

MERRIMACK VALLEY METROPOLITAN PLANNING ORGANIZATION

FEDERAL FISCAL YEAR 2014 UNIFIED PLANNING WORK PROGRAM



June 28, 2013

**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-80-0007 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.

Title VI / Nondiscrimination Complaint Procedure

The Merrimack Valley Metropolitan Planning Organization (MVMPO) fully complies with Title VI of the Civil Rights Act of 1964 and related statutes and regulations in all programs and activities. The MVMPO does not discriminate on the basis of race, color, national origin, English proficiency, religious beliefs, income, gender, age, disability or military service. Any person who believes he/she or any specific class of persons has been subjected to discrimination prohibited by Title VI or related statutes or regulations may, directly or through a representative, file a written complaint with the MVMPO. A complaint must be filed no later than 180 calendar days after the date on which the person believes the discrimination occurred. A complaint form and additional information can be obtained according to the directions below:

By mail: Merrimack Valley Metropolitan Planning Organization
c/o Merrimack Valley Planning Commission
Transportation Program Unit
160 Main Street
Haverhill, MA 01830-5061
Attn: T. Fontanella, Senior Transportation Planner

By telephone (978) 374-0519, extension 29 (voice)
By facsimile (978) 372-4890
By email: tfontanella@mvpc.org
By internet: visit the MVPC website at <http://mvpc.org/programs/transportation/merrimack-valley-metropolitan-planning-organization/>

To request additional copies of this document or to request it in an accessible format, contact the MVMPO by mail, telephone, facsimile or email as directed above.

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

TABLE OF CONTENTS

INTRODUCTION	1
Merrimack Valley Metropolitan Planning Organization (MVMPO)	1
Organization of FFY 2014 Unified Planning Work Program	2
MVMPO Transportation Planning Priorities	2
Regional Plans and Studies	2
MVMPO 2012 Regional.....	4
Transportation Plan.....	4
State Policies and Plans.....	5
Federal Transportation Planning Legislation and Initiatives	9
Other Transportation Planning Studies	12
Other MVPC Planning Studies and Funding Sources	13
Transportation Planning Program Years Covered by This Document	14
Transportation Planning Factors Considered Under MAP-21.....	14
TASK 1.0 - MANAGEMENT AND SUPPORT OF THE 3C TRANSPORTATION PLANNING PROCESS	25
Task 1.1 - Program Management and Support	27
Task 1.2 - Public Participation Process	29
Task 1.3 – Unified Planning Work Program (UPWP)	31
Task 1.4 - Transportation Improvement Program (TIP).....	33
Task 1.5 - Updating Transportation Web Pages.....	37
Task 1.6 – Title VI / Environmental Justice / Limited English Proficiency Activities.....	39
Task 1.7 - Regional Transportation Plan	41
TASK 2.0 - DATA COLLECTION AND ANALYSIS ACTIVITIES	43
Task 2.1 - Traffic Monitoring Program	45
Task 2.2 - Pavement Management Studies.....	47
Task 2.3 - Geographic Information Systems	49
Task 2.4 - Congestion Management Process.....	51
Task 2.5 - Intermodal Connections with National Highway System / Freight Planning.....	53
Task 2.6 - Regional Transportation Model.....	55
Task 2.8 - Safety Monitoring System.....	59
Task 2.9 – Transportation and Livability	61
Task 2.10 - Priority Growth Strategy	63
TASK 3.0 - SHORT AND LONG-RANGE TRANSPORTATION PLANNING ACTIVITIES	65
Task 3.1 -- Elderly and Disabled/ADA Planning	67
Task 3.2 -- Transit Planning.....	69
Task 3.3 – Storey Avenue Traffic Study in Newburyport	71
Task 3.4 – River Street/Washington Street/Railroad Avenue Intersection Study in Haverhill.....	73
Task 3.5 - Methuen Square Intersection and Safety Study.....	75
Task 3.6 – Route 133/Raytheon Driveway Congestion Study	77
Task 3.7 – Route 133 Traffic Study in Rowley.....	79
Task 3.8 – Stormwater Management Technical Assistance	81
Task 3.9 - Climate Change.....	83
TASK 4.0 - OTHER TRANSPORTATION STUDIES	85
Task 4.1 - Intelligent Transportation Systems (ITS)	87
Task 4.2 - Local Technical Assistance	89
Task 4.3 - Regional Transportation Security	91
Task 4.4 – County Road Adjudication	93
FFY 2014 UPWP TASK FUNDING SUMMARY	95
MVMPO ENDORSEMENT PAGE	97
COMMENTS RECEIVED ON MVMPO DRAFT FFY 2014 UPWP	99

This page left blank intentionally

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 2014 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 |
| • Acting MassDOT Highway Division Administrator | - | Francis DePaola |
| • Chairman of the Merrimack Valley Planning Commission (MVPC) | - | Joseph Sullivan |
| • Chairman of the Merrimack Valley Regional Transit Authority Advisory Board | - | Charles Boddy |
| • Mayor of Haverhill | - | James Fiorentini |
| • Mayor of Lawrence | - | William J. Lantigua |
| • Representing Region 1 (Amesbury, Newburyport, Salisbury) | - | Thatcher W. Kezer III |
| • Representing Region 2 (Newbury, Rowley, West Newbury) | - | Robert Snow |
| • Representing Region 3 (Boxford, Georgetown, Groveland, Merrimac) | - | Philip Trapani |
| • Representing Region 4 (Andover, Methuen, North Andover) | - | Curt Bellavance |

Ex officio, non-voting MVMPO members include:

- | | | |
|--|---|----------------------|
| • Federal Highway Administration – Massachusetts Division Office | - | Pamela S. 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 2014 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

For many years, The Continuing, Comprehensive and Cooperative ('3C') federal transportation planning process has recognized that a wide array of factors influence the multimodal transportation network and, conversely, many of these factors are influenced by this network. In 1991, the Intermodal Surface Transportation Efficiency Act (ISTEA) 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.

In that time, an array of concepts, analyses, policies, programs and recommendations relating to the transportation network have been established at virtually every level of government. They range from recommended improvements at an individual intersection to corridor improvement plans for arterial and interstate roadways and multibillion dollar capital improvement plans and programs to repair bridges or maintain our mass transit systems. Some analyses identify safety or congestion problem locations in our region that should be studied in more detail while other initiatives have been undertaken in an effort to modify the transportation system to improve the livability of our communities, the health of our citizens, and the quality of our environment.

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. 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 2014 UPWP.

Regional Plans and Studies

The following regional transportation studies and plans have played an important role in shaping the development of the FFY 2014 UPWP:

Route 93 Corridor Study/Andover Interchange

During FFY 2013, MassDOT continued preparing the Environmental Impact Statement (EIS) in support of the development of this interchange. When completed, the EIR/EIS will allow MassDOT to complete the necessary environmental and preliminary design work needed to fully assess the environmental impacts and projected cost of a new interchange and the widening of I-93 between the Wilmington/Andover town line and the New Hampshire state line. When completed, this project would reduce congestion in the corridor, eliminate the use of the breakdown lane as a travel lane during peak travel periods and provide a uniform cross section along the roadway between Manchester, NH and Somerville, MA. The project potentially could also facilitate further corridor improvements being considered, such as the implementation of managed lanes.

Bicycle and Pedestrian Planning

During FFY 2013, the MVMPO continued to focus on the development of the Border to Boston Trail. Work was completed on the construction of a bicycle/pedestrian connection between the northern end of the Gil-lis 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.

FY 2013 also saw the progress of design work on the remaining sections of the Border to Boston Trail through the MPO's *Border to Boston Trail Funding Program*. This program was created to facilitate the continued development of the rail trail in Boxford, Georgetown, Newbury and Salisbury using funding that was earmarked for the project in SAFETEA-LU and local matching funding provided by the communities themselves. Twenty-five percent plans for the entire project were submitted to MassDOT and it is anticipated that final design plans will be completed later in 2013.

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 worked 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 Update

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. Significant staff effort was devoted to MVRTA service planning, preparation of a new Mobility Plan, meeting with MVRTA riders to educate the public about transit and to help the MVRTA obtain funding for new services, i.e. Jobs Access Reverse Commute (JARC).

For 2014, 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 2012 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 pursuit of the objectives identified in the 2012 RTP to achieve the above goals was an important influence on the development of the FFY 2014 UPWP.

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.

Priority Growth Strategy

In 2009, MVPC completed the first master plan for the region in over 30 years. It 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. Many communities have requested MVPC assist them with plan implementation to include technical assistance to properly develop their "growth districts", as well as assisting them in the preservation and protection of open space. That work is underway and will continue through 2013 and beyond. In addition, the Plan formed the basis for completion of an 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 for the past 12 months identifying which of the 57 regional "concentrated development centers" as identified in the Priority Growth Strategy had statewide significance to become a "Priority Development Area." The same exercise was done for "Priority Preservation Areas." This work has culminated with our regions section of Planning Ahead for Growth being presented at two public forums earlier this year. A formal announcement of the Planning Ahead for Growth and this regions "PDA's" is to be scheduled at Regional Planning Day on June 20, 2013.

In the months ahead, MVPC staff intends to update the Priority Growth Strategy, conducting a re-write of the section describing the "concentrated development centers" in order to align them with the Commonwealth's Planning Ahead for Growth initiative. It is anticipated that the new PGS will redesignate the previous Concentrated Development Centers as PDA's as having state, regional, and local significance.

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 2014 UPWP. In addition, the MVMPO will complete a comprehensive update of its CMP under this Work Program.

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.

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 2014 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. Mass 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

The Way Forward: A 21st - Century Transportation Plan

Pursuant to Chapter 132 of the Acts of 2012 which provided funding for the state's public transportation system, MassDOT completed this document which describes the current state of Massachusetts' transportation infrastructure and presents a program of investments that will "stabilize today's transportation system and to build a system for the twenty-first century."

During autumn 2012, MassDOT sponsored public hearings across the state in an effort to identify what the public feels are the most important transportation issues facing the Commonwealth. This input was a key ingredient in developing the recommended program of capital projects, transit services and systems operations/maintenance contained in the final document, which was released in January 2013. It calls for the state to spend an additional \$13+ billion over the next 11 years for a wide range of projects and services in five key program areas:

<u>Project Type</u>	<u>Amount</u>
Road/Bridge/Multiuse State of Good Repair	\$ 5.185 Billion
MassDOT/Commonwealth State of Good Repair Priorities	\$.275 Billion
MBTA State of Good Repair Priorities	\$ 3.382 Billion
Regional Transit Authority State of Good Repair Priorities	\$.400 Billion
Unlocking Economic Growth	\$ 3.821 Billion
TOTAL	\$13.063 Billion

For the Merrimack Valley region, the above program would enable the MVRTA to greatly expand the length of its service day and to offer service on Sundays and holidays. It would also improve the condition of most roadways in the Valley by providing communities with a significant increase in Chapter 90 funding.

The report also identifies a number of potential funding sources/options for supporting this proposed transportation program.

The Massachusetts General Court and the Governor are now in the process determining what components of this Plan will be incorporated into the Commonwealth's FFY 2014 Budget.

weMove Massachusetts

The Massachusetts Department of Transportation (MassDOT) is now undertaking a comprehensive effort to prioritize the state's transportation investments. This initiative is being undertaken:

“...to spend our limited resources on investments into our transportation system that yield the greatest return in meeting our needs, to defend our investment decisions with data, and to meet these goals while understanding the aspirations and concerns of the traveling public.”

Through *weMove Massachusetts*, MassDOT is seeking to:

- Articulate MassDOT's goals, priorities, and policies, which are based on public input
- Advance important statewide policy goals for improving mobility, protecting the environment, promoting economic growth, and improving public health and quality of life
- Better use available information to allocate funding and prioritize projects in a clear and transparent way
- Communicate with stakeholders about their ideas on improving transportation services

It is anticipated that this study will be completed in 2013.

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

"Green Dot"

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 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.

As noted on the MassDOT GreenDOT website:

GreenDOT was designed in response to several existing state laws, Executive Orders, and MassDOT policies. These include the 2009 Transportation Reform Law that created MassDOT and established the [Healthy Transportation Compact](#) that promotes improved public health through active transportation; the Global Warming Solutions Act, which calls for measurable and enforceable economy-wide greenhouse gas reductions; and MassDOT's Complete Streets design approach that calls for appropriate accommodation of all transportation system users. Read the [GreenDOT Policy Directive](#) for more information.

Beyond Boston Transit Study

Working in cooperation with the state's 15 Regional Transit Authorities and the MBTA, MassDOT is currently undertaking this study “...to more effectively strategize, prioritize, and deliver transit service throughout the Commonwealth.” Some of the tasks that will be undertaken in the study include:

- A thorough review of the Commonwealth's transit network from a statewide perspective including the transit system operations and demands, barriers to improved service, and state, regional, and national best practices and trends.
- An analysis of the operation of each RTA, with the purpose of identifying ways in which each regional transit authority can improve the efficiency of existing services, and provide new or expanded services to local communities.
- The identification of transportation improvement projects for the regional transit authorities, and mechanisms to improve and maintain public transportation facilities and equipment.
- An evaluation to ensure resources and investments provide an equitable allocation of investments in transportation across the regions of the Commonwealth.
- Identification of opportunities for greater collaboration between the RTAs and the MBTA.
- Development of mechanisms for streamlining the management of public transportation assets.

<http://www.massdot.state.ma.us/planning/BeyondBostonTransitStudy.aspx>

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 so classified. 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.

According to MassDOT, as of January 1, 2013 ABP Program achievements to date included:

- Completion of 121 bridges;
- Active construction on 48 bridges, and
- Construction starts on 20 bridges during the 2013 calendar year.

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 Route 28 Bridge over the MBTA railroad tracks in Andover; (Design)
- Repair of the Route 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; (Construction)
- 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 Route 1 over the Merrimack River between Salisbury and Newburyport (Complete)

<http://www.eot.state.ma.us/acceleratedbridges/>

Beyond Boston Transit Study

MassDOT initiated this Study in FFY 2013 in cooperation with the fifteen Massachusetts Regional Transit Authorities (RTAs) and the MBTA "...to more effectively strategize, prioritize, and deliver transit service throughout the Commonwealth." Study tasks included:

- A thorough review of the Commonwealth's transit network from a statewide perspective including operations and demands, service improvement challenges, and state, regional, and national best practices and trends;
- An analysis of each RTA's operation to identify potential RTA efficiency improvements for existing services, and opportunities for each RTA to implement new or expanded services;
- Identification of capital investments and mechanisms to improve and maintain public transportation facilities and equipment;
- Preparation of a statewide transit investment plan to promote equitable resource allocation across the regions of the Commonwealth;

- Identification of opportunities for greater collaboration between the RTAs and the MBTA, and
- Development of mechanisms for streamlining public transportation asset management.

