

# MERRIMACK VALLEY METROPOLITAN PLANNING ORGANIZATION

FEDERAL FISCAL YEAR 2021

UNIFIED PLANNING WORK PROGRAM



June 24, 2020

Prepared by the  
**MERRIMACK VALLEY  
PLANNING COMMISSION**

This document was prepared by the Merrimack Valley Planning Commission under Contract #108056 with the Massachusetts Department of Transportation (MassDOT) and with the assistance of the Merrimack Valley Regional Transit Authority (MVRTA), MassDOT, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). Its contents do not necessarily reflect the official views or policies of the U.S. DOT.

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### *Additional Information*

To request additional information regarding Title VI and related federal and state nondiscrimination obligations, please contact:

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Boston, MA 02109  
(617) 994-6000  
TTY: (617) 994-6196

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**Mon-Khmer, Cambodian**

ប្រសិនបើលោក

អ្នកត្រូវការបកប្រែពីភាសាខ្មែរសម្រាប់ព័ត៌មាននេះសូមទាក់ទងអ្នកសម្របសម្រួលជំពូកទី**6**/គ្មានការផ្តល់សេវាដល់

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**MVMPO Endorsement Page**



**MERRIMACK VALLEY METROPOLITAN PLANNING ORGANIZATION ENDORSEMENT**

**MERRIMACK VALLEY REGION  
FEDERAL FISCAL YEAR 2021  
UNIFIED PLANNING WORK PROGRAM**

The undersigned representatives on the Merrimack Valley Metropolitan Planning Organization hereby endorse the Merrimack Valley region's Federal Fiscal Year 2021 Unified Planning Work Program.

\_\_\_\_\_  
Stephanie Pollack  
MassDOT Secretary/CEO

\_\_\_\_\_  
Joseph Costanzo  
MVRTA Administrator/CEO

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James Fiorentini  
Mayor of Haverhill

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Theresa Park  
MVPC Executive Director

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Jonathan Gulliver  
MassDOT Highway Division Administrator

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Daniel Rivera  
Mayor of Lawrence

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Paul Materazzo  
Town of Andover

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

\_\_\_\_\_  
Neil Harrington  
Town of Salisbury

\_\_\_\_\_  
John Cashell  
Town of Georgetown

Date: June 24, 2020

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## INTRODUCTION

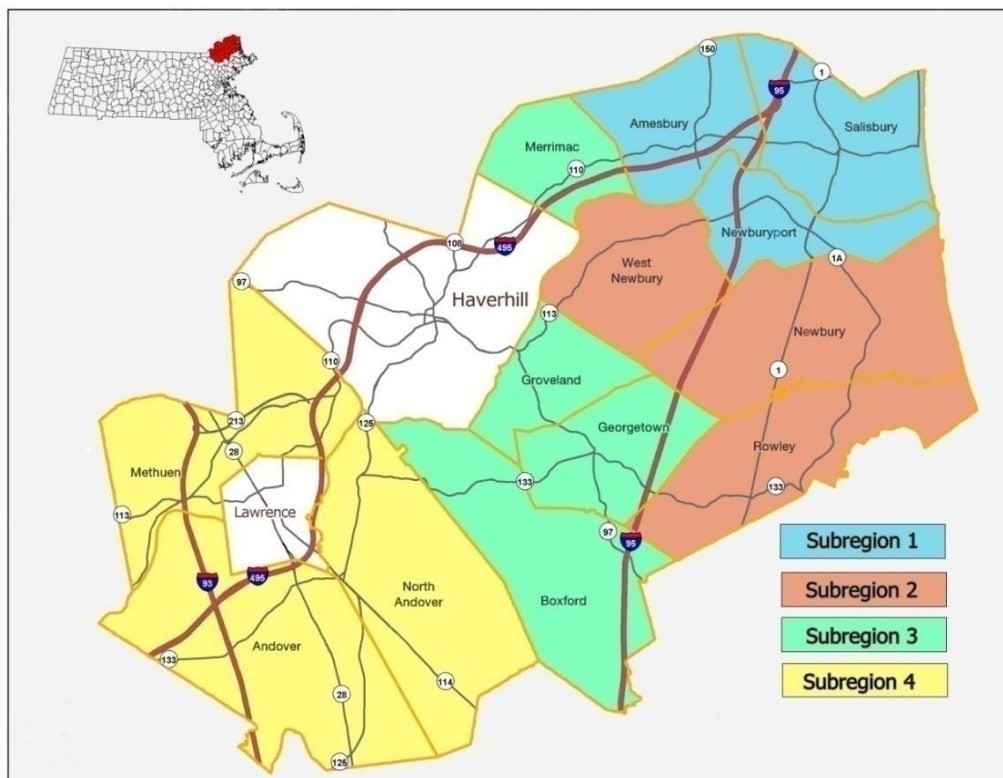
As mandated under the federal “3C” transportation planning process, the Unified Planning Work Program (UPWP), describes the transportation planning activities that are to be carried out by a Metropolitan Planning Organization (MPO) during the federal fiscal year (October 1 – September 30), identifies the planning products that are to be produced, and identifies which agency will be responsible for producing these products.

The UPWP must be prepared and endorsed annually by the Merrimack Valley Metropolitan Planning Organization (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 Merrimack Valley Planning Commission (MVPC) Transportation Program staff serves as the MVMPO’s staff and is responsible for preparing the UPWP each FFY. The MVMPO staff will undertake most of the activities described in the FFY 2021 UPWP. 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.

### Merrimack Valley Metropolitan Planning Organization (MVMPO) Region and Sub-regions

Figure 1 below is a map showing the boundaries of the MVMPO region, its sub-regions, and 15 member communities:



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.

Created by the Governor of Massachusetts in 1972, the MVMPO covers the same fifteen-community geographic area that defines the MVPC region and the Merrimack Valley Regional Transit Authority (MVRTA) service area.

### **Current MVMPO Membership**

- MassDOT Secretary Stephanie Pollack
- MassDOT Highway Division Administrator Jonathan Gulliver
- MVPC Executive Director Theresa Park
- MVRTA Administrator Joseph Costanzo
- Mayor of Haverhill James Fiorentini
- Mayor of Lawrence Daniel Rivera
- MVMPO Subregion Representatives:
  - Subregion 1 (Amesbury, Newburyport, **Salisbury**) **Neil Harrington**
  - Subregion 2 (Newbury, **Rowley**, West Newbury) **Robert Snow**
  - Subregion 3 (Boxford, **Georgetown**, Groveland, Merrimac) **John Cashell**
  - Subregion 4 (**Andover**, Methuen, North Andover) **Paul Materazzo**

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

- FHWA Massachusetts Division Administrator Jeff McEwen
- FTA Region I Administrator Peter Butler
- Rockingham Planning Commission MPO (NH) Barbara Kravitz
- Boston MPO Erin Wortman
- Northern Middlesex MPO Pat Wojtas
- Nashua Planning Commission MPO (NH) Karin Elmer

### **Organization of FFY 2021 Unified Planning Work Program**

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

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

### **MVMPO Transportation Planning Priorities**

The UPWP may be thought of as the document that ensures that the 3C planning process in the MVMPO region is implemented in a *cooperative* manner and recognizes the many influences that are at work at various levels in shaping the transportation network. The Continuing, Comprehensive and Cooperative ('3C') federal transportation planning process

recognizes that a wide array of factors influence the multimodal transportation network and, conversely, many of these factors are influenced by this network. A milestone event in this regard occurred in 1991 with the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA), which established 16 specific factors that MPOs were required to consider in developing the plans and programs mandated under the legislation. While the number of these factors has been consolidated to 10 over the past 25 years, the need to be continuing and comprehensive in considering them remains at the foundation of the 3C planning process.

This document was also prepared in cooperation with the U.S. Department of Transportation and the Massachusetts Department of Transportation who provided guidance to be considered by Metropolitan Planning Organization (MPO) so that it continues to reflect previously identified federal and statewide transportation planning objectives.

### **Amendment/Adjustment of FFY 2021 UPWP**

During the course of FFY 2021, amendments and adjustments to the UPWP may be required. These changes will be developed in cooperation with MassDOT, the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the Merrimack Valley Transit Authority (MVRTA), and other concerned agencies as appropriate. The adjustment and amendment of this document shall be undertaken as defined below:

#### *Amendment with 21-day Public Review and Comment Period:*

- Any revision which would result in the need for additional funding.
- Unless waived by the awarding agency, cumulative transfers among direct cost categories, or, if applicable, among separately budgeted programs, projects, functions, or activities which exceed or are expected to exceed ten percent of the current total approved budget, whenever the awarding agency's share exceeds \$100,000.
- Any revision of the scope or objectives of the project or program, regardless of whether there is an associated budget revision requiring prior approval.
- An extension of the period of availability of funds.
- Changes in key persons in cases where specified in an application or a grant award. In research projects, a change in the project director or principal investigator shall always require approval unless waived by the awarding agency.
- Contracting out, sub-granting (if authorized by law) or otherwise obtaining the services of a third party to perform activities which are central to the purposes of the award. Unless described in the application and funded in the approved awards, the sub-award, transfer or contracting out of any work under an award. This approval requirement does not apply to the procurement of equipment, supplies, and general support services, these purchases are handled through procurement procedure guidance and do not require UPWP amendment.
- The absence for more than three months, or a 25 percent reduction in time devoted to the project, by the approved project director or principal investigator.
- The need for additional Federal funding.

- The transfer of funds allotted for training allowances (direct payment to trainees) to other categories of expense.

*Adjustment with an approval vote from the MPO and sign-off from the Office of Transportation Planning (OTP):*

- Modification of budget to an already programmed task that is less than 10% of the current total shown in the approved budget.

## **Regional Plans and Studies**

The following regional transportation studies, plans, and areas of focus have played an important role in shaping the development of the FFY 2021 UPWP:

### **Bicycle and Pedestrian Planning**

#### Border to Boston Rail Trail

MVMPO staff, in cooperation with the towns of Boxford, Georgetown, Newbury and Salisbury, continued working with MassDOT to advance Border to Boston Trail project designs. In the Spring of 2017, MassDOT and the above communities came to an agreement by which the final design of the various sections of the Trail was to be funded and administered.

In FFY 2020 MassDOT began construction of Phase II of the Salisbury Rail Trail which will extend from Mudnock Road (the northern terminus of Phase I of the Salisbury Rail Trail) north to the New Hampshire State Line. To augment this project, the Town of Salisbury received a MassTrails grant to develop a connection between the rail trail in Salisbury to the parking lot of the Seabrook Fire Station that is located just off Route 286 near the State Line.

#### Georgetown Branch Rail Trails

MVMPO staff continued working with local officials in Haverhill, Groveland, and Georgetown to implement recommendations made in the Georgetown Branch Rail Trail Feasibility Study. In FFY 2020 this included:

- The programming of Phase II of the Bradford Rail Trail in the MVMPO's FFY 2020 element of the FFYs 2020-2024 TIP. In April 2020 the MVMPO approved an amendment to the TIP for this project, changing the programmed construction cost from \$848,345 to \$1,766,108. This change reflected an expansion of the scope of the project as well as an increase in cost of some other elements;
- The Town of Groveland moving forward with the design of the off-road segment of the Groveland Community Trail. 100% design plans have been submitted to MassDOT and the project was programmed for FFY 2020 construction funds in the MVMPO's FFYs 2020-2024 TIP.

#### Lawrence Rail Trail

Late in 2017 MassDOT approved a project to construct a 1.4-mile path that will run from the south bank of the Merrimack River to Manchester Street Park, and then north to link with the Methuen Rail Trail. MVPC completed a feasibility study for this proposed trail in 2014.

This project was subsequently programmed in the FFY 2023 element of the MVMPO's FFYs 2020-2024 TIP using Statewide federal funding.

#### William Lloyd Garrison Trail

The William Lloyd Garrison Trail, a multiuse facility that links the Newburyport Park and Ride Lot to Route 110 in Amesbury, opened in October 2018. This trail is part of the new Whittier Bridge that carries I-95 over the Merrimack River between Amesbury and Newburyport and is the first interstate bridge in the state to incorporate a shared use trail. MassDOT is currently constructing a stairway that will connect the trail to the Amesbury Visitors Center at Evans Place near the Amesbury/Salisbury town line. Evans Place and Main Street in Amesbury are heavily used by cyclists in the MVMPO region.

#### Other Trail Projects

In addition to the connection of the Garrison Trail to the Amesbury Visitors Center noted above, construction is underway on a bicycle and pedestrian trail that will link the Salisbury Ghost Trail with Elm Street in Amesbury. This section of trail will also link to the end of the Garrison Trail, which terminates nearby on Route 110.

The City of Amesbury is also looking to connect the western end of the above trail at Elm Street to the Powwow Riverwalk that runs from the nearby Carriage Town Marketplace to the Lower Millyard area near downtown.

#### **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 2015 MVMPO work tasks included revision of the MVMPO Public Participation Plan, Title VI Notification, Complaint Policy and form; integration of updated Census and American Community Survey data, and continued expansion of outreach to constituents in communities. Staff updated contact information, forged stronger working relationships with Community-Based Organizations (CBOs) and distributed information on its work in non-traditional formats (i.e. Facebook, attendance at community events) to engage Title VI and EJ populations.

Under the FFY 2016 UPWP, staff updated the MVMPO's Title VI Program, which included an analysis of the region's protected populations at the Census Block Group level of geography. Staff updated its Title VI Program in FFYs 2017 and FFY 2019 as well.

In recent years MVMPO staff also:

- Updated 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.
- Implemented recommendations and increased solicitation of input from minority, low-income and elder constituents.
- Made 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.
- Assisted the MVRTA in implementing evaluation measures for its outreach to Limited English Proficiency (LEP) populations as well as researched additional recommendations for improving its outreach to these groups.
- Monitored MVMPO transportation funding, project prioritization and investments as to how they benefited and/or burdened protected populations.

In May 2019, updated the Language Assistance Plan and the MVMPO voted to approve a change to the MPO's definition of low-income. Low-income is now defined as 65% of the regional median household income.

In February 2020, the MVMPO submitted its annual Title VI update to MassDOT.

### **MVMPO Regional Transportation Plan (RTP)**

The MVMPO's FFY 2020 RTP presents a comprehensive examination of the region's existing transportation network and forecasts the future demand for transportation services in the Valley. Through these analyses staff was able to identify what is needed to both maintain the transportation network in good condition and to establish a program of projects and studies/analyses designed to correct any deficiencies that were revealed.

The Goals for the transportation network set forth in the 2020 RTP are to:

- Maintain the System in a state of good repair;
- Increase Safety for All Modes
- Promote Economic Vitality
- Support Transportation Equity
- Promote Environmental Sustainability

In meeting these goals, the RTP analyzes the region's transportation network through the lens of the performance and outcome-based planning methods established by USDOT. Building upon work in this area that was begun in the FFY 2016 RTP, the new document also considers the new Performance Measures and Targets that were established by MassDOT and subsequently adopted by the MVMPO in FFYs 2018 and



2019. These measures are related to safety, the reliability of NHS roadways, pavement quality, bridge condition, and asset management.

### **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, staff completed a corridor transportation study that considered existing traffic and safety problems, forecasted future travel demand, and made a series of recommendations to address recurrent congestion problems that have plagued the corridor for many years. The implementation of these recommendations is one of the MVMPO's highest priorities. The two projects (one proposed, one approved by MassDOT) that would address safety and congestion issues in this corridor are the two most highly rated projects in the MVMPO region based on their Transportation Evaluation Criteria scores.

The MVMPO has taken the following actions in recent years in pursuit of improving the Route 114 Corridor:

- In December 2014, MassDOT approved a project (#608095) that would make improvements to the section of the corridor from Andover Street to the Stop and Shop Driveway in North Andover;
- In 2015 and 2016, MassDOT, working in cooperation with area legislators, North Andover officials and with support from Merrimack College, implemented a project to install both a pedestrian signal on Route 114 between the College and the Royal Crest Apartment Complex and sidewalks along Route 114 and Andover Street.
- In 2017, the MVMPO programmed the use of available Target funding in the FFYs 2020 and 2021 elements of the MVMPO's FFYs 2017-2021 TIP for the construction of Project #608095. This project currently appears in the FFYs 2021 and 2022 elements of the FFYs 2020-2024 TIP. However, due to changes in the scope of the project and an increase in its estimated construction cost, it is anticipated that the project will appear in the FFYs 2023, 2024, and 2025 elements of the MVMPO's FFYs 2021-2025 TIP.
- Starting in 2017, MassDOT initiated preliminary design work on the above project, with its scope being expanded to extend from the Stop and Shop Driveway to Waverly Road rather than to Andover Street. As preliminary design continued through 2019, it was determined that the project would require three complete land takings and the replacement of an additional culvert.
- In 2018 MVPC completed a study of the feasibility of extending fixed route bus service along Route 114 to better serve the College, nearby medical offices and possibly even to restore service to the Liberty Tree Mall area.
- MVPC has met with local officials and trails advocates from the communities of Lawrence and North Andover to identify options for improving bicycle and

pedestrian travel in the corridor and providing connections to adjacent local and regional trails. Some of the improvements identified in this process will be implemented as part of the MassDOT project (#608809) that will resurface Route 114 from the Shawsheen River Bridge east to Peters Street in North Andover.

### **Priority Growth Strategy**

In 2009, MVPC staff completed the Merrimack Valley Priority Growth Strategy (PGS), the land use plan for the Merrimack Valley region. This document, prepared with communities' direct participation, was well received by planning professionals and local/state elected officials. The National Association of Development Officials (NADO) recognized the PGS as a "Best Practice" in 2009 and awarded the MVPC an Innovation Award for the PGS in 2011 while FHWA featured the PGS on its *Transportation Planning Capacity Building* website as the latest example of an Innovative Project (FFY 2014). MVPC updated this document in 2015.

The MVMPO staff uses the PGS Update in two key areas; 1) to help define the preferred land use and zoning scenario included in the RTP, and 2) to quantify the economic impact of roadway and trails projects in applying the Transportation Evaluation Criteria.

### **Congestion Management Process (CMP)**

The CMP is a USDOT-mandated planning tool that MPOs with Urbanized Areas of more than 200,000 people must use to:

- Comprehensively examine and monitor congestion on an MPO's transportation network;
- Identify congested areas/components, and
- Recommend actions to resolve specific congestion issues. These recommendations often result in traffic analyses and studies that appear in a region's UPWP.

The MVMPO continued to update its CMP under the FFY 2020 UPWP, incorporating 2019 travel time data that is available from FHWA for the NHS roadways in the region to identify congested corridor segments and intersections. It also considers the *Travel Time Reliability* and *Congestion* Performance Measures mandated by FHWA and Performance Targets for these measures that have been adopted by MassDOT and the MVMPO.

For transit services in the region, the CMP relies upon ridership data gathered by the MVRTA for its services, and from data gathered by the MBTA for the commuter rail services that it operates in the region.

### **Safety Monitoring System (SMS)**

The MVMPO staff uses the SMS to identify components of the regional transportation network that have safety issues. The SMS uses crash data provided by MassDOT, local police departments, the MVRTA and other sources to identify safety problems for motor vehicles, bicycles and pedestrians, and transit riders in the region. Many of the potential safety problem areas identified through the SMS are studied in more detail through tasks included in the UPWP to determine if a safety problem truly exists and, if so, to identify what steps need to be taken next to address it.

With MVMPO's adoption of MassDOT's Safety Performance Targets in January 2018, a primary objective of the SMS in FFY 2019 was to identify locations on the region's transportation network where crashes involving fatalities and serious injuries take place. In FFY 2021, MVPC staff will analyze MVMPO region-specific data for each of the 14 Emphasis Areas identified in the MassDOT's Strategic Highway Safety Plan. (See [Task 2.8](#) of this UPWP on page 87).

### **MVRTA Regional Transit Plan**

The MVRTA completed its Comprehensive Regional Transit Plan in 2015. This document addresses fixed route bus service by examining route ridership, evaluating individual bus routes, identifying areas for transit service and identifies areas for additional study. By the end of December 2020, the MVRTA will complete an update to the Regional Transit Plan. It will be used by the MVRTA to plan for and implement transit services in the future and any transit proposals must be included in this Plan to receive consideration for programming and implementation by the MVRTA and the MVMPO.

### **2020 Coordinated Human Services Transportation - Public Transportation Plan**

An update to the 2014 Coordinated Human Service Public Transportation Plan, the 2020 plan identified a wide range of proposed transit services that would address perceived gaps in the region's transit/transportation network. Among these were recommendations transit connections outside of the MVRTA region, more frequent service, coordinated transit for Veterans and micro transit opportunities.

### **I-93 Bus on Shoulder**

In November 2019, MVMPO staff met with the Secretary of Transportation to discuss the MVMPO's recommendation for Bus-on-Shoulder (BOS) transit service along I-93 between Anderson Transportation Center in Woburn and Somerville. Subsequently, representatives from MassDOT, the MVMPO and MVRTA participated in a test run of coach service along the shoulder on I-93 to identify potential issues around implementing bus-on-shoulder service.

How to address congestion along I-93 has been the subject of several analyses. A 2014 feasibility study of Bus-on-Shoulder service along I-93 was compiled in a report produced by the MVMPO in cooperation with the MVRTA. In addition, CTPS completed its

reversible preferential lane analysis for the I-93 segment between Route 133 in Andover and the Central Artery North Area (CANA) in Boston.

A preferential lane would permit higher bus operating speeds and carpools/vanpools and other modes of travel that would not be allowed in the shoulder. However, the permitting, construction and operation cost advantages of the BOS are extremely modest by comparison and this concept has proven to be effective in many U.S. applications.

### **Active Transportation Plan for the Merrimack Valley**

The MVMPO adopted this Plan in January 2015 which sets forth the region's Active Transportation Vision:

*The Merrimack Valley region will be connected by safe, convenient and appealing Active Transportation corridors that people of diverse ages and abilities will choose to use. The MVPC and its communities will achieve this vision by increasing bicycling and walking mode shares to promote environmental sustainability and healthier lifestyles while reducing automobile dependence and improving air quality. We will connect jobs, housing, civic and recreation activities to strengthen our region's livability and economic vitality.*

The document contains specific Goals, Strategies and Performance Measures that are designed to support achieving this Vision along with nearly 100 regionally significant and priority community-level bicycle and pedestrian initiatives that have been proposed for the region. Many of which were developed with the intent of closing the gaps in the Active Transportation Network that were identified in the Plan.

Since 2015, great progress has been made in the further development of the region's bicycle and pedestrian transportation network. Trail projects have been completed or are under construction in Haverhill, Newburyport and Salisbury and will soon be under construction in Groveland, Georgetown and Lawrence. Many communities have adopted Complete Streets policies and, in some cases, received state grants to implement projects. In 2019, MassDOT completed its new statewide plans for bicycle and pedestrian transportation.

The MVMPO is updating the Active Transportation Plan in FFY 2020 to fully consider and integrate the findings and recommendations identified in MassDOT's new state Bicycle and Pedestrian plans, community Complete Streets implementation plans and document the progress that has been made in growing the bicycle and pedestrian transportation network in the region over the past five years.

