

# Merrimack Valley Metropolitan Planning Organization

## Federal Fiscal Year 2015 Unified Planning Work Program



**Final Report**

**June 25, 2014**

**Prepared by the  
Merrimack Valley  
Planning Commission**

This document was prepared by the Merrimack Valley Planning Commission under Contract #75074 with the Massachusetts Department of Transportation (MassDOT) and under Contract MA-80-0008 with MassDOT, and with the assistance of the Merrimack Valley Regional Transit Authority (MVRTA), MassDOT, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). Its contents do not necessarily reflect the official views or policies of the U.S. DOT.

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## **Introduction**

The Unified Planning Work Program (UPWP), as mandated under the federal “3C” transportation planning process, describes the transportation planning activities that are to be carried out by a Metropolitan Planning Organization (MPO) during the federal fiscal year (October 1 – September 30). In addition, the most recent federal transportation funding authorization legislation, the Moving Ahead for Progress in the 21st Century (MAP-21) Act of 2012, requires that MPOs located in Transportation Management Areas (TMAs) prepare a UPWP that discusses the transportation planning priorities established by the MPO, describes the air quality planning activities that are to be conducted in the area, identifies the planning products that are to be produced, and identifies which agency will be responsible for producing these products. Since the Merrimack Valley region has been classified as a TMA by the Federal Department of Transportation (i.e. contains an urbanized area population of more than 200,000), it must therefore meet these requirements.

The FFY 2015 UPWP for the Merrimack Valley Metropolitan Planning Organization (MVMPO) fulfills the above requirement by briefly describing and providing budgetary information for the transportation planning tasks and activities that are to be conducted in the region during this period. The Merrimack Valley Planning Commission (MVPC) will undertake most of these activities in its capacity as the transportation planning staff of the MVMPO. However, this document also includes those significant transportation planning and engineering studies that will be completed in its region by other government entities and organizations.

U.S. Department of Transportation regulations mandate that the UPWP be prepared and endorsed annually by the MVMPO prior to the start of the planning program period before federal money may be spent on any transportation planning studies and activities in the region. The MVPC, as the transportation planning staff of the MVMPO, has the principal responsibility of maintaining the transportation planning process in the region as outlined in the 2010 Memorandum of Understanding (MOU), which was endorsed by the members of the MVMPO. In this role, the MVPC is responsible for annually preparing the UPWP for consideration and adoption by the MVMPO.

### **Merrimack Valley Metropolitan Planning Organization (MVMPO)**

The MVMPO was first created by the Governor of Massachusetts in 1972. Under federal transportation legislation, MPOs are assigned the important task of completing the planning and programming of all federally funded transportation projects and programs in their respective urbanized area.

The MVMPO covers the same 15-community geographic area that defines the MVPC region and the Merrimack Valley Regional Transit Authority service area.

The current MVMPO membership is as follows:

- Secretary of Massachusetts Department of Transportation (MassDOT) - Richard Davey
- MassDOT Highway Division Administrator - Francis DePaola
- Executive Director of the Merrimack Valley Planning Commission - Dennis DiZoglio
- Administrator of the Merrimack Valley Regional Transit Authority - Joseph Costanzo
- Mayor of Haverhill - James Fiorentini
- Mayor of Lawrence - Daniel Rivera
- Representing Region 1 (Amesbury, Newburyport, Salisbury) - Kenneth Gray
- Representing Region 2 (Newbury, Rowley, West Newbury) - Robert Snow
- Representing Region 3 (Boxford, Georgetown, Groveland, Merrimac)-Jeff Wade
- Representing Region 4 (Andover, Methuen, North Andover) - Curt Bellavance

**Ex officio, non-voting MVMPO members** include:

- Federal Highway Administration – Mass. Division Office - Pam Stephenson
- Federal Transit Administration – Region I - Mary Beth Mello
- Rockingham Planning Commission MPO (NH) - Tim Moore
- Boston MPO - Michelle Ciccolo
- Northern Middlesex MPO - Stephen Themelis
- Nashua Planning Commission MPO (NH) - Janet Langdell

### **Organization of FFY 2015 Unified Planning Work Program**

The MVMPO's UPWP is structured so that planning tasks are grouped into the following four areas:

- Management and Support of the 3C Planning Process
- Data Collection and Analysis Activities
- Short and Long-Range Transportation Planning Activities
- Other Transportation Studies

### **MVMPO Transportation Planning Priorities**

The UPWP may be thought of as the document that ensures that 3C planning process in the MVMPO region is implemented in a *cooperative* manner and recognizes the many influences that are at work at many levels in shaping the transportation network. The Continuing, Comprehensive and Cooperative ('3C') federal transportation planning process recognizes that a wide array of factors influence the multimodal transportation network and, conversely, many of these factors are influenced by this network. A milestone event in this regard occurred in 1991 with the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA), which established

16 specific factors that MPO's were required to consider in developing the plans and programs mandated under the legislation. While the number of these factors has been consolidated to eight over the past 20+ years, the need to be *continuing* and *comprehensive* in considering them remains at the foundation of the 3C planning process.

Listed below are the key concepts, analyses, policies, programs and recommendations that influenced the selection of the studies and analyses contained in the MVMPO FFY 2015 UPWP.

### **Regional Plans and Studies**

The following regional transportation studies, plans and areas of focus have played an important role in shaping the development of the FFY 2015 UPWP:

#### **Bicycle and Pedestrian Planning**

During FFY 2014, the communities of Boxford, Georgetown, Newbury and Salisbury worked in cooperation with MassDOT, to advance the design of the Border to Boston Trail project. Twenty-five percent design plans were prepared for the sections of the Trail in all communities. Design work also revealed a potential change in the scope of the project between Byfield in Newbury and Scotland Road. Work was completed on the construction of a bicycle/pedestrian connection between the northern end of the Gillis Bridge and Salisbury's Old Eastern Marsh Trail. This connection was made under the bridge and eliminated the need for users to cross busy Route 1.

Merrimack Valley Planning Commission staff continued to work in cooperation with the Essex National Heritage Commission and Northern Middlesex Council of Governments in offering assistance to communities in the Merrimack Valley and Northern Middlesex region in developing sections of the Merrimack River Trail.

MVPC staff also continued to work with local officials in Haverhill, Groveland and Georgetown to implement the recommendations made in the Georgetown Branch Rail Trail Feasibility Study.

#### **Merrimack Valley Regional Transit Authority Strategic Plan**

Working in conjunction with MVPC staff, MVRTA completed an update of its Strategic Plan, which was first prepared in 1999. The Strategic Plan provides a comprehensive examination of the Authority's organizational structure, its existing strengths and weaknesses, the performance of its various fixed route bus and demand response services, and the characteristics and needs of the population that it serves.

The updated Strategic Plan allows the MVRTA to adjust its policies and strategic goals to reflect the changes to the transportation system that have taken place in its service area since the original document was prepared over a decade ago.

#### **2012 Transit Mobility Plan**

Prepared jointly by the MVRTA and MVPC, the 2012 Transit Mobility Plan combines and updates three previous plans — the Elderly Transportation Plan, the Disabled Transportation Plan and the Coordinated Human Service Public Transportation Plan — into a single coordinated plan. Through this planning process, the public has provided input into gaps in transit service and needs. These gaps and needs were then prioritized. The result is an action plan that provides direction for future funding investments.

The intent of the Mobility Plan is that it be a plan for implementation when funding is available. This was also the case with the previous plans. Both MVPC and the MVRTA took the recommendations within the three plans (Coordinated, Elderly, and Disabled) and applied for funding through the federal New Freedom and Jobs Access and Reverse Commute grant programs.

### **Title VI/Environmental Justice Planning**

In recent years, the MVMPO has worked in coordination with USDOT and MassDOT to increase its efforts to implement Title VI and EJ planning activities.

Between 2009 and 2013 MVMPO work tasks included revision of the MVMPO Public Participation Plan, Title VI Notification, Complaint Policy and form; integration of updated Census and American Community Survey data, and continued expansion of outreach to constituents in communities. Staff updated contact information, forged stronger working relationships with Community-Based Organizations (CBOs) and distributed information on its work in non-traditional formats (i.e. Facebook, attendance at community events) to engage Title VI and EJ populations.

Under the FFY 2014 UPWP, staff updated the MVMPO's Title VI Program, which included an update analysis of protected populations in the region that was completed at the Census Block Group level of geography rather than at the Census Tract level as had been the case in previous analyses.

For 2015, these efforts will continue with MVMPO staff:

- Updating information required by FTA regulations pertaining to compliance with Title VI of the Civil Rights Act of 1964 and Executive Order 12898 regarding Environmental Justice.
- Implementing recommendations and increased solicitation of input from minority, low-income and elder constituents.
- Making presentations on planning issues at neighborhood meetings in areas where low-income and minority populations are present as well as at locations or events involving elders and the disabled.

- Assisting the MVRTA in implementing evaluation measures for its outreach to Limited English Proficiency (LEP) populations as well as research additional recommendations for improving its outreach to these groups.
- Reviewing regional policies and plans, i.e. MVPC Priority Growth Strategy to ensure consistency with Title VI and EJ activities.
- Monitoring MVMPO transportation funding, project prioritization and investments as to how they benefit and/or burden protected populations.

### **MVMPO Regional Transportation Plan**

The MVMPO 2012 RTP not only identified a number of important transportation projects that should be completed in the region over the next 25 years, it also established a series of Goals and Objectives that the Organization should pursue in an effort to improve the transportation network. The Goals are that the transportation network will:

- Become Safe, Efficient and Cost Effective
- Promote Regional Economic Vitality
- Expand Options and Access
- Support Livability
- Promote Environmental Sustainability

The MPO will be updating its RTP under the FFY 2015 UPWP. This will be the first RTP prepared by the MVMPO that addresses the MAP-21 requirements performance and outcome-based document.

### **Route 114 Corridor Study**

The Route 114 Corridor in Lawrence and northern North Andover is one of the MVMPO region's most congested roadways. Under the FFY 2011 UPWP, MVPC completed a transportation study of the corridor that considers existing traffic and safety problems, forecasts future travel demand and made a series of recommendations that address the recurrent congestion problems that have plagued the area for many years. The implementation of these recommendations is one of the MVMPO's highest priorities. Under the FFY 2014 UPWP, staff worked with local officials to bring the recommendations contained in its FFY 2010 study to realization. Staff also participated in the MassDOT Road Safety Audit that was conducted in the vicinity of Merrimack College in an effort to improve bicycle and pedestrian access to the College and elsewhere in the corridor. Staff will continue its efforts to move this project forward under the FFY 2015 UPWP.

### **Priority Growth Strategy**

In 2009, MVPC completed the first master plan for the region in over 30 years, the Merrimack Valley Priority Growth Strategy, The Regional Land Use Plan for the Merrimack

Valley Region. This effort was well received by all the communities as well as state and local officials. The Plan also received a "best practice" recognition by the NADO Research Foundation in 2009. It also received a 2011- Innovation Award from NADO. Under the FFY 2014 UPWP, FHWA also recognized this document on its Transportation Planning Capacity Building website as the latest example of a featured Innovative Project.

Since the completion of the original document, many communities have requested MVPC assist them with the implementation of its findings and recommendations. This was done through MVPC staff technical assistance to properly develop "priority growth districts", as well as assisting them in the preservation and protection of open space. That work is underway and will continue through FFY 2015 and beyond.

In addition, the PGS has been incorporated into the EOHED-funded Regional Strategic Framework Plan which was submitted May, 2011. MVPC met with the EOHED Secretary to discuss the use of the Plan with the "Planning Ahead for Growth" initiative by the Commonwealth. This was followed by EOHED staff working with MVPC to identify which of the 57 regional "Concentrated Development Centers" identified in the Priority Growth Strategy had statewide significance and could be designated as "Priority Development Areas." The same exercise was done for identifying "Priority Preservation Areas."

Under the FFY 2014 UPWP, staff completed an update to the original document that recognizes the many changes in land use, the transportation network and other areas considered in the document that have taken place in the past five years. This update will allow MVPC staff to effectively use the Priority Growth Strategy to help define the preferred land use and zoning scenario that will be considered in the Merrimack Valley MPO's FFY 2016 Regional Transportation Plan.

### **Congestion Management Process**

A federal mandate in Urbanized Areas of more than 200,000 people, the Congestion Management Process (CMP) is a planning tool that comprehensively examines and monitors congestion on an MPO's transportation network, identifies congested areas/components, and recommends the steps that should be taken to develop solutions to these problems. These recommendations often result in traffic analyses and studies that appear in a region's UPWP.

The MVMPO Congestion Management Process was last comprehensively updated in FY 2011 in support of the development of the FY 2012 RTP. Since then, staff has identified a number of congested locations in the Valley and added them to the CMP and some of which will be studied in more detail under the FFY 2015 UPWP. Under the FFY 2014 UPWP, staff began the process of incorporating travel time data that is now available for

the NHS roadways in the Valley into its CMP and this process will continue under this UPWP.

### **Safety Monitoring System**

Similar to the CMP, the Safety Monitoring System is used by the MVMPO to identify components of the regional transportation network that may be experiencing safety problems. This System uses safety measures that address motor vehicles, bicycles and pedestrians, and transit. Any potential problem areas identified through the Safety Monitoring System are often studied in more detail through tasks included in the UPWP in order to determine if a safety problem truly exists and, if so, to identify what steps need to be taken next to address it.

Under the FFY 2014 UPWP, staff participated in a number of Road Safety Audits in the region that were held at locations that met MassDOT's criteria that such locations be within the top five percent of intersections based on the Equivalent Property Damage Only system.

### **State Policies and Plans**

The Commonwealth of Massachusetts has completed a series of transportation planning activities that will influence transportation planning as well as transportation project programming and development activities across the state. These plans, along with the state's continuing commitment to encourage Sustainable Development, are outlined below and have been considered in the formulation of the region's FFY 2015 UPWP.

#### **State Transportation Restructuring**

On June 26, 2009, Governor Patrick signed Chapter 25 of the Acts of 2009, *An Act Modernizing the Transportation Systems of the Commonwealth*, into law. This legislation is intended to streamline the Commonwealth's transportation bureaucracy and to change certain pension and health benefits to realize substantial cost efficiencies. Key components of the legislation include:

- Creation of the Massachusetts Department of Transportation, which oversees four divisions:
  1. Highway (Including Turnpike, Tobin Bridge, DCR Bridges and most parkways);
  2. MassDOT Rail and Transit (with oversight of the MBTA and the Regional Transit Authorities (RTAs);
  3. Aeronautics, and
  4. Registry of Motor Vehicles.
- Oversight of MassDOT is provided by a five-person Board of Directors.

- Establishment of a Transportation Trust Fund to better manage transportation revenues.
- Requiring forward funding of the RTAs

### **Chapter 46 – An Act Relative to Transportation Finance**

While the title of this 2013 act shows that it was intended to provide funding for the Commonwealth's transportation network, it also contained numerous provisions related to the management of the state's transportation infrastructure. It contained provisions establishing the development of The Performance and Asset Management Advisory Council, required the preparation of Comprehensive Regional Transit Plans and established the Project Selection Advisory Council, which it charged with responsibility of developing the project selection criteria to be used in the development of the comprehensive state transportation plan. All of these provisions will play a role in shaping the transportation planning process in the Valley in FFY 2015 and the years to come.

#### **weMove Massachusetts planning for performance**

MassDOT introduced a number of firsts with the recent passage of *weMove* Massachusetts. It was the first multimodal transportation plan created by the agency since its restructuring in 2009. It was also the first plan to introduce performance management measures into the capital planning process.

*weMove* Massachusetts evaluates the long-term performance of the transportation network under two alternative funding scenarios: one, assuming that **historical** funding levels would be in place while the other assumes that the current funding levels authorized under Chapter 46 would be available. These impacts were measured in a number of areas such as pavement condition, bridge condition, mobility, bicycle transportation and safety.

<http://www.massdot.state.ma.us/wemove/Home.aspx>

#### **"GreenDOT"**

Launched by MassDOT in July 2010, the **GreenDOT** initiative is designed to make Massachusetts a progressive state in how its transportation network coexists with the environment and supports sustainable development (see *Sustainable Development Criteria* on Page 6). Three of its primary goals are:

- To reduce greenhouse gas (GHG) emissions;
- Promote the healthy transportation options of walking, bicycling, and taking public transit, and
- Support smart growth development.

Through the Global Warming Solutions Act, which was enacted by the legislature in 2008, Massachusetts has committed to reducing statewide GHG emissions between 10-25% from 1990 levels by 2020 and by at least 80 from 1990 levels by 2050. To help achieve these GHG emissions reductions, MassDOT has committed to tripling the mode shares for walking, bicycling and public transportation throughout the Commonwealth. Transit usage would be increased by offering more hours of service, improving bus route designs/schedules, reducing bus/train headways and upgrading the condition of rolling stock and other equipment. Improving travel accommodations for bicyclists and pedestrians through a "Complete Streets" approach to improving the state's transportation network will make it easier and safer for persons to bike and/or walk.

To further assist in the effort to reduce the number of Single Occupancy Vehicles in the Commonwealth, MassDOT has developed **MassRides**, a statewide travel options program that is designed to help people make more informed decisions about carpooling, bicycling, walking, public transportation, teleworking, and vanpooling.

In December 2012, MassDOT released its GreenDOT Implementation Plan, which establishes 15 broad sustainability goals to decrease the level of resources needed to sustain the Commonwealth's transportation network. It includes many specific measures for reducing GHG emissions in the state including providing alternative fueling options at highway service areas and installing 30 electric vehicle charging stations along the state highway system as well as at transit parking areas. A logical location for such a station would be the Newburyport Park and Ride Lot, which is located adjacent to I-95 and is the busiest such facility in the Commonwealth.

### **Massachusetts Freight Plan and Rail Plan**

In FFY 2011, MassDOT completed work on the Massachusetts Freight Plan and the State Rail Plan. MassDOT, through its consultant, has completed a comprehensive analysis of freight flows both within Massachusetts and from Massachusetts to other regions in the United States and to foreign markets. MassDOT has also reviewed the state of rail, truck, air, and water freight transportation in the Commonwealth and forecast the amount of freight that will be carried by each mode in the year 2030. This analysis determined that freight traffic in Massachusetts will grow by 70 % over the next 20 years with all modes carrying more tonnage than today but with trucking significantly increasing its market share.

The analysis specifically found that in the MVMPO region the existing freight rail network has a number of limitations. The existing tracks do not support 286,000 pound carloads (which is becoming the industry standard), and do not provide the 20'8" clearances needed to carry double-stacked containers. In addition to these system-wide problems with the track, the MassDOT analysis cited the poor condition of the Merrimack River

Bridge in Haverhill as another factor limiting the growth of freight rail service in the Commonwealth.

### **Accelerated Bridge Program**

Chapter 233 of the Acts of 2008 provided \$3 billion in bonding authority for the implementation of an Accelerated Bridge Program (ABP) in the Commonwealth. The goal of the program is to accelerate work on repairing/replacing over 200 MassDOT and Massachusetts Department of Conservation and Recreation – owned bridges that are classified as Structurally Deficient (SD) or are in jeopardy of soon being classified as such. This infusion of state funding will allow for the completion of many bridge projects much sooner than would otherwise be possible and thereby result in lower construction costs.

Six Merrimack Valley region bridge repair or replacement projects are included in the ABP. These are listed below along with their current status:

- Replacement of the Rte. 28 Bridge over the MBTA railroad tracks in Andover; (Design)
- Repair of the Rte. 28 Bridge over the Merrimack River in Lawrence; (Complete)
- Reconstruction of the Route 125 Connector Bridge over Ferry Road and the MBTA railroad tracks in Haverhill; (Complete)
- Rehabilitation of the Rocks Village Bridge over the Merrimack River between Haverhill and West Newbury; (Complete)
- Replacement of the Whittier Bridge, which carries I-95 over the Merrimack River between Amesbury and Newburyport. (Construction)
- Cleaning and painting of the Gillis Bridge which carries Rte. 1 over the Merrimack River between Salisbury and Newburyport (Complete)

### **Sustainable Development Criteria**

The Commonwealth of Massachusetts has established a goal of stewardship for both the built and natural environment through the promotion of what is called “sustainable development.” This strategy relies on the integration of efforts within the state’s energy and environment, housing and economic development, transportation and other programs including policies investments, and regulations. This is to be accomplished through the pursuit of the following sustainable development principles:

1. **Redevelop first.** Support the revitalization of community centers and neighborhoods. Encourage reuse and rehabilitation of existing infrastructure rather than the construction of new infrastructure in undeveloped areas. Give preference to redevelopment of brownfields, preservation and reuse of historic structures and rehabilitation of existing housing and schools.

2. **Concentrate development.** Support development that is compact, conserves land, integrates uses, and fosters a sense of place. Create walkable districts mixing commercial, civic, cultural, educational and recreational activities with open space and housing for diverse communities.
3. **Be fair.** Promote equitable sharing of the benefits and burdens of development. Provide technical and strategic support for inclusive community planning to ensure social, economic, and environmental justice. Make regulatory and permitting processes for development clear, transparent, cost-effective, and oriented to encourage smart growth and regional equity.
4. **Restore and enhance the environment.** Expand land and water conservation. Protect and restore environmentally sensitive lands, natural resources, wildlife habitats, and cultural and historic landscapes. Increase the quantity, quality and accessibility of open space. Preserve critical habitat and biodiversity. Promote developments that respect and enhance the state's natural resources.
5. **Conserve natural resources.** Increase our supply of renewable energy and reduce waste of water, energy and materials. Lead by example and support conservation strategies, clean power and innovative industries. Construct and promote buildings and infrastructure that use land, energy, water and materials efficiently.
6. **Expand housing opportunities.** Support the construction and rehabilitation of housing to meet the needs of people of all abilities, income levels and household types. Coordinate the provision of housing with the location of jobs, transit and services. Foster the development of housing, particularly multifamily, that is compatible with a community's character and vision.
7. **Provide transportation choice.** Increase access to transportation options, in all communities, including land and water based public transit, bicycling, and walking. Invest strategically in transportation infrastructure to encourage smart growth. Locate new development where a variety of transportation modes can be made available.
8. **Increase job opportunities.** Attract businesses with good jobs to locations near housing, infrastructure, water, and transportation options. Expand access to educational and entrepreneurial opportunities. Support the growth of new and existing local businesses.
9. **Foster sustainable businesses.** Strengthen sustainable natural resource-based businesses, including agriculture, forestry and fisheries. Strengthen sustainable businesses. Support economic development in industry clusters consistent with regional and local character. Maintain reliable and affordable energy sources and reduce dependence on imported fossil fuels.

**10. Plan regionally.** Support the development and implementation of local and regional plans that have broad public support and are consistent with these principles. Foster development projects, land and water conservation, transportation and housing that have a regional or multi-community benefit. Consider the long-term costs and benefits to the larger Commonwealth.

#### **District Local Technical Assistance Program (DLTA)**

To support implementation of the Sustainable Development Principles listed above, the legislature created the DLTA Program, which provides funding for the regional planning agencies around the state to assist communities with planning services. The Commonwealth's DLTA program was funded for State Fiscal year 2013 and can be used for a variety of purposes including developing shared land use objectives, reviewing and modifying existing zoning and land use and creating municipal partnerships.

