

Pioneer Valley Metropolitan Planning Organization

Unified Planning Work Program

Fiscal Year 2019

October 1, 2018 to September 30, 2019



Prepared by:

Pioneer Valley Planning Commission
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Unified Planning Work Program

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Draft Document

Prepared by the
Pioneer Valley Planning Commission

For the Pioneer Valley
Metropolitan Planning Organization

Pioneer Valley MPO Members

Name	Title
Stephanie Pollack	Secretary and CEO of the Massachusetts Department of Transportation
Jonathan L. Gulliver	Administrator of the Massachusetts Department of Transportation Highway Division
Walter Gunn	Chairman of the Pioneer Valley Executive Committee
Mayor David Narkewicz	Chairman of the Pioneer Valley Transit Authority Advisory Board
Mayor Richard Kos	Mayor of Chicopee
Mayor Alexander Morse	City of Holyoke
Mayor Brian P. Sullivan	City of Westfield
Douglas Slaughter	Amherst Board of Selectmen
George Archible	Belchertown Board of Selectmen
Charles Kaniecki	Southampton Board of Selectmen
Rick Sullivan	Economic Development Council of Western Massachusetts
Alternates	
Mayor Domenic Sarno	Mayor of Springfield
Mayor William C. Reichelt	City of West Springfield
Vacant	Northern Tier
Carmina Fernandes	Ludlow Board of Selectmen
Roger Fuller	Chesterfield Board of Selectmen
Ex-Officio (Non-Voting)	
Jeff McEwen	Federal Highway Administration
Mary Beth Mello	Federal Transit Administration
Sandra Sheehan	Pioneer Valley Transit Authority Administrator
James Czach	Chairman – Pioneer Valley Joint Transportation Committee

Prepared in cooperation with the Massachusetts Department of Transportation, and the Federal Highway Administration and the Federal Transit Administration - U.S. Department of Transportation. The views and opinions of the Pioneer Valley Planning Commission expressed herein do not necessarily state or reflect those of the U.S. Department of Transportation.

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EXECUTIVE SUMMARY

Each year, Metropolitan Planning Organizations (MPOs) are required to prepare a Unified Planning Work Program (UPWP), in cooperation with member agencies, to describe all anticipated transportation planning activities over the course of the upcoming federal fiscal year. The UPWP is an essential step in the development of a continuing, cooperative, and comprehensive (3C) transportation planning process in the Pioneer Valley Region. As the lead planning agency for the Pioneer Valley Metropolitan Planning Organization (MPO), the Pioneer Valley Planning Commission (PVPC) is responsible for developing the UPWP in cooperation with the Pioneer Valley Transit Authority, the Massachusetts Department of Transportation (MassDOT), and the 43 communities that comprise the region.

The UPWP also identifies the federal, state, and local funding sources used to carry out the proposed tasks. Tasks included in the UPWP were developed to advance key emphasis areas as identified by the Federal Highway Administration and the Federal Transit Administration. This document was prepared in compliance with the Fixing America's Surface Transportation (FAST) Act and addresses its national goals and planning factors. The FAST Act was signed into law by President Obama on December 4, 2015. This transportation bill specifically addresses all modes of transportation and enhances many of the existing provisions and programs defined in past transportation legislation. Additional information on the FAST Act can be found here: <http://www.fhwa.dot.gov/fastact/>.

The UPWP is divided into the following sections:

Work Element 1 - Work Element 1 encompasses the administration and support of the 3-C transportation process. Major products under this task include the development of the TIP, the UPWP, regional public participation process, and Environmental Justice and Title VI planning.

Work Element 2 – Data collection and other planning services required to support the UPWP are included as part of Work Element 2. This work is traditionally used to assist in transportation analysis and the development of figures and tables included in technical reports. This data is also used to assist in tracking regional transportation performance measures.

Work Element 3 - This work element is comprised of transportation planning that directly supports the development of projects included in the Regional Transportation Plan (RTP) or the development of RTPs. Key studies included in Work Element 3 for FY 2019 include:

- Task 3.1 – Regional Bicycle and Pedestrian Planning will seek to assist communities in their Complete Streets planning efforts, develop a “bikeability” metric for the Pioneer Valley region, and develop documentation to support and define PVPC’s automated bicycle and pedestrian counting program.
- Task 3.2 – Transit System Surveys and Route Implementation works in cooperation with PVRTA to survey, monitor, and assess the quality of their fixed route and paratransit services. A southern service area fixed route onboard customer survey will be performed to assist in improving the quality of transit service in this area.
- Task 3.3 – Regional Freight Planning assists in the planning of the efficient movement of all forms of freight. This task will utilize the finding of the Massachusetts State Freight Plan to identify region specific freight needs for the Pioneer Valley and finalize the regional freight plan for the Pioneer Valley.
- Task 3.4 – Regional Congestion Management Process Project Development analyzes regional travel time data along major transportation corridors to confirm areas of congestions. Staff will utilize data available through FHWA’s National Performance Management Research Data Set (NPMRDS) to update the regional congested corridor ranking. Work will continue on before and after travel time studies to gauge the effectiveness of recently completed transportation improvement projects on reducing congestion.
- Task 3.6 – Regional Performance Measures Assessment is intended to focus on the federal planning emphasis area of “transitioning to performance-based planning and programming.” Staff will assist the MPO in the adoption of regional performance targets that address PM2 and PM3 of the federal planning rules by the November 2018 deadline.
- Task 3.7 – Regional Safety and Planning Studies will continue the work started last year and finalize the regional at-grade railroad crossings study and the Multi Use Trail At-Grade Crossings Study. Staff will

also work with the Town of Longmeadow to improve safety at the intersections comprised by Bliss Street, Bliss Court and Williams Street.

- Task 3.9 – Climate Change Implementation will update regional Climate Action Strategies and develop corresponding tools that can be implemented in the coming years to assist in reducing the impacts of climate change.
- Task 3.10 – Green Streets and Infrastructure planning reduces the environmental impacts of streets, roads, and municipal infrastructure. This task will review and update strategies within the regional Green Infrastructure Plan and corresponding elements in Green Infrastructure Toolkit. PVPC will also continue to work with local communities to implement green infrastructure into local transportation improvement projects.
- Task 3.11 – FY2020 RTP Update will update the long range transportation plan for the Pioneer Valley MPO to meet current federal, state, and local transportation requirements. The RTP also have a comprehensive public participation process to receive input on the future of transportation in the Pioneer Valley.

Work Element 4 – Work Element 4 consists of transportation planning activities that support the day to day operations of the regional transportation system. Key tasks included as part of Work Element 4 included regional fixed route and paratransit planning, bicycle and pedestrian planning, and local technical assistance. Federal and state funded transportation planning studies such as Scenic Byway Studies that are funded outside of the region's allotted Planning (PL) and Section 5303 budgets are included as part of Work Element 4.

Additional Planning Projects - This section outlines activities for which funding has not yet been secured. These proposed tasks are provided for information purposes only. To date no additional planning projects have been identified for the region.

INTRODUCTION

The UPWP provides an indication of regional long and short-range transportation planning objectives, the manner in which these objectives will be achieved, the budget necessary to sustain the overall planning effort, and the sources of funding for each specific program element. All tasks will be performed by the PVPC in cooperation with appropriate agencies, unless otherwise stated.

The work tasks within this UPWP are reflective of issues and concerns originating from transportation agencies at the federal, state and local levels. As always, the UPWP continues and extends the PVPC's emphasis on "results-oriented" tasks. In addition, several tasks are specifically targeted to implement provisions of several pieces of federal legislation, particularly the Fixing America's Surface Transportation (FAST) Act, the Clean Air Act Amendments of 1990 (CAAA) and the Americans with Disabilities Act (ADA).

The time periods, or "program years", for the various funding sources are outlined in the following chart:

Funding Source	Fiscal Period:
FHWA/MassDOT	October 1, 2018 through September 30, 2019
FTA/MassDOT	April 1, 2018 through March 31, 2019
PVTA	April 1, 2018 through March 31, 2019

The Pioneer Valley Metropolitan Planning Organization traditionally endorses the Unified Planning Work Program for the Pioneer Valley MPO at its May meeting.

UPWP AMENDMENT

The descriptions of the tasks to be accomplished and the budgets for these tasks are based on the best estimate of what can be accomplished within the confines of available resources. If, in the performance of this work program, it becomes apparent that certain tasks cannot be accomplished due to changing or unforeseen circumstances, the UPWP will be amended/adjusted by redefining the scope of the tasks and/or reallocating funds among tasks. These changes will be developed in cooperation with MassDOT, the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the Pioneer Valley Transit Authority (PVTA), and other concerned agencies as appropriate.

Upon endorsement by the MPO, the UPWP may be amended or adjusted as follows:

- Amendment with 21 day public comment period: an addition of a new task and/or deletion of a previously programmed task.
- Adjustment with an approval vote from the MPO and sign-off from the Office of Transportation Planning (OTP): modification of budget or scope to an already programmed task.

TRANSPORTATION PLANNING FUNDING SOURCES

FHWA/MassDOT - MassDOT receives two types of funds from FHWA that are passed through to planning agencies to conduct 3C transportation planning activities. These funds include Metropolitan Planning funds (PL) and Statewide Planning and Research funds (SPR) and are apportioned to states on the basis of population in urbanized areas and relative to the amount of highway construction funds the state receives. MassDOT maintains multi-year contracts with planning agencies to conduct transportation related planning activities within each region. These multi-year contracts utilize the PL and SPR funds received by FHWA.

Within the Pioneer Valley region the predominant source of funding from MassDOT is PL funds. In the past, unexpended funds from contract to contract were reserved in a "PL Balance" account for the region. Currently, funds not used during a program year are deobligated and may not be available for future use.

A total of \$1,064,193 in PL funds has been programmed for the FY2019 Transportation Work Program. Direct Costs are expected to vary among tasks in the UPWP and are subject to change. A total of \$24,500 has been allocated for Direct Costs in FY2019.

FTA/MassDOT/PVTA –Two types of funds are used for transit planning purposes in the Pioneer Valley region; Section 5303 and Section 5307 funds of the Federal Transit Act Amendments of 1991. Section 5303 funds are earmarked for use in planning and technical studies related to urban mass transportation. They are filtered down from the Federal Transit Administration through the MassDOT to the regional planning agencies in the Commonwealth. Section 5307 funds can be used for planning as well as other purposes, and are distributed by the FTA on the basis of the Regional Transit Authority (RTA) service area population. The Pioneer Valley Transit Authority, using Section 5307 funds from the FTA, contracts with the PVPC for assistance on a wide range of planning activities. Both funds require a 20% local match, which is provided by the RTA.

The Pioneer Valley Transit Authority, the FTA Section 5307 applicant, has consulted with the Pioneer Valley Planning Commission and concurs that the public involvement process adopted by the MPO for the development of the UPWP satisfies the public hearing requirements that pertain to the development of the Program of Projects included in the Section 5307 Urbanized Area Formula Program grant application, including the provision for public notice and the time established for public review and comment.

For FTA projects that are not routine (i.e. Section 5307 applications that required environmental assessment or an environmental impact statement) the public involvement provided herein as part of the UPWP review is not sufficient. FTA will require additional public involvement prior to grant approval, as presented in the joint FHWA/FTA environmental regulations, 23 CFR-Part 771.

Other Funding Sources – Other funding sources available are typically sought to conduct specific planning activities. These funds include highway funds such as Congestion Mitigation Air Quality (CMAQ) funds and Scenic Byway funds. These funds are awarded on a competitive basis and award is not guaranteed.

Many projects completed by PVPC's Community Development and Land Use Sections are funded through the award of competitive grants and through private contracts with local communities. These sources include Municipal Incentive Grants (MIGs), Community Development Block Grants, Community Development Action Grants, and Urban Development Action Grants. The PVPC also uses community assessment dollars to supplement the local technical assistance program.

FAST ACT PLANNING FACTORS

All metropolitan planning organizations are required to incorporate ten factors into their planning process. The Pioneer Valley MPO has taken great strides to incorporate these ten factors into the Unified Planning Work Program. The Ten Planning Factors and their corresponding transportation planning tasks are:

Factor	Description	UPWP Task
1	Support the economic vitality of the metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency.	Task 1.4 - Transportation Improvement Plan (TIP) development Task 3.6 – Regional Performance Measures Assessment Task 3.11 – FY2020 RTP Update
2	Increase the safety of the transportation system for motorized and non-motorized users.	Task 3.1 - Regional Bicycle and Pedestrian Planning Task 3.7 - Regional Safety and Planning Studies
3	Increase the security of the transportation system for motorized and non-motorized users.	Task 3.2 - Transit System Surveys and Route Implementation Task 3.8 - Intelligent Transportation Systems (ITS) and Regional Evacuation Planning Task 4.1 - Regional Transit Planning
4	Increase the accessibility and mobility of people and for freight.	Task 3.1 - Regional Bicycle and Pedestrian Planning Task 3.3 - Regional Freight Planning Task 4.1 - Regional Transit Planning Task 4.2 - Paratransit Planning Assistance
5	Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.	Task 1.5 - Title VI and Environmental Justice Task 3.11 – FY2020 RTP Update Task 4.3 – Implementing the Regional Land Use Plan
6	Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.	Task 3.1 Regional Bicycle and Pedestrian Planning Task 3.2 - Transit System Surveys and Route Implementation Task 3.3- Regional Freight Planning
7	Promote efficient system management and operation.	Task 2.7 - Regional Performance Measures Task 3.2 Transit System Surveys and Route Implementation Task 3.4 - Regional Congestion Management Process - Project Development
8	Emphasize the preservation of the existing transportation system.	Task 3.5 - Regional Pavement Management System - Project Development Task 3.9 Climate Change Implementation

9	Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.	Task 3.8 - Intelligent Transportation Systems (ITS) and Regional Evacuation Planning Task 3.10 Green Streets and Infrastructure
10	Enhancing travel and tourism.	Task 4.4 Bicycle and Pedestrian Network and Bike Commute Week Task 4.7 Scenic Byways Support Task 4.8 Bike Share Implementation

FIXING AMERICA'S SURFACE TRANSPORTATION (FAST) ACT

The FAST Act was signed into law by President Obama on December 4, 2015. This transportation bill specifically addresses all modes of transportation and enhances many of the existing provisions and programs defined in past transportation legislation.

National goal areas identified as part of the Moving Ahead for Progress in the 21st Century (MAP-21) Act continue to be a priority under the FAST Act and address the following areas:

- **Safety**—To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- **Infrastructure condition**—To maintain the highway infrastructure asset system in a state of good repair.
- **Congestion reduction**—To achieve a significant reduction in congestion on the NHS.
- **System reliability**—To improve the efficiency of the surface transportation system.
- **Freight movement and economic vitality**—To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- **Environmental sustainability**—To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- **Reduced project delivery delays**—To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

The Pioneer Valley MPO has developed Task 2.7 – Regional Performance Measures to assist in the development measures that advance the seven national goals and are consistent with Massachusetts GreenDOT policy and the Pioneer Valley Regional Transportation Plan. In addition, a number of tasks included as part of Work Element 3 of the UPWP advance a number of planning efforts that support the seven national goals.