## **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. The MVMPO staff has considered these plans in the development of the MVMPO's FFY2021 UPWP.

### **Global Warming Solutions Act**

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

### **Healthy Transportation Policy Directive**

Released by MassDOT in 2013, this directive modified MassDOT's Design Criteria for Projects and Bicycle Accommodation in a few key ways including requiring sidewalks on *both sides* of roadways in urban areas, on *both sides of bridges* and/or on *roadways passing beneath bridges*, and on MassDOT facilities wherever adjacent commercial/pedestrian development density is greater than 5 units/acre.

### **Complete Streets Funding Program**

This program was instituted by MassDOT in February 2016 as part of its effort to further support the creation of highway infrastructure that meets the MassDOT goal of promoting the healthy transportation options of walking and bicycling. This goal was a primary factor influencing the development of the Department's Healthy Transportation Policy Directive.

The new program provides financial support for communities adopting Complete Streets ordinances or by-laws that meet MassDOT criteria. Funding will be provided to both support the implementation of the Complete Streets ordinance or bylaw and to support the construction of Complete Streets projects.

MVPC staff has been working with member communities over the past year to develop Complete Streets ordinances. By January 2020, eight communities in the MVMPO region had Complete Streets ordinances/bylaws in place and one additional community had informed MassDOT of their intent to develop one.

## **Massachusetts Statewide Plans**

### State Rail Plan

MassDOT completed its most recent State Rail Plan in May 2018. The goals of this document are to:

- Set forth Commonwealth policy involving freight and passenger rail transportation;
- Establish policies, priorities and strategies to enhance rail services in the Commonwealth that provide benefits to the public
- Serve as the basis for federal and state rail investments within Massachusetts
- Establish the means and mechanism to coordinate with adjoining states, private parties and the federal government in projects of regional and national significance, including corridor planning and investment strategies
- Meet the planning requirement established by the Federal Railroad Administration

The 2018 State Rail Plan establishes three tiers of long-term rail projects. Tier 1 projects are those that “clearly support the long-term vision of the state”, do not require additional study and can advance through the project development process. Tier 2 projects are those that warrant further analysis and will be revisited in future plans, while Tier 3 project are less consistent with the rail vision for the Commonwealth.

It should be noted that the Draft 2018 State Rail Plan does not include policy decisions regarding specific MBTA Commuter Rail projects. There are several ongoing studies by the MBTA pertaining to the future of Commuter Rail that are currently underway including Focus40, the long-range investment plan for the MBTA and the MBTA Commuter Rail Vision, which will examine different approaches to delivering service including system electrification, among other potential longer-term investments in the MBTA’s rail network.

### Rail Vision

In 2018-2019, the MBTA undertook an extensive planning effort toward examining future improvements for the MBTA commuter rail system. In October 2019, the MBTA voted to adopt the boldest option that called for electrification of the system and increasing frequency to every 15 minutes at key stations, including Lawrence, downtown Haverhill and Newburyport.

### State Freight Plan

MassDOT’s Freight Plan was completed in April 2018. It includes a Vision Statement and Guiding Principles for developing “...a multimodal freight system that is safe, secure, resilient, efficient, reliable, and sustainable, and one that catalyzes economic development while supporting the continued competitiveness of the Commonwealth”.

It also identifies the following five Performance Goals for the Freight Network:

- The freight system should work for all its customers: shippers, carriers, consumers, workforce, and communities
- The condition of the freight system should be improved to ensure an efficient and reliable supply chain
- Capital budgets should be set in part using freight performance metrics, to ensure that the benefits of projects for freight uses are properly considered in decision-making
- Freight movement should be safe for operators, motorists and passengers, bicyclists, and pedestrians, in urban, suburban, and rural areas
- The freight system should not adversely impact the health and livability of the communities it touches, and it should contribute to the achievement of a 25% statewide reduction in greenhouse gas emissions from utilities, industry, transportation, and other sources by 2020 (Global Warming Solutions Act of 2008).

Most significantly, the Plan forecasts a large increase in the value of the amount of freight moved by all modes (i.e. truck, rail, marine, air, etc.) that will move into, out of and within the Commonwealth over the next 25 years reaching a value that is virtually double that which was moved in 2015.

The Freight Plan then identifies a series of 'Immediate', 'Robust' and other strategies for improving the Commonwealth's freight infrastructure and operations. These include a number of projects that are slated to be built using National Highway Freight Program funds to support projects along the National Highway Freight Network that will improve truck travel time reliability and the condition of core freight assets.

In the Merrimack Valley MPO region, the Plan identifies the I-495 corridor north of I-90 (including the Merrimack Valley region) as the most heavily used truck route in the state. It also identifies the lack of truck parking facilities in this corridor as an issue that is adversely affecting truck freight movement.

### State Bicycle Plan

In 2019, MassDOT Finalized the Statewide Bicycle Transportation Plan. The Vision Statement for the document states that:

*Biking in Massachusetts will be a safe, comfortable, and convenient option for everyday travel.*

Two overarching goals for achieving this vision are also established:

- Goal 1: Create high comfort connected bike networks for people of all ages and abilities
- Goal 2: Increase the convenience and attractiveness of everyday biking

To achieve these goals, the Plan states that MassDOT will seek to remove gaps and barriers that discourage everyday biking and will work with cities and towns to promote and encourage everyday biking activity. Examples of barriers to everyday biking include uncomfortable roadway crossings, narrow or missing roadway shoulders and lack of bicycle parking.

A key component of the Plan is MassDOT's **Potential for Everyday Biking** analysis. This tool was developed in an effort to further identify those areas around the state where people would likely bike for everyday travel if safe, comfortable, and convenient bikeways were available.

### State Pedestrian Plan

MassDOT also updated the Massachusetts Pedestrian Transportation Plan in an effort to improve conditions for walking throughout the Commonwealth. The new Plan recommends policies, programs, and projects for MassDOT to guide decision making and capital investments, as well as develop guidance for municipalities to improve walkability in local communities.

Core Goals of the Plan Include:

- I. Improve Accessibility - Improve mobility and connectivity to major community services, housing and employment centers with an emphasis on changing demands, underserved communities, healthy transportation options, and connections to transit.
- II. Improve Safety – Provide guidance on state of the practice in policy, design, implementation, enforcement, and evaluation of safer pedestrian environments.
- III. Improve Maintenance - Identify policies and model practices to improve maintenance, year-round usability and state of good repair of existing and planned pedestrian infrastructure.
- IV. Prudent Investment - Develop a prioritized investment strategy that supports our goals and complements robust regional pedestrian planning efforts; and, provide a business case based on economic and public health data that inspires municipalities to invest in walking environments.

### **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 (DCR) – owned bridges that are classified as Structurally Deficient (SD) or are in jeopardy of soon being classified as such. This infusion of state funding allowed for the completion of many bridge



projects much sooner than would otherwise have been possible and thereby resulted in lower construction costs.

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

<b>Status of Accelerated Bridge Program Projects in the MVMPO Region</b>	
<b>Project</b>	<b>Status</b>
Replacement of the I-95 Whittier Bridge over the Merrimack River between Amesbury and Newburyport	Completed
Replacement of the Route 28 Bridge over the MBTA railroad tracks in Andover	Construction
Repair of the Route 28 Bridge over the Merrimack River in Lawrence	Completed
Reconstruction of the Route 125 Connector Bridge over Ferry Road/MBTA Haverhill Line in Haverhill	Completed
Cleaning and painting of the Route 1 (Gillis) Bridge over the Merrimack River between Salisbury and Newburyport	Completed
Rehabilitation of the Rocks Village Bridge over the Merrimack River between Haverhill and West Newbury	Completed

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

The Massachusetts Legislature created the DLTA Program to support implementation of Sustainable Development Principles. The Commonwealth’s Executive Office of Administration and Finance has authorized distribution of DLTA funding to the Commonwealth’s regional planning agencies to assist their communities with planning service. DLTA funds can be used for a variety of purposes including developing shared land use objectives, reviewing and modifying existing local zoning and land use controls, and creating municipal partnerships.

**MassDOT Capital Investment Program (CIP)**

MBTA and each MassDOT agency are required to identify and prioritize the most beneficial investments, those that will most help to meet long-term goals for mobility, sustainability, and broad-based prosperity. These investments are funded through the Capital Investment Program (CIP), which uses state and federal funding to pay for long-term improvements to the transportation system. Each year, MassDOT creates a new CIP that combines its capital planning efforts across its aeronautics, highway, motor vehicles and transit business lines.

MassDOT has established three capital priority project types in evaluating transportation projects in the Commonwealth:

**1 Reliability**

Maintain and improve the overall condition and reliability of the transportation system

**2 Modernization**

Modernize the transportation system to make it safer and more accessible and to accommodate growth

**3 Expansion**

Expand diverse transportation options for communities throughout the Commonwealth

MassDOT is now in the process of developing its FFY 2021 CIP. Due to the impacts of the COVID-19 Virus, this version of the CIP will only focus on FFY 2021 and is considered by MassDOT to be a “maintenance of effort” document. Previous versions of the CIP considered a five-fiscal year timeframe. The FFY 2021 CIP was adopted by MassDOT and the MBTA on June 22, 2020.

### **Project Selection Advisory Council (PSAC)**

Created by the Legislature as part of *Chapter 46 – An Act Relative to Transportation Finance* in 2013, the PSAC met throughout 2014 and 2015 to develop recommendations for modifying the Commonwealth’s transportation project development, evaluation and selection process. MassDOT incorporated PSAC recommendations in its evaluation of transportation projects/project proposals during FFY 2016. The new evaluation and project selection process, with some minor modifications has been employed by MassDOT every year since. The Department completed development of the FY 2021 Capital Investment Program in late spring 2020 and it was adopted by MassDOT and the MBTA on June 22, 2020.

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

Created under SAFETEA-LU and continuing in the FAST Act, the Highway Safety Improvement Program (HSIP) 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.

A key component of the HSIP is the State Highway Safety Plan (SHSP), which is a “data-driven” document that “provides a comprehensive framework for reducing highway fatalities and serious injuries on all public roads”. The Massachusetts SHSP was originally endorsed by local and regional stakeholders in September 2006 and revised in Fall 2013. Federal planning regulations require that the document be updated every five years.

The Massachusetts 2018 SHSP updates the safety goals and targets that were established in the 2013 document using crash and other data collected in the Commonwealth over the past five years. As noted in the SHSP, Massachusetts has been successful in reducing the rate of serious injuries and fatalities over the years, but this has

become more difficult given the increase in traffic on Massachusetts roadways as a result of the Commonwealth's robust economic growth.

MassDOT has identified 14 Emphasis Areas in its 2018 SHSP:

- Bicyclists
- Impaired Driving
- Motorcycle Crashes
- Pedestrians
- Speeding/Aggressive Driving
- Driver Distraction
- Intersection Crashes
- Occupant Protection
- Rail Grade Crossings
- Safety of Persons Working in Roadways
- Heavy Trucks
- Lane Departure
- Older Drivers
- Younger Drivers

In an effort to attain the more stringent goals and targets for fatalities and serious injuries contained in the 2018 SHSP, MassDOT is proposing five new legislative measures to reduce the number and severity of crashes in the state. These are:

- Hands Free policy for motorists using mobile devices
- Primary Seat Belt enforcement
- More stringent Work Zone Safety Rules
- Ignition Interlock for All Offenders
- Truck Side Guards for certain heavy vehicles registered in the state
- Giving municipalities option of using Automated Enforcement using cameras and radar.

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

### **Fixing America's Surface Transportation Act (FAST)**

On December 4, 2015, President Obama signed into law the Fixing America's Surface Transportation Act, or "FAST Act", that provides five years of surface transportation funding authorization (FFYs 2016-2020). The FAST Act is the successor transportation funding authorization legislation to the Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21).

The FAST Act largely maintains program structures and funding shares between highways and transit that existed in MAP-21. However, it does include changes such as:

- Streamlining the approval processes for new transportation projects, providing new safety tools, and establishing new programs to advance critical freight projects.
- Establishing a dedicated source of both formula and discretionary grant programs to fund critical transportation projects that would benefit freight movements.
- Reinstating the popular bus discretionary grant program and strengthening the Buy America requirements.

- Includes provisions that strengthen workforce training and improve regional planning.

The FAST Act is scheduled to expire on September 30, 2020.

### **Livability**

The concept of livability in transportation is in fact a recognition that the transportation network plays a major role in affecting the quality of life of residents in the area it serves. As was 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.”*

MVPC prepared its regional Priority Growth Strategy (PGS) with a 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 2021 to support sustainable development principles in the Valley and, in doing so, improving the quality of life (see [Task 2.9](#)).

### **Planning Factors**

FHWA and FTA continue to recognize the importance for each UPWP to address the Planning Factors identified in the statute. The FAST Act added the following two Planning Factors to the eight that were included in MAP-21:

#### **Improve the Resiliency and Reliability of the Transportation System and Reduce or Mitigate Stormwater Impacts of Surface Transportation**

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.

For many years, MVMPO has supported planning activities that respond to these issues (see [Tasks 3.9](#) and [3.10](#)).

The region’s Multi-Hazard Mitigation Plan identifies transportation facilities that are at risk from storms, floods, and other events. Staff also participated in the development of the Great Marsh Coastal Adaptation Plan, which was prepared by the National Wildlife Foundation in cooperation with the Ipswich River

Watershed Association. This plan included the communities of Newburyport, Newbury, Rowley and Salisbury in the Merrimack Valley region. Key elements of the Plan including Assessing Climate Impacts in these communities and the development of Adaptation Strategies and Recommendations for Selected Areas of Concern and Vulnerabilities.

MVPC continues to support the Merrimack Valley Stormwater Collaborative to address the requirements contained in EPA's new Phase II National Pollutant Discharge Elimination System (NPDES) permit for Massachusetts, including those related to transportation infrastructure.

MVPC is also a certified provider of technical assistance under the Executive Office of Energy and Environmental Affairs' (EOEEA) Municipal Vulnerability Preparedness (MVP) Program. EOEEA developed the MVP program to provide financial support to cities and towns in the state both for "...planning for resiliency and in implementing key climate change adaptation actions for resiliency."

A key component of this program is the MVP Assessment Workshop, which identifies key adaptation strategies to address threats to vulnerable community assets and resources. MVPC staff completed Vulnerability Assessment Workshops for the Cities of Lawrence and Methuen and the Town of Andover in 2019 and will complete MVP programs for the towns of Merrimac, North Andover and Rowley in 2020. Many of these involve the transportation network and will be considered by the MVMPO as it works with communities in developing the RTP, UPWP, TIP and performing other key transportation planning and programming activities.

MVPC Transportation staff has also participated in the vulnerability assessment workshops held by the towns of Newbury and West Newbury and the cities of Newburyport and Haverhill. It is anticipated that it will continue to participate in these assessments and provide additional assistance to communities under the FFY 2021 UPWP.

### **Enhance Travel and Tourism**

Task 2.11 – Travel and Tourism Planning was first added to the FFY 2017 UPWP to meet this new requirement and appears in this document.

Supporting the above task, in FFYs 2018 and 2019 MVPC Transportation Staff assisted the agency's Economic Development Group in examining how effective the transportation network in the Merrimack Valley region was supporting economic development goals in the region as part of the development of the region's 2018 Comprehensive Economic Development Strategy.

The 2018 CEDS identified 12 Transportation Strategies that should be pursued to support key economic activities in the region and six of these Strategies were categorized as supporting the Natural and Cultural Resources in the Valley, which includes Tourism.

In 2020 and through its work with the Essex County Community Foundation, MVPC has been leading an effort to map those places that are valued by residents of and visitors to the region.

### **Bike and Pedestrian Networks**

*USDOT recommends that MPOs should work to assess bike and pedestrian networks, identify gaps in multi-modal connectivity, and implement strategies to address those gaps and to improve user safety.*

As noted earlier, the MVMPO's Active Transportation Plan performs this function. This document is being updated under the MVMPO's FFY 2020 UPWP.

### **Performance Management**

*MPOs should continue to work with MassDOT, transit agencies, and other partners to incorporate performance measures into their planning processes.*

From 2015 to 2017, USDOT released Final Rules for the seven Performance Management Areas first identified under MAP-21 and which remain in effect under the FAST Act.

In FFY 2019, the MVMPO adopted MassDOT's Safety Performance Measures and Targets ("PM1") and recognized the Performance Measure and Targets for equipment, rolling stock and facilities developed by the MVRTA in its Transit Asset Management Plan. It also adopted MassDOT's National Highway System Bridge and Pavement Condition Performance Measure Targets ("PM2") and its Reliability, Congestion and Emissions Performance Measure Targets ("PM3").

Under the FFY 2021 UPWP, it will continue to monitor and, where needed, to assist the MPO in adopting new Safety Performance Measure Targets ("PM1") and developing Performance Targets for the remaining Performance Management areas.

### **Sustainability**

*Implementing sustainable practices and ensuring a sustainable transportation system is important in planning for future transportation needs. FHWA's INVEST offers one way to assess current practices and projects and identify potential areas to improve sustainability. Conducting a vulnerability assessment along with developing strategies and tools to adapt programs to address climate change impacts and severe weather events can also better prepare communities. MPOs should consider how the results of such assessments can inform transportation planning activities and how adaptation and mitigation strategies can be implemented effectively.*

Tasks 3.9 – Stormwater Management Technical Assistance, 3.10 – Climate Change and 4.3 - Regional Transportation Security of this document are designed to assist communities in addressing the impacts that climate change and severe weather events can have on their transportation infrastructure.

### **Regional Models of Cooperation**

*There should be a regional approach to planning by promoting cooperation and coordination across transit agency, MPO, and state boundaries. The MPO might consider working with neighboring MPOs or states to identify corridors that are of significance to both regions and would benefit from a cooperative study. Proactively collaborating with transit agencies that may be based in another region through planning studies and related work may also be something for the MPO to consider in developing UPWP activities. Additionally, MPOs may need to revisit their MOUs to ensure that there are effective processes for cross-jurisdictional communication among State DOTs, MPOs, and providers of public transportation to improve collaboration, policy implementation, technology use, and performance management.*

Examples of MVMPO activities in the above areas include:

- Coordinating with the Rockingham Planning Commission on assuring the connectivity of the Border to Boston trail in Salisbury with a section of the East Coast Greenway planned for Seabrook, New Hampshire;
- Working with Northern Middlesex Council of Governments on planning and outreach for the Merrimack River Trail.
- In FFY 2019, adopting a new MOU for the Boston UZA;
- Also in FFY 2019, adopting a new Performance Based Planning and Programming Agreement between MassDOT, the Regional Transit Authorities and Regional Planning Agencies in Massachusetts.
- Coordinating MVRTA and Lowell Regional Transit Authority transit services through the Merrimack Valley Regional Coordinating Council (see [Task 3.1](#));
- Having the Rockingham Planning Commission conduct a count of bicyclists and pedestrians on the Newburyport Rail Trail to demonstrate the operation of its new data collection equipment;
- Holding joint meetings of transportation staff from the Boston, Northern Middlesex and Merrimack Valley MPOs. Staff from these three organizations met in January 2020.

### **Ladders of Opportunity**

*MPOs are encouraged to identify specific ways within the UPWP to focus on providing access to essential services. The UPWP may provide an opportunity for developing and implementing analytical methods to identify gaps in the connectivity of the transportation system and developing infrastructure and operational solutions that provide*

*the public, especially the traditionally underserved populations, with adequate access to essential services.*

In June 2017, MVPC staff made a presentation to the Lawrence Industrial Park Committee to hear from employers in the area as to their transportation needs and concerns. Following up on this effort, MVPC staff worked with the Merrimack Valley Transportation Management Association and the Merrimack Valley Chamber of Commerce to host an Access to Jobs Forum in September 2017 that gathered information from employers and employment agencies on transportation barriers that are preventing workers in the Valley from accessing jobs and to begin identifying potential solutions to these problems.

In 2017, the City of Lawrence expedited the removal of the abandoned railroad bridge as the first step in developing the Lawrence Rail Trail. The MVMPO had conducted a feasibility study for this proposed project for the City under its FFY 2014 UPWP.

Removing the bridge allowed the MVRTA to extend its Route 85 and serve the shopping and employment area that is adjacent to the old structure. The low 10-foot clearance for the old bridge had previously prevented MVRTA buses from serving that location.

This one component of the larger Rail Trail Project will make truck access to the area far more efficient and the revised bus service will provide employees with a far less costly option than relying upon cabs to get to work.

MVPC staff has continued to work with the Mount Washington Neighborhood Association in Haverhill and the Methuen Arlington Neighborhood group in Methuen to identify transportation projects and services that can improve residents' access to employment opportunities both inside the Merrimack Valley region and to adjacent areas. In FFY 2019, staff worked with the Mount Washington Neighborhood Association and the City of Haverhill to improve bicycle and pedestrian transportation in that section of the community and reviewed the neighborhood's accessibility to employment areas around the region via the MVRTA fixed route bus system.

### **Geographic Distribution of UPWP funded studies and Target TIP Projects**

*As part of the FHWA/FTA certification reviews, MPOs in TMAs are asked to prepare a chart showing the geographic distribution of PL funded studies by median income and municipality over the latest five-year (or longer) UPWP timeframe. Similarly, the MPO is asked to produce a chart showing the distribution (by municipality) of MPO-funded target projects over a similar timeframe. It is acknowledged that the timeframe is only a snapshot in time, however it would be informative to see the distribution of PL & Target funds in the MPO's region.*

See table on [page 34](#).



## **Other Transportation Planning Studies**

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

### **Interstate 495 Corridor Study**

Completed in 2008, MassDOT undertook this study in recognition of the growing congestion that exists along the roadway, especially in the western Merrimack Valley and eastern Northern Middlesex regions and the fact that many of the interchanges along this section of roadway have not been improved since the facility was built in the early 1960s.

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

While there is insufficient funding available in the MVMPO's FFY 2016 RTP to support the construction of all the above improvements in the MVPC region, it is included as an Illustrative Project. However, it should be noted that some of the recommendations made in the MassDOT study are either being implemented or are included in the financially constrained section of the document. These are the signalization of the I-495 ramps to/from Massachusetts Avenue in North Andover and the replacement of the bridges that carry I-495 over the Merrimack River in the Ward Hill section of Haverhill. These latter two new structures will be built wide enough to carry four travel lanes in each direction on I-495 along with wider shoulders. An additional auxiliary travel lane will be provided on the I-495 northbound bridge to accommodate traffic that uses the Route 110 exit (Exit 49).

## **Other Non – Transportation MVPC Planning Studies and Funding Sources**

In addition to the transportation studies and analyses undertaken by the Commission on behalf of the MVMPO, 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.