#### **MBTA FY 2015-2019 Capital Investment Program (CIP)**

The Merrimack Valley region is served by two MBTA commuter rail lines (Haverhill and Newburyport lines) and seven train stations that provide important links to the Metro Boston area. Information on projects affecting MBTA commuter rail service in general and along these two commuter lines is contained in the MBTA's CIP which, as noted in the Introduction of the document, "...is a guide to the MBTA's five-year capital budget". In addition to commuter rail services, the CIP also provides information on the condition of the MBTA's fixed route bus fleet, subway stations, tracks and signals, maintenance facilities, power supplies, water transportation services and the vehicles needed to provide its "The Ride" demand response service and identifies projects that have been selected to address the Authority's needs for these components of its system. It is important to note that, like the MVMPO's TIP, the MBTA CIP is a fiscally constrained document, which means that all the projects appearing in it have identified sources of funding for their implementation.

Significant projects appearing in the MBTA's FY 2015-2019 Capital Investment Program that will impact the Merrimack Valley MPO region include:

- Newburyport Line closeout activities;
- Haverhill Line Double-Tracking project;
- Merrimack River Bridge Rehabilitation;

#### **Strategic Highway Safety Plan**

SAFETEA-LU included a new "core" program, the Highway Safety Improvement Program (HSIP), which is designed "to achieve a significant reduction in traffic fatalities and serious injuries on all public roads." Funds may be used for design and/or construction of projects on any public road or publicly owned bicycle and pedestrian pathway or trail.

The Massachusetts State Highway Safety Plan was developed in 2005 and 2006 and endorsed by local and regional stakeholders in September 2006. The document reviewed a range of data regarding crashes that involved fatalities and incapacitating injuries. It revealed that Massachusetts fared worse than the nation in crashes that involved vehicles leaving a travel lane, and crashes involving pedestrians and bicyclists.

During FFY 2014, the MVMPO programmed FFY 2016 HSIP funds in the FFY 2013-2016 TIP for the construction of roadway improvements at the Route 125 (Chickering Road)/Massachusetts Avenue intersection in North Andover, and for the section of the Route 125 Corridor in Haverhill between Winter Street and Merrimack Street. The MVMPO had previously used HSIP funds to complete the design for both projects.

In 2012, the State began to revise and expand the HSIP to improve upon the significant accomplishments in traffic safety and reductions in fatalities and serious injuries realized to date. MassDOT completed this update to the SHSP in June 2013 so that it is consistent with requirements outlined in MAP-21. One requirement is to establish goals and performance measures. Goals in the Massachusetts SHSP include:

- Reduce motor vehicle fatalities and hospitalizations by 20 percent in the five-year period following adoption of the SHSP (Short-Term Goal);
- Halve the number of fatalities and serious injuries by 2030 (Interim Goal); and
- Move Toward Zero Deaths and eliminate fatalities and serious injuries on the roadways (Long-Term Goal).

## **Federal Transportation Planning Legislation and Initiatives**

### **Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21)**

On July 6, 2012, President Obama signed into law P.L. 112-141, the Moving Ahead for Progress in the 21st Century Act (MAP-21), the successor transportation funding authorization legislation to SAFETEA-LU. While MAP-21 builds on and refines many of the highway, transit, bike, and pedestrian programs and policies originally established in ISTEA, it does introduce a number of significant changes with perhaps the most important of these being that "...it transforms the policy and programmatic framework for investments to guide the growth and development of the country's vital transportation infrastructure."

Key changes contained in MAP-21 include:

- Expanding the National Highway System (NHS) to incorporate principal arterials not previously included. Investment targets the enhanced NHS and targeting more highway funding going to the new program devoted to preserving and improving these highways, the National Highway Performance Program.

- Creation of the National Highway Performance Program, which is designed to support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a State's asset management plan for the NHS.
- Establishing performance-based planning and programming as a means to more efficient investment of federal transportation funds by focusing on national transportation goals, increasing the accountability and transparency of the federal highway programs, and improving transportation investment decision-making.
- Consolidating funding programs such as creating the Transportation Alternatives Program (TAP) – a new program, with funding derived from the NHPP, STP, HSIP, CMAQ and Metropolitan Planning programs. It encompasses most activities funded under the Transportation Enhancements, Recreational Trails, and Safe Routes to School programs under SAFETEA-LU.
- Expanding funding for the Highway Safety Improvement Program
- Accelerating the project delivery process and promoting innovation.

Many of the tasks contained in this UPWP are designed to integrate these new program initiatives into the MVMPO's transportation planning process.

### **Climate Change/Livability**

FHWA has issued guidance to MPOs in coastal areas to identify those transportation facilities that could be impacted by rising sea levels and from flooding and to develop a program of studies to review both drainage plans and the adequacy of drainage structures in these areas. USDOT also asked these MPOs to address this issue in their 2012 RTPs.

The concept of livability in transportation is really a recognition that the transportation network plays a major role in affecting the quality of life of residents in the area it serves. As noted by FHWA on its website:

*“The transportation network should provide residents with choices, an effort to tying the quality and location of transportation facilities to broader opportunities such as access to good jobs, affordable housing, quality schools, and safe streets. This includes addressing safety and capacity issues on all roads through better planning and design, maximizing and expanding new technologies such as ITS and the use of quiet pavements, using Travel Demand Management approaches to system planning and operations, etc.”*

Notably, MVPC prepared its regional Priority Growth Strategy (PGS) with particular emphasis upon how the region's transportation network impacts livability in cities and towns in the Merrimack Valley. The PGS contains numerous recommendations for improving bicycle, pedestrian and transit transportation to Community Development Centers (CDCs) throughout the Valley. MVPC will continue its efforts to implement these and other recommendations in the PGS in FFY 2015 to support sustainable development principles in the Valley and, in doing so, improving the quality of life.

### **FHWA Priorities for FY 2015 UPWP Development**

**MAP-21 Implementation:** The FHWA encourages MPOs to transition to the use of performance measures throughout the Transportation Planning Process.

**Models of Regional Planning Cooperation:** This emphasis area is intended to promote cooperation and coordination across MPO boundaries and across State boundaries, where appropriate. This could include developing planning agreements that identify how the planning process and planning products will be coordinated.

**Ladders of Opportunity:** As part of the transportation planning process, MPOs should identify transportation connectivity gaps in access to essential services. Essential services include housing, employment, health care, schools/education, and recreation. This emphasis area could include identification of performance measures and analytical methods to measure the transportation system's connectivity to essential services and the use of this information to identify gaps in transportation system connectivity that preclude access of the public, including traditionally underserved populations, to essential services. It could also involve the identification of solutions to address those gaps.

**Eight Planning Factors:** FHWA continues to recognize the importance for each UPWP to address the Eight Planning Factors. The Factors should be explicitly listed and a description should be provided of how the planning process addresses each. Past practice has included citing UPWP studies, TIP projects and RTP goals and initiatives as examples of how the Planning Factors are addressed. To facilitate a smoother review of the UPWP, it is suggested that a table be included in the document which could summarize how it addresses the planning factors.

### **Other Transportation Planning Studies**

In addition to the studies, analyses and legislation described above, a number of transportation planning studies have been implemented in the region and surrounding areas by other agencies. These include:

- **Interstate 93 Corridor Planning in New Hampshire:** In 2003 the New Hampshire Department of Transportation (NHDOT) completed a Final Environmental Impact Statement

(FEIS) supporting its proposal to widen I-93 to four lanes northbound and southbound between the Massachusetts/New Hampshire state line and I-293 in Manchester. The FEIS recommended that NHDOT reserve right-of-way within this I-93 segment to accommodate future transit service. In FFY 2009 NHDOT completed construction of new park and ride lots along this section of the highway and began operating commuter bus service to South Station and Logan Airport. During FFY 2012, NHDOT continued widening the roadway and replacing bridges over I-93 to accommodate wider I-93 cross-sections. The State of New Hampshire also moved to commit the funding necessary to complete the widening of the highway with an estimated completion date of 2020. In June 2012, NHDOT convened an I-93 Transportation Demand Management (TDM) Advisory Committee that began meeting on a quarterly basis. MVMPO staff participates in these TDM meetings. In May 2013, NHDOT initiated a Capitol Corridor Transit Alternatives Study to review rail transportation options between Lowell, MA and Concord, NH parallel to US-3. MVMPO staff is also participating in this Study as it involves a travel market/catchment area that overlaps the I-93 corridor.

- **Plaistow Commuter Rail Study:** Working in cooperation with the Town of Plaistow, NH and the Rockingham MPO, NHDOT has initiated a feasibility study for instituting commuter rail service between Plaistow, NH and North Station. The study will evaluate alternative station sites, sites for a layover facility, identify capital and operating costs, and development opportunities that would be generated through the introduction of rail service. MVPC staff is participating on the Study Advisory Committee.
- **Interstate 495 Corridor Study:** MassDOT undertook this study in recognition of the growing congestion that exists along the roadway, especially in the western Merrimack Valley and eastern Northern Middlesex regions and the fact that many of the interchanges along this section of roadway have not been improved since the facility was built in the early 1960s.

The study recommends an array of short and long-term improvements for the corridor. Short-term improvements include the retiming of existing signals at exit and entrance ramps, signaling many of these ramp junctions in the next few years, and restriping the existing roadway to increase the length of many of the substandard acceleration and deceleration lanes. Long-term improvements call for the widening of the roadway between Route 225 in Westford and Route 110 (Exit 49) in Haverhill.

- **Interstate 93 Corridor Transit Investment Study:** This study was undertaken by NHDOT in cooperation with the (then) Massachusetts EOTPW with the goal of evaluating alternative transit services in the corridor between Manchester and Boston and to recommend the implementation of services that show the most promise in relieving congestion and promoting sustainable development.

The consultant working for NHDOT reviewed a number of possible bus and rail services in the corridor. Working in cooperation with the Study Advisory Committee, one rail and one bus option were recommended for further analysis and implementation. The rail option would allow for the institution of commuter rail service along the old Manchester and Lawrence Branch of the former B&M Railroad. The bus alternative would have commuter bus services being provided from many of the communities in the corridor, which would then operate as Bus-on-Shoulder (BOS) in the breakdown lane on I-93 in both New Hampshire and Massachusetts.

In FFY 2012, MVPC, using funding provided by the MVRTA, began work on a study that examines the feasibility of instituting BOS transit service in the corridor as well as for extending the existing HOV lane on I-93 southbound further north. This study will soon be completed.

- **Newburyport Intermodal Parking Facility:** The MVRTA and the City of Newburyport have completed a Preliminary Engineering study to identify the preferred site for this facility and to review local transit needs. In May 2010, the City Council approved the construction of the new facility on Titcomb Street, which is located just behind City Hall. Since that time, the MVRTA has been working with city officials to further refine alternative design concepts for this site, and pursued grant funds for construction. The MVRTA's FFY 2015-2019 Capital Plan includes funding for the construction of this facility.

### **Other MVPC Planning Studies and Funding Sources**

In addition to the transportation studies and analyses undertaken by the Commission on behalf of the MVPO, as a comprehensive planning agency the MVPC is active in studies, initiatives and analyses that address economic development, land use, open space and environmental matters that often directly impact the region's transportation network. Recent activities in these areas are noted below:

**Comprehensive Economic Development Strategy:** The 2013 Merrimack Valley Comprehensive Economic Development Strategy (CEDS) was submitted to the U.S. Economic Development Administration (EDA) on September 30. The 2013 CEDS features an updated list of goals, objectives, and plan of action. The regional five-year vision is highlighted by three Executive Actions for immediate consideration: 1. enhanced regional marketing of economic development resources and opportunities available; 2. increased coordination of local capacity assistance in critical planning issues such as priority development sites/Chapter 40R establishment, design review/form-based coding, complete streets, stormwater management, and compact neighborhoods; 3. identifying critical workforce development needs, programs, and partnerships in the Merrimack Valley.

The CEDS has been guided by a series of regional strategy meetings over the past year, featuring a solid mix of roundtable discussions and formal presentations. In addition, the 2013 Merrimack Valley CEDS has been endorsed by MVPC Commissioners. The final 2013 CEDS list of goals and objectives, along with the Executive Action List is available at [mvpc.org](http://mvpc.org).

The CEDS is funded primarily through an annual planning grant from EDA, which is the principal economic development agency of the federal government. EDA requires planning districts to update their CEDS once every five years, with annual Performance Reports in between. The Merrimack Valley has been designated an Economic Development District by EDA since 1986.

**Brownfields Assessment:** MVPC continued its Merrimack Valley Brownfields Assessment Program in 2013, which began in 2003. Through a series of grants from the U.S. Environmental Protection Agency (EPA), The Program has performed environmental assessments on a number of projects in the region, including the site of the new Lawrence Allied Health and Technology Center. MVPC's latest \$200,000 hazardous substances grant began in the fall of 2012, with a majority of funding already spent. MVPC is applying for additional assessment funding for fiscal year 2014, with award decisions by EPA expected to be made in spring 2014.

**Regional Data Center:** MVPC is the regional repository of demographic data from various federal and state agencies. In 2013, MVPC continued collecting and analyzing data releases from the 2010 Census and American Community Survey. The Merrimack Valley region's population grew by 4.8% compared to 3.1% for the balance of the entire State. Local population, race, and housing unit totals from the 2010 Census show our region growing, albeit more slowly than in previous censuses, and continuing to diversify. The region traditionally has seen its population grow faster than the State as a whole. After the 1990 census the region saw a 10.5% increase compared to a State increase of 4.9% and in 2000 the region again saw a 10.5% increase with the State realizing a 5.5% increase. The total population for the 15-community Merrimack Valley region now stands at 333,748, up from 318,556 in 2000.

**Merrimack Valley Industry Cluster Analysis:** In 2013, MVPC received federal funding to perform an industry cluster analysis in order to identify strengths in the Valley's economy, opportunities for outreach to the business community, and areas of need for industries that are driving regional growth. Through the work of our regional CEDS Committee, the development of a regional industry cluster analysis has been identified as a high priority for the region. While the production of an information-rich planning document is targeted, more importantly, an end-result goal is the enhanced coordination of the various entities providing business assistance in the Merrimack Valley. The purpose is to maxim-

ize resources by streamlining outreach through the identification of innovative and export-based businesses and clusters.

**Other Economic Development Support:** MVPC staff handled numerous demographic data inquiries and requests for regional economic development overviews for businesses, individuals, and community officials. In addition, MVPC provided technical assistance for the City of Haverhill's application for downtown infrastructure funding assistance from the U.S. Economic Development Administration.

### **Transportation Planning Program Years Covered by This Document**

The transportation planning tasks and activities in the FFY 2015 UPWP were developed by the MVPC and MVRTA in cooperation with FHWA, MassDOT, FTA, local officials and the input of MVMPO Stakeholders. These activities will be financed in large part with federal planning funds provided by FHWA and FTA. Funding for the contract between MassDOT and the MVPC will be wholly provided by the Commonwealth, which will later receive 80% reimbursement from US DOT. Transit planning activities will be carried out under the Section 5303 and Section 5307 contracts between MassDOT and the MVPC, and MVRTA and the MVPC, respectively.

All planning tasks to be initiated under the FFY 2015 UPWP will be performed by either the MVPC or private consultants through the contracts described above. Contract #75074 between MassDOT and MVPC began on October 1, 2012 and will end on September 30, 2016. It will fund many of the highway-related transportation planning tasks to be undertaken in the FFY 2015 UPWP.

Two FTA Section 5303 transit planning contracts between MassDOT and MVPC will support the 3C planning process in FFY 2015. Contract X008 went into effect on April 7, 2014 and will end on March 30, 2015. Contract X009 will begin on April 1 and continue through March 30, 2016. Finally, the transportation planning activities funded through the Section 5307 contract between the MVRTA and the MVPC will be in effect from October 1, 2014 through September 30, 2015.

### **Transportation Planning Factors Considered Under MAP-21**

As noted above, ISTEA established 16 factors that MPO's were required to consider in developing the plans and programs mandated under the legislation. TEA-21 (1998) consolidated these 16 planning factors into seven broad areas, which were slightly altered with the passage of SAFETEA-LU in 2005 with Transportation Security now a stand-alone factor and the factor relating to the environment expanded to promote consistency of the long-range transportation plan with planned growth and development. These eight planning factors appear in MAP-21. The following table shows which individual transportation planning tasks included in the MVMPO's FFY 2015 UPWP address them:

<b>MAP-21 Planning Factors in the MVMPO FFY 2015 UPWP</b>		
<b>MAP-21 Planning Factor</b>	<b>UPWP Task(s)</b>	<b>RTP Goals</b>
<b><i>(1) Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;</i></b>	Tasks 1.7, 2.4, 2.5 and 3.4	Promote Regional Economic Vitality
<b><i>(2) Increase the safety of the transportation system for motorized and nonmotorized users;</i></b>	Tasks 2.7, 2.8, 2.10 and 3.3	Become Safe, Efficient & Cost Effective
<b><i>(3) Increase the security of the transportation system for motorized and nonmotorized users;</i></b>	Tasks 3.5, 3.6 and 4.3	Become Safe, Efficient & Cost Effective Promote Environmental Sustainability
<b><i>(4) Increase the accessibility and mobility options available to people and for freight;</i></b>	Tasks 1.6, 1.7, 2.4, 2.5, 2.9, 2.10, 3.1 and 3.2	Expand Options and Access
<b><i>(5) Protect and enhance the environment, promote energy conservation, and improve quality of life;</i></b>	Tasks 2.9 and 3.5	Support Livability Promote Environmental Sustainability
<b><i>(6) Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;</i></b>	Tasks 1.1, 1.2, 2.5, 2.7, 2.10 and 3.2	Expand Options and Access
<b><i>(7) Promote efficient system management and operation;</i></b>	Tasks 2.1, 2.2, 2.4, 2.6, 2.10, 3.3 and 3.4	Become Safe, Efficient & Cost Effective
<b><i>(8) Emphasize the preservation of the existing transportation system.</i></b>	Tasks 2.2, 2.4 and 2.10	Become Safe, Efficient & Cost Effective

**Summary of Anticipated MVPC Funding Resources  
FFY 2015 (July 1, 2014 – June 30, 2015)**

<u>Source - Non Transportation</u>	<u>Amount</u>	<u>% of Total</u>
Economic Development Administration (EDA)	\$85,750	3.8%
CIC Grant - 311 System	77,600	3.5%
CIC Grant - Stormwater Management	100,000	4.4%
EDA Revolving Loan Fund	26,000	1.2%
Eight Towns and the Great Marsh (Environmental Protection Agency/Mass. Coastal Zone Mgt.)	66,000	2.9%
Mass. Department of Housing and Community Development (Land Use)	107,000	4.8%
MEMA Hazard Mitigation	1,500	0.1%
U.S. Fish and Wildlife Service - NAWCA Grant	210,000	9.3%
Pictometry	40,000	1.8%
Mayor's Coalition	20,000	0.9%
EPA Brownfields Contracts	395,065	17.5%
Misc. GIS and Local Contracts	67,500	3.0%
Local Technical Assistance	38,375	1.7%
<b>TOTAL (Non Transportation)</b>	<b>\$1,234,790</b>	<b>54.9%</b>
 <u>Source - Transportation</u>		
FHWA/MassDOT-PL	\$749,500	33.3%
FTA/MVRTA (Section 5307)	100,000	4.4%
FTA/MVPC (Section 5303)	132,898	5.9%
Haverhill Pavement Management	30,000	1.3%
Low St. / Bashaw Way Intersection Study	4,500	0.2%
<b>TOTAL (Transportation)</b>	<b>\$1,016,898</b>	<b>45.1%</b>
 <b>MVPC TOTAL</b>	 <b>\$2,251,688</b>	

*Source: MVPC's FY 2015 Budget #1: July 1, 2014 – June 30, 2015 (Approved 2/20/14)*

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## **Merrimack Valley Planning Commission Staff**

(Number in parentheses represents the approximate percentage of staff person's time devoted to transportation planning)

Dennis DiZoglio, Executive Director

Mary Kay Beninati, Senior Transportation Planner (100%)

Joseph Cosgrove, Environmental Program Manager (10%)

Jennifer Dunlap, Accountant

Todd Fontanella, Transportation Planner (90%)

Betsy Goodrich, Transportation Planner (100%)

Anthony Komornick, Transportation Program Manager (100%)

Steve Lopez, GIS Specialist (40%)

Nancy Lavallee, Administration

Dan Ovalle, Data Collection Specialist (100%)

Michael Parquette, Comprehensive Planning Manager (10%)

Peter Phippen, Environmental Planner (10%)

Kelsey Quinlan, GIS Specialist (10%)

Ted Semesnyei, Economic Development Planner (15%)

James Terlizzi, Senior Transportation Planner (100%)

Jerrard Whitten, Environmental Planner/GIS Specialist (40%)

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# Merrimack Valley Planning Commission Transportation Studies, Analyses and Technical Assistance

## Local Technical Assistance Projects

Green St./Merrimack St. Bike and Ped Review (2014)	Lawrence Five Corner Intersection Analysis (2007)
Newbury Plum Island Traffic and Parking Study (2013)	Merrimac Traffic Impact Study Review (2007)
Haverhill Consentino School Speed Zone Plan (2013)	Haverhill Lafayette Square Traffic Impact Review (2007)
Route 108/Rte 110 Intersection Alignment (FFY 2012)	West Newbury Four-Way Stop Sign Analysis (2006)
Route 125 Pedestrian Crosswalk Analysis (FFY 2012)	Storey Avenue Traffic Impacts, Newburyport (2007)
Route 113 Traffic Impact Review (FFY 2012)	Lawrence Industrial Park Rail Siding (2006-12)
Parker St./Merrimack St. Intersection Review (FFY 2011)	Review of Pleasant Valley St. Traffic Study, Methuen (2006)
Haverhill Street Light Identification and Mapping (FFY 2011)	Review of Merrimack St. Development, Methuen (2006)
Improving Pedestrian Access to Central Plaza (FFY 2010)	Chickering St. Signal Warrant Analysis, Lawrence (2005)
Broadway/Lake Street Intersection in Haverhill (FFY 2010)	Water Street Traffic and Parking Study, Lawrence (2005)
Analyze traffic and safety issues in Byfield Village (FFY 2010)	E. Haverhill St./Ferry St. Intersection Study, Lawrence (2005)

## Transportation Studies

Newburyport Storey Ave. Traffic and Safety Study (ongoing)	Winter St/White St. Intersection Study, Haverhill (2010)
Methuen Square Traffic Study (ongoing)	Georgetown Square Intersection Study (2010)
Haverhill Railroad Ave./River St./Moulton Way Study (ongoing)	Route 1/Route 133 Intersection Study, Rowley (2010)
Lawrence Project Development (2013)	Merrimac St/Spofford St Study, Newburyport (2010)
Marston's Corner Intersection Study, Methuen (2013)	Route 114 Corridor Study, Lawrence/N. Andover (2010)
I-495 Ramps/Mass. Ave. Intersection Study, N. And. (2014)	Ames Street/Haverhill Street Intersection Study (2009)
Haverhill St. Corridor Study , Methuen (ongoing)	Main St. Corridor Study, Haverhill (2009)
M&L Branch Trail Feasibility Study, Lawrence (2012/3)	Chickering Road/Mass. Ave. North Andover (2009)
Lafayette Square Safety Study, Haverhill (2012)	Elderly Transportation Plan Update (2009)
Rte 113/Rte 95 Interchange Safety Study, Nbrpt. (2012/3)	Route 125 Build Out Analysis, North Andover (2008)
Rte 213/Rte 28 Interchange Safety Study, Methuen (2012/3)	Disabled Transportation Plan (2008)
Rte 1/Merrimack St. Intersection Study, Newburyport (2012)	MVMPO 2007 Regional Transportation Plan
Elm St./Rte 1 Intersection Study, Newbury (2012)	Lowell Junction IJS, Andover (2006)
Broad St./Rte 495 Interchange Study, Merrimac (2012/3)	Route 1/March Road Intersection Study, Salisbury (2005)
Route 28 Congestion Analysis, Methuen (2012)	Route 125/Merrimack Street Intersection Study (2005)
Merrimack River Trail Reconnaissance Study (2011)	Route 93 Corridor Traffic Study (2005)
Milk St./Route 113 Intersection Study, Methuen (2011)	MVMPO 2003 Regional Transportation Plan
Georgetown Branch Rail Trail Feasibility Study (2011)	MVMPO Environmental Justice Study (2003)
Andover St./Rte.114 Intersection Study, Lawrence (2011)	Northern Essex Com. College Study, Haverhill (2002)
Water St./Broadway Intersection Study, Lawrence (2011)	Route 97 Corridor Study, Haverhill (2002)
MVMPO 2012 Regional Transportation Plan (2011)	