MassDOT has released the Study draft for review and comment. The Study final version is expected to be released before or during Quarter 1 of FFY 2014.

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 multi-family, 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. This program supports MVPC efforts to maintain and implement its Priority Growth Strategy (see Task 2.11)

MBTA FY 2014-2018 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 2014-2018 Capital Investment Program that will impact the Merrimack Valley MPO region include:

- System-wide commuter rail layover facility analysis (would affect facilities in Bradford and Newburyport);
- Newburyport Line closeout activities;
- Haverhill Line Double-Tracking project;
- Lawrence Industrial Park Siding;
- Merrimack River Bridge Rehabilitation;
- Reconstruction of Two (2) Bridges Carrying Haverhill Line over Shawsheen River.

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.

Each state must have a strategic highway safety plan that identifies and analyzes safety problems and opportunities in order to use HSIP funds for new eligible activities. The plan is required to include a crash data system that can perform problem identification and countermeasure analysis. The annual report to the Secretary of Transportation must include a description of not less than five percent of locations exhibiting the most severe safety needs, with an assessment of potential remedies for the identified hazardous locations, estimated costs associated with these remedies, and impediments to implementation other than cost. The funding split for projects developed under this program is 90% federal/10% state, although there are certain activities that can be 100% federally funded.

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 2013, 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 work for both projects

Federal Transportation Planning Legislation and Initiatives

In FFY 2010, USDOT released a series of planning initiatives and provided planning guidance to the MPOs in the state that have helped shape the region's UPWP.

Moving Ahead for Progress in the 21st 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.

Air Quality Conformity Determinations

Since the passage of the Clean Air Act Amendments of 1990 (CAAA), metropolitan planning organizations located within nonattainment and maintenance areas that were determined by the U.S. Environmental Protection Agency (EPA) have been required to perform air quality conformity determinations prior to the approval of their Regional Transportation Plans (RTPs) and Transportation Improvement Programs (TIPs).

For virtually every year since the passage of the CAAA, EPA had classified the entire Commonwealth of Massachusetts as being a nonattainment area for ozone. The state was divided into two nonattainment areas--the Eastern Massachusetts ozone nonattainment area, which included Barnstable, Bristol, Dukes, Essex, Middlesex, Nantucket, Norfolk, Plymouth, Suffolk, and Worcester counties, and the Western Massachusetts Nonattainment Area, which included Berkshire, Franklin, Hampden, and Hampshire counties.

During these years, MPOs worked in cooperation with MassDOT and the state's Department of Environmental Protection (DEP) to demonstrate that the projects and policies contained in their RTPs and TIPs would reduce its emissions of volatile organic compounds (VOCs) and nitrogen oxides (NOx), the two major precursors to ozone formation and eventually achieve attainment of EPA's ozone standard. These conformity determinations were endorsed by the MPOs as part of the process of developing and adopting the RTP and the TIP and were subsequently approved by EPA and FHWA. These latter approvals allowed federal highway and bridge funding to be spent on projects across the Commonwealth.

Over the years, the EPA ozone standard changed from being based on exceeding a level of .008 parts per million (ppm) for one hour to exceeding a level of .075 ppm for any eight-hour period over a three-year timeframe. However, based on data from Massachusetts monitoring stations, EPA sent a letter on December 16, 2011 proposing that only Dukes County would be designated as nonattainment for the 0.075 ppm ozone standard. Massachusetts concurred with these findings.

In May 2012, the final rule was published in the Federal Register showing the only area in Massachusetts designated as being nonattainment for ozone is Dukes County. All other Massachusetts counties were classified as unclassifiable/attainment. With this designation, other MPOs around the state no longer need to perform a conformity determination for ozone on the program.

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 2014 to support sustainable development principles in the Valley and, in doing so, improving the quality of life.

FHWA Priorities for FY 2014 UPWP Development

Performance Measures: The FHWA encourages the use of performance measures throughout the Transportation Planning Process; however, as the MPOs begin to develop the 2014 Work Plan(s), efforts should be made to incorporate relevant performance measures for activities which will allow progress to be tracked. FHWA is awaiting a Notice of Proposed Rulemaking, which is expected to further discuss what priority areas performance measures will be applied to. The RPAs should include a task in the UPWP that addresses performance measures.

Assessment of Sustainability: SAFETEA-LU formally combined the concepts of Sustainability and Livability with the Transportation Planning Process and they have been continued under MAP-21. One method for measuring the sustainability of a highway project or program is to assess it against existing best practices. With this in mind, the FHWA developed and released a web-based tool known as Infrastructure Voluntary Evaluation Sustainability Tool (INVEST) which allows agencies to assess the sustainability of a program or project against best practices relative to sustainability. The FHWA encourages the voluntary use of this self-assessment tool to better understand how sustainable a program or project is and to learn how improvements to sustainability can be made. The tool can be accessed at the following URL:

[www.sustainablehighways.org<http://www.sustainablehighways.org>](http://www.sustainablehighways.org).

Movement of Goods: The FHWA continues to place a high priority on the area of Freight; more particularly, the efficient movement of goods. Planning activities should support the efficient movement of goods throughout each region and the Commonwealth. Meeting with stakeholders representing the freight shipping community, in order to understand obstacles leading to inefficiencies, may be helpful in addressing this Planning Factor.

Title VI, EJ, and LEP: Ensuring that the Transportation Planning Process is accessible to all individuals including members of Title VI, Environmental Justice (EJ), and Limited English Proficiency (LEP) communities has been, and continues to be a major priority for the U.S. Department of Transportation. The FHWA therefore places a great emphasis on engaging these populations during the Process and encourages each MPO to reach out to them throughout all transportation planning-related efforts.

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.

Development of Products: As in the past, FHWA continues to place a high priority on the development of products resulting from the studies advanced from the UPWP. Given this priority, at least one third (33%) of the funds directed to activities identified in the UPWP should be spent on activities that result in tangible products.

Other Transportation Planning Studies

In addition to the studies and analyses undertaken by the MVPC, 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 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.
- **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, signalizing 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, two options--one rail and one bus--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.

- **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. In FFY 2012, the MVRTA worked with city officials to further refine alternative design concepts for this site, and pursued grant funds for construction.

- **Haverhill Bus Station Relocation:** The MVRTA, working in cooperation with the City of Haverhill, is seeking to relocate its Washington Square Transit Facility to a new site located adjacent to the recently-opened Haverhill Intermodal Transportation Center. The new facility would be larger than the existing station and allow the Authority to implement a full 'pulse' schedule where buses from all the fixed routes could arrive at one time thereby allowing passengers to transfer between all routes without having to wait. The new facility would also improve connectivity between the Haverhill bus system and the MBTA Commuter Rail Service and the AMTRAK Downeaster train.

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 2012 Merrimack Valley Comprehensive Economic Development Strategy (CEDS) Performance Report was submitted to the U.S. Economic Development Administration (EDA) on June 30. The Report provides an update on economic development conditions, studies, and initiatives in the region since the release of the 2008 Merrimack Valley CEDS. The 2008 CEDS was a complete update of the regional master plan, featuring a new set of goals, objectives, and action plan. MVPC has worked closely with the private, public, and nonprofit sectors on numerous initiatives reflected in the CEDS, centered on the themes of infrastructure, marketing, green initiatives, and entrepreneurship support.

Following the release of the 2012 Performance Report, MVPC immediately began work on the 2013 five-year CEDS Update, which will be completed in summer 2013. The 2013 CEDS is revisiting the regional economic development goals, objectives, and action plan developed in 2008. The regional CEDS Committee has been reconvened to help guide the process, with Northern Essex Community College President, Dr. Lane Glenn, serving as Committee Chairman. Also, MVPC applied for and received additional EDA planning funds to develop a supplemental regional industry cluster analysis report. Initial findings from the analysis will be included in the 2013 CEDS.

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 2012, 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 proposed Lawrence Allied Health and Technology Center. MVPC's latest \$200,000 hazardous substances grant began in the fall of 2012, with a number assessment projects already begun. In addition, MVPC applied for a new \$200,000 petroleum contamination grant. The award decision by EPA is expected to be made in spring 2013.

Regional Data Center: MVPC is the regional repository of demographic data from various federal and state agencies. In 2012, MVPC continued collecting and analyzing data releases from the 2010 Census and American Community Surveys. 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 Means Business: The Merrimack Valley Means Business (MVMB) website, officially launched on October 15, 2009, has now been successfully up and running for over three years. MVMB is a pioneering concept for new and existing businesses in the Merrimack Valley. Developed by the Merrimack Valley Planning Commission (MVPC), in partnership with the U.S. Economic Development Administration (EDA), the Merrimack Valley Economic Development Council (MVEDC), regional Chambers of Commerce, and community development departments, MVMB offers a unique and technologically advanced service for

prospective and existing businesses looking to market or expand in the region. The only comprehensive, field-based inventory of properties in Massachusetts, the website offers valuable information on over 11,500 businesses and 500 locations for sale or lease in the Valley and employs the latest mapping and imaging technologies.

The data-rich, interactive website allows users to conduct qualitative online geographic research on key location factors, including: quality of workforce; consumer buying habits; tax incentives and enterprise zoning; transportation access; and available property attributes, such as building size, alternative energy sources, parking, and realtor contact information. In addition, high resolution, oblique aerial images using MVPC's Pictometry Image Warehouse System is available for each business and property location. This interactive imaging system is a first-of-its-kind tool offered on a business and property information website.

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.

Workshop - A Report Card on Manufacturing in Massachusetts, with Dr. Barry Bluestone: Through MVPC's Comprehensive Economic Development Strategy (CEDS) program, 50 community leaders from the public, private, and nonprofit sectors gathered on the morning of December 11 at Northern Essex Community College (NECC) in Haverhill to hear a compelling argument for the fundamental strength of the manufacturing sector in Massachusetts by renowned researcher, speaker, and leading public figure, Dr. Barry Bluestone, founding Director of the Dukakis Center for Urban and Regional Policy, and the founding Dean of the School of Public Policy & Urban Affairs at Northeastern University. His presentation centered on the recently released report, "Staying Power II: A Report Card on Manufacturing in Massachusetts 2012." NECC President, Dr. Lane Glenn followed Bluestone's presentation with a synopsis of the college's leadership efforts towards filling critical workforce development gaps in sectors such as manufacturing. MVPC staff closed the meeting with corresponding industry data for the Merrimack Valley, demonstrating manufacturing's great importance to the regional economy.

Transportation Planning Program Years Covered by This Document

The transportation planning tasks and activities in the FFY 2014 UPWP were developed by the MVPC and MVRTA in cooperation with FHWA, MassDOT, FTA, and local officials. 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 2014 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 2014 UPWP.

FTA Section 5303 Contract X007 between MassDOT and the MVPC is unique in that it covers an 18-month period (April 1, 2013 – September 30, 2014) rather than the typical one-year timeframe included in previous Section 5303 transit planning contracts. For its contract with the Merrimack Valley MPO and other MPOs around the state, MassDOT has adopted this longer contract period so that the next Section 5303 transit planning contract (presumably X008) would start at the beginning of FFY 2015 and be totally covered by the FFY 2015 UPWP. This change will correct an issue that has proven to be problematic in recent years in that the FTA Section 5303 contracts that MassDOT has with the MPOs funded planning activities in two UPWPs rather than in one. Transit planning tasks Finally, the transportation planning activities funded through the Section 5307 contract between the MVRTA and the MVPC will be funded through a contract that will be in effect from October 1, 2013 through September 30, 2014.

Transportation Planning Factors Considered Under MAP-21

In 1991, the original Intermodal Surface Transportation Efficiency Act (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 environ-

ment 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 2014 UPWP address them:

MAP-21 Planning Factor	UPWP Task(s)	RTP Goals
(1) Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;	Tasks 2.4, 2.5 and 2.11	Promote Regional Economic Vitality
(2) Increase the safety of the transportation system for motorized and nonmotorized users;	Tasks 2.7, 2.8 and 3.5	Become Safe, Efficient & Cost Effective
(3) Increase the security of the transportation system for motorized and nonmotorized users;	Tasks 3.8, 3.9 and 4.3	Become Safe, Efficient & Cost Effective Promote Environmental Sustainability
(4) Increase the accessibility and mobility options available to people and for freight;	Tasks 2.4, 2.5, 2.9, 2.11, 3.1 and 3.2	Expand Options and Access
(5) Protect and enhance the environment, promote energy conservation, and improve quality of life;	Tasks 2.7, 2.8 and 3.8	Support Livability Promote Environmental Sustainability
(6) Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;	Tasks 1.1, 1.2, 2.5, 2.11 and 3.2	Expand Options and Access
(7) Promote efficient system management and operation;	Tasks 2.1, 2.2, 2.3, 2.4 and 3.2	Become Safe, Efficient & Cost Effective
(8) Emphasize the preservation of the existing transportation system.	Tasks 2.2 and 2.4	Become Safe, Efficient & Cost Effective

Summary of Anticipated MVPC Funding Resources
FY 2014 (July 1, 2013 – June 30, 2014)

<u>Source - Non Transportation</u>	<u>Amount</u>	<u>% of Total</u>
Economic Development Administration	\$88,571	4.6%
CIC Grant - 311 System	205,000	10.6%
EDA Revolving Loan Fund	26,000	1.3%
8 Towns and the Great Marsh (Environmental Protection Agency /Mass. Coastal Zone Mgt.)	65,000	3.4%
Mass. Department of Housing and Community Development (Land Use)	86,357	4.5%
MEMA Hazard Mitigation	12,713	0.7%
Georgetown Open Space	3,250	0.2%
Pictometry	3,000	0.2%
Mayor's Coalition	5,000	0.3%
EPA Brownfields Contracts	406,828	21.1%
Misc. GIS and Local Contracts	67,500	3.5%
Local Technical Assistance	40,829	2.1%
TOTAL (Non Transportation)	\$1,010,048	52.4%
 <u>Source - Transportation</u>		
FHWA/Mass DOT-PL	\$670,677	34.8%
FTA/MVRTA (Section (5307)	115,000	6.0%
FTA/MVPC (Section 5303)	132,898	6.9%
TOTAL (Transportation)	\$918,575	47.7%
MVPC TOTAL	\$1,928,623	