The Merrimack Valley region is designated an Economic Development District (EDD) by the U.S. Economic Development Administration (EDA) of the Department of Commerce. EDA is the main economic development agency of the federal government and works with EDDs throughout the country to promote regional cooperation and job growth. MVPC is the designated liaison between EDA and the 15-community Merrimack Valley region and manages the Merrimack Valley Comprehensive Economic Development Strategy (CEDS) Program. In

addition to producing the regional CEDS document, this program consists of; organizing regional CEDS meetings; public works grant assistance; information support through MVPC's regional demographic data center and economic impact model; and support for regional initiatives such as the Brownfields assessment program and the "We Are MV" economic development website. Recent activities in these areas are noted below:

**Comprehensive Economic Development Strategy:** The 2018-2023 Merrimack Valley Comprehensive Economic Development Strategy (CEDS) is the guiding action plan and has been submitted and approved by the U.S. Economic Development Administration (EDA). 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 and generate annual Performance Reports in between. The MVPC region has been designated an Economic Development District by EDA since 1986.

The 2018-2023 CEDS features an updated list of goals, objectives, and a plan of action. Implementation of the CEDS began as soon as the five-year strategy was completed in 2018. The four emergent issues – City and Town Centers, Manufacturing, Natural and Cultural Resources, and Transportation have their own set of priority tasks informed by regional stakeholders.

- **We Are MV:** Working closely with the Merrimack Valley Mayors and Managers Coalition (MVMMC), MVPC continues to build out its economic development website WeAreMV.com. Based on feedback received from regional stakeholders the website includes expanded business support tools, including financing options and state tax incentive information. Additionally, MVPC keeps an updated "Available Property Inventory" on the website available for public use. The property inventory is searchable and user-friendly and allows users to explore the non-residential real estate market in each of our fifteen partner municipalities.
- **Regional Housing Planner:** In 2019 MVPC was tasked with implementing the recommendations that were identified in its, first-of-its-kind, Regional Housing Production Plan for the Merrimack Valley. The MVPC Community and Economic Development Department has taken on the role of Regional Housing Coordinator to address the strategies identified in the Region Housing Production Plan and in each individual Housing Production plan. We have started to identify and share best practices, potential partnerships, and education techniques. MVPC has developed a comprehensive Subsidized Housing Inventory (SHI) database and tracking system. The database allows us to see when SHI units are expiring and alert municipalities so they can plan for it ahead of time. Additionally, MVPC produced a regional housing developer database which identifies the different housing developers that have done projects in the region and categorizes them based on project type, affordability, etc.

- **Lawrence Textile Innovation Center:** Through our partnership with the Economic Development Agency and the City of Lawrence we have spearheaded an effort to study the feasibility of a textile innovation center in the City of Lawrence. The EDA-funded feasibility study was completed and released in 2019. The documents findings have been used to pursuant of several other economic development initiatives.
- **Merrimack Valley Data Portal:** MVPC was awarded \$37,500 from the U.S. Economic Development Administration to support the development of a comprehensive online data clearinghouse for the Merrimack Valley region. Using Geographic Information System (GIS) software as the foundation, this clearinghouse will be a public tool capable of instantly accessing the most robust available data for this region, including demographic, employment, industry, income, education, commuting, rental, and housing data. This innovative tool will make accessing essential planning and economic development-related data easier, faster and more streamlined. As was seen during the Columbia Gas disaster recovery effort, having up-to-date information about our communities is essential, especially in regard to directing resources. This holds true for more than just disaster relief however, abundant and understandable data is crucial for any and all public policy decisions.
- **Essex County Cultural Planning:** MVPC partnered Essex County Community Foundation (ECCF) to develop a strategy to identify, protect, and grow the regions cultural assets. ECCF and MVPC planned were working with regional stakeholders to plan six subregional cultural asset mapping meetings in the Merrimack Valley. Since the COVID-19 Pandemic we have moved to a digital outreach strategy to crowdsource cultural assets through [PlaceAndMeaning.MVPC.org](https://PlaceAndMeaning.MVPC.org).
- **Brownfields Assessment:** The Merrimack Valley Brownfields Assessment program was funded and expanded in 2017. The program, which began in 2003, has completed over 70 site investigations and reports on Brownfields sites throughout the Merrimack Valley. Many of these investigations have resulted in the cleanup and reuse of formerly contaminated properties into affordable housing, educational facilities, community gardens, parks, and rail trails.

The Commission received supplemental funding from EPA to recapitalize its Brownfields Cleanup Revolving Loan Fund. This program recently financed cleanup activities in downtown Amesbury and Salisbury and MVPC hopes to continue assisting in the cleanup of sites for adaptive re-use projects in other communities. Some of these funds may be used to assist the Town of Merrimac and the City of Lawrence clean a contaminated site and use it for better uses.

- **MVED Revolving Loan Fund:** The Merrimack Valley Economic Development (MVED) made two loans in 2019. The first was a \$35,000 working capital loan to G's Restaurant in Haverhill. This loan was used to help renovate the critically located

downtown property and helped create 32 jobs. The second loan was a \$200,000 loan to Jessica's Bakery in Methuen. This loan is being used to complete a renovation to the Methuen property, an estimated investment of \$2.4 million which plans to create an additional 20 jobs.

- **Targeted Economic Development Strategy:** In Partnership with Essex County Community Foundation, the City of Lawrence, and the Towns of Andover and North Andover the Merrimack Valley Planning Commission was awarded \$150,000 for the implementation of a Targeted Economic Development Strategy for the three communities impacted by the Columbia Gas Disaster. The proposed goals are to increase collaboration between the three communities and leverage the in-house expertise of MVPC to implement business recruitment and retention strategies based on the priority industries in the three communities.
- **Other Economic Development Support:** MVPC staff handled numerous demographic data inquiries and requests for regional economic development overviews for businesses, individuals, and community officials. MVPC is the regional repository of demographic data from various federal and state agencies. In 2019, MVPC continued to collect and analyze data releases from the U.S. Census Bureau, including the annual American Community Survey (ACS). In addition, MVPC collects and keeps an updated in-house Business Inventory of employers in the region to help with planning efforts.

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

The transportation planning tasks and activities in the FFY 2021 UPWP were developed by the MVPC and MVRTA in cooperation with FHWA, MassDOT, FTA, local officials and the input of MVMPO Stakeholders. These activities will be financed in large part with federal planning funds provided by FHWA and FTA.

Funding for the activities contained in the MVMPO's FFY 2021 UPWP will be provided through a new one-year contract between the MVPC and MassDOT. In FFY 2020, MassDOT terminated its multi-year planning contracts with Regional Planning Agencies in the Commonwealth. These were replaced with new annual planning contracts that covered both highway and transit planning activities. In a further change, MassDOT provided the match for the Section 5303 transit planning funds that are included in these contracts. The new planning contract between MassDOT and MVPC will begin on October 1, 2020 and end on September 30, 2021.

Transit planning activities carried out under the Section 5307 contract between the MVRTA and the MVPC will continue to be funded through an annual contract with MVPC providing the match for the federal transportation funds involved. The transportation planning activities funded through the Section 5307 contract between the MVRTA and the MVPC will be in effect from October 1, 2020 through September 30, 2021.

All planning tasks to be initiated under the FFY 2021 UPWP will be performed by either the MVPC or private consultants through the contracts described above.

### Transportation Planning Factors Considered Under the FAST Act

The FAST Act includes 10 planning factors that must be considered in the conduct of the 3C Transportation Planning Process. The table presented below shows which individual transportation planning tasks included in the MVMPO's FFY 2021 UPWP address each of them:

<b>FAST Act Planning Factors in the MVMPO FFY 2021 UPWP</b>		
<b>Planning Factor</b>	<b>UPWP Task(s)</b>	<b>RTP Goals</b>
<i>(1) Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;</i>	Tasks 1.6, 2.4, 2.5, 2.11 and 3.3	Promote Economic Vitality Transportation Equity
<i>(2) Increase the safety of the transportation system for motorized and nonmotorized users;</i>	Tasks 2.7, 2.8, 2.9, 2.10, 3.5, 3.6, 3.7, 3.8, 3.9 3.10 and 4.3	Increase Safety for All Modes Promote Environmental Sustainability
<i>(3) Increase the security of the transportation system for motorized and nonmotorized users;</i>	Tasks 2.5, 2.7, 2.9, and 4.3	Promote Environmental Sustainability Promote Economic Vitality Transportation Equity
<i>(4) Increase the accessibility and mobility options available to people and for freight;</i>	Tasks 1.5, 1.6, 2.4, 2.5, 2.9, 2.10, 3.1 and 3.2	Create Multi-Modal System to Support Mode Choice Promote Economic Vitality
<i>(5) Protect and enhance the environment, promote energy conservation, and improve quality of life;</i>	Tasks 1.6, 2.7, 2.9, 2.11, 3.1, 3.2, 3.3, 3.9, 3.10 and 4.3.	State of Good Repair Transportation Equity Promote Environmental Sustainability
<i>(6) Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;</i>	Tasks 1.1, 1.2, 2.5, 2.7, 2.10 and 3.2	Create Multi-Modal System to Support Mode Choice Promote Economic Vitality
<i>(7) Promote efficient system management and operation;</i>	Tasks 2.1, 2.2, 2.4, 2.6, 2.10, 3.1, 3.2, and 4.1	State of Good Repair Promote Economic Vitality
<i>(8) Emphasize the preservation of the existing transportation system;</i>	Tasks 2.2, 2.4, 2.10, 3.10 and 4.3	State of Good Repair Environmental Sustainability
<i>(9) Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation;</i>	Tasks 3.9, 3.10 and 4.3	State of Good Repair Environmental Sustainability
<i>(10) Travel and tourism.</i>	Tasks 2.7, 2.9, 2.11, and 3.2	Create Multi-Modal System to Support Mode Choice Promote Economic Vitality

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<b>Summary of Anticipated MVPC Funding Resources FFY 2021 (July 1, 2020 – June 30, 2021)</b>		
<b><u>Source - Non-Transportation</u></b>	<b><u>Amount</u></b>	<b><u>% of Total</u></b>
Economic Development Administration (EDA)	\$100,000	3.7%
CIC Grant - CMMS	21,100	0.8%
EDA Revolving Loan Fund	25,000	0.9%
National Wildlife Federation -Sandy #2 Funds	327,982	12.2%
CZM Mass Bays North Shore LGC/Greenscapes	63,250	2.4%
Mass. Department of Housing and Community Development District LTA	112,500	4.2%
Stormwater Coalition Assessment	6,000	0.2%
Stormwater Technical Assistance (MS4)	4,500	0.2%
Mayor's Coalition Energy & MVMB Update	2,000	0.1%
EPA Brownfields Revolving Loan Fund	555,359	20.7%
EPA Brownfields Assess. Haz & Pet	65,000	2.4%
Pictometry	47,739	1.8%
Local Technical Assistance	35,094	1.3%
EOEEA AARC	52,800	2.0%
Essex County Comm. Fund – Targeted Economic Dev. Strategy	112,000	4.2%
DOER-RPA – Green Communities	16,000	0.6%
Misc. GIS and Local Contracts	65,000	2.4%
<b>TOTAL (Non-Transportation)</b>	<b>\$1,611,324</b>	<b>60.0%</b>
<b><u>Source - Transportation</u></b>		
FHWA/MassDOT-PL	\$804,765	30.0%
FTA/MVRTA/MVPC (Section (5307)	100,000	3.7%
FTA/MassDOT (Section 5303)	167,443	6.2%
<b>TOTAL (Transportation)</b>	<b>\$1,072,208</b>	<b>40.0%</b>
<b>MVPC TOTAL</b>	<b>\$2,683,532</b>	

Source: MVPC's FY 2021 Budget #1: July 1, 2019 – June 30, 2020\* (Approved 2/21/20)

\* Transportation Amounts modified to reflect MassDOT/FHWA Guidance

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## **Geographic Equity Analysis**

The MVMPO examined the geographic and social equity of projects funded through the MVMPO as well as studies undertaken by the MVMPO. Haverhill, Lawrence and Methuen have been identified as Title VI and Environmental Justice (EJ) communities. The Title VI communities have Census Tracts with a higher percentage of minorities than the regional average and the same three communities are EJ communities with census tracts that have median household incomes that are 80% or less than the regional average.

### Unified Planning Work Program

A total of 60 transportation studies have been included in the MVMPO's UPWPs between FFY 2015 and 2020. Of those studies, 42% were (or will be in FFY 2021) conducted in Title VI/EJ communities. It should be noted that these figures will change over the course of the FFY 2021 UPWP as communities come forward and ask MVPC for Local Technical Assistance related to transportation issues.

The analysis also takes into consideration the number of federal aid roadway miles and the number of crash clusters between 2015-2017 with EDPOs of  $\geq 118$ . Thirty-four (34) percent of the federal aid roadway miles exist in Title VI and EJ communities. 79% of the crash clusters occurred in Title VI and EJ communities. The MVMPO has made it a priority to include studies in the UPWP that examine high crash areas. Additional studies are undertaken as part of local technical assistance in which our member communities ask for the MVMPO assistance with various transportation issues. This is reflected in the geographic distribution of studies among all MVMPO member communities.

**Equity Analysis  
UPWP FFY 2015-2020 Studies & Analyses**

<b>Community</b>	<b># Regional/ Local/ Subregional UPWP Studies 2015-2019</b>	<b># Regional/ Local/ Subregional UPWP Stud- ies 2020</b>	<b>≤ 65% of Med HH In- come <sup>1</sup></b>	<b>Minority Population ≥ 32%</b>	<b>Federal-Aid Roadway Centerline Miles (2015)</b>	<b># Crash Clusters<sup>2</sup></b>	<b>Total Pop.<sup>1</sup></b>
Amesbury	1	3			32.98	0	16,907
Andover	2	0			78.02	2	34,616
Boxford	1	0			27.43	0	8,138
Georgetown	1	0			20.43	0	8,441
Groveland	2	0			17.31	1	6,646
Haverhill	7	1	Yes	Yes	79.88	10	62,079
Lawrence	10	1	Yes	Yes	41.54	29	78,804
Merrimac	1	0			15.95	0	6,601
Methuen	5	1	Yes	Yes	58.14	10	48,607
Newbury	3	0			27.11	0	6,854
Newburyport	8	0			23.09	1	17,766
North Andover	5	0			41.9	7	29,271
Rowley	0	0			19.4	1	6,081
Salisbury	1	0			28.22	1	8,672
West Newbury	5	0			19.59	0	4,427
Regionwide	1	1					
<b>Total</b>	<b>53</b>	<b>7</b>			<b>530.99</b>	<b>62</b>	<b>343,910</b>

<sup>1</sup> Data from American Community Survey 2011-2015. Information based on Census Tracts.  
If one Census Tract in that community matched the criteria, then the community received a Yes'.

<sup>2</sup> MassDOT Crash clusters from 2015-2017 with EDPOs of >118.

### **Merrimack Valley Planning Commission Staff**

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

Theresa Park, Executive Director

Mary Kay Beninati, Senior Transportation Planner (100%)

Jennifer Dunlap, Accountant

Betsy Goodrich, Transportation Planner (100%)

Jenifer Hughes, Environmental Planner (20%)

Anthony Komornick, Transportation Program Manager (100%)

Nancy Lavallee, Administration

Steve Lopez, GIS Specialist (40%)

Mikayla Minor, GIS Specialist (10%)

Dan Ovalle, Data Collection Specialist (100%)

Peter Phippen, Environmental Planner (10%)

Nate Robertson, Economic Development Planner (10%)

James Terlizzi, Senior Transportation Planner (100%)

Jerrard Whitten, GIS Program Manager (40%)

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

**Local Technical Assistance Projects**

<p>Traffic Data Collection on Andover St. in Lawrence (2019) Georgetown Sq. Signal Analyses (2019) Georgetown Thickly Settled Corridor Identification (2019) Bates Bridge Parcel Disposition in Groveland (2018) Everett St./Newton St. Cut Through Traffic in Lawrence (2018) Establishing Speed Limits (Downfall Rd.) in Newbury (2018) Evaluate Crosswalk on Route 110 in Merrimac (2018) Salem St./Loring St. Intersection Analysis in Lawrence (2018) Andover St./Foster St. Intersection Analysis in Lawrence (2018) Transportation Element of Newbury Master Plan (2017) Boat Launch Concept Plan -West Newbury (2017) Truck Exclusion Application - Georgetown (2016) North Andover Downtown Parking Study (2015) Newburyport Chap.40R Traffic Impacts Analysis (2015) Green St./Merrimack St. Bike &amp; Ped. Assess. (2014) Low St./Bashaw Way Intersection Analysis (2014)</p>	<p>Newbury Plum Island Traffic and Parking Study (2013) Haverhill Consentino School Speed Zone Plan (2013) Route 108/Route 110 Intersection Alignment (FFY 2012) Route 125 Pedestrian Crosswalk Analysis (FFY 2012) Route 113 Traffic Impact Review (FFY 2012) Parker St./Merrimack St. Intersect. Review (FFY 2011) Haverhill Street Light Ident.and Mapping (FFY 2011) Improving Pedest. Access to Central Plaza (FFY 2010) Broadway/Lake St. Intersection in Haverhill (FFY 2010) Analyze Traffic &amp; Safety Issues in Byfield (FFY 2010) Prepare PNF for Rte.133 Project in Boxford (FFY 2010) Willow Ave. Widening Review in Haverhill (FFY 2009) Saratoga St. One-Way Study in Lawrence (FFY 2009) Guard Rail Feasib. on Pelham St in Methuen (FY 2008) Rt. 125/Cushing Ave. Intersect. Study, Haverhill (2008)</p>
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**Transportation Studies**

<p>Tyler St./Route 113 Intersection Study in Methuen (2020) Route 125/Primrose St./Marsh Ave RSA in Haverhill (2020) Park St.to Park St. Ped. Study in Law. And Methuen (2020) Rte 1/Rte. 1A/Rte. 110 Intersection RSA in Salisbury (ongoing) Lawrence St./Route 110 Int. RSA in Lawrence (ongoing) I-93/I-495 Interchange RSA (ongoing) Railroad Ave./Merrimack St./Moulton Way RSA (ongoing) Route 28/Lowell St. RSA in Lawrence (ongoing) Route 110/Lowell Ave./McDonalds Dr. RSA in Haverhill (2017) Route 28/Route 213 Ramps RSA in Methuen (2016) Route 1 Rotary Health Impact Assess. In Newburyport (2016) Park St./Lawrence St. RSA in Lawrence (2014) Lawrence Project Development (2013) I-495 Ramps/Mass. Ave. Intersect. Study, N. And. (2014) Marston's Corner Intersection Study, Methuen (2013) Haverhill St. Corridor Study, Methuen (2013) M&amp;L Branch Trail Feasibility Study, Lawrence (2012/3) Lafayette Square Safety Study, Haverhill (2012) Rte 113/Rte 95 Interchange RSA, Newburyport. (2012/3) Rte 213/Rte 28 Interchange RSA, Methuen (2012/3) Rte 1/Merrimack St. Intersect. RSA, 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)</p>	<p>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 RSA, Lawrence (2011) Water St./Broadway RSA, Lawrence (2011) MVMPO 2012 Regional Transportation Plan (2011) Winter St/White St. Intersect. Study, Haverhill (2010) Georgetown Square Intersection Study (2010) Route 1/Route 133 Intersection Study, Rowley (2010) Merrimac St/Spofford St Study, Newburyport (2010) Rte. 114 Corridor Study, Lawrence/N. Andover (2010) Ames St./Haverhill St. Intersection Study (2009) Main St. Corridor Study, Haverhill (2009) Chickering Rd/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) Rte. 1/March Rd. Intersection Study, Salisbury (2005) Rte. 125/Merrimack Street Intersection Study (2005) Route 93 Corridor Traffic Study (2005)</p>
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## Acronyms Used in FFY 2021 UPWP

ABP:	Accelerated Bridge Program	MARPA:	Mass. Assoc. of Regional Planning Agencies
ADA:	Americans with Disabilities Act	MassDOT:	Massachusetts Department of Transportation
AV:	Autonomous Vehicle	MEPA:	Massachusetts Environmental Policy Act
BOS:	Bus on Shoulder	MOU:	Memorandum of Understanding
CAAA:	Clean Air Act Amendments of 1990	MPO:	Metropolitan Planning Organization
CEDS:	Comprehensive Economic Development Strategy	MVMPO:	Merrimack Valley Metropolitan Planning Org.
CIP:	Capital Investment Plan	MVPC:	Merrimack Valley Planning Commission
CMP:	Congestion Management Process	MVRTA:	Merrimack Valley Regional Transit Authority
CMAQ:	Congestion Mitigation/Air Quality Program	MVTC:	Merrimack Valley Transportation Committee
CHNA:	Community Health Network Area	NHPP:	National Highway Performance Program
CTPS:	Central Transportation Planning Staff	NHS:	National Highway System
DEP:	Department of Environmental Protection	NMCOG:	Northern Middlesex Council of Governments
DCR:	Dept. of Conservation and Recreation	NTD:	National Transportation Demand
DLTA:	District Local Technical Assistance Program	PGS:	Priority Growth Strategy
E & D:	Elderly and Disabled	PL:	Planning Funds (FHWA)
EDA:	Economic Development Administration	PPP:	Public Participation Plan
EIR:	Environmental Impact Report	PSAC:	Project Selection Advisory Council
EPA:	Environmental Protection Agency	RIF:	Massachusetts Road Inventory File
FAST:	Fixing America's Surface Transportation Act	RPC:	Rockingham Planning Commission
FHWA:	Federal Highway Administration	RTP:	Regional Transportation Plan
FTA:	Federal Transit Administration	SAFETEA	Safe, Accessible, Flexible, Efficient
GIS:	Geographic Information Systems	LU	Transportation Act: A Legacy for Users
GHG:	Greenhouse Gas	SPR:	State Planning and Research Program
HOV:	High Occupancy Vehicle	STIP:	State Transportation Improvement Program
HPMS:	Highway Performance Monitoring System	STP:	Surface Transportation Program
HSIP:	Highway Safety Improvement Program	TAP:	Transportation Alternatives Program
ISTEA:	Intermodal Surface Transportation and Efficiency Act of 1991	TEA-21	Transportation Equity Act for the 21st Century
ITS:	Intelligent Transportation Systems	TDM:	Transportation Demand Management
LEP:	Limited English Proficiency	TMA:	Transportation Management Area
LRTA:	Lowell Regional Transit Authority	TIP:	Transportation Improvement Program
MAP:	Mobility Assistance Program	UPWP:	Unified Planning Work Program
MAP-21:	Moving Ahead for Progress in the 21st Century Act	3C:	Continuing, Comprehensive, and Cooperative (transportation planning process)
MAPC:	Metropolitan Area Planning Council	8T&TGM:	Eight Towns and the Great Marsh

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

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

### **Description**

Program Management and Support activities include tasks that are necessary to maintain the federally prescribed 3C transportation planning process in the MVMPO 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 MVPC staff participation in ongoing transportation studies & analyses being undertaken in the region or in surrounding MPO regions.

### **Previous Work**

MVPC staff has prepared all necessary financial documents and progress reports for its PL contract with MassDOT and its transit planning contract with the MVRTA. MVPC also prepared newsletters and annual reports and provided information to the press. This task also provides resources 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.

MVPC also uses this task to participate in many transportation planning studies that are being conducted in adjacent regions or supporting groups associated with the implementation of major roadway, bridge or transit projects.

