

MOBILITY

| Project Name | Total Cost | FFY 2011 UPWP Budget | Project Description | FFY 2011 UPWP Staff Evaluation | Link Land Use and Transportation. | Working w Limited Financial Resources | Using a Mngmt & Operations Approach | Protecting Air Quality and Environment | Preserving and Maintaining the System | Increasing Transit and/or Active Transportation Mode Share | Encouraging Sustainable Communities | Considering Regional Equity | Addresses Documented Need (CMP, RTP, PMT, YOU MOVE, METROFUTURE) | Comments |
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| | | | | | | | | | | | | | | |
| Low-cost Improvements to MPO Bottleneck Locations Phase II | | | 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 the support of the Congestion Management Process. Professional judgment will be an important component of the bottleneck selection process due to the conflicting results produced by different ways of measuring travel delay. Staff will then research and brainstorm potential low cost countermeasures, which may include: using the shoulder as a peak hour lane, re-stripping travel lanes in merge areas to improve traffic flow, ramp metering, improved traffic signal timing, and improving the dissemination of traffic information to drivers. | High priority - This would be a second phase of a study that is currently underway. This study is consistent with the Plan's topics of System Efficiency, Mobility, and Environment. | X | | | X | X | | | | X | Could be useful in informing the RTP. |
| Development of a Planning Screening Tool for Roundabout Installations | | | Presently, MassDOT Highway Division is lacking a consistent policy that would govern the design and construction of roundabouts and a study such as this would make recommendations for the development of the right policy. This is especially important for federal aid-funded roundabout designs, which typically include state number routes, major and minor arterials and collectors. Roundabouts are often a more efficient and safer way to manage traffic at unsignalized intersections and sometimes at signalized intersections. If the conditions are right for a roundabout treatment, designing an intersection in this manner can increase its processing capacity. Demand for roundabouts throughout the state has risen in the last decade. The purpose of this study would be to develop screening planning tools for Highway Division's use when its staff reviews proposals for the construction of roundabouts. Some of the questions that this study will attempt to answer would include: 1. Desirable/optimum traffic volume conditions for considering a roundabout design, instead of a signalized intersection design 2. Conditions for a two-lane roundabout should be constructed 3. Range of left-turn traffic volumes for which a roundabout treatment would be appropriate 4. Appropriateness of roundabouts as speed control devices 5. Accommodation of bicycle and pedestrians when intersection is designed as a roundabout MPO staff will be responsible for this study and will work closely with MassDOT Highway Division and the Office of Transportation Planning. Work will include a review of literature on other states' guidelines on screening tools for considering roundabouts; identification of location and traffic characteristics under which a roundabout would be appropriate; and development of a procedure/policy for considering roundabout as viable intersection treatment at certain locations. The product of this study will be a roundabout planning guide for screening locations under roundabout design consideration for various roadway classifications in the Commonwealth. | High priority | | | | | | | | | X | Would be useful to all MPO municipalities. |
| Travel Demand Management Services Evaluation | | | The purpose of this project is to inventory current travel demand management (TDM) services with in the MPO region and to conduct a literature review of the current best practices for the implementation of TDM services. This review will provide a general overview of factors that influence the success of TDM services and case studies of services that have been implemented in other regions. This project addresses the youMove Massachusetts Themes of system maintenance, shared use of infrastructure, more-user friendly transportation system, serving more people, and minimizing environmental impacts. | Medium priority – Would support the MPO's Suburban Mobility/Transportation Demand Program and the Clean Air Mobility Program Subcommittee. Study promotes the vision of the Mobility topic and also may result in environmental benefits. | | | X | | | | X | | X | Updated text from Second Tier of FFY 2010 UPWP Project Universe with an estimated budget of \$15,000. |
| Revere Beach Parkway (Route 16) Safety and Operations Improvements, Everett to Chelsea | | | The 2.5-mile section of Revere Beach Parkway (Route 16) in Everett and Chelsea, from just east of Route 99 to the Chelsea Revere town line, has four intersections in the 2004-2006 statewide top 200 intersection crash list with safety concerns in the following ascending priority order along Revere Beach Parkway at: Second Street (Everett); Vine Street (Everett); Washington Avenue (Chelsea); and Garfield/Webster Avenue (Chelsea). Mass DOT Highway Division ranks range from 43 to 181 and MPO rank ranges from 20 to 73. This section is also congested and has traffic operations problems. This proposed study would provide detailed evaluation of the crash experience in this corridor (crash types, patterns, causes) and propose potential solutions to address the safety problems. In addition, this study would identify the operations problems in the same corridor and recommend improvements. An advisory task force would be put together to participate in the study by offering advice and input on data and potential solutions. This project qualifies for HSIP and efforts to improve safety at high crash locations. CTPS will conduct this study. | Medium priority - (Buses and heavy trucks are prohibited. This facility is a DCR Parkway.) Emphasis of study is on operational and safety problems and solutions. Judging by Figure 14-2 in the RTP, it may intersect multiple EJ zones. | | | X | | X | | | | X | From Second Tier of FFY 2010 UPWP Project Universe with an estimated budget of \$105,000. |