Source: MVPC's FY 2014 Budget #1: July 1, 2012 – June 30, 2013 (Approved 2/14)

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%)
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
Alan Macintosh, Environmental Program Manager (15%)
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%)

This page left blank intentionally

Merrimack Valley Planning Commission Transportation Studies, Analyses and Technical Assistance

Local Technical Assistance Projects

Route 108/Rte 110 Intersection Alignment (FFY 2012)
Route 125 Pedestrian Crosswalk Analysis (FFY 2012)
Route 113 Traffic Impact Review (FFY 2012)
Parker St./Merrimack St. Intersection Review (FFY 2011)
Haverhill Street Light Identification and Mapping (FFY 2011)
Improving Pedestrian Access to Central Plaza (FFY 2010)
Broadway/Lake Street Intersection in Haverhill (FFY 2010)
Analyze traffic and safety issues in Byfield Village (FFY 2010)
Prepare PNF for Route 133 Project in Boxford (FFY 2010)
Willow Ave. Widening Review in Haverhill (FFY 2009)
Saratoga Street One-Way Analysis in Lawrence (FFY 2009)
Guard Rail Feasibility on Pelham St in Methuen (FY 2008)
Rt. 125/Cushing Ave. Intersection Study, Haverhill (2008)
Bradstreet Property Trail Mapping, Rowley (2008)

Lawrence Five Corner Intersection Analysis (2007)
Merrimac Traffic Impact Study Review (2007)
Haverhill Lafayette Square Traffic Impact Review (2007)
West Newbury Four-Way Stop Sign Analysis (2006)
Storey Avenue Traffic Impacts, Newburyport (2007)
Lawrence Industrial Park Rail Siding (ongoing)
Review of Pleasant Valley St. Traffic Study, Methuen (2006)
Review of Merrimack St. Development, Methuen (2006)
Chickering St. Signal Warrant Analysis, Lawrence (2005)
Water Street Traffic and Parking Study, Lawrence (2005)
E. Haverhill St./Ferry St. Intersection Study, Lawrence (2005)
Essex St./Milton St. Intersection Study, Lawrence (2002)
Amesbury Downtown Parking Analysis (2002)
Reservoir Street Traffic Analysis, Lawrence (2002)

Transportation Studies

Lawrence Project Development (ongoing)
Marston's Corner Intersection Study, Methuen (ongoing)
I-495 Ramps/Mass. Ave Intersection Study, N. And. (ongoing)
Haverhill St. Corridor Study , Methuen (ongoing)
M&L Branch Trail Feasibility Study, Lawrence (2012/3)
Lafayette Square Safety Study, Haverhill (2012)
Rte 113/Rte 95 Interchange Safety Study, Nbprt. (2012/3)
Rte 213/Rte 28 Interchange Safety Study, Methuen (2012/3)
Rte 1/Merrimack St. Intersection Study, Newburyport (2012/3)
Elm St./Rte 1 Intersection Study, Newbury (2012)
Broad St./Rte 495 Interchange Study, Merrimac (2012/3)
Route 28 Congestion Analysis, Methuen (2012)
Merrimack River Trail Reconnaissance Study (2011)
Milk St./Route 113 Intersection Study, Methuen (2011)
Georgetown Branch Rail Trail Feasibility Study (2011)
Andover St./Rte. 114 Intersection Study, Lawrence (2011)
Water St./Broadway Intersection Study, Lawrence (2011)
MVMPO 2012 Regional Transportation Plan (2011)
Winter St/White St. Intersection Study, Haverhill (2010)

Georgetown Square Intersection Study (2010)
Route 1/Route 133 Intersection Study, Rowley (2010)
Merrimac St/Spofford St Study, Newburyport (2010)
Route 114 Corridor Study, Lawrence/N. Andover (2010)
Ames Street/Haverhill Street Intersection Study (2009)
Main St. Corridor Study, Haverhill (2009)Chickering
Road/Mass. Ave. North Andover (2009)
Elderly Transportation Plan Update (2009)
Route 125 Build Out Analysis, North Andover (2008)
Disabled Transportation Plan (2008)
MVMPO 2007 Regional Transportation Plan
Lowell Junction IJS, Andover (2006)
Route 1/March Road Intersection Study, Salisbury (2005)
Route 125/Merrimack Street Intersection Study (2005)
Route 93 Corridor Traffic Study (2005)
MVMPO 2003 Regional Transportation Plan
MVMPO Environmental Justice Study (2003)
Northern Essex Community College Study, Haverhill (2002)
Route 97 Corridor Study, Haverhill (2002)

This page left blank intentionally

Acronyms Used in FFY 2014 UPWP

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

This page left blank intentionally

TASK 1.0 - MANAGEMENT AND SUPPORT OF THE 3C TRANSPORTATION PLANNING PROCESS

This page left blank intentionally

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

In previous years, 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 the region. In FY 2012, MVPC staff continued to participate in a number of groups that are supporting the development regionally significant transportation projects. The Commission served as a member of the Route 110/113 Rotary Project and continued to be involved in the development of the Draft EIS/EIR for the I-93: Lowell Junction Interchange project. This included attending meetings of and providing technical assistance to the Tri-Community Planning Task Force for the Lowell Junction area. MVPC was also asked by NHDOT to participate on its I-93 Transportation Demand Management Task Force.

FFY 2014 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. Review of such documents as the State Rail Plan, Freight Plan, weMove Massachusetts, 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.
- 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 2013 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 2012 Annual Report. This latter document will be prepared in the period from December 2012 through January 2013.
- 1.1.4 *Contract Administration:* Prepare Section 5303 contract application materials as well as 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.
- 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 Coordinating 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 *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 therefore be produced throughout the FFY 2013 UPWP program period - Ongoing
Task 1.1.3	- MVPC Newsletters - ongoing
Task 1.1.6	- MVPC 2012 Annual Report – December 2012/January 2013 - Attend Meetings with MassDOT District 4 Highway personnel - Ongoing

Funding for Task 1.1		
Program Management and Support		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	808	\$55,280
MassDOT	202	\$13,820
FTA Section 303	278	\$23,400
FTA Section 307	88	\$7,400
MVPC	92	\$7,700
TOTAL	1,468	\$107,600

Task 1.2 - Public Participation Process

Description

Federal transportation planning legislation requires that MPOs involve the public in the development of the Regional Transportation Plan and the Transportation Improvement Program. In 1994, the MVMPO developed and adopted what was then referred to as a Public Involvement Process as required under Section 450.316 of federal planning regulations developed under ISTEA. This process was designed to ensure those important public agencies at all levels of government, private and nonprofit organizations and interested citizens are kept apprised of transportation planning milestones in the region. It was also intended to solicit timely input from these groups that can be used to improve the effectiveness of the transportation planning process in the Valley. Key participants are the Merrimack Valley Transportation Committee, Merrimack Valley Planning Commission, Merrimack Valley Regional Transit Authority Advisory Board, and MVPC-sponsored meetings of local elected officials and area legislators. Through meetings of these and other groups and through MVPC website, information concerning the status of transportation planning and construction projects as well as transit services in the region are presented and reviewed.

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.

Previous Work

Under the FFY 2012 UPWP, staff prepared numerous public notices and press releases for local newspapers and boards announcing MVMPO meetings, MVMPO Working Group meetings, public meetings and the availability of documents for review and comment. In addition, large mailings of required MVMPO documents and their amendments were prepared throughout the year.

In FFY 2013, MVPC staff continued to support its Mayor's and Managers Coalition in hosting meetings of the mayors as well as meetings of a subcommittee of 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.

Staff also continued to review materials provided by and attend selected meetings held by the Northern Middlesex MPO, Rockingham MPO and the Boston MPO's Traffic and Safety Committee.

FFY 2014 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.

- 1.2.4 *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.
- 1.2.5 *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.
- 1.2.6 *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.
- 1.2.7 *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.
- 1.2.8 *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.
- 1.2.9 *Review/Revision of Project Evaluation Criteria:* The MVMPO's Transportation Project Evaluation Criteria have been applied over the past few years with little change in terms of weighting of the existing criteria or the addition of new criteria. MVPC staff will continue to work with MVMPO and MVTC members to assess the effectiveness of the current criteria and, if necessary, begin the process of modifying them to better suit the transportation priorities of the region.
- 1.2.10 *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 2014 |

Funding for Task 1.2 Public Participation Process		
Source	Person Hours	Amount
FHWA	426	\$35,040
MassDOT	107	\$8,760
FTA Section 303	218	\$16,980
FTA Section 307	0	\$0
MVPC	54	\$4,245
TOTAL	805	\$65,025

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 2014 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 2015 UPWP for the region. The MVPC will also amend the FFY 2014 document as needed to reflect changes that may occur during the course of the program year.

Tasks

- 1.3.1 *Develop FFY 2015 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 2014 UPWP:* Performed as necessary.

Products/Schedule

- | | |
|------------|--|
| Task 1.3.1 | - Draft FFY 2015 UPWP - May/June 2014 |
| Task 1.3.2 | - Endorsed FFY 2015 UPWP - June/July 2014 |
| | - Amendments to FFY 2014 UPWP - As necessary |

**Funding for Task 1.3
Unified Planning Work Program**

Source	Person Hours	Amount
FHWA	211	\$11,280
MassDOT	53	\$2,820
FTA Section 303	41	\$2,800
FTA Section 307	0	\$0
MVPC	10	\$700
TOTAL	315	\$17,600

This page left blank intentionally

Task 1.4 - Transportation Improvement Program (TIP)

Description

Since the creation of the '3C' transportation planning process and MPO's in the early 1970's, the TIP has served 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. Over the years and through subsequent federal transportation funding authorization legislation, it is now required that, in addition to this project listing, MPOs must demonstrate in that there is sufficient funding available to construct the projects and that the existing transportation infrastructure is being adequately maintained. Per the requirements contained in MAP-21, the MVMPO's TIP covers four federal fiscal years.

Previous Work

MVPC staff worked in cooperation with MassDOT Highway Division District 4 and the Office of Transportation Planning to produce the Draft FFY 2013-2016 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 both the Draft and Final versions of the MVMPO's FFY 2013-2016 TIP and will be used in developing the MVMPO's FFY 2014-2017 TIP. Staff continued to qualitative or quantitative assessments of each TIP project's Greenhouse Gas (GHG) Emissions.

FFY 2013 marked the introduction of MassDOT's new *GrantsPlus* transit project and grant management system. This new system will be used by the MassDOT Transit Division and the MPOs as "the portal for submitting annual applications for the MassDOT Community Transit Grant Program and the creation of the four year Transportation Improvement Program (TIP)/Statewide Transportation Improvement Program (STIP)."

In preparing their Draft FFY 2014-2017 TIPs, Regional Transit Authorities provided MassDOT with the proposed 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 reviewed these requests and provided the MPOs with a listing of projects that could be built given available state matching funds.

Transportation planning staffs from each of the MPOs in the state have been provided access to the *GrantsPlus* system and can monitor the status of the projects appearing in the system and can suggest changes, report administrative amendments to TIPs, etc. It is anticipated that the new system will greatly expedite the process of by which MassDOT can approve MPO TIPs as well as any changes to the STIP.

FFY 2014 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 2015-2018 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 2015-2018 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.

- 1.4.2 *Preparation of MVMPO Region Draft 2015-2018 Transportation Improvement:* The following tasks and procedures will be performed by the MVPC transportation planning staff in developing the Draft FFY 2015-2018 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 2015-2018 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 2015-2018 elements of the document

- 1.4.3 *Amendments to MVMPO's FFY 2014-2017 TIP:* The MVMPO will endorse amendments to the region's FFY 2014-2017 TIP as needed throughout FY 2014.
- 1.4.4 *State Bridge Program/Accelerated Bridge Program:* Projects identified for implementation in the Merrimack Valley region through these two programs will be programmed in the TIP if they are to require the use of future federal funds (e.g. Federal aid Bridge funding) to reimburse MassDOT for its up-front commitment of state funding to advertise projects for construction.
- 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 *MVMPO Endorsement of FY 2015-2018 TIP:* MVPC staff will prepare a Draft FFY 2015-2018 TIP in the late spring of 2014. This document will go to public review that summer and should be adopted by the MVMPO in late June/July 2014.

- 1.4.7 *Publish List of Projects For Which Federal Transportation Funds were Obligated in FFY 2013:* By January 1, 2014, 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 2013.
- 1.4.8 *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. It is anticipated that the information provided by MassDOT to the MPO will serve as the basis of the Bridge Condition Performance Measures mandated in MAP-21. MVPC staff will work with MassDOT and the Office of Transportation Planning in developing these measures that are appropriate for the MVMPO.

Products/Schedule

- | | |
|------------|--|
| Task 1.4.1 | - Develop four year program of projects – March – May 2014 |
| Task 1.4.2 | - Release notice of development of FFY 2015-2018 TIP - March 2014 |
| Task 1.4.3 | - Release of Draft FFY 2015-2018 TIP – May/June 2014 |
| Task 1.4.6 | - Amendments to MVMPO's FFY 2014-2017 TIP – As needed |
| Task 1.4.7 | - Final FFY 2015-2017 TIP including a quantitative air quality analysis of regionally significant major construction projects, consistent with the SIP – June/ July 2014 |
| Task 1.4.8 | - List of Federally Obligations for Transportation Projects in FFY 2013 – December 2013 |
| | - Development of Bridge Condition Performance Measures – October 2013 – February 2014 |

Funding for Task 1.4 Transportation Improvement Program		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	282	\$24,120
MassDOT	71	\$6,030
FTA Section 303	56	\$4,500
FTA Section 307	0	\$0
MVPC	14	\$1,125
TOTAL	423	\$35,775

This page left blank intentionally

Task 1.5 - Updating Transportation Web Pages

Description

The MVPC website transportation pages were developed to provide MVMPO constituents with access to the latest information on the MVMPO transportation planning process. These pages have rapidly become the primary means by which local officials and the public access information on the regional transportation planning process.

MVMPO staff maintains a significant amount of transportation information at 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.). Each year, MVMPO staff prepares a listing of the transportation projects undertaken in the previous federal fiscal year (FFY).

The transportation pages of the MVPC website have been developed to provide citizens of the Valley and surrounding areas with access to the latest information on the transportation planning process. They have rapidly become the primary means by which local officials and the public access information on the transportation planning process in the Merrimack Valley.