In FFY 2017, FHWA and FTA jointly conducted the Planning Certification Review for the Merrimack Valley MPO. Under the FFY 2020 UPWP, MVPC staff continued to address the recommendations and findings coming from that review including its adoption of the Boston Urbanized Area Memorandum of Understanding and the Performance Based Planning Agreement. This work will take place not only under Task 1.1 but in other tasks included in this document. The Merrimack Valley MPO will work cooperatively with FHWA and FTA to conduct a Planning Certification Review in FFY 2021.

At the local level, staff is a member of and attends Haverhill Traffic and Safety Committee and Newburyport Traffic and Safety Committee meetings.

### **FFY 2021 Activities**

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

### **Tasks**

- 1.1.1 *Review Federal and State Transportation Programs:* Includes staff reviews of federal and state transportation programs, guidelines, circulars and manuals. This includes such documents as Federal Transportation Authorization legislation, the Commonwealths' State Rail and Freight plans, weMove Massachusetts, Transportation Bond Bills, and MassDOT's Capital Investment Plan. In addition, Chapter 40 Section 54A reviews of

development projects proposed for abandoned rail lines in the region would be performed under this task as would staff attendance at workshops sponsored by MassDOT or USDOT.

- 1.1.2 *Coordination of Regional Transportation Planning Activities:* The MVMPO will, to the extent feasible, 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, Lowell Regional Transit Authority and the Merrimack Valley Regional Coordinating Council. Staff will also stay apprised of activities being undertaken by the Merrimack Valley TMA in its efforts to relieve congestion in and around Greater Lawrence and the Lowell Junction area of Andover.
- 1.1.3 *Preparation of Newsletter Articles and 2020 Annual Report Articles:* Transportation staff will prepare articles for inclusion in the MVPC newsletter, which will be published monthly during the period, and for the MVPC's 2020 Annual Report. This latter document will be prepared in the period from December 2020 through March 2021.
- 1.1.4 *Contract Administration:* Prepare time sheets, monthly and quarterly progress reports and billings for MVPC's two transportation planning contracts and perform other contract administration activities necessary to the conduct of the 3C transportation planning process such as staff meetings.
- 1.1.5 *Attend Meetings of MVPC and MassDOT District 4 Staff:* MVPC transportation planning staff will prepare for and attend meetings with MassDOT District 4 personnel to discuss the status of MVMPO region roadway and trail projects, project programming issues, and other transportation-related topics.
- 1.1.6 *MVMPO Participation in Other Regional Studies/Analyses:* MVMPO staff will also support the planning activities needed for regional studies and analyses that can have an impact on transportation in the MVMPO region. These include MVPC's own efforts in Economic Development (including the development of the Comprehensive Economic Development Strategy), Housing and Environmental Planning.

Staff will continue to attend meetings of working groups, task forces and committees that are involved in the development of transportation projects in the region and the completion of planning studies. Recent examples of such groups include the Tri-Community Planning Task Force, Tri-Town Project Coordinating and Participating Agency Group, and the Whittier Bridge Project Working Group.

- 1.1.7 *Attend Transportation Program Managers Meetings:* The Transportation Program Managers Group serves as a primary forum for the exchange of information between the Metropolitan Planning Organizations, MassDOT and USDOT. MVPC staff will be represented at meetings of this group, which generally occur monthly.

- 1.1.8 *MVMPO Participation on Community Committees*: MVMPO will continued to participate on local traffic and safety committees, road committees, and other groups that have been created to address transportation issues in the Valley.
- 1.1.9 *Participate in Northern Boston UZA Meeting(s)*: This group is comprised of transportation staff from the Boston, Northern Middlesex and Merrimack Valley MPOs and meets annually to discuss transportation matters (e.g. projects, data availability, etc.) that cross MPO boundaries.
- 1.1.10 *Review MVMPO MOU*: As noted under Previous Work, the MVMPO adopted the new Boston Urbanized Area Memorandum of Understanding and the Performance Based Planning Agreement in FFY 2019. The former agreement reflects the results of the 2010 Census and includes all state DOTs and the transit operators while the latter identifies the responsibilities of MassDOT, the Regional Transit Authorities, and the MPOs in implementing the Performance Management provisions that have been established by USDOT. Under this subtask, MVPC staff will review the existing MVMPO MOU to determine whether it should be amended to reflect the new requirements and relationships created by these two other agreements.
- 1.1.11 *USDOT Planning Certification Review of MVMPO*: Staff will prepare the materials needed by USDOT as part of the MVMPO’s Planning Certification Review. FHWA/FTA plans to kick-off of the planning certification review process in winter 2021, hold a site visit later in spring 2021, and have report/certification completion by summer 2021. MVPC will also perform the public outreach needed for this review and serve as host for the event.

**Products/Schedule**

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Fed. State Programs												
Regional Coordination												
Newsletters/Annual Rpt.							•					
Contract Admin.												
District 4 Meetings												
Part. Other Studies												
Program Managers												
Local Committees												
North Boston UZA Mtg.												•
MVMPO MOU			•									
Planning Cert. Review						•			•			
	• Product/Event											

## Funding

<b>Funding for Task 1.1 Program Management and Support</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	413	\$62,632
MassDOT	103	\$15,658
FTA Section 5303	175	\$25,064
MassDOT	44	\$6,266
FTA Section 5307	36	\$4,640
MVPC	9	\$1,160
<b>TOTAL</b>	<b>780</b>	<b>\$115,420</b>

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

### **Description**

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

Key participating groups in this process are the MVMPO members, the MVMPO Transportation Committee and its Nondiscrimination Working Group, the MVPC, and the MVRTA Advisory Board. However, MVPC-sponsored meetings of local elected officials, the Merrimack Valley Mayors and Managers Coalition (MVMCMC) and its subsidiary DPW Directors Subcommittee, regional planners, and area legislators are also important. Through these and the MVPC website, information concerning the status of transportation planning and construction projects as well as transit services in the region are presented and reviewed.

### **Previous Work**

The MVMPO created and adopted a regional Public Participation Plan in the summer of 2007, which was subsequently updated by the MPO in 2010. Under the FFY 2016 UPWP, staff completed major revisions to the above document. Many of these were made in response to guidance that the MVMPO has received from FHWA and MassDOT and are designed to more actively involve the region's Title VI/Environmental Justice/Limited English Proficiency populations in the transportation planning process.

In 2017, the MVMPO amended its Public Participation Plan to reduce the review and comment period needed to adopt/amend its Regional Transportation Plan, Transportation Improvement Program, and Unified Planning Work Program.

In FFY 2020 MVPC staff prepared numerous public notices and press releases for local newspapers and boards announcing MVMPO meetings, MVTC meetings, and Public Hearings to receive input on MVMPO documents, and modified its electronic outreach procedures to provide more information that can be used in both measuring how well this form of communication is performing and to streamline the management of the Stakeholders List.

MVPC staff continued supporting its Mayor's and Managers Coalition as well as meetings of a subcommittee of that group, the DPW Directors. This group has and will continue to play a key role in the Merrimack Valley Stormwater Collaborative, a group formed through funding provided through a Commonwealth Community Innovation Challenge Grant (see [Task 3.9](#)). Staff also continued to work with the DPW Directors in developing apps that can be used by local DPWs for collecting data and providing direct access to asset databases from locations in the field.

## **FFY 2021 Activities**

Staff will continue to support the implementation of the Public Participation Plan in the region and the tasks described below. In addition, MVPC will work to implement the other planning-related requirements contained in the FAST Act and the Final Rule on Statewide and Metropolitan Planning that apply to this task.

### **Tasks**

- 1.2.1 *Update Public Participation Plan (PPP):* Staff will evaluate the effectiveness of specific PPP components and make revisions, as needed. Included will be the inclusion of provisions that outline the MPO procedures during emergencies such as what was observed in the COVID-19 Epidemic.
- 1.2.2 *Continued Monitoring of Stakeholder Outreach Lists:* Additional groups and organizations will be added as warranted and non-participating parties will be removed upon their request. The MPO completed a substantial update to its Stakeholder list in 2020.
- 1.2.3 *Implement Public Participation Process:* Staff will prepare public notices, announcements, documents, presentations and educational tools to be circulated at MVMPO, MVTC and other meetings, posted on MVPC website / social media, or distributed by mail, newspapers or other media as outlined in the MVMPO's Public Participation Plan.
- 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.
- 1.2.6 *Host Meetings of DPW Directors Subcommittee and Merrimack Valley Planning and Community Development Directors:* These groups are comprised of stakeholders that play prominent roles in maintaining the transportation infrastructure and in the development of transportation projects in the region. Bringing these groups together allows MVMPO staff to present information on the region's transportation network and transportation planning process and garner meaningful comments and insights. The DPW Directors Subcommittee meets the first Wednesday of every month, while the Planning and Community Development Directors meet on a quarterly basis.
- 1.2.7 *Merrimack Valley Transportation Committee/Nondiscrimination 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 MVTC Nondiscrimination Working Group.
- 1.2.8 *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, notices, minutes, and other materials. The MVMPO usually meets on the fourth Wednesday of each month at the MVPC Offices in Haverhill.

1.2.9 *Monitor/Participate in MPO and Committee Meetings for Surrounding MPOs:* Under this task, MVPC staff will attend policy committee, technical committee, and meetings of the Boston, Northern Middlesex, Rockingham and Nashua MPOs as needed. Staff may 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. Along with Task 1.2.10 below, this task will address the federal requirement for inter-regional transportation planning coordination.

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

**Products/Schedule**

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Update PPP					•							
Update Outreach List												
Public Part. Process												
Distribute Documents												
Mayors/Legislators		•					•					
DPW Dir./Planners	•			•			•			•		
MVMPO Meetings	•	•	•	•	•	•	•	•			•	•
Attend Other MPOs												
Trans. Web Pages												
	• Product/Event											

## Funding

<b>Funding for Task 1.2 Public Participation Process</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	370	\$49,176
MassDOT	93	\$12,294
FTA Section 5303	144	\$19,928
MassDOT	36	\$4,982
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>643</b>	<b>\$86,380</b>

## 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 staff produced draft and final versions of previous MVMPO UPWPs. FFY 2020 also saw adoptions of one amendment and ten adjustments to the MVMPO's FFY 2020 UPWP.

### FFY 2021 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 2022 UPWP for the region. The MVPC will also amend the FFY 2021 document as needed to reflect changes that may occur during the program year.

### Tasks

- 1.3.1 *Develop FFY 2022 Unified Planning Work Program:* The MVPC will develop the FFY 2022 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/Adjust FFY 2021 UPWP:* Performed as necessary. Amendments and Adjustments to the UPWP shall be undertaken according to the procedures and circumstances identified on [Page 5](#) of the Introduction.

### Products/Schedule

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Draft/Final 2022 UPWP							•	•				
Amend 2021 UPWP												
• Product/Event												

## Funding

<b>Funding for Task 1.3 Unified Planning Work Program</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	98	\$13,920
MassDOT	24	\$3,480
FTA Section 5303	34	\$4,808
MassDOT	8	\$1,202
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>164</b>	<b>\$23,410</b>

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

### **Description**

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

### **Previous Work**

MVPC staff worked in cooperation with MassDOT's Highway Division District 4 and its Office of Transportation Planning to produce the FFYs 2020-2024 TIP including the application of the Transportation Evaluation Criteria to projects being considered for inclusion in that document.

MVPC staff also continued to update its database of roadway and transit projects that was used to develop the MVMPO's Draft FFYs 2020-2024 TIP. Staff completed qualitative or quantitative assessments of each TIP project's Greenhouse Gas (GHG) Emissions and endorsed six amendments to the FFYs 2020-2024 TIP.

For transit projects, the region's FFYs 2020-2024 TIP was developed using MassDOT's *GrantsPlus* project tracking and grant management system, which is also being used in the development of the region's FFYs 2021-2025 TIP. The *GrantsPlus* system relies on the Regional Transit Authorities to provide MassDOT with the capital projects they propose to build over the next five fiscal years using FTA Section 5307 federal funds and state matching funds. These include the acquisition of new or replacement rolling stock, the purchase of Intelligent Transportation products, facility construction projects and other items. MassDOT's Rail and Transit Division then reviews these requests and provides the MPOs with a listing of projects that could be included given available state matching funds.

### **FFY 2021 Activities**

MassDOT and the other MVMPO members 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 FFYs 2022-2026 TIP.

MVPC will continue to complete GHG emissions evaluations for those roadway and bridge projects that appear in the TIP (in Appendix E and Appendix F of the document).

### **Tasks**

1.4.1. *Develop Five-year Program of Projects:* In developing the Draft FFYs 2022-2026 TIP, staff will work with MassDOT and the MVRTA to update the list of all transit and highway projects that could possibly receive federal transportation funds for planning, engineering, and construction or purchase during the period. In addition to this list of federally funded

projects, the TIP will include:

- For informational purposes, all transportation projects proposed to be funded with Federal funds other than from FHWA and FTA, and
- For informational purposes, all regionally significant transportation projects proposed to be funded with Non-Federal funds.

This five-year list of projects shall include the following information:

- a. Project title;
- b. Project description;
- c. Project evaluation score based on the MVMPO staff's application of Transportation Project Evaluation Criteria;
- d. Project Type (i.e. Planning, Design, or Construction);
- 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, and
- j. Quantitative or Qualitative evaluation of each roadway and bridge project's GHG emissions.

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

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

1.4.2. *Preparation of MVMPO Region Draft FFYs 2022-2026 TIP:* The following tasks and procedures will be performed by the MVPC transportation planning staff in developing the Draft FFYs 2022-2026 TIP:

- Ensure early involvement of local legislators, chief local officials, MVMPO Stakeholders, 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 District 4 Project Engineer, MVRTA Administrator, MassDOT Rail and Transit Administrator, and the Office of Transportation Planning in developing project information.

The Draft FFYs 2022-2026 TIP will also include sections on:

- a. The relationship of the TIP to the RTP;
- b. 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 also specifically identify “investments in pedestrian walkways and bicycle transportation facilities” as required in the FAST Act;
- 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 to maintain the existing transportation network;
- g. Description of the transit funding provisions in The FAST Act;
- h. The GHG emissions associated with each project appearing in the FFYs 2022-2026 elements of the document, and
- i. Description of how Performance Measures are included in the FFYs 2022-2026 TIP.

1.4.3. *Amendments to MVMPO’s FFY 2021-2025 TIP:* The MVMPO will endorse amendments to the region’s FFYs 2021-2025 TIP as needed throughout FFY 2021.

1.4.4. *Review Reports on Projects:* MassDOT provides quarterly reports to the Massachusetts Association of Regional Planning Agencies (MARPA) concerning the status of planned and advertised road and bridge projects. This information is usually disseminated and discussed at meetings of MassDOT staff, RPA Directors, and RPA Transportation Program Managers. Attendance of MVPC transportation staff at these meetings and the review of the information presented in these reports will be performed under this task.

1.4.5. *Project Evaluation Criteria:* Staff will continue to work with MassDOT to annually update the transportation project evaluation scores for roadway and trail projects in the MVMPO region.

As part of Chapter 46 of the Acts of 2013, the Legislature created the Project Selection Advisory Council (PSAC) which developed uniform project selection criteria that are to be used in the development of the comprehensive state transportation plan. These criteria, with minor modifications, have been applied by MassDOT to the universe of projects/project proposals as part of the preparation of MassDOT’s Capital Investment Programs since 2017. MVPC staff has and will continue to work with MVMPO members to determine how and whether MassDOT’s new evaluation criteria can be incorporated into its own transportation project evaluation process.

1.4.6. *CMAQ Consultation Committee:* Under this task, MVPC staff will prepare CMAQ project descriptions and complete mandated Air Quality impact evaluations needed by the state’s

CMAQ Consultation Committee. MVPC staff will also review the project descriptions, Air Quality analyses, and other materials to be considered by the state’s CMAQ Consultation Committee and attend/participate in Committee meetings.

- 1.4.7. *Publish List of Projects for Which Federal Transportation Funds Were Obligated in FFY 2020:* By January 1, 2021, the MVMPO will develop and make available to the public a list of the transportation projects that federal funds were obligated to in FFY 2020.
- 1.4.8. *Continue to Support Regional Bike Parking and ADA Ramp/Sidewalk Programs:* In some years, substantial amounts of MVMPO Target funds are not obligated in the region’s TIP. Given the need to improve bicycle parking facilities in the region and improve sidewalks, it may be possible for the MVMPO, working in cooperation with local officials, to develop programs that could channel these funds to such projects. MVPC staff will continue to work with District 4 staff and the Office of Transportation Planning to identify the type of projects that could be developed to make use of any available MPO Target funding.

**Products/Schedule**

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5- Year Prog. Projects						•						
Draft 2022-2026 TIP							•					
Final 2022-2026 TIP								•				
Amend 2021-2025 TIP												
Reports on Projects												
Evaluation Criteria						•						
CMAQ Anal./ Committee												
List of Obligated Projs.			•									
Bike & Ped. Projects												

• Product/Event



## Funding

<b>Funding for Task 1.4 Transportation Improvement Program</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	336	\$42,944
MassDOT	84	\$10,736
FTA Section 5303	64	\$8,560
MassDOT	16	\$2,140
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>500</b>	<b>\$64,380</b>

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## **Task 1.5 - Title VI/Environmental Justice/Limited English Proficiency Activities**

### **Description**

The MVMPO's Nondiscrimination Program activities relate to its status as 1) a direct recipient of USDOT planning funds, and 2) through provision of its technical assistance to the Merrimack Valley Regional Transit Authority or MVRTA (an FTA direct funding recipient). Accordingly, certain tasks contained in each MVMPO UPWP are also part of MVRTA documents prepared and submitted by the MVRTA each federal fiscal year.

The MVMPO performs this task to raise awareness and integration of Transportation Equity / Environmental Justice (TE/EJ) principles and needs in the MVMPO's transportation planning and programming activities as well as in the MVPC's overall Program work. As in previous years, MVPC Staff will continue outreach efforts to minority, low-income, Limited-English-Proficiency, disabled, and elder populations. It accomplishes much of this work through its staff support to the MVRTA (see UPWP Tasks [3.1](#) and [3.2](#)). For FFY 2021 and beyond, staff proposes to maintain efforts initiated in prior FFYs to integrate Title VI/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 2015 the MVPC Staff continued implementing Title VI/EJ/LEP monitoring and outreach activity improvements recommended at the MPO's April 2013 Certification Review. It also met with MassDOT's Office of Diversity and Civil Rights in Winter 2015 to review MVMPO progress in achieving MassDOT-recommended FFY 2014 tasks and to receive MassDOT's FFY 2015 Title VI Work Plan. A Title VI Workplan update was completed in FFY 2017.

MVPC Staff submitted a Title VI Annual Report to MassDOT in December 2018, met with the MVMPO's Equity Working Group in 2018 and began updating the Language Assistance Plan, which calls for the MPO to produce key planning documents in three languages: English, Spanish, and Traditional Chinese. MVPC Staff provides annual reviews to MassDOT, the most recent was completed in February 2020.

### **FFY 2021 Activities**

MVPC Staff proposes to implement its FFY 2021 Title VI/Nondiscrimination Work Plan by performing the following tasks:

#### **Tasks**

- 1.5.1 *Staff Training and Coordination with MassDOT and USDOT:* MVPC 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 Title VI/EJ/LEP monitoring procedures. MVPC Staff will continue coordinating with other Massachusetts MPOs to share nondiscrimination best practices information and will arrange for in-house trainings and meetings as requested by MassDOT.

- 1.5.2 *Data Collection and Monitoring Regional Protected Population Facts/Trends:* MVPC Staff will continue to update its socioeconomic data including data for the region's protected populations and will provide this information in its regular reporting cycles to MassDOT. The MVMPO staff will continue to monitor the low-income definition standard.
- 1.5.3 *Reviewing TIP Projects/UPWP Studies and Perform 'Benefits and Burdens' Analyses:* MVPC Staff will continue to prepare 'Benefits and Burdens' analyses to determine how individual projects or programs contained in the FFYs 2022-2026 TIP and FFY 2022 UPWP affect the region's minority, low-income, limited English-proficient, and other protected populations.
- 1.5.4 *Translating MVMPO Documents/Materials:* MVPC Staff will continue to translate all or portions of its documents and will continue preparing process or document Fact Sheets in Spanish and in Traditional Chinese. It will also continue to post materials in languages other than English on electronic media and hard copies at various locations. It will conduct this task in accordance with the MVMPO Public Participation Plan.
- 1.5.5 *Elevating Accessibility:* MVPC Staff will purchase or secure use of equipment and/or services that maintain and/or enhance MVMPO program accessibility. The Title VI Coordinator will also continue coordinating with the MVPC Office Administrator on MVPC facility, policy and program accessibility. The MVPC's Title VI Coordinator will arrange for in-house accessibility training, as needed.
- 1.5.6 *Interacting with MVMPO Region Constituent Groups.* MVPC Staff will continue this work, including preparation and circulation of information as outlined in its Public Participation Plan in all MVMPO communities to increase potential for participation in the MVMPO planning process by protected populations including Title VI and EJ targeted populations as well as the disabled, elders, etc.
- 1.5.7 *Preparing Title VI Annual Report Submission to MassDOT:* MVPC Staff will prepare this report to summarize MVMPO Title VI/Nondiscrimination Program activities in the previous year. The content of the Annual Report will follow MassDOT guidance.
- 1.5.8 *Implement Recommendations Provided Through the 2017 Planning Certification Review:* The MVMPO will continue to update the LEP/LAP and Title VI program as needed according to the recommendations provided through the Certification Review process.

## **Products/Schedule**

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Staff Training												
Demographic Trends												
Benefits & Burdens						•	•					
Data Collection												
Translate Documents							•		•			
In-house Accessibility												
Outreach to Local Grps.												
Title VI Annual Report												•
Implement Cert. Review												

• Product/Event

## Funding

Funding for Task 1.5 Title VI / Environmental Justice / LEP		
Source	Person Hours	Amount
FHWA	100	\$13,736
MassDOT	25	\$3,434
FTA Section 5303	67	\$9,240
MassDOT	17	\$2,310
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>209</b>	<b>\$28,720</b>

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## **Task 1.6 - Regional Transportation Plan**

### **Description**

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

### **Previous Work**

In FFY 2018, collected information on proposed, planned, permitted, and built developments in the region which MassDOT, MAPC and the UMass Donahue Institute used to develop the socioeconomic projections that were used in the MVMPO's FFY 2020 RTP. Staff also participated in MassDOT's Socioeconomic Projections Committee, which met monthly since Autumn 2017, to review socioeconomic data and provide input into the process of developing these projections.

Under the FFY 2019 UPWP, the MVMPO completed preparation of the region's FFY 2020 RTP. The MVMPO's FFY 2020 RTP presents a comprehensive examination of the region's existing transportation network and forecasts the future demand for transportation services in the Valley.

The Goals for the transportation network set forth in the 2020 RTP are to:

- Maintain the System in a state of good repair;
- Increase Safety for All Modes
- Promote Economic Vitality
- Support Transportation Equity
- Promote Environmental Sustainability

### **FFY 2021 Activities**

With the adoption of the FFY 2020 RTP in July 2019, the MVMPO's subsequent focus on this task in FFYs 2020 was on monitoring the status of development projects and proposals in the region. This effort will continue in FFY 2021.