Task	Description	National Goals Supported
2.7	Regional Performance Measures collects data used to monitor and evaluate regional performance measures established for the Pioneer Valley Region	All
3.1	Regional Bicycle and Pedestrian Planning focuses on the improvement of safety and mobility for bicycles and pedestrians by providing support for local and regional efforts to adopt and implement a "Complete Streets" approach to create neighborhoods, village centers and city streets that safely accommodate all modes of transportation.	Safety, System Reliability, Congestion Reduction

3.2	Transit System Surveys and Route Implementation – This ongoing task uses existing route data and ridership surveys to assist in improving the reliability and performance of the PVTA fixed route system.	Safety, Congestion Reduction, System Reliability
3.3	Regional Freight Planning – The freight planning task focuses on identifying opportunities to enhance the movement of freight in the region.	Freight Movement and Economic Vitality
3.4	Regional Congestion Management Process (CMP) – The CMP uses a variety of data sources to measure congestion along regional corridors and identify congestion bottlenecks. Planning studies are developed for congested areas to assist in developing projects to reduce congestion.	Congestion Reduction, System Reliability
3.5	Regional Pavement Management System – Pavement condition data is collected for all federal aid eligible roadways in the region on a four year cycle. The impact of planned roadway improvement projects can be analyzed under a variety of funding levels to identify the level of investment required to keep pavement in a good state of repair.	Infrastructure Condition, Reduce Project Delivery Delays
3.6	Regional Performance Measures Assessment – This task provides an update on the progress made in meeting the regional performance measures established as part of the update to the RTP. Data collected as part of Task 2.7 will be used to assist in calculating scores for projects reviewed as part of the region's Transportation Evaluation Criteria (TEC) and document progress made towards regional performance targets.	All
3.7	Regional Safety and Planning Studies – The MPO data from MassDOT and local communities to identify high crash locations. Safety data is used to monitor the effectiveness of regional safety improvements and to advance planning studies to identify potential safety improvements.	Safety, Reduce Project Delivery Delays
3.8	Intelligent Transportation System (ITS) and Regional Evacuation Planning – This task assists in ongoing regional ITS and evacuation planning efforts to increase the deployment of ITS technology, provide real time information to the public, and enhance regional transportation security.	Safety, Congestion Reduction, System Reliability
3.9	Climate Change Implementation – This task assists Pioneer Valley communities to plan for the impacts of climate change on the regional transportation system. It also serves to develop strategies and projects that can have a positive impact on greenhouse gas emissions from transportation sources in compliance with the Massachusetts GreenDOT policy.	Infrastructure Condition, Environmental Sustainability

3.10	Green Street and Infrastructure - Encourages the use of green streets and green infrastructure where practical to reduce stormwater and other environmental impacts the regional transportation system.	Infrastructure Condition, Environmental Sustainability
3.11	FY2020 RTP Update – Consists of the update of the Regional Transportation Plan for the Pioneer Valley MPO. The RTP outlines the direction of transportation planning and improvements for the region for the next 20 years and provides the basis for the TIP and UPWP.	All

FEDERAL PLANNING EMPHASIS AREAS

FHWA and FTA have established Federal Planning Emphasis Areas to assist in the implementation of the FAST Act and guide regional transportation planning efforts. The Federal Planning Emphasis Areas are:

- *Performance Management.* The PVPC has specifically included Tasks 2.7 and 3.6 in the UPWP to address the advancement of performance based planning and project selection. We will continue to work with local communities, MassDOT, and our federal partners to track regional performance measures and utilize the recently adopted Transportation Evaluation Criteria to advance planning studies and transportation improvement projects in the Pioneer Valley Region.
- *Regional Models of Cooperation* - PVPC routinely coordinates its planning activities with MassDOT, regional transit authorities, and bordering regional planning agencies. Massachusetts RPAs meet quarterly with MassDOT to review the status of proposed transportation improvement project. Transportation Program Managers have monthly meetings to coordinate regional planning efforts tied to the TIP, UPWP, and Title VI. We also meet annually with the Capital Region Council of Governments, located in Hartford Connecticut, to coordinate cross-border transportation planning activities as appropriate for Interstate 91, transit planning, bicycle planning, the regional transportation model, and the Bradley International Airport.
- *Ladders of Opportunity – Access to Essential Services.* PVPC has incorporated enhanced coordination with a wide range of partners as part of our planning program to identify existing gaps in the regional transportation system. We utilize Task 1.5 – Title VI and Environmental Justice to identify opportunities for the public to be involved in the identification of social, economic and environmental impacts of transportation. The Update to the Regional Transportation Plan will also address access to essential services through an analysis of the attainability by transit to essential services such as employment, health care, and education.

PERFORMANCE BASED PLANNING AND PROGRAMMING

The FAST Act requires MPOs, in collaboration with the state DOT and transit agencies, to formally establish targets for performance measures aligned with the national goals. Performance Based Planning and Programming (PBPP) refers to the application of performance management within the parameters of the FAST Act to achieve desired outcomes for the multimodal transportation system. It is intended advance transportation investments based on their ability to meet established goals. This includes setting targets for the performance measures identified in the FAST Act.

Performance measures are intended to monitor and track performance over time and assess the effectiveness of projects and strategies in meeting the national goal areas. In the Pioneer Valley region, performance based planning methods have been used in the development of the Transportation Evaluation Criteria to program projects as part of the Regional Transportation Improvement Program for many years.

USDOT implemented the federal PBPP requirements through a series of phased rulemakings. At the conclusion of this rulemaking process, the Commonwealth of Massachusetts has twelve months to establish statewide performance targets for each required federal performance measure. The Pioneer

Valley MPO has 180 days from the date of Commonwealth's adoption of the statewide performance targets to either adopt the statewide targets or establish their own regional performance targets. A summary of the Implementation Timeline is shown below.

Implementation Timeline

Final Rule	Effective Date	States Set Targets By:	MPOs Set Targets By:	TIP Inclusion
Safety Performance Measures (PM1)	April 14, 2016	August 31, 2017	No later than February 27, 2018	Updates or Amendments on or after May 27, 2018
Pavement/Bridge Performance Measures (PM2)	May 20, 2017	May 20, 2018	No later than November 16, 2018	Updates or Amendments on or after May 20, 2019
System Performance Measures (PM3)	May 20, 2017	May 20, 2018	No later than November 16, 2018	Updates or Amendments on or after May 20, 2019

Massachusetts adopted five annual safety targets as required under the FAST Act. These targets are summarized below.

Commonwealth of Massachusetts Safety Targets

Performance Measure	State Target
Total Number of Fatalities	Reduce Total Number of Fatalities to 352 or less statewide at the current rate of -0.8%/year
Rate of Fatalities per 100 Million Vehicle Miles Traveled (VMT)	Reduce the Rate of Fatalities to 0.61/100 million VMT or less statewide at the current rate of -1.56%/year
Total Number of Serious Injuries	Reduce Total Number of Serious Injuries to 2896 or less statewide at the current rate of -3.65%/year
Rate of Serious Injuries per 100 Million VMT	Reduce the Rate of Serious Injuries to 5.01/100 million VMT or less statewide at the current rate of -4.42%/year
Total Number of Combined Serious Injuries and Fatalities for Non-motorized Modes	Do Not Exceed the Current Average of 541 for Combined Serious Injuries and Fatalities for Non-motorized Modes

The Pioneer Valley MPO was required to establish Safety targets by February 27, 2018. The MPO elected to support the State's Safety targets as summarized above at their meeting on January 23, 2018. Additional MPO action will be required by no later than November 16, 2018 to adopt regional targets for the PM2 and PM3 federal rules. The UPWP includes specific tasks to support the performance based planning and programming for the Pioneer Valley MPO.

PIONEER VALLEY METROPOLITAN PLANNING ORGANIZATION MEMBERS

The Pioneer Valley Metropolitan Planning Organization (MPO) implements and oversees the 3C transportation planning process in the Pioneer Valley region. The objective of the **3C** transportation planning process is to assist, support, and provide the capability to maintain an open **comprehensive, cooperative, and continuing** transportation planning and programming process at all levels of government in conformance with applicable federal and state requirements and guidelines. The Pioneer Valley MPO was restructured in August of 2006 to enhance the role of the local communities in the transportation planning process and allow local MPO members to represent subregional districts respective to community size and geographic location.

- The Secretary and CEO of the Massachusetts Department of Transportation
- The Administrator of the Massachusetts Department of Transportation Highway Division
- The Chairman of the Pioneer Valley Planning Commission
- The Chairman of the Pioneer Valley Transit Authority Advisory Board
- The President and CEO of the Western Massachusetts Economic Development Council (EDC)
- The Mayors of two of the following three (3) urban core cities:

Chicopee	Holyoke	Springfield
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- The Mayor or a Selectman of one of the following four (4) cities and towns:

Agawam	Southwick	Westfield
West		

- The Mayor or a Selectman of one of the following five (5) cities and towns:

Amherst	Easthampton	Hadley
Northampton	South Hadley	

- A Selectman of one of the following fourteen (14) suburban and rural towns:

Belchertown	Brimfield	East Longmeadow
Granby	Hampden	Holland
Longmeadow	Ludlow	Monson
Palmer	Pelham	Wales
Ware	Wilbraham	

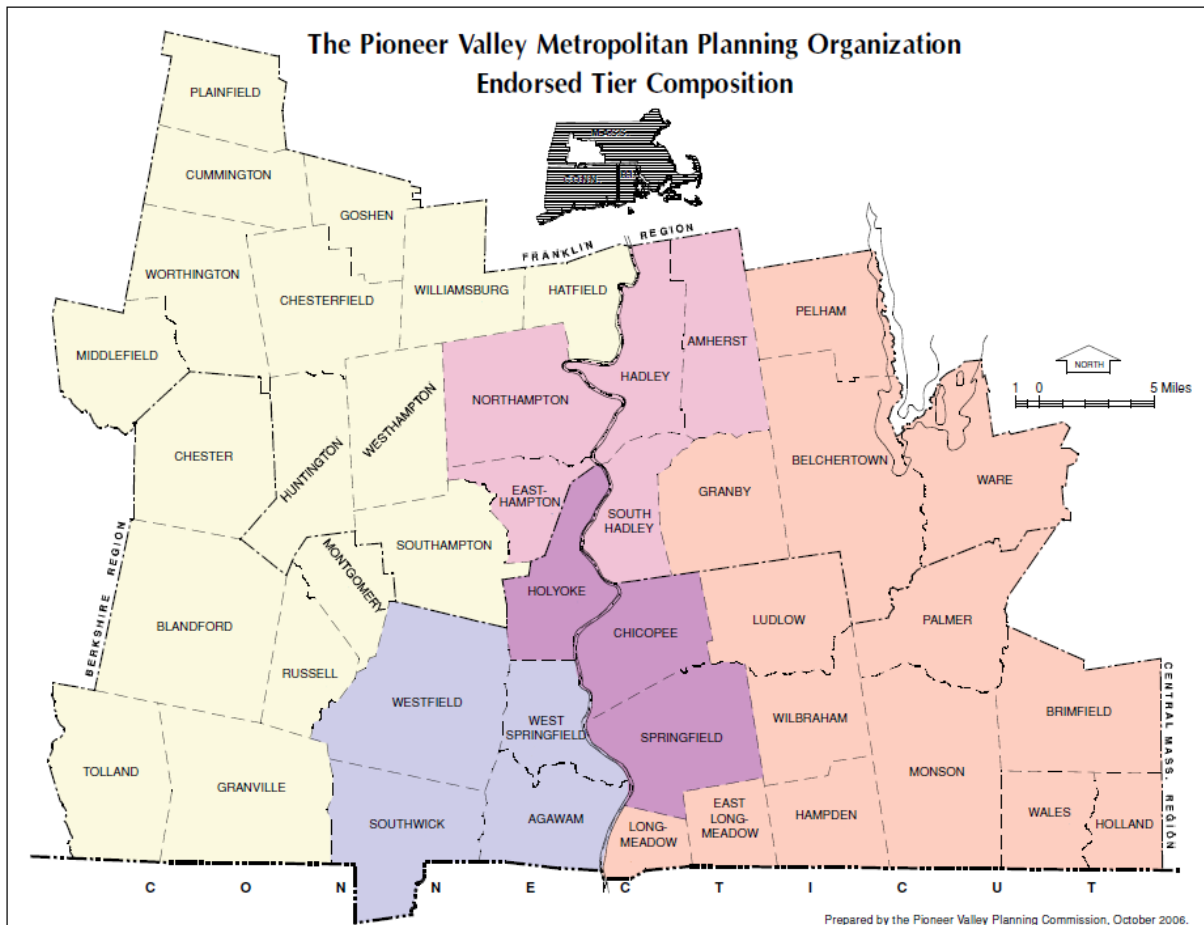
- A Selectman of one of the following seventeen (17) suburban and rural towns:

Blandford	Chester	Chesterfield
Cummington	Goshen	Granville
Hatfield	Huntington	Middlefield
Montgomery	Plainfield	Russell
Southampton	Tolland	Westhampton
Williamsburg	Worthington	

In addition, the Administrator of the Pioneer Valley Transit Authority, the Joint Transportation Committee (JTC) Chairman, and one representative each from the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the five (5) alternate community MPO representatives, and one representative each from both the Massachusetts Department of Transportation Highway Division District One and District Two Offices shall be considered ex-officio, non-voting members of the Pioneer Valley MPO. Alternate members shall be additional chief elected officials from each of the above-cited categories of communities and he/she shall be eligible to attend, participate and vote at MPO meetings in the event that the primary member cannot attend.

Pioneer Valley MPO Members

Name	Title
Stephanie Pollack	Secretary and CEO of the Massachusetts Department of Transportation
Jonathan L. Gulliver	Administrator of the Massachusetts Department of Transportation Highway Division
Walter Gunn	Chairman of the Pioneer Valley Executive Committee
Mayor David Narkewicz	Chairman of the Pioneer Valley Transit Authority Advisory Board
Mayor Richard Kos	Mayor of Chicopee
Mayor Alexander Morse	City of Holyoke
Mayor Brian P. Sullivan	City of Westfield
Douglas Slaughter	Amherst Board of Selectmen
George Archible	Belchertown Board of Selectmen
Charles Kaniecki	Southampton Board of Selectmen
Rick Sullivan	Economic Development Council of Western Massachusetts
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Vacant	Northern Tier
Carmina Fernandes	Ludlow Board of Selectmen
Roger Fuller	Chesterfield Board of Selectmen
Ex-Officio (Non-Voting)	
Jeff McEwen	Federal Highway Administration
Mary Beth Mello	Federal Transit Administration
Sandra Sheehan	Pioneer Valley Transit Authority Administrator
James Czach	Chairman – Pioneer Valley Joint Transportation Committee



JOINT TRANSPORTATION COMMITTEE (JTC)

The JTC is a committee comprised of representatives of local, regional and state governments, as well as private groups and individuals involved in providing transportation facilities, services, and/or planning. The JTC was established by the 3C Memorandum of Understanding for the purpose of incorporating citizen participation in the transportation planning process. It is intended that the JTC be representative of both public and private interests in the region and provide a forum to guide transportation planning activities and transportation improvements in the region. The JTC also serves in an advisory capacity to the MPO as they decide on whether accepting and endorsing a plan or project is appropriate.