MOBILITY (Cont.)

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| | | | | | | | | | | | | | | |
| North Shore Subregional Study | | | To accomplish project objectives, the following tasks would have to be performed: Form an advisory task force, define safety and operations issues, collect and analyze data, recommend potential improvements, and document findings in a technical report. Route 35 corridor study; joint corridor study with MVPC of the Route 97 corridor from Haverhill south to Cummings Center in Beverly; joint corridor study with MVPC congested areas of Route 133 and Routes 1 and 97, especially downtown Georgetown; Routes 114/1A and 127 corridor study from Swampscott to Rockport to analyze strategies for improving bike facilities and bike-to-rail connections in the region; and a study of the feasibility of a new park-and-ride lot on Route 1 North for commuting into Beverly and Salem. | Low priority - These suggestions were received via a comment letter from the North Shore Task Force during the public review periods for the FFY 2009 and 2010UPWPs. It is proposed that staff explore these ideas for a possible subregional study. It was recommended that the Task Force call Merrimack Valley MPO for coordination opportunities. Recommendations to improve bicycle access to transit and studying the feasibility of park and ride lots is consistent with the Environment and Mobility topics of the RTP. | X | | | | X | | | | | From Second Tier of FFY 2010 UPWP Project Universe with an estimated budget of \$150,000. <i>Follow-up : Call to MVPC needed to determine level of interest.</i> |
| Route 20 and Soldiers Field Road Intersection Area | | | Several roadways converge in this interchange area. These roadways carry traffic from Boston, Newton, Watertown, and other communities in the region. Traffic is congested during the morning and afternoon peak hours. Lane assignment signs to help navigating around this area may be inadequate. Traffic signal timings may not be optimal. A traffic simulation model could be developed for the area to examine the existing conditions and evaluate potential improvement alternatives. In addition, the study will examine pedestrian and bicycle circulation and safety in the area. CTPS would be responsible for carrying out the project. The task will include collecting existing traffic, transit, parking, pedestrian/bicycle, land use activities, and other data; performing data analyses; developing a traffic simulation model; evaluating improvement alternatives; and documenting findings in a report. | Low priority - Relationship to Nonantum Road DCR study and MPO's Newton Corner Study. Recommendations for improving mobility and safety are the emphasis of this project. The intersection also appears to be in the vicinity of TAZs that have been identified as EJ zones, but it's difficult to tell using Figure 14-2 of the RTP. | | | X | X | X | | X | | | From Second Tier of FFY 2010 UPWP Project Universe with an estimated budget of \$75,000. <i>Follow-up: Karl to check on the scope of recent AARA project in the area.</i> |
| Route 37, Braintree Five Corners to Holbrook Town Line: Mobility and Traffic Operations Analysis | | | The study would include traffic operations and management at intersections and Route 37 roadway segments, including pedestrian and bicycle accommodation. The study will review the existing conditions and identify potential improvements for traffic operations, pedestrian and bicycle movements, and other needs in the corridor. The improvements will be beneficial to the town and the south shore area. CTPS would be responsible for this study. | Low priority - It could be expanded to include locations previously identified by the South Shore Coalition, which could be addressed in the Congestion Management Program; MassDOT District 4 Planning is also interested. Study is consistent with vision of the Mobility and System Preservation, Modernization, and Efficiency topics. | | | X | | X | | | | X | From Second Tier of FFY 2010 UPWP Project Universe with an estimated budget of \$80,000. <i>Follow-up: Check with the Town of Braintree re priority and buy-in for this study</i> |