MVPC has maintained many transportation pages on its website. These pages contain information about the MVPC's transportation planning activities such as significant traffic studies and important planning documents such as the Regional Transportation Plan, Unified Planning Work Program and the Transportation Improvement Program. They also include posting notices of upcoming meetings (MVTC/MVMPO Working Group, MVMPO, Trails Committee, etc.), copies of important planning documents such as the RTP, TIP, UPWP, a listing of transportation projects undertaken in the previous federal fiscal year, as well as copies of key reports or other data used by MPO staff and local officials in making transportation planning decisions in the Valley.

Previous Work

In 2011, MVPC completed a comprehensive upgrade its website, including the addition of a number of new transportation planning pages. These include:

- *Transportation Links*
- *Transportation Data Viewer*
- *Teleworking*
- *Border to Boston Trail*
- *Complete Streets*
- *Merrimack Valley MPO*
- *Project Development Toolkit*
- *Project Spotlight*

MVMPO documents such as draft and final versions of amendments to the region's FFY 2012-2015 TIP appeared along with notices of MVMPO public meetings, the availability of the MassDOT – Highway Division 2011-2015 Capital Investment Plan. Staff also created a Facebook transportation page that it monitors regularly to collect posts and to display new information.

FFY 2014 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 and the MVPC Facebook Transportation page. In particular, revisions are anticipated following the 2013 USDOT MVMPO Certification Review that will apply to the MVMPO Nondiscrimination Policy, complaint procedure and associated forms. Information shown on this page will be updated to reflect progress made through the end of the FFY 2014 UPWP.

Products/Schedule

Task 1.5.1 - Update Transportation Web Pages - Ongoing

Funding for Task 1.5 Updating Transportation Web Pages		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	57	\$5,720
MassDOT	14	\$1,430
FTA Section 5303	11	\$1,098
FTA Section 5307	0	\$0
MVPC	3	\$275
TOTAL	85	\$8,523

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 2012, MVPC staff updated the region’s minority and low income populations information, including production of new graphics showing the locations of transportation projects relative to these two groups. Staff also assisted the MVRTA in completing a fare and service equity analysis. . In FFY 2013, MVMPO staff continued to work with MassDOT to increase its familiarity with USDOT/MassDOT Title VI and Environmental Justice monitoring and reporting requirements. Staff compiled its work under this Task and provided it to USDOT (FHWA and FTA) regional staff in advance of the 2013 MVMPO Certification Review, and also conducted an overview of its ongoing Title VI/EJ activities for USDOT and MassDOT Office of Civil Rights personnel at the Certification Review. Comments and suggestions made at the Review are now being incorporated into the MVMPO’s overall planning activities; staff anticipates additional USDOT and MassDOT interaction during 2014.

FFY 2014 Activities

MVMPO staff will continue to increase its familiarity with USDOT/MassDOT Title VI and Environmental Justice monitoring and reporting requirements. It is also anticipated that the MVMPO will be called upon to respond to comments from USDOT and MassDOT relative to the information that was submitted to the state in FFY 2012.

Tasks

- 1.6.1 *Staff Training and Coordination with MassDOT and USDOT Compliance:* Staff will attend seminars, workshops and other training sessions such as webinars sponsored by USDOT and/or MassDOT to improve the quality of the MVMPO’s own monitoring procedures. Staff will continue coordinating with other Massachusetts MPOs to share nondiscrimination best practices information. Staff will attend seminars, workshops and other training sessions such as webinars sponsored by USDOT and/or MassDOT to improve the quality of the MVMPO’s own monitoring procedures.
- 1.6.2 *Review Universe of Projects to be programmed in FFY 2014-2017 TIP:* Staff will complete a ‘Benefits and Burdens’ analysis to determine how individual projects affect low income and/or minority populations in the region.

- 1.6.3 *Review RTP, CEDS, PGS and other MVPC planning efforts to evaluate effectiveness of policies and progress on recommended projects relevant to protected populations in the MVMPO region.* Staff will focus particular attention upon transportation as it links the region's Concentrated Development Centers and the Commonwealth's Priority Development Areas. Staff will consult the MVMPO list of CDCs relevant to Title VI/Environmental Justice, the MassDOT statewide travel survey and the latest American Community Survey (ACS) in the conduct of this Task.
- 1.6.4 *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
- 1.6.5 *Updates to community outreach contact lists and contact with existing and new 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. Staff will complete a 'Benefits and Burdens' analysis to determine how individual projects affect low income and/or minority populations in the region.
- 1.6.6 *MassDOT Title VI and EJ Compliance Presentation:* The MVMPO will provide a forum for state and or federal Title VI/Environmental Justice compliance personnel to present information about this program to MVMPO members and the public

Products/Schedule

- | | |
|------------|---|
| Task 1.6.1 | - Staff training and coordination – Ongoing |
| Task 1.6.2 | - Benefits and Burdens Analyses – January 2014 |
| Task 1.6.5 | - Updates to Community Outreach Contact Lists - Ongoing |
| Task 1.6.6 | - MassDOT Title VI and EJ Compliance Presentation – November 2013 |

Funding for Task 1.6 Title VI / Environmental Justice / LEP		
Source	Person Hours	Amount
FHWA	306	\$20,920
MassDOT	76	\$5,230
FTA Section 5303	118	\$8,000
FTA Section 5307	0	\$0
MVPC	29	\$2,000
TOTAL	529	\$36,150

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. The RTP 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. It considers all major forms of transportation in the region and 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.

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.

In FFY 2013, MVPC staff has been participating in the Metropolitan Area Planning Council's (MAPC) effort to forecast 2040 population and housing demand for communities in eastern Massachusetts including the 15 cities and towns in the Merrimack Valley as part of its MetroBoston initiative. MVPC has participated on the study's Projections Advisory Team, which has been created to guide this forecasting effort.

MVPC has also been in 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 FY 2016 MVMPO Regional Transportation Plan.

Work was also begun on making revisions to the population forecasts for the communities of Lawrence, North Andover, Amesbury and Methuen. Each of these communities has seen or expects to see significant reuse of former mill and office buildings as residential or mixed use space (e.g. Union Crossing in Lawrence). Recognizing that this trend would result in larger populations in these communities, staff is working to generate new build out population figures.

FFY 2014 Activities

MVMPO transportation staff will continue to work with MAPC, the Office of Transportation Planning and staff from neighboring MPOs in assessing the extent to which the MetroBoston2040 population and housing projections will be used in the development of the region's FY 2016 Regional Transportation Plan.

It will also continue to investigate opportunities for improving the methodology used to allocate population and employment growth to TAZs.

Tasks

- 1.7.1 *Assess MAPC Population Forecasts for the Region:* Staff will evaluate the population and housing projections for communities in eastern Massachusetts as part of the MetroBoston 2040 initiative. These projections, along with the assumptions made in developing them, will be compared to the MPO's existing population projections. Staff will also contact neighboring MPOs and the Office of Transportation Planning to as part of the evaluation process for these projections. It is hoped that a determination will be made as to what extent these projections should be considered and used in the development of the MVMPO's FY 2016 RTP and those of neighboring MPOs.
- 1.7.2 *Evaluate Options for Improving TAZ-Level Forecasts:* Staff will continue to investigate opportunities for improving its existing method of allocating community population and employment growth forecasts to TAZs. Some options being considered include the use of a derivative of REMI's *Policy Insight* model to perform this task.

Products/Schedule

- Task 1.7.1 - Complete Assessment of MAPC Forecasts – March 2014
Task 1.7.2 - Evaluate Options for Improving TAZ-Level Forecasts - Ongoing

Funding for Task 1.7 Regional Transportation Plan		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	189	\$14,880
MassDOT	47	\$3,720
FTA Section 5303	39	\$2,800
FTA Section 5307	0	\$0
MVPC	10	\$700
TOTAL	285	\$22,100

TASK 2.0 - DATA COLLECTION AND ANALYSIS ACTIVITIES

This page left blank intentionally

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 2013 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 2014 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 2014 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 *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.

Products/Schedule

- | | |
|--------------------|--|
| Tasks 2.1.1- 2.1.3 | - Conduct traffic volume, classification counts - October 2013 – November/December 2013; April 2014 – September 2014 |
| Task 2.1.4 | - Update MVPC Count Library – December 2013 - January 2014 |
| Task 2.1.5 | - Submittal of Data to MassDOT - December 2013 - January 2014– |
| Task 2.1.6 | - Community reports summarizing 2012 regional traffic counting activities – February - April 2014 |

Funding for Task 2.1 Traffic Monitoring Program		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	650	\$43,520
MassDOT	163	\$10,880
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	813	\$54,400

Task 2.2 - Pavement Management Studies

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

Under the FFY 2010 UPWP, MVPC worked with the City of Haverhill to implement a pavement management program and continued to provide technical support to the Town of North Andover as that community continued to implement its own Infrastructure Management program, one that was originally developed in cooperation with MVPC.

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 2014 Activities

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.

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 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 *Development of Pavement Management Performance Measures:* 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. It is anticipated that the new Pavement Management Performance Measures required under MAP-21 will build upon this approach and rely on the pavement condition survey data collected by staff. MVPC staff will work with MassDOT and the Office of Transportation Planning in developing these new measures that are appropriate for the MVMPO.

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 | - Develop Performance Measures – October 2013 – February 2014 |

Funding for Task 2.2 Pavement Management Studies		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	270	\$20,800
MassDOT	67	\$5,200
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	337	\$26,000

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 being used in the development of the MVMPO's Bicycle/Pedestrian Plan
- Maps used in MVMPO's 2012 Regional Transportation 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 development 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 2014 Activities

MVPC staff will again be assisting local communities in managing their digital aerial photography databases. This will 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 have had a chance to work 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 2014.
- 2.3.9 *Transportation Mapping Support:* Provide GIS support and map creation for transportation studies, plans, and analyses. Key among these in FFY 2014 will be the MPO's Title VI/Environmental Justice analyses, and the updating of the transportation elements of the Priority Growth Strategy and other transportation planning activities as becomes necessary.

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 Priority Growth Strategy – January 2014 |

Funding for Task 2.3 Geographic Information Systems		
Source	Person Hours	Amount
FHWA	909	\$78,640
MassDOT	227	\$19,660
FTA Section 5303	149	\$13,000
FTA Section 5307	0	\$0
MVPC	37	\$3,250
TOTAL	1,322	\$114,550

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 MVPMPO'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, Route 114 Corridor Study were all undertaken or initiated largely based on the findings and recommendations generated by the CMP.

In FFY 2012, MVPC staff attended the joint National Highway Institute/Federal highway Administration course on *Advancing Planning for Operations in Metropolitan Areas*. This course presented additional guidance from USDOT on what it considers the key elements in an effective and comprehensive Congestion Management Process. Principal among these is the need for the document to contain Goals and Objectives that can be measured statistically so that the MVPMPO can evaluate the effectiveness of measures being taken to achieve its goals.

Under the FFY 2013 UPWP, staff began the process of identifying *potential* performance measures that might be incorporated into the region's CMP. However, these measures may need to be modified in response to based on guidance that is expected be released by USDOT related to what are acceptable performance measures for use in not only in MPO CMPs, but in Regional Transportation Plans, and other key elements in the transportation planning process as well.

FFY 2014 Activities

Staff will continue the process of developing proposed CMP Goals and Objectives as well as potential performance measures. These will be modified once USDOT releases its guidance in this matter. MVPMPO transportation staff will also prepare and update to the region's CMP. The last complete update to the document was completed in 2011, but is lacking many of the new components that both are and will be required by USDOT.

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:
 - Travel time and delay runs in each identified corridor
 - Monitoring usage at park and ride lots throughout the region
 - Ridership information on congested transit routes/servicesStaff will also investigate the feasibility of purchasing Blue Tooth scanners and other technology that might be used to acquire more detailed travel information.
- 2.4.2 *Development of CMP Goals and Objectives; Performance Measures:* It is the goal of MVPC transportation staff to continue identifying potential options for developing Goals, Objectives and Performance Measures for the CMP that make maximum use of travel data resources. These MVPC-generated options will then be reviewed in terms of how well they meet USDOT's guidelines for incorporating performance measures into Congestion Management Process programs. These guidelines are expected to be released later in 2013. Once they have been reviewed, changes to MVPC's proposed options will be made and any measures mandated by USDOT will be added to the MVPMPO CMP.
- 2.4.3 *Development of 2014 MVPMPO CMP:* The current working CMP, completed in 2011, will be fully updated to reflect new USDOT requirements and recommendations.

Products/Schedule

- Task 2.4.1 - Data Collection – Ongoing
Task 2.4.2 - Development of CMP Goals and Objectives – October 2013 – March 2014
Task 2.4.3 - 2014 MVMPO Congestion Management Process – July 2014

Funding for Task 2.4 Congestion Management Processes		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	393	\$31,800
MassDOT	98	\$7,950
FTA Section 5303	45	\$2,500
FTA Section 5307	0	\$0
MVPC	11	\$625
TOTAL	547	\$42,875

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

Description

With its three interstate highways and many other NHS roadways such as Route 213 and sections of Routes 1A, 28, 97, 110, 113, 114 and 133, 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, the MVRTA and the City of Newburyport continued with preliminary design work for the construction of a parking facility on Titcomb Street that will include a transit component. This site is located just north of Route 1A (High Street), which is an NHS roadway.

MVPC also 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 2013, MVMPD staff continued to work with Newburyport officials regarding options for the usage and management of the Storey Avenue Park and Ride Lot and the Newburyport Commuter Rail Parking Lot. The Storey Avenue lot, despite being recently expanded, still operates at over capacity while the Newburyport Commuter Rail Lot is well below capacity. The MBTA is moving ahead with plans to sell one of the smaller lots at that facility. Staff also contacted staff from the Rockingham MPO and the owner of the major transit service provider in the corridor to discuss issues with Park and Ride facilities in New Hampshire that also impact demand for parking in Massachusetts.

In FFY 2012, a proposal was put forth by local officials for the state to consider constructing a parking lot near the Scotland Road/I-95 interchange to serve the Border to Boston Multi-Use Trail, which is proposed to pass by the site along Scotland Road and is now in preliminary design. There were preliminary discussions regarding how this proposed parking site might also serve as a Park and Ride Facility that could relieve the capacity issues at the Storey Avenue lot.

FFY 2014 Activities

For the FFY 2014 UPWP, Freight Planning has been added to this task. MVPC will undertake the following tasks 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 *City of Newburyport/I-95 Corridor Park and Ride Technical Assistance:* Staff will work with Newburyport officials, MassDOT staff, the MVRTA and NHDOT staff and local transit providers to investigate options for modifying use of the existing park and ride lots in the City and elsewhere in the I-95 corridor to better serve the needs of the community and the traveling public. Staff will examine the potential impact of open-

ing the proposed Multimodal Transit/Parking Facility on Titcomb Street will have on both lots and perform a preliminary assessment of the feasibility of constructing a parking facility adjacent to the Scotland Road/I-95 Interchange. The analysis would also consider NHDOT plans for constructing a new Park and Ride Lot off Route 1 in Hampton and perhaps expanding the Portsmouth Park and Ride Lot.