Pioneer Valley Joint Transportation Committee Members and Alternates

Community	Member	Alternate
Agawam	Christopher Golba	Michelle Chase
Amherst	Guilford Mooring	Jason Skeels
Barnes Municipal Airport	Eric Billowitz	Vacant
Belchertown	Steven Williams	Gary Brougham/Douglas Albertson
Blandford	Vacant	Vacant
Brimfield	Judith Carpenter	Vacant
Chester	John Murray	Vacant
Chesterfield	Matt Smith	Vacant
Chicopee	Jeffrey Neece	Elizabeth Botelho
Cummington	Rob Dextraze	Vacant
East Longmeadow	Robert Peirent	Vacant
Easthampton	Dan Murphy	Dan Murphy
Goshen	Vacant	Vacant
Granby	David Derosiers	Vacant
Granville	Doug Roberts	Mathew Streeter
Hadley	Vacant	Vacant
Hampden	Vacant	Vacant
Hatfield	Phil Genovese	Vacant
Holland	Brian Johnson	Larry Mandell
Holyoke	Michael McManus	Jeffrey Burkott
Huntington	Charles Dazelle	Vacant
Longmeadow	Mario Mazza	Andrew Krar/Richard Foster
Ludlow	Steven Frederick	Elie Villeno
MassBike	Gary Briere	Marvin Ward
MassDOT District 1	Mark Moore	Peter Frieri
MassDOT District 2	Paula Simmons	Jeff Hoynoski
Middlefield	Rodney Savery, Jr.	Alan Vint
Monson	John Morrell	Evan Brassard
Montgomery	Curtis Bush, Jr.	Vacant
Northampton	Wayne Feiden	Maggie Chan
Palmer	Gerry Skowronek	Rudy Pisarczyk
Pelham	Rick Adamcek	Vacant
Peter Pan Bus Lines	Peter Picknelly, Jr.	Vacant
Pioneer Valley Railroad	David Pederson	Vacant
Pioneer Valley Transit Authority	Krystal Oldread	Vacant
Plainfield	Merton Taylor Jr.	Vacant
Russell	Pandora Hague	Vacant
South Hadley	Jim Reidy	Vacant
Southampton	Randall Kemp	Vacant
Southwick	Randy Brown	Richard Grannells
Springfield	Christopher Cignoli	Matthew Sokop/Peter Shumway
Tolland	James Deming	Kathleen Cowles
University of Massachusetts	Glen Barrington	Vacant
Wales	Bruce Cadieux	Jeff Vanais
Ware	Dick Kilhart	David Tworek
Western Massachusetts Economic Development Council	Vacant	Vacant
Westfield	Mark Cressotti	Vacant
Westhampton	David Blakesly	Arthur Pichette
West Springfield	James Czach	Vacant
Wilbraham	Tonya Bosch	Dena Grochmal
Williamsburg	William Turner	Vacant
Worthington	Cork Nugent	Vacant

TRANSPORTATION PLANNING STAFF

The Pioneer Valley Planning Commission employs a total of nine full-time transportation planners, one part time transportation planner, and at least one part-time transportation intern.

<u>Name</u>	<u>Title</u>
Rana Al Jammal	Senior Transportation Planner - Specialist
Julia Carey-Ruiz	Transit Planner
David Elvin	Principal Transit Planner
Alexander Forrest	Transit Planner II
Amir Kouzehkanani	Principal Transportation Planner – Manager
Andrew McCaul	Senior Transportation Planner II
Jeffrey McCollough	Senior Transportation Planner - Specialist
Khyati Parmar	Senior Transportation Planner II
Dana Roscoe	Principal Planner - Section Head
Gary Roux	Principal Planner - Section Head

STAFFING REPORT

The following PVPC staff members are expected to work on the FY2019 Unified Planning Work Program. The percentage of each staff member's time devoted to Transportation Planning Tasks as part of our MassDOT 3C and Section 5303 contracts is approximated under "% Time on Transportation".

<u>Staff</u>	<u>Position</u>	<u>% Time on Transportation</u>
Rana Al Jammal	Senior Transportation Planner - Specialist	75%
Julia Carey-Ruiz	Transit Planner	50%
Ray Centeno	Graphics Designer	25%
Jacob Dolinger	GIS Specialist	25%
Ashley Eaton	Land Use Planner	10%
David Elvin	Principal Transit Planner	51%
Alexander Forrest	Transit Planner II	50%
Patty Gambarini	Principal Environmental Planner	16%
Molly Goren-Watts	Principal Planner/Manager of Regional Information and Policy Center	13%
Amir Kouzehkanani	Principal Transportation Planner - Manager	80%
Andrew McCaul	Senior Transportation Planner II	86%
Jeffrey McCollough	Senior Transportation Planner - Specialist	78%
Corrin Meise-Munns	Land Use Planner	10%
Khyati Parmar	Senior Transportation Planner II	90%
Catherine Ratte	Principal Planner – Section Head	10%
Dana Roscoe	Principal Planner – Section Head	90%
Gary Roux	Principal Planner – Section Head	90%
Emily Slotnick	Land Use Planner	10%
Todd Zukowski	GIS/Cartographic – Section Head	25%
Transportation Intern	Intern	100%
Data Intern	Intern	25%
Vacant	Data Manager and Analyst	35%

Staff members that are estimated to spend less than 10% of their time on tasks associated with the MassDOT 3C and Section 5303 contracts must be approved by the MassDOT Office of Transportation Planning.

FUNDING PROFILE

	Total	FHWA 3C PL	MassDOT 3C Match	Local Match	FTA S. 5303	PVTA* S. 5303 Match	PVTA S. 5307	PVTA S. 5307 Match
1.0 Management & Certification of the 3C Process								
1.1 Management of the 3C Process	50,000	28,000	7,000		12,000	3,000		
1.2 Unified Planning Work Program	8,750	6,000	1,500		1,000	250		
1.3 Public Participation Process	20,500	10,400	2,600		6,000	1,500		
1.4 TIP Development	68,750	45,000	11,250		10,000	2,500		
1.5 Title VI and Environmental Justice	65,625	45,000	11,250		7,500	1,875		
Subtotal of Section 1.0	213,625	134,400	33,600		36,500	9,125		
2.0 Technical Support & Data Collection								
2.1 Traffic Counting	37,500	30,000	7,500					
2.2 Regional Travel Demand Modeling/Clean Air Planning	74,375	55,000	13,750		4,500	1,125		
2.3 GIS, Mapping and Graphics	72,500	39,000	9,750		7,000	1,750	12,000	3,000
2.4 Information Center	53,250	42,600	10,650					
2.5 Regional Congestion Management Process - Data Collection	13,750	11,000	2,750					
2.6 Regional Pavement Management System - Data Collection	31,250	25,000	6,250					
2.7 Regional Performance Measures Data Collection	12,500	10,000	2,500					
Subtotal of Section 2.0	295,125	212,600	53,150		11,500	2,875	12,000	3,000
3.0 RTP Planning								
3.1 Regional Bicycle, Pedestrian and Complete Streets Planning	50,000	40,000	10,000					
3.2 Transit System Surveys & Route Implementation	140,000				47,000	11,750	65,000	16,250
3.3 Regional Freight Planning	37,500	30,000	7,500					
3.4 Regional Congestion Management Process - Project Development	115,000	84,000	21,000		8,000	2,000		
3.5 Regional Pavement Management System - Project Development	42,500	34,000	8,500					
3.6 Regional Performance Measures Assessment	26,250	21,000	5,250					
3.7 Regional Safety and Planning Studies	132,193	100,754	25,189		5,000	1,250		
3.8 Intelligent Transportation Systems (ITS) and Regional Evacuation Planning	25,000	15,000	3,750		5,000	1,250		
3.9 Climate Change Implementation	18,000	14,400	3,600					
3.10 Green Streets and Infrastructure	18,000	14,400	3,600					
3.11 FY2020 RTP Update	101,250	65,000	16,250		16,000	4,000		
Subtotal of Section 3.0	705,693	418,554	104,639		81,000	20,250	65,000	16,250
4.0 Ongoing Transportation Planning								
4.1 Regional Transit Planning	207,069				79,655	19,914	86,000	21,500
4.2 Paratransit Planning Assistance	35,000				15,000	3,750	13,000	3,250
4.3 Implementing the Regional Land Use Plan	18,000	14,400	3,600					
4.4 Bike and Pedestrian Network and Bike Commute Week	19,000	15,200	3,800					
4.5 Local Technical Assistance	23,250	18,600	4,650					
4.6 Local Pavement Management Program	10,000			10,000				
4.7 Scenic Byways Support	12,500	10,000	2,500					
4.8 Bike Share Implementation	10,000	8,000	2,000					
Subtotal of Section 4.0	316,819	66,200	16,550	10,000	94,655	23,664	99,000	24,750
MassDOT 3C Direct Costs	24,500	19,600	4,900					
Program Sum	1,573,761	851,354	212,839	10,000	223,655	55,914	176,000	44,000

*PVTA S. 5303 match is 20% of total program amount only.

WORK ELEMENT 1 – MANAGEMENT AND CERTIFICATION OF THE 3C PROCESS

This work element encompasses the administration and support of the 3C transportation process and has been divided into the following tasks for FY 2019.

Task 1.1 Management of the 3C Process

OBJECTIVE:

To assist, support, and facilitate an open Comprehensive, Cooperative, and Continuing (3C) transportation planning and programming process at all levels of government in conformance with federal and state requirements as described in the 3C Memorandum of Understanding.

PREVIOUS WORK:

1. Management of the 3C process using previous Unified Planning Work Program and prospectus documents, transportation plans, Memorandum of Understanding, and Annual Review Reports.

PROPOSED ACTIVITIES:

1. Provide liaisons between PVPC communities, PVTa, private transportation providers, abutting regions and communities including the State of Connecticut, and other organizations at the local, regional, state, and federal levels on transportation related matters, issues and actions.
2. Work with the Metropolitan Planning Organization (MPO) and its constituent members. Present transportation plans, studies and programs developed through the 3C public participation process for appropriate MPO action.
3. Work with MassDOT and our federal partners to update the current MOU for the Springfield Urbanized Area to meet federal requirements tied to performance measures.
4. Coordinate required MPO caucuses to solicit recommendations for local MPO members.
5. Provide technical assistance to the Joint Transportation Committee and subgroups thereof.
6. Participate in the Massachusetts Transportation Managers Group as a means to continually improve the quality and operation of the transportation planning process.
7. Review and comment on federal and state transportation-related plans, programs, regulations and guidelines.
8. Provide transportation planning services in support of the PVPC's comprehensive planning programs.
9. Participate in informational transportation programs and courses. Review literature on new transportation planning procedures.
10. Work with FHWA and FTA to implement recommendations from our most recent certification review and prepare for our next certification review tentatively set for December 2018.

PRODUCTS:

1. Technical memoranda and reports as needed.
2. Monthly Invoices (completed monthly).
3. Updates to certification documents as required.
4. MPO meeting minutes(completed monthly).
5. Updated MOU for the Springfield Urbanized Area.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$ 28,000	14 weeks
MassDOT (20% match)	\$ 7,000	4 weeks
FTA S.5303	\$ 15,000	8 weeks
TOTAL	\$50,000	26 weeks

Direct Labor	\$22,604
Indirect Costs	\$27,396

Task 1.2 Unified Planning Work Program**OBJECTIVE:**

To prepare and maintain a Unified Planning Work Program (UPWP) of state and federally funded transportation planning activities in the PVPC region. The UPWP will include a summary of the estimated funding source(s) for each task and be completed in conformance with applicable federal, state, and regional guidelines.

PREVIOUS WORK:

1. Pioneer Valley Unified Work Programs 1974 - 2018.

PROPOSED ACTIVITIES:

1. Review and amend relevant portions of the PVPC's UPWP in order to meet new planning requirements and/or circumstances pertinent to the region's transportation sector. Circulate revisions to the appropriate agencies for review and/or endorsement.
2. Develop a new UPWP for the Pioneer Valley MPO covering the next federal fiscal year. The development of a new UPWP will be prepared in cooperation with the Regional Joint Transportation Committee (JTC) and MPO and subject to the current Public Participation Plan.
3. Update the Title VI Equity Analysis of the geographical distribution of UPWP planning activities in the PVPC region.
4. Perform outreach to member communities to identify potential transportation planning activities for inclusion in the UPWP.

PRODUCTS:

1. Amendments to the current UPWP as necessary.
2. UPWP for the next program year (FFY 2019). The estimated completion date is May 2019. Public engagement is estimated to begin in March 2019.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$6,000	3 weeks
MassDOT (20% match)	\$1,500	1 week
FTA S.5303	\$1,250	1 week
TOTAL	\$8,750	5 weeks

Direct Labor	\$3,956
Indirect Costs	\$4,794

Task 1.3 Public Participation Process

OBJECTIVE:

PVPC will work to assess the effectiveness of the public participation process and to develop enhanced regional involvement in support of the objectives of the FAST ACT. To provide the public with complete information, timely notice, full access to key decisions and opportunities for early and continuing involvement in the 3C process. PVPC will engage in efforts to foster an inclusive involvement in the transportation decision making through a commitment to early and continuous opportunities for the public to be involved in the identification of social, economic and environmental impacts of transportation. PVPC will reach beyond traditional stakeholders to identify populations and strategies to engage and seek input.

The elements of this effort listed below constitute the best practices already used by PVPC and also incorporated best practices from MassDOT, FTA, FHWA other transportation agencies. This inclusive public participation process is continually improving and expanding to include contacts with community-based organizations and under-represented populations.

PREVIOUS WORK:

1. Adopted MassDOT's new Public Participation Process.
2. Expanded stakeholder outreach and capacity building.
3. Upgraded audio equipment for public meetings to comply with new state regulations.
4. Use of social media including Twitter, Facebook, and the PVPC webpage.
5. Press releases announcing transportation projects and events

PROPOSED ACTIVITIES:

1. Incorporate new guidance from FTA and FHWA and MassDOT into the planning process.
2. Apply the Public Participation Process to transportation programs and tasks to: prepare for public meetings; attend public meetings; perform outreach to increase public participation; inform and educate residents and employers of the region about transportation legislation and PVPC activities.
3. Update and revise the MPO online content to maintain current information on transportation studies and ongoing projects.
4. Incorporate new performance measures for the Public Participation Process and implement changes as needed and track these metrics.
5. Explore alternative media outlets for reaching the Limited English Proficient (LEP) population in the region.
6. Network with social service agencies, neighborhood groups and community organizations to enhance existing outreach.
7. Coordinate public participation with ongoing Environmental Justice Planning.

PRODUCTS:

1. Meeting minutes.
2. Press releases for transportation projects (as necessary).
3. Web based information distribution.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$10,400	8 weeks
MassDOT (20% match)	\$ 2,600	2 weeks
FTA S.5303	\$ 7,500	4 weeks
TOTAL	\$20,500	14 weeks

Direct Labor	\$ 9,268
Indirect Costs	\$11,232

Task 1.4 Transportation Improvement Plan (TIP) Development**OBJECTIVE:**

PVPC staff will continue to innovate in the way that the TIP is developed and the public is informed about the TIP process. Staff will work closely with federal, state and municipal partners to ensure that the process meets all federal, state and local requirements including FAST Act and both the Massachusetts GreenDOT and Healthy Transportation Policies. The PVMPO with assistance from PVPC Staff, the JTC, and MassDOT will evaluate and prioritize a listing of Regional Significant improvement projects to be considered for funding in TIP. During this process, staff will work to ensure the TIP is fiscally constrained. Once completed, the MPO will then endorse the TIP for inclusion in the State Transportation Improvement Program (STIP).