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## Acronyms Used in FFY 2015 UPWP

ADA:	Americans with Disabilities Act	MEPA:	Massachusetts Environmental Policy Act
BOS:	Bus on Shoulder	MOU:	Memorandum of Understanding
CAAA:	Clean Air Act Amendments of 1990	MPO:	Metropolitan Planning Organization
CEDS:	Comprehensive Economic Development Strategy	MVATC:	Merrimack Valley Area Transportation Company
CMP:	Congestion Management Process	MVMPO:	Merrimack Valley Metropolitan Planning Organization
CMAQ:	Congestion Mitigation/Air Quality Program	MVPC:	Merrimack Valley Planning Commission
CTPS:	Central Transportation Planning Staff	MVRTA:	Merrimack Valley Regional Transit Authority
DEP:	Department of Environmental Protection	MVTC:	Merrimack Valley Transportation Committee
DCR:	Dept. of Conservation and Recreation and Recreation	NAAQS:	National Ambient Air Quality Standard
E & D:	Elderly and Disabled	NARC:	National Association of Regional Councils
EDA:	Economic Development Administration	NHPP:	National Highway Performance Program
EIR:	Environmental Impact Report	NHS:	National Highway System
EIS:	Environmental Impact Statement	NMCOG:	Northern Middlesex Council of Governments
ENF:	Environmental Notification Form	NTD:	National Transportation Demand
EPA:	Environmental Protection Agency	PGS:	Priority Growth Strategy
FHWA:	Federal Highway Administration	PPP:	Public Participation Plan
FTA:	Federal Transit Administration	RIF:	Massachusetts Road Inventory File
GIS:	Geographic Information Systems	RPC:	Rockingham Planning Commission
GHG:	Greenhouse Gas	RTP:	Regional Transportation Plan
HOV:	High Occupancy Vehicle	SAFETEA-LU:	Safe Accessible, Flexible, Efficient Equity Act: A Legacy for Users
HPMS:	Highway Performance Monitoring System	SIP:	State Implementation Plan
HSIP:	Highway Safety Improvement Program	SPR:	State Planning and Research Program
ISTEA:	Intermodal Surface Transportation and Efficiency Act of 1991	STIP:	State Transportation Improvement Program
ITS:	Intelligent Transportation Systems	STP:	Surface Transportation Program
LEP :	Limited English Proficiency	TAP:	Transportation Alternatives Program
LRTA:	Lowell Regional Transit Authority	TEA-21	Transportation Equity Act for the 21st Century
MAC:	Massachusetts Aeronautics Commission	TCM:	Transportation Control Measures
MAP:	Mobility Assistance Program	TDM:	Transportation Demand Management Management
MAP-21:	Moving Ahead for Progress in the 21st Century Act	TIP:	Transportation Improvement Program
MAPC:	Metropolitan Area Planning Council	UPWP:	Unified Planning Work Program
MARPA:	Mass. Assoc. of Regional Planning Agencies	3C:	Continuing, Comprehensive, and Cooperative (transportation planning process)
MassDOT:	Massachusetts Department of Transportation	8T&TGM:	Eight Towns and the Great Marsh

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**Task 1.0 - Management and Support of the 3C Transportation Planning Process**

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## **Task 1.1 - Program Management and Support**

### **Description**

Program Management and Support activities include tasks that are necessary to maintain the federally prescribed 3C transportation planning process in the Merrimack Valley region. These include administrative tasks associated with the preparation of transportation plans and programs (i.e. UPWP, TIP, and the RTP), coordination of transportation planning activities with other local, state and regional agencies, contract administration, and staff attendance of seminars and workshops. Also included is staff participation in ongoing transportation studies & analyses being undertaken in the region or in surrounding regions that might impact the Merrimack Valley.

### **Previous Work**

MVPC staff has prepared all necessary financial documents and progress reports for its PL and transit planning contracts with MassDOT and its transit planning contract with the Merrimack Valley Regional Transit Authority. MVPC also prepared newsletters and annual reports, and provided information to the press. This task also allows for MVPC staff to attend meetings of the Transportation Program Managers and to review major transportation programs and documents prepared by state, and federal agencies.

In recent years, the MVPC has increasingly used this task to participate in many transportation planning studies that are being conducted in adjacent regions or supporting groups associated with the implementation of major roadway, bridge or transit projects. Examples of transportation studies are New Hampshire DOT's Capitol Corridor Transit Alternatives Study, NHDOT's Plaistow Commuter Rail Study, and its I-93 Transportation Demand Management Task Force. MVPC was a member of MassDOT's Methuen Rotary Advisory Committee for the Route 110/113 Rotary reconstruction project, the Advisory Committee for the development of the Draft EIS/EIR for the I-93: Lowell Junction Interchange project, and supports the Whittier Bridge Working Group, which is comprised of representatives from MassDOT and local officials from the communities of Amesbury, Newburyport and Salisbury.

At the local level, staff attends Haverhill Traffic and Safety Committee and the Newburyport Traffic and Safety Committee.

### **FFY 2015 Activities**

Each of the activities described below will be performed by the MVPC since this agency is designated as the MVMPO's transportation planning staff. A breakdown of Program Management and Support tasks is shown below:

## Tasks

- 1.1.1 *Review Federal and State Transportation Programs:* Includes staff reviews of federal and state transportation programs, guidelines, circulars and manuals. This includes such documents as the Federal Transportation Authorization legislation, the Commonwealth's State Rail and Freight plans, weMove Massachusetts, GreenDOT Implementation Plan, Transportation Bond Bills, Beyond Boston Transit Study, and the MassDOT Highway Division's Capital Facilities Plan would also be performed under this task, as would Chapter 40, Section 54A reviews of development projects proposed for abandoned rail lines in the region. Staff attendance at workshops sponsored by MassDOT or USDOT would also be performed under this task.
- 1.1.2 *Coordination of Regional Transportation Planning Activities:* The MVMPO will coordinate all its transportation activities with related activities and programs developed by other agencies and authorities in adjacent regions such as the Rockingham Planning Commission in New Hampshire, Northern Middlesex Council of Governments, Metropolitan Area Planning Council, Nashua Regional Planning Commission, and Lowell Regional Transit Authority. Staff will also stay apprised of and activities being undertaken by the Merrimack Valley TMA and Junction TMO in their efforts to relieve congestion in and around Greater Lawrence and the Lowell Junction area of Andover, respectively.
- 1.1.3 *Preparation of Newsletter Articles and 2014 Annual Report Articles:* Transportation staff will prepare articles for inclusion in Regional Review, the MVPC newsletter, which will be published four to five times during the period, and for the MVPC's 2014 Annual Report. This latter document will be prepared in the period from December 2014 through January 2015.
- 1.1.4 *Contract Administration:* Prepare time sheets, progress reports and billings for MVPC's three transportation planning contracts, and perform other contract administration activities necessary to the conduct of the 3C transportation planning process such as staff meetings.
- 1.1.5 *CMAQ Consultation Committee:* Under this task, MVPC staff will prepare CMAQ project descriptions and complete mandated Air Quality impact evaluations and attend meetings of the state's CMAQ Consultation Committee.
- 1.1.6 *Attend Meetings of MVPC and MassDOT Highway Department District 4 Staff:* MVPC transportation planning staff will prepare for and attend meetings with MassDOT District 4 personnel to discuss the status of roadway projects in the Valley, project programming issues, and other transportation-related topics.
- 1.1.7 *MVMPO Participation in Other Regional Studies/Analyses:* MVPC staff will also continue to attend meetings of the Tri-Community Planning Task Force, Tri-Town Project Coordi-

nating and Participating Agency Group, and, if needed, the Route 110/113 Rotary Project Committee In FFY 2014, MVPC will also continue to provide technical and administrative support to the communities of Amesbury, Salisbury and Newburyport in completing a coordinated review of the potential impacts that will arise through the construction of the new bridge to carry Interstate 95 over the Merrimack River.

- 1.1.8 *Attend Transportation Program Managers Meetings:* The Transportation Program Managers Group serves as a primary forum for the exchange of information between the Metropolitan Planning Organizations, MassDOT and USDOT. MVPC staff will be represented at meetings of this group, which occur on roughly a monthly basis.
- 1.1.9 *MVMPO Participation on Community Committees:* MVMPO will participate on local traffic and safety committees, road committees, and other groups that have been created to address transportation issues in the Valley.

**Products/Schedule**

- Tasks 1.1.1-1.1.8 - Resulting products will be produced throughout the FFY 2015 UPWP program period - Ongoing
- Task 1.1.3 - MVPC Newsletters - Ongoing
- MVPC 2014 Annual Report – December 2014/January 2015
- Task 1.1.6 - Attend Meetings with MassDOT District 4 Highway personnel - Ongoing

<b>Funding for Task 1.1 Program Management and Support</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	483	\$50,960
MassDOT	121	\$12,740
FTA Section 5303	223	\$22,104
FTA Section 5307	75	\$7,920
MVPC	75	\$7,506
<b>TOTAL</b>	<b>977</b>	<b>\$101,230</b>

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## **Task 1.2 - Public Participation Process**

### **Description**

An essential component of the federal transportation planning legislation requires that MPOs involve the public in all levels of the transportation planning process. The MVMPO's Public Participation Process is designed to ensure that key public agencies at all levels of government, private and nonprofit organizations and interested citizens are both kept apprised of the development of important MPO documents such as the Regional Transportation Plan and the Transportation Improvement Program and provided with the fullest access to all the transportation planning milestones in the region.

Key participating groups in this process are the Merrimack Valley MPO Members, the MVMPO Working Group, MVMPO Transportation Committee, Merrimack Valley Planning Commission, and Merrimack Valley Regional Transit Authority Advisory Board. However, MVPC-sponsored meetings of local elected officials, the Mayors and Managers Group, regional planners, DPW Directors and area legislators are also important. Through these and the MVPC website, information concerning the status of transportation planning and construction projects as well as transit services in the region are presented and reviewed.

### **Previous Work**

With the passage of SAFETEA-LU in August 2005 and USDOT's release of the Final Rule for Statewide and Metropolitan Planning on February 14, 2007 came the requirement that a new participation plan be developed by MPOs that would broaden the scope of the public outreach process and which identified a number of specific groups that must now be included. Accordingly, the MVMPO created and adopted a regional Public Participation Process in the summer of 2007, which was subsequently updated by the MPO in 2010.

Under the FFY 2014 UPWP, staff prepared numerous public notices and press releases for local newspapers and boards announcing MVMPO meetings, MVMPO Working Group meetings, and public meetings to receive input on MPO documents. There was also a significant expansion of the MVMPO's Stakeholder list, which forms the foundation of this process. Additions included regional Day Care facilities, faith-based organizations, freight carriers, and Public Non-profit organizations.

MVPC staff continued to support its Mayor's and Managers Coalition as well as meetings of a subcommittee of that group, the DPW Directors. MVPC staff was very involved in assisting this latter group in supporting the group's joint procurement efforts for purchasing of selected highway services and equipment. Pursuant to a regional strategy developed by the Directors for meeting FHWA's new traffic sign reflectivity requirements, MVPC staff purchased a retroreflectometer for use in measuring reflectivity. MVPC also worked with the Directors in

evaluating and selecting a software package that can be used by DPW staff to track progress on work orders.

Looking beyond the MVMPO's borders, staff also continued to review materials provided by the Northern Middlesex MPO, Rockingham MPO and the Boston MPO and participated in the annual meeting of the transportation staff of the three northern Boston UZA MPOs.

### **FFY 2015 Activities**

Staff will continue to support the implementation of the Public Participation Plan in the region and the tasks described above. In addition, MVPC will work to implement the other planning-related requirements contained in SAFETEA-LU that apply to this task.

### **Tasks**

- 1.2.1 *Continued Public Participation Plan (PPP) Performance Monitoring:* Staff will continue evaluating the effectiveness of specific PPP components; review PPP Best Practices information among MPOs in general and propose/adopt PPP modifications if required.
- 1.2.2 *Continued Monitoring of MVTC and Stakeholder Outreach Lists:* Additional groups and organizations will be added as warranted and non-participating parties will be removed upon their request.
- 1.2.3 *Implement Public Involvement Process:* Staff will prepare public notices, announcements, documents, presentations and educational tools to be circulated at meetings, posted on MVPC website / social media, or distributed by mail, newspapers or other media as outlined in the MVMPO's Public Involvement Process. *Distribute Required Documents:* MVPC staff will distribute TIP, RTP, and UPWP documents as well as any amendments to these documents in a manner consistent with the MVMPO PPP.
- 1.2.4 *Host Meetings of Merrimack Valley Mayors and Managers Coalition and Area Legislators:* MVPC staff will host and/or attend these meetings to discuss important transportation issues. This task will also contain some staff time devoted to supporting the Mayors and Managers Coalition's DPW Directors Subcommittee.
- 1.2.5 *Merrimack Valley Transportation Committee/MVMPO Working Group:* Provide for and actively encourage public and private participation in the 3C planning process through the Merrimack Valley Transportation Committee (MVTC) and the MVMPO Working Group. Includes scheduling of meetings, preparation of agendas and meeting materials.
- 1.2.6 *Hold MVMPO Meetings:* MVPC staff will provide administrative and technical support to the MVMPO and host meetings of the organization. This task includes scheduling meetings, preparation and distribution of meeting agendas, minutes, and other materials.
- 1.2.7 *Monitor/Participate in MPO and Transportation Committee Meetings for Surrounding MPOs:* Under this task, MVPC staff will attend certain meetings of the Boston, Northern Middlesex, Rockingham and Nashua MPOs including policy and technical committee

meetings. Staff will also attend meetings of other MPOs within the Boston Urbanized Area (UZA), although it is anticipated that this will occur less frequently. Staff will also review the materials prepared by these MPOs to ensure the coordination of all transportation-planning activities. This task will address the federal requirement for interregional transportation planning coordination.

- 1.2.8 *Participate in Northern Boston UZA Meeting:* This group is comprised of transportation staff from the Boston, Northern Middlesex and Merrimack Valley MPOs and meets annually to discuss transportation matters (e.g. projects, data availability, etc.) that cross MPO boundaries.
- 1.2.9 *Adoption of New MOU's:* MVPC staff will complete the process of entering into an agreement with NHDOT, Rockingham MPO, and MassDOT as recommended in the MPO's 2013 USDOT Certification review. USDOT is recommending that this MOU be revised to include performance measurement criteria required in MAP-21.

**Products/Schedule**

- Tasks 1.2.1–1.2.4 - Prepare public announcements; present and distribute documents – Ongoing
- Task 1.2.5 - Meetings with Chief Elected Officials and Legislators – Ongoing
- Task 1.2.7 - MVTC Meeting packets and Committee newsletters - Ongoing
- Task 1.2.9 - Revised Project Evaluation Criteria – As Needed
- Task 1.2.10 - New MVMPO MOUs as Recommended by USDOT – January 2015

<b>Funding for Task 1.2 Public Participation Process</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	314	\$33,280
MassDOT	78	\$8,320
FTA Section 5303	125	\$15,600
FTA Section 5307	0	\$0
MVPC	31	\$3,900
<b>TOTAL</b>	<b>548</b>	<b>\$61,100</b>

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## **Task 1.3 – Unified Planning Work Program (UPWP)**

### **Description**

The Unified Planning Work Program (UPWP) describes all transportation planning activities to be undertaken within the region in the coming federal fiscal year. Most of these activities will be conducted by MVPC transportation staff within that agency's role as the transportation staff for the MVMPO. However, this document must also include descriptions of significant transportation planning studies in the Valley that are to be undertaken by other agencies using federal transportation funds.

### **Previous Work**

MVPC produced draft and final versions of previous MVMPO UPWPs.

### **FFY 2015 Activities**

Under this task in the coming program year the MVPC, in accordance with responsibilities defined in the Memorandum of Understanding for the MVMPO, will prepare the FFY 2016 UPWP for the region. The MVPC will also amend the FFY 2015 document as needed to reflect changes that may occur during the course of the program year.

### **Tasks**

- 1.3.1 *Develop FFY 2016 Unified Planning Work Program:* MVPC will develop the FFY 2014 UPWP for the region which describes all transportation planning activities anticipated to be undertaken in the next program year including, to the extent feasible, those state and locally funded activities which are to be conducted by the MVPC, National Transit, Inc. or other parties.
- 1.3.2 *Amend FFY 2015 UPWP:* Performed as necessary.

### **Products/Schedule**

- Task 1.3.1
  - Draft FFY 2016 UPWP - May/June 2015
  - Endorsed FFY 2016 UPWP - June/July 2015
- Task 1.3.2
  - Amendments to FFY 2015 UPWP - As necessary

<b>Funding for Task 1.3 Unified Planning Work Program</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	94	\$10,480
MassDOT	24	\$2,620
FTA Section 5303	27	\$4,000
FTA Section 5307	0	\$0
MVPC	7	\$1,000
<b>TOTAL</b>	<b>152</b>	<b>\$18,100</b>

## **Task 1.4 - Transportation Improvement Program (TIP)**

### **Description**

The TIP serves as a multi-year document that lists and briefly describes all federally funded transportation projects that are programmed for implementation in the region. Any project that is to be implemented using federal funding must appear in this document and any project that is to be implemented in the coming fiscal year must appear in what is known as the Annual Element. In addition to this project listing, MPOs must demonstrate in the document that there is sufficient funding available to construct these projects and that the existing transportation infrastructure is being adequately maintained.

### **Previous Work**

MVPC staff worked in cooperation with MassDOT Highway Division District 4 and the Office of Transportation Planning to produce the Draft FFY 2015-2018 TIP including the application of the Transportation Evaluation Criteria to projects being considered for inclusion in that document.

MVPC also staff continued to update its database of roadway and transit projects that was used to develop the draft version of the MVMPO's FFY 2015-2018 TIP and will be used in developing the MVMPO's FFY 2016-2019 TIP. Staff continued to conduct qualitative or quantitative assessments of each TIP project's Greenhouse Gas (GHG) Emissions.

The region's FFY 2014-2017 TIP was the first to be developed using MassDOT's *GrantsPlus* transit project and grant management system, which was also used in the development of the Draft FFY 2015-2018 TIP. Regional Transit Authorities provide MassDOT with the capital projects they propose to build over the next four fiscal years using Section 5307 federal funds and state matching funds. MassDOT's Rail and Transit Division then reviews these requests and provides the MPOs with a listing of projects that could be built given available state matching funds. This ensures that the transit project is fiscally constrained.

### **FFY 2015 Activities**

MassDOT and the other members of the MVMPO will continue to work cooperatively to develop a regional priority list of federal aid and non-federal aid transportation projects that will serve as the basis of the FFY 2016-2019 TIP.

MVPC will continue to complete GHG emissions evaluations for those roadway and bridge projects that appear in Appendix A and Appendix B of the TIP.

### **Tasks**

- 1.4.1. *Develop Four-year Program of Projects:* In developing the Draft FFY 2016-2019 TIP, staff will update the list of all transit, highway or air quality projects that are expected to require federal transportation funds for planning and engineering, construction or purchase during the period. In addition to this list of federally-funded projects, the TIP will include:

- For informational purposes, all projects proposed to be funded with Federal funds other than from FHWA and FTA, and
- For informational purposes, all regionally significant projects proposed to be funded with Non-Federal funds. This four-year list of projects shall include the following information:
  - a. Project title;
  - b. Project description;
  - c. Project evaluation score based on MVMPO's application of Transportation Project Evaluation Criteria;
  - d. Project Type (i.e. Construction, Operating, or Maintenance);
  - e. Estimated total cost in the year that the project is to be advertised;
  - f. Amount of federal funds proposed to be obligated during each program year;
  - g. Identification of the intent to use Advance Construction method of funding, when approved;
  - h. Proposed source of funding (federal and non-federal);
  - i. Identification of the recipient/subrecipient and state and local agencies responsible for carrying out the project;
  - j. Identification of those projects that are identified as TCM's in the SIP;
  - k. Quantitative or Qualitative evaluation of each roadway and bridge project's GHG emissions.

Project descriptions shall be of sufficient detail to adequately describe the scope of the project and should match the descriptions shown on MassDOT's project information web page. In addition, the total costs of projects seeking federal funds in each program year shall be comparable to the anticipated level of federal funding expected to be available to the MVMPO.

Also, all project construction costs will be adjusted to reflect their anticipated levels in the fiscal year that they are programmed to be advertised. To accomplish this, baseline construction cost estimates will be increased by 4% per year until the fiscal year they are programmed.

1.4.2. *Preparation of MVMPO Region Draft 2016-2019 Transportation Improvement:* The following tasks and procedures will be performed by the MVPC transportation planning staff in developing the Draft FFY 2016-2019 TIP:

- Insure early involvement of local legislators, chief local officials and citizens through the Public Involvement Process (see Task 1.2);
- Provide technical assistance to municipalities and private interests in developing projects and priorities, and

- Work with the MassDOT Highway Division District 4 Project Engineer, MVRTA Administrator, MassDOT Rail and Transit Administrator, and the Office of Transportation Planning in developing project information.

The Draft FFY 2016-2019 TIP will also include sections on:

- a. The relationship of the TIP to the RTP;
- b. Funding categories and amounts of federal funds proposed to be obligated during each program year;
- c. Previously funded projects and programs, their status, and an explanation of any significant delays in the planned implementation of major projects. The region will specifically identify “investments in pedestrian walkways and bicycle transportation facilities” as required in SAFETEA-LU;
- d. The criteria and process for prioritizing projects;
- e. The Financial Plan that compares revenue needs to revenue sources for highway and transit programs;
- f. Evaluation of how the region is programming transportation funding for the purpose of maintaining the existing transportation network;
- g. Description of the transit funding provisions in MAP-21, and
- h. The GHG emissions associated with each project appearing in the FFY 2016-2019 elements of the document

- 1.4.3. *Endorsement of FFY 2016-2019 TIP:* After the completion of the required public review and comment as outlined in the region’s Public Participation Plan, the MVMPO will endorse the region’s FFY 2016-2019 TIP in late June/early July of 2015.
- 1.4.4. *Amendments to MVMPO’s FFY 2015-2018 TIP:* The MVMPO will endorse amendments to the region’s FFY 2015-2018 TIP as needed throughout FY 2015.
- 1.4.5. *Review Reports on Advertised Projects:* MassDOT will provide quarterly reports to the Massachusetts Association of Regional Planning Agencies (MARPA) concerning the status of planned and advertised road and bridge projects. This report will include information on project funding source, amount, cash expenditures for that fiscal year, and other data. The information in these reports will be reviewed and analyzed by MVPC staff under this task. This information must also be made available on the MVPC website by December 31 for the preceding federal fiscal year.
- 1.4.6. *Review/Revision of Project Evaluation Criteria:* As part of the passage Chapter 46 of the Acts of 2013, the legislature created the Project Selection Advisory Council which was charged with the responsibility of developing the uniform project selection criteria to be used in the development of a comprehensive state transportation plan. The project selection criteria developed under this section shall include a project priority formula or oth-

er data-driven process that shall include, but not be limited to, the following factors including, at a minimum, engineering, condition of existing assets, safety, economic impact, regional priorities, and anticipated cost. MVPC staff will work with MVMPO members to integrate the Advisory Council's new criteria into its own transportation project evaluation process.