- 2.5.3 *Survey of Freight Shippers:* MVPC will update its previous survey of freight haulers in the region, which identified a number of potential problem areas on the road network that were inhibiting truck transportation.
- 2.5.4 *Development of Freight Movement Performance Measures:* Guidance released by USDOT regarding this Performance Measure focuses on freight that is shipped on the Interstate System. With the relatively large proportion of Interstate Highway road mileage in the MVMPO region and the large percentage of truck traffic that uses this system (especially I-495), development of this Performance Measure will likely generate information that will be used by the 14 communities in the region that have an interstate roadway running through them. MVPC staff will work with MassDOT and the Office of Transportation Planning in developing these new measures.

Products/Schedule

- | | |
|------------|---|
| Task 2.5.1 | - Development of NHS Projects – ongoing |
| Task 2.5.2 | - Assistance and Technical Support to City of Newburyport and MassDOT to Assess I-95 Corridor Park and Ride Options - Ongoing |
| | - Preliminary study of the feasibility of constructing a new parking facility near Exit 56 on I-95 – April 2014 |
| Task 2.5.3 | - Survey of Freight Shippers – February 2014 |
| Task 2.5.4 | - Development of Freight Movement Performance Measures – October 2013 – February 2014 |

Funding for Task 2.5 Intermodal Connections with NHS		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	118	\$8,480
MassDOT	29	\$2,120
FTA Section 5303	11	\$1,000
FTA Section 5307	0	\$0
MVPC	3	\$250
TOTAL	161	\$11,850

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 the FFY 2012 UPWP, staff also updated the model TransCAD model software and developed a new 2010 baseline network based on the results from the 2010 US Census. At the same time, MVPC continued to calibrate and refine its TransCAD traffic simulation model. This calibration work continued in FFY 2013 and was supported through the incorporation of data for the Merrimack Valley region that was obtained as part of the Statewide Travel Survey.

FFY 2014 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 *Incorporation of New Employment Data:* It is anticipated that detailed Massachusetts Executive Office of Labor and Workforce Development employment data, collected at place of work, will soon be available for the region. When this data becomes available, MVPC will replace its existing TAZ employment information, which is an estimate of DET employment, with the more accurate data.
- 2.6.5 *Transit Ridership:* Staff will work with the MVRTA to get detailed passenger boarding/alighting information for its fixed bus ridership for incorporation into the model.

Products/Schedule

- Task 2.6.2 - Model Calibration and Refinement - Ongoing
Task 2.6.4 - Incorporation of New Employment Data – When Released
Task 2.6.5 - Transit Ridership by Location – February 2014

Funding for Task 2.6 Regional Transportation Model		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	237	\$21,720
MassDOT	59	\$5,430
FTA Section 5303	30	\$2,400
FTA Section 5307	0	\$0
MVPC	8	\$600
TOTAL	334	\$30,150

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.

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.

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 2013.

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

FFY 2014 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 2013 will be the development of the Merrimack Valley Bicycle and Pedestrian Plan. The recent openings of the Salisbury Eastern Marsh Trail and the Newburyport Rail Trail, coupled with funding committed to the construction of Phase I of the Powow Riverwalk in Amesbury, a section of the Bradford Rail Trail in Haverhill, Clipper City Rail Trail in Newburyport and the northern segment of the Border to Boston Multiuse Trail in Salisbury constitute a dramatic change in the bicycle and pedestrian transportation landscape in the region. Ongoing efforts to create bike lanes and bike routes throughout the region further point to the need to develop an updated bicycle and pedestrian plan that will help local and regional officials and the members of the MVMPO to coordinate local and regional bicycle and pedestrian planning efforts.

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 *Develop Merrimack Valley Bicycle and Pedestrian Plan.* MVPC will invite the public to participate in creating the 2013 Merrimack Valley Bicycle and Pedestrian Plan. The plan will focus on links to multi-use trails and transit as well as improving access in village centers and employment areas. Merrimack Valley communities are already creating on-road bicycle facilities. The plan will offer a regional perspective to ensure that proper connections are made between communities and to ensure a seamless and comprehensive network. The Plan will also consider bicycle and pedestrian projects and initiatives taking place in the Rockingham, Nashua, Northern Middlesex and Boston MPO regions.
- 2.7.3 *Bike Sharing Feasibility Study:* The coastal communities of Amesbury, Salisbury and Newburyport are developing an intricate bicycle and pedestrian network that will connect all three communities. More than 1 million people visit this sub region each summer and as a result it suffers from increased congestion during the summer months. To promote more non-motorized transportation, reduce congestion, increase

- economic activity and add value to local and visitor experiences, the MVPC proposes to engage in a bike sharing feasibility study for Newburyport, Salisbury and Amesbury.
- 2.7.4 *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.
- 2.7.5 *Technical Assistance:* MVPC will provide technical assistance on other off-road trail projects including the Georgetown Branch trail, Bradford Rail Trail, Methuen Rail Trail, Merrimack River Trail and Manchester & Lawrence Branch project in Lawrence.
- 2.7.6 *Study and recommend better bicycle and pedestrian access to and around Merrimack College:* Merrimack College is increasingly becoming a more resident college and is seeking to increase the ability of its students to get around safely using alternative modes of transportation. However, the intersections of Elm Street/Route 125/Route 114 and Route 114/Andover Bypass are not pedestrian friendly. MVPC staff will work with the communities and the College to recommend and advance improvements in these areas.
- 2.7.7 *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.
- 2.7.8 *Promote Safer Bicycle and Pedestrian Transportation:* MVPC will work with communities to examine bicycle and pedestrian safety concerns and identify possible improvements. 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.
- 2.7.9 *Water Trail Planning:* Staff will continue to work with the Ipswich Watershed Councils in supporting the on-line water trails guide and trail network that may be accessed on the Eight Towns and the Bay Committee website (www.8tb.org).

Products/Schedule

- | | |
|------------|---|
| Task 2.7.2 | - Development of Final MVMPO Bicycle and Pedestrian Plan –
January 2014 |
| Task 2.7.3 | - Bike Sharing Feasibility Study – September 2014 |
| Task 2.7.4 | - Border to Boston Trail Support – Ongoing |
| Task 2.7.6 | - Study of Bicycle and Pedestrian Access to Merrimack College – December 2013 |

Funding for Task 2.7 Bicycle/Pedestrian/Water Trails Planning		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	328	\$34,840
MassDOT	82	\$8,710
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	410	\$43,550

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.

Previous Work

Under last year's UPWP, MVPC acquired crash data from MassDOT for the year 2009, which was used in reviewing safety conditions at a number of intersections under study. Staff also incorporated traffic volume data for federal-aid roadway segments that was originally developed through the Regional Pavement Management task into a database that will be used to generate **estimated** crash rates for intersections. This information will soon be used by staff to assist in the selection of intersections and roadways with safety problems that should be reviewed by the MVMPO.

FFY 2014 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. Additional information for identifying crash locations will come from reviewing copies of police reports where more detailed crash information is usually provided. 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. MVPC will also continue to monitor data from the Federal Railroad Administration to identify safety problems at the active railroad/roadway crossings in the region.

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 2014 and facilitate creation of a three-year analysis period of 2010-2012.
- 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 and update the default 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 List:* MassDOT often releases 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 *Implement 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 *Safety User's Group:* MVPC Staff will attend meetings of the State's Safety Users Group. Participation in this group will ensure that the data and findings generated through the Strategic Highway Safety Plan are reflected in the region's Safety Monitoring System.
- 2.8.7 *Development of Safety Performance Measures:* Guidance from USDOT indicates that the Safety Performance Measures required by MAP-21 will focus on the number and rate of fatal and serious injury crashes that take place across the nation. Building on the work described under Task 2.8.3, MVPC staff will work with MassDOT and the Office of Transportation Planning in developing additional safety measures that are appropriate for the MVMPO.

Products/Schedule

- Task 2.8.2 - Edit MassDOT Crash Data – May – July 2014
Task 2.8.3 - Develop Revised Intersection Crash Rates – August 2014
Task 2.8.7 - Safety Performance Measures – October 2013 – February 2014

Funding for Task 2.8 Safety Monitoring System		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	162	\$12,520
MassDOT	40	\$3,130
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	202	\$15,650

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 5 – 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 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 Community Development Centers, 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 FFY 2013, the Merrimack Valley Planning Commission continued to host workshops designed to assist local officials in both understanding the various transportation options that are available to improve livability and to provide support in their implementation.

FFY 2014 Activities

MVPC staff will focus its efforts 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 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 integrated 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

Funding for Task 2.9 Transportation and Livability		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	155	\$10,920
MassDOT	39	\$2,730
FTA Section 5303	19	\$1,600
FTA Section 5307	0	\$0
MVPC	5	\$400
TOTAL	218	\$15,650

Task 2.10 - Priority Growth Strategy

Description

In September 2009, the Merrimack Valley Planning Commission approved the Merrimack Valley Priority Growth Strategy (PGS) as the official policy plan for the region. It was undertaken by the by the Commission with the purpose of creating a tool that would support the agency's mission of promoting the coordinated and orderly growth of the area and promoting the general welfare of its citizens.

Working in cooperation with the 15 cities and towns in the Valley, MVPC identified over 50 Concentrated Development Centers (CDCs), which are areas where local officials wanted to target future growth. Open space areas and locations containing important environmental resources were also identified.

MVPC evaluated how well each of these CDCs adhered to accepted Smart Growth development principles and reviewed how well the CDCs and open space/environmental resource protection areas selected by the communities fit within a regional context. CDC-specific strategies were then developed to help local officials achieve their economic development and land preservation goals in concert with those of neighboring communities.

Previous Work

The original PGS was developed by MVPC through a multijurisdictional planning effort involving the communities of the Merrimack Valley, a variety of state agencies and departments and with the support of key federal partners. Both MassDOT and USDOT were important participants in that effort.

Since the completion of the document in 2009, the Merrimack Valley MPO has taken steps to integrate the PGS into the 3C planning process by including it as a criterion in the Transportation Project Evaluation Criteria that are used to assess transportation project proposals.

In addition, MVPC met with the EOHED Secretary in 2011 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 for the past 12 months identifying which of the 57 regional CDCs identified in the Priority Growth Strategy had statewide significance to become a "Priority Development Area." A formal announcement of the Planning Ahead for Growth and this regions "PDA's" is to be scheduled at Regional Planning Day on June 20, 2013.In recognition of the value the PGS can have in supporting Sustainable Development

FFY 2014 Activities

In the months ahead, MVPC staff intends to update the Priority Growth Strategy, conducting a re-write of the section describing the CDCs in order to align them with the Commonwealth's Planning Ahead for Growth initiative. It is anticipated that the new PGS will redesignate the previous Concentrated Development Centers as PDA's as having state, regional, and local significance.

In addition, changes have taken place in and around many of the CDCs identified in the original study. Focusing on the area of transportation, priority transportation projects contained in many of the CDC Recommended Strategies have been completed and, in some cases, new project concepts have begun to be developed. The completion of these projects has in turn altered the quality of access to these locations.

MVPC transportation staff will revisit its assessment of the quality of transportation access to and from what are currently called CDCs, but whose classification may change as part of the integration of the PGS into the Planning Ahead for Growth initiative.

Tasks

- 2.10.1 *Update Status of Transportation Projects Located In and Around Existing CDCs:* Staff will determine which projects have been completed in CDC areas, those that have progressed from the 'proposal' to the planning/project development phase.
- 2.10.2 *Update Listing of Community Priority Transportation Projects:* Transportation staff will contact community officials to review the status of transportation projects in their CDC(s) and then update the list of community priority projects.
- 2.10.3 *Update Assessment of Access to Existing CDCs:* Based on the results of Task 2.11.2, MVPC will reevaluate the quality of access to and from all CDCs and make changes to the transportation items contained in their *Recommended Strategy*, as needed. These implementation activities will be developed in cooperation with the MVRTA and integrated into the Authority's Five Year Capital and Five Year Bus Improvement Design programs.
- 2.10.4 *Update 'Existing Regional Conditions' Section of the Report:* This section of the report contains a wealth of information that describes the nature and condition of the region's transportation network. Much of this

information, such as the list of Structurally Deficient bridges, summary of the condition the region's roads, etc. has been updated since 2009 and these changes need to be reflected in the newer version of the document.

Products/Schedule

- | | |
|-------------|--|
| Task 2.10.2 | - Revised Listing of Community Priority Projects – November 2013 |
| Task 2.10.3 | - CDC Access Assessments – December 2013 |
| Task 2.10.4 | - Existing Regional Conditions – December 2013 |

Funding for Task 2.10 Priority Growth Strategy		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	126	\$9,320
MassDOT	32	\$2,330
FTA Section 5303	22	\$1,600
FTA Section 5307	0	\$0
MVPC	5	\$400
TOTAL	185	\$13,650

TASK 3.0 - SHORT AND LONG-RANGE TRANSPORTATION PLANNING ACTIVITIES

This page left blank intentionally

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 group's 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

Funding for Task 3.1 Elderly and Disabled/ADA Planning		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	0	\$0
MassDOT	0	\$0
FTA Section 5303	21	\$2,400
FTA Section 5307	346	\$30,480
MVPC	92	\$8,220
TOTAL	458	\$41,100

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.

In Haverhill the MVRTA continued work on the potential relocation of the Washington Square Transit Station and will select a site and commence final design. 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 2014 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 2014 UPWP. MVPC will also provide technical assistance on transit issues to communities. 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 *Implementation and Evaluation of New Service:* MVPC will assist the MVRTA with implementing new bus services as well as evaluating them, including the new Salisbury fixed bus route, River Road and New Hampshire Mall services.
- 3.2.4 *Support Mobility Working Group:* MVPC will provide support to maintain the MVRTA Mobility Working Group.
- 3.2.5 *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.