LIVABILITY

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| Bay Colony Shared Use Path Feasibility Study | | | <p>The Boards of Selectmen of Dover, Medfield and Needham have requested that the Transportation Planning and Programming Committee authorize staff to undertake a study of the potential for a trail on the railroad right-of-way from Needham Junction through Dover to Medfield. The Mayor of Newton requested that the study also include the right-of-way from Needham Junction to Newton Upper Falls. The MBTA owns the right-of-way. The study would describe the adjacent land uses of the right-of-way and any environmental issues. Staff would identify nearby traffic generators, study all at-grade crossings, as well as estimate potential usage and construction and maintenance costs. Connections to public transportation as well as other trails, existing and planned, would be highlighted.</p> | High priority | | | | | | X | X | | X | <p>Estimated cost: \$33,400</p> <p><i>Follow-up: David Koses to check on Newton terminus.</i></p> |
| Bicycle Network Evaluation | | | <p>The MPO has supported the establishment of trails in our region. The purpose of this project is to conduct a regionwide evaluation of the existing trail network to identify new connections. These connections could be to other trails, to transportation services, or to significant commercial, employment, and residential sites. The goal of this project is to create a more useful trail network in the region by identifying barriers and gaps in the existing network. New connections could be off-road or could use the street network. This project would further the mobility goals discussed in the Regional Transportation Plan, address the encourage shared use of infrastructure theme in the You Move Massachusetts interim report, and build on work carries out in the 2004 Mobility Monitoring System report. CTPS, in coordination with MassDOT's statewide bike plan, and in collaboration with MAPC, would be responsible for carrying out the project.</p> <p>The products of this project will include the following:</p> <ol style="list-style-type: none"> 1. Maps describing the existing and proposed trail system, with major transportation services and significant commercial, employment, and residential sites. 2. An evaluation of potential connections among trails and activity centers. Evaluation criteria would include possible off-road connections; relative distances between trails and potential connections; a general idea of relative use of existing and proposed facilities; and conceptual costs of potential connections. <p>Based on the above, and other possible criteria, a list of the relative priority of recommended connections.</p> | High priority | | | | | | X | X | | X | <p>Although recommended for \$40,000 in PL funding for the FFY 2010 UPWP, it was not funded. In its comment letter, RTAC requested that it be included in the FFY 2011 UPWP.</p> <p><i>Follow-up: Karl to look at what has been already been done in previous studies.</i></p> |
| Community Transportation Technical Planning Assistance Pilot Program | | | <p>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 would provide such advice. The team would meet with community officials to learn more about specific problems and provide advice on next steps. There would probably 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 MassDOT, 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.</p> <p>This work would advance the MPO's goals for system preservation, modernization and efficiency; mobility; and land use and economic development. It would also be consistent with the MPO's CMP and other staff identified needs</p> <p>It would also include a safety component in which staff would respond to community requests for staff to conduct analyses at crash locations and recommend possible mitigation strategies.</p> <p>This service would be publicized through various channels, and MAPC and CTPS would coordinate and collaborate on a case-by-case basis. It is expected that 2-to-5 person days would 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.</p> | High priority - Begun last year as a pilot program, this project was very well received by communities. The description reflects an enhanced program that includes a safety component. Staff recommends at least doubling the budget. It would continue to be joint effort of MPO Staff and MAPC. | X | | X | | X | X | X | | X | <p>Begun as a \$30,000 pilot program conducted by MPO staff and MAPC in FFY 2010 UPWP with a 50/50 PL/5303 Split.</p> |