PREVIOUS WORK:

1. Pioneer Valley Transportation Improvement Programs 1974 – 2018
2. Updates to the Transportation Improvement Program Database
3. Annual Transportation Evaluation Criteria (TEC) Forms Update
4. Annual TEC summary sheet to assist in populating the Draft TIP.
5. TIP Project locations mapped using GPS
6. Regional Equity Analysis

PROPOSED ACTIVITIES:

1. Update and improve PVPC's database of transportation projects. Data will satisfy the requirements of the Metropolitan Planning Rules. The MassDOT "Grants Plus +" system will be used to develop the Transit TIP.
2. Assist communities with the development of new TIP project through the MassDOT MaPIT online tool.
3. Assist the JTC in utilizing project evaluation criteria to develop a financially constrained project listing for each program year.
4. Maintain the financial element for all years of the TIP. Financial constraint will be maintained based on funding targets provided by MassDOT.
5. Present air quality conformity findings and Greenhouse Gas emissions calculations. Analyses and documentation will satisfy the requirements of the Metropolitan Planning Rules and be consistent with the Massachusetts Global Warming Solutions Act.
6. Conduct appropriate public participation for the TIP consistent with the public participation plan for the region.
7. Conduct formal amendments and adjustments as necessary.
8. Provide links on the PVPC web site for communities to access current as well as archived TIP documents and project information.

9. Map all projects programmed on the TIP for use in PVPC analysis.
10. Update regional equity analysis based on new 2019-2023 TIP
11. Work with JTC and MPO to update TEC forms to meet FHWA/FTA requirements.

PRODUCTS:

1. FFY 2020 - 2024 Transportation Improvement Program. The estimated completion date is May 2019. Public engagement is estimated to begin in January 2019.
2. TIP Amendments and Adjustments as necessary.
3. Summary report for comments received during public review for amendments made to the TIP. June 2019.
4. Ranked list of evaluated TIP projects, with corresponding TEC sheets. March 2019.
5. Map displaying the 5 years of programmed projects available online. August 2019.
6. TIP webpage providing all pertinent project information. August 2019.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$45,000	22 weeks
MassDOT (20% match)	\$11,250	6 weeks
FTA S.5303	\$12,500	6 weeks
TOTAL	\$68,750	34 weeks

Direct Labor	\$31,080
Indirect Costs	\$37,670

Task 1.5 Title VI and Environmental Justice

OBJECTIVE:

In compliance with Federal Statutes to assure that no person shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity and to provide meaningful language access to persons who are limited English proficient. Also, in compliance with Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" to make achieving environmental justice part of the MPO's mission" to achieve "environmental justice by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low income populations." Efforts include the identification under represented populations within the Region to seek input on the transportation planning process. Tasks outlined in this section will assist PVPC in identifying Title VI responsibilities and addressing environmental justice and social equity issues as part of its transportation planning process. These specific tasks address the goals of the RTP, Limited English Proficiency Plan, to enhance the existing public participation process, better identify protected populations, engage low income and minority populations, and develop performance measures to evaluate transportation deficiencies, benefits, and burdens. Staff will continue to improve its planning process to ensure that it is conducted in accordance with Title VI of the Civil Right Act of 1964, the revised FHWA/FTA guidance on Limited English Proficiency (LEP), and requirements of Executive Order 12898 (Environmental Justice) to give full and fair consideration to all residents in the region.

PREVIOUS WORK:

1. Updated the Four Factor analysis PVPC uses to formulate a Language Access Plan as required under Executive Order 13166. Evaluated alternatives under the Safe Harbor Provisions. Updated language data using revised ACS census data issued in December of 2016.
2. Expanded membership on the Pioneer Valley Joint Transportation Committee (JTC) to include representatives from the Stravos, Walk Boston, and the Westfield Columbia Greenway.
3. Staff attended training workshop and presentation on discrimination awareness in commemoration of the contributions of Jackie Robinson.
4. Revised the Public Participation Plan to incorporate Title VI and LEP components consistent with MassDOT.
5. Revised the TIP scoring criteria to reflect EJ and Title VI.
6. Developed bilingual public notices for the Transportation Improvement Plan and the Regional Transportation Plan. Explored options for reaching Spanish speaking residents through “alternative” local newspapers.
7. Updated and submitted revised Title VI program to MassDOT Office of Diversity and Civil Rights (ODCR) and FTA.

PROPOSED ACTIVITIES:

1. Implement use of the MassDOT “Engage Tool” to improve public outreach and interaction with the public.
2. Revise and update the database of community contacts including email addresses of non-profit and community based organizations.
3. Work closely with the MassDOT Title VI Specialist to assess jurisdictional responsibilities and maintain an open dialogue.
4. Enhance training opportunities for staff regarding federal revisions to Title VI, LEP and EJ. Work with MassDOT, Massachusetts RPAs, and local partners to identify best practices to improve LEP and Environmental Justice outreach and planning.
5. Provide the MassDOT Title VI Specialist with an annual update of documented complaints, Title VI related activities, and progress in implementing Title VI programs.
6. Update Title VI Mapping tools for Title VI and EJ populations for PVPC communities.
7. Sign Certification and Assurances as put out by FTA/FHWA. Include Title VI language (as referenced by FHWA) into contracts with third party consultants advising entities of Title VI obligations.
8. Regularly monitor the benefits and burdens of transportation projects and conduct ongoing analysis of ways to engage all groups within the region and to increase participation in the transportation planning process.
9. Distribute Notice of Beneficiaries to community organizations and relevant contacts as identified in the Public Participation Plan
10. Continue to seek out stakeholders and meet with regional organizations and groups that work with the Environmental Justice Community to facilitate and coordinate participation in the regional transportation planning process and expand the database of email contacts.
11. Develop bilingual surveys for PVTa and bilingual public notices for the Transportation Improvement Plan and the Unified Planning Work Program to provide increased opportunities for under-served populations to be represented in the public participation process.

PRODUCTS:

1. Revised public outreach using the “Engage Tool.”
2. Annual report to MassDOT on EJ, Title VI and LEP.
3. Updated maps of Title VI protected population demographics and related impacts.
4. Updated database of email contacts for community groups and relevant non-profits.
5. Expanded posting of the Notice to Beneficiaries including language translations to new MassDOT requirements.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$45,000	22 weeks
MassDOT (20% match)	\$11,250	6 weeks
FTA S.5303	\$ 9,375	5 weeks
TOTAL	\$65,625	33 weeks

Direct Labor	\$29,668
Indirect Costs	\$35,957

WORK ELEMENT 2 - TECHNICAL SUPPORT & DATA COLLECTION

This element outlines specific activities to be conducted in support of transportation planning tasks described in other UPWP elements.

Task 2.1 Traffic Counting

OBJECTIVE:

To provide accurate and efficient traffic data collection services to support MassDOT, the PVPC's 43 member communities, and planning tasks included in the FY2019 UPWP.

PREVIOUS WORK:

1. Regional Traffic Counting Program 1985 - 2018.
2. Data collection and analysis as part of Highway Performance Monitoring System (HPMS).
3. Traffic count library and database at PVPC.
4. Regional Traffic Counts, 2011 – 2015.
5. Updates to MassDOT MS2 traffic count site

PROPOSED ACTIVITIES:

1. Collect 48 hour Automatic Traffic Recorder (ATR) count data. Work with MassDOT to utilize the Collector for ArcGIS mobile app to GeoCode traffic count locations providing coordinates for each count station.
2. Provide up to 2 free daily traffic counts per member community on request.
3. Collect HPMS data and perform analysis, as requested by MassDOT.
4. Collect Turning Movement Count (TMC) data as requested by MassDOT and member communities.
5. Upload all ATR count data into the MassDOT MS2 website.
6. Collect daily and peak hour traffic count data to support UPWP tasks such as the Regional Transportation Model, Local Technical Assistance, the Regional Pavement Management System, and the Regional Congestion Management Process.
7. Continue to update the PVPC traffic count database by incorporating truck percentages for locations whose vehicle classification data is available.
8. Collect bicycle and pedestrian volumes at pre-determined locations.
9. Update the PVPC's Traffic count database to include ATR counts for the most recent count year.

PRODUCTS:

1. Summary reports of daily traffic count information for the region. Ongoing task.
2. PVPC web page Average Daily Traffic counts by community. Ongoing task.
3. Document traffic counts for other UPWP tasks as necessary.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$30,000	17 weeks
MassDOT (20% match)	\$ 7,500	4 weeks
TOTAL	\$37,500	21 weeks

Direct Labor	\$16,953
Indirect Costs	\$20,547

Task 2.2 Regional Travel Demand Modeling/Clean Air Planning

OBJECTIVE:

Develop and maintain a baseline travel demand model to estimate future travel demand, calculate vehicles miles traveled, and forecast long range transportation needs. Support local and regional sustainability and livability initiatives through analysis of corridors and projects in terms of circulation impacts and Green House Gas emission reductions. Address the transportation sector's regional impact on air pollution and climate change by estimating travel demand and the effectiveness of mitigation strategies.

PREVIOUS WORK:

1. Reviewed Projections for Community Based Population, Households, and Employment for use in the 2020 Regional Travel Demand Update as well as use in Future Model Years 2020, 2030, and 2040 (September 2018).
2. Revised the speed and capacity lookup table used to set the attributes of roadway links by functional class values in the regional model network (August 2018).
3. Scenario Analysis: Identified potential construction and long term impacts of proposed transportation improvements to the Route 147 (Memorial Avenue) corridor and the reconstruction of the Morgan-Sullivan bridge in the towns of Agawam and West Springfield (September 2017).
4. Technical Memo: Regional Congestion Analysis Comparing Volume to Capacity Ratios for major routes between base year 2010 model and the future build year 2040 (May 2017).

PROPOSED ACTIVITIES:

1. Update the traffic count database with current Average Daily Traffic data at community lines and external stations gathered from in-house traffic counts as well as from surrounding planning agencies (October 2018).
2. Continue efforts that began in 2017 to improve the 2010 base model for the PVPC region. A comparison of before and after Toll plaza removal on I-90. Automated Toll collection and interchange exit and entry points need to be accounted for in a more robust fashion using TransCAD's options of toll links as opposed to using penalties and to account for future high-speed toll collection (November 2018).
3. Recalibrate the 2010 base year model to reflect the recent toll plaza removal on the Massachusetts Turnpike (December 2018).
4. Route 20 corridor seasonal analysis during the weeks of the Brimfield Antique Flea Market (February 2019).
5. Commence Outreach Efforts in preparation for the 2020 Census Complete Count Committee (May 2019).
6. Obtain up to date information on non-exempt regional projects for inclusion in the statewide model from the Office of Transportation Planning (ongoing).
7. Perform air quality conformity determinations for TIP projects to be funded under the Congestion Mitigation and Air Quality (CMAQ) program and for potential projects applying for funding under the Transportation Demand Management (TDM) program (ongoing).
8. Perform Greenhouse Gas emissions calculations for projects included in the TIP consistent with the Massachusetts Global Warming Solutions Act (ongoing).

9. Provide supporting data from the regional travel model to communities and MassDOT upon request (ongoing).
10. Utilize the regional travel model to assist in the development of future build out estimates of transportation planning activities (ongoing).
11. Estimate effects of transportation improvement projects on communities by activating local roadway links within the regional model (as needed).
12. Coordinate regional travel demand model data with MassDOT, surrounding Massachusetts RPAs, and the Capital Region Council of Governments.

PRODUCTS:

1. Refinement and maintenance of the regional travel demand model. (ongoing)
2. Air quality conformity and greenhouse gas analysis in support of the TIP. April 2019.
3. Before and After Toll Plaza Removal Analysis. December 2018.
4. Route 20 Brimfield project analysis results. February 2019.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$55,000	27 weeks
MassDOT (20% match)	\$13,750	7 weeks
FTA S. 5303	\$ 5,625	2 weeks
TOTAL	\$74,375	36 weeks

Direct Labor	\$33,623
Indirect Costs	\$40,752

Task 2.3 GIS, Mapping and Graphics

OBJECTIVE:

This on-going effort collects, maintains and creates geo-spatial data that supports the overarching performance initiatives of the FAST Act and the project-specific goals outlined in this UPWP. Through these activities, PVPC GIS/Graphics staff will provide planners and government partners with traditional GIS mapping products intended to support their 3C planning processes and decision-making. Additionally, PVPC GIS/Graphics staff continually works on updates to existing data layers to enhance access to the general public through online GIS mapping and enhanced web content for planning project information.

PREVIOUS WORK:

1. Created and maintained GIS regional bus system database; including updates to the transit system map, preparation of individual maps and schedules, regional transit service analysis, and support to PVRTA web page. (Ongoing Task)
2. Acquired, revised and integrated relevant GIS spatial data/map coverage generated at local, state and federal levels into Pioneer Valley regional projects, including: road centerlines, road names, updated municipal zoning, land use, parcel, and critical public infrastructure data. (Ongoing Task)
3. Developed, enhanced, and maintained several spatial data layers to support transportation-related projects, including: functional classification of roads, traffic count locations, congestion management, parking facilities, signalization, pavement conditions, regional bicycle and pedestrian infrastructure, ADA transit service area, areas of regional growth, etc. (Ongoing Task)

4. Continued to support and participate in the statewide GIS Advisory Committee, Western Massachusetts GIS User group, and direct assistance to Pioneer Valley communities. (Ongoing Task).
5. Created, updated, and maintained new online interactive ESRI map analysis tool for PVRTA bus stop consolidation, optimization, and public information.

PROPOSED ACTIVITIES:

1. Drone deployment to collect video/photos for use in transportation-related analyses, public participation and public information efforts, presentations and web content. (Ongoing Task)
2. Continue to develop and implement management strategies, which address staff training, establish agency data standards and data collection protocol, and conformance to map design that can be applied to all GIS products. (Ongoing Task)
3. Pursue the use of GIS and other automated mapping and spatial analytical technologies for transportation applications. Enhance existing digital base map data and develop geographically referenced data layers for use in transit service analysis, regional land use and smart growth planning activities, emergency response, critical infrastructure assessment, public works and pavement management, and transportation system planning. (Ongoing Task)
4. Integrate information generated to support transit and transportation management systems into the GIS. Create maps and graphics to promote understanding of related issues. (Ongoing Task)
5. Work with state and federal agencies to review, correct and enhance regional GIS map coverage and related data to meet state and federal standards and support development to Homeland Security and pre-disaster mitigation spatial data for western Massachusetts. (Ongoing Task)
6. Work with PVPC staff to assimilate state and federal data and data structure (i.e., road centerline/road inventory) into the Commission's database and analytic modeling programs. (Ongoing Task)
7. Improve access and use of web-based GIS data/analysis, online data and map products.
8. Promote the agency and its efforts to resolve regional issues through published materials, thematic maps, and distribution of information over the worldwide web, and educational multi-media presentations. (Ongoing Task).
9. Continuing support for transit planning services to PVRTA, including graphic layout, updates, and print production management of bus schedules and maps; updates and enhancements to the ESRI online bus stop and route analysis and public outreach tool; and graphic design and production of rider guides, public information and vital documents.