- 1.4.7. *Publish List of Projects For Which Federal Transportation Funds were Obligated in FFY 2014:* By January 1, 2015, the MVMPO will develop and make available to the public a list of all of the transportation projects that federal funds were obligated to in FFY 2014.

### ***Products/Schedule***

- |            |  |
|------------|--|
| Task 1.4.1 | - Develop four year program of projects – March – May 2015   |
| Task 1.4.2 | - Release notice of development of FFY 2016-2019 TIP<br>- March 2015   |
|            | - Release of Draft FFY 2016-2019 TIP – May/June 2015   |
| Task 1.4.3 | - Final FFY 2016-2019 TIP including a quantitative air quality analysis of regionally significant major construction projects, consistent with the SIP – June/ July 2015 |
| Task 1.4.4 | - Amendments to MVMPO's FFY 2015-2018 TIP – As needed  |
| Task 1.4.6 | - Revised MVMPO Transportation Project Evaluation Criteria<br>– April 2015   |
| Task 1.4.7 | - List of Federal Obligations for Transportation Projects in FFY 2014<br>– December 2014   |

<b>Funding for Task 1.4 Transportation Improvement Program</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	211	\$21,384
MassDOT	53	\$5,346
FTA Section 5303	39	\$5,520
FTA Section 5307	0	\$0
MVPC	10	\$1,380
<b>TOTAL</b>	<b>313</b>	<b>\$33,630</b>

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## **Task 1.5 - Updating Transportation Web Pages**

### **Description**

The MVPC website transportation pages were developed to provide MVMPO stakeholders and the public with access to the latest information on the MVMPO transportation planning process. MVMPO staff maintains a significant amount of transportation information at [www.mvpc.org](http://www.mvpc.org) detailing the region's '3C' transportation planning process including the Regional Transportation Plan, Unified Planning Work Program and Transportation Improvement Program. In addition specific analyses such as intersection, roadway segment and corridor transportation studies can be found at this site. Staff also posts upcoming meeting notices (MVMPO, MVTC/MVMPO Working Group, Trails Committees, etc.) and prepares a listing of the transportation projects undertaken in the previous federal fiscal year (FFY).

### **Previous Work**

The MVPC website contains a number of transportation pages and links including:

- *Merrimack Valley MPO Documents*
- *Transportation Data Viewer*
- *Title VI/Nondiscrimination*
- *Border to Boston Trail*
- *Complete Streets*
- *Teleworking*
- *Project Development Toolkit*
- *Project Spotlight*

In FFY 2014, MVPC staff added information on the MVMPO's Nondiscrimination Policy, complaint procedure and associated forms. .

MVMPO documents such as draft and final versions of amendments to the region's TIP appear along with notices of MVMPO-related public meetings, the availability of federal and state transportation documents.

### **FFY 2015 Activities**

Under this task, MVPC transportation staff will continue to update and maintain the transportation web pages (including the new Facebook page).

### **Tasks**

- 1.5.1 *Update Transportation Web Pages of MVPC Website and Facebook Transportation Page:* MVMPO staff will continue to update and maintain the transportation content at [www.mvpc.org](http://www.mvpc.org) and the MVPC Facebook Transportation page.

**Products/Schedule**

Task 1.5.1

- Update Transportation Web Pages - Ongoing

<b>Funding for Task 1.5 Updating Transportation Web Pages</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	49	\$3,900
MassDOT	12	\$975
FTA Section 5303	10	\$800
FTA Section 5307	0	\$0
MVPC	2	\$200
<b>TOTAL</b>	<b>73</b>	<b>\$5,875</b>

## **Task 1.6 – Title VI / Environmental Justice / Limited English Proficiency Activities**

### **Description**

Title VI of the Civil Rights Act of 1964, prohibits discrimination based upon race, color, and national origin. Specifically, 42 USC 2000d states that:

*“No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.”*

Other nondiscrimination statutes include the Section 162 (a) of the Federal-Aid Highway Act of 1973 (23 USC 324) (gender), the Age Discrimination Act of 1975, and Section 504 of the Rehabilitation Act of 1973/Americans with Disabilities Act of 1990.

In addition, Executive Orders #12898 (*“Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”*), and #13166 (*“Improving Access To Services For Persons With Limited English Proficiency”*) direct federal agencies to develop strategies to address disproportionately high and adverse human health or environmental effects of their programs on minority and low-income populations. USDOT has subsequently issued Title VI and EJ Circulars to guide MPOs and other transportation stakeholders in implementing nondiscrimination policy and program responsibilities, most recently in October 2012.

The MVMPO’s Nondiscrimination Program activities directly relate to its status as 1) a direct recipient of USDOT planning funds, and 2) indirectly through provision of technical assistance to the MVRTA, a direct recipient of FTA funds. Accordingly, certain tasks contained in each MVMPO UPWP are also part of MVRTA documents prepared and submitted by the MVRTA each FFY.

This MVMPO task is intended to raise awareness and integration of Transportation Equity / Environmental Justice (TE/EJ) principles and needs in the MVMPO’s planning and programming activities as well as in the MVPC’s overall Program work related to transportation. As in previous years, staff will continue outreach efforts to minority, low-income, limited-English-proficiency and elder populations. Much of this work is undertaken through MVRTA staff support (see UPWP Tasks 3.1 and 3.2). For FFY 2014 and beyond, staff anticipates increased effort to integrate TE/EJ awareness through community outreach, specific analyses and reporting in its 3c process, a trend consistent among Federal, Commonwealth and MPO organizations in general.

### **Previous Work**

In FFY 2014, staff continued to implement recommendations that were made at the MPO's April 2013 Certification Review for improving the MPO's Title VI/Environmental Justice/Limited English Proficiency monitoring and outreach program. MVPC staff also met with staff from MassDOT's Office of Diversity and Civil Rights to discuss the recommendations made in the latter's Title VI Workplan for the region. Among these was the need to prepare an update to the

region's Title VI Program. This document, which must be prepared every three years, included a new analysis of protected populations in the region. These new analyses were subsequently completed by MVPC staff at the block-group level of analysis rather than at the Census Tract level as staff had performed previously. The Title VI Program Update for the MVMPO is expected to be completed and adopted in summer 2014.

### **FFY 2015 Activities**

MVMPO staff will continue to increase its familiarity with USDOT/MassDOT Title VI / Environmental Justice / Limited English Proficiency monitoring and reporting requirements and will implement the findings of MassDOT's Title VI Workplan for the region.

### **Tasks**

- 1.6.1 *Staff Training and Coordination with MassDOT and USDOT Compliance:* Staff will attend seminars, work-shops and other training sessions such as webinars sponsored by USDOT and/or MassDOT to improve the quality of the MVMPO's own Title VI / Environmental Justice / LEP monitoring procedures. Staff will continue coordinating with other Massachusetts MPOs to share nondiscrimination best practices information.
- 1.6.2 *Revisit MVMPO Definition of Low Income Population:* The MVMPO uses the measure of 80% of regional median household income to define low income population in the Valley. MVPC Commissioners have expressed concern that such a definition really defines low and moderate income. Staff will review measures used by other MPOs in Massachusetts and around the country to assess the suitability of its existing low-income definition.
- 1.6.3 *Review Universe of Projects to be programmed in FFY 2015-2018 TIP and FFY 2016 RTP:* Staff will complete a 'Benefits and Burdens' analysis to determine how individual projects affect low income and/or minority populations in the region.
- 1.6.4 *Assisted Listening Devices:* Working with MassDOT, staff will take the steps necessary to purchase or gain access to assisted listening devices that will make MVMPO meetings accessible to the hearing impaired.
- 1.6.5 *Provision of Information on MVMPO Nondiscrimination Program Activities, particularly to address Title VI and EJ Compliance:* Staff will present Program updates and recommended actions to the MVMPO and to MVMPO constituents either as needed or as part of general outreach activities. This task includes preparation of the MVMPO Title VI Annual Report that is submitted to MassDOT.
- 1.6.6 *Updates to Community Outreach Contact Lists:* Working with MassDOT's Office of Diversity and Civil Rights, FHWA and FTA, staff will continue to expand the MVMPO's outreach list of Title VI / LEP / Environmental Justice constituent groups.
- 1.6.7 *Translations of MPO Documents/Materials:* In FFY 2014, staff began the process of translating selected entire MPO documents or creating summaries of others into Span-

ish. This effort will continue in FFY 2015 and may be expanded as the MPO continues to refine its public outreach program.

- 1.6.8 *Meetings with Constituent Groups in MVMPO Region.* Staff will continue this work, including preparation and circulation of information according to its Public Participation Plan in all MVMPO communities to increase potential for participation in the MVMPO planning process by protected populations including Title VI and EJ targeted populations as well as the disabled, elders, etc.
- 1.6.9 *Preparation of Title VI Annual Report to MassDOT:* This report summarizes the actions taken by the MPO in the previous year in carrying out its Title VI responsibilities.

**Products/Schedule**

- Task 1.6.1 - Staff training and coordination – Ongoing
- Task 1.6.2 - Low Income Population Definition Study - November
- Task 1.6.3 - Benefits and Burdens Analyses for RTP – January 2015
- Task 1.6.6 - Updates to Community Outreach Contact Lists - Ongoing
- Task 1.6.8 - Attend meeting with Constituent Groups – Ongoing
- Task 1.6.9 - Title VI Annual Report to MassDOT – June 2015

<b>Funding for Task 1.6 Title VI / Environmental Justice / LEP</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	219	\$19,040
MassDOT	55	\$4,760
FTA Section 5303	78	\$6,800
FTA Section 5307	0	\$0
MVPC	20	\$1,700
<b>TOTAL</b>	<b>372</b>	<b>\$32,300</b>

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## **Task 1.7 - Regional Transportation Plan**

### **Description**

The MVMPO Regional Transportation Plan (RTP) is the most important element in the region's 3C planning process. It comprehensively examines the existing transportation network in the region, identifies those issues and problems that either require or will require improvement, and outlines possible courses of action designed to facilitate these improvements. All major forms of transportation in the region are considered and the document is developed so that it is consistent with the region's comprehensive, long-term land use plans as well as any social, economic, environmental, and energy conservation goals and objectives.

The MVMPO will be preparing and endorsing its FFY 2016 RTP under the FFY 2015 UPWP. This document will differ from previous versions in that it will be the first prepared after the enactment of MAP-21, which requires that the nation's transportation system be managed through the application of performance and outcome-based techniques and programs. This legislation also requires that all Regional Transportation Plans consider State and MPO Performance Targets.

### **Previous Work**

The MVMPO's 2012 RTP included the selection of key roadway and transit projects and a determination that the document was fiscally constrained. It also included new RTP sections that addressed how the transportation planning process in the Valley would consider such issues as the impact of the transportation network on the generation of Greenhouse Gases and Climate Change, and how the transportation system could be modified to improve the quality of life ('livability') in the region rather than continuing to be perceived as an impediment to this pursuit. Since the adoption of the FFY 2012 RTP in September 2011, MVPC staff has undertaken a number of tasks that are intended to support the development of the socioeconomic projections that will be used in developing the new RTP. It participated on the Advisory Committee that was created by the Metropolitan Area Planning Council (MAPC) to forecast 2040 population and housing demand for communities in eastern Massachusetts including the 15 cities and towns in the Merrimack Valley. It also held discussions with Regional Economic Models, Inc. (REMI) to determine if the latter's Policy Insight products might be adapted for use by the MVMPO in forecasting TAZ-level employment and population levels that would be used in the upcoming document and performed work on making revisions to the build-out population forecasts for Lawrence, North Andover, Amesbury and Methuen, communities that have seen or expect to see significant reuse of former mill and office buildings as residential or mixed use space (e.g. Union Crossing in Lawrence).

## **FFY 2015 Activities**

The following tasks will be undertaken by the MVMPO in the development of the region's FFY 2016 RTP.

### **Tasks**

- 1.7.1 *Develop Final Community Level Population and Employment Forecasts for the Region:* Staff will work with MassDOT's Office of Transportation Planning to develop an agreed upon set of community population and employment projections for each community in the region for the RTP forecast year of 2040, Forecasts for intermediate years will also be produced. .
- 1.7.2 *Outreach to Communities to Develop Preferred Land Use/Zoning Scenario:* Staff will contact local planners and community development officials to solicit input on their long-term zoning and land use objectives and likely reflect recommendations contained in existing Community Master Plans and strategies being followed to support the development of Priority Development Areas and Priority Protection Areas as identified in the Merrimack Valley Planning Commission's Priority Growth Strategy.
- 1.7.3 *Prepare Traffic Analysis Zone (TAZ)-Based Socioeconomic Projections:* The preferred land use and zoning scenario developed under Task 1.7.2 will influence the distribution of population and employment growth within each community. TAZ- level socioeconomic forecasts that are consistent with the community level forecasts established under Task 1.7.1 will be developed for all communities in the Valley that reflect the anticipated impacts of the preferred land use and zoning scenario. These projections will form the foundation of the transportation demand forecasts that will be produced by the Regional Traffic Model (see Task 2.8).
- 1.7.4 *Modification of Existing Goals and Objectives to Reflect Performance Measures:* (see Task 2.10): The FFY 2012 RTP contains five Goals and 18 Objectives that guide the MPO in developing a safe, efficient and cost effective multimodal transportation network that promotes economic vitality, protects and improves its quality of life while also protecting the environment. Under MAP-21 these or any goals adopted by the MPO include specific Transportation Performance Measures as well as Targets that are based on them so that the MPO may track its progress in meeting its goals. It is anticipated that the modifications of these goals will take place in concert with staff efforts to identify appropriate performance measures and targets for the MPO (see Task 2.10).
- 1.7.5 *Collection of Data Showing the Condition and Utilization of the Regional Transportation Network:* Staff will develop or obtain data relating to the regional transportation network including, but not limited to :

#### From MassDOT

- Latest 3-year Crash Cluster data/locations;
- Condition Data for 240 Bridges;
- Condition of Park and Ride Lots;
- Road Surface Conditions for Limited Access roadways
- Traffic Volumes on Limited Access Roadways

#### From MBTA

- From *State of Good Repair Report*, information on the condition of commuter rail stations, tracks, signals;
- Load factors on commuter rail trains;
- Boardings at commuter rail stations

#### From MVRTA

- Condition of Rolling Stock, Maintenance Facilities and Equipment, and bus terminals;
- Ridership on commuter bus, fixed route bus and demand response services;
- Number of crashes/accidents on commuter bus, fixed route bus and demand response services

#### From MVPC

- Road Surface Conditions for Non-Limited Access federal aid roadways in the Valley;
- Utilization of park and ride lots;
- Traffic Volumes
- Travel Speeds on NHS Roadways;
- Roadway and Transit facilities/services identified in CMP

1.7.6 *Development of Financial Constraint Information Used in the Document: It is anticipated that MassDOT, working in cooperation with FTA and FHWA, will prepare estimates of the amount and type of state and federal transportation funding that will be available to all the MPOs in the state over the time period covered in the RTP. In addition, MVPC will develop an estimate of the amount of Chapter 90 funding that can reasonably be expected for use in maintaining federal aid roadways in the region.*

1.7.7 *Hold Public Outreach Sessions: Three public outreach sessions will be held to introduce the Regional Transportation Plan, describe the Merrimack Valley transportation network, present information generated through Tasks 1.7.5 and 1.7.6 above, and discuss important findings and recommendations from documents such as the MVMPO Bicycle and Pedestrian Plan, MVMPO Public Transportation – Human Services Transit Coordination Plan, MVMPO FFY 2012 RTP and FFY 2015-2018 TIP, MVRTA Regional Transit Plan and *weMove Massachusetts*. Additional presentations will be made to groups serving protected populations in the Valley. All these events will also provide an opportunity for the MVMPO to receive comments and suggestions from the public that will be considered in developing the remainder of the document.*

1.7.8 *Develop Recommendations for Programs and Projects:* Staff will work with MPO members and stakeholders to develop a list of recommended projects programs for inclusion in the RTP based on four inputs:

- Comments received through the public outreach sessions;
- Recommendations for projects and services contained in existing state and regional plans and capital programs;
- Projects suggested through the evaluation of the data on the existing condition of the transportation network, and
- Constraints in available funding.

1.7.9 *Preparation of Draft / Final Versions of MVMPO FFY 2016 RTP:* Staff will prepare a draft MVMPO FFY 2016 RTP that contains the recommended projects and programs developed in Task 1.7.8 along with important information that describes the existing condition of the region's transportation network, identifies the amount of funding that will be available to implement the RTPs recommendations.

Once the MVMPO Draft FFY 2016 RTP has been approved for release to the public by the MPO, the document will be made available for public review and comment as outlined in the MPO's Public Participation Plan. Comments received during the public review and comment period will be brought to the attention of the MVMPO for consideration and appropriate action. Once approved by the MPO, a final version of the RTP will be completed and submitted to MassDOT, FTA and FHWA.

**Products/Schedule**

- Task 1.7.1 - Final Community Level Population and Employment Forecasts for the Region- December 2014
- Task 1.7.2 - Outreach to Communities to Develop Preferred Land Use/Zoning Scenario – October 2014 – January 2015
- Task 1.7.3 - Prepare Traffic Analysis Zone (TAZ)-Based Socioeconomic Projections – February 2015
- Task 1.7.4 - Modification of Existing Goals and Objectives to Reflect Performance Measures-March 2015
- Task 1.7.5 - Collection of Data Showing the Condition and Utilization of the Regional Transportation Network – October 2014 – June 2015
- Task 1.7.6 - Development of Financial Constraint Information Used in the Document - December 2014
- Task 1.7.7 - Hold Public Outreach Sessions- April 2015
- Task 1.7.8 - Develop Recommendations for Programs and Projects – May 2015
- Task 1.7.9 - Preparation of Draft / Final Versions of MVMPO FFY 2016 RTP  
- June/August 2015

<b>Funding for Task 1.7 Regional Transportation Plan</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	718	\$68,400
MassDOT	180	\$17,100
FTA Section 5303	131	\$12,480
FTA Section 5307	0	\$0
MVPC	33	\$3,120
<b>TOTAL</b>	<b>1,062</b>	<b>\$101,100</b>

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## **TASK 2.0 - Data Collection and Analysis Activities**

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## **Task 2.1 - Traffic Monitoring Program**

### **Description**

Traffic volume count data is the most widely used and easily understood method to monitor and measure activity on our roadways. The MVPC has annually gathered traffic volume information on roadways throughout the region since 1983. These counts are taken for a number of important transportation planning purposes including the calculation of accident rates on links and at intersections, for use in MVPC corridor and intersection studies, in refining the regional traffic model, and in response to community requests for traffic counting information. These community requests often call for data on vehicle classification and vehicle speed to be collected.

Counts are also taken at MassDOT-specified coverage locations to aid the state in obtaining data on vehicle miles traveled by road type. This information is submitted to the FHWA each year and is used, in part, to determine the amount of federal highway funding that will be made available to Massachusetts.

### **Previous Work**

Under the FFY 2014 UPWP, MVPC completed approximately 110 traffic counts. Many of these counts were taken at locations needed to better calibrate the regional traffic model.

Since FFY 2010, MVPC has incorporated its traffic counting database into its website to provide the public with an improved method of accessing traffic count information. This is done through the MVPC's *Transportation Viewer*. The Viewer allows public to access traffic count data that has been collected by the MVPC over the years, locate the count locations using Google Maps and view aerial and ground level images of the count station using Pictometry and Google Earth, respectively.

In 2013, MassDOT contracted with Midwestern Software Solutions to manage and administer its traffic data library rather than handling these functions itself. As part of this transition, MassDOT worked with MVPC staff to establish new protocols for collecting and reporting traffic counting data. This included having MVPC staff upload historical traffic volume data collected in 2008 – 2012 to the Midwestern Software Solutions data portal.

### **FFY 2015 Activities**

Under this year's UPWP, MVPC again anticipates conducting approximately 110 traffic counts.

### **Tasks**

2.1.1 *Conduct MVPC Counts:* Conduct counts throughout the region in order to refine and update the traffic database with emphasis on those locations added as a result of adding new links to the traffic model. The MVPC plans to conduct 60 counts for these purposes in FY 2014.

2.1.2 *Conduct MassDOT Coverage Counts:* Take additional counts at MassDOT coverage count locations on undivided highways in the region. The MVPC will conduct 15 such

counts this year for MassDOT to assist in their efforts to estimate the number of vehicle miles traveled on various classes of roadways in the Commonwealth. MassDOT will be submitting this information to FHWA and it will be one of the data sources used to determine the state's highway funding allocation.

- 2.1.3 *Community Requests:* Member communities often request traffic counting information (vehicle classification, volume, or speed counts) at specific locations in anticipation of future developments, to address citizen concerns, etc. The MVPC anticipates conducting 10-15 of these counts under this UPWP.
- 2.1.4 *Count Library:* Maintain a library of traffic counts to be made available to the public. Staff annually updates its library of volume counts by including new information collected by MVPC, MassDOT, and by consultants as part of any traffic studies conducted in the Valley.
- 2.1.5 *Traffic Monitoring System:* Each year, MVPC conducts traffic volume counts at 25 locations in an effort to measure changes in traffic levels. This data, along with volume data collected by MassDOT at the permanent count stations in the region, serves to quantify regional volume growth factors.
- 2.1.6 *Data Submittal:* All counts taken by the MVPC in FFY 2015 will be uploaded directly to the Midwestern Software Solutions (<http://www.ms2soft.com/>) website. Unlike previous years, only electronic data will be submitted.
- 2.1.7 *Community Reports:* Prepare and distribute reports summarizing the traffic counting activities for each community in the region. Paper copies of these reports will be distributed to the chief elected officials, MVPC Commissioners and DPW Directors of each community. Electronic versions of the reports will be emailed to other local officials.
- 2.1.8 *Bicycle and Pedestrian Travel Data:* Many signalized intersections in the Valley operate under video control and many mid-block locations are monitored by hidden cameras. Staff will investigate the feasibility of accessing these video records and using them as means to collect information on bicycle and pedestrian travel.