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| Livable Communities Workshops | | | <p>This program will expand the well-established MPO-supported Walkable Community Workshops to address other aspects of the built environment that affect livability. Ray LaHood, Secretary of the U.S. Department of Transportation, has offered the following definition of a livable community: "It's a community where if people don't want to have an automobile, they don't have to have one. A community where you can walk to work, your doctor's appointment, pharmacy, or grocery store. Or you could take light rail, a bus, or ride a bike." This definition indicates that livability is about expanding and improving transportation options in order to reduce auto dependency, which is important given the extraordinary environmental, health, and economic issues facing communities.</p> <p>Therefore, this program will study transportation and land use issues in communities and offer recommendations on improvements to the built environment that will give residents greater access to their everyday needs through walking, biking, and transit. Automobiles will continue to play an important role in communities, and this program can also help identify strategies to address their needs in a manner that supports all users of the system. These recommendations will encompass all modes, and possibly land use strategies with the assistance of MAPC. Six or more workshops in volunteer communities will be conducted this year.</p> | <p>High Priority - addresses the FHWA/FTA recommendation to include a UPWP task for the development of a comprehensive livability program that provides multimodal mobility and accessibility options and includes linking transportation and land-use planning and the consideration of actions that make better use of the existing system such as carpools, vanpools, transportation demand management, walking, bicycling and access management.</p> | X | | | X | | X | X | X | X | |
| System Consolidation based on Rapid Transit Walking Radius | | | <p>The current service delivery policy's coverage guideline states that, in areas that are served by bus and/or rapid transit with a population density of greater than 5,000 persons per square mile, no individual should need to walk farther than 0.25 miles to access a transit service. As part of this theoretical project, CTPS would analyze the potential and suggest possible system designs for local bus system consolidation if the 0.25-mile radius was relaxed to 0.33 miles, 0.4 miles, and 0.5 miles and the consolidated bus routes adhered to rapid transit service standards.</p> <p>This modeling-based effort would build on the current Core Efficiencies study and would help the MPO better understand the implications of the trade-off between eliminating poor-performing local bus routes and increasing service on a smaller number of transit corridors. It considers the best option for providing mobility and accessibility through the bus network. The ultimate goal would be to increase transit mode shares. The study would also consider the equity implications and potential trade-offs of any of the potential systems.</p> | <p>High priority</p> | | | X | | X | | X | X | | |
| Analysis of On-Street Parking by MBTA Commuters | | | <p>The objective of this project would be to assess the extent to which this phenomenon is actually occurring. The on-board MBTA survey is wrapping up now, and the data from it will be available by the end of this calendar year. One of the questions on the survey asks passengers for their access mode to the transit system. When the survey data are expanded we will have an estimate of how many passengers drove a car and parked at or near a particular transit station in order to access the system. Through the Congestion Management Process, we are counting parked cars at station parking lots. For any given station area, by subtracting the latter from the former, we can derive a rough estimate of how many car-access MBTA travelers are parking on street rather than at a station lot. We can, therefore, gain a sense of where in the system the phenomenon of on-street parking may be a problem. There has been some speculation that it may actually only be a serious issue in a handful of communities such as Newton and Boston. Through this analysis, we can put some numbers around that speculation.</p> <p>As a second step, we will perform some field verification work. That is, we will select a set of station areas that appear from the analysis to have significant on street commuter parking. We can discuss with local officials their sense of where, specifically, the commuters may be parking. We can then deploy field staff to observe and track individuals as they park cars and walk to the nearby transit stations. In this way, we will be able to verify our findings from the earlier, macro-level analysis, and for a selected set of station areas, provide detailed information about on-street commuter parking</p> | <p>Medium priority</p> | | | | X | X | X | X | | X | From Second Tier of FFY 2010 UPWP Project Universe with an estimated cost of \$60,000. |

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| | | UPWP Budget | | | | | | | | | | | |
| Analysis of On-Street Parking by MBTA Commuters (Cont.) | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Transportation Access Pilot Studies of Commercial Business Districts | | | Medium priority | X | | | | | X | X | | X | |
| | | | | X | | | | | X | X | | X | |