PRODUCTS:

1. Development of new and enhanced digital data layers. As needed.
2. Update to municipal planimetric base maps as necessary.
3. Transportation systems facility and planning maps. As needed.
4. Expand, update and maintain the GIS website. As necessary.
5. Development of regional spatial data to support federal and state initiatives. As necessary.
6. Update centerline/road inventory and functionally classified roads, as necessary.
7. Maintenance, updates, and enhancements to ESRI online bus stop and route analysis interface.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$39,000	20 weeks
MassDOT (20% match)	\$ 9,750	5 weeks
FTA S. 5303	\$ 8,750	4 weeks
PVTA S. 5307	\$15,000	8 weeks
TOTAL	\$72,500	37 weeks

Direct Labor	\$32,776
Indirect Costs	\$39,724

Task 2.4 Information Center

OBJECTIVE:

Support the initiatives and goals of the FAST Act by serving as a regional data and analysis resource to transportation, economic development, land use, and municipal planning staff throughout the region. In particular, this Task will provide data and resources to support Task 2.7 Regional Performance Measures Development. The focus will continue to be placed on collecting and summarizing data from multiple sources to provide digital and print products that will inform stakeholders and support ongoing transportation activities. The Information Center focuses on assisting multiple partners to develop positive outcomes through a collaborative examination of data.

PREVIOUS WORK:

1. Updated regional and municipal level population, household, and employment projections which comply with the new 2010 Census and assisted transportation staff in integrating this into the transportation model.
2. Data Digest report focused on commute times and patterns with the Pioneer Valley surrounding major employment centers within the region.
3. Continued data updates in the development of updated definitions of Environmental Justice populations for the Pioneer Valley Region.
4. Analyzed labor market for proposed regional passenger rail project.
5. Developed and maintain a data downloads website available to regional planners and the public. www.pioneervalleydata.org
6. Incorporated relevant safety data and regional performance target data into regional database. Will continue to update annually.

PROPOSED ACTIVITIES:

1. Collect and analyze data regarding current transportation, economic development, land use, and municipal planning issues. This is an ongoing, annual task.
2. Assist decision makers and community members in making informed decisions about their community by sharing information widely. This activity continues to focus on making data easily available and understandable, using a variety of sources including the American Community Survey, the Economic Census, Census population estimates, municipal finance data, current economic indicators, and labor market information that will assist in positive transportation planning and decision making. Continued maintenance and improvements to data access through the PVPC website. This is an ongoing, annual task.
3. Respond to requests for data and analysis from municipalities and other external stakeholders as requested.
4. Maintain regional data indicators related to socio-economics, transportation, and sustainability to include in State of the Region

database, websites, and community and regional profiles. This is an ongoing, annual task.

5. Continue to incorporate relevant safety data and regional performance target data into the annual State of the Region database as appropriate.
6. Update data for Pioneer Valley region's Environmental Justice definitions and assist with the use of these definitions and data in mapping activities and transportation planning efforts. Ensure consistency of Environmental Justice definitions across all planning areas of the PVPC. Continue to maintain and improve the Information Center's regional database to integrate transportation, demographic, economic, health, education and municipal data. This is an ongoing, annual task.
7. Continue to maintain the integration of transportation related initiatives within the regional economic development plan. This is an ongoing, annual task.
8. Provide support to transportation planners as they update the regional transportation model with the most up to date population and employment data and projections for future analysis. This is an ongoing, annual task.
9. Continue to maintain region wide data indicators with updated data and analysis on the State of the Pioneer Valley website to measure progress and needs of the region in the areas of transportation, economic development, and health. This is an ongoing, annual task.
10. Maintain online data dashboard monitoring trends in key transportation indicators. This is an ongoing, annual task.

PRODUCTS:

1. Maintain information systems of socio-economic and disparate data. Ongoing task.
2. Region wide data indicators updates to be conducted in December 2018 and May-July 2019.
3. PVPC website updates and maintenance. Ongoing task.
4. Maintain online data dashboard monitoring trends in key transportation indicators. Ongoing task.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$42,600	21 weeks
MassDOT (20% match)	\$10,650	5 weeks
TOTAL	\$53,250	26 weeks

Direct Labor	\$24,073
Indirect Costs	\$29,177

Task 2.5 Regional Congestion Management Process (CMP) - Data Collection

OBJECTIVE:

Under this task PVPC staff will continue to modernize data collection and processing for the CMP and related projects. Staff will continue to integrate ESRI GIS and the National Performance Management Research Data Set (NPMRDS) into the CMP and Top Bottlenecks in the Pioneer Valley Region. PVPC will continue to explore other data sources for inclusion in our congestion studies.

PREVIOUS WORK:

1. Analysis of data to update top congested corridors and regional bottlenecks

- Travel time data runs to verify congested areas and document the effectiveness of recently completed transportation improvement projects.
- Regional Park and Ride Lot data collection.
- Analysis of PVTA user surveys to identify the number of daily riders per CMP corridor.
- GIS based data analysis on CMP corridors
- Excel and GIS analysis tool for use with NPMRDS

PROPOSED ACTIVITIES:

- Collect data for CMP problem verification, studies, regional model calibration, and transportation monitoring.
- Collect transit travel time, delay, percentage of riders making transfers, and other appropriate performance measure data to assist in the identification of congested corridors.
- Collect data at existing park and ride facilities and truck rest stops in the region.
- Monitor CMP performance measures and update data as appropriate.
- Collect Greenhouse Gas (GHG) samples at all park and ride lots

PRODUCTS:

- Updated Pioneer Valley CMP Database. Ongoing task.
- Updated regional performance measures. Ongoing task.
- New Formula for Ranking Congestion in the Pioneer Valley Region.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$11,000	6 weeks
MassDOT (20% match)	<u>\$ 2,750</u>	<u>2 weeks</u>
TOTAL	\$13,750	8 weeks

Direct Labor	\$6,216
Indirect Costs	\$7,534

Task 2.6 Regional Pavement Management System - Data Collection

OBJECTIVE:

Develop and maintain an updated pavement distress database for the Pioneer Valley Regional Pavement Management System (RPMS) on all federal aid eligible roadways. PVPC staff collects pavement distress data based on a 4-year cycle. This is an ongoing task.

PREVIOUS WORK:

- Development of PVPC regional PMS database.
- Collection of roadway pavement distress data roadway geometry and roadway condition information for all federal aid eligible roadways in the PVPC region.
- Completed roadway pavement distress data collection in Southamptton, Amherst, South Hadley, Ludlow, and Wilbraham.
- Development of Roadway Overall Condition Index (OCI) to assist in the evaluation and prioritization of proposed transportation improvement projects.

PROPOSED ACTIVITIES:

- Collect roadway pavement distress data on all federal aid roadways in Plainfield, Goshen, Cummington, East Longmeadow, Worthington, Chesterfield, and Springfield.

2. Collect and verify additional roadway information such as posted speed, shoulder width, functional class, curb reveal, area zoning, width, segment length, and special route designations.
3. Collect roadway pavement distress and condition information for proposed transportation improvement projects in the region to continue to assist in the regional project evaluation process.
4. Continue to maintain and update the MassDOT Roadway Inventory database for the Pioneer Valley Region and submit findings to MassDOT as requested.
5. Continue to conduct quality control checks of pavement inventory and condition data.
6. Provide technical assistance to other Massachusetts RPAs with pavement management as necessary.

PRODUCTS:

1. Pioneer Valley regional PMS Database. Ongoing task.
2. Region existing Overall Condition Index (OCI) Maps. Ongoing task.
3. Community existing OCI Maps. Ongoing task.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$25,000	13 weeks
MassDOT (20% match)	\$ 6,250	4 weeks
TOTAL	\$31,250	17 weeks

Direct Labor	\$14,127
Indirect Costs	\$17,123

Task 2.7 Regional Performance Measures

OBJECTIVE:

Collect data to evaluate regional performance measures as defined in the FAST Act and as established by the Commonwealth of Massachusetts and Pioneer Valley MPO. This task will support planning activities included as part of Tasks 1.4, 3.3, 3.4, 3.5, and 3.6.

PREVIOUS WORK:

1. Regional Congestion Management Process
2. TEC data collection for TIP projects

PROPOSED ACTIVITIES:

1. Work with MassDOT, the JTC and MPO to update the status and effectiveness of established regional performance measures as necessary.
2. Collect, monitor, and maintain data to document the status of current regional performance measures and performance targets.
3. Collect and monitor data as related to the regional performance measures identified as part of the FAST Act.
4. Evaluate regional performance measures based on accepted methodology in consultation with MassDOT, PVTA, FHWA, and FTA.

PRODUCTS:

1. Update Regional Performance Measures database. Ongoing task.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$ 10,000	5 weeks
MassDOT (20% match)	\$ 2,500	1 week
TOTAL	\$ 12,500	6 weeks

Direct Labor	\$ 5,651
Indirect Costs	\$ 6,849

WORK ELEMENT 3 - REGIONAL TRANSPORTATION PLANNING

This work element provides transportation planning that directly supports the development of projects included in the Regional Transportation Plan (RTP) or the development of RTPs.

Task 3.1 Regional Bicycle, Pedestrian and Complete Streets Planning

OBJECTIVE:

Provide support for local and regional efforts to adopt and implement a “Complete Streets” approach to create neighborhoods, village centers and city streets that safely accommodate all modes of transportation. To implement the goals and objectives of the Regional Transportation Plan with respect to bicycling and walking. To assist the State of Massachusetts in reaching mode shift goals and to advance directives outlined in the Massachusetts Complete Streets Initiatives promoting healthy transportation options such as walking and bicycling for all residents of the Pioneer Valley.

PREVIOUS WORK:

1. FHWA sponsor training workshop; “Incorporating On-Road bicycle Networks into Resurfacing Projects.”
2. South Hadley Bike Ped Study
3. Updated bicycle and pedestrian crash clusters
4. Coordinated efforts related to municipal participation in the “Massachusetts Complete Streets Program.”

PROPOSED ACTIVITIES:

1. Develop documentation on PVPC’s automated bicycle and pedestrian counting program for review by MassDOT and work with the JTC’s Bicycle, Pedestrian, and Complete Streets subcommittee to identify count locations in FY 2019.
2. Work with the JTC’s Bicycle, Pedestrian, and Complete Streets subcommittee to ensure consistency with the RTP, implement sustainable transportation strategies and continue the regional on-road bicycle lane counting program.
3. Revise online mapping tools for regionally significant bicycle facilities.
4. Assist local communities in efforts related to Complete Streets policy initiatives, projects and the development of complete Prioritization Plans.
5. Participate in the Massachusetts Statewide Bicycle Advisory Board.
6. Review regional pedestrian and bicycle connections in the regional transportation system to identify gaps.
7. Participate in the Regional Bike Share Committee meetings.
8. PVPC will work with MassDOT and the JTC’s Bicycle, Pedestrian, and Complete Streets subcommittee to identify an appropriate metric to measure “bikeability” in the region. Specifically, models for bikeway network assessment such as Bicycle Level of Service (BLOS), Bicycle Suitability Score (BSS), Bicycle Compatibility Index (BCI), Bicycle Suitability Assessment (BSA), Bicycle Stress Level (BSL), and mentally-mapping of perceived cycling risk using Generalized Linear Mixed Modeling will be assessed to determine what specific elements are appropriate for the region and how they can be best applied for use in regional planning efforts.

PRODUCTS:

1. JTC Bicycle Advisory Committee meeting minutes and notices. Monthly.
2. Updated online regional bikeways map product.
3. Bicycle facility volume counts
4. Regional Bikeability Metric definition.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$40,000	20 weeks
MassDOT (20% match)	\$10,000	5 weeks
TOTAL	\$50,000	25 weeks

Direct Labor	\$22,604
Indirect Costs	\$27,396

Task 3.2 Transit System Surveys and Route Implementation**OBJECTIVE:**

To work closely with PVRTA to survey, monitor, and evaluate the quality of fixed route and paratransit services with respect to customer satisfaction, operational performance, and compliance with ADA and Title VI regulations.

PREVIOUS WORK:

1. Fixed route Mystery Rider onboard service quality observations and reports.
2. Paratransit Mystery Rider onboard ADA van service quality field observations and reports.
3. Customer surveys and engagement at public hearings, rider forums, online, and at outreach events.
4. Customer surveys and engagement for update of public participation plan.
5. Survey of Springfield residents for bus stop consolidation project.
6. Production of bus stop signs and other customer service information for implementation of route service changes.

PROPOSED ACTIVITIES:

1. Southern service area fixed route onboard customer survey. September 2019.
2. Fixed route Mystery Rider onboard service quality observations, including ADA and Title VI compliance. Ongoing task.
3. Paratransit Mystery Rider onboard service quality observations, including ADA and Title VI compliance. Ongoing task.
4. Rider surveys on specific routes, as requested.

PRODUCTS:

1. Southern system onboard rider survey data and report. September 2019.
2. Fixed route Mystery Rider quarterly reports.
3. Paratransit Mystery Rider quarterly reports.
4. Rider surveys of individual routes. As requested.
5. Other technical assistance for surveys and route implementation. As requested.

Source	Budget	Est. Staff Effort
FTA S. 5303	\$ 58,750	29 weeks
PVTA S. 5307	\$ 81,250	41 weeks
TOTAL	\$140,000	70 weeks

Direct Labor	\$63,291
Indirect Costs	\$76,709

Task 3.3 Regional Freight Planning**OBJECTIVE:**

Work with appropriate public and private partners to plan for the efficient movement of freight. Freight modes covered under this task include rail, truck, air (when applicable), water (when applicable) and pipelines. This task incorporates the freight planning requirements of the FAST Act and recommendations specific to the Pioneer Valley MPO included in the Massachusetts State Freight Plan.

PREVIOUS WORK

1. Regional Freight Plan Congestion Survey.
2. Urban and Rural Critical Freight Corridors.
3. Massachusetts State Freight Plan Working Group.

PROPOSED ACTIVITIES:

1. Coordinate and cooperate with affected constituencies, both decision makers and stakeholders, from the public and private sectors to identify regional freight bottlenecks and improve conditions for the movement of freight in and out of the region. Ongoing task.
2. Work with MassDOT and Pan Am officials to assure that passenger rail service on the Conn River line will not adversely impact freight rail traffic. Continue to work with MassDOT to identify any adverse impacts to freight movement resulting from the proposed Inland Route for passenger rail service. Ongoing task.
3. Participate in FHWA web conferences, and other related workshops and conferences regarding new freight requirements included in the FAST Act. As necessary.
4. Continue to work with the Capital Region Council of Governments (CRCOG) and the Vermont Agency of Transportation (VTRANS) to address regional freight issues and improve the movement of goods between Hartford and Springfield as well as northern core cities.
5. Utilize FHWA's Freight Analysis Framework (FAF) data to assess freight origin and destination flows through the region. Ongoing Task
6. Finalize the Regional Freight Plan for the Pioneer Valley MPO. December 2018.
7. Collect data as necessary on Urban and Rural Critical Freight Corridors in the Pioneer Valley MPO.