**Products/Schedule**

- Tasks 2.1.1- 2.1.3 - Conduct traffic volume, classification counts - October 2014 – November/December 2014; April 2015 – September 2015
- Task 2.1.4 - Update MVPC Count Library – December 2014 - January 2015
- Task 2.1.6 - Submittal of Data to MS2 website - December 2014 - February 2015
- Task 2.1.7 - Community reports summarizing 2012 regional traffic counting activities – February - April 2015

<b>Funding for Task 2.1 Traffic Monitoring Program</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	713	\$46,880
MassDOT	178	\$11,720
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>891</b>	<b>\$58,600</b>

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## **Task 2.2 – Regional Pavement Management Program**

### **Description**

Pavement management programs are designed to provide officials with a comprehensive tool to both evaluate the condition of their roadways and cost-effectively program roadway improvement projects. These programs have proven to be persuasive and effective tools in educating the public on road maintenance issues and obtaining funding necessary to support a comprehensive road maintenance program.

In recent years, many communities have expanded their pavement management programs to include other community-owned infrastructure that is usually found in the road right of way. These typically include water and sewer lines, streetlights, fire hydrants, storm drains and, in some cases, even electric boxes.

### **Previous Work**

During FFY 2011, MVPC collected information on the condition of pavement on federal aid arterial and collector roadways in the region in an effort to identify the level of funding needed to maintain the quality of these facilities over the next 20 years. This analysis, which was included in the MVMPO's FY 2012 RTP, showed that \$223 million in roadway resurfacing/reconstruction projects would be needed over the next 23 years to maintain the non-interstate federal-aid roadways in the Valley at 2011 levels. This road surface condition information is also used by MVMPO staff in evaluating the magnitude of the improvement to pavement quality that will occur through the implementation of planned or proposed roadway and intersection improvement projects, one of the criterion used in the Transportation Project Evaluation process.

In FFY 2013, MVPC assisted the City of Amesbury in developing and implementing a pavement management program. Staff also continued to update its database of pavement conditions on federal aid arterial and collector roadways in the region by adding available information on the repair history for roadway segments.

### **FFY 2015 Activities**

MPO efforts in FFY 2015 will focus on collecting road surface condition data for all non-limited access federal aid roadways in the region. This information will be incorporated into the Regional Pavement Management System, which will assess the existing overall condition of roadways in the region and to determine what level of funding will be needed to both maintain the overall condition of roadways over the next 25 years and to improve it. This information will be reflected in the MVMPO's FFY 2016 RTP.

Staff will also continue to review/refine the pavement repair decision matrices that were used in estimating the cost of improving or perhaps even just maintaining the overall condition of the region's federal aid roadway network.

And, as has been the case for many years, MVPC will continue to work with communities to develop local pavement management programs.

In addition to the pavement management activities noted above that will be undertaken using federal and state funds, MVPC staff will be contracting with the City of Haverhill to update its Pavement Management Program. This update will include gathering information on the location and condition of sidewalks throughout the community.

## **Tasks**

- 2.2.1 *Community Assistance:* Continue to assist communities in the region seeking to establish pavement management programs. This assistance will consist of technical support and, if necessary, data collection.
- 2.2.2 *Collect Other Data on Federal Aid Road System:* MVPC will continue to coordinate its data collection efforts with those of DPW directors/engineers from other communities in the region that have pavement management programs both to avoid duplication of effort and to compare assessments of road surface conditions. Staff will also continue to update the pavement repair decision matrices that are used by our pavement in management software to identify appropriate repair/reconstruction strategies needed to maintain the overall condition of the region's federal aid roadway network.
- 2.2.3 *Attend Meetings of the Pavement Management Users Group:* Staff will attend meetings of the Pavement Management Users Group.
- 2.2.4 *Condition Summary of Non-Limited Access Roadways in Valley:* Once road surface condition data has been collected for all non-limited access roadways in the region has been collected, staff will prepare a summary for presentation to the MPO.
- 2.2.5 *Identification of Level of Expenditures Needed to Maintain Condition of Non-Limited Access Roadways in the Region:* Based on the findings contained in the above *Condition Summary*, staff will prepare analyses of how the long-term condition of the region's roadway network would be impacted under alternative funding scenarios. These analyses will be evaluated by the MPO in selecting which scenario will be included in the region's FFY 2016 RTP.

**Products/Schedule**

- Task 2.2.1 - Provide assistance to interested communities in developing pavement management systems - Ongoing
- Task 2.2.2 - Collect Other Data on Federal Aid Road System - Ongoing
- Task 2.2.3 - Attend meetings of Pavement Management Users Group - Ongoing
- Task 2.2.4 - Condition Summary of Non-Limited Access Roadways in Valley – February 2015
- Task 2.2.5 - Identification of Level of Expenditures Needed to Maintain Condition of Non-Limited Access Roadways in the Region - March 2015

<b>Funding for Task 2.2 Pavement Management Studies</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	292	\$23,760
MassDOT	73	\$5,940
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>365</b>	<b>\$29,700</b>

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## **Task 2.3 - Geographic Information Systems**

### **Description**

The MVPC makes extensive use of its Geographic Information Systems (GIS) in all phases of its comprehensive planning program. This is especially true of its transportation planning activities where virtually all map and geographical information used in its transportation planning studies and analyses is now produced and transmitted in digital format. Consequently, it is imperative that MVPC and all RPAs in the Commonwealth continue to have state of the art GIS programs in place to support their own planning studies and analyses and to provide technical assistance to their constituent communities.

### **Previous Work**

Under recent UPWPs, MVPC GIS and transportation staff worked cooperatively on a number of transportation-related issues, which have resulted in:

- Development of a *Traffic Viewer* for the MVPC website
- Creation of a process to develop intersection and roadway improvement plans in GIS-compatible formats
- A GIS-based tool to assist staff in assigning locations to MassDOT crash reports
- Maps that were used in the development of the MVMPO's Bicycle/Pedestrian Plan
- Creation of off-road trail maps in the Valley
- Maps showing the location of sidewalks in the region
- Location of stormwater outfall pipes along public roadways
- Maps showing scenic vistas in the region
- MVRTA route and system maps
- Maps/diagrams used in local and regional transportation studies
- Updated digital aerial imagery used in regional transportation studies

In FFY 2008, MVPC staff worked with communities in obtaining new digital aerial photography through Pictometry, Inc. of Rochester, NY and establishing/installing the aerial imagery in libraries that reside on the computer systems of participating cities and towns. Thirteen of 15 MVPC cities and towns have purchased Pictometry images through MVPC as has the Town of Plaistow, NH. Along with this imagery, MVPC has continued to assist communities by installing accompanying Windows-based software that can be used, among many purposes, to derive accurate ground measurements from the imagery.

Key developments under the FFY 2011 UPWP were the expansion of the MVPC's Traffic Volume Viewer to also shown information on the number of crashes that have taken place at intersections/interchanges on the region's roadway network and the selection of software and devel-

opment of a process by which transportation improvement concept plans can be quickly developed and integrated into the agency's GIS.

MVPC GIS staff also prepared a series of maps that were used in the development of the MVMPO's 2012 Regional Transportation Plan, and updated maps for ongoing Title VI/Environmental Justice monitoring activities and which were presented at the MVMPO's Planning Certification Review, which was held in April 2013.

### **FFY 2015 Activities**

MVPC staff will again be assisting local communities in managing their digital aerial photography databases. This work will include offering additional workshops intended to familiarize new staff persons from participating cities and towns with the use of the Pictometry imagery and software as well as to answer the questions of persons who are working with the product.

MVPC will continue to review any new road centerline files or Road Inventory Files developed by MassDOT and will continue using its GIS in geocoding newly accepted roadways that have been submitted to the state for inclusion in the RIF.

GIS staff will also continue to update the region's on-road and off-road trail maps based on georeferenced data and information received from the communities.

### **Tasks**

- 2.3.1 *Maintain Transportation Database:* MVPC will continue to upgrade its highway planning and transit planning data layers for its GIS. MVPC will continue to work closely with MassDOT's Office of Transportation Planning, its Highway Division, MVRTA, MassGIS, and other public and private agencies to incorporate any information they may have into our transportation database.
- 2.3.2 *Monitor Status of Road Inventory Line File Updates:* Staff will continue to monitor and evaluate MassDOT's progress in developing roadway line files that match up with available orthophotographs.
- 2.3.3 *Attend Regional Data Center and State User Group Meetings:* Staff will participate in preparing for Regional Data Center meetings and will attend meetings of the MassGIS User Group.
- 2.3.4 *Pictometry Data and Software Technical Support:* MVPC staff will continue to assist staff from participating member communities in managing their Pictometry digital aerial image libraries and in the use of the Electronic Field Study software that is used to access and interpret the digital image database.
- 2.3.5 *Pictometry Workshops:* MVPC staff will hold workshops for local officials on how to use both the Electronic Field Study software to access and manage the community and neighborhood level imagery provided through Pictometry.

- 2.3.6 *MVRTA Bus Route Data Layer:* Any changes in the structure of the MVRTA's fixed route system will need to be reflected in a revised bus route data layer. GIS staff will complete any such revisions under this year's UPWP.
- 2.3.7 *New and Revised Off Road Bike Trails Map:* Under previous UPWPs, MVPC developed a series of community off-road trail maps that shows the locations of key trails on publicly accessible land. Working with local trails groups and enthusiasts, MVPC will continue to add new trails to these maps and modify maps of existing trails to reflect changes/improvements that may have been made. Similarly, maps showing the locations of new bike lanes, recently opened bicycle and pedestrian trails will also be prepared..
- 2.3.8 *Maintain/Update Traffic Counting Viewer:* GIS staff will update the MVPC's Traffic Count Viewer with traffic count data collected in FFY 2015.
- 2.3.9 *Transportation Mapping Support:* Provide GIS support and map creation for transportation studies, plans, and analyses. Key among these in FFY 2015 will be the MPO's FFY 2016 Regional Transportation Plan, additional Title VI/Environmental Justice/Limited English Proficiency analyses.

**Products/Schedule**

- Task 2.3.2 - Road Inventory File Updates - Ongoing
- Task 2.3.7 - New and Revised Trails Maps – Ongoing
- Task 2.3.8 - Maintain Traffic Counting Viewer - Ongoing
- Task 2.3.9 - Maps for Regional Transportation Plan  
– November 2014 – April 2015

<b>Funding for Task 2.3 Geographic Information Systems</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	837	\$71,200
MassDOT	209	\$17,800
FTA Section 5303	131	\$12,500
FTA Section 5307	0	\$0
MVPC	33	\$3,125
<b>TOTAL</b>	<b>1,210</b>	<b>\$104,625</b>

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## **Task 2.4 - Congestion Management Process**

### **Description**

The Intermodal Surface Transportation and Efficiency Act of 1991 (ISTEA) created Transportation Management Areas (TMA's) in those urbanized areas of over 200,000. Within these areas, MPOs were given the primary responsibility to develop and implement a Congestion Management System (now Congestion Management Process). This requirement was slightly modified in SAFETEA-LU, but its general intent remains the same under MAP-21. Significantly, MAP-21 did officially set forth the requirement that an MPO's Congestion Management Process include measurable Goals and Objectives that could be tracked through the use of performance measures.

### **Previous Work**

The MVMPO's current Congestion Management Process (CMP) relies on the regional traffic model and existing traffic and transit usage data to identify congested highway, transit, and park-and-ride facilities in the Valley. MVPC staff also employs staff knowledge of the region, the results of traffic studies/reports to identify congested roadways and intersections while ridership data from the MBTA and the MVRTA is used to identify congested transit services/facilities. Additional field data is then collected to confirm and quantify congestion at those locations. From here, specific recommendations are proposed to solve some of these congestion problems. Such recommendations often include a call for a transportation study of the problem. In such cases, the study is included in the region's Unified Planning Work Program. The I-93 Corridor Study, I-495 Corridor Study, and Route 114 Corridor Study were all undertaken or initiated largely based on the findings and recommendations generated by the CMP.

Under the FFY 2014 UPWP, staff continued the process of identifying *potential* performance measures that might be incorporated into the region's CMP. Staff also gained access to data that shows travel times on the NHS roadways in the Valley and began to investigate how this information could be incorporated into the CMP.

### **FFY 2015 Activities**

Much of the effort needed to develop CMP Goals, Measures and Targets will be accomplished under Task 2.10. Staff will, however continue to collect information included under the current CMP such as turning movement counts at congested intersections .

### **Tasks**

2.4.1 *Data collection:* MVPC staff will continue to collect the following data on those corridors identified as being moderately or severely congested in the Merrimack Valley CMP:

- Monitoring usage at park and ride lots throughout the region
- Ridership information on congested transit routes/services
- Turning movement counts at congested intersections

**Products/Schedule**

Task 2.4.1

- Data Collection – Ongoing

<b>Funding for Task 2.4 Congestion Management Processes</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	138	\$13,200
MassDOT	34	\$3,300
FTA Section 5303	17	\$1,860
FTA Section 5307	0	\$0
MVPC	4	\$465
<b>TOTAL</b>	<b>193</b>	<b>\$18,825</b>

## **Task 2.5 - Intermodal Connections with National Highway System / Freight Planning**

### **Description**

With its three interstate highways and other NHS roadways such as Route 213, the Merrimack Valley region offers a number of existing and potential intermodal connection opportunities. The region is also served by four rail lines, two of which provide freight rail access to local businesses (M&L Branch, Industrial Park Spur, both in Lawrence) and one line that carries a substantial amount of interstate freight as well as passenger service (Haverhill Commuter Line). A fourth line currently supports commuter rail service between Newburyport and North Station. Existing intermodal facilities include park and ride lots for commuter bus, commuter rail, and transit services as well as a number of trucking terminals.

Potential intermodal projects could include new rail and airfreight terminals in the region or connections via the NHS to such facilities, existing or planned, nearby in adjacent regions. The continued economic growth of the Valley and surrounding regions has created a situation where the construction of new intermodal facilities becomes more feasible in both the economic and transportation sense.

### **Previous Work**

In FFY 2011, MassDOT completed construction of the expansion of the Newburyport Park and Ride Lot, which is located at the interchange of Route 113 and Interstate 95. MassDOT also completed work on the expansion of the Dascomb Road Park and Ride Lot, which is located adjacent to Interstate 93 in Andover. This project doubled the capacity of this lot and included the construction of numerous amenities that were either substandard or lacking at the old facility.

In FFY 2012, MVPC completed an analysis of the condition and usage of the intermodal facilities in the region with a focus on the park and ride facilities and transit stations located on or near NHS roadways. MVPC also assessed the adequacy of the connections to NHS roadways from truck freight terminals in the region. This analysis considered such factors as the physical condition of the facilities and whether there was peak period congestion on the roadways that connect them to the NHS system. The study also makes recommendations for addressing any of the deficiencies identified.

In FFY 2014, MVPC conducted a survey of freight carriers that operate in the Valley as well as firms that operate their own trucking fleets to solicit their input in identifying problem areas on the region's roadway network.

### **FFY 2015 Activities**

For the FFY 2015 UPWP, MVPC will undertake the following task in support of improving intermodal connections in the Valley:

## Tasks

- 2.5.1 *Development of NHS Projects:* Based on the recommendations contained in the MVPC's NHS Facilities Inventory, MVPC will work with its communities and MassDOT to develop improvement projects that will improve access between key transportation facilities and the region's NHS roadway network.
- 2.5.2 *Review Rail Freight Usage in the City of Lawrence:* MVPC will complete an analysis of existing freight rail service to the City and investigate the potential for expanding this level of service based on existing land uses in the vicinity of the rail lines.

## Products/Schedule

- Task 2.5.1 - Development of NHS Projects – ongoing
- Task 2.5.2 - Analysis of freight rail usage in the City of Lawrence  
– December 2014

<b>Funding for Task 2.5 Intermodal Connections with NHS</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	45	\$4,080
MassDOT	11	\$1,020
FTA Section 5303	8	\$880
FTA Section 5307	0	\$0
MVPC	2	\$220
<b>TOTAL</b>	<b>66</b>	<b>\$6,200</b>

## **Task 2.6 - Regional Transportation Model**

### **Description**

Regional transportation simulation models play a prominent role in the 3C transportation planning process. They are the primary tools used to estimate the traffic impacts that will be generated by projected economic and population growth in the region, an important component of the Regional Transportation Plan. In the MVMPO region, the regional traffic model also plays a critical role in the screening process to identify congested transportation facilities as part of the Congestion Management Process.

MVPC uses the TransCAD transportation modeling software package, as do virtually all of the MPOs in the Commonwealth. The most recent version of the MVMPO's regional traffic simulation model currently consists of over 3,000 roadway links, over 375 internal traffic analysis zones, and 43 external zones that link the region with neighboring areas of Massachusetts and New Hampshire. The number of zones will continue to grow over the years as the MVPC completes more regional traffic studies, which generally require the creation of smaller traffic zones to achieve the desired level of accuracy needed to complete project-level link and intersection analyses.

### **Previous Work**

Under previous UPWPs, staff developed a new 2010 baseline network based on the results from the 2010 US Census and continued to calibrate and refine its model by adding traffic analysis zones.

### **FFY 2015 Activities**

Detailed employment data at place of work may be released by the Massachusetts Executive Office of Labor and Workforce Development sometime in FFY 2014. This information will be incorporated into the model as soon as it becomes available.

In addition, MVPC will continue the task of creating smaller, Census block-based zones in those parts of the Valley where block groups are too large to allow for reasonable assignment of traffic to the network. In most cases, such zones are in the more rural areas in the eastern part of the region where there is little or no employment.

### **Tasks**

- 2.6.1 *Statewide Travel Survey:* Staff will continue to modify the base year model using the results of data for the Merrimack Valley region obtained from the 2010-2011 Statewide Travel Survey.
- 2.6.2 *Model Calibration and Refinement:* Staff will continue to perform tasks as part of the model calibration and refinement process. The most important task in this regard will be the refinement of the model network as needed, through the creation of additional TAZs. Staff will also collect turning movement counts at selected intersections to assess how

well the model is reflecting actual travel patterns and will continue to integrate ATR count data into the model

- 2.6.3 *Model Coordination:* Planning areas surrounding the MVMPO region have also developed transportation simulation models. Traffic zone data and/or volume data from roadways entering the region will be incorporated into the MVPC regional traffic model, as necessary.
- 2.6.4 *Create Year 2040 Transportation Network:* The existing model’s roadway network will be modified to reflect the assumed completion of significant roadway and bridge projects that will be implemented over the next 25 years.
- 2.6.5 *Develop 2040 Travel Forecasts:* :Using the socioeconomic information generated out of Task 1.7, staff will develop travel demand forecasts for the Year 2040 that will be used in the FFY 2016 RTP.

**Products/Schedule**

- Task 2.6.2 - Model Calibration and Refinement - Ongoing
- Task 2.6.4 - Create Year 2040 Transportation Network – March 2015
- Task 2.6.5 - Develop 2040 Travel Forecasts – April 2015

<b>Funding for Task 2.6 Regional Transportation Model</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	188	\$16,808
MassDOT	47	\$4,202
FTA Section 5303	22	\$1,936
FTA Section 5307	0	\$0
MVPC	5	\$484
<b>TOTAL</b>	<b>262</b>	<b>\$23,430</b>

## **Task 2.7 -- Bicycle/Pedestrian/Water Trails Planning**

### **Description**

Interest in creating a non-motorized off-road and on-road network has been growing in the region to the point where nearly every community in the Valley has a trail project either in the planning or development stage. The 2009 ribbon cutting for the Haverhill Riverwalk and the 2010 ribbon cutting of the Salisbury Ghost Trail and Newburyport Rail Trail added to the list of trails and were the culmination of over 10 years of effort to build these facilities. This effort has continued in recent years and the region is about to see the opening of two new trails (Bradford Rail Trail in Haverhill, Clipper City Rail Trail in Newburyport) and the expansion of an existing trail (Phase I of the Powwow Riverwalk in Amesbury).

Each of the above facilities was funded for design and/or construction through the MVMPO as were the Powow Riverwalk in Amesbury and a section of the Haverhill Riverwalk. The MVMPO will continue to be an active partner with MassDOT and our member communities to continue expanding this bicycle and pedestrian trail network.

### **Previous Work**

In 2006, with a Recreational Trail Program grant, MVPC staff worked with member communities to develop off-road trail maps. These maps can be found on the MVPC web site. This work continued over the past few years with GIS work to help Haverhill and Georgetown develop off-road trail guidebooks. This commitment to assisting communities in mapping such trails has carried on over the years and will continue under the FFY 2015 UPWP.

During FFY 2010, in an effort to help our member communities access High Priority Project funding for the Border to Boston Trail, MVPC staff, in partnership with MassDOT, created and managed a competitive funding program. The communities successfully came together to propose one project to develop 100% design of the remaining corridor in the MVPC region for the roughly \$718,000 plus local match. Twenty-five percent design plans for the remaining sections of his trail will be completed by MassDOT in Fall 2012 and Final Design should be completed by Summer 2015.

In FFY 2010, MVPC received a Recreational Trails Grant from the Massachusetts Department of Conservation and Recreation and partnered with the Essex National Heritage Commission and the Northern Middlesex Council of Governments to examine and map a possible route for the Merrimack River Trail. The Merrimack River Trail Reconnaissance Plan was completed in FFY 2012 and helped to redefine the trail's route and refocused local officials' efforts to implement the sections of the facility running through their communities. Also in 2012, MVPC conducted a trail feasibility study of the Old Georgetown Railroad right-of-way to connect the Bradford Rail-Trail to the Border to Boston Trail in Georgetown, and a feasibility study for develop-

ment of a shared use trail on the Manchester and Lawrence (M&L Branch of the former B&MRR in Lawrence.

In FFY 2014, MVPC prepared the Merrimack Valley Bicycle and Pedestrian Plan a document intended to both guide the further development of the bicycle and pedestrian trail network in the Valley and assist communities in improving the condition and safety of their bicycle and pedestrian facilities.

Also in FFY 2014, MVPC worked in cooperation with MassDOT and the Haverhill Police Department to implement an innovative program that will track the behaviors of motorists, bicyclists and pedestrians. The results from this program and those from elsewhere in the state will be used to develop future outreach programs that are intended to promote bicycle and pedestrian transportation.

### **FFY 2015 Activities**

MVPC staff will continue to provide assistance to the Border to Boston communities to develop the trail. Additionally, staff will work with communities in their efforts to develop both on- and off-road bicycle and pedestrian facilities and connections.

The largest task to be undertaken in FFY 2015 will be the implementation of the recommendations contained in the Merrimack Valley Bicycle and Pedestrian Plan.

### **Tasks**

- 2.7.1 *Program Review:* MVPC staff will continue to review any local, regional, state and national policies/reports as they pertain to multi-use, pedestrian, bicycle, and equestrian trails.
- 2.7.2 *Provide Support to the Development of the Border to Boston Trail:* MVPC will continue to work with local trails groups and MassDOT in support of the effort to complete 25% and 100% design plans for the remaining portions of the Border to Boston Multiuse Trail.
- 2.7.3 *Technical Assistance to Communities for Trails in Development:* MVPC will provide technical assistance on other off-road trail projects including the Georgetown Branch trail, extension of the Bradford Rail Trail, Methuen Rail Trail, Merrimack River Trail and Manchester & Lawrence Branch project in Lawrence.
- 2.7.4 *Attend Meetings of the Coastal Trail Coalition and Other Local Bicycle, Pedestrian and Water Trail Groups:* MVPC staff will attend meetings of the Coastal Trails Coalition, Haverhill Trails Committee and other local and/or regional groups in an effort to foster coordination between the various bicycle and pedestrian planning efforts across the region and to provide technical assistance and advice to groups and organizations as they seek to implement improvement projects.