### **Tasks**

- 1.6.1 *Monitor Status of Local Development Projects and Proposals:* Staff will continue to work with community planners, development directors and planning boards and use other sources to track the progress of proposed, planned, approved and built developments around the region.

## Products/Schedule

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Monitor Developments												
	• Product/Event											

## Funding

Funding for Task 1.6 Regional Transportation Plan		
Source	Person Hours	Amount
FHWA	22	\$2,688
MassDOT	5	\$672
FTA Section 5303	45	\$5,864
MassDOT	11	\$1,466
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	83	\$10,690



## **TASK 2.0- DATA COLLECTION AND ANALYSIS ACTIVITIES**

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

### **Description**

Traffic volume count data is the most widely used and easily understood method to monitor and measure activity on our roadways. Using Automatic Traffic Recorder (ATR) counting equipment, the MVPC has annually gathered traffic volume information on roadways throughout the region since 1983. These counts are taken for several 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 Statewide Travel Demand 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.

In addition to the ATR counts described above, MVPC staff manually collects vehicle turning movement counts at intersections/interchanges as well as information on bicycle and pedestrian travel.

### **Previous Work**

Under the FFY 2019 UPWP, MVPC completed approximately 80 traffic counts. Many of these counts were taken at locations needed to better calibrate the Statewide Travel Demand Model. At the same time, MVPC produced Community Traffic Counting reports that were distributed to local officials.

In 2020 the nature and extent of the MVPC traffic data collection program was impacted by the COVID-19 Epidemic. In April, MassDOT asked the RPAs to not collect any ATR volume, classification or speed counts while the Commonwealth was under Emergency Executive Order limiting travel. Staff will work with MassDOT during the spring and summer of 2020 to develop a new traffic counting schedule that monitors how the transportation system responds to the reopening of the regional economy.

In 2020, MVPC worked to include more historical count data into its active traffic count database.

### **FFY 2021 Activities**

Under this year's UPWP, MVPC again anticipates conducting approximately 90 ATR traffic counts. In addition, MVPC staff is seeking to obtain equipment that will allow it to automatically collect data on bicycle and pedestrian travel volumes to better monitor these two important travel modes.

## Tasks

- 2.1.1 *Establish Revised 2021 Traffic Counting Schedule:* Staff will work with MassDOT and CTPS staff to develop a revised schedule of ATR volume count locations. This will be impacted by the rate and nature of the reopening of the Massachusetts and New Hampshire economies.
- 2.1.2 *Conduct MVPC Counts:* Conduct counts throughout the region to refine and update the Statewide Travel Demand Model and in support of MVPC studies and analyses.
- 2.1.3 *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.
- 2.1.4 *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.
- 2.1.5 *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.
- 2.1.6 *Traffic Monitoring System:* Depending upon the traffic volume data collection program established under Task 2.1.1, MVPC will attempt to collect traffic volume counts at many of the locations it counts annually 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.
- 2.1.7 *Data Submittal:* All counts taken by the MVPC in FFY 2021 will be uploaded to the Midwestern Software Solutions (<http://www.ms2soft.com/>) website. MassDOT has recently proposed having this data upload process occur in the field rather than from the MVPC Offices.
- 2.1.8 *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.
- 2.1.9 *Bicycle and Pedestrian Travel Data:* Staff will collect bicycle and pedestrian counts along key on-road and off-road facilities in the Valley and at locations previously counted as part of MVPC intersection/corridor studies and mine the data contained in such studies

prepared by consultants to support the development of a bicycle/pedestrian travel data-base.

**Products/Schedule**

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Data Collection												
Count Library												
Data Submittal												
Community Reports							•					
Bike/Ped Counts												
• Product/Event												

**Funding**

Funding for Task 2.1 Traffic Monitoring Program		
Source	Person Hours	Amount
FHWA	716	\$62,436
MassDOT	179	\$15,609
FTA Section 5303	0	\$0
MassDOT	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>895</b>	<b>\$78,045</b>

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

### **Description**

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

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

### **Previous Work**

Under the FFY 2019 UPWP, MVPC collected information on the condition of pavement on non-interstate federal aid arterial and collector roadways in the region for use in the FFY 2020 RTP. This data was used to identify the level of funding needed to attain and maintain the Pavement Condition goals identified in the FFY 2020 RTP over the next 20 years.

In 2020, MVPC worked with CarteGraph, developer of the software used in the MVMPO's regional pavement management program, to develop an agreement that will allow staff to use its newer, more powerful Operations Management System.

MVPC also entered into a contract with the Town of Groveland to implement a community pavement management program.

### **FFY 2021 Activities**

MVPC will focus on managing and updating data on the condition of pavement on federal aid arterial and collector roadways in the region that it collected for use in the FFY 2020 RTP. 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 *Update Regional Pavement Management Program:* This task will involve reviewing and where necessary, modifying the assumptions contained in the pavement management software to reflect local preferences in selecting appropriate roadway improvement treatments. It can also include modifying the model's degradation curves, and construction cost estimates.

Staff will also supplement the data that it collected in 2018 with new information on the condition of federal-aid roadways that becomes available during the year.

2.2.2 *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.

2.2.3 *Attend Meetings of the Pavement Management Users Group:* Staff will attend meetings of the Pavement Management Users Group.

### Products/Schedule

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Update MVPC Program												
Community Assistance												
Data Collection Review												
Users Group Meetings												
●Product/Event												

### Funding

Funding for Task 2.2 Pavement Management Studies		
Source	Person Hours	Amount
FHWA	92	\$11,676
MassDOT	23	\$2,919
FTA Section 5303	0	\$0
MassDOT	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	115	\$14,595



## **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 several transportation-related issues, which have resulted in the creation of the following:

- *Traffic Viewer* for the MVPC website, which allows the public to access the MVPC's traffic counting and crash databases;
- A process to develop intersection and roadway improvement plans in GIS-compatible formats;
- GIS-based tool to assist staff in assigning locations to MassDOT crash reports
- Mapping tool that allows MVPC Transportation Staff to directly access and modify data contained in the Agency's GIS transportation databases;
- Application that integrates the collection of pavement condition data into both CarteGraph and MVPC's GIS Databases;
- Maps that were used in the development of the MVMPO's FFY 2020 Regional Transportation Plan, its TIPs; and the MVPC's Title VI/Environmental Justice/Limited English Proficiency analyses;
- MVRTA route and system maps and updates;
- Development of Apps that can be used by local workers in the field to manage data on catch basins, location of bus route signs and other assets.
- Updated digital aerial imagery used in regional transportation studies;
- Methodology to identify location of sidewalks using aerial imagery and MassDOT Road Inventory File data, and
- Mapping location of stormwater outfall pipes along public roadways.

In addition, MVPC worked with 14-member communities and one New Hampshire community to contract with Pictometry for a spring 2017 flyover of the area to acquire new digital aerial imagery. This effort was expanded in FFY 2020 as MVPC coordinated a spring 2020 Pictometry flyover that included all 15 member communities as well as two in New Hampshire (Plaistow, Seabrook).

In FFY 2020, GIS Staff took a lead role in working with MVPC Transportation Staff and Carte-Graph to develop a new agreement that will give the Commission access to CarteGraph's OMS Pavement Management Software.

FFY 2020 also saw the development of a new Complete Streets project data layer that contains information on all projects that have been identified in the Complete Streets Implementation Plans approved in the region.

### **FFY 2021 Activities**

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. It will also continue to work with MassDOT and member communities to facilitate the process of updating the information in the RIF.

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

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 *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 and the Assessors Maps that MVPC prepares for most of its member communities.

Staff will also continue to work with MassDOT to develop and implement a process by which MVPC can assist communities in submitting the data needed to update their RIF information.

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 *Maintain Active Transportation and Trails Datasets:* Under previous UPWPs, MVPC staff developed a series of community off-road trail maps that shows the locations of key trails on publicly accessible land. In addition, MVPC staff have collected data on sidewalks, Complete Streets and the active transportation network, which it will continue to maintain and update.
- Similarly, staff will update the information shown in its Regional Trails and Active Transportation Story map.
- 2.3.8 *Maintain/Update Traffic Counting Viewer:* GIS staff will update its new public facing web viewer to facilitate public engagement and outreach in the transportation planning process. RTP and TIP projects along with Census demographic data will be displayed along with other data including traffic count locations and volumes as well as trail routes (on-road and off-road). Data in the viewer will be accessible to the public and interactive for mapping and analytical purposes.
- 2.3.9 *Develop Maps and Conduct Spatial Analyses:* MVPC GIS Staff will assist Transportation Staff in completing its transportation studies and analyses by creating required maps and undertaking spatial analyses that may be required in these efforts.
- 2.3.10 *Development of Apps:* MVPC GIS Staff will continue to develop Apps that can be used by MVPC Staff and MVMPO communities to manage transportation asset databases and facilitate data collection activities.

**Products/Schedule**

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Maintain Database												
Road Inventory File												
State GIS User Group												
Pictometry Support												
Pictometry Workshops												
MVRTA Bus Layers												
Trails Database												
Transportation Viewer												
Maps and Spatial Anal.												
Development of Apps												
● Product/Event												

**Funding**

Funding for Task 2.3 Geographic Information Systems		
Source	Person Hours	Amount
FHWA	784	\$94,456
MassDOT	196	\$23,614
FTA Section 5303	179	\$19,840
MassDOT	45	\$4,960
FTA Section 5307	96	\$9,264
MVPC	24	\$2,316
<b>TOTAL</b>	<b>1,324</b>	<b>\$154,450</b>

## **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 with populations over 200,000 persons. Within these areas, MPOs were given the primary responsibility to develop and implement a Congestion Management System, which has now become the Congestion Management Process (CMP). This requirement was slightly modified in SAFETEA-LU, but its general intent remains the same under the FAST Act. Significantly, MAP-21 did officially set forth the requirement that an MPO's Congestion Management Process include Goals and Objectives that could be tracked through application of performance measures.

### **Previous Work**

In FFY 2017, MVPC staff completed the process of identifying congested roadway segments using travel time data made available under FHWA's National Performance Management Research Data Set (NPMRDS) program. This data set contains travel time data gathered from a variety of sources on the nation's NHS roadways. Unlike the regional traffic model, the NPMRDS data set provides an almost around the clock measure of actual travel times and congestion.

Staff will be updating the MVMPO's CMP using travel time data from 2019 under its FFY 2020 UPWP. The CMP uses the NPMRDS to identify congested NHS roadway locations in the Valley. The updated CMP also reflects the new FHWA Congestion Performance Measure for NHS Roadways and considers MassDOT/MVMPO Performance Targets.

### **FFY 2021 Activities**

MVPC staff will focus on incorporating new travel time data for NHS roadways in the region into the CMP. Staff will work with MassDOT to determine if and how the NPMRDS data from 2020 can be used. It will also continue to investigate acquiring additional travel time data that is available for the remaining federal aid roadways in the region.

### **Tasks**

- 2.4.1 *NPMRDS Data:* Staff will work with MassDOT and FHWA to acquire and monitor new NPMRDS travel time information as it becomes available.
- 2.4.2 *Other Travel Time Data:* Staff will inquire as to the availability of INRIX or other travel time datasets for the Non-NHS federal aid roadways in the region for inclusion in a future MVMPO CMP report.
- 2.4.3 *Other Data Collection:* MVPC staff will continue to monitor usage at park and ride lots throughout the region, review ridership information on congested transit routes/services, and collect turning movement counts at congested intersections.

## Products/Schedule

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Travel Time Data Col.												
Other Travel Time Data												
Other Data Collection												
• Product/Event												

## Funding

Funding for Task 2.4 Congestion Management Processes		
Source	Person Hours	Amount
FHWA	130	\$16,036
MassDOT	33	\$4,009
FTA Section 5303	25	\$3,072
MassDOT	6	\$768
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>194</b>	<b>\$23,885</b>

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

### **Description**

With its three interstate highways and other NHS roadways such as Route 213, the Merrimack Valley region offers many existing and potential intermodal connection opportunities. The region is also served by three rail lines, one of which provides freight rail access to local businesses (Lawrence Industrial Park Spur) and one line that carries a substantial amount of interstate freight as well as passenger service (Haverhill Commuter Line). A third 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 several trucking terminals.

### **Previous Work**

In FFY 2016, MVPC prepared a Regional Park and Ride Lot Study, which reviewed the demand for park and ride lot capacity, facility ownership/operation, parking charges, potential sites for new lots, expansion options for existing facilities, and issues that are affecting demand at the existing facilities.

In FFY 2017, MVPC completed an update to its 2012 analysis of the condition and usage of the intermodal facilities in the region. This analysis focuses on the park and ride facilities and transit stations located on or near NHS roadways and also assesses the adequacy of the connections to NHS roadways from truck freight terminals in the region. It considers such factors as the physical condition of the facilities and whether there is 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.

Also in FFY 2017, the MVMPO designated almost four miles of Critical Urban Freight Corridor in the region. With this designation, these designated roadways would become eligible to receive funding under the FAST Act's National Highway Freight Program (NHFP) and under the "Fostering Advancements in Shipping and Transportation for the Long-term Achievement of National Efficiencies" (FASTLANE) Grants Program (Nationally Significant Freight and Highway Projects Program).

### **FFY 2021 Activities**

For the FFY 2021 UPWP, MVPC will undertake the following task in support of improving intermodal connections and the movement of freight in the Valley:

### **Tasks**

2.5.1 *Development of NHS and Freight Projects:* Based on the recommendations contained in the MVPC's NHS Facilities Inventory and the State Freight Plan, 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 and/or improve the movement of freight both within and through the Merrimack Valley region. •

2.5.2 MVPC staff will conduct quarterly car and bicycle counts at all Park & Ride lots and at commuter rail stations. This data collection effort will, to greatest extent feasible, incorporate the elements of MassDOT's Park and Ride Lot Data Collection Template.

### Products/Schedule

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Develop NHS Projects												
Collect Quarterly Data			•			•			•			•
	• Product/Event											

### Funding

Funding for Task 2.5 Intermodal Connections with NHS		
Source	Person Hours	Amount
FHWA	55	\$5,880
MassDOT	14	\$1,470
FTA Section 5303	26	\$3,200
MassDOT	7	\$800
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>102</b>	<b>\$11,350</b>



## Task 2.6 - Regional Transportation Model

### Description

Regional transportation simulation models are the primary tools used to estimate the traffic impacts that will be generated by projected economic and population growth in the region and is a required component of the Regional Transportation Plan. These models also play an important role in identifying and evaluating congested transportation facilities as part of an MPO's Congestion Management Process.

### Previous Work

In FFY 2018, MVPC staff worked with MassDOT, MAPC, the Donahue Institute at UMass and MPOs from around the Commonwealth to develop the socioeconomic projections that were included in the MVMPO's FFY 2020 RTP. As part of this effort, MVPC staff provided MAPC with information on the size and location of recently completed, approved, and planned developments in the Valley, provided input to MassDOT on its preliminary community-level population projections for the region. It also assisted MassDOT in completing the process of allocating forecasted growth in the region to the Traffic Analysis Zones (TAZs) contained in the Massachusetts Statewide Travel Demand model.

### FFY 2021 Activities

MVPC staff will continue to work with MassDOT and CTPS to review the parameters and capabilities of the Statewide Travel Demand Model. A focus area in FFY 2021 will continue to be the coordination of the MVPC's traffic data collection program with MassDOT's need to refine calibration of the Merrimack Valley section of the model.

### Tasks

2.6.1 *Model Coordination:* Staff will review the Statewide Travel Demand model network for the region and may suggest possible modifications. It will also review the latest forecasts for the region that have been generated. MVPC will also work with CTPS to identify locations where staff can collect ATR and/or turning movement data in support of further refinement/calibration efforts.

### Products/Schedule

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Model Coordination												
	● Product/Event											

## Funding

<b>Funding for Task 2.6 Regional Transportation Model</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	39	\$4,908
MassDOT	10	\$1,227
FTA Section 5303	15	\$1,996
MassDOT	4	\$499
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>68</b>	<b>\$8,630</b>

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

### **Description**

MVMPO communities are increasingly interested in improving opportunities for non-motorized transportation. Regional Transportation Plan objectives include:

1. Implementing and expanding the multi-modal network through
  - a. The development of the Active Transportation Network,
  - b. Assisting communities with implementing Complete Streets policies and practices
2. Increasing bicycle parking
3. Fostering tourism through enhancing visitor experiences and improving mobility.

### **Previous Work**

In FFY 2020, MVPC updated the Merrimack Valley Active Transportation Plan a document intended to both guide the further development of the bicycle and pedestrian network in the Valley and assist communities in improving the condition and safety of their bicycle and pedestrian facilities.

In FFYs 2015 through 2017, MVPC worked in cooperation with MassDOT and the Haverhill Police Department to implement an innovative program that tracks the behaviors of motorists, bicyclists and pedestrians. The results from this program and those from elsewhere in the state will be used to develop future outreach programs that are intended to promote bicycle and pedestrian transportation.

In FFY2019, MVPC finished an inventory of and condition reports for sidewalks and ADA ramps in the seven communities of Amesbury, Andover, Georgetown, Lawrence, Methuen, North Andover and Salisbury. This data is being used by communities to create maintenance plans and complete streets programs and prioritization plans.

### **FFY 2021 Activities**

The primary effort under this task in FFY 2021 will be the implementation of the findings and recommendations contained in the 2020 Merrimack Valley Active Transportation Plan. Any project recommendations made under this task will consider the requirements of MassDOT's Healthy Transportation Directive.

MVPC staff will also continue to assist communities in developing multi-use trails.

### **Tasks**

- 2.7.1 *Program Review:* MVPC staff will continue to review any local, regional, state and national policies/reports as they pertain to multi-use, pedestrian, bicycle, and equestrian trails.
- 2.7.2 *Provide Support to the Development of the Border to Boston Trail:* MVPC will continue to work with local trails groups and MassDOT in support of the effort to complete 25% and 100% design plans for the remaining portions of the Border to Boston Multiuse Trail.

- 2.7.3 *Technical Assistance to Communities for Trails in Development:* MVPC will provide technical assistance on other off-road trail projects including the Georgetown Branch Trail, extension of the Bradford Rail Trail, Methuen Rail Trail, Merrimack River Trail, Shawsheen River Trail and Manchester & Lawrence Branch project in Lawrence. It will also encourage communities to undertake activities that support the development of projects that appear on the Bay State Greenway.
- 2.7.4 *Attend Meetings of the Coastal Trail Coalition and Other Local Bicycle, Pedestrian and Water Trail Groups:* MVPC staff will attend meetings of the Coastal Trails Coalition, Haverhill Trails Committee and other local and/or regional groups to foster coordination between the various bicycle and pedestrian planning efforts across the region and to provide technical assistance and advice to groups and organizations as they seek to implement improvement projects.
- 2.7.5 *Implementation of the 2020 MVMPO Active Transportation Plan:* The 2020 Active Transportation Plan for the MVMPO will comprehensively update the 2015 document to reflect the development of new projects, the recommendations for the Merrimack Valley contained in MassDOT’s Bicycle and Pedestrian Plans, and the projects/connections contained in the many Complete Streets programs now being implemented in the region. As was the case after the 2015 Active Transportation Plan was adopted, MVPC Staff will reach out to local officials and the public to develop recommended new connections and projects that recognize the new reality of bicycle and pedestrian transportation in the region and establish new priorities for improving the network.
- 2.7.6 *Maintenance of Regional Bikeability Index:* Staff will work with MassDOT and area cyclists to refine and where necessary update the Regional Bikeability Index.
- 2.7.7 *Coordination with MVRTA:* MVPC staff will continue to work with the MVRTA to add bike trail and other multi-use trails to bus route maps.

### Products/Schedule

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Program Review												
Border to Boston Trail												
Technical Assistance												
Attend Meetings												
Active Trans. Plan Imp.												●
Bikeability Index												
Coord. with MVRTA												
	● Product/Event											

## Funding

<b>Funding for Task 2.7 Bicycle/Pedestrian/Water Trails Planning</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	182	\$22,520
MassDOT	45	\$5,630
FTA Section 5303	0	\$0
MassDOT	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>227</b>	<b>\$28,150</b>

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

### **Description**

The Safety Management System 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 in recent years. This program provides federal funding for safety-oriented projects that support the goals and objectives of a state's Highway Safety Improvement Program.

Data prepared under this task is also used by the MVRTA as part of its Bus/Van operator training to increase awareness for dealing with high crash locations.

### **Previous Work**

In recent years, MVPC has used MassDOT's 'Crash Cluster' data as the primary means of identifying locations for safety studies to be undertaken in the UPWP.

However, with the adoption of the new Safety Performance Measures and Targets by the MVMPO, staff also completed a preliminary assessment of how well the Crash Cluster measure employed by MassDOT identified locations where there were fatalities and serious injuries. This analysis showed that only a very small percentage of the crashes at the 2013-2015 Crash Cluster locations in the region involved serious injuries or fatalities.

### **FFY 2021 Activities**

Massachusetts' Strategic Highway Safety Plan (SHSP) was updated in 2018 and describes how well the state is performing within 14 Safety Emphasis Areas. Under the FFY 2021 UPWP, MVPC staff will review data within each of these areas for the MVMPO region and compare it to the statewide data shown in the SHSP.

MVPC will also continue to review available data to identify where fatal crashes and those involving serious injuries have occurred in the region.

### **Tasks**

- 2.8.1 *Obtain Most Recent MassDOT and Selected Local Police Crash Data:* Staff believes that crash data from 2018 will be available late in July 2020 and facilitate creation of a three-year analysis period of 2016-2018.
- 2.8.2 *Continue to Identify Locations of Crashes Involving Fatalities and Serious Injuries:* Using the data collected in Task 2.8.1, staff will identify the number of fatalities and serious injuries that occurred in each such crash. This information will be categorized by roadway functional classification and community, and high crash locations will be identified.
- 2.8.3 *Review State's Crash Cluster List:* Staff will review MassDOT's latest list of 'Crash Cluster' locations based on the latest three years of crash data and compare it to data

contained in previous lists. It is anticipated that this Crash Cluster list will include new measures for identifying high crash locations.

- 2.8.4 *Evaluation of Emphasis Areas Included in the Strategic Highway Safety Plan:* The new Strategic Highway Safety Plan identifies 14 Emphasis Areas. MVPC staff will analyze MVMPO region-specific data for each of these areas and report back to the MVMPO on how well the region is performing in relation to statewide information.
- 2.8.5 *Participation in Road Safety Audits:* Staff will participate in the Road Safety Audits undertaken in the region in FFY 2021.
- 2.8.6 *Develop Regional Top 100 Crash Location List:* To supplement MassDOT’s Crash Cluster list, MVPC staff will develop a ‘Top 100’ Crash List that identifies high crash intersections and roadway corridors in the region. A key part of this task will be the selection of regional evaluation criteria that will be used to create this list.