ENVIRONMENT

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| Air Quality Support | | | <p>This work is part of the MPO's ongoing work and, as such, it is not part of this evaluation process. Rather, the FFY 2011 budget, activities and work products will be presented directly to the UPWP Subcommittee for its review.</p> <p>However if a project listed under another primary category in in this project universe has beneficial environmental implications, it is noted in the evaluation and checked in the column headed "Protecting Air Quality and Environment"</p> | N/A | | | | | | | | | | |

CLIMATE CHANGE

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| Evacuation and Hazard Mitigation Mapping, Phase II | | | <p>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. This study would continue the work started in the FFY 2010 UPWP work program for Emergency Evacuation and Hazard Mitigation Mapping, to incorporate new information and data that becomes available on natural hazards, evacuation plans, and critical infrastructure in the region.</p> <p>Building on the first study, Phase 2 will involve collecting and mapping critical infrastructure locations that have a bearing on the MPO's work to protect transportation infrastructure from storm damage and climate change impacts, as well as, security threats, and to protect the users of the transportation system.</p> <p>It will also involve identifying vulnerabilities in the region that, if damaged, could have an impact on the transportation system, or that would affect the transportation system as it is used by emergency responders. Such vulnerable facilities could, for example, include dams or LNG fuel facilities, as requested by TPPC members.</p> | <p>High priority – This project forwards MPO policy, responds to federal guidance and expands upon SAFETEA-LU and Environmental Planning Topics .</p> | | | | X | X | | | | | First phase funded in the FFY 2010 UPWP for \$35,000. |
| Drainage Inventory | | | <p>This study advances the MPO's Safety and Security policy by supporting work aimed at protecting the region's transportation infrastructure from weather related-impacts. It responds to guidance that the MPO has received from the Federal Highway Administration and Federal Transit Administration calling for MPOs to "increase their capacity to address climate change in transportation."</p> <p>This study will take an inventory of transportation services and infrastructure that could be impacted by rising sea levels and flooding. Staff will work with the appropriate agencies to collect drainage plans to respond to the federal agencies' guidance that MPO's should review those plans to determine if the drainage is adequate to safeguard the structures.</p> | <p>High Priority - This task responds to the FHWA/FTA guidance that the MPO develop a scope by September 2010 for a study that would inventory transportation services and infrastructure that could be impacted by climate change and problems resulting from flooding and would identify a program of targeted studies to review drainage plans and ensure adequate sizing of drainage structures.</p> | | | | X | X | | | | | Federal Guidance on Climate Change Mitigation |