- 2.7.5 *Implementation of Recommendations Contained in Merrimack Valley Bicycle and Pedestrian Plan:* This plan identified a network of regional and local bicycle and pedestrian facilities that will serve the citizens of the region. It also identified areas that were experiencing a high number of bicycle and pedestrian crashes. Staff will provide technical assistance to local officials in developing the trail and pedestrian facilities recommended in the Plan and correcting those parts of the network that are experiencing safety problems.
- 2.7.6 *Promote Safer Bicycle and Pedestrian Transportation:* MVPC will continue to work with communities to examine bicycle and pedestrian safety concerns and identify possible improvements (see Haverhill Police Department tracking program described above). While infrastructure is being built, it must go hand-in-hand with a safety education program. Staff will assess local bike education programs/marketing efforts and provide recommendations for how communities and the region can improve bicycle safety.
- 2.7.7 *Assist Communities in Development of Complete Streets Ordinances:* The Transportation Bond Bill that was passed by the state legislature in spring 2014 included a program that would provide funding to communities that would adopt Complete Streets ordinances and establish goals for increasing bicycling and walking. Staff will work with communities interested in adopting such ordinances by providing examples of similar ones that have been adopted around the state. In addition, staff will assist communities in gathering the data identified required by MassDOT in order for communities to apply for funding under their new program.

### **Products/Schedule**

- |            |   |
|------------|---|
| Task 2.7.5 | - Implementation of Recommendations Contained in Merrimack Valley Bicycle and Pedestrian Plan – Ongoing |
| Task 2.7.7 | - Assist Communities in Development of Complete Streets Ordinances– Ongoing                             |

<b>Funding for Task 2.7 Bicycle/Pedestrian/Water Trails Planning</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	218	\$19,720
MassDOT	54	\$4,930
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>272</b>	<b>\$24,650</b>

## **Task 2.8 - Safety Monitoring System**

### **Description**

This task is designed to provide the MVMPO with a comprehensive planning analysis tool that identifies potential 'hot spot' safety problem areas on the transportation network. Federal transportation planning regulations include a requirement that metropolitan transportation plans should maximize the safety and mobility of people and goods. The importance of USDOT's emphasis on safety may be found in the fact that funding for the Highway Safety Improvement Program has grown substantially under MAP-21. This program provides federal funding for safety-oriented projects that support the goals and objectives of a state's Highway Safety Improvement Program.

Data prepared under this task will also be needed by the MVRTA to incorporate into its Bus/Van operator training. This will assist in increasing awareness for dealing with high crash locations.

### **Previous Work**

Under last year's UPWP, MVPC acquired crash data from MassDOT for the year 2010, which was used in reviewing safety conditions at a number of intersections under study. Staff also participated in Road Safety Audits that were conducted for the Route 133 Corridor in Andover, the intersection of Route 1 and Central Street in Newbury, and in the Route 114 Corridor in North Andover.

### **FFY 2015 Activities**

MVPC will continue to assign crashes to their proper location within the MVPC's crash database. Much of this work will be accomplished using the MassDOT crash data summaries and geospatial information provided through our GIS. Staff will also assign geospatial coordinates to crash summaries where staff feels that enough information is contained in the summary (often placed in the wrong field) data that has been provided by MassDOT. Finally, staff will continue efforts to develop crash rates for intersections in the Valley where large numbers of crashes have taken place. This information is necessary to allow the MVMPO to identify which locations pose a greater crash risk to the public and is needed in developing projects to be funded in whole or in part under the HSIP funding earmark.

### **Tasks**

- 2.8.1 *Obtain Most Recent MassDOT and, Selected Local Police Crash Data:* Staff believes that crash data from 2012 will be available late in July 2015 and facilitate creation of a three-year analysis period of 2011-2013.
- 2.8.2 *Edit MassDOT Crash Data:* MassDOT crash data is reviewed and edited by MVPC so that crashes not assigned GPS coordinates, but with sufficient supporting information to identify where the crash took place, can be given coordinates and thereby be effectively added to the crash database.

- 2.8.3 *Update Estimated Intersection Crash Rates:* Staff will refine the ADT volumes for local roadways that intersect the federal road system as well the ADTs for roadway segments on the federal aid system.
- 2.8.4 *Review State’s Crash Cluster List:* MassDOT prepares a listing of its top crash locations. This list considers a number of factors such as severity of accidents, but does not consider accident rates. Nevertheless, this list provides valuable information on crash locations across the Commonwealth and will be reviewed by MVPC staff when it is released.
- 2.8.5 *Assist in Implementing the Recommendations of the Strategic Highway Safety Plan:* MVPC staff will continue to work with MassDOT to implement the recommendations contained in the Massachusetts Strategic Highway Safety Plan. This would include development of projects that would reduce the number of lane departure crashes in the region along with efforts to develop projects to address safety problems at high-crash locations,
- 2.8.6 *Participation in Road Safety Audits:* Staff will participate in the Road Safety Audits undertaken in the region in FFY 2015.

**Products/Schedule**

- Task 2.8.2 - Edit MassDOT Crash Data – May – July 2015
- Task 2.8.3 - Develop Revised Intersection Crash Rates – Ongoing

<b>Funding for Task 2.8 Safety Monitoring System</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	95	\$7,640
MassDOT	24	\$1,910
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>119</b>	<b>\$9,550</b>

## Task 2.9 – Transportation and Livability

### Description

U.S. Department of Transportation Secretary Ray LaHood has defined Livability as meaning “being able to take your kids to school, go to work, see a doctor, drop by the grocery or post office, go out to dinner and a movie, and play with your kids at the park -- all without having to get in your car.”

The concept of influencing the quality of life of Americans through changes and improvements to the transportation network has been described in many ways and indeed has been an important consideration in the transportation planning process since the enactment of SAFETEA-LU back in 2005. (see Page 6 – Sustainable Development Criteria). What are new are the federal government’s recent efforts to coordinate the actions of three key Departments to make this a reality.

In 2009, USDOT, the Department of Housing and Community Development (HUD), and the Environmental Protection Agency (EPA) formed the Interagency Partnership for Sustainable Communities “to help improve access to affordable housing, more transportation options, and lower transportation costs while protecting the environment in communities nationwide.” These agencies then established the following *Six Principles of Livability* to attain this goal:

- **Provide more transportation choices** to decrease household transportation costs, reduce our dependence on oil, improve air quality and promote public health.
- **Expand location- and energy-efficient housing choices** for people of all ages, incomes, races and ethnicities to increase mobility and lower the combined cost of housing and transportation.
- **Improve economic competitiveness of neighborhoods** by giving people reliable access to employment centers, educational opportunities, services and other basic needs.
- **Target federal funding toward existing communities** – through transit-oriented development and land recycling – to revitalize communities, reduce public works costs, and safeguard rural landscapes.
- **Align federal policies and funding** to remove barriers to collaboration, leverage funding and increase the effectiveness of programs to plan for future growth.
- **Enhance the unique characteristics of all communities** by investing in healthy, safe and walkable neighborhoods, whether rural, urban or suburban.

These six principles are intended to guide these three federal agencies to work in concert in considering and evaluating capital investments.

### Previous Work

In 2009, the MVPC completed its Priority Growth Strategy, which serves as the Regional Land Use Plan for the Merrimack Valley. A fundamental goal of the Commission in preparing this

document was that it should support Sustainable Growth principles as appropriate throughout the region. As noted in the document, the PGS is intended to serve as a tool to realize a shared vision of

“... a region that promotes development in the right place that generates good jobs, new tax revenues, creates affordable housing, stimulates the economy and creates a sense of place. A region that balances growth with preservation, maintains open space and the character of the region, and is served by an effective transportation system...”

The PGS, which is now being updated by MVPC to reflect changes in land use and other areas addressed in the document that have taken place since 2009, contains numerous recommendations for transportation improvements that will improve the region's quality of life in the Valley including improving bicycle and pedestrian transportation to Priority Development Areas, implementing transit services where needed to also serve these areas and relieving roadway congestion that both slows economic growth, degrades the quality of our air and generates greenhouse gases that may have a dramatic impact on our climate.

In FFYs 2013 and 2014, MVPC staff assisted communities that were seeking to implement many of the recommendations included in the PGS and sponsored a number of Livability Workshops that were held in the region to promote livability concepts, such as Complete Streets, which is intended to ensure that the transportation network accommodates all modes of travel. Staff has also been an active participant on the Mayor's Health Task Force in Lawrence, a group that is devoted to promoting healthy living in the City. Promotion of bicycling, walking and transit use is a focus area for this group.

### **FFY 2015 Activities**

MVPC staff will continue to focus on assisting communities with implementing the recommendations contained in the PGS and at the same time to further educate Valley officials and residents on both the benefits of providing a livable community and the various tools, including the Complete Streets approach to managing transportation infrastructure that can be used to accomplish this.

**Staff will also continue to explore how the Infrastructure Voluntary Evaluation Sustainability Tool (INVEST) can be used to assess the sustainability of a program or project against best practices relative to sustainability.**

### **Tasks**

- 2.9.1 *Provide Technical Assistance to Communities Implementing Recommendations Contained in the PGS:* MVPC Staff will assist communities in implementing the transportation livability recommendations contained in the region's Priority Growth Strategy. These implementation activities will be developed in cooperation with the MVRTA and inte-

grated into the Authority's Five Year Capital and Five Year Bus Improvement Design programs.

**Products/Schedule**

Task 2.9.1

- Technical Assistance to Communities – Ongoing

<b>Funding for Task 2.9 Transportation and Livability</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	59	\$5,240
MassDOT	15	\$1,310
FTA Section 5303	17	\$1,600
FTA Section 5307	0	\$0
MVPC	4	\$400
<b>TOTAL</b>	<b>95</b>	<b>\$8,550</b>

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## **Task 2.10 - Development of MVMPO Transportation Performance Measures and Targets**

### **Description**

With the passage of MAP-21 in 2012, Congress mandated that USDOT should establish a performance and outcome-based approach to managing the nation's transportation infrastructure. As noted in Section 150(a) of Title 23, U.S.C.:

*Performance management will transform the Federal-aid highway program and provide a means to the most efficient investment of Federal transportation funds by refocusing on national transportation goals, increasing the accountability and transparency of the Federal-aid highway program, and improving project decision making through performance-based planning and programming.*

The performance and outcome based management approach created in MAP-21 requires that MPO's, state DOTs, public transportation providers and other entities receiving federal transportation funds adopt Performance Measures in a number of key areas. These measures will create a yardstick by which their progress in meeting agency goals and objectives can be measured. These entities must also establish Targets that are based on these measures so that agency effectiveness in meeting their goals can be evaluated.

MAP-21 identifies National Performance Goals in the areas of Safety, Infrastructure Conditions, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, and Reduced Project Delivery Delays. The legislation also requires that USDOT establish the following standards and measures:

- Condition of pavement on the Interstate and National Highway Systems
- Condition of bridges on the National Highway System
- Performance of the Interstate and National Highway System
- Minimum level of pavement condition on the Interstate System
- Serious injuries and fatalities per vehicle mile travelled
- Number of serious injuries and fatalities
- Traffic congestion
- On-road mobile source emissions
- Freight movement
- Transit state of good repair standards
- Transit safety

USDOT is currently preparing rules governing for the development of these Performance Measures and state transportation agencies will have one year from the publication of final rules to establish these measures and targets. Working in cooperation with USDOT and their state

transportation agencies, MPOs will then have 180 days to adopt their own measures and targets.

MVPC staff has noted that the implementation schedule for establishing State and MPO Performance Measures and Targets as described above does not mesh well with the anticipated schedule for developing the MVMPO's FFY 2016 RTP, which will need to be endorsed by the MPO in the summer of 2015. Given the MAP-21 requirement that Metropolitan Transportation Plans include State and/or MPO targets, every effort will be made by MVPC staff to work closely with MassDOT and USDOT to develop Performance Measures and Targets in an accelerated fashion so that they can be considered in the document. It is important to note that these MVMPO Performance Measures must consider the Performance Measures and Targets contained in Chapter 46 of the Acts of 2013, *we Move Massachusetts*, the GreenDOT Implementation Plan, MVRTA Capital Plan and other sources.

### **Previous Work**

During FFYs 2013 and 2014, MVPC staff identified numerous transportation performance measures that are currently in use by MPOs, DOTs and Transit Providers from around the nation. Staff also began to analyze the different ways that data on travel times for all National Highway System roadways in the region could be used to create Performance Measures for Congestion, Mobility, and Freight Movement.

### **FFY 2015 Activities**

Before reviewing the tasks shown below, it should be recognized that the development of many of these Performance *Targets* will require a significant effort from MVPC staff, requiring the management and manipulation of extremely the large databases and many iterations to investigate alternative target levels.

### **Tasks**

2.10.1 *Development of Safety Performance Measures/Targets:* MAP-21 establishes a National Goal of reducing both the number of fatalities and serious injuries that take place on the nation's transportation system as well as the number of such injuries per Vehicle Mile Traveled. Staff will work with MassDOT to obtain information on the specific circumstances surround crashes that result in fatalities and serious injuries so that effective strategies can be identified to reduce their occurrence. Staff will also investigate developing Performance Measures and Targets for reducing the number of fatalities and serious injuries for bicyclists, pedestrians and those using transit. It is anticipated that the Performance Measures/Targets for safety on the transit services in the Valley will come from the MBTA and from the MVRTA through the completion of the latter's Regional Transit Plan.

- 2.10.2 *Development of Freight Movement Performance Measures/Targets:* Guidance released by USDOT regarding this Performance Measure focuses on freight that is shipped on the Interstate System. MVPC now has access to travel time data on NHS System roadways in the region that includes travel times for trucks. Staff will review this truck travel data to see if it can be effectively used in developing Freight Performance Measures and Targets specific to the MVMPO region. At the same time, MVPC will work with MassDOT and the Office of Transportation Planning in identifying other data that can be used in developing Freight Movement Performance Measures and Targets.
- 2.10.3 *Development of Pavement Management Performance Measures/Targets:* In the development of the MVMPO 2012 RTP, MVPC used data on existing road surface conditions to estimate the level of expenditure that would be necessary to maintain federal aid roadways in the region at their current condition over the next 23 years. Given the robust nature of the region's Pavement Management Program, it is anticipated that sufficient information is readily available that can be used in establishing Pavement Performance Measures and Targets for locally-maintained federal-aid roadways in the Valley. Measures and Targets developed by MassDOT for state-maintained roadways in the Valley will also be reviewed as part of this process.
- 2.10.4 *Development of Congestion Reduction Performance Measures/Targets:* It is the goal of MVPC transportation staff to make maximum use of travel time data resources in the region's Congestion Management Process. While MVPC has access to such data on its NHS roadways, staff will make to gather similar data for the rest of the federal-aid network. This data is viewed to be a realistic, "real time" method of both identifying congested roadways in the Valley and in evaluating whether improvements/changes to the transportation network designed to reduce this congestion have been effective. The regional traffic model will continue to be the primary tool used to evaluate the potential impacts that changes to the region's roadway network will have on congestion and travel speeds.
- 2.10.5 *Development of Bridge Condition Performance Measures:* Each year, MVPC staff reviews the latest available data from MassDOT on the condition of the 240 federal aid eligible bridges in the MVMPO region and it is anticipated that the information provided by MassDOT to the MPO will serve as the basis of the Bridge Condition Performance Measures and Targets mandated in MAP-21.

**Products/Schedule**

- Task 2.10.1 - Safety Performance Measures/Targets – January 2015
- Task 2.10.2 - Freight Movement Performance Measures/Targets  
- December 2014
- Task 2.10.3 - Pavement Management Performance Measures/Targets  
– January 2015
- Task 2.10.4 - Congestion Management Performance Measures/Targets –  
February 2015
- Task 2.10.5 - Bridge Performance Measures/Targets – December 2014

<b>Funding for Task 2.10 Transportation Performance Measures</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	299	\$31,040
MassDOT	75	\$7,760
FTA Section 5303	52	\$5,064
FTA Section 5307	0	\$0
MVPC	13	\$1,266
<b>TOTAL</b>	<b>439</b>	<b>\$45,130</b>

**Task 3.0 - Short and Long-Range Transportation Planning Activities**

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## **Task 3.1 -- Elderly and Disabled/ADA Planning**

### **Description**

The MVRTA has traditionally been a leader in the Commonwealth in providing reliable, inexpensive transportation for the elderly and disabled. For example, the MVRTA was the first Authority in the Commonwealth to have a fully accessible fixed route bus fleet.

Continued growth in the elderly population in the region and their demand for non-ADA eligible demand response transportation, coupled with the rapidly increasing demand for mandated ADA-eligible transportation services, continues to create severe budgetary pressures on the Authority. With federal operating subsidies now largely phased out for transit authorities in urbanized areas of 200,000 people or more, the MVRTA must consider a range of options in how to satisfy its obligations under ADA.

### **Previous Work**

Under the FFY 2008 UPWP, MVPC finalized the Coordinated Public Transit-Human Services Transportation Plan for the MVMPO and conducted two rounds of grant applications (January and July/August 2008). It also completed an analysis of transportation issues facing the region's disabled population, which included forecasts of the region's disabled population to 2030, estimates the demand for transit service that will be generated by this group, and recommendations as to the type of transit services that will meet this groups transportation needs.

In FFY 2009, the MVPC completed an update to the Authority's 2004 Elderly Transportation Study that includes an evaluation of the transportation services currently available to older adults in the Merrimack Valley region and contains recommended strategies to meet the goal of increasing senior mobility needs while still meeting the future demands on the paratransit program.

In recent years, MVPC has assisted MVRTA in monitoring its EZTrans and Fixed Bus Route services for ADA compliance. It also assisted the MVRTA in securing funding for the 'Medi Van' program, which provides transportation for disabled persons in the Valley to medical facilities in Peabody and in Boston.

### **Tasks**

- 3.1.1 *Continue to Assist the MVRTA in Complying with ADA Paratransit Requirements:*  
MVPC will assist the MVRTA in reviewing EZTrans Service for compliance with ADA Paratransit requirements.
- 3.1.2 *Assist the MVRTA in Monitoring Compliance with ADA Fixed Route Bus Requirements:*  
The MVPC will survey MVRTA lift maintenance and repair procedures, wheelchair securement system maintenance and repair procedures, and other areas to ensure that Authority is meeting the requirements of Subpart G of Part 37 of the ADA regulations.

- 3.1.3 *Oversight of Mobility Assistance Van Program:* As part of the Mobility Assistance Grant, MVRTA is required to monitor maintenance of MAP vehicles being used by Councils on Aging. MVPC will assist MVRTA in setting up and implementing this process.
- 3.1.4 *Collect and Analyze NTD Demand Response Ridership Data:* Staff will work with MVRTA personnel to collect trip sheets for selected days of the year for the Authority's demand response transportation services and develop the ridership data that is required to be reported to FTA.
- 3.1.5 *Determine Short and Long-Term Demand:* Staff will use senior citizen and disabled population projections included in the Regional Mobility Plan to determine short and long-term demand for the Authority's ADA and Non-ADA services and estimate both the operating and financial impact to present and future MVRTA Special Services operations.

**Products/Schedule**

- Task 3.1.1 - Assist MVRTA in Monitoring ADA Demand Response Requirements – Ongoing
- Task 3.1.2 - Assist the MVRTA in Monitoring ADA Fixed Route Bus Requirements – Ongoing

<b>Funding for Task 3.1 Elderly and Disabled/ADA Planning</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	0	\$0
MassDOT	0	\$0
FTA Section 5303	27	\$3,600
FTA Section 5307	181	\$16,360
MVPC	52	\$4,990
<b>TOTAL</b>	<b>260</b>	<b>\$24,950</b>

## **Task 3.2 — Transit Planning**

### **Description**

The MVRTA is the primary provider of public transportation in the Merrimack Valley region. Through private operators such as the Merrimack Valley Area Transportation Co., Inc. (MVATC), the Authority provides a wide array of fixed route bus and demand-response transit services. Each of the planning tasks described below is being undertaken in support of the services being offered through the MVRTA.

### **Previous Work**

The MVRTA now operates six demand response transit services in the region, these being the Ring and Ride Services in Georgetown, Groveland, Newbury, Salisbury, Boxford and West Newbury as well as demand response service that replaced Route 42 in Methuen, and the former Route 22 in Andover and a section of Route 51 in Newburyport.

FFY 2013 also saw much progress being made in the planning and implementation of major transit capital projects that are being managed by the Authority. Construction was completed on the Haverhill Intermodal Transit Center and on the Amesbury Costello Center.

Also in FFY 2013, the MVRTA and the MVPC produced the Regional Mobility Plan. This Plan combined three previous plans (2007 Coordinated Human Service Transportation Plan, 2008 Elderly Transportation Plan, 2009 Disabled Transportation Plan) into one planning document. The primary purpose of combining these three plans into one plan was to coordinate needs and demands with available financial resources. In this way, the diverse needs of these three population groups could be better served in a more coordinated way.

Finally, the MVRTA has also recently completed a site selection study for an Intermodal Parking Facility in the City of Newburyport and the City Council approved the selection of the Titcomb Street site for the facility.

### **FFY 2015 Activities**

Planning assistance will be provided to the Authority and local officials by the MVPC as follows:

#### **Tasks**

- 3.2.1 *Provide Technical Assistance to the MVRTA and Communities as Required:* In previous years, the MVRTA has asked the MVPC to perform technical analyses on an as-needed basis. This has included such activities as preparing RFPs and evaluating responses, estimating sample size for MVRTA surveys and updating the Authority's fixed route bus maps. Similar transit planning activities will be conducted for the Authority under the FFY 2015 UPWP. MVPC will also provide technical assistance on transit issues to communities, including the Authority's efforts to develop the MVRTA Regional Transit Plan. The MVPC will consult and coordinate with MVRTA prior to any technical assistance on

transit issues that is requested by or would be provided to any MVRTA member community.

- 3.2.2 *Evaluate Pedestrian Access to Transit:* Staff will identify areas where pedestrian access to transit is either poor or unsafe, but there is a high need (i.e. path of travel, access to an employment destination or people at risk due to poor pedestrian infrastructure). Improvements will be identified and, if needed, engineering studies will be undertaken.
- 3.2.3 *Support Mobility Working Group:* MVPC will provide support to maintain the MVRTA Mobility Working Group.
- 3.2.4 *Collect and Analyze NTD Fixed Route Ridership Data:* Working in concert with MVRTA personnel, staff will collect passenger ridership information (i.e. boardings, alightings, passenger miles traveled) for 208 one-way trips on the Authority's fixed route bus system. MVPC will summarize this information, which will then be presented to the MVRTA for submission to FTA.
- 3.2.5 *Update MVRTA's 2013 Regional Mobility Plan:* MVPC will update the region's 2013 Regional Mobility Plan including sections related to the coordination of human services transportation, which will identify improvements that need to be made to the region's transit network to better accommodate residents needs for travel to human services in the Valley.
- 3.2.6 *MVRTA Regional Transit Plan:* The MVRTA will be completing the region's Comprehensive Regional Transit Plan as called for under Chapter 46 of the Acts of 2013. This study will examine ridership trends for each service operated by the Authority, evaluate their performance, and include recommendations to better align service with local and regional demand. The results of this analysis will also be reflected in the MVMPO's FFY 2016 Regional Transportation Plan.