**Products/Schedule**

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Obtain Crash Data												
Fatal/Serious Crashes											•	
Update Crash Clusters						•						
Strat. Highway Safety										•		
Road Safety Audits												
Top 100 Crash List						•						
	• Product/Event											

**Funding**

Funding for Task 2.8 Safety Monitoring System		
Source	Person Hours	Amount
FHWA	194	\$22,468
MassDOT	48	\$5,617
FTA Section 5303	0	\$0
MassDOT	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	242	\$28,085

**Task 2.9 - Transportation and Livability**



## Description

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 when 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 creating:

“...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...”

In FFY 2015, MVPC updated the PGS to reflect changes in land use and other areas addressed in the document that have taken place since 2009. Like the original, it contains numerous recommendations for creating a transportation network that will improve the region's quality of life including improving bicycle and pedestrian transportation to Priority Development Areas, implementing transit services where needed to also serve these areas and relieving roadway

congestion that both slows economic growth, degrades the quality of our air and generates greenhouse gases that may have a dramatic impact on our climate.

In FFY 2020, staff continued to be an active participant on the Mayor's Health Task Force in Lawrence, a group that is devoted to promoting healthy living in the City and continued working with the City of Haverhill's Mount Washington neighborhood in addressing pedestrian infrastructure improvements.

### **FFY 2021 Activities**

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

### **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 Plan and Five-Year Regional Transit Plan.

2.9.2 *Continue to Collect Public Health Data for Use in Health Impact Assessment Analyses:* The MVMPO will do this through collecting health data and participating in Health Impact Analyses. Staff will collaborate with health-related working groups, committees and organizations to improve transportation access for communities.

Staff will also identify and evaluate the effectiveness of transportation-related health performance measures such as those identified in the MVMPO's Route 1 Rotary HIA. Available health impact data and health-related transportation performance measures will be considered in the traffic and transit studies conducted by the MVMPO under Task 3.0.

2.9.3 *Participate in Meetings of the Mayor's Health Task Force in Lawrence, Community Health Network Area 12 (CHNA), and Other Groups:* The MVPC joined the Lawrence Mayor's Health Task Force and is partnering with this coalition to create policies, systems and environmental changes that impact health, and which pertain to transportation. In partnership with the coalition, MVPC is assisting with implementing its Complete Streets policy, conducting its annual Ciclovía (open streets) event, food access plan and other transportation-related projects. Staff will also participate in Haverhill's Mount Washington Alliance partnership.

2.9.4 *Provide Technical Assistance to Communities Seeking to Implement Safe Route to Schools Projects:* Many, though not all MVPC communities have joined the Safe Routes to School program. MVPC will work to encourage more schools to join the program and

assist communities seeking infrastructure improvements to encourage more children to walk or bicycle to school.

2.9.5 *Assist Communities in Development of Complete Streets Ordinances:* Staff will work with communities interested in adopting Complete Streets Ordinances as well as prioritization plans and implementation as needed. In addition, staff will assist communities in gathering the data required by MassDOT for communities to apply for funding under the Complete Streets Funding Program.

**Products/Schedule**

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Technical Assistance												
Collect Health Data												
CHNNA, Health Meetings												
Safe Routes to School												
Complete Sts. Assist.												

• Product/Event

**Funding**

Funding for Task 2.9 Transportation and Livability		
Source	Person Hours	Amount
FHWA	84	\$10,264
MassDOT	21	\$2,566
FTA Section 5303	30	\$3,810
MassDOT	8	\$953
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>143</b>	<b>\$17,593</b>

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

### **Description**

MAP-21 mandated that USDOT, state Departments of Transportation, and MPOs establish a performance and outcomes-based approach to managing the nation's transportation infrastructure and set out National Performance Goals in the areas of Safety, Infrastructure Conditions, Congestion Reduction, System Reliability, Freight Movement / Economic Vitality, Environmental Sustainability, and Reduced Project Delivery Delays.

USDOT began releasing Notices for Proposed Rulemakings (NPRMs) for the above areas during 2014 and 2015. Meanwhile, MAP-21's successor, the FAST Act, was passed and carried forward the performance management federal rulemaking process.

### **Previous Work**

In FFY 2015, MVPC staff identified various transportation performance measures that were integrated into the FFY 2016 RTP. These measures were developed in recognition of the fact the measures chosen were likely not the same measures that would be required by FHWA/FTA in the coming months.

Throughout FFYs 2016 and 2017, staff monitored the Federal Register and USDOT communications on Performance Management to stay informed as the process evolved. In 2017, staff began to participate in the Transportation Managers Performance Measures Committee, which advised MassDOT on the development of its Safety Performance Targets (established in August 2017) and reviewed the development of the Department's NHS Roadway Travel Time Reliability (including Freight), Percent of Non-Single Occupant Vehicle Travel, Pavement and Bridge Condition Targets.

In FFY 2019, the MVMPO adopted MassDOT's Safety Performance Measures and Targets (PM1), and recognized the MVRTA's Asset Targets for its Equipment, Rolling Stock and Facilities. The MPO also adopted MassDOT's Targets for Pavement and Bridge conditions on the NHS (PM2), and Freight, Traffic Congestion on the NHS and emissions (PM3).

In FFY 2020, the MVMPO adopted MassDOT's 2020 Safety Performance Targets and recognized the MVRTA's Revised Asset Management Targets for its Equipment, Rolling Stock and Facilities.

MVPC staff also collected information on sidewalk location and condition in the communities of West Newbury and Groveland.

### **FFY 2021 Activities**

The MVMPOs will need to establish new Safety Performance Targets (PM1) by late February 2021. MVMPO staff will focus its efforts on working with MassDOT to review the data for the performance measures and statewide targets that the MPO will need to consider and possibly adopt.

## Tasks

- 2.10.1 *Safety Performance Measures/Targets:* Staff will review new MassDOT data on the number and rate of fatalities and serious injuries (PM1) both at the statewide and region level. Staff will then advise the MVMPO as to whether it should adopt the MassDOT targets or develop targets of its own.
- 2.10.2 *Review and MPO Adoption of Other Federal Performance Measures:* Staff will continue to monitor the progress being made by MassDOT in developing new statewide targets for the other federally mandated Performance Measures and assess their applicability for possible adoption by the MVMPO.
- 2.10.3 *Collect Data for MVMPO Region Sidewalk Locations and Conditions:* This Performance Measure was used in the FFY 2016 RTP but reliable data on the location of sidewalks was spotty and of their condition was almost totally lacking. Through a State Planning grant and activity conducted under this subtask in 2020, MVPC has gathered sidewalk location and condition data for nine communities in the region and received data from two others. Staff will continue to collect this information in at least two communities in the region in FFY 2021.
- 2.10.4 *Continue Working with MassDOT and the MVRTA on Transit Performance Measures:* Staff will work with the MVRTA to coordinate activities integrate performance targets contained in the Authority's Transit Asset Management Plan (TAM Plan) and the Public Transit Agency Safety Plan (PTASP) into the MVMPO's overall planning process as is required under The FAST Act.
- 2.10.5 *Participate on Program Managers Performance Measures Committee:* Staff will continue to participate on this Committee to both exchange ideas and information on the development of local performance measures and targets and to maintain coordination with MassDOT and USDOT in the development and implementation of the remaining statewide performance management measures.
- 2.10.6 *Continue Development/Refinement/Maintenance of MVMPO-Specific Performance Measures:* The MVMPO's 2020 RTP identifies 30 Performance Measures within its six Goals. Many of these are fully operational and staff will continue to update them with new information.

## Products/Schedule

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Safety Measures/Targets					•							
Other Measures/Targets												
Sidewalk Inventory												
Transit Measures												
Performance Committee												
MPO Measures												

• Product/Event

## Funding

Funding for Task 2.10 Transportation Performance Measures		
Source	Person Hours	Amount
FHWA	169	\$19,688
MassDOT	42	\$4,922
FTA Section 5303	18	\$2,536
MassDOT	5	\$634
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>234</b>	<b>\$27,780</b>

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## **Task 2.11 - Travel and Tourism Planning**

### **Description**

As noted earlier in this document, the FAST Act includes a Planning Factor to enhance travel and tourism.

Public-sector tourism and travel promotion in the MVPC region are chiefly conducted at a statewide or multi-region level. MVPC is involved in promoting the development of tourism activities and recreation projects as tourism is an important element of the region's comprehensive economic development strategy and has land use implications. The MVMPO plans and programs funding for transportation projects that often serve local tourism and recreation travel needs.

### **Previous Work**

Under the FFY 2017 UPWP, MVPC staff created a database of Regional Tourism Centers and Tourism Organizations in and around the MVMPO region and will perform comprehensive outreach to these stakeholders to get an update on their activities and to solicit information on tourism activities/organizations that we may not be aware of.

In FFY 2018, transportation staff participated in the creation of the Merrimack Valley Region's Comprehensive Economic Development Strategy. As part of the outreach and involvement process used to guide the development of this Strategy, stakeholders examined how effective the region's transportation network was in supporting access to the key tourist locations in the Valley. From this, ideas for improving access to these areas such as providing new transit services, installing signage, and even improving the navigability of the Merrimack River were offered for consideration.

In FY 2019, MVPC participated in the Essex County Arts Plan in conjunction with the Essex County Community Foundation and the Metropolitan Area Planning Council. During the planning meetings, transportation access was cited as an issue within the county.

In FFY 2020, the project continued with an arts and cultural assets mapping effort for the Merrimack Valley. S Through its [PlaceAndMeaning.MVPC.org](https://PlaceAndMeaning.MVPC.org) we ask people to identify cultural assets in their neighborhoods and ask how they travel to those locations.

### **FFY 2021 Activities:**

MVPC staff will continue to reach out to groups such as the Essex National Heritage Area, National Park Service, Massachusetts Office of Travel and Tourism, the North of Boston Visitors and Convention Bureau, Essex County Community Foundation, its Chambers of Commerce and to local and state officials to update its database of tourism activity centers in the region.

### **Tasks**

- 2.11.1 *Update MVPC Database of Regional Tourism Centers and Tourism Organizations:*  
MVPC will continue to maintain its database of these centers and organizations. Staff will reach out to our travel and tourism partners to both get an update on their activities

and to solicit information on tourism activities/organizations that we may not be aware of.

- 2.11.2 *Attend Meetings of State and Regional Tourism Centers/Organizations:* Through this process, MVPC transportation staff can ensure there is timely coordination of these organizations' projects and planning initiatives with those of the MVMPO.
- 2.11.3 *Coordinate with MVRTA:* MVPC Staff will work with the MVRTA to include the location of historic and tourist sites identified under this task on the Authority's bus route maps and its System Map.
- 2.11.4 *Participate in Historic and Arts Planning Efforts:* MVPC staff will work with municipal leaders, residents and business owners participating to address transportation needs around accessing historic, cultural and art destinations, jobs and education.

### Products/Schedule

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Tourism Database					•							
Tourism Meetings												
MVRTA Coordination												
Historic & Arts Planning												

• Product/Event

### Funding

Funding for Task 2.11 Travel and Tourism Planning		
Source	Person Hours	Amount
FHWA	93	\$10,020
MassDOT	23	\$2,505
FTA Section 5303	27	\$2,928
MassDOT	7	\$732
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>150</b>	<b>\$16,185</b>

## **TASK 3.0 -SHORT AND LONG-RANGE TRANSPORTATION PLANNING ACTIVITIES**

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

#### Description

The MVRTA has long been a leader among the Commonwealth’s regional transit authorities in providing reliable, affordable transportation for the elderly and disabled. The MVRTA was the first Regional Transit Authority (RTA) in the Commonwealth to operate a fully accessible fixed route bus fleet.

The MVMPO region’s elderly population continues to grow and elevate demand for non-ADA demand-response transportation. Increased regional demand for federally mandated ADA transportation services also continues. Accordingly, combined ADA- and non-ADA transportation demands continue to impact the MVRTA’s annual budget. With federal operating subsidies limited 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.

Proponent	Work Conducted By
• Merrimack Valley Regional Transit Authority	• Merrimack Valley Planning Commission

#### Previous Work

MVMPO staff finalized the Coordinated Public Transit – Human Services Transportation Plan in FFY 2020. Previously, staff worked with the MVRTA to conduct two rounds of grant applications relative to the 2008 Coordinated Plan. In 2013, MVPC prepared the MVRTA’s Regional Mobility Plan, which both combined three previous plans (2007 Coordinated Human Service Transportation Plan, 2008 Elderly Transportation Plan, and 2009 Disabled Transportation Plan) into one planning document and updated the analysis of transportation issues facing the region’s disabled population.

In recent years, staff 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 ‘MediVan’ program, which provides transportation for disabled persons in the Valley to medical facilities in Peabody and in Boston. MVMPO staff also assisted the MVRTA in coordinating with Council on Aging van recipients around required data gathering.

#### FFY 2021 Activities

The most important activity under this task will be an in-depth update of the analysis of the MVRTA’s existing ADA/Non-ADA paratransit services as contained in the Authority’s Regional Transit Mobility Plan. In addition, MVPC will continue to assist the MVRTA by reviewing how well it is complying with ADA paratransit and fixed route bus requirements and in monitoring the maintenance of MAP vehicles being used by Councils on Aging.

More communities are considering ‘healthy aging’ and the transportation needs of an aging population. The City of Lawrence has been designated as a Healthy Aging community. MVMPO staff will work with our communities and the MVRTA to identify the service gaps, needs and possible solutions.

The MVMPO will continue to collaborate with NMCOG staff to host the Regional Coordinating Council, which focuses on senior and disabled transportation.

**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 the MVRTA 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 staff will assist MVRTA in implementing this process.
- 3.1.4 *Coordinate and Support the Merrimack Valley Regional Coordinating Council.* The MVMPO will actively participate in the Regional Coordinating Council and provide planning assistance to help improve mobility in the region.
- 3.1.5 *ADA Travel Demand Forecast:* MVPC staff will continue to compare the age/sex cohort-specific population projections used in the MVMPO’s 2020 RTP with new information generated by the MVRTA’s updated EZTrans Service software to develop new forecasts of the demand for ADA transit services over the next 20 years.

**Products/Schedule**

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
ADA: Demand Resp.											•	
ADA: Fixed Route												•
MAP Vehicles												
Support RCC		•						•				
ADA Demand Forecast				•								
	• Product/Event											

## Funding

<b>Funding for Task 3.1 Elderly and Disabled/ADA Planning</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	0	\$0
MassDOT	0	\$0
FTA Section 5303	45	\$5,896
MassDOT	11	\$1,474
FTA Section 5307	106	\$13,316
MVPC	27	\$3,329
TOTAL	189	\$24,015

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## Task 3.2 - Transit Planning

### Description

The MVRTA is the primary provider of public transportation in the MVMPO region. It provides a wide array of fixed-route bus and demand-response transportation through private operators such as the Merrimack Valley Area Transportation Co., Inc. (MVATC). The MVRTA currently operates seven demand-response transit services in the region – its Ring and Ride Services in Boxford, Georgetown, Groveland, Newbury, North Reading (which joined the MVRTA in May 2017), and West Newbury. It also operates demand-response services as more efficient options to the former Route 42 in Methuen and the former Route 22 in Andover.

The MVMPO performs specific planning tasks every FFY in support of the MVRTA's public transportation services.

Proponent	Work Conducted By
• Merrimack Valley Regional Transit Authority	• Merrimack Valley Planning Commission

### Previous Work

The MVRTA made significant progress in recent years in the planning and implementation of major transit capital projects such as the McGovern Transportation Center and Gateway Surface Parking Facility, both in Lawrence, the Haverhill Intermodal Parking Facility and the Amesbury Costello Transportation Center. In 2010 the MVRTA completed a site selection study for an Intermodal Parking Facility in the City of Newburyport and the City Council approved the MVRTA's recommended Titcomb Street site. The City of Newburyport completed the final design and construction and the facility opened in May 2019.

In 2018, MVPC staff worked with MVRTA staff and a coalition of service organizations to conduct a Haverhill Transportation Needs Assessment, which identified gaps, needs and opportunities for transportation coordination. It also provided case studies of transportation options to address the identified gaps in transportation.

In FFY 2019, the MVPC developed an App that MVRTA staff is using to inventory and manage bus route signs, bus stops and other assets.

In FFY 2020, MVPC reviewed ridership and investigate possible scheduling/routing changes for the Authority's Boston Commuter Bus Service.

### FFY 2021 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:* MVPC staff has performed technical analyses for the MVRTA in previous FFYs at the MVRTA's request. Staff has prepared Requests for Proposals (RFPs) and evaluated RFP responses; estimated sample sizes for MVRTA surveys and updated the MVRTA's fixed route bus

maps. The staff will conduct similar transit planning activities for the MVRTA under the FFY 2021 UPWP.

Staff will also provide technical assistance to communities on transit issues, including the MVRTA's implementation of its Regional Transit Plan. As always, the MVMPO staff will consult and coordinate with MVRTA prior to providing transit-related technical assistance to any MVRTA member community.

- 3.2.2 *Assist MVRTA in Monitoring FTA Areas of Compliance:* MVPC Staff will assist the MVRTA in monitoring 17 areas of compliance, including Grant Administration, Maintenance reviews, EEO policy implementation, Procurement, and Civil Rights areas, that are included as part of FTA's Triennial Review of the Authority.
- 3.2.3 *Survey of Bus Bike Rack Users:* The MVRTA installed bike racks on its fixed route buses in late 2019/early 2020. Under this task a survey of bike rack users will be administered by MVRTA and MVPC staff to obtain important information such as origin/destination points, trip purpose, identifying major trip generators, and other facets of their trip decision making process. The Automatic Passenger Counters (APC) to be installed by the MVRTA will assist in providing this type of data.
- 3.2.4 *Commuter Rail Evaluation:* Under this task, MVPC will examine the recommendations of Rail Vision and identify the impacts they will have on the Merrimack Valley region.

Related to this, MVPC staff will continue to examine commuter rail issues in the Valley that are of interest to local officials and residents such as the benefits and costs of double tracking the Haverhill and Newburyport lines and the need to improve the level of service being provided. Staff will also review data specific to the MVMPO region that can be gleaned from CTPS' User Characteristics survey of the MBTA System.

**Products/Schedule**

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Technical Assistance												
Haverhill Transit Access												
FTA Areas of Compli-												
Real Time Bus Location										•		
Bike Rack User Survey												•
NTD Data Coll./Anal.											•	
Commuter Rail Eval.										•		

• Product/Event

## Funding

Funding for Task 3.2 Transit Planning		
Source	Person Hours	Amount
FHWA	0	\$0
MassDOT	0	\$0
FTA Section 5303	106	\$13,736
MassDOT	26	\$3,434
FTA Section 5307	462	\$52,780
MVPC	115	\$13,195
TOTAL	709	\$83,145

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### **Task 3.3 – Three Roads Intersection Bicycle and Pedestrian Study in Newburyport**

#### **Description**

The “Three Roads” intersection in Newburyport is more specifically the intersection of High Street, Moseley Avenue and Ferry Street and is located approximately .9 miles east of the I-95/Storey Avenue Interchange.

Storey Avenue/High Street is the primary means of access to the Newburyport Downtown area and is part of the National Highway System (NHS). Moseley Avenue is also an NHS roadway and connects High Street to the roundabout at the southern end of the Chain Bridge. Summer-time weekday traffic volumes along High Street approach 20,000 vehicles. Ferry Street is classified as a Local Road. Both the Moseley Avenue and Ferry Road approaches to the intersection are Stop sign controlled.

The City of Newburyport has been successful in developing an off-road transportation network for bicyclists and pedestrians in recent years. Completed facilities include the Newburyport Rail Trail, the City Branch Rail Trail and the William Lloyd Garrison Trail that extends from the Newburyport Park and Ride Lot north over the Whittier Bridge and connects to the Salisbury Ghost Trail.

The Three Roads Intersection is a critically important facility to pedestrians and cyclists who wish to travel between the residential neighborhoods near downtown and the business district located further west along Storey Avenue and the William Lloyd Garrison Trail. While this study will review the existing traffic conditions at this intersection, its focus will be on identifying strategies for improving bicycle and pedestrian travel in the area.

#### **Previous Work**

Both the MVPC and the City of Newburyport have previously reviewed this intersection in terms of it being a high-crash location for vehicles and found that, despite its irregular configuration, large size and the high traffic volumes on the High Street/Storey Avenue approaches, the number of reported crashes was not excessive. In recent years the City had begun to prepare some alternative intersection configurations.

Proponent	Work Conducted By
● City of Newburyport	● Merrimack Valley Planning Commission

#### **FFY 2021 Activities**

The MVMPO staff will complete a traffic study for this location.

#### **Tasks**

- 3.3.1 *Collect Data on Health Impact Indicators and Transportation-Related Health Performance Measures:* Staff will assemble available Health Impact Indicators for the community as well as any available performance measures.

- 3.3.2 *Data Collection:* MVPC will collect weekday AM, PM peak period Turning Movement counts at the intersection and will conduct ATR counts on the Storey Avenue, Moseley Avenue, Ferry Street and High Street approaches.
- 3.3.3 *Data Analysis/Level of Service Calculations:* MVPC staff will complete LOS analyses for this intersection to both measure congestion and develop an intersection crash rate.
- 3.3.4 *Obtain and Analyze Crash Data:* Staff will collect and analyze the most recent three years of MassDOT data and City of Newburyport Police Department traffic incident reports to identify the outstanding safety issues in the area.
- 3.3.5 *Meet with Local Officials:* MVPC staff will meet with the Newburyport officials to both review the options that have already been developed for modifying this intersection and to discuss other potential improvements. .
- 3.3.6 *Develop and Evaluate Alternative Improvement Options:* The information and feedback obtained through Tasks 3.3.1-3.3.5 will be used to develop a set of short and long-term improvement options that will then be analyzed in greater detail to determine the impacts they might have in improving traffic and safety at this location and improving accommodations for bicycle and pedestrian travel. Staff will consult with the MVRTA as part of this process to solicit input as to how the proposed intersection improvements could impact bus movements through the study area.
- 3.3.7 *Draft / Final Report Outlining Study Findings and Recommendations:* Staff will prepare draft and final versions of the Study report outlining its findings and recommendations.

### Products/Schedule

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Data Collection							■	■				
Traffic Data Analysis								■	■			
Crash Data Analysis							■	■	■			
Meet with Local Officials								■				
Analyze Options									■	■		
Final Study Report.										■	●	
	● Product/Event											

## Funding

<b>Funding for Task 3.3 Three Roads Intersection Study in Newburyport</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	126	\$13,280
MassDOT	31	\$3,320
FTA Section 5303	0	\$0
MassDOT	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>157</b>	<b>\$16,600</b>

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### **Task 3.4 – Route 28/Manchester Street/Daisy Street Intersection Road Safety Audit in Lawrence**

#### **Description**

This intersection is located in north central Lawrence and has appeared in the last three MassDOT Crash Cluster location lists.