PRODUCTS:

1. Technical reports, memoranda, surveys, computerized databases, GIS and other map products, meetings, workshops, forums, grant applications, project proposals, etc. which are produced in conjunction with the execution of this work task. As needed.
2. Final Regional Freight Plan. December 2018.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$30,000	15 weeks
MassDOT (20% match)	\$ 7,500	4 weeks
TOTAL	\$37,500	19 weeks

Direct Labor	\$16,953
Indirect Costs	\$20,547

Task 3.4 Regional Congestion Management Process-Project Development**OBJECTIVE:**

The Pioneer Valley CMP is a tool used by staff to identify and monitor congestion of all transportation modes. Through this task staff will continue to use performance based planning to track how improvement projects have impacted congestion both on the local level and on the regional level. Staff will continue to use the CMP to identify locations in the region requiring additional analysis through the UPWP. The CMP will be used to assist in the development of the TIP, the RTP, and the UPWP.

PREVIOUS WORK:

1. Downtown Signal Coordination Study – Ware
2. I-391 Ramp Congestion Study
3. Route 10 at South Street Study – Easthampton

PROPOSED ACTIVITIES:

1. Work on updating the regional CMP performance measures according to the FAST Act guidelines.
2. Update CMP corridors in coordination with the JTC.
3. Update the Regional Corridor Congestion Ranking based on NPMRDS data.
4. Travel time runs to support ongoing congestion studies in the Pioneer Valley.
5. Update the Regional Travel Time Contours for the Pioneer Valley Region.
6. Serve on the Working Group for MassDOT's I-90 Massachusetts Turnpike Interchange Study.
7. Assist the City of Springfield and surrounding communities with review and analysis associated with the new MGM Springfield Casino. Staff will assist in review of "before and after" traffic data and its impact on the regional transportation system.
8. The intersections of Roosevelt Avenue with Island Pond Road and Alden Street in the City of Springfield, MA will be analyzed to identify the effectiveness of a recently completed TIP project on improving peak hour congestion.

PRODUCTS:

1. CMP Corridor updates for RTP. Spring 2019
2. Regional Corridor Congestion Ranking based on NPMRDS data. September 2019
3. Before and after TIP project analysis. Summer 2019.
4. Regional Travel Time Contours. Summer 2019

5. MGM Casino Traffic Impacts Analysis. As necessary.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$ 84,000	42 weeks
MassDOT (20% match)	\$ 21,000	10 weeks
FTA S. 5303	\$ 10,000	5 weeks
TOTAL	\$115,000	57 weeks

Direct Labor	\$51,989
Indirect Costs	\$63,011

Task 3.5 Regional Pavement Management System - Project Development

OBJECTIVE:

To maintain a regional Pavement Management System on all federal aid eligible roadways and prioritize regional pavement improvement projects. This task analyzes the data collected as part of Task 2.6. This is an ongoing task.

PREVIOUS WORK:

1. Regional PMS report for the Pioneer Valley Region.
2. Community roadway improvement backlog.
3. Regional roadway improvement backlog.

PROPOSED ACTIVITIES:

1. Analysis of the newly collected pavement distress data for the region's communities' federal-aid roadways in order to calculate OCI ratings, benefit/cost ratio listings, and develop a backlog of recommended improvement projects.
2. Perform various budget scenario analyses including the calculation of backlog of repairs for the region's federal-aid roadways. Develop specific regional pavement funding scenarios for use in the update to the RTP.
3. Assist in the prioritization of pavement projects included as part of the Pioneer Valley TIP.

PRODUCTS:

1. Pavement OCI maps on each community's surveyed federal aid eligible roadways on request.
2. Regional Pavement OCI map update.
3. Community specific pavement data such as recommended repair strategies and benefit/cost ratio listing on request.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$34,000	17 weeks
MassDOT (20% match)	\$ 8,500	4 weeks
TOTAL	\$42,500	21 weeks

Direct Labor	\$19,213
Indirect Costs	\$23,287

Task 3.6 Regional Performance Measures Assessment

OBJECTIVE:

This task is intended to support on the federal planning requirement to integrate performance-based planning into the regional transportation planning process. Data collected as part of Task 2.7 of the UPWP will be used to identify the progress in meeting regional performance measures.

New performance measures and targets will be developed based on statewide performance measures as required by the FAST Act.

PREVIOUS WORK:

1. Regional Performance Measures Development.

PROPOSED ACTIVITIES:

1. Analyze and track data collected as part of Task 2.7 of the UPWP to identify the progress in meeting regional performance measures.
2. Work with MassDOT, PVTA, and surrounding regions to coordinate data collection and share analysis methods.
3. Participate as part of MassDOT's Performance Management Subcommittee.
4. Provide data and analysis as necessary to assist in scoring TEC forms submitted for TIP projects.
5. Develop updates to regional performance measures and the TEC scoring process as necessary to coincide with statewide performance measures and FAST Act requirements.
6. Provide information to the Pioneer Valley MPO as necessary to assist in the adoption of PM2 and PM3 regional performance targets by the November 2018 deadline.

PRODUCTS:

1. Regional Performance Measures Updates to meet FAST Act requirements. November 2018.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$21,000	10 weeks
MassDOT (20% match)	\$ 5,250	2 weeks
TOTAL	\$26,250	12 weeks

Direct Labor	\$11,867
Indirect Costs	\$14,383

Task 3.7 Regional Safety and Planning Studies

OBJECTIVE:

Continue working in cooperation with MassDOT and local communities to increase transportation safety in the region. To utilize state and local traffic safety data and other relevant information in order to draft recommendations that improve multimodal level of service and traffic safety.

PREVIOUS WORK:

1. Union Station Roadway Safety Audit.
2. Pioneer Valley Traffic Safety Compass: Traffic Safety Conditions by community.
3. Agawam Safety Study – Pine Street at Barry Street.

PROPOSED ACTIVITIES:

1. Conduct a Transportation Safety Study at the intersections of Bliss Street with Williams Street and Bliss Court in the Town of Longmeadow. The PVPC conducted a transportation study at this location previously in 2003. As a part of the new study, the PVPC shall review previous recommendations to determine their applicability and implementation. PVPC shall also update traffic counts and summarize local crash data. Finally, a series of recommendations that comply with existing local policies and the Massachusetts Complete Streets program will be developed in

cooperation with the Town officials to enhance safety and improve traffic flow.

2. Finalize the regional Multi Use Trail At-Grade Crossings Study report. A draft report was developed as part of the FY2018 UPWP. December 2018.
3. Finalize the Pioneer Valley At-Grade Rail Road Crossings Safety report. A draft report was developed as part of the FY2018 UPWP . November 2018.
4. Contribute in MassDOT's Roadway Safety Audits and provide regional perspective and input. Ongoing task
5. PVPC shall continue to work in cooperation with MassDOT towards achieving Strategic Highway Safety Plan objectives for the region. Participate as part of the Strategic Highway Safety Plan Steering Committee. Ongoing task.

PRODUCTS:

1. Longmeadow Safety Study. January 2019.
2. Pioneer Valley At-Grade Rail Road Crossings Safety Report. November 2018
3. Multi Use Trail At-Grade Crossings Study. December 2018

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$100,754	50 weeks
MassDOT (20% match)	\$ 25,189	12 weeks
FTA S. 5303	\$ 6,250	3 weeks
TOTAL	\$132,193	65 weeks

Direct Labor	\$59,762
Indirect Costs	\$72,431

Task 3.8 Intelligent Transportation Systems (ITS) and Regional Evacuation Planning

OBJECTIVE:

Promote and advance the implementation of the Western Massachusetts Regional ITS Architecture in cooperation with MassDOT. Assist in ongoing regional evacuation planning efforts to enhance regional transportation security.

PREVIOUS WORK

1. Massachusetts Strategic ITS Planning and Coordination Committee
2. MassDOT Smart Work Zone Committee.
3. I-91 Viaduct Study Working Group

PROPOSED ACTIVITIES:

1. Work with communities to incorporate the FHWA ITS National Architecture into future improvement projects. Certify TIP project compliance with the Western Massachusetts Regional Architecture. Ongoing task.
2. Analysis and support of data from regional ITS projects such as the I-91 ITS system, PVTAVL system, and Route 9 Overheight Vehicle Detection System. Ongoing task.
3. Work with MassDOT to assist in the development of Statewide ITS Performance Measures. As necessary.
4. Participate in ongoing planning efforts of the Western Massachusetts Regional Homeland Security Advisory Committee and MassDOT Smart Work Zone Committee. Ongoing Task.
5. Assist communities in regional evacuation planning as necessary.

PRODUCTS:

1. Recommendations and comments as necessary as part of Committee activities.
2. Technical Memoranda and reports as appropriate.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$15,000	7 weeks
MassDOT (20% match)	\$ 3,750	2 weeks
FTA S. 5303	\$ 6,250	3 weeks
TOTAL	\$25,000	12 weeks

Direct Labor	\$11,302
Indirect Costs	\$13,698

Task 3.9 Climate Change Implementation**OBJECTIVE:**

To respond to the urgencies of climate change by reducing greenhouse gas emissions from transportation in compliance with the Massachusetts Global Warming Solutions Act (GWSA). To assist Pioneer Valley communities in implementing climate resiliency strategies.

PREVIOUS WORK:

1. Updated TEC to include climate and sustainability criteria.
2. Provided technical assistance to Pioneer Valley communities on Green Communities designations and climate action policies.
3. Completed initial research on an inventory and vulnerability assessment of critical Pioneer Valley infrastructure.

PROPOSED ACTIVITIES:

1. Continue to review and update strategies within Climate Action Plan and corresponding elements in Climate Change Toolkit; identify and fill gaps where needed.
2. Continue to conduct outreach to municipalities and JTC to help facilitate understanding of MassDOT statewide vulnerability assessment and regional analysis.
3. Continue participating in Transportation Project Evaluation process with respect to TEC involving climate and sustainability.
4. More actively promote Climate Change Toolkit strategies in selected communities to reduce GHG emissions from Transportation.

PRODUCTS:

1. Updated Climate Action Strategies and corresponding tools that are implementable in the coming years.
2. At least two meetings with JTC and/or roundtable to help facilitate understanding of MassDOT climate study.
3. Summary of projects and use of climate related transportation evaluation criteria (toward eventual evaluation of criteria and possible recommendation of amendments).
4. Implementation of Climate Change Toolkit strategies in selected communities.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$14,400	7 weeks
MassDOT (20% match)	\$ 3,600	2 weeks
TOTAL	\$18,000	9 weeks

Direct Labor	\$ 8,137
Indirect Costs	\$ 9,863

Task 3.10 Green Streets and Infrastructure

OBJECTIVE:

To promote the development of green streets and green infrastructure, in order to reduce stormwater and other environmental impacts of streets, roads, and municipal infrastructure.

PREVIOUS WORK:

1. Design of green streets, installation of rain gardens, and urban tree planting in Springfield, Chicopee and Holyoke.
2. Developed green streets design plans for the "X" neighborhood in Springfield.
3. Prepared subdivision review checklist to promote green streets.

PROPOSED ACTIVITIES:

1. Continue a program of local technical assistance to municipalities to implement model green infrastructure strategies, including LID/green infrastructure subdivision regulations and zoning, and treescape restoration plans.
2. Continue to coordinate work in Springfield, Chicopee and Holyoke to develop and implement green streets projects
3. Continue to review and update strategies within regional Green Infrastructure Plan and corresponding elements in Green Infrastructure Toolkit, identify and fill gaps where needed
4. Continue work with municipalities to identify best green infrastructure retrofit locations for city/town properties, including roadway right of ways.
5. Continue to participate in evaluating projects with Transportation Project Evaluation criteria which include green infrastructure and sustainability criteria.

PRODUCTS:

1. Adoption of green infrastructure strategies in selected communities. As necessary.
2. Implementation of green streets projects in Springfield, Chicopee, and Holyoke. Ongoing task.
3. Updated Green Infrastructure Plan Strategies and corresponding tools that are implementable in the coming years
4. Use of green infrastructure retrofit location methodology in two to three more communities.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$14,400	7 weeks
MassDOT (20% match)	\$ 3,600	2 weeks
TOTAL	\$18,000	9 weeks
Direct Labor	\$ 8,137	
Indirect Costs	\$ 9,863	

Task 3.11 FY2020 RTP Update

OBJECTIVE:

Perform an update of the 2016 Regional Transportation Plan for the Pioneer Valley Metropolitan Planning Organization (RTP). Work with MassDOT, the JTC, and MPO to incorporate appropriate Needs, Strategies and Projects for the Pioneer Valley region that address the federal National Goal Areas, the requirements of the FAST Act, the

Massachusetts Global Warming Solutions Act, the Massachusetts Complete Streets Program, and other state and regional initiatives.

PREVIOUS WORK:

1. Regional Transportation Plans for the Pioneer Valley MPO – 1993, 1997, 2000, 2003, 2007, 2012, 2016.

PROPOSED ACTIVITIES:

1. Review the Vision, Goals, and Objectives of the current RTP and update to comply with the FAST Act, MassDOT Statewide Plans, other regional plans, and local plans as appropriate.
2. Assist MassDOT in the development of socio-economic data projections for inclusion in the RTP.
3. Review Scenario Planning tools such as Envision Tomorrow Plus for use in development and analysis of regional development scenarios for inclusion in the RTP.
5. Update the status of current short and long range transportation recommendations included as part of the 2016 RTP.
6. Organize a series of comprehensive outreach efforts such as online surveys and regional focus groups to identify appropriate Needs, Strategies and Projects to be considered for inclusion in the RTP Update.
7. Develop a public participation schedule to present the RTP to the Pioneer Valley Region.
8. Incorporate appropriate regionally significant transportation recommendations from recently completed studies.
9. Update sections of the RTP as appropriate to incorporate new requirements resulting from the FAST Act legislation.
10. Work with the Office of Transportation Planning to develop a financially constrained listing of regional transportation improvement projects
11. Conduct air quality conformity and greenhouse gas analysis as necessary.
12. Develop a consultation strategy to integrate comments from regional environmental organizations into the RTP.
13. Develop a variety of visual and web-based products to assist in the distribution of draft and final versions of the RTP.

PRODUCTS:

1. RTP Public Participation Process. October 2018.
2. RTP Outline. November 2018.
3. Regional Focus Groups. November 2018.
4. Draft RTP. May 2018.
5. Final RTP. June 2018.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$ 65,000	32 weeks
MassDOT (20% match)	\$ 16,250	8 weeks
FTA S. 5303	<u>\$ 20,000</u>	10 weeks
TOTAL	\$101,250	50 weeks
Direct Labor	\$ 45,773	
Indirect Costs	\$ 55,477	

WORK ELEMENT 4 - ONGOING TRANSPORTATION PLANNING

This element outlines specific activities to be conducted in support of Transportation Planning tasks described in other UPWP elements.

Task 4.1 Regional Transit Planning

OBJECTIVE:

To provide transit planning services to the Pioneer Valley Transit Authority (PVTa), the Pioneer Valley Metropolitan Planning Organization (PVMPO), and the member communities of these agencies. Types of services include technical assistance and analysis for transit planning, operations and capital programs; general organizational and technical assistance; assistance with regulatory compliance; and support and facilitation of public and agency participation.

PREVIOUS WORK:

1. Provided PVTa with planning and technical assistance for fixed route services and facilities planning and operations.
2. Produced PVTa's printed fixed route bus schedules, system map, and related products; updated bus operator field guides; managed vendors for printed products.
3. Produced and installed maps and signage for transit facilities. As requested.
4. Provided analysis of operational data from PVTa's ITS systems including as requested.
5. Supported PVTa Advisory Board and subcommittee activities as requested.
6. Provided general coordination among PVTa, PVMPO, PVPC staff, and MassDOT including regular executive level PVTa/PVPC coordination meetings and programming of transit items in the TIP.
7. Facilitated and supported public hearings for proposed service and fare changes.
8. Performed public engagement at bus terminals, online, and via other methods.
9. Produced fare impact study.
10. Produced Title VI service equity analyses for proposed service changes; assisted with preparation of fare equity analysis.
11. Continued support for Springfield bus stop consolidation.
12. Participated in meetings of regional transportation committees.
13. Participated in regional passenger rail planning activities.