### **Products/Schedule**

- Task 3.2.2 - Study Report for Evaluation of Pedestrian Access to Transit  
- October 2014
- Task 3.2.3 - Support Mobility Working Group – Ongoing
- Task 3.2.5 - 2014 Coordinated Human Service Transportation Plan  
– November 2014
- Task 3.2.6 - MVRTA Regional Transit Plan – June 2015

<b>Funding for Task 3.2 Transit Planning</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	0	\$0
MassDOT	0	\$0
FTA Section 5303	162	\$12,000
FTA Section 5307	609	\$55,720
MVPC	193	\$16,930
<b>TOTAL</b>	<b>963</b>	<b>\$84,650</b>

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### **Task 3.3 – Route 110 (Haverhill St.) / Route 28 (Broadway) Traffic and Safety Study in Lawrence**

#### **Description**

The Merrimack Valley MPO's Congestion Management Process identifies this intersection as one experiencing significant congestion. MassDOT's crash data from the years 2009-2011 identifies this intersection as a Crash Cluster both for motor vehicle crashes and crashes involving pedestrians. Because this intersection experiences both congestion and safety problems, the MVMPO will be conducting a traffic and safety study to identify measures that could be taken to address both these issues.

#### **Previous Work**

MVPC staff has completed a capacity analysis at this intersection in 1995. That study made recommendations to limit double parking on the northbound approach to the intersection to allow vehicles traveling north on route 28 to pass vehicles that were queuing to make left turns onto Haverhill Street.

#### **FFY 2015 Activities**

MVPC transportation staff will complete the following tasks with staff from MassDOT and officials from the City of Lawrence in developing proposed short and long-term improvements to this intersection to correct the safety/capacity deficiencies that now exist.

#### **Tasks**

- 3.3.1 *Meet with Local Officials, MassDOT District 4 and Stakeholders:* MVPC will meet with City officials, MassDOT District 4 staff and area stakeholders to review the proposed scope of the study and its objectives. serve on a Corridor Study Committee. A meeting will then be held with these stakeholders and MassDOT District 4 where MVPC will present the scope of the study and receive any comments that might be included in a revised study scope.
- 3.3.2 *Data Collection:* MVPC staff will collect peak period turning movement counts at the intersection. Crash reports for the most recent three year period available will also be collected and analyzed. Particular attention will be devoted to collecting information on pedestrian activity taking place both at the intersection and along Route 28 just south of the intersection, which is included in the MassDOT Pedestrian Crash Cluster.
- 3.3.3 *Level of Service Analysis:* MVPC will perform capacity analyses for the intersection, and evaluate the capabilities of the traffic signal equipment that is currently in place at this location. The interconnection of this signal with others in downtown Lawrence will also be reviewed.
- 3.3.4 *Conduct Road Audit in the Area:* Staff will present the findings from Tasks 3.3.2 and 3.3.3 to local officials in a Road Safety Audit. This audit will provide MVPC with infor-

mation and suggestions that will facilitate the development of a small range of improvement options that could implemented.

- 3.3.5 *Develop and Evaluate Alternative Improvement Options:* The information obtained through Tasks 3.3.4 and 3.4.3 will be used to develop a small set of improvement options that will then be analyzed in greater detail to determine the impacts they might have in reducing congestion.
- 3.3.6 *Road Safety Audit Study Report:* MVPC staff will prepare draft and final versions of the Road Safety Audit report that outlines the study’s findings and recommendations.

**Products/Schedule**

- Task 3.3.1 - Meeting with Local/MassDOT Officials and Stakeholders– March 2015
- Task 3.3.2 - Data Collection – April 2015
- Task 3.3.4 - Road Safety Audit - May 2015
- Task 3.3.6 - Draft/Final Road Safety Audit Reports– May/June 2015

<b>Funding for Task 3.3 Rte. 110/Rte. 28 Intersection Traffic and Safety Study</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	181	\$14,800
MassDOT	45	\$3,700
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>226</b>	<b>\$18,500</b>

## **Task 3.4 – Downtown Lawrence Traffic Circulation Study**

### **Description**

City officials have long been concerned about traffic circulation in the downtown area. This concern eventually led the City, in 2008, to return Essex Street to two-way traffic operation after nearly 30 years of it being one-way. More recently, the preliminary findings of an area-wide planning study being conducted in the Downtown West area has cited the difficulty of navigating around downtown as a result of the 1-way street system.

The configuration of the roadway network in downtown Lawrence was largely established in the 1970s. However, a number of significant changes in downtown land use have taken place since that time that altered traffic patterns in the area including:

- Relocation of Lawrence High School from Haverhill Street to South Lawrence.
- Opening of Lawrence District Court's Fenton Judicial Center on Appleton Street.
- Opening of Northern Essex Community College campus on Amesbury St. and expansion to Common Street.

### **Previous Work**

MVPC collected turning movement data at many intersections along Essex Street in support of the City's efforts to reinstitute two-way traffic on that thoroughfare. This change was made in 2008. The MVMPO also completed a Road Safety Audit at the intersection of Water Street/Canal Street and Broadway, which is located at the southwest corner of the downtown area.

### **FFY 2015 Activities**

MVPC will undertake the following tasks in conducting this study:

#### **Tasks**

- 3.4.1 *Study Area Definition:* MVPC staff will meet with local officials to identify the roadways and intersections to be included in this analysis. Community Development officials have suggested that the study investigate the feasibility of making Amesbury Street two-way rather than remaining one-way southbound. Another consideration shaping the study's scope is the fact that the intersection of Jackson Street and Common Street appears as a MassDOT 2011 Crash Cluster for both vehicles and pedestrians.
- 3.4.2 *Data Collection:* MVPC staff will perform peak hour vehicle turning movement and pedestrian crossing counts at selected intersections in the study area. These counts will be used to conduct Level of Service analyses at these intersections and to assist in the development and calibration of a traffic model of the downtown area. Automatic Traffic Recorder (ATR) volume counts will also be performed around the periphery of the downtown as part of the process of developing this model.

- 3.4.3 *Data Analyses:* MVPC will then complete a Level of Service analysis of the intersections to determine how well they are performing and to identify the nature and magnitude of any congestion.
- 3.4.4 *Evaluate Feasibility of Converting One-Way Streets to Two-Way Operation:* Staff will examine roadway widths and other factors in determining which one-way streets in the downtown area could accommodate two-way travel. This will include consideration of the impacts any changes to traffic flow would have on MVRTA bus routing and daily operations.
- 3.4.5 *Downtown Lawrence Traffic Model:* Using the data collected under Task 3.4.2, staff will develop a detailed model of the downtown area using its TransCAD traffic model. This model will be used to estimate the impacts on traffic for the various scenarios for changing one-way streets to two-way operation.
- 3.4.6 *Conduct Road Audit in the Area:* Should the Jackson Street/Common Street intersection be included in this study's scope, staff will conduct a Road Safety Audit, which will provide MVPC with information and suggestions as to potential improvements.
- 3.4.7 *Develop Improvement Options:* Through the analyses completed in Task 3.4.3 and the output from the traffic model of the downtown area, staff will develop a set of recommendations for reducing traffic congestion and possibly reconfiguring traffic patterns in the downtown area.
- 3.4.8 *Study Report:* MVPC staff will prepare a report that outlines the study's findings and recommendations.

**Products/Schedule**

- Task 3.4.2 - Data Collection – May 2015
- Task 3.4.5 - Downtown Lawrence Traffic Model – June 2015
- Task 3.4.7 - Improvement Options – July 2015
- Task 3.4.8 - Draft Study Report – July 2015
- Final Study Report – August 2015

<b>Funding for Task 3.4 Downtown Lawrence Traffic Circulation Study</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	482	\$40,000
MassDOT	121	\$10,000
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>603</b>	<b>\$50,000</b>

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## **Task 3.5 – Stormwater Management Technical Assistance**

### **Description**

The Federal Phase II Stormwater Rule published by EPA in December 1999 required operators of municipal separate storm sewer systems (“MS4s”) to develop and implement six *minimum* stormwater management measures:

- 1) public education and outreach;
- 2) public participation and involvement;
- 3) illicit discharge detection and elimination;
- 4) construction site runoff control;
- 5) post-construction runoff control, and
- 6) stormwater pollution prevention/municipal good housekeeping.

Successful implementation of these six measures requires a detailed knowledge of the location, function, and condition of the urbanized areas’ municipal storm drainage infrastructure – storm drains, manholes, catch basins, and outfall pipes – as well as of the receiving waters. Except in the case of more recent subdivisions, such infrastructure information is often incomplete, or is not available in a consistent, retrievable, and user-friendly format.

Developing comprehensive drainage system databases and maps on an individual community basis is an expensive proposition that taxes already strained local DPW and highway department budgets and staff. It also results in map and data products that are not compatible on an intermunicipal, watershed, or Regional Planning District level, as the products will have been developed by different parties using wide-ranging field collection and mapping protocols.

### **Previous Work**

Under the region’s 2001-2002 UPWP, MVPC completed a pilot project in the Town of Georgetown to demonstrate how a smaller community, assisted by MVPC, could go about developing the type of detailed drainage system database that would be necessary to meet the requirements of Phase II Stormwater Rule. Using its GPS and GIS capabilities, MVPC conducted field reconnaissance with Georgetown DPW personnel to locate and inspect stormwater facilities within the community’s Urbanized Area. From this information, a digital storm drainage system inventory and map were created. Local and regional workshops were then held to illustrate how the mapping project was conducted and to showcase the various products and protocols that grew out of it. This information was updated under the region’s FFY 2007 Unified Planning Work Program to include additional areas in Georgetown that were designated as being within the urbanized area as a result of the 2000 U.S. Census.

During FFYs 2010 and 2011, MVPC identified and mapped high priority stormwater runoff problem areas (‘chokepoints’) in Boxford, Georgetown, Groveland, Merrimac, Rowley, Salisbury, and West Newbury. Undersized or damaged culverts and other inadequate drainage facilities in the-

se problem areas either cause or contribute to periodic localized flooding and temporary road closures, as well as chronic soil erosion and receiving water degradation.

During FFYs 2012 and 2013, MVPC staff worked with the communities of Boxford, Georgetown, Groveland, Merrimac, Rowley, and West Newbury to further inventory and map municipal stormwater facilities (catch basins, drain manholes, and outfall pipes), draft stormwater management regulations, and conduct local and regional workshops on the Federal Phase II regulations and stormwater best management practices, including Low Impact Development (LID) techniques.

Under the region's FFY 2014 UPWP, staff continued to work in partnership with the *Greenscapes North Shore Coalition* in organizing and participating in numerous workshops where information related to stormwater runoff and treatment issues were discussed.

Also in FFY 2014, MVPC was successful in securing funding under the Commonwealth Innovation Challenge grant-program that will:

- Develop framework for establishing local/regional stormwater utilities as a funding mechanism to support sustainable, effective, EPA-compliant local stormwater management programs (SWMPs)
- Standardize and incorporate existing local stormwater infrastructure information into a comprehensive, web-based GIS database and mapping system;
- Develop standard stormwater codes, policies, and procedures for operating and maintaining municipal stormwater systems;
- Design and conduct a stormwater training program for local personnel, focusing on pollution prevention and good housekeeping practices for municipal operations and facilities;
- Design and conduct a multi-faceted stormwater public education program, with targeted messaging for four distinct Merrimack Valley audiences: (1) residents, (2) businesses, institutions, commercial facilities, (3) industrial facilities, (4) real estate developers;
- Prepare Request for Proposals (RFP) templates for procurement of common stormwater management services, equipment, and supplies (e.g., catch basin inspections, outfall catchment area mapping, illicit discharge detection, dry- and wet-weather sampling, etc.), and
- Prepare a 'Sustainability Plan' to ensure the Merrimack Valley Stormwater Collaborative's viability and effectiveness over the long term.

## **FFY 2015 Activities**

MVPC will continue to provide Stormwater Management technical assistance to communities in the region, and will broaden its range of services to include the enhanced municipal requirements under the forthcoming Massachusetts Phase II Small MS4 General Permit.

### **Tasks**

- 3.5.1 *Training Workshops and Development of Stormwater Management Regulations/Outreach Materials:* Staff will design and conduct local and regional workshops to inform and train municipal personnel (public works and highway departments, conservation commissions, health boards) on the new Phase II Small MS4 General Permit requirements, including: a) the composition and functioning of an effective local stormwater management committee, b) stormwater facilities inventorying and mapping, c) illicit discharge detection and elimination, d) municipal operations best management practices, and e) stormwater management program (SWMP) financing options (e.g., stormwater utilities). Staff will also draft and customize relevant stormwater management regulations and associated public outreach materials, which are critical to reducing the volume and pollutant loads of uncontrolled stormwater that enters local drainage systems, waterways, and groundwater.
- 3.5.2 *Stormwater Infrastructure Inventorying and Mapping:* Building on previous infrastructure inventorying and mapping work, MVPC will continue to collect and review drainage plans, maps, and reports and will consult with knowledgeable local DPW and highway department personnel in order to map the locations of local stormwater facilities. The emphasis will be on mapping drain pipe locations as well as the catchment areas of outfall pipes. To the extent possible, the collected information will be verified in the field by trained MVPC staff using GPS equipment.
- 3.5.3 *Stormwater Sampling Program Training & Design:* In order to facilitate local compliance with the anticipated new Phase II stormwater quality sampling requirements, MVPC staff will conduct training sessions for municipal personnel and assist in the design of sampling programs that are tailored to the needs of individual communities, or, as appropriate, coalitions of communities. Wherever feasible, and to maximize limited local resources (both personnel and financial), MVPC will work with member communities to design and implement Phase II MS4 stormwater sampling programs on a shared, inter-municipal basis. A detailed description of the sampling programs will be incorporated in the communities' updated 5-year Storm Water Management Programs (SWMPs) to be submitted to EPA and MassDEP.

**Products/Schedule**

- Task 3.5.1 - Training Workshops & Regulations/Outreach Materials – October 2014-  
August 2015
- Task 3.5.2 - Stormwater Infrastructure Inventorying/Mapping – October 2014-  
September 2015
- Task 3.5.3 - Stormwater Sampling Program Training & Design – April 2014 – Sep-  
tember 2015

<b>Funding for Task 3.5 Stormwater Management Technical Assistance</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	210	\$22,000
MassDOT	53	\$5,500
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
CZM/MassBays	110	\$10,000
MVPC	0	\$0
<b>TOTAL</b>	<b>373</b>	<b>\$37,500</b>

## **Task 3.6 - Climate Change**

### **Description**

This task responds to guidance that the MVMPO has received from FHWA and FTA calling for MPOs to “increase their capacity to address climate change in transportation.”

According to the FHWA report, “Integrating Climate Change into the Transportation Planning Process”, there is general scientific consensus that the earth is experiencing a long term warming trend and that human-induced increases in atmospheric greenhouse gases (GHGs), primarily from non-renewable fuel consumption. Global climate change is expected to result in rising sea levels and the increased frequency and severity of damaging weather events, including high-intensity and long-duration storms, coastal storm surges, coastal and inland flooding, and even heat waves, droughts, and wildfire. These climate change impacts pose a potential significant threat to the Merrimack Valley region’s transportation network and services, and thus need to be properly considered and integrated into the region’s future transportation planning and decision-making.

In Massachusetts, the Global Warming Solutions Act (GWSA) was passed in 2008 and is designed to accomplish a range of environmental objectives including the reduction of the state’s greenhouse gas emissions. The Act requires the Commonwealth, on an economy-wide basis, to:

- reduce statewide GHG emissions between 10- 25% from 1990 levels by 2020;
- reduce statewide GHG emissions by at least 80 percent below the 1990 levels by 2050.

The GWSA also requires that the state develop an implementation plan for achieving the required GHG emissions reductions by 2020. This process is now underway. Reports prepared by the consultants working on the Implementation Plan have identified a range of transportation-related policies and measures that can help achieve the required emissions reduction goals. These include the implementation of stricter federal standards for lower GHG emissions from new vehicles, prioritization of transportation projects that preserve the existing transportation system, supporting denser land use development, and promoting the use of alternative forms of transportation (e.g. public transit ridership, bicycling, Teleworking, “trip chaining”, etc.)

### **Previous Work**

Staff began to review higher resolution LIDAR information to identify areas in the Valley prone to flooding.

MVPC staff attended the FHWA's Climate Change Adaptation Peer Exchange and reviewed the Climate Change planning efforts that have been completed or are under way in New England and elsewhere in the nation. This event pointed to the need for the MVMPO to begin the process of assessing the vulnerability of transportation assets to climate change events and identifying those that merit special attention/protection.

MVPC, in partnership with the Great Marsh Coalition, also planned, promoted, and co-sponsored a regional “Sea Level Rise Strategy Symposium” for Merrimack Valley and North Shore municipal officials, non-profit organizations, educational institutions, and the general public. With over 100 people in attendance, this workshop focused on the latest sea level rise projections, state strategies for climate change adaptation, and potential infrastructure impacts from coastal inundation.

### **FFY 2015 Activities**

Once the mapping work described above has been completed, staff will identify flood-prone infrastructure in coastal areas and identify both local and regional transportation facilities that could be impacted. Staff will then work with the MVMPO and our communities to develop a methodology to evaluate how vulnerable these facilities are to flooding and what impact their loss would have on the region's transportation network as well as on infrastructure that is often related to transportation facilities such as water and sewer lines and electric lines.

### **Tasks**

- 3.6.1 *Map Areas Prone to Impacts from Climate Change:* Using LIDAR mapping data when it becomes available, staff will develop regional and community-specific GIS databases and maps depicting those geographic areas that are projected to be at risk from climate change impacts (especially sea level rise, coastal storm surges, and coastal and inland flooding.)
- 3.6.2 *Identify Impacted Transportation Facilities and Services:* Staff will superimpose the projected climate change impact area boundaries onto the latest digital orthophoto GIS maps depicting the region's current (and planned) transportation infrastructure in order to identify specific transportation facilities and services at risk. As part of this, MVPC will identify and map other vulnerable infrastructure 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.
- 3.6.3 *Develop Transportation Infrastructure Vulnerability Assessment Methodology:* Staff will work with local officials and MVMPO members to develop a means of assessing the vulnerability of the affected transportation facilities/services to storm events and identify those that could/should be made more resistant. Staff will consider such factors as availability of alternative routes to serve impacted areas, presence of vital public utilities, location of public safety and medical facilities, evacuation routes, magnitude and duration of impact, and the importance of the facility to the local/state/regional economy.
- 3.6.4 *Host Regional Workshops:* MVPC will design and host a public workshop to inform local officials and partner agencies and organizations on the current status and anticipated impacts of climate change on the Merrimack Valley/North Shore region. To be modeled

after the successful “Sea Level Rise Symposium” of 2012, this event will again target municipal officials as well as regional environmental organizations on risk vulnerability assessment, coastal protection techniques (armoring the coastline versus natural protection), and adaptation strategies.

3.6.5 *Consultation and coordination* will be undertaken by the MPO staff with various statewide and regional organizations, for example, Executive Office of Public Safety and Security (EOPSS), Massachusetts Emergency Management Agency (MEMA), Northeast Homeland Security Advisory Council (NERAC).

**Products/Schedule**

- Task 3.6.1 - Climate change impact area databases and maps – Oct. 2014- November 2014
- Task 3.6.2 - At-risk transportation infrastructure and services maps – January – May 2015
- Task 3.6.3 - Develop Transportation Infrastructure Vulnerability Assessment Methodology – March – June 2015
- Task 3.6.4 - Public workshop & handout maps and materials – Ongoing

<b>Funding for Task 3.6 Climate Change</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	202	\$21,360
MassDOT	50	\$5,340
FTA Section 5303	6	\$600
FTA Section 5307	0	\$0
MVPC	1	\$150
<b>TOTAL</b>	<b>259</b>	<b>\$27,450</b>

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## **Task 4.0 - Other Transportation Studies**

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## **Task 4.1 - Intelligent Transportation Systems (ITS)**

### **Description**

Intelligent Transportation System (ITS) technology's purpose is to maximize the efficiency of the existing transportation network. This technology has the potential to play a prominent role in the MVMPO region where the opportunities to expand existing roadway capacity are limited. Examples of ITS technologies include:

- use of "EZ Pass" transponders at toll booths to reduce delay;
- real-time travel information services for commuters;
- in-vehicle computers for navigation;
- smart phone apps that can provide navigational and real time travel information;
- incident management programs on interstates and major arterial roadways, and
- advanced Traffic Management activities such as coordination of signals.

### **Previous Work**

In 2004, the MVRTA introduced Vehicle Location/GPS-enabled capabilities for all its buses and vans including Interoperability capability on the Authority's communications system. A year later, the decision was made to include the Merrimack Valley region under the umbrella of the Boston ITS Architecture. Inclusion of the Merrimack Valley as well as the other MPO regions within the Boston Urban area was made in recognition of the strong transportation connections that these areas have to Boston via automobile and transit.

In FFY 2010, MVPC staff participated in the stakeholder input meetings that were held in support of MassDOT's effort to update the Boston Regional ITS Architecture. Staff also reviewed the MBTA's ITS Architecture Report to identify what actions being taken by the Authority will have an impact on the services the agency offers either directly to Valley residents (commuter rail) or to residents as they use the other parts of the MBTA system.

In FFY 2010 NHDOT initiated "Open Road Tolling" at its Hampton Toll Booths. Open Road Tolling lanes can process nearly five times as many vehicles as a conventional cash toll lane and 60% more traffic than a dedicated E-Z Pass lane. This was considered significant for the Merrimack Valley region as backups from the Hampton Tolls during the peak summer travel periods have often had spillback effects that impact Interstates 95 and 495 in Massachusetts. However, since the completion of the upgrades to the Hampton toll booths, officials from Amesbury and Salisbury have suggested that congestion on I-95 southbound has increased and claim that the additional throughput provided by the new tolling technology is the cause of this congestion.

In FFYs 2012 and 2013 the MVRTA introduced new fareboxes on its fixed route buses that recognize cards accepted by the MBTA.

## FFY 2015 Activities

A focus area in FFY 2015 will be to fully investigate the data archive for the Boston ITS Architecture area to determine whether the data sources available can be used in developing transportation performance measure called for under MAP-21.

### Tasks

- 4.1.1 *Continue Gathering Information on Existing ITS Projects in Massachusetts:* A number of MPOs around the state are in line to undertake ITS Strategic Deployment Studies. MVPC staff will continue to solicit project updates from these agencies.
- 4.1.2 *Attend Future ITS Conferences and Workshops:* MVPC staff will attend workshops and seminars on ITS as appropriate.
- 4.1.3 *Attend Meetings of Boston Regional ITS Architecture Committee/IITS Integration Strategy:* MVPC staff will continue to attend meetings of the Boston Regional ITS Architecture Committee and participate in the state's efforts to update the Boston Regional Architecture. The MVPC will update the MVRTA and other MPO members on Boston ITS Architecture Committee activities that would impact their present and future activities.
- 4.1.4 *Identify Transportation Data from ITS Architecture and Other Sources:* In addition to working with MassDOT's Office of Transportation Planning to identify ITS Architecture generated transportation data, staff will survey private sources of transportation information. A report outlining the results of MVPC's data search will be prepared and presented to the MVMPO as part of the process of selecting the transportation performance measures that will be used in developing the region's FFY 2016 RTP.

