ	traffic analysis zone
TCM	transportation control measure
TDM	transportation demand management
TEA-21	Transportation Equity Act for the 21st Century
TIP	Transportation Improvement Program
TMA	Transportation Management Area
TMA	Transportation Management Association
UPWP	Unified Planning Work Program
VOCs	volatile organic compounds