SYSTEM PRESERVATION, MODERNIZATION AND EFFICIENCY

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| Federal Guidance on Identifying Pavement Maintenance Costs | | | Discussions are underway both with MARPA and MassDOT on possible methods for conducting a study that identifies the cost of maintaining non federal arterial roadways and urban collectors in the MPO for use in developing the Regional Transportation Plan. | High Priority | | X | | | X | | | | | |
| MPO Freight Rail Study, Phase II | | | <p>This study of freight activities in the Boston Region MPO area will advance the recommendations of the Massachusetts Department of Transportation's State Freight and Rail Plan and build upon the MPO Freight/Rail Study initiated in FFY 2010. One purpose of the MPO study initiated in FFY 2010 is to collect data that will help the MPO address freight problems in the region that are identified in the Statewide Freight and Rail Study, and during the development of the Long-Range Transportation Plan of the Boston Region MPO.</p> <p>The draft state plan, presented at public meetings in March 2010, indicates that the MPO studies may focus on improving truck and rail access to the port in South Boston, and make recommendations on how a greater share of freight in the region may be moved by rail, air, and water. The products of both parts of the MPO Freight/Rail Study may also provide additional information needed for understanding and evaluating existing and projected freight activities in the region, and possible identification of freight projects for consideration by the MPO, MassDOT, and other agencies involved in environmental issues and economic development. This project may also identify actionable programs for consideration for the MPO Long-Range Transportation Plan (LRTP) and the Transportation Improvement Program (TIP), and improve and expand upon the methods by which projects are evaluated for their effect on freight transportation.</p> | High priority - Study is consistent with Plan topics of System Preservation, Modernization and Efficiency, Mobility, and Environment. It's consistent with the latter two due to the emphasis on ways to reduce truck traffic and the potential resulting emissions benefits. | X | | | | X | | | | X | Received \$40,000 in PL funding in the FFY 2010 UPWP. No work scope to date since the Statewide Freight Plan has not been released. Funding needs for FFY 2011 will need to be identified. |
| Regional HOV Systems Planning | | | <p>Provision of HOV facilities can be helpful in making more efficient use of our existing express highways by providing a superior level of service for multiple occupancy vehicles and encouraging the use of public transportation. Potential types of HOV facilities may include queue bypasses, contraflow lanes on existing pavement, and separate new HOV lanes.</p> <p>The initial phase of an HOV study would be conceptual, where broad rule-of-thumb criteria would be used to gain some initial understanding of where HOV facilities might best be provided in the MPO region, including alternative HOV lane treatments. Emphases of the study would include nationwide collection of vehicle occupancy data and on development/calibration of the regional travel demand model set to allow its improved use in evaluating specific HOV proposals. A preliminary list of highway segments conducive to HOV treatments would be an end product of this study.</p> | <p>High priority - for multiple benefits (Reduced congestion, improved air quality, reduction in fuel dependency) and fewer roadway widening, we need to provide additional HOW lanes to attract HOV travelers systemwide.</p> <p>The Regional Transportation Advisory Committed is very interested in this work</p> | | | X | X | | | | | X | Recommended to the UPWP Subcommittee with \$100,000 total budget of which \$50,000 would have been spent in FFY 2010 (with a 50/50 PL/5303 split). It was not funded. The Advisory Council voiced strong support for the project for the FFY 2011 UPWP in its comment letter. |
| CharlieCard Trip Paths Pilot Study | | | <p>Automated Fare Collection (AFC) data is currently used to report boarding totals by rapid transit station, surface light rail route, and bus route. However, because the AFC system only collects boarding information (not alighting), these data have not been used to estimate trip paths. This study seeks to investigate whether boarding-only AFC data could be used to reliably estimate trip paths.</p> <p>The first task of this study would be to conduct a literature review of how boarding-only automated ridership counts have been used by other transit agencies to estimate trip paths. Various "rules" are typically used to translate boarding counts into detailed trip matrices. This task would summarize these rules and determine which rules to use in the subsequent tasks.</p> <p>In order to determine whether AFC can reliably estimate trip paths, CTPS would need to compare actual trip paths to those estimated by AFC. Travel diaries would be used in this study to obtain actual trip paths. As this is a small study to analyze the accuracy of AFC in estimating actual trip paths, and not the statistical validity of those estimates, the number of participants using the travel diary would not need to be large, though greater participation would provide more data. Participants would need to inform CTPS of their CharlieCard/CharlieTicket serial number and log in to a website each day to list their daily trip paths. One potential group of participants could be employees of CTPS or other transportation agencies.</p> <p>AFC-estimated trip paths would then be calculated using the AFC database and the participants' CharlieCard/CharlieTicket serial numbers and compared to the corresponding actual trip paths as reported by the participants (note that this study only refers to trip paths within the "closed" faregate system). A comparison of actual to estimated trip paths would then be made to determine the ability of AFC to accurately estimate trip paths.</p> | Medium priority | | | X | | X | X | | | X | |

SYSTEM PRESERVATION, MODERNIZATION AND EFFICIENCY (Cont.)