Products/Schedule

- Task 3.2.2 - Study Report for Evaluation of Pedestrian Access to Transit – May 2014
Task 3.2.4 - Support Mobility Working Group – Ongoing

Funding for Task 3.2 Transit Planning		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	0	\$0
MassDOT	0	\$0
FTA Section 5303	250	\$21,000
FTA Section 5307	518	\$42,120
MVPC	192	\$15,780
TOTAL	961	\$78,900

Task 3.3 – Storey Avenue Traffic Study in Newburyport

Description

Storey Avenue (Route 113) serves as the primary gateway to the City of Newburyport as it connects the City to Interstate 95. East of the interchange, An arterial roadway, Storey Avenue serves a combination of commercial and residential uses up to its intersection with High Street. Included are two shopping plazas, banks, fast food restaurants, a few scattered single family homes and some multiunit housing. Continued development in this corridor, along with proposals for the redevelopment of certain abutting parcels, have prompted concerns from local officials and residents about the capacity of the roadway and its appearance.

Storey Avenue begins at what will be the eastern end of the study corridor, the roadway's intersection with High Street, Moseley Avenue, and Ferry Road. The geometry of this intersection is unusual and local officials have been concerned about the safety problems created by the alignment of these roadways.

The above factors have prompted City officials to request that the MVMPD undertake a traffic study of the Storey Avenue corridor that would extend from roadway's intersection with Russell Terrace east to its terminus at High Street.

Previous Work

MassDOT made changes to the lane configuration and signal timing/phasing at the Low Street/Storey Avenue intersection in 2007 to address recurring moderate to severe traffic congestion problems.

In 2011, MassDOT initiated a series of improvements to the signalized intersections along Storey Avenue in anticipation of the closing of the Hines Bridge over the Merrimack River. These improvements to the signal system were made in recognition of the fact that the bridge closure would divert a significant volume of traffic from Spofford Street to Storey Avenue.

In 2012, the Newburyport Planning Board requested Technical Assistance from MVPC in evaluating a Traffic Impact and Access Study prepared by the developer of a proposed commercial site that would be located on the south side of Storey Avenue between Low Street and Russell Terrace. The developer's study recommended that a center turn lane be created along Storey Avenue between Russell Terrace and a point just west of the roadway's intersection with Low Street. The MVPC identified a number of potential traffic and roadway issues on Storey Avenue between Russell Terrace and the Noble Street intersection.

Early in FFY 2013, MVPC completed a Road Safety Audit (RSA) of the Storey Avenue/Interstate 95 interchange which identified a number of problems with signage, signalization and ramp geometries. Some of these problems were impacting the intersection of Storey Avenue with Russell Terrace.

FFY 2014 Activities

MVPC transportation staff will complete the following tasks with staff from MassDOT and officials from the City of Newburyport in developing proposed short and long-term improvements to this intersection to correct any safety/capacity deficiencies identified through an operational analysis.

Tasks

- 3.3.1 *Identify and Meet with Corridor Stakeholders:* MVPC will meet the City officials to identify stakeholders to 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 seven intersections and several commercial driveways in the corridor. Crash reports for the most recent three year period available will be collected and analyzed. Staff will also review MassDOT, City of Newburyport, and Registry of Deeds layout plans to identify the roadway right of way. It will also inventory and evaluate the current condition of the roadway surface, sidewalks, bicycle accommodations and drainage structures. Staff will contact the Newburyport DPW to determine the status of other utilities in the corridor.
- 3.3.3 *Level of Service Analysis:* MVPC will perform capacity analyses for the seven study corridor intersections.
- 3.3.4 *Traffic Signal Warrant Analysis:* Staff will collect 48-hour ATR counts on all approaches to the Noble Street/Storey Avenue intersection and then perform a traffic signal warrant analysis for that location.
- 3.3.5 *Identification and Assessment of Access Management Opportunities in the Corridor:* Staff will review the locations of current curb cuts along Storey Avenue and at locations that might be developed in the future (see Task 3.3.7 below) to identify opportunities to shift curb cuts, share driveways, and connect parcels and thereby improve traffic safety.

- 3.3.6 *Review Signage in Corridor:* MVPC staff will work with MassDOT and City officials to review the adequacy and efficacy of existing directional, regulatory and other private signage in the corridor and, where appropriate, develop recommended modifications.
- 3.3.7 *Present Current Conditions Findings to Corridor Study Committee:* The results of work accomplished in Tasks 3.3.2 – 3.3.6 will be presented to the Corridor Study Committee for review.
- 3.3.8 *Future Development:* Meet with Newburyport Community Development/Planning officials to discuss current land use in the corridor (including intersecting roadways), current development proposals, proposed zoning changes and the potential for future development the corridor over the next 20 years.
- 3.3.9 *Project Future Traffic Conditions:* MVPC will develop future year peak period traffic volumes for the corridor, including intersecting roadways and perform LOS analyses at the seven intersections in the study area.
- 3.3.10 *Identify/Evaluate Corridor Improvement Options:* A series of proposed corridor improvement options will be prepared by staff including a preliminary estimate of the magnitude of their associated costs
- 3.3.11 *Present Corridor Improvement Options to Corridor Study Committee:* The proposed corridor improvement options identified in the preceding task will be presented to the Corridor Study Committee for review and comment.
- 3.3.12 *Prepare Draft and Final Versions of Study Report:* Based on the input received from the Corridor Study Committee, MVPC will prepare a draft report that outlines the study's findings and recommendations. This draft report will be distributed to the Corridor Study Committee and other City officials for review and comment. A final version of the report will then be prepared.

Products/Schedule

Task 3.3.1	- Stakeholders Meeting – October 2013
Task 3.3.2	- Data Collection – October 2013 – July 2014
Task 3.3.7	- Current Conditions Report - May 2014
Task 3.3.9	- Future Traffic Conditions Report – July 2014
Task 3.6.11	- Corridor Improvement Options – August 2014
Task 3.6.12	- Draft Study Report – September 2014

Funding for Task 3.3 Storey Avenue Corridor Study		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	386	\$30,400
MassDOT	96	\$7,600
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	482	\$38,000

Task 3.4 – River Street/Washington Street/Railroad Avenue Intersection Study in Haverhill

Description

This signalized intersection lies at the western edge of Haverhill's Central Business District, which is the site of the Haverhill Intermodal Transportation Center, the City's growing restaurant district, and a number of former mill buildings that have been or are in the process of being redeveloped as multiunit housing.

Since the reopening of the Comeau Bridge, traffic congestion at this intersection as well as two unsignalized intersections located just to the east (Washington Street/Washington Avenue; Washington Street/Moulton Way) has been a recurrent problem. Eastbound traffic queues on River Street often extend far back from the intersection. The continued redevelopment in this part of the City has placed increased pressure on the roadway network. The unusual alignment of this intersection, presence of on-street parking, pedestrian movements, limited sight distance on some of the approaches at these three intersections all seem to contribute to this congestion problem.

This study is designed to identify all the factors contributing to this congestion problem and to propose a limited number of improvement options for City officials to consider.

Previous Work

Traffic in this section of the City was studies as part of the development of the Haverhill Intermodal Transportation, which opened in 2012. It is believed that MassDOT modified the signal equipment, signal timing and signal phasing as part of the reconstruction of the Comeau Bridge.

FFY 2014 Activities

MVPC will perform a 'bottleneck' congestion study of the area described above. Its intent is to present City of Haverhill officials with an assessment of the effectiveness (or lack thereof) of various traffic control and/or limited scale roadway improvement options.

Tasks

- 3.4.1 *Data Collection:* MVPC staff will collect peak hour turning movement and pedestrian crossing data at this intersection as well as at the two unsignalized intersections identified above. Crash reports for the most recent three year period available will be collected and analyzed. Sight-distances on the approaches to all three intersections will be determined. Signal times/phasing will be identified at the primary intersection. Particular attention will be paid to identifying the causes of instances where traffic congestion from one intersection impacted one or both of the others.
- 3.4.2 *Data Analyses:* MVPC will then complete a Level of Service analysis of the intersections to determine how well they are performing and to identify/quantify the specific causes of 'spillover' congestion in the area.
- 3.4.3 *Conduct Road Audit in the Area:* Staff will present the findings from Task 3.4.2 to local officials in a Road Audit. Should analysis show that one or more of these intersections has a sufficiently high crash rate, an RSA will be conducted instead. This audit will provide MVPC with information and suggestions and allow for the development of a small range of improvement options that could be analyzed further.
- 3.4.4 *Develop and Evaluate Alternative Improvement Options:* The information obtained through Tasks 3.4.2 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.
- 3.4.5 *Study Report:* MVPC staff will prepare a report that outlines the study's findings and recommendations. Should the analyses performed above show that one or more of the intersections in the study area has a crash rate above the statewide average, draft and final versions of a Road Safety Audit report will be prepared instead.

Products/Schedule

- | | |
|------------|---|
| Task 3.4.1 | - Data Collection – October 2013 |
| Task 3.4.2 | - Data Analysis – November 2013 |
| Task 3.4.3 | - Road (Road Safety) Audit – April 2014 |
| Task 3.4.6 | - Draft Study Report – May 2014 |
| | - Final Study Report – July 2014 |

Funding for Task 3.4		
River St./Washington St/Railroad Ave. Study.		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	180	\$14,920
MassDOT	45	\$3,730
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	225	\$18,650

Task 3.5 – Methuen Square Intersection and Safety Study

Description

Methuen Square may be best described as three signalized intersections that are located in close proximity to each other. This proximity, combined with the unusual alignment of these intersections and its topography, often results in extended delays for vehicles traveling through the area.

In addition, MassDOT crash data for the years 2006-2008 identified 54 crashes that took place at the Broadway/Lawrence Street intersection and, just further south, 29 crashes at Broadway's intersection with Osgood Street. It is possible that even more crashes took place at this location because many crashes that were coded as having taken place at the intersection of Hampshire Road and Route 28 located near Route 213 may have actually taken place in the Square.

Previous Work

None.

FFY 2014 Activities

MVPC will perform a traffic study of this area that is designed to address both issues described above. Its intent is to present City of Methuen officials with an assessment of the effectiveness (or lack thereof) of various traffic control and/or limited scale roadway improvement options that might be used to address these problems.

Tasks

- 3.5.1 *Data Collection:* MVPC staff will collect peak hour turning movement and pedestrian crossing data at these intersections and collect the most recent three years of crash data available from the Methuen Police Department for this location. ATR counts will be taken on selected intersection approaches.
- 3.5.2 *Data Analyses:* MVPC will then complete a Level of Service (LOS) analysis of the intersections to determine how well they are functioning and to identify any improvements that might be made to reduce overall delay, improve sight distance (if necessary), and review signal phasing should an analysis of crash data show a particular problem with certain vehicle movements.
- 3.5.3 *Conduct RSA at the Intersection:* An RSA of a roadway or intersection with identified safety problems must be completed before the MVMPO can commit to funding any needed improvements under the Highway Safety Improvement Program. The RSA provides an opportunity for MVMPO staff to meet with MassDOT staff as well as local DPW personnel, Public Safety staff, and community development officials and present its assessment of existing travel conditions and then receive their thoughts on the causes of the identified congestion and safety problems. Staff will hold an RSA as part of this analysis and prepare both a draft and final RSA report.
- 3.5.4 *Develop Short and Long Term Recommended Improvements:* Based on the findings of the traffic and safety analyses completed for all potential improvements, staff will again meet with City officials and staff from MassDOT to identify final short-term and any long-term improvements to the intersection with recommendations for future potential TIP projects.
- 3.5.5 *Prepare Draft/Final Road Safety Audit Reports:* MVPC staff will prepare draft and final reports that outline the study's findings and recommendations for MVMPO consideration for inclusion in future TIP documents.

Products/Schedule

- | | |
|------------|----------------------------------|
| Task 3.5.1 | - Data Collection – April 2014 |
| Task 3.5.2 | - Data Analysis –April 2014 |
| Task 3.5.3 | - Conduct RSA – May 2014 |
| Task 3.5.6 | - Draft RSA Report – June 2014 |
| | - Final RSA Report – August 2014 |

Funding for Task 3.5		
Methuen Square Intersection and Safety Study		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	186	\$15,320
MassDOT	46	\$3,830
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	232	\$19,150

Task 3.6 – Route 133/Raytheon Driveway Congestion Study

Description

This signalized intersection is located just west of the Route 133/Interstate 93 interchange in Andover. Staff has observed significant queuing on the Route 133 eastbound approach to the intersection during the morning peak period.

The Raytheon facility in Andover is the largest employer in the Merrimack Valley. The intersection described above is located north of the facility. Access from the south is provided via Frontage Road, which is located at the end of the ramps from/to Interstate 93 at the Dascomb Road interchange.

Previous Work

None.

FFY 2014 Activities

MVPC will perform a 'bottleneck' congestion study of the intersection described above. Its intent is to identify readily implementable actions that could be taken by the Town of Andover to address the observed congestion problems.

Tasks

- 3.6.1 *Data Collection:* MVPC staff will collect peak hour turning movement and pedestrian crossing data at this intersection and collect ATR volume counts on Route 133. Signal timing/phasing will be identified at the primary intersection.
- 3.6.2 *Data Analyses:* MVPC will then complete a Level of Service analysis of the intersections to determine how well they are performing and to identify/quantify the specific causes of 'spillover' congestion in the area.
- 3.6.3 *Develop and Evaluate Alternative Improvement Options:* The information obtained through Task 3.6.2 will be used to develop and analyze a small set of improvement options.
- 3.6.4 *Study Report:* MVPC staff will prepare a report that outlines the study's findings and recommendations.

Products/Schedule

- | | |
|------------|---|
| Task 3.6.1 | - Data Collection – October 2013 |
| Task 3.6.2 | - Data Analysis – October - November 2013 |
| Task 3.6.6 | - Draft/Final Intersection Study Report – December 2013 |

Funding for Task 3.6 Route 133 / Raytheon Driveway Study		
Source	Person Hours	Amount
FHWA	90	\$7,320
MassDOT	22	\$1,830
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	112	\$9,150

Task 3.7 – Route 133 Traffic Study in Rowley

Description

Route 133 (Haverhill Street) is an east/west arterial roadway that crosses through most of the Town of Rowley. It connects the town to Interstate 95 in Georgetown to the west and to Route 1A in the east, just north of the Ipswich Town Line. The north/south arterial Route 1 intersects with Route 133 at a point approximately midway between these two locations. The vast majority of parcels along the highway are in single family land use.

Town officials have expressed concern over the lack of bicycle and pedestrian accommodations in the community in general and along the section of Route 133 that lies between its intersection with Route 1 and its intersection with Route 1A (Main Street) in particular. They have asked MVPC to review this section of the corridor and to recommend improvements that would improve bicycle and pedestrian travel and could be incorporated into a future roadway improvement project.