Route 28 is a Principal Urban Arterial that links Lawrence with Methuen and Salem, NH to the north and to Andover to the south. Manchester Street is a Local Road but plays an important role in the region’s highway network as it links this section of the Downtown with the Manchester Street Rotary located .25 miles to the west. Daisy Street is an Urban Collector that turns into Spruce Street soon after crossing the Spicket River. It will likely be a primary means of access to the Lawrence Rail Trail for residents living in the neighborhoods located east of Route 28.

#### **Previous/Ongoing Work**

Late in 2017, the City of Lawrence removed the former B&M Railroad bridge over Manchester Street. This structure had a 10-foot clearance that served to inhibit Manchester Street’s use by larger vehicles. This bridge will be replaced by a new structure that will carry cyclists and pedestrians who will use the Lawrence Rail Trail, which is now under design. These changes likely will combine to increase vehicular, bicycle and pedestrian activity at this location.

Proponent	Work Conducted By
● MVMPO (2015-2017 Crash Cluster)	● Merrimack Valley Planning Commission

#### **FFY 2021 Activities**

MVPC will conduct a Road Safety Audit for this intersection.

#### **Tasks**

- 3.4.1 *Collect Data on Health Impact Indicators and Transportation-Related Health Performance Measures:* Staff will assemble available Health Impact Indicators for the community as well as any available transportation related health performance measures. This information will be presented and discussed as part of the Road Safety Audit for this intersection.
- 3.4.2 *Data Collection:* MVPC staff will perform weekday AM, PM and Saturday Midday peak hour vehicle turning movement and bicycle/pedestrian counts at the Route 28/Daisy Street/Manchester Street intersection.
- 3.4.3 *Data Analysis/Level of Service Calculations:* MVPC staff will complete LOS analyses for these two intersections to both measure congestion and develop intersection crash rates, which will be used in the Road Safety Audit for the study area.
- 3.4.4 *Obtain and Analyze Crash Data:* Staff will collect and analyze the most recent three years of MassDOT data and City of Lawrence Police Department traffic incident reports

to identify the outstanding safety issues in the area. This information will be included in the Draft Road Safety Audit Report.

- 3.4.5 *Conduct Study Area Road Safety Audit:* Staff will present the findings from Tasks 3.4.1 - 3.4.4 to state and local officials in a Road Safety Audit. This audit will provide MVPC with information and suggestions that will facilitate the development of short and long-term improvement options that could be implemented.
- 3.4.6 *Develop and Evaluate Alternative Improvement Options:* The information and feedback obtained through the Road Safety Audit will be used to develop a set of short and long-term improvement options that will then be analyzed in greater detail to determine the impacts they might have in reducing the number of crashes at this location. Staff will consult with the MVRTA as part of this process to solicit input as to how any of the proposed intersection improvements could impact bus movements through the study area.
- 3.4.7 *Draft / Final Report Outlining Study Findings and Recommendations:* Staff will prepare draft and final versions of the Road Safety Audit report outlining the study's findings and recommendations.

### Products/Schedule

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Data Collection	●											
Draft Data Analysis		●										
Conduct RSA	●	●										
Develop Alternatives		●										
Final Report			●									
	● Product/Event											

### Funding

Funding for Task 3.4 Broadway/Daisy St./Manchester St. RSA in Lawrence		
Source	Person Hours	Amount
FHWA	158	\$16,280
MassDOT	40	\$4,070
FTA Section 5303	0	\$0
MassDOT	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>198</b>	<b>\$20,350</b>

### **Task 3.5 - East Street/Prospect Street/Milk Street Intersection Road Safety Audit in Methuen**

#### **Description**

The East Street/Prospect Street/Milk Street intersection in Methuen is in effect three intersections located in very close proximity. East Street and Prospect Street intersect approximately 90 feet west of the East Street/Milk Street intersection. This latter intersection is located about 90 feet north of the Prospect Street/Milk Street intersection. Collectively these three intersections help form Ernest Huebner Square.

East Street is an Urban Minor Arterial that links to Lawrence Street just southeast of Methuen Square. About .4 miles to the east it becomes Route 110 at its intersection with Swan Street. Milk Street is an Urban Collector that to the north connects to the Loop. Prospect Street to the southeast is also an Urban Collector that links to Marston Street in Lawrence. Prospect Street north of these intersections is a Local Road.

MassDOT has identified this location as a Crash Cluster numerous times over the years and it appears in the latest Crash Cluster list that is based upon 2015-2017 crash data.

Proponent	Work Conducted By
● MVPC (2015-2017 Crash Cluster)	● Merrimack Valley Planning Commission

#### **FFY 2021 Activities**

MVPC will undertake the following tasks in conducting a Road Safety Audit at this location:

#### **Tasks**

- 3.5.1 *Collect Data on Health Impact Indicators and Transportation-Related Health Performance Measures:* Staff will assemble available Health Impact Indicators for the community as well as any available transportation related health performance measures. This information will be presented and discussed as part of the Road Safety Audit for this intersection.
- 3.5.2 *Data Collection:* MVPC staff will perform weekday AM, PM and Saturday Midday peak hour vehicle turning movement and bicycle/pedestrian counts at the three intersections. ATR traffic volume counts will be taken on Milk Street, Prospect Street and East Street.
- 3.5.3 *Data Analysis/Level of Service Calculations:* MVPC staff will complete LOS analyses for these three intersections to both measure congestion and develop intersection crash rates, which will be used in the Road Safety Audit for the study area.
- 3.5.4 *Obtain and Analyze Crash Data:* Staff will collect and analyze the most recent three years of MassDOT data and City of Methuen Police Department traffic incident reports to identify the outstanding safety issues in the area. This information will be included in the Draft Road Safety Audit Report.

- 3.5.5 *Conduct Study Area Road Safety Audit:* Staff will present the findings from Tasks 3.5.1 - 3.5.4 to state and local officials in a Road Safety Audit. This audit will provide MVPC with information and suggestions that will facilitate the development of short and long-term improvement options that could implemented.
- 3.5.6 *Develop and Evaluate Alternative Improvement Options:* The information and feedback obtained through the Road Safety Audit will be used to develop a set of short and long-term improvement options that will then be analyzed in greater detail to determine the impacts they might have in reducing the number of crashes at this location. Staff will consult with the MVRTA as part of this process to solicit input as to how any of the proposed intersection improvements could impact bus movements through the study area.
- 3.5.7 *Draft / Final Reports Outlining Study Findings and Recommendations:* Staff will prepare draft and final versions of the Road Safety Audit report outlining the study's findings and recommendations.

### Products/Schedule

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Data Collection								•				
Data Analysis												
Conduct RSA									•			
Develop Alternatives												
Final Report										•		

• Product/Event

### Funding

Funding for Task 3.5 Route 110/Prospect Street Intersection RSA in Methuen		
Source	Person Hours	Amount
FHWA	199	\$20,232
MassDOT	50	\$5,058
FTA Section 5303	0	\$0
MassDOT	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>249</b>	<b>\$25,290</b>

## Task 3.6 – Route 133 Complete Streets Analysis in Andover

### Description

Route 133 is an Urban Principal Arterial roadway that links Andover to Lowell in the west and to the North Shore of Massachusetts to the east. The roadway is also part of the National Highway System

The Town of Andover now in the process of designing a project that would reconstruct Route 133 (Lowell Street) from Shawsheen Square in the east, where it intersects with Route 28, to Lovejoy Road. A major impetus for this project is the Town's desire to improve pedestrian and bicycle transportation in this corridor.

In recent years there has been significant development along the section of Route 133 from Lovejoy Road west to the interchange. A large amount of this development has occurred on land located opposite the IRS facility. This growth is comprised of doctors' offices, apartments and assisted living units.

The goal of this study is to support the creation of a .4-mile section of the highway between Lovejoy Road and the I-93 Northbound Ramps that incorporates Complete Streets concepts.

Proponent	Work Conducted By
● Town of Andover	● Merrimack Valley Planning Commission

### FFY 2021 Activities

MVPC transportation staff will complete the following tasks in developing recommendations for bicycle and pedestrian improvements in the study corridor.

#### Tasks

- 3.6.1 *Collect Data on Health Impact Indicators and Transportation-Related Health Performance Measures:* Staff will assemble available Health Impact Indicators for the community as well as any available transportation related health performance measures.
- 3.6.2 *Meet with Andover Officials:* Staff will meet with Andover community development staff to review existing land use and zoning in the corridor as well as any proposed/planned/ permitted developments.
- 3.6.3 *Collect and Review Roadway Layout Plans for the Study Corridor:* This information will be needed to determine the limits of the Right of Way and the location of existing development within or adjacent to it .
- 3.6.4 *Collect Traffic/Pedestrian/Bicycle Data in the Study Corridor:* Staff will collect data on pedestrian crossing locations/ of Route 133 to identify locations where near-term improvements such as crosswalks, lighting, etc. should be made. Traffic data collection will include information on vehicle speeds and classification.

- 3.6.5 *Obtain most recent MassDOT and Town of Andover Police Department Crash Data:* Analysis of this data will help to identify any vehicular/pedestrian/bicycle hot spots in the corridor.
- 3.6.6 *Perform Level of Service Analyses:* MVPC staff will complete LOS analyses at selected study corridor intersections and driveways to determine the potential need for spot roadway widenings.
- 3.6.7 *Develop Potential Complete Street Concepts for Implementation:* Using the information gathered from Tasks 3.7.1 -3.7.6, staff will identify Complete Streets concepts and, in some cases roadway improvements that should be made along the study corridor. Staff will work with the City and the MVRTA in developing these recommendations.
- 3.6.8 *Prepare Draft/ final Study Reports:* MVPC staff will prepare draft and final reports that outlines the study's findings and recommendations.

**.Products/Schedule**

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Data Collection												
Meet w/ Local Officials												
Review Layout Plans												
LOS Analyses												
Develop Concepts												
Final Report												
	● Product/Event											

**Funding**

Funding for Task 3.6 Route 133 Complete Streets Analysis in Andover		
Source	Person Hours	Amount
FHWA	167	\$17,760
MassDOT	42	\$4,440
FTA Section 5303	0	\$0
MassDOT	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>209</b>	<b>\$22,200</b>

### Task 3.7 - Route 110 (Merrimack Street) Complete Streets Analysis in Methuen.

#### Description

The City of Methuen has requested MVPC assistance in developing Complete Streets concepts for the 1.2-mile section of Route 110 (Merrimack Street) from its intersection with Pleasant Valley Street south to the I-495 Northbound Ramps. This section of Route 110 in Methuen serves a wide array of land uses that include office complexes, farms and farm markets, retail establishments and densely developed residential areas.

Route 110 is an Urban Principal Arterial roadway that connects communities located north of the Merrimack River in northeastern Massachusetts including the cities of Amesbury, Haverhill Lawrence and Lowell.

#### Previous Work

The MVMPO's 2016 Regional Transportation Plan included a project proposed by the City of Methuen that would reconstruct Merrimack Street (Route 110) from Myona Street to Simone Farm. As is the case in Andover and Route 133, City officials recognized the level and nature of development in the corridor and sought to support it by making improvements that would accommodate all forms of transportation. This study will support that effort.

Proponent	Work Conducted By
● MVMPO (Congestion Management)	● Merrimack Valley Planning Commission

#### FFY 2021 Activities

MVPC transportation staff will complete the following tasks in developing recommendations for bicycle and pedestrian improvements in the study corridor.

#### Tasks

- 3.7.1 *Collect Data on Health Impact Indicators and Transportation-Related Health Performance Measures:* Staff will assemble available Health Impact Indicators for the community as well as any available transportation related health performance measures.
- 3.7.2 *Meet with Methuen Officials:* Staff will meet with Methuen community development staff to review existing land use and zoning in the corridor as well as any proposed/planned/ permitted developments.
- 3.7.3 *Collect and Review Roadway Layout Plans for the Corridor:* This information will be needed to determine the limits of the Right of Way and the location of existing development within or adjacent to it.
- 3.7.4 *Collect Traffic/Pedestrian/Bicycle Data in the Study Corridor:* Staff will collect data on pedestrian crossing locations/ of Route 110 to identify locations where near-term improvements such as crosswalks, lighting, etc. should be made. Traffic data collection will include information on vehicle speeds and classification.

- 3.7.5 *Obtain most recent MassDOT and City of Methuen Police Department Crash Data:* Analysis of this data will help to identify any vehicular/pedestrian/bicycle hot spots in the corridor.
- 3.7.6 *Perform Level of Service Analyses:* MVPC staff will complete LOS analyses at selected study corridor intersections and driveways to determine the potential need for spot roadway widenings.
- 3.7.7 *Develop Potential Complete Street Concepts for Implementation:* Using the information gathered from Tasks 3.7.1 -3.7.6, staff will identify Complete Streets concepts and, in some cases roadway improvements that should be made along the study corridor. Staff will work with the City and the MVRTA in developing these recommendations
- 3.7.8 *Prepare Draft/ final Study Reports:* MVPC staff will prepare draft and final reports that outlines the study's findings and recommendations.

### Products/Schedule

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Data Collection												
Meet w/ Local Officials												
Review Layout Plans												
LOS Analyses												
Develop Concepts												
Final Report												
	● Product/Event											

### Funding

Funding for Task 3.7 Merrimack Street Complete Streets Study in Methuen		
Source	Person Hours	Amount
FHWA	260	\$26,720
MassDOT	65	\$6,680
FTA Section 5303	0	\$0
MassDOT	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	325	\$33,400



### Task 3.8 – Turkey Hill Road Heavy Commercial Vehicle Exclusion Study in Newburyport Description

Over the years, trucks occasionally used this 1.1-mile section of Turkey Hill Road as a short cut to travel between the I-95/Storey Avenue interchange and the Newburyport Industrial Park. This usually occurred if there was congestion along Storey Avenue east of the interchange or if a truck driver made an improper turn. Unfortunately, this behavior accelerated in recent years with the replacement of the Whittier Bridge that carries I-95 over the Merrimack River between Amesbury and Newburyport and the growing use of navigational assistance apps.

Turkey Hill Road is poorly suited to carry larger commercial vehicles. Land use along this section of the roadway is entirely single family residential in nature. The 2018 Massachusetts Road Inventory File shows that the travel width of the roadway varies from 14' to 16' and there being a single two-foot right shoulder on the roadway. Field observation using Pictometry aerial imagery shows an average surface width of 20' with no discernable shoulder and a narrow sidewalk on the southbound side of the roadway.

Under Massachusetts law, only MassDOT can regulate truck traffic on roadways in the Commonwealth. The City of Newburyport has sought MVPC assistance in conducting the analyses required as part of the Heavy Commercial Vehicle Exclusion application process.

Proponent	Work Conducted By
● City of Newburyport	● Merrimack Valley Planning Commission

### FFY 2021 Activities

MVPC transportation staff will complete the following tasks in conducting a Heavy Commercial Vehicle Exclusion Study for Turkey Hill Road in Newburyport.

#### Tasks

- 3.8.1 *Collect Data on Health Impact Indicators and Transportation-Related Health Performance Measures:* Staff will assemble available Health Impact Indicators for the community as well as any available transportation related health performance measures.
- 3.8.2 *Traffic Data Collection:* MVPC staff will collect ATR traffic volume/speed/classification data on Turkey Hill Road, Hale Street, Storey Avenue and Low Street. It will also gather more detailed information on the condition of Turkey Hill Road (width, condition, etc.). Staff will also collect data on the condition of potential alternate truck routes in the area.
- 3.8.3 *Other Data Collection:* Staff will collect photo images of Turkey Hill Road, Hale Street, Low Street and Storey Avenue along with information on land uses along these potential alternate truck routes.
- 3.8.4 *Evaluate Effectiveness of Alternate Heavy Commercial Vehicle Routes in the Area:* As part of the MassDOT Exclusion application process, the City must identify and evaluate

the effectiveness of suggested alternate truck routes including what impacts the diverted trucks may have on abutting land uses.

- 3.8.5 *Prepare Heavy Commercial Vehicle Exclusion Application:* Staff will prepare a Draft MassDOT Heavy Commercial Vehicle Exclusion Application, which will be reviewed by the City. Once finalized, the City will submit this application to MassDOT.

### Products/Schedule

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Data Collection												
Data Analyses												
Evaluate Alternatives												
Truck Exclusion App.												
	● Product/Event											

### Funding

Funding for Task 3.8 Turkey Hill Road Truck Exclusion in Newburyport		
Source	Person Hours	Amount
FHWA	96	\$9,480
MassDOT	24	\$2,370
FTA Section 5303	0	\$0
MassDOT	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>120</b>	<b>\$11,850</b>

## **Task 3.9 - Stormwater Management Technical Assistance**

### **Description**

One of the byproducts of a good transportation system is stormwater runoff that carries pollutants from vehicles and adjacent land uses. Pollutants can impair waterways and cause harm to not just drinking water for humans, but also the biotic communities living in the water. Both local municipalities and the Massachusetts Department of Transportation share responsibility for managing stormwater, testing and enforcing regulations.

The U.S. Environmental Protection Agency issued the Final Phase II National Pollutant Discharge Elimination System (NPDES) permit for Massachusetts urbanized communities in 2016 with an effective date of July 1<sup>st</sup>, 2017. After a one-year delay, this permit went into effect on July 1, 2018.

The new permit outlines expanded, more prescriptive requirements for city and town operators of municipal separate storm sewer systems (“MS4s”) in implementing six *minimum* stormwater management control measures toward minimizing pollution to the maximum extent practicable of the Commonwealth’s rivers, streams and water bodies. The minimum control measures, elements of all compliant municipal stormwater management systems, are in areas of:

- 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 the six control measures will require 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. Each community will need to prepare stormwater facilities and infrastructure operating and maintenance plans, implement rigorous monitoring and illicit discharge detection & enforcement programs, and update enhanced database and map inventories of stormwater system features including outfalls, pipes and catch basins.

Developing individual community programs that will comply with anticipated new federal requirements will be an expensive proposition. Local DPW and highway department budgets are limited, as is the staffing to implement these programs. These cost and implementation concerns were the impetus for formation of the Merrimack Valley Stormwater Collaborative, established in 2014 by the 15 MVPC communities to promote regional approaches to stormwater pollution prevention.

### **Previous Work**

Under the region’s FFY 2014 UPWP, MVPC was successful in securing funding under the Commonwealth Innovation Challenge grant-program that:

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

In FFYs 2015-2019, MVPC sponsored Stormwater Collaborative networking meetings, organized joint services procurement and sponsored information sessions and trainings on the new MS4 permit requirements.

### **FFY 2021 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 Massachusetts Phase II Small MS4 General Permit, focusing on staff training, public participation and providing technical assistance to communities in development of updated, compliant Stormwater Management Programs as required by the MS4 permit. MVPC will also review and revise the Stormwater Collaborative web site.

### **Tasks**

- 3.9.1 *Provide Local Technical Assistance to Communities/Outreach Materials:* Staff will continue to 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 identified in the final permit including assistance in preparation of stormwater system operating & maintenance plans and Notices of Intent. Staff will also draft and customize relevant stormwater management regulatory updates 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.

- 3.9.2 *Provide Support to the Region’s Stormwater Collaborative:* Staff will provide technical support and training assistance to the Merrimack Valley Stormwater Collaborative. This regional coalition, made up of DPW, local conservation/stormwater management officials and regional watershed directors, meets monthly. Activities include equipment sharing, joint procurement, maintenance of information/programs on the Collaborative’s website [www.merrimackvalleystormwater.org](http://www.merrimackvalleystormwater.org), and program development in areas of regulatory development and stormwater program administration. Staff will initiate a full review and update of the Stormwater Collaborative web site in FFY2021.
- 3.9.3 *Assist Communities in meeting requirements of new MS4 Permits:* MVPC staff will conduct training sessions for municipal personnel. MVPC will pursue opportunities for maintaining equipment for testing. MVPC will assist with preparation of Operation and Maintenance Plans for town facilities and Stormwater Pollution Prevention Plans for highway garages as needed.
- 3.9.4 *Participate in MassBays and Regional Watershed Associations Water Quality Planning and Best Management Practices Forums and Workshops:* Staff will assist in organizing and making presentations at sponsored workshops & public information meetings in collaboration with MassBays National Estuary Program, Merrimack River Watershed Council, Ipswich River Watershed Association, Greenscapes North Coalition, Merrimack River District Commission and other regional partners..

**Products/Schedule**

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
LTA/Outreach	•	•		•	•	•		•	•	•		•
Spt. Stormwater Collab.												
Training Sessions												
Part. In Workshops												
	• Product/Event											

## Funding

<b>Funding for Task 3.9 Stormwater Management Technical Assistance</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	162	\$19,040
MassDOT	41	\$4,760
FTA Section 5303	0	\$0
MassDOT	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>203</b>	<b>\$23,800</b>

## **Task 3.10 - Climate Change**

### **Description**

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 Legislature passed its Global Warming Solutions Act (GWSA) in 2008. Its purpose is 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 Commonwealth's agencies 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**

Under the FFY 2016 UPWP, MVPC staff participated in the Community Resiliency Planning Project, specifically through its participation in meetings of *the Community Coastal Resiliency Project Municipal Task Force*. This project was led by staff from the Northeast Office of the National Wildlife Federation (NWF) and planning staff from the Ipswich River Watershed Association (IRWA). This effort resulted in the creation of the Great Marsh Coastal Adaptation Plan, that was completed in early 2018. This document identifies and prioritizes public assets in the Great Marsh that are at risk from climate change events, including coastal storms, sea level rise, inland flooding, and erosion and to develop community-based adaptation strategies and plans to reduce those risks. Many of these are transportation assets that are located in

Salisbury, Newburyport, Newbury and Rowley and the Adaptation Plan includes proposed actions that would protect them.

Staff also continued to participate in 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.

In FFY 2019, MVPC again, in partnership with the Great Marsh Coalition, 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 public.

In FFY 2020, staff worked with the communities of Merrimac, North Andover and Rowley to complete their Municipal Vulnerability Preparedness plans.

### **FFY 2021 Activities**

MVPC staff will continue to participate in meetings of the Community Coastal Resiliency Project Municipal Task Force as part of the Community Resiliency Planning Project and work with communities to prepare vulnerability assessments and strategic plans based on Community Resilience Building guidance promoted through the Mass. Municipal Vulnerability Preparedness Program of the Executive Office of Energy and Environmental Affairs and Executive Order 569 "Establishing an Integrated Climate Change Strategy for the Commonwealth" issued by Governor Baker in September 2016. Staff will also receive training in climate project data generated by Commonwealth agencies along with detailed climate adaptation mapping and modeling activities currently being prepared by MassDOT, the Woods Hole Institute, NOAA, and other sources.

Depending upon the availability of detailed mapping information and tools to model the impacts of storms at inland locations, MVPC can begin to work with its communities located west of the Great Marsh in identifying flood-prone infrastructure and identify potential impacts to both local and regional transportation facilities.