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| TIP Project Impacts Before/After Evaluation | \$30,000 | \$15,000 | <p>This would be a pilot study to identify the effectiveness of Transportation Improvement Program projects. Measuring project effectiveness is important in order to know whether the employed strategies work well and are therefore suitable for application in similar situations.</p> <p>To this end, staff will select TIP projects that are programmed for construction during Spring 2010. It is likely that traffic and operations TIP projects will only be selected, as the construction period of projects in this category is shorter than other projects, such as the construction of freeway interchanges. The "before" data will be collected in early spring 2010, before the project begins. The "after" data will be collected upon project completion, which may be later than 2010.</p> <p>The type of "before" and "after" data that staff will collect depends on the nature of the project. Chances are that, for a traffic management and operations project, traffic flow, speed, delay, and safety information will be collected. If budget allows, the level of service and air quality information will also be calculated for the "before" and "after" conditions. Staff will compare the two sets of data and draw conclusions.</p> | <p>Medium priority - This study idea was proposed by the UPWP Subcommittee as an alternative to the Route 99 Everett-Malden Study previously included in the universe.</p> | X | X | | | | | | | | | <p>This was recommended to the UPWP Subcommittee with a \$30,000 total budget of which \$15,000 would have been spent in FFY 2010. It was not funded.</p> |

SAFETY AND OPERATIONS

| Project Name | Total Cost | FFY 2011 | Project Description | FFY 2010 UPWP Staff Evaluation | Link Land Use and Transportation. | Working w Limited Financial Resources | Using a Mngmt & Operations Approach | Protecting Air Quality and Environment | Preserving and Maintaining the System | Increasing Transit and Healthy Transportation Mode Share | Encouraging Sustainable Communities | Considering Regional Equity | Addresses Documented Need (from CMP, RTP, PMT, YOUNG, METROFUTURE) | Comments |
|--|------------|-------------|---|---|-----------------------------------|---------------------------------------|-------------------------------------|--|---------------------------------------|--|-------------------------------------|-----------------------------|--|---|
| | | UPWP Budget | | | | | | | | | | | | |
| Effective Traffic-Signal Operations | | | <p>The issues to be addressed include a program and supporting systems (processes) that would trigger update of traffic signal equipments and timing reviews needed for formulating strategies to effectively manage and control the flow of traffic (pedestrians, bicyclists, and vehicular). The supporting systems would include the CMP, the traffic monitoring database, and pedestrian and bicycle data available at CTPS.</p> <p>A pilot study of the feasibility of this assessment is proposed as the first step. In the pilot study, MPO staff will survey the municipalities on policy and practice that has been adopted and/or implemented with respect to traffic signal operation. The survey would provide insight on current practices and what improvements are needed.</p> | <p>High priority - Traffic signals are one of the most visible points of service to the traveling public. They are the tools used to automate the safe assignment of right of way among conflicting traffic movements (pedestrians, bicyclists, and vehicular) to eliminate the need for full-time manual traffic control (police detail). However, management actions are needed in order for traffic signals to deliver efficient service. Reviewing and updating the timing and operational aspects of signalized intersections on a regular basis is extremely important, especially where changes in traffic volumes and/or adjacent land uses have occurred since the last review. This is important for all signalized intersections, regardless of whether they are isolated or coordinated or whether the coordination is provided by a central system or a smaller, more localized system comprising even a few intersections.</p> | | | X | X | X | | | | X | |
| Safety and Operations of Intersections at Selected Locations in the MPO Region | | | <p>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 the Region's intersections. 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 of this program as it gives them a head-start on conceptual design solutions for the intersections in demand 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 during consultation with 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 to traffic.</p> | <p>High priority - CMP staff and MPO city/town interest. Study is consistent with safety and security topics of the Plan. It also furthers the goal of system efficiency and enhancing mobility.</p> | | | X | X | X | | | X | X | <p>Similar PL funded project in FFY 2010 for \$64,100</p> |

SAFETY AND OPERATIONS (Cont.)