Previous Work

The Route 1/Route 133 intersection located at the western end of the proposed study area has been identified as being congested in the MVMPO's Congestion Management Process. The MVMPO completed a traffic analysis of this intersection in 2010, which recommended making a number of improvements including widening the eastbound approach and modifying the existing signal phasing and timing.

FFY 2014 Activities

MVPC transportation staff will complete a traffic and safety study of the above corridor with a focus on identifying improvements that will be needed to provide a safe and convenient environment for bicyclists and pedestrians. It will also assess the overall condition of the roadway including the travel surface, drainage structures and underlying utilities.

Tasks

- 3.7.1 *Identify and Meet with Corridor Stakeholders:* MVPC will meet the Town of Rowley officials to identify stakeholders to serve on a Corridor Study Committee. A meeting will then be held with these stakeholders where MVPC will present the scope of the study and receive any comments that might be included in a revised study scope.
- 3.7.2 *Data Collection:* Crash reports for the most recent three year period available will be collected and analyzed. At intersections shown to have a relatively high number of crashes, peak period turning movement counts will be taken and a Level of Service analyses performed. Sight distances will also be checked at these locations. Staff will also review MassDOT, Town of Rowley, and Registry of Deeds layout plans to identify the roadway right of way. ATR volume counts will also be taken. Staff will inventory and evaluate the current condition of the roadway surface, sidewalks, bicycle accommodations and drainage structures and contact the Rowley DPW to determine the status of other utilities in the corridor.
- 3.7.3 *Identification and Assessment of Access Management Opportunities in the Corridor:* Staff will review the locations and nature of current curb cuts along this section of Haverhill Street to identify opportunities where they could be better defined or shifted to improve safety.
- 3.7.4 *Present Current Conditions Findings to Corridor Study Committee:* The results of work accomplished in Tasks 3.7.2 – 3.7.3 will be presented to the Corridor Study Committee for review.
- 3.7.5 *Future Development:* Meet with Rowley officials to discuss current land use in the corridor, current development proposals, proposed zoning changes and the potential for future development the corridor over the next 20 years.
- 3.7.6 *Project Future Traffic Conditions:* MVPC will develop future year peak period traffic volumes for the corridor, including intersecting roadways. Peak period turning movement counts will be taken at intersections that would experience significant traffic growth based on the information gathered in Task 3.7.5. LOS analyses would be prepared based on the projected traffic volumes at these intersections.
- 3.7.7 *Identify/Evaluate Corridor Improvement Options:* A series of proposed corridor improvement options will be prepared by staff including a preliminary estimate of the magnitude of their associated costs
- 3.7.8 *Present Corridor Improvement Options to Corridor Study Committee:* The proposed corridor improvement options identified in the preceding task will be presented to the Corridor Study Committee for review and comment.
- 3.7.9 *Prepare Draft and Final Versions of Study Report:* Based on the input received from the Corridor Study Committee, MVPC will prepare a draft report that outlines the study's findings and recommendations. This

draft report will be distributed to the Corridor Study Committee and other community officials for review and comment. A final version of the report will then be prepared.

Products/Schedule

- | | |
|-------------|---|
| Task 3.7.1 | - Stakeholders Meeting – February 2014 |
| Task 3.7.2 | - Data Collection – October 2013 – July 2014 |
| Task 3.7.6 | - Current Conditions Report - April 2014 |
| Task 3.7.8 | - Future Traffic Conditions Report – June 2014 |
| Task 3.7.10 | - Corridor Improvement Options – July 2014 |
| Task 3.7.11 | - Draft/Final Study Reports – August/September 2014 |

Funding for Task 3.7 Route 133 Corridor Study in Rowley		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	134	\$11,720
MassDOT	34	\$2,930
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	168	\$14,650

Task 3.8 – 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 ('choke-points') in Boxford, Georgetown, Groveland, Merrimac, Rowley, Salisbury, and West Newbury. Undersized or damaged culverts and other inadequate drainage facilities in these 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.

Staff also worked 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. One such workshop, "Roads, Runoff, and Water Management in Northeastern, MA", hosted in April 2013 by the Ipswich River Watershed Association and Parker-Ipswich-Essex Rivers Restoration Partnership with assistance from MVPC, attracted over 100 municipal, non-profit, and government agency participants from throughout the Merrimack Valley, North Shore, and Metro Boston regions.

The compilation and digital mapping of local stormwater infrastructure information will aid the communities as they begin updating their Phase II Storm Water Management Programs (SWMPs) when the new EPA Small MS4 (Municipal Separate Storm Sewer Systems) requirements are finalized and issued. Some of this same information is also being used by MVPC in preparing the Merrimack Valley Region Multi-Hazard Mitigation Plan for 2013-2018, a draft of which will be submitted for review by FEMA by the end of this calendar year (see Task 4.3 – Regional Transportation Security).

FFY 2014 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

- 3.8.1 *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.
- 3.8.2 *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.
- 3.8.3 *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 3.8.1 - Training Workshops & Regulations/Outreach Materials – October 2013- August 2014
Task 3.8.2 - Stormwater Infrastructure Inventorying/Mapping – October 2013-September 2014
Task 3.8.3 - Stormwater Sampling Program Training & Design – April 2013 – September 2014

Funding for Task 3.8 Stormwater Management Technical Assistance		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	247	\$22,400
MassDOT	62	\$5,600
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
CZM/MassBays	110	\$10,000
MVPC	0	\$0
TOTAL	419	\$38,000

Task 3.9 - 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

The MVMPO had originally intended to complete the mapping of areas prone to the impacts of climate change using LIDAR elevational mapping information and best available estimates for anticipated sea level rise, storm surge, and inland flooding. However, the LIDAR mapping information has not yet been released in a usable format and may not become available until the final quarter of FFY 2013. After reviewing the maps of areas prone to flooding in regions where LIDAR information was not used, staff decided to hold off on its mapping efforts until the higher-resolution LIDAR data becomes available.

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. Also, several local case studies where communities innovatively addressed vulnerability and impacts of sea level rise were addressed.

FFY 2014 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

- 3.9.1 *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.)

- 3.9.2 *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.
- 3.9.3 *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.
- 3.9.4 *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 (arming the coastline versus natural protection), and adaptation strategies. Topics will also include real life lessons from Hurricane Sandy, insurance costs, inland flooding impacts, and case studies. A second regional workshop, also aimed at municipal officials and staff (public works, public safety, code enforcement, health, conservation) will present and discuss the inventory and map results from Tasks 3.8.1 and 3.8.2 above.
- 3.9.5 *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 3.9.1	- Climate change impact area databases and maps – Oct. 2013-March 2014
Task 3.9.2	- At-risk transportation infrastructure and services maps – March - June 2014
Task 3.9.3	- Develop Transportation Infrastructure Vulnerability Assessment Methodology – March – June 2014
Task 3.9.4	- Public workshop & handout maps and materials – Oct. 2013-Sept. 2014

Funding for Task 3.9 Climate Change		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	262	\$22,720
MassDOT	65	\$5,680
FTA Section 5303	14	\$1,200
FTA Section 5307	0	\$0
MVPC	3	\$300
TOTAL	344	\$29,900

TASK 4.0 - OTHER TRANSPORTATION STUDIES

This page left blank intentionally

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.

Finally, 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 FFY 2012, the MVRTA continued efforts to update the surveillance equipment on its fixed route and demand response vehicles.

Also in 2012, MassDOT initiated an effort to update the Regional Intelligent Transportation System (ITS) Architectures for all four regions in Massachusetts by creating regional ITS data archives for the storage, compilation, and analysis of transportation data from multiple agencies. This data would then be made accessible to stakeholders through a secure web portal or by other means.

FFY 2014 Activities

The creation of the data archive for the Boston ITS Architecture area comes at a fortuitous time for the MVMPO. Under the FFY 2013 UPWP, staff will be developing goals, objectives and evaluation measures for its Congestion Management Process and one of the key factors influencing the selection of the goals and objectives will be the availability of transportation data that is available through the existing ITS architecture. MVPC will work closely with MassDOT's Office of Transportation Planning and the consultant charged with task of developing the archive to identify the possible data resources that will be considered for inclusion.

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 CMP goals and objectives.

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 |

Funding for Task 4.1 Intelligent Transportation Systems		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	62	\$5,320
MassDOT	15	\$1,330
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	77	\$6,650

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 2013 UPWP and in other recent years include:

- Review of traffic, safety and parking issues on Plum Island in Newbury
- Prepare a Request for Quotes for the Town of West Newbury to procure the services of a traffic consultant to review the traffic impact analysis for a proposed residential development off Route 113
- Prepare a Request for Proposals for the City of Lawrence to procure the services of a traffic engineering/design consultant to design and oversee construction of pedestrian improvements along a section of Union Street.
- Assist City of Haverhill in identifying options for improving pedestrian safety along Route 125 near Sheridan Street (FFY 2012)
- Review traffic impacts of proposed rezoning of two residential parcels along Route 113 in Newburyport.
- Develop revised intersection plan for Routes 110/108 in Haverhill (FFY 2012)
- Assist City of Haverhill in identifying overhead street lights that could be turned off in order to lower the community's expenditures on electricity (FFY 2011)
- Review traffic and safety issues at the intersection of Parker Street and Merrimack Street in Lawrence (FFY 2011)
- Assist the City of Haverhill in identifying options for improving safety of pedestrian traffic to Central Plaza (FFY 2010)
- Review options for making improvements to the Route 97 (Broadway)/Lake Street intersection in Haverhill (FFY 2010)

Where such LTA analyses show that a corridor or intersection will deteriorate to a level that would cause it to be categorized as a "Most Severe", "Severe", or "Problem" congestion location, it would be included in the CMS.

FFY 2014 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

Funding for Task 4.2 Local Technical Assistance		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	226	\$17,360
MassDOT	56	\$4,340
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	282	\$21,700

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. These events have also forced officials to consider how the existing transportation system can be integrated into plans designed to ensure the safety of citizens in areas that could be the target of another terrorist event or a natural disaster.

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). That law established a national program for pre-disaster mitigation and streamlined the federal administration of disaster relief. It 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 considered 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.

The 2008 Multi-Hazard Pre-Disaster Mitigation Plan is a 5-year document that remained in effect through February 2013. 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 2013.

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

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.

FFY 2014 Activities

Staff will continue to work with our communities to complete the Multi-Hazard Mitigation Plan for 2013 - 2018. 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 2013 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 for 2013-2018:* 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. MVPC will update and maintain the document by attending instructional workshops on disaster mitigation planning and working meetings with local public safety personnel.

Products/Schedule

- | | |
|------------|---|
| Task 4.3.1 | - Review Developments in Transportation Security Planning - Ongoing |
| Task 4.3.2 | - Draft Multi-Hazard Mitigation Plan for 2013-2018 – Dec. 2013 |
| | - Final Multi-Hazard Mitigation Plan for 2013-2018 -- March 2014 |

Funding for Task 4.3 Regional Transportation Security		
Source	Person Hours	Amount
FHWA	95	\$9,080
MassDOT	24	\$2,270
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	119	\$11,350

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 public ways. 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. To carry out this mandate, the General Court has defined procedures that must be followed by the regional planning agencies.

Previous Work

During FFY 2009, staff worked with the Town of Amesbury to initiate a request for the discontinuance of a section of county road layout near the intersection of Routes 150 and 110. MVPC developed the necessary forms and outlined the process that must be followed in processing the town's discontinuance request. The Merrimack Valley Regional Planning Commission Adjudicatory Board met on June 18, 2009 after a public viewing at the site and took action to approve the discontinuance.

In FFY 2011, the MVPC Adjudicatory Board received 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. The board met on September 5, 2011 and took action approving this proposed discontinuance.

In FFY 2012, the Adjudicatory Board received a request from the City of Amesbury to discontinue a sliver of the old County Road layout along Route 110. The Board met on September 27, 2012 and approved the town's request to discontinue this small parcel.

In FFY 2013, the Board received 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. The Adjudicatory Board met on March 7, 2013 to consider this discontinuance request. Based on feedback received from abutters at the site viewing and with the consent of the Board of Selectmen, the Adjudicatory Board voted to continue the meeting to a later date thus allowing both parties time to reach consensus on the future use of the right of way.

FFY 2014 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

Funding for Task 4.4 County Roads Adjudication		
Source	Person Hours	Amount
FHWA	45	\$2,880
MassDOT	11	\$720
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	56	\$3,600

This page left blank intentionally

FFY 2014 UPWP TASK FUNDING SUMMARY

Task	Description	FHWA (PL)	MassDOT	FTA/ MassDOT Sect. 5303	FTA/ MVRTA Sect. 5307	MVPC	CZM/ MassBays	TOTAL
1.1	Mgt. & Spt.	\$55,280	\$13,820	\$23,400	\$7,400	\$7,700		\$107,600
1.2	Public Part.	\$35,040	\$8,760	\$16,980	\$0	\$4,245		\$65,025
1.3	UWPP	\$11,280	\$2,820	\$2,800	\$0	\$700		\$17,600
1.4	TIP	\$24,120	\$6,030	\$4,500	\$0	\$1,125		\$35,775
1.5	Update Web Pages	\$5,720	\$1,430	\$1,098	\$0	\$275		\$8,523
1.6	Title VI/Environmental Justice/LEP	\$20,920	\$5,230	\$8,000	\$0	\$2,000		\$36,150
1.7	Transportation Plan	\$14,880	\$3,720	\$2,800	\$0	\$700		\$22,100
2.1	Traffic Monitoring	\$43,520	\$10,880	\$0	\$0	\$0		\$54,400
2.2	Reg. Pave. Mgt.	\$20,800	\$5,200	\$0	\$0	\$0		\$26,000
2.3	GIS	\$78,640	\$19,660	\$13,000	\$0	\$3,250		\$114,550
2.4	CMS	\$31,800	\$7,950	\$2,500	\$0	\$625		\$42,875
2.5	NHS Connections	\$8,480	\$2,120	\$1,000	\$0	\$250		\$11,850
2.6	Model	\$21,720	\$5,430	\$2,400	\$0	\$600		\$30,150
2.7	Bike/Ped/Water Trails	\$34,840	\$8,710	\$0	\$0	\$0		\$43,550
2.8	Safety Monitoring	\$12,520	\$3,130	\$0	\$0	\$0		\$15,650
2.9	Livability	\$10,920	\$2,730	\$1,600	\$0	\$400		\$15,650
2.10	Priority Growth Strategy	\$9,320	\$2,330	\$1,600	\$0	\$400		\$13,650
3.1	E&D Planning	\$0	\$0	\$2,400	\$30,480	\$8,220		\$41,100
3.2	Transit Planning	\$0	\$0	\$21,000	\$42,120	\$15,780		\$78,900
3.3	Stoney Avenue Traffic Study	\$30,400	\$7,600	\$0	\$0	\$0		\$38,000
3.4	River St./Washington St./Railroad Ave.	\$14,920	\$3,730	\$0	\$0	\$0		\$18,650
3.5	Methuen Sq. Congestion & Safety	\$15,320	\$3,830	\$0	\$0	\$0		\$19,150
3.6	Route 133/Raytheon Driveway in Andover	\$7,320	\$1,830	\$0	\$0	\$0		\$9,150
3.7	Route 133 Traffic Study in Rowley	\$11,720	\$2,930	\$0	\$0	\$0		\$14,650
3.8	Stormwater Planning	\$22,400	\$5,600	\$0	\$0	\$10,000		\$38,000
3.9	Climate Change	\$22,720	\$5,680	\$1,200	\$0	\$300		\$29,900
4.1	Intelligent Trans. Systems	\$5,320	\$1,330	\$0	\$0	\$0		\$6,650
4.2	Local Technical Assistance	\$17,360	\$4,340	\$0	\$0	\$0		\$21,700
4.3	Transportation Security	\$9,080	\$2,270	\$0	\$0	\$0		\$11,350
4.4	County Roads Adjudication	\$2,880	\$720	\$0	\$0	\$0		\$3,600
	TOTAL	\$599,240	\$149,810	\$106,278	\$80,000	\$46,570	\$10,000	\$991,898