PROPOSED ACTIVITIES:

1. Continue to provide general support to PVTa operations and planning for fixed route services and facilities, including: service evaluation and optimization; compliance with ADA regulations, Title VI and environmental justice policies, and other applicable policies, laws, and regulations; updating and maintenance of vital documents; and other tasks as assigned.
2. Continue to update and produce PVTa's fixed route printed bus schedules, bus operator field guides, and related products; and continue to manage print vendors for these products.
3. Continue to produce and install maps and signage at transit facilities and on vehicles as requested.
4. Continue to attend and participate in relevant public, municipal, regional, and state agency meetings.
5. Continue to provide analysis of data from PVTa's information systems as requested.

6. Continue to provide support for meetings of the PVTA Advisory Board and its subcommittees.
7. Continue to support PVTA Bus Rider Forums and other customer outreach.
8. Continue to conduct and enhance outreach to transit customers with limited English proficiency, including research on best practices, such as partnering with ESL programs, and assure compliance with requirements of Title VI for PVTA and PVMPO.
9. Support ongoing implementation of the PVTA public participation plan and language access plan.
10. Continue to provide support for PVTA bus rapid transit planning.
11. Continue to advance the use and incorporation of GIS, GPS, and online mapping technologies to support PVTA transit route and facilities planning, public engagement, and regulatory compliance.
12. Continue to support PVTA bus stop consolidation planning.
13. Continue to provide coordination among PVTA, PVMPO, PVPC staff, and MassDOT for proactive communication and the programming of transit items in the TIP.
14. Continue to coordinate and participate in transit planning activities of the PVMPO region among PVTA, MassDOT, Franklin Regional Transit Authority, Connecticut Department of Transportation, Capital Regional Council of Governments, Amtrak, intercity bus carriers and other transit service providers, and other stakeholders to enhance inter-regional transit services.

PRODUCTS:

1. PVTA fixed route printed schedules and related digital materials for web posting. As needed.
2. PVTA field operators guide updates. As needed.
3. PVTA System Map update in requested formats. As needed.
4. Brochures, public notices, posters, maps, website services, and other print and digital materials. As requested.
5. Updates and translation of "vital documents" in print and electronic formats for LEP persons. Ongoing.
6. Reports, plans, and other documents. Ongoing.

Source	Budget	Est. Staff Effort
FTA S. 5303	\$ 99,569	50 weeks
PVTA S. 5307	\$107,500	53 weeks
TOTAL	\$207,069	103 weeks

Direct Labor	\$ 93,612
Indirect Costs	\$113,457

Task 4.2 Paratransit Planning Assistance

OBJECTIVE:

To provide planning and technical assistance to support the paratransit services for people with disabilities and seniors that are provided by PVTA in fulfillment of the requirements of USDOT Section 504 regulations and other planning requirements under the Americans with Disabilities Act and the policies of the PVTA Advisory Board, as well as similar transportation services provided by municipal councils on aging, human service agencies, health care providers, nonprofits, and other entities in the PVMPO region.

PREVIOUS WORK:

1. Provided general paratransit planning assistance to PVTA as requested, including public participation activities, operational analyses of policies and services.
2. Participated in activities of regional paratransit planning groups.
3. Provided support to the Paratransit Subcommittee of the PVTA Advisory Board as requested.
4. Provided a staff representative to serve on the PVTA Paratransit Appeals Committee.
5. Provided technical and administrative support to the MPO's Joint Transportation Committee (JTC) regarding mobility issues and concerns of the region's elderly and disabled residents.
6. Coordinated and provided technical assistance to agencies seeking capital grants under FTA Section 5311 Rural Transit Assistance Program.
7. Provided technical assistance to Town of Ware for Quaboag Connector paratransit service.
8. Supported communities seeking funds from the state Human Service Transportation (HST) program.

PROPOSED ACTIVITIES:

1. Continue to provide general paratransit planning assistance to PVTA, including public participation activities, analyses of policies and services, regulatory compliance, and updating and maintenance of vital documents. Ongoing task.
2. Continue to support the work of the Paratransit Subcommittee of the PVTA Advisory Board and provide a staff member to serve on the PVTA Paratransit Appeals Committee. Ongoing task.
3. Continue to support meetings of PVTA paratransit van riders who use the ADA Service and the Senior (Dial-a-Ride) Service.
4. Continue to participate in meetings and activities of regional paratransit planning groups, including the Pioneer Valley Regional Coordinating Council, the Hilltown Regional Coordinating Council, the Quaboag Regional Transportation Committee, and/or others that may request assistance or are identified.
5. Continue to provide technical and administrative support to the MPO's Joint Transportation Committee (JTC) regarding mobility issues and concerns of the region's elderly and disabled residents.
6. Continue to coordinate and provide technical assistance to agencies seeking capital grants under FTA Section 5311 Rural Transit Assistance Program.
7. Perform paratransit surveys and studies requested by PVTA and PVMPO municipalities.
8. Continue to support communities seeking funds from the state Human Service Transportation (HST) program.
9. Work with the PVTA, FRTA, and Regional Coordinating Councils (RCC) to update the Coordinated Public Transit – Human Services Transportation Plan (CPT-HST) for the region. The CPT-HST will identify needs and gaps in human transportation services for seniors and individuals with disabilities.

PRODUCTS:

1. Data and analysis to support ADA and senior van service paratransit planning. As needed.
2. Materials for paratransit performance measure reports for PVTA paratransit services. As needed.

3. Facilitation and documentation of meetings of PVRTA ADA van riders and Senior Service riders. As meetings occur.
4. Reports and presentations to PVRTA, JTC and PVMPO member municipalities. As requested.
5. Assistance with PVRTA monthly paratransit performance measures. As requested.
6. Letters of support and technical exhibits for HST grant applications. As requested.
7. CPT-HST Plan update. December 2018.

Source	Budget	Est. Staff Effort
FTA S. 5303	\$18,750	9 weeks
PVRTA S. 5307	\$16,250	8 weeks
TOTAL	\$35,000	17 weeks

Direct Labor	\$15,823
Indirect Costs	\$19,177

Task 4.3 Implementing the Our Next Future: The Region's Sustainability and Smart Growth Plan

OBJECTIVE:

The objective of this task is to work with local communities to implement the "Our Next Future" Plan for sustainability and smart growth in the Pioneer Valley region. Our Next Future promotes compact, efficient urban growth centered around existing urban and town centers, served by existing transportation and other public infrastructure and services; discourages urban sprawl, inefficient land use, and development in environmentally sensitive areas; helps the region meet air quality goals by reducing auto trips and promoting use of transportation alternatives, such as transit, walking, biking and car-pooling. Assist in the support of Transit Oriented Development in and around the region's new passenger rail stations and high capacity bus routes.

"Our Next Future is strongly linked to, and important to surface transportation planning in many ways:

- It includes a smart growth plan to reduce sprawl and focus future growth in existing city and village centers, which will reduce future transportation infrastructure expansion needs and air quality impacts;
- It includes a sustainable transportation plan to, among other things, reduce auto use by improving bike-ped infrastructure;
- It promotes the development of Transit Oriented Development centers in the region;
- It provides information to assist communities in the development of TEC forms and update the TEC as necessary.

PREVIOUS WORK:

1. Valley Development Council meetings.
2. Technical assistance to implement smart growth strategies in PVPC communities.
3. Developed model TOD overlay zoning regulations for the City of Holyoke.
4. Regional Housing Plan Advisory Committee meetings.

PROPOSED ACTIVITIES:

1. Continue to provide staff support to the Valley Development Council, which provides input from community officials and the development community in implementing Valley Vision 2.

2. Continue to provide staff support to the Housing Plan Advisory Committee to advance strategies for transit-oriented and community center mixed use housing development, and other priorities.
3. Provide continued, targeted technical assistance to communities across the Pioneer Valley on an as-needed basis to implement pilot projects for Our Next Future strategies in the following key areas: commercial development standards; traditional neighborhood developments; mixed use village centers; cluster or creative development bylaws; transfer of development rights bylaws; inclusionary housing bylaws; local strategies to address global climate change and reduce greenhouse gas emissions; complete streets policies; form-based codes; and downtown revitalization strategies including market-rate housing. These strategies may include new local zoning bylaws and land use regulations, and policies on infrastructure improvements/extensions. Prioritize regional or intermunicipal actions on smart growth and sustainability. A circuit rider approach to this work will be explored in this work year.
4. Review and update strategies within regional Land Use and Housing plans and corresponding elements in Sustainability Toolkit, identify and fill gaps where needed.

PRODUCTS:

1. Coordination of quarterly meetings of the Valley Development Council and related products.
2. Coordination of quarterly meetings of Housing Plan Advisory Committee
3. Summary of assistance provided to communities to implement strategies from Our Next Future, and copies of adopted bylaws/ordinances. As necessary.
4. Activities and events to review and update strategies within regional Land Use and Housing plans and promote the Sustainability Toolkit.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$14,400	7 weeks
MassDOT (20% match)	\$ 3,600	2 weeks
TOTAL	\$18,000	9 weeks

Direct Labor	\$ 8,137
Indirect Costs	\$ 9,863

Task 4.4 Bicycle and Pedestrian Network and Bike Commute Week

OBJECTIVE:

To help facilitate the development and increased use of a comprehensive linked regional network of bicycle and pedestrian trails and infrastructure, in order to provide a viable, green and sustainable alternative to auto-based trips in the Pioneer Valley. Planning activities completed as part of this task will be coordinated with the MassDOT Statewide Bicycle and Pedestrian Coordinator. Also, to promote livability, sustainability, healthy activities and bicycle friendly communities by making it easy and fun for people to try bicycling by facilitating the 19th annual Pioneer Valley Bicycle Commute Week. This is an ongoing annual task that is coordinated with Bay State Bike Week.

PREVIOUS WORK:

1. Regional Biking Map.
2. Update to printed Pioneer Valley Trails Map
3. Bike Commute Week activities since 1999.

PROPOSED ACTIVITIES:

1. Continue promoting and distributing updated Pioneer Valley Trails map
2. Promote the regionally important trail projects such as the Connecticut Riverwalk and Canalwalk segments in Chicopee, West Springfield, Agawam and Holyoke, and the Ware bike path, by providing intercommunity liaison services and technical assistance to communities in project planning, design and construction issues on an ongoing basis.
3. Work to expand the region's off-road pedestrian and bike trails network, seeking collaborations with communities and non-profit organizations to implement new trails design and construction projects.
4. Explore the potential to develop a more interactive trails resource interface for the region, starting with work in one community.
5. Work with member municipalities, MassBike and MassDOT to facilitate Pioneer Valley Bike Commute Week/Bay State Bike Week which coincides with national Bike Commute Week—the third week of May. This includes identifying leaders in each community to facilitate community-specific activities and serving as liaison with MassDOT and MassBike.
6. Promote Bike Commute Week through a variety of media platforms and in close collaboration with municipal officials and community-based organizations, assure publicity and broad promotion of Bike Commute Week activities.

PRODUCTS:

1. Technical assistance to communities on advancing Riverwalk and other important bicycle-pedestrian segments. As necessary.
2. New off-road pedestrian and bike trails design and construction projects. As necessary.
3. Bike Commute week report. Summer 2019.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$15,200	8 weeks
MassDOT (20% match)	<u>\$ 3,800</u>	<u>2 weeks</u>
TOTAL	\$19,000	10 weeks

Direct Labor	\$ 7,685
Indirect Costs	\$11,315

Task 4.5 Local Technical Assistance**OBJECTIVE:**

Assist PVPC communities and organizations through short term technical transportation support as requested by the chief locally elected official. To review transportation related impact reports, traffic studies, and environmental notification forms. This is an ongoing task.

PREVIOUS WORK:

1. Data collection activities at the request of local communities.
2. Reviews of all MEPA documents filed in the Pioneer Valley Region.

3. East River Road and Bromley Road Safety Assistance – Chester.

PROPOSED ACTIVITIES:

1. Provide Local Technical Assistance (LTA) to communities on an as requested basis. Typical activities may include data collection, operational analysis, and small scale studies that can be completed in 2 -3 days of staff time. Community requests are considered on a case by case basis and preference is given to communities that have not recently received assistance.
2. Review and comment on all Environmental Notification Forms and Environmental Impact Reports as part of the MEPA process. Attend project scoping sessions for significant projects in the region as part of the MEPA process. Review all documents prepared under federal environmental laws and regulations.
3. Application of the latest versions of transportation software programs to perform analysis and test recommendations.
4. Present findings to communities through documentation and oral presentation as required.
5. Work with local communities to advance the recommendations of previously completed planning studies to the project development stage.
6. Assist member communities in the preparation of MassDOT Project Need Forms and Project Initiation Forms.
7. Work with PVTa and member communities to assure understanding of transit options in the region.

PRODUCTS:

1. Reports documenting the findings and recommendations of all LTAs. As necessary.
2. Recommendations and comments as appropriate for the review of MEPA documents. As necessary.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$18,600	9 weeks
MassDOT (20% match)	\$ 4,650	2 weeks
TOTAL	\$23,250	11 weeks

Direct Labor	\$10,511
Indirect Costs	\$12,739

Task 4.6 Local Pavement Management Program

OBJECTIVE:

To promote and update pavement management services for member communities by conducting road condition, budget, and plan analyses on a contract basis for the accepted paved locally maintained roadway system.

PREVIOUS WORK:

1. Local Pavement Management Data Collection and study for Chester.
2. Local Pavement Management Data Collection and draft study for Southampton.

PROPOSED ACTIVITIES:

1. Follow up with the local communities on requests for Pavement Management System assistance.
2. Meet with local officials and staff from the selected communities to explain the program and to coordinate activities.

3. Conduct training sessions to educate local DPW and Highway Department staff on the identification of pavement distresses as well as sidewalk distress and data recording techniques.
4. Assist communities in the development of new roadway improvement projects based on their annual maintenance budget.
5. Ensure that any new roadway is officially accounted for by Collecting GPS coordinate information to assist in Mapping.

PRODUCTS:

1. OCI Updates for specific roadways in communities with an existing Pavement Management Program as requested.
2. Draft study for the Town of Granville. November 2018.
3. Updates for existing municipal pavement management plans, as requested.

Source	Budget	Est. Staff Effort
Estimated Local Funds	<u>\$10,000</u>	<u>5 weeks</u>
TOTAL	\$10,000	5 weeks

Direct Labor	\$4,521
Indirect Costs	\$5,479

Task 4.7 Scenic Byways Support

OBJECTIVE:

The objective of this task is to work with the Byway Area Committees for the Connecticut River Byway and the Route 112 Byway to prioritize and advance projects for each byway and to provide planning services and technical assistance to each of the communities involved in these two Scenic Byways. The Connecticut River Scenic Byway was designated as the first National Scenic Byway in Massachusetts, and runs along the Connecticut River on Route 47 in the PVPC towns of South Hadley and Hadley. The Route 112 Scenic Byway is a state-designated Scenic Byway in the PVPC towns of Huntington, Worthington,, Cummington and. Goshen. Both Byways continue from the Pioneer Valley region into Franklin County, and PVPC and FRCOG have assisted these communities in completing Byway Plans, which identify projects and strategies.