### Products/Schedule

- Task 4.1.1 - Gather Information on ITS Projects – Ongoing
- Task 4.1.2 - Attend ITS Conferences and Workshops – Ongoing
- Task 4.1.3 - Attend Boston Regional ITS Architecture Meetings – Ongoing
- Task 4.1.4 - Transportation Data Inventory – Ongoing

<b>Funding for Task 4.1 Intelligent Transportation Systems</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	56	\$5,000
MassDOT	14	\$1,250
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>70</b>	<b>\$6,250</b>

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## **Task 4.2 - Local Technical Assistance**

### **Description**

Each year, officials from around the MVMPO region request MVPC assistance to address traffic issues in their communities. These requests typically are limited in scope and consist of intersection capacity analyses, review of roadway signage, small-scale parking studies, a review of local traffic regulations, or traffic safety issues. Because of their limited scope and often-urgent timeframe, it is usually infeasible to prepare a scope of services to complete these projects.

### **Previous Work**

Examples of technical assistance projects undertaken under the FFY 2014 UPWP and in other recent years include:

- Preparation of Traffic and Pedestrian Improvement Concept Plans for Plum Island in Newbury
- Recommend improvements for bicycle and pedestrian travel in and around the intersection of Green Street and Merrimac Street in Newburyport.
- Conducted ATR counts on Hancock and Chestnut streets in support of the preparation of 25% plans for the City Branch Rail Trail.
- Reviewed the operation of the traffic signal at the intersection of Route 114 and Chickering Street and prepared a short report for the Mayor of Lawrence.
- Developed School Zone signage and pavement parking plan for the Consentino Middle School in the City of Haverhill

### **FFY 2015 Activities**

MVPC staff will continue to provide technical assistance to member communities and local citizens on an as-needed basis.

### **Tasks**

4.2.1 *Respond to Community Requests for Transportation Data and Analyses:* MVPC staff will respond to small-scale, limited requests for technical assistance in addressing transportation issues in the Valley.

**Products/Schedule**

Task 4.2.1

- Local Technical Assistance - Ongoing

<b>Funding for Task 4.2</b>		
<b>Local Technical Assistance</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	146	\$12,816
MassDOT	37	\$3,204
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>183</b>	<b>\$16,020</b>

## Task 4.3 - Regional Transportation Security

### Description

The events of September 11, 2001 and the tremendous damage caused by Hurricanes Rita and Katrina dramatically raised awareness regarding the security of the nation's transportation system. In the Merrimack Valley region, winter storms have caused severe damage to beach areas on Plum Island in Newbury and major rain events have often resulted in flooding that closes major arterial roadways such as Route 1 in Salisbury and Route 114 near the Lawrence/North Andover line

Federal requirements include security as a factor to be considered by MPOs in the transportation planning process. MPOs are directed that their planning process "...should provide for consideration and implementation of projects, strategies, and services that will increase the security of the transportation system for motorized and nonmotorized users."

### Previous Work

In February 2008, the Merrimack Valley Planning Commission prepared the **Merrimack Valley Multi-Hazard Pre-Disaster Mitigation Plan** *Action Plan to Reduce or Eliminate the Long-term Loss in Human Life and Property from Natural Hazards*. This plan was developed by MVPC in cooperation with 12 of the region's 15 cities and towns pursuant to the Disaster Mitigation Act of 2000 (DMA 2000), which established a national program for pre-disaster mitigation and streamlined the federal administration of disaster relief. This legislation also requires all communities to have a FEMA-approved "Multiple Hazards Mitigation Plan" in order to qualify for FEMA funding under the Pre-Disaster Mitigation (PDM), Flood Mitigation Assistance (FMA), and Hazard Mitigation Grant Program (HMGP). This Action Plan considers the potential impacts for natural disaster events that could conceivably occur in the region including hurricanes, floods, coastal storm surges, wildfires, and other disasters. Included were inventorying and mapping of 12 communities' critical facilities and infrastructure (including transportation), analysis of hazard vulnerabilities, identification of existing protection measures, and development of regional and local mitigation action plans.

In FFY 2012, with funding assistance from MEMA, MVPC began working collaboratively with the region's 15 communities to prepare an updated Merrimack Valley Multi-Hazard Mitigation Plan covering the period of 2013-2018. This work is in progress, and a draft of the updated plan is expected to be submitted for FEMA review by the end of calendar year 2014. The MVRTA will be made aware of the contents of this Plan in order to direct how transportation assets would be made available should an event/incident take place.

MEMA has also completed a Statewide Mass Care and Sheltering Plan and is in the process of preparing a Statewide Evacuation Plan and Local Toolkit to address evacuations of one or more communities for "no notice" and "notice" events. Coordination with this Plan, when completed

later this year, with the Multi-Hazard Mitigation Plan is essential so as to avoid inconsistencies. In 2011, NERAC commissioned a study to assess the emergency transportation needs of the region and investigate the availability of transportation assets and agreements in NERAC communities, including all those in the Merrimack Valley region. This study resulted in the development of the following planning tools for communities to use in improving planning for the evacuation of local populations.

- **Emergency Vehicle Adequacy Calculator (EVAC) Tool** assists communities in estimating the number and types of vehicles that would be necessary to complete an evacuation of a given population within a known time frame;
- **Transportation Asset Database** contains a listing of each transportation asset in the NERAC region.
- **Transportation Availability Workbook** contains a series of worksheets and step-by-step instructions that enable communities to assess their individual levels of transportation readiness and evacuation preparedness

In FFY 2010, the MVRTA became the first transit provider to convert a public transit bus into an Ambu-Bus for use by first responders as a casualty vehicle. The Ambu-Bus can accommodate 12 stretchers and a small number of walk-on patients for treatment and to transport individuals to hospitals. The Authority recently made this vehicle available to the organizers of the 2014 Boston Marathon. The Authority also has two Evacuation Vans available for deployment.

The Merrimack Valley Regional Transit Authority is the transit representative to the Northeast Regional Advisory Council (NERAC) that was established under the Executive Office of Public Safety and chairs the NERAC Working Group on Evacuation Planning.

### **FFY 2015 Activities**

Staff will continue to work with our communities to complete the region's Multi-Hazard Mitigation Plan and to assist local officials in obtaining its adoption. Staff will continue to monitor information from USDOT, NARC, AAMPO and other sources on this subject to determine what basic elements should be addressed by an MPO in evaluating its transportation network. It will review and evaluate the ongoing activities of other RPAs and MPOs around the nation in this matter and assess their potential applicability in the MVMPO region. MVPC staff will then report back to the MVMPO to discuss what actions should be taken to address this issue either through an amendment to this UPWP or as a task in the FFY 2016 UPWP.

### **Tasks**

- 4.3.1 *Review Developments in Transportation Security Planning:* Staff will continue to monitor materials and policies of transportation security that are issued by, NERAC, USDOT and state transportation agencies.

- 4.3.2 *Complete Merrimack Valley Region Multi-Hazard Mitigation Plan:* This document is designed to help local and state emergency management officials assess and mitigate risks to public safety and infrastructure in the Valley, including key transportation infrastructure, from natural disaster events. It is anticipated that the draft version of this document will be completed later this year and submitted to MEMA, which will then provide comments on the document.
- 4.3.3 *Assist in Merrimack Valley Region Multi-Hazard Mitigation Plan Adoption:* The Multi-Hazard Mitigation Plan must be approved by each community in the region before it will be recognized by MEMA. To assist in this effort, MVPC staff will provide information to local officials to present to their Boards of Selectmen and City Councils and, when requested, attend public meetings where the adoption of this Plan will be discussed and/or action taken.

**Products/Schedule**

- Task 4.3.1 - Review Developments in Transportation Security Planning  
- Ongoing
- Task 4.3.2 - Draft Multi-Hazard Mitigation Plan – Sept –Oct. 2014  
- Final Multi-Hazard Mitigation Plan -- January 2015
- Task 4.3.3 - Assist Communities in Adopting Multi-Hazard Mitigation Plan  
- Ongoing

<b>Funding for Task 4.3 Regional Transportation Security</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	56	\$6,840
MassDOT	14	\$1,710
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>70</b>	<b>\$8,550</b>

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## **Task 4.4 – County Road Adjudication**

### **Description**

Chapter 336 of the Acts of 2006 amended several sections of Chapter 82 of Massachusetts General Laws governing the alteration, relocation and discontinuance of county roads. Section 1 of Chapter 82, as amended, states that regional planning agencies have the responsibility to “lay out, alter, relocate and discontinue highways and order specific repairs thereon” in those areas where no county government or council of governments exists. The General Court also mandated that the regional planning agencies in such areas create regional Adjudicatory Boards to take actions on any proposed changes to county roadways in their jurisdiction. With the dissolution of Essex County in 1996, the Merrimack Valley Planning Commission fell under this requirement.

The Merrimack Valley Planning Commission Adjudicatory Board is comprised of five members:

- MVPC Chairman
- MVPC Vice Chairman
- MVPC Secretary
- MVPC Treasurer
- MassDOT District 4 Highway Director (or designee)

### **Previous Work**

The Merrimack Valley Planning Commission Adjudicatory Board has taken the following actions since its creation:

- Approved a request from the Town of Amesbury to discontinue a section of county road layout near the intersection of Routes 150 and 110. (June 2009).
- Approved a request from the Town of Boxford to discontinue a section of county road layout for Towne Road, which is located near the North Andover town line. (September 2011)
- Approved a request from the City of Amesbury to discontinue a sliver of the old County Road layout along Route 110 just east of the intersection where a discontinuance was approved in 2009. (September 2012)
- Approved a request from the Town of Merrimac to discontinue the section of River Road that lies between Skunk Road and a point just east of its intersection with Middle Road, which had been severely damaged by storms in 2006 and 2010. (October 2013).

### **FFY 2015 Activities**

MVPC staff will continue to implement and refine the review and approval process for the relocation/discontinuance of county roadways and roadway layouts that are located on or adjacent to federal aid-eligible roadways in the region.

## Tasks

4.4.1 *Implement/Amend Merrimack Valley Region County Road Adjudication Board and Roadway Review Process:* MVPC will implement and, as needed, amend the process for the review of requests to alter county roadways.

## Products/Schedule

Task 4.4.1

- Implement Adjudication Process – Ongoing

<b>Funding for Task 4.4 County Roads Adjudication</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	22	\$2,400
MassDOT	5	\$600
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>27</b>	<b>\$3,000</b>

## FFY 2015 UPWP Task Funding Summary

Task	Description	FHWA (PL) /	MassDOT	FTA/ MassDOT Sect. 5303	FTA/ MVRTA Sect. 5307	MVPC	CZM/ MassBays	FFY 2015 TOTAL
1.1	Program Management & Support.	\$50,960	\$12,740	\$22,104	\$7,920	\$7,506		\$101,230
1.2	Public Participation Process	\$33,280	\$8,320	\$15,600		\$3,900		\$61,100
1.3	Unified Planning Work Program	\$10,480	\$2,620	\$4,000		\$1,000		\$18,100
1.4	Transportation Improvement Program	\$21,384	\$5,346	\$5,520		\$1,380		\$33,630
1.5	Updating Transportation Web Pages	\$3,900	\$975	\$800		\$200		\$5,875
1.6	Title VI/Environmental Justice/LEP Activities	\$19,040	\$4,760	\$6,800		\$1,700		\$32,300
1.7	Regional Transportation Plan	\$68,400	\$17,100	\$12,480		\$3,120		\$101,100
2.1	Traffic Monitoring Program	\$46,880	\$11,720	\$0		\$0		\$58,600
2.2	Regional Pavement Management Program	\$23,760	\$5,940	\$0		\$0		\$29,700
2.3	Geographic Information Systems	\$71,200	\$17,800	\$12,500		\$3,125		\$104,625
2.4	Congestion Management Process	\$13,200	\$3,300	\$1,860		\$465		\$18,825
2.5	Intermodal Connections to NHS System/Freight Planning	\$4,080	\$1,020	\$880		\$220		\$6,200
2.6	Regional Transportation Model	\$16,808	\$4,202	\$1,936		\$484		\$23,430
2.7	Bicycle /Pedestrian /Water Trails Planning	\$19,720	\$4,930	\$0		\$0		\$24,650
2.8	Safety Monitoring System	\$7,640	\$1,910	\$0		\$0		\$9,550
2.9	Transportation and Livability	\$5,240	\$1,310	\$1,600		\$400		\$8,550
2.10	Development of Transportation Performance Measures	\$31,040	\$7,760	\$5,064		\$1,266		\$45,130
3.1	Elderly and Disabled / ADA Planning	\$0	\$0	\$3,600	\$16,360	\$4,990		\$24,950
3.2	Transit Planning	\$0	\$0	\$12,000	\$55,720	\$16,930		\$84,650
3.3	Route 110 / Route 28 Traffic Study in Lawrence	\$40,000	\$10,000	\$0		\$0		\$50,000
3.4	Downtown Lawrence Traffic Circulation Study	\$14,800	\$3,700	\$0		\$0		\$18,500
3.5	Stormwater Management Technical Assistance	\$22,000	\$5,500	\$0		\$0	\$10,000	\$37,500
3.6	Climate Change	\$21,360	\$5,340	\$600		\$150		\$27,450
4.1	Intelligent Transportation Systems	\$5,000	\$1,250	\$0		\$0		\$6,250
4.2	Local Technical Assistance	\$12,816	\$3,204	\$0		\$0		\$16,020
4.3	Regional Transportation Security	\$6,840	\$1,710	\$0		\$0		\$8,550
4.4	County Road Adjudication	\$2,400	\$600	\$0		\$0		\$3,000
	TOTAL	\$572,228	\$143,057	\$107,344	\$80,000	\$46,836	\$10,000	\$959,465

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# Self Certification Compliance Statement



## Merrimack Valley Metropolitan Planning Organization Self Certification Compliance Statement

Concurrent with the submittal of the proposed FFY 2015 UPWP to the FHWA and the FTA, the MPO Policy Board shall certify that the metropolitan transportation planning process is being carried out in accordance with all applicable requirements including:

1. 23 U.S.C. 134, 49 U.S.C. 5303, and this subpart;
2. In nonattainment and maintenance areas, sections 174 and 176 (c) and (d) of the Clean Air Act, as amended (42 U.S.C. 7504, 7506 (c) and (d)) and 40 CFR part 93;
3. Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d-1) and 49 CFR part 21; 49 U.S.C. 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity;
4. Section 1101 (b) of the SAFETEA-LU (Pub. L. 109-59) and 49 CFR part 26 regarding the involvement of disadvantaged business enterprises in USDOT funded projects;
5. 23 CFR 230, regarding the implementation of an Equal Employment Opportunity Program on Federal and Federal-aid Highway construction contracts;
6. The provisions of the American with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) and 49 CFR parts 27, 37, and 38;
7. The Older Americans Act, as amended (42 U.S.C. 6101), prohibiting discrimination on the basis of age in programs or activities receiving Federal financial assistance;
8. Section 324 of title 23 U.S.C. regarding the prohibition of discrimination based on gender; and
9. Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) and 49 CFR part 27 regarding discrimination against individuals with disabilities;
10. Anti-lobbying restrictions found in 49 USC Part 20. No appropriated funds may be expended by a recipient to influence or attempt to influence an officer or employee of any agency, a Member of Congress, in connection with the awarding of any Federal contract.

### Signatory Certification:

\_\_\_\_\_  
Richard A. Davey  
Secretary/CEO Mass DOT

\_\_\_\_\_  
Joseph Costanzo  
MVRTA Administrator

\_\_\_\_\_  
James Fiorentini  
Mayor of Haverhill

\_\_\_\_\_  
Daniel Rivera  
Mayor of Lawrence

\_\_\_\_\_  
Francis DePaola,  
MassDOT Highway  
Division Administrator

\_\_\_\_\_  
Curt Bellavance  
Town of North Andover

\_\_\_\_\_  
Dennis DiZoglio  
MVPC Executive Director

\_\_\_\_\_  
Stuart Egenberg  
Town of Georgetown

\_\_\_\_\_  
Kenneth Gray  
Mayor of Amesbury

\_\_\_\_\_  
Robert Snow  
Town of Rowley

Date: June 25, 2014

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# MVMPO Signatory Endorsement Page



## **MERRIMACK VALLEY METROPOLITAN PLANNING ORGANIZATION ENDORSEMENT**

### **MERRIMACK VALLEY REGION FEDERAL FISCAL YEAR 2015 UNIFIED PLANNING WORK PROGRAM**

The undersigned representatives on the Merrimack Valley Metropolitan Planning Organization hereby endorse the Merrimack Valley region's Federal Fiscal Year 2015 Unified Planning Work Program.

\_\_\_\_\_  
Richard A. Davey  
MassDOT Secretary/CEO

\_\_\_\_\_  
Joseph Costanzo  
MVRTA Administrator

\_\_\_\_\_  
James Fiorentini  
Mayor of Haverhill

\_\_\_\_\_  
Dennis DiZoglio  
MVPC Executive Director

\_\_\_\_\_  
Francis DePaola  
MassDOT Highway Division Administrator

\_\_\_\_\_  
Daniel Rivera  
Mayor of Lawrence

\_\_\_\_\_  
Curt Bellavance  
Town of North Andover

\_\_\_\_\_  
Robert Snow  
Town of Rowley

\_\_\_\_\_  
Kenneth Gray  
Mayor of Amesbury

\_\_\_\_\_  
Stuart Egenberg  
Georgetown Selectman

Date: June 25, 2014

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## **Comments Received on MVMPO Draft FFY 2015 UPWP and Actions Taken**

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## MassDOT's Comments for MVPC's Draft FFY 2015 UPWP and Actions Taken

- Please expand the acronyms in the document as appropriate.  
*Action: Acronyms added.*
- Page 2 – MPO Membership, please remove “Acting” for the MassDOT Highway Division Administrator.  
*Action: Change made.*
- Page 7, State Transportation Restructuring – For Point 2 replace Mass Transit with MassDOT Rail and Transit. Add “taking public transit” for second bullet under GreenDOT.  
*Action: Change made.*
- Page 12, Strategic Highway Safety Plan – Rephrase the last sentence in the second paragraph.  
*Action: Last sentence rephrased.*
- Page 39 – Products/ Schedule, Task 1.3.1, change “FFY2015 UPWP” to “FFY2016 UPWP”.  
*Action: Change made.*
- Page 41 – Previous Work, Rephrase the last two sentences of the second paragraph.  
*Action: Sentences rephrased.*
- Page 44- Products/ Schedule, Task 1.4.7, Change “Federally” to “Federal”.  
*Action: Change made.*
- Page 50 – Previous Work, Correct the second sentence of the first paragraph.  
*Action: Sentence corrected.*
- Page 69 – Previous Work, Rephrase Bullet 4. Under FFY2015 Activities, fix the second sentence.  
*Action: Bullet 4 rephrased; second sentence under "FFY 2015 Activities" modified.*
- Page 89 – Task 2.10, rephrase the second paragraph.  
*Action: Second paragraph rephrased.*
- Pages 90-91 – Tasks 2.10.1, 2.10.2, 2.10.4, fix the grammar errors and rephrase the entire text in task 2.10.2.  
*Action: Tasks 2.10.1 – 2.10.4 have been rewritten.*
- Page 127 – Task 4.4, the FFY2015 activities are missing.  
*Action: "FFY 2015 Activities" title corrected.*

- There is no mention of alternative fuel vehicle/EV charging station initiatives. Preferred parking at new Newburyport Park and Ride might be an option to consider.

*Action: Reference added under "GreenDOT" section in the Introduction.*

- Livability/complete streets section could be included in the document.

*Action: "Previous Work" and "FFY 2015 Activities" sections of Task 2.9 modified to include references to Complete Streets.*

- Although there is significant mention of multimodal commuting and transportation initiatives, there seemed to be no solid initiative mentioned to encourage alternative transportation/commuting and mode shift. Possibly including information and outreach on commute alternatives, for example promoting MassRides, NuRides (statewide ride matching system), etc. will reiterate MVPC's support and commitment towards mode shift.

*Action: Reference added under "GreenDOT" on Page 9.*

- Include the Title VI Disclaimer and translation services availability information at the beginning of the document.

*Action: Title VI Disclaimer added on Page i.*

- Please include the certification statement at the beginning of the document.

*Action: Certification Statement added to Page 131 of the document.*

## MVRTA's Comments for MVPC's Draft FFY 2015 UPWP and Actions Taken

Comments on Draft 2015 UPWP submitted By MVRTA

6/4/2014

1. Page 3: Change Merrimack Valley Regional Transit Authority Regional Transit Plan to Merrimack Valley Regional Transit Authority Strategic Plan.

*Action: Change made.*

2. Page 15: FHWA Priorities: The description of Ladders of Opportunity does not match that included in the jointly released FTA/FHWA 4/23/2014 letter.

*Action: Description replaced.*

3. Page 32: Task 1.1, subtask 1.1.1: There appears to be an incomplete sentence at the end of this section

*Action: Sentence completed.*

4. Page 55: Task 1.7, subtask 1.7.7: Correct reference from MVRTA Transit Development Plan to MVRTA Regional Transit Plan.

*Action: Change made.*

5. Page 83: Task 2.8: Data prepared under this task will be needed by MVRTA to incorporate into Bus/Van operator training. This will assist in increasing awareness during training of high accident prone locations.

*Action: Sentence added to "Description" section of Task 2.8.*

6. Pages 97-98: Task 3.2, subtask 3.2.5: In 2013 the MVRTA and the MVPC produced the Regional Mobility Plan. This Plan combined three previous plans (2007 Coordinated Human Service Transportation Plan, 2008 Elderly Transportation Plan, 2009 Disabled Transportation Plan) into one planning document. The primary purpose of combining these three plans into one plan was to coordinate needs and demands with available financial resources. In this way the diverse needs of these three population groups could be better served in a more coordinated way. Producing a separate Coordinated Human Services Transportation Plan will go back to creating a plan for Human Service Transportation which will be uncoordinated with other plans and further create a separate Human Service Transportation system.

*Action: "Previous Work" section of Task 3.2 was revised and Task 3.2.5 was rewritten.*

7. Page 104: Task 3.4: It will be extremely important for the MVRTA to be involved in this Study. Changes to one way versus two way streets will have a direct effect on bus routing and overall daily operations.

*Action: Task 3.4.4 rewritten to include consultation with MVRTA.*

8. Page 124: Task 4.3

- a. Under previous work paragraph 2...a draft of the updated Plan is expected to be submitted for FEMA or MEMA ??? review....
- b. The MVRTA also has an Evacuation Bus and 2 Evacuation Vans available for deployment
- c. MEMA has also completed a Statewide Mass Care and Sheltering Plan which should be incorporated into this task
- d. MEMA is also in the process of preparing a Statewide Evacuation Plan and Local Toolkit to address evacuations of one or more communities for no notice or notice events. Coordination with this Plan, when completed later this year, is essential to this UPWP task so as to avoid duplication with MEMA Plans. The MVRTA must also be aware of the contents of this Mitigation Plan in order to know how transportation assets would be made available should an event create the need to deploy these assets.
- e. The MVRTA chairs the NERAC Working Group on Evacuation Planning

*Action: Above references included in "Previous Work" section of Task 4.3.*

## Federal Highway Administration Comments on MVMPO Draft FFY 2015 Unified Planning Work Program and Actions Taken

Page 66- sources of transportation funds shown including “Haverhill Pavement Management” & “ Low St/Bashaw Way Intersection Study”; what’s the actual source of these funds and are they included in the funding summary at the end of the document? Also, if these are transportation planning activities being done in FY15, they should be described somewhere in the UPWP.

*Action: Reference to 'Haverhill Pavement Management' project included in the "FFY 2015 Activities" section of Task 2.2.*

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