This page left blank intentionally

MVMPO ENDORSEMENT PAGE



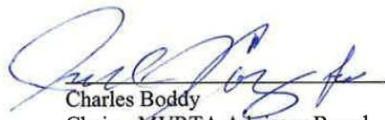
MERRIMACK VALLEY METROPOLITAN PLANNING ORGANIZATION ENDORSEMENT

MERRIMACK VALLEY REGION FEDERAL FISCAL YEAR 2014 UNIFIED PLANNING WORK PROGRAM

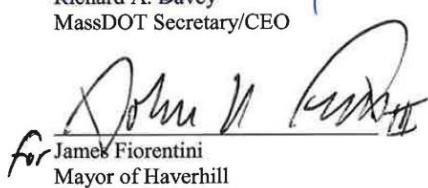
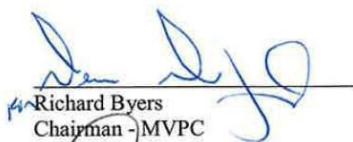
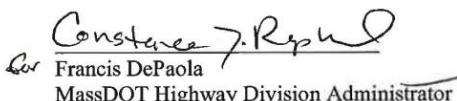
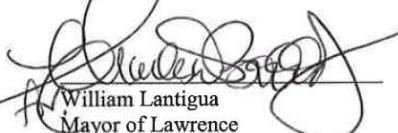
The undersigned representatives on the Merrimack Valley Metropolitan Planning Organization hereby endorse the Merrimack Valley region's Federal Fiscal Year 2014 Unified Planning Work Program.



Richard A. Davey
MassDOT Secretary/CEO



Charles Boddy
Chair - MVRTA Advisory Board


for James Fiorentini
Mayor of Haverhill
for Richard Byers
Chairman - MVPC
for Francis DePaola
MassDOT Highway Division Administrator
for William Lantigua
Mayor of Lawrence

Curt Bellavance
Town of North Andover

Robert Snow
Town of Rowley

Thatcher W. Kezer III
Mayor of Amesbury

for Stephen Smith
Georgetown Selectman

Date: June 27, 2013

This page left blank intentionally

COMMENTS RECEIVED ON MVMPO DRAFT FFY 2014 UPWP

This page left blank intentionally

MVRTA Comments on DRAFT FFY 2014 UPWP

Date: 6/19/2013

1. Page: 49 Task 2.5, Subtask 2.5.2: Coordination with MVRTA and City efforts to construct the Intermodal Transit/Parking Facility is required

Subtask 2.5.2 modified

2. Page 57 Task 2.9 and Page 51 Task 2.11 : Coordination with MVRTA five year bus service improvement design and five year Capital Plan will be necessary in order to address implementation of activities that are part of these tasks

Subtask 2.9.1 modified (now Page 61); Subtask 2.11.3 modified (now Subtask 2.10.3 on Page 63)

3. Page 67 Task 3.1 Add new Subtask 3.1.5 as follows: Use senior citizen and disabled population projections included in the Regional Mobility Plan to determine both short and long term demand for both ADA/Non ADA service and determine both operating and financial impact to present and future MVRTA Special Services Operations.

Subtask 3.1.5 added

4. Page 69 Task 3.2 Subtask 3.2.4: Included in the Transportation Financing Legislation is a requirement for the Regional Transit Authorities to prepare a comprehensive Regional Transit Plan. One of the requirements is to establish a study advisory committee. This committee can continue as a mobility working group once the study is completed. This subtask is duplicative and can be changed to read as follows: Provide staff support to maintain the MVRTA mobility working group.

Change made

5. Page 73 Task 3.4 The name of the task may be better named River Street/Washington Street/Railroad Square Intersection Study. Railroad Avenue is across the Comeau Bridge on the Bradford side.

MassDOT Road Inventory File shows that Railroad Avenue intersects Washington and River streets

6. Page 87 Task 4.1 Subtask 4.1.3 Add to this subtask: The MVPC will update the MVRTA on Boston Regional ITS Architecture Committee activities that would impact present and future MVRTA ITS initiatives

Change made

7. Page 93 Task 4.3 It is unclear from the subtask narratives if a draft Plan will be circulated for review and comment to various Federal, State, Regional and local partners before the preparation of the Final Plan. Given ongoing Statewide (MEMA) and Regional (NERAC) efforts in all hazards emergency management, with increasing efforts on terrorism prevention, a review and comment subtask should be included.

Reference made to preparation of draft and final versions of plan

FHWA Comments on Merrimack Valley MPO's Draft FFY 2014 Unified Planning Work Program

Good afternoon Tony. While the Draft UPWP is out for comments, FHWA is taking this opportunity to provide a few comments that should be addressed prior to preparing the final document for MPO endorsement. They are:

- Introduction (P.1) Ex-Officio non-voting members: FHWA is not Region 1. Please use FHWA – Massachusetts Division Office
Change made
- The table used to show the Planning Factors that MAP-21 observes and the tasks/activities that address the particular Planning Factors is nicely presented making it easier for users to understand the information. Nice job.
- As a reminder for the TIP activity, Task 1.4, MPOs must publish the listing of all projects that were obligated in the previous fiscal year, no later than 90 days after the end of the following fiscal year. This reminder will be reiterated in FHWA's comments on the draft TIP.

Task 1.4.7 added to Page 35

- The UPWP discusses the importance that FHWA places on integrating Performance Measures into the Transportation Planning Process. Attached please see seven National Goal Areas that have been identified. Following an expected Rulemaking, FHWA expects that more detailed guidance will be provided to the State DOTs which will allow them to develop State goals which will support these seven areas, and in turn, MPOs will be expected to develop metrics that will support the State goals. Tasks within this UPWP offer opportunities for the MVMPD to begin implementing broad performance measures that address the seven goal areas discussed in the attachment. Performance Measures can be applied to several tasks including Pavement Management Studies (Task 2.2, for instance setting goals and tracking the progress of meeting the goals of improving good pavement condition or reducing poor pavement condition), Congestion Management Process (Task 2.4), and the area of Safety, which is represented in Task 2.8.

Tasks 1.4.8 (Page 35), 2.2.4 (Page 47), and 2.8.7 (Page 59) added to document

- Tasks 3.1 and 3.2 appear to be missing from the Table of Contents. Please check this and correct the omission prior to the preparation of the final UPWP.

Tasks 3.1 and 3.2 are in the Table of Contents

- Task 3.2 – Transit Planning seems like it should have a resulting product at the completion of the task. Task 3.2.2 - Evaluation of Pedestrian Access to Transit seems to indicate that the results of the evaluation should be compiled into a small report of some kind.

Task 3.2.2 product description modified (Page 70)

- More than 33% of the studies included here will provide tangible products.

Thank you again for providing FHWA with the opportunity to comment on the draft document. If there are any questions regarding any of these comments, please contact me and I will be happy to discuss them with you. Have a nice day.

Paul



**Paul F. Maloney, P.E. (Maryland)
Statewide and Metropolitan Planner**

FHWA - Massachusetts Division
55 Broadway, 10th floor
Cambridge, MA 02142
Phone: 617-494-3610
Email: paul.maloney@dot.gov

MassDOT Comments on Merrimack Valley MPO's Draft FFY 2014 Unified Planning Work Program

June 21, 2013

Dennis DiZoglio
Executive Director
Merrimack Valley Planning Commission
160 Main Street
Haverhill, MA 01830

Dear Mr. DiZoglio:

The Massachusetts Department of Transportation (MassDOT) Office of Transportation Planning (OTP) has *re-reviewed* the draft 2014 Unified Planning Work Program (UPWP) released by the Merrimack Valley Metropolitan Planning Organization on May 22, 2013. I would like to take this opportunity to *provide* feedback on the MPO's 3C planning process as it relates to the preparation of this document and to comment specifically on the contents of the draft document released for public *review*.

As required under the federal *Moving Ahead for Progress in the 21st Century* (MAP-21) legislation, we must continue to seek ways to incorporate performance measures into our planning process by identifying key metrics, targets and thresholds that can be used to measure progress on priority *activities*. Pending further guidance from the Federal Highway Administration (FHWA), as to those priority areas to which performance measures will need to be applied it is recommended that all UPWPs include a task in the UPWP that addresses the *development* and implementation of performance measures. This priority area is included in the UPWP as part of the Congestion Management Process under Task 2.4; *however*, as the performance measures relate to other areas in addition to congestion, I recommend that a separate task be created for the *development* of performance measures.

MAP-21 continues to prioritize the concept of Sustainability and Livability with the Transportation Planning Process. One method for measuring the sustainability of a highway project is to assess the project against existing best practices. With this in mind, the FHWA *developed* and released a web-based tool, known as the Infrastructure Voluntary *Evaluation* Sustainability Tool (INVEST), which allows agencies to assess the sustainability of a program or project against best practices *relative* to sustainability. This tool is not included in the UPWP; MVPC should consider integrating it into Task 2.9, Transportation and Livability.

In June of 2010, MassDOT adopted the GreenDOT policy, a *comprehensive initiative* that is designed to embed sustainability into *all* of MassDOT's practices and decision-making. GreenDOT is designed to help MassDOT lead the nation in promoting sustainable economic *development*, protecting the natural *environment*, and enhancing quality of life for the Commonwealth's residents and *visitors*, as well as for future generations. In keeping with the GreenDOT policy and MassDOT's leadership role in the Healthy Transportation Compact, MassDOT encourages and supports all forms of sustainable transportation that facilitate mode shift from single occupancy travel, help to reduce automobile congestion, promote healthy lifestyles, and benefit the environment.

The UPWP must also explicitly identify the Eight Federal Planning Factors and include a description of how the planning process addresses each factor. To facilitate a smoother review of the UPWP, FHWA has requested that a table be included in the document summarizing how the planning factors are addressed. The factors are clearly represented in the table on page 15.

The FHWA continues to place a high priority on the area of Freight; more particularly, the efficient movement of goods. Planning activities should support the efficient movement of goods throughout each region and the Commonwealth. The FHWA encourages the MPOs with Freight Plans to review them and make changes necessary to bring them into alignment with MAP-21 requirements. I recognize and encourage the incorporation of freight planning into Task 2.5, Intermodal Connections.

Based on additional guidance from FHWA, OTP also recommends that a high priority be placed on the development of products resulting from the studies advanced through the UPWP. Given this priority, at least one third (33 percent) of the funds directed to activities identified in the UPWP should be spent on activities that result in tangible

products. As presented in the UPWP funding summary on page 95, there is a significant amount of funding in Task 2 that surpasses the amounts programmed in Tasks 1 and 3. Please consider shifting funding from Task 2 to other tasks that advance specific projects.

Ensuring that the 3C transportation planning process is accessible to all individuals, including members of Title VI, Environmental Justice IEJ), and Limited English Proficiency ILEP) communities is a central federal and state priority. The MPO process must engage these populations and reach out to them throughout all transportation planning-related efforts. Data collection and data analysis practices in the UPWP should reflect the needs of these populations.

In addition to the preceding guidance, please note the following comments specific to the information contained in the MPO's DRAFT 2014 UPWP.

- On page 17, the summary of anticipated funding sources references FHWA/MassHighway as a source. Please correct this to read FHWA/MassDOT.

Change made

- Although performance measures are included in the UPWP as part of the Congestion Management Process under Task 2.4, they should have a separate Task specifically for the identification and analysis of performance measures as they relate to all areas of focus.

Tasks 1.4.8 (Page 35), 2.2.4 (Page 47), and 2.8.7 (Page 59) added to document

- As presented in the UPWP funding summary on page 95, there is a significant amount of funding in Task 2 that surpasses the amounts programmed in Tasks 1 and 3. Please consider shifting tasks 2.10 and 2.12 into Task 1 as they should be part of the ongoing 3C certification document activities.

Tasks 2.10 – Regional Transportation Plan and 2.12 – Title VI/Environmental Justice/Limited English Proficiency are now Tasks 1.6 and 1.7, respectively

I commend the MPO staff for their hard work in creating an accessible and comprehensive document. I recognize the thorough, full and open public process that the MPO staff fulfills, especially with respect to these certification documents.

Please contact me at (857) 368-8865 or *Calli Cenizal* at (857) 368-8843 if you have further questions.

Sincerely,

David Mohler

*Executive Director
Office of Transportation Planning*

cc: Pamela Stephenson, Division Administrator, Federal Highway Administration
Mary Beth Mello, Regional Administrator, Federal Transit Administration
Francis DePaola, MassDOT Highway Division Administrator
Paul Stedman, Acting MassDOT Highway District 4 Director
Clinton Bench, Deputy Executive Director, Office of Transportation Planning
Ned Codd, Director of Project-Oriented Planning
Sheri Warrington, Manager of MPO Activities
Callida Cenizal, MPO Liaison

Other Comments on Merrimack Valley MPO's Draft FFY 2014 Unified Planning Work Program

City of Newburyport

A subtask should be added to **Task 3.3 – Storey Avenue Traffic Study** that would allow for MVPC to review 'signage blight' in the study corridor and develop recommended improvements.

Subtask 3.3.6 added to Task 3.3 (Page 72)