| Project Name | Total Cost | FFY 2011 UPWP Budget | Project Description | FFY 2010 UPWP Staff Evaluation | Link Land Use and Transportation. | Working w Limited Financial Resources | Using a Mngmt & Operations Approach | Protecting Air Quality and Environment | Preserving and Maintaining the System | Increasing Transit and Healthy Transportation Mode Share | Encouraging Sustainable Communities | Considering Regional Equity | Addresses Documented Need (from CMP, RTP, PMT, YOUNG, METROFUTURE) | Comments |
|---|------------|----------------------|--|--|-----------------------------------|---------------------------------------|-------------------------------------|--|---------------------------------------|--|-------------------------------------|-----------------------------|--|--|
| | | | | | | | | | | | | | | |
| Route 1 Access/Interchange Improvements in Saugus | | | <p>This portion of Route 1 is a very congested stretch of express highway, with 1950s interchanges and virtually no safe access/egress provided between the main roadway and the almost constant strip commercial developments that are located along its entire length. Accident statistics reflect both the deficient interchange designs and the lack of access/egress to the strip commercial development.</p> <p>Although widening of this highway is not possible, provision of semi-continuous acceleration and deceleration lanes should be achievable at various locations. Minor improvements to the interchanges should also be possible (Some interchange improvements are being planned by MassDOT.) A planning study could be very helpful in determining what improvements are actually feasible for this extraordinarily deficient portion of Route 1 North with its most intractable of</p> | Medium priority - Consistent with System Preservation, Modernization, and Efficiency, Mobility, and Safety & Security topics. Efi or Tom can identify start and end points and any other location-specific issues this study will address. | | | | X | X | | | | X | From Second Tier of FFY 2010 UPWP Project Universe with an estimated budget of \$80,000. |

REGIONAL EQUITY

| Project Name | Total Cost | FFY 2011 UPWP Budget | Project Description | FFY 2010 UPWP Staff Evaluation | Link Land Use and Transportation. | Working w Limited Financial Resources | Using a Mngmt & Operations Approach | Protecting Air Quality and Environment | Preserving and Maintaining the System | Increasing Transit and Healthy Transportation Mode Share | Encouraging Sustainable Communities | Considering Regional Equity | Addresses Documented Need (from CMP, RTP, PMT, YOUNG, METROFUTURE) | Comments |
|--|------------|----------------------|---|--------------------------------|-----------------------------------|---------------------------------------|-------------------------------------|--|---------------------------------------|--|-------------------------------------|-----------------------------|--|----------|
| | | | | | | | | | | | | | | |
| Early Morning Transit Service | | | <p>The MBTA currently does not have a systematic way of evaluating the need for additional early morning bus service to provide mobility for shift workers in the service and medical industries, who tend to be minority and low-income. Presently there is a limited amount of early-morning service on a small number of routes, and when the MBTA has added earlier trips the service has been well utilized. This suggests there may be untapped demand for expansion of early morning service to other parts of the network, expanding mobility options in the region as a whole.</p> | High Priority | | | X | | | X | | X | X | |
| Mapping Environmental-Justice-Areas and Identifying Transportation Options | | | <p>This study would look at existing early morning ridership and travel patterns across modes, would analyze AFC data for early morning rapid transit station arrivals, and would identify employers and types of jobs that require early arrival times. Areas where a larger demand exists for early service would be identified, potential new trips proposed, and operating costs and ridership estimated. The study might also examine the potential for forming partnerships with employers to fund these services.</p> <p>While conducting the MPO's Regional Equity Program, staff has heard complaints about locations that are not transit accessible when; in fact, the MBTA does provide service to some of those locations. The purpose of this project is to identify and map major locations (i.e. hospitals, government agencies, schools, social service agencies, and grocery stores) within selected Environmental Justice areas of the MPO frequented by people with low incomes and or disabilities and produce an overlay of existing transportation options in those areas. The estimated budget is \$50,000</p> <p>Tasks will include:</p> <ol style="list-style-type: none"> 1. Selecting areas to include in the project 2. Consulting with social service agencies serving the selected areas to determine major locations frequented by clients 3. Mapping identified locations 4. Overlay on the map known transportation options <p>Products to be produced include:</p> <ol style="list-style-type: none"> 1. Memorandum detailing how and why study area was selected 2. Memorandum summarizing the results of consultations with social service agencies 3. A map of locations with an overlay of existing transit options | Medium Priority | | | | | | X | X | X | X | |