### **Tasks**

- 3.10.1 *Participation in Community Coastal Resiliency Project Municipal Task Force:* Staff will participate in Task Force meetings and will assist local officials in Salisbury, Newburyport, Newbury and Rowley in preparing their Community Adaptation Plans.
- 3.10.2 *Implementation of Vulnerability Plans:* Staff will continue to assist communities seeking to implement strategic plans under the Massachusetts Municipal Vulnerability Preparedness Program, CZM Resiliency Plan, the RTP process and other processes.
- 3.10.3 *Regional Tracking and Analysis:* Staff will track, analyze and prioritize identified vulnerabilities as related to transportation at the sub-regional and regional levels.
- 3.10.4 *Monitor Progress of Sea Level Rise Mapping/Modeling Tools:* Through its work with the MassBays Program, Hurricane Sandy Grant studies/analyses and MassDOT, staff will assess the availability of the mapping and modeling tools needed to identify the combined impacts of flooding from storms and rising sea levels along inland waterways.



- 3.10.5 *Participate In/Host Regional Workshops*: MVPC will continue to participate and present at public workshops to inform local officials and partner agencies and organizations on the status and anticipated impacts of climate change on the Merrimack Valley/North Shore region. This will include the Sea Level Rise symposium held annually with MassBays partners.
- 3.10.6 *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), and regional conservation and watershed agencies.
- 3.10.7 *Electric Vehicles*: MVPC will research best practices for local bylaws for encouraging electric vehicle charge stations and track municipal efforts across the region to create EV charging stations and incentivize implementation. The MVRTA has eight plug-in connections at the Haverhill Intermodal Parking Facility and four plug-in connections at the McGovern Transportation Center.

### Products/Schedule

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Resiliency Task Force												
Staff Training												
Vulnerability Asses.												
Mapping / Modeling												
Regional Workshops		•										
Coordination												

• Product/Event

### Funding

Funding for Task 3.10 Climate Change		
Source	Person Hours	Amount
FHWA	223	\$25,656
MassDOT	56	\$6,414
FTA Section 5303	20	\$2,508
MassDOT	5	\$627
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>304</b>	<b>\$35,205</b>

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## **TASK 4.0 -OTHER TRANSPORTATION STUDIES**

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

### **Description**

Intelligent Transportation System (ITS) technology's purpose is to maximize the efficiency of the existing transportation network. This technology plays 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 and to facilitate the installation of High Occupancy Toll (HOT) lanes on limited access roadways;
- Smart phone apps and in-vehicle devices that provide navigational assistance and real-time travel information;
- Incident management programs on interstates and major arterial roadways,
- Advanced Traffic Management activities such as coordination of signals, and
- Creation of High Occupancy Toll (HOT) Lanes on limited access roadways.

### **Previous Work**

In FFY 2010 the MVMPO staff participated in the stakeholder input meetings 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 impact any impending MBTA actions could have on services the MBTA provides directly to MVMPO region (commuter rail) or to the other parts of the MBTA system.

Also in FFY 2010, the New Hampshire Department of Transportation (NHDOT) initiated "Open Road Tolling" (ORT) at its Hampton Toll Booths. ORT lanes can process nearly five times as many vehicles as a conventional cash toll lane and 60% more traffic than a dedicated EZ Pass lane.

In recent years, the MVRTA has introduced new fareboxes on its fixed route buses that recognize cards accepted by the MBTA, has upgraded its Vehicle Location/GPS-enabled capabilities for all its buses and vans, and replaced the parking collection technology at several of the intermodal transportation facilities that it manages.

Early in 2018, the Authority introduced its *Transit App*, which allows users to track the precise location of any bus on the MVRTA fixed route system. The information that the new app provides has been shown to boost ridership where implemented elsewhere across the nation. The upgraded Vehicle Location/GPS-enabled technology has also allowed the MVRTA to more effectively monitor the on-time performance of its buses and to then adjust its fixed route schedules.

In October 2018, MVPC staff participated in a meeting between the ITS Programs unit of MassDOT, Police, Highway Operations Center (HOC) personnel, MPOs along with key District and Boston Office engineers regarding proposed ITS camera and Variable Message Sign (VMS) installations on major corridors in District 4.

In 2020 the MVRTA received Statewide Federal Transit Section 5339 funds through MassDOT to purchase on board Automatic Passenger Counters (APCs). The MVRTA has received FTA

approval of its grant request to purchase these counters and has recently issued a Request for Proposals for their procurement. Once implemented, the APC system will supply data on passenger boarding, track wheelchair and bicycle rack use on the Authority’s fixed route and commuter buses.

**FFY 2021 Activities**

The MVMPO staff will continue to monitor ITS strategies and technologies in Massachusetts and around the country and assess both their effectiveness and potential applicability in the MVMPO region.

**Tasks**

- 4.1.1 *Continue Gathering Information on Existing ITS Projects in Massachusetts:* Using the Boston ITS Architecture and those from other regions in the state as well as information contained in the STIP and other sources, MVPC staff will monitor actions being taken by other MPOs to implement ITS technologies and assess their potential applicability in the MVMPO region.
- 4.1.2 *Attend Future ITS Conferences and Workshops:* MVPC staff will attend ITS workshops and seminars as appropriate.
- 4.1.3 *Attend Meetings of Boston Regional ITS Architecture Committee/ITS Integration Strategy:* MVPC staff will continue to attend meetings of the Boston Regional ITS Architecture Committee and participate in MassDOT’s efforts to update the Boston Regional Architecture. The MVPC will update the MVMPO on Boston ITS Architecture Committee activities that would impact their present and future ITS plans/deployments.
- 4.1.4 *Autonomous Vehicle (AV) Technology:* In recent years there has been extensive work in developing and testing Autonomous Vehicles and it is anticipated that there will be widespread use of such vehicles in the United States within the next 20 years. AVs are being tested for transporting people (cars and buses) and moving freight. Full implementation of this technology may require substantial modifications to the nation’s transportation infrastructure. Under this task, staff will continue to monitor the trends in AV technology and identify how they may impact the region’s transportation network.

**Products/Schedule**

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Gather Information												
Conf./Workshops												
Boston Regional ITS												
AV Technology												
	● Product/Event											

## Funding

<b>Funding for Task 4.1 Intelligent Transportation Systems</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	67	\$7,196
MassDOT	17	\$1,799
FTA Section 5303	0	\$0
MassDOT	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>84</b>	<b>\$8,995</b>

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

### **Description**

Each year, officials from around the MVMPO region request MVPC staff 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, analysis of traffic safety issues or even assistance in completing the Project Need and Project Initiation Forms needed to advance project proposals through the MassDOT Project Development Process. 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 2019 and FFY 2020 UPWPs include:

- Collected ATR counts on Andover Street and Vehicle Turning Movement counts at the Andover Street/Shepard Street/Lawrencian Drive intersection in support of the City of Lawrence's MassWorks application.
- Completed two sets of analysis of selected roadway corridors in the Town of Georgetown to determine if they met the Thickly Settled Criteria for residential areas that are defined by state law.
- Worked with Groveland officials to develop scope of services for contract with MVPC to develop an Asset Management Program for the Town.
- Prepared report outlining MVPC's findings in collecting turning movement counts at Georgetown Square, the Library St./Central St. intersection, and the East Main St./Winter St. intersection.
- Responded to a request from the West Newbury Town Manager for assistance in notifying WAZE that the Middle Street Bridge linking the Town with the City of Newburyport was closed.

### **FFY 2021 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 MVMPO region.
- 4.2.2 *Support Advancement of Projects Through the MassDOT Project Development Process:* MVPC will also support community efforts to advance projects through the MassDOT Project Development Process. This will largely include providing assistance in the preparation of Project Need and Project Initiation Forms.

4.2.3

**Products/Schedule**

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Local Technical Assist.												
	• Product/Event											

**Funding**

Funding for Task 4.2 Local Technical Assistance		
Source	Person Hours	Amount
FHWA	133	\$14,400
MassDOT	33	\$3,600
FTA Section 5303	0	\$0
MassDOT	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>166</b>	<b>\$18,000</b>

## Task 4.3 - Regional Transportation Security

### Description

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

Federal requirements include security as a factor that MPOs must address in the transportation planning process. MPOs must ensure that their planning process "...should provide for consideration and implementation of projects, strategies, and services that will increase the security of the transportation system for motorized and nonmotorized users."

### Previous Work

In February 2008, the Merrimack Valley Planning Commission prepared the **Merrimack Valley Multi-Hazard Pre-Disaster Mitigation Plan** *Action Plan to Reduce or Eliminate the Long-term Loss in Human Life and Property from Natural Hazards*. This plan was developed by MVPC in cooperation with 12 of the region's 15 cities and towns pursuant to the Disaster Mitigation Act of 2000 (DMA 2000), which established a national program for pre-disaster mitigation and streamlined the federal administration of disaster relief. This legislation also requires all communities to have a FEMA-approved "Multiple Hazards Mitigation Plan" to qualify for FEMA funding under the Pre-Disaster Mitigation (PDM), Flood Mitigation Assistance (FMA), and Hazard Mitigation Grant Program (HMGP).

In FFY 2012, with funding assistance from MEMA, MVPC began working collaboratively with 14 of the region's 15 communities to prepare an updated Merrimack Valley Multi-Hazard Mitigation Plan covering the period of 2013-2018. This work was completed at the end of 2014 when the draft of the updated plan was submitted to FEMA for review. In 2015 and 2016, MVPC staff worked with committees to secure local endorsement of the Draft.

MEMA presented the Evacuation (and Shelter) Concept of Operations to local officials and Emergency Management Directors in the summer of 2015 and it was determined that there was a need to better synchronize the agency's efforts in Shelter, Evacuation, and Critical Transportation Need planning. In Fall 2016, MEMA completed the Critical Transportation Need Evacuation Operational Plan and the update for the Cape Cod Traffic Plan. In addition, the agency is continuing work on the Mass Care and Shelter Planning Phase II effort that kicked off in Fall 2016. In FFY 2018, MEMA will take up Evacuation Coordination again, informed by its efforts in the above realms and building off the Concept of Operations presented to NERAC local and state stakeholders in June 2015.

In 2011, NERAC commissioned a plan to assess each Massachusetts region's emergency transportation needs 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 several recommendations to assist communities in improving planning for the evacuation of local populations.

NERAC is undertaking the following activities to assist member communities in addressing their local evacuation planning requirements:

- **Transportation Availability Plan Update** will revise the NERAC 2011 Transportation Availability Plan as necessary to coordinate with ongoing MEMA evacuation planning efforts.
- **The EVAC Calculator Tool**, originally included in the 2011 Plan that assists in the determination of transportation resources for evacuation purposes, has been updated and is available on the NERAC website.
- **Development of an Evacuation Exercise Tool Kit** that will assist communities in developing community level exercises, scenarios, evaluation of the exercise and the preparation of after-action reports.
- **An MOU Template** will be developed that communities can use to document agreements with public and private entities to share evacuation resources during an emergency.

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

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

In FFY 2018 and 2019, MVPC staff worked with several of our local communities in implementing the projects recommended in the region's Multi-Hazard Mitigation Plan.

### **FFY 2021 Activities**

The 2016 Merrimack Valley Multi-Hazard Mitigation Plan expires in 2021. MVPC will assist communities with updating their Plans. 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.

### **Tasks**

- 4.3.1 Updating Merrimack Valley Multi-Hazard Mitigation Plan: Instead of one regional plan, communities may choose to update their plans individually or in smaller regional groups. MVPC will assist communities with updating their plans.

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

**Products/Schedule**

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Fe	Mar	Apr	May	Jun	Jul	Aug	Sep
Plan Monitoring &Data												
Assist Communities												
Review Security Planning												
	● Product/Event											

**Funding**

Funding for Task 4.3 Regional Transportation Security		
Source	Person Hours	Amount
FHWA	46	\$5,696
MassDOT	11	\$1,424
FTA Section 5303	7	\$960
MassDOT	2	\$240
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	66	\$8,320

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## **Task 4.4 - County Road Adjudication**

### **Description**

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

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

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

### **Previous Work**

The MVPC Adjudicatory Board has responded to community requests and approved the discontinuance of the following sections of County Roadway in the Merrimack Valley region:

- Section of county road layout near the intersection of Routes 150 and 110 in Amesbury (June 2009);
- Portion of Towne Road layout in Boxford near the North Andover Town (September 2011);
- Sliver of the old County Road layout along Route 110 just east of the intersection with Route 150 (September 2012),
- Section of River Road in Merrimac that lies between Skunk Road and a point just east of its intersection with Middle Road, which had been severely damaged by storms in 2006 and 2010 (October 2013), and
- County Easement in front of 38 and 40 Main Street in Amesbury (December 2019).

### **FFY 2021 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 staff will implement and, as needed, amend the process for the review of requests to alter county roadways.

## Products/Schedule

Task(s)	2020			2021								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Implement Process												
	• Product/Event											

## Funding

Funding for Task 4.4 County Roads Adjudication		
Source	Person Hours	Amount
FHWA	17	\$2,624
MassDOT	4	\$656
FTA Section 5303	0	\$0
MassDOT	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>21</b>	<b>\$3,280</b>



## FFY 2021 UNIFIED PLANNING WORK PROGRAM TASK FUNDING SUMMARY

Task	Description	FHWA/ MassDOT (PL)	FTA/ MassDOT/ Sect. 5303	FTA/ MVRTA/ MVPC Sect. 5307	FFY 2021 TOTAL
1.1	Program Management and Support	\$78,290	\$31,330	\$5,800	\$115,420
1.2	Public Participation Process	\$61,470	\$24,910	\$0	\$86,380
1.3	Unified Planning Work Program	\$17,400	\$6,010	\$0	\$23,410
1.4	Transportation Improvement Program	\$53,680	\$10,700	\$0	\$64,380
1.5	Title VI/Environmental Justice/Limited English Proficiency Activities	\$17,170	\$11,550	\$0	\$28,720
1.6	Regional Transportation Plan	\$3,360	\$7,330	\$0	\$10,690
2.1	Traffic Monitoring Program	\$78,045	\$0	\$0	\$78,045
2.2	Regional Pavement Management Program	\$14,595	\$0	\$0	\$14,595
2.3	Geographic Information Services	\$118,070	\$24,800	\$11,580	\$154,450
2.4	Congestion Management Process	\$20,045	\$3,840	\$0	\$23,885
2.5	Intermodal Connections with NHS System/Freight Planning	\$7,350	\$4,000	\$0	\$11,350
2.6	Regional Transportation Model	\$6,135	\$2,495	\$0	\$8,630
2.7	Bicycle/Pedestrian/Water Trails Planning	\$28,150	\$0	\$0	\$28,150
2.8	Safety Monitoring System	\$28,085	\$0	\$0	\$28,085
2.9	Transportation & Livability	\$12,830	\$4,763	\$0	\$17,593
2.10	MVMPO Transportation Performance Measures and Targets	\$24,610	\$3,170	\$0	\$27,780
2.11	Travel and Tourism Planning	\$12,525	\$3,660	\$0	\$16,185
3.1	Elderly and Disabled/ADA Planning	\$0	\$7,370	\$16,645	\$24,015
3.2	Transit Planning	\$0	\$17,170	\$65,975	\$83,145
3.3	Three Roads Intersection Bicycle and Pedestrian Study in Newburyport	\$16,600	\$0	\$0	\$16,600
3.4	Broadway/Daisy Street/Manchester RSA in Lawrence	\$20,350	\$0	\$0	\$20,350
3.5	Route 110/Prospect Street Intersection RSA in Methuen	\$25,290	\$0	\$0	\$25,290
3.6	Route 133 Complete Streets Analysis in Andover	\$22,200	\$0	\$0	\$22,200
3.7	Merrimack Street Complete Streets Study in Methuen	\$33,400	\$0	\$0	\$33,400
3.8	Turkey Hill Road Heavy Commercial Vehicle Exclusion Study in Newburyport	\$11,850	\$0	\$0	\$11,850
3.9	Stormwater Management	\$23,800	\$0	\$0	\$23,800
3.10	Climate Change	\$32,070	\$3,135	\$0	\$35,205
4.1	Intelligent Transportation Systems	\$8,995	\$0	\$0	\$8,995
4.2	Local Technical Assistance	\$18,000	\$0	\$0	\$18,000
4.3	Regional Transportation Security	\$7,120	\$1,200	\$0	\$8,320
4.4	County Road Adjudication	\$3,280	\$0	\$0	\$3,280
	<b>TOTAL</b>	<b>\$804,765</b>	<b>\$167,433</b>	<b>\$100,000</b>	<b>\$1,072,198</b>

Percentage of Spending for Task 1	30.68%
Percentage of Spending for Task 2	38.12%
Percentage of Spending for Task 3	27.64%
Percentage of Spending for Task 4	3.60%

**Percentage of Spending for Planning Studies 33.73%**

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## Comments Received on MVMPO's Draft FFY 2021 UPWP and Responses

### MVRTA

1. Page 83; Task 2.7.1

In addition the MVPC and MVRTA are coordinating efforts to add bike trail and other multi-use trails to bus route maps.

**Response: Rather than add this language to Task 2.7.1, MVPC staff has included the language in a new Task 2.7.7.**

2. Page 90; task 2.9.1

Correction: Five Year Capital Plan and Five Year Regional Transit Plan.

**Response: These changes have been made.**

3. Page 94; Task 2.10.4

Substitute with this: Staff will work with the MVRTA to coordinate activities to integrate performance targets contained in the Authority's Transit Asset Management Plan (TAM Plan) and the Public Transit Agency Safety Plan (PTSAP) into the MVMPO's overall planning process as is required by the FAST Act.

**Response: This substitution has been made.**

4. Page 105; Task 3.2

Substitute with this under Previous Work: The MVRTA made significant progress in recent years in the planning and implementation of major transit capital projects such as the McGovern Transportation Center and Gateway Surface Parking Facility, both in Lawrence, the Haverhill Intermodal Parking Facility and the Amesbury Costello Transportation Center. In 2010 the MVRTA completed a site selection study for an Intermodal Parking Facility in the City of Newburyport and the City Council approved the MVRTA's recommended Titcomb Street site. The City of Newburyport completed the final design and construction and the facility opened in May 2019.

**Response: This substitution has been made.**

5. Page 106; Task 3.2.3

Add: The Automatic Passenger Counters (APC) to be installed by the MVRTA will assist in providing this type of data.

**Response: this language has been added to Task 3.2.3**

6. Page 116; Task 3.5.6

Comment: While the MVRTA has no bus route that uses this intersection, the MVRTA is available to assist the study staff in determining the bus movements could be accommodated through the intersection.

7. Page 129; Task 3.10.7

Add: The MVRTA has eight plug-in connections at the Haverhill Intermodal Parking Facility and four plug-in connections at the McGovern Transportation Center.

**Response: This language has been added to Task 3.10.7.**

8. Page 134

Substitute with this: In 2020 the MVRTA received Statewide Federal Transit 5339 funds through MassDOT to purchase on board Automatic Passenger Counters (APC). The MVRTA has filed the appropriate grant request with the FTA and is waiting for approval. Procurement and implementation will take place during 2020/2021. Once implemented the APC system will supply data on passenger boarding, including wheelchair and bike rack use and provide real time vehicle passenger loads on both fixed route and commuter buses.

**Response: At the June 24, 2020 MVMPO meeting, MVRTA Administrator Joe Costanzo reported that FTA has approved this grant and that the Authority has issued an RFP for procurement of the counters. Mr. Costanzo's original comment has been revised as follows and included on Page 134 of the Final UPWP:**

***In 2020 the MVRTA received Statewide Federal Transit 5339 funds through MassDOT to purchase on board Automatic Passenger Counters (APC). The MVRTA has received FTA approval of its grant request and has issued an RFP for procurement of the APCs. Completion of procurement and project implementation will take place during 2020/2021. Once implemented the APC system will supply data on passenger boarding, including wheelchair and bike rack use and provide real time vehicle passenger loads on both fixed route and commuter buses.***

9. Page 140; Task 4.3.1

Comment: Instead of one regional plan it is recommended that communities update their plans in smaller regional groups particularly where natural or man-made hazards would impact more than on community. Such an approach would assist in coordinating policies and assist deployment.

**FHWA**

1. Page 17; Under MassDOT Capital Investment Program (CIP), consider changing "The FFY 2021 CIP should be adopted in June 2021" to "The FFY 2021 CIP was adopted in June 2021." Assuming this stays on schedule.

**Response: The FY 2021 CIP was adopted by MassDOT and the MBTA on June 22, 2020. The language referred to by FHWA on Page 17 will be modified to reflect this action.**

2. Page 17; Under Project Selection Advisory Council (PSAG), consider changing “The Department is now in the process of developing its FY 2021 Capital Investment Program” to “The FFY 2021 CIP was adopted in June 2021.” assuming this stays on schedule.

**Response: The FY 2021 CIP was adopted by MassDOT and the MBTA on June 22, 2020. The language referred to by FHWA on Page 17 will be modified to reflect this action.**

3. Page 31; Under *Summary of Anticipated MVPC Funding Sources*, revise budget based on updated guidance provided by MassDOT on March 5th. This budget incorrectly shows draft consolidated FHWA PL and FTA 5303 total (with MassDOT match) of \$960,387 as the FHWA/MassDOT PL line item. This data is old and was documented incorrectly. If separating FHWA PL and FTA 5303 sources, the totals should be \$804,774 for FHWA/MassDOT-PL and \$167,468 for FTA 5303. This should match budget on page 145, which has been updated accurately.

**Response: The Summary of Anticipated MVPC Funding Sources table has been modified and the transportation funding amounts shown reflect MassDOT/FHWA guidance released in March. A note has also been added to this table stating that the transportation funding amounts shown are those that have been provided by MassDOT/FHWA. These are not the amounts that were included in the MVPC’s FFY 2021 Budget, which was adopted in February 2020.**

4. Page 45; Under *Task 1.1 – Program Management and Support*, FHWA/FTA plan to schedule kick-off of the planning certification review process in winter 2021, with site visit later in spring 2021, and report/certification completion by summer 2021. Please update schedule to reflect this.

**Response: This additional information has been added to Task 1.1.11.**

5. Page 47, Under *Task 1.2- Public Participation Process*, fix typo in third paragraph under Previous Work: “documents. , and modified”

**Response: Correction made.**

6. Page 51; Under *Task 1.3: UPWP*, add to Task 1.3.2 the full amendment and administrative modification procedures as provided by MassDOT/FHWA guidance. Consider moving amendment/admin modification procedures as separate section within Introduction.

**Response: The description of the UPWP amendment and administrative modification procedures has been moved to the Introduction section of the document. This description has also been expanded to reflect recent FHWA/MassDOT guidance on this matter.**

7. Page 80; Fix formatting issue with Task 2.5 – Regional Transportation Model.

**Response: Correction made.**

8. Page 88; Fix formatting issue with Task 2.9 – Transportation and Livability.

**Response: Correction made.**

### **MassDOT**

1. Please list amendment and adjustment procedures for the UPWP in the Introduction.

**Response: The description of the UPWP amendment and administrative modification procedures has been moved to the Introduction section of the document. As noted above, this description has also been expanded to reflect recent FHWA/MassDOT guidance on this matter.**

2. To the extent possible, please detail all sub-tasks anticipated to be performed by a consultant in relevant task descriptions (as to avoid UPWP amendment later).

**Response: The Draft FFY 2021 was developed assuming there are no tasks would be performed by consultants. Should this situation change, the document will need to be amended.**