PREVIOUS WORK

1. 2016 updated Corridor Management Plan (CMP) for the Connecticut River Scenic Farm Byway on Routes 47 and 63
2. Implemented an intergovernmental compact for land protection along the Connecticut River Scenic Byway.
3. Completed an Action Plan for the Highlands Footpath, a walking journey in the Route 112 and Jacob's Ladder Trail Scenic Byways.

PROPOSED ACTIVITIES:

1. Continue to coordinate and attend meetings of the Byway Area Committees and the regional trails advisory group working on the Highlands Footpath along the Route 112 Scenic Byway. Provide meeting notices, materials, and staff support.
2. Work with above Committees and community representatives to continue to develop, prioritize, and implement scenic byway projects, such as land protection, acquisition of scenic easements, signage, scenic overlooks, trails and river access, and similar projects.
3. Provide technical assistance to communities in byway project development, including identification of funding sources.

4. Implement plans to expand the Connecticut River Byway to the west side of the Connecticut River in Hatfield and other communities, including pursuing state byways designation.
5. Provide updates as needed for Western Massachusetts Scenic Byways website.

PRODUCTS:

1. Byway Area Committee and regional trails advisory group meetings and activities, quarterly.
2. Technical assistance to communities in defining projects and scopes of work for scenic byway priorities implementation funding. As necessary.
3. Updated Western Massachusetts Byways website. As necessary.

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$10,000	5 weeks
MassDOT (20% match)	\$ 2,500	1 week
TOTAL	\$12,500	6 weeks

Direct Labor	\$ 5,651
Indirect Costs	\$ 6,849

Task 4.8 ValleyBike Implementation

OBJECTIVE:

ValleyBike is the regional bike share program for the Pioneer Valley region, serving the communities of Springfield, Holyoke, Northampton, Amherst, South Hadley and the University of Massachusetts. Funding for this program was programmed as part of the FFY 2017 Transportation Improvement Program using Congestion Mitigation and Air Quality (CMAQ) funds. To date, a vendor has been selected and is under contract and ValleyBike will launch in June 2018. This is a multiple year task to provide planning support to assist the ValleyBike communities in the implementation and advancement of this program.

PREVIOUS WORK:

1. 2016 Advanced Bike Share Feasibility Analysis.
2. Bike Share Intergovernmental Compact and Community Agreements.
3. Bike Share website and video.
4. ValleyBike RFP release and management.
5. ValleyBike Vendor selection, oversight and management.

PROPOSED ACTIVITIES:

1. Coordinate meetings of the Bike Share Steering Committee that will assist and guide the Bike Share program development process.
2. Oversee work of the vendor (Bewegen) in the implementation of ValleyBike.
3. Continue to support member municipalities with necessary planning work as necessary.
4. Work with community officials to coordinate promotion and public outreach activities for ValleyBike.
5. Conduct an evaluation of the effectiveness of the ValleyBike program.
 - Review monthly usage statistics by station and community.
 - Review Bike Share purchase data.
 - Develop a web-based user survey to identify trends and recommendations for improvement.
 - Develop a summary report.

PRODUCTS:

1. ValleyBike Steering Committee monthly meetings. Ongoing task.
2. Summary of Usage Statistics – Ongoing monthly task
3. User Survey – October, 2018
4. Draft Report, December 2018
5. Final Report, February 2019

Source	Budget	Est. Staff Effort
FHWA (80%)	\$ 8,000	4 weeks
MassDOT (20%)	\$ 2,000	1 weeks
TOTAL	\$10,000	5 weeks

Direct Labor	\$ 4,521
Indirect Costs	\$ 5,479

ESTIMATED COMPLETION SCHEDULE OF PLANNING ACTIVITIES

Task	Product	Anticipated Completion	Public Engagement
1.1	Invoices	Monthly	
1.1	MPO Meeting Minutes	As necessary	
1.1	Updated Springfield UZA MOU	July 2019	
1.2	FY2019 UPWP	May 2019	March 2019
1.3	Press Releases and Public Participation Notices	As necessary	As necessary
1.3	Updated Contact Database	January 2019	
1.4	TIP Project Map	August 2019	
1.4	FY2020 - 2024 TIP	May 2019	February 2019
1.4	TEC Project Evaluation	March 2018	February 2018
1.4	TIP Webpage Update	August 2019	
1.4	Ranked TIP Project List	March 2019	
1.4	Summary of TIP Comments	June 2019	
1.5	Reports as required for EJ, Title VI, and LEP	July 2019	As necessary
1.5	Revised Public Outreach using Engage Tool	As necessary	
2.1	Regional Traffic Counts	Ongoing (April – November)	
2.1	Website update of daily traffic counts	March 2019	
2.2	CMAQ and Greenhouse Gas Analysis	As needed (typically April)	
2.2	Before and After Toll Plaza Removal Analysis	December 2018	
2.2	Brimfield Route 20 Analysis	February 2019	
2.3	GIS mapping to support transportation planning	As needed	
2.3	GIS spatial data analysis	As needed	
2.4	Information Center Reports/ website updates	Ongoing	
2.4	Update region wide data indicators	December 2018 and July 2019	
2.5	CMP Data Collection	Ongoing (September – June)	
2.5	CMP Formula Update	September 2019	
2.6	PMS Data Collection	Ongoing (requires dry pavement)	
2.7	Regional Performance Measures Data Collection	Ongoing	
3.1	JTC Bicycle and Pedestrian Subcommittee	Monthly	Monthly
3.1	Updated Regional Bike Map	September 2019	
3.1	Bike Lane Volume Counts	September 2019	
3.1	Regional Bikeability metric	September 2019	
3.2	Mystery Rider, K-9, On time Performance reporting	Quarterly	
3.2	Bus Schedule Updates	As needed	
3.2	Southern System on board survey.	September 2019	
3.3	Regional Freight Plan	December 2018	September 2018
3.4	Before and After Congestion Studies	Summer 2019	
3.4	Regional Travel Time Contours	Summer 2019	
3.5	PMS Project Development Database Updates	Ongoing - Monthly	
3.6	Regional Performance Measures Updates	Ongoing	
3.7	Final At-grade Rail Crossing Study	November 2018	
3.7	Final Multi Use Trail At-Grade Crossings Study	December 2018	
3.7	Longmeadow Safety Study	January 2019	
3.8	PVTA AVL Data Analysis	Monthly	
3.9	Updates to Regional Climate Action Strategies	Ongoing	
3.9	Implementation of Climate Change Toolkit	Ongoing	
3.10	Updated Green Infrastructure Plan Strategies	Ongoing	
3.10	Pilot Project Implementation	Ongoing	
3.11	RTP Public Participation Process	October 2018	October 2018
3.11	RTP Outline	November 2018	
3.11	Regional Focus Groups	November 2018	
3.11	Draft RTP	May 2019	March 2019
3.11	Final RTP	June 2019	
4.1	PVTA Schedule Updates	As Needed	
4.1	PVTA System Map Update	As Needed	
4.2	Paratransit Performance Measures	Monthly	
4.2	CPT-HST Update	December 2018	October 2018
4.3	TOD/Sustainability Ordinances and Bylaws	As requested	
4.3	Valley Development Council meetings	Quarterly meetings	
4.4	Community trail technical assistance	As necessary	
4.4	Bike Commute Week Report	Summer 2019	
4.5	Local Technical Assistance	As requested	As necessary
4.6	Granville Local Pavement Management Report	November 2018	
4.7	Byway Area Committee meetings	Quarterly meetings	
4.8	ValleyBike Steering Committee Meetings	Monthly	
4.8	User Survey	October, 2018	
4.8	Final Bike Share Evaluation Report,	February 2019	

ADDITIONAL PLANNING PROJECTS

This section outlines activities for which funding has not yet been secured. These proposed tasks are provided for information purposes only. An amendment to the UPWP will be completed to reflect any contracts secured for these proposed tasks. No tasks have been identified to date that meet this criteria.

UPWP EQUITY ASSESSMENT

PVPC conducted an equity assessment on the transportation planning tasks completed as part of previous UPWP's. This assessment process has previously been used on the Regional TIP and identifies how regional transportation improvement projects have potential impacted defined minority and low-income block groups in the region. This information is shown on the figure on page 53.

UPWP's for the previous eight years were reviewed to identify the transportation planning tasks that were completed for each of the 43 communities in the PVPC region. Tasks included data collection, planning studies, local technical assistance requests, and regional activities such as the update to the TIP or CMP. All total, 789 tasks were identified over the eight year period. While the total number of projects for each community is often a function of the size of the community, at least one task was completed for each community over the eight year period. This information is summarized on the table on page 54.

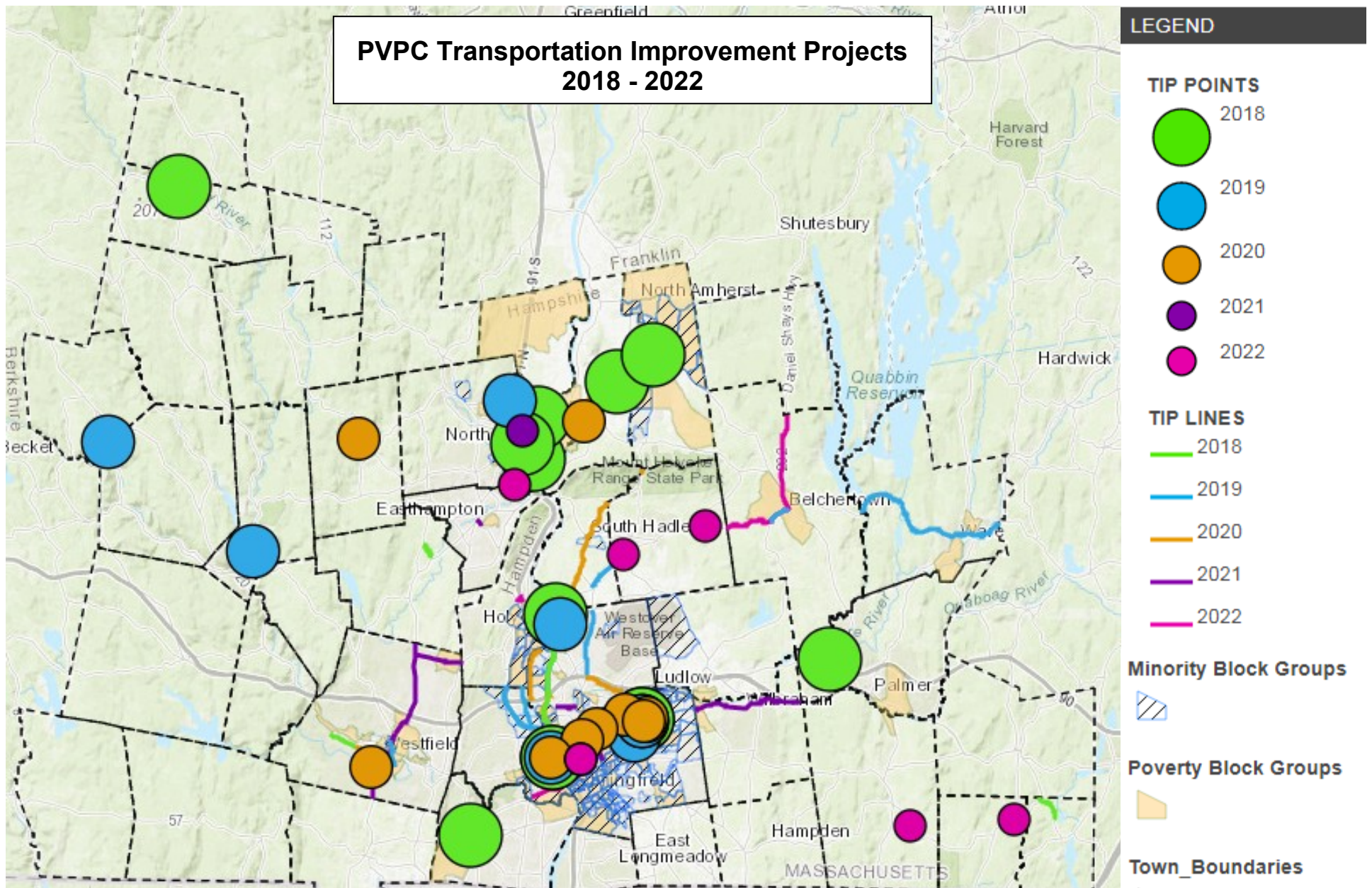
Seven communities were found to have less than five transportation tasks completed over the eight year period. Four communities (Chesterfield, Hatfield, Middlefield, and Worthington) were identified as having less than four transportation tasks completed from 2010 – 2017. Two communities (Middlefield and Plainfield) did not have any transportation tasks completed over the last 3 years. This is a reflection of the smaller size of these communities and their small network of federal aid eligible roadways. Pavement management and traffic counting data collection has been conducted in some of these communities as summarized in the tables on pages 55 and 56. PVPC will continue to perform outreach to our member communities to identify opportunities to provide transportation planning services in an equitable manner.

In addition to counts completed for MassDOT and as part of ongoing planning studies, PVPC offers two free traffic counts for each member community per calendar year. Traffic counts over the last eight years were reviewed for each community to determine how much data has been collected across the region and as a way to identify how many communities may not be aware of the traffic counting services we offer. This information is summarized in the table on page 55. Traffic counts include both automatic traffic counts and manual turning movement counts.

There is a wide range of traffic count data that has been collected across each of the 43 communities. In general, a higher number of completed traffic counts is an indication that a transportation safety or congestion study was conducted in that community during the calendar year. No traffic counts were performed for the Town of Middlefield and less than five traffic counts were performed in the communities of Blandford, Hatfield, Holland, Montgomery, Palmer, and Worthington. PVPC staff sent letters to the Board of Selectmen in each of these communities in the 2017 calendar year to provide information on our regional traffic counting program. Unfortunately, none of these communities were interested in participating in the regional traffic counting program at that time.

PVPC also collects pavement distress data for all federal aid eligible roadways in the region. This data is typically collected on a five year rotation and is summarized in the table on page 56. No pavement distress data is currently collected for the Town of Middlefield as there are no federal aid eligible roadways. Pavement distress data is summarized and distributed to each of the remaining 42 communities after it is collected. New pavement data is was collected in 7 communities during 2017 to assist in the development of the update to the Regional Transportation Plan.

Travel time data collected for select communities and corridors as part of the regional congestion management process (CMP) was previously used as an equity assessment measure for the UPWP. PVPC has begun to transition to FHWA's National Performance Management Research Data Set (NPMRDS) to update the regional congestion data. As a result this information is no longer included as part of this equity assessment.



A higher resolution version of this figure can be found here:

<http://pvpc.maps.arcgis.com/apps/StorytellingTextLegend/index.html?appid=f54bf3b6dfd04033980dcd9a898b85a3>

Transportation Tasks By Community and Year

Community	2010	2011	2012	2013	2014	2015	2016	2017	Total
Agawam	2	2	2	1	3	1	3	5	19
Amherst	4	2	4	4	1	1	1	2	19
Belchertown	1	3	1		1	3	2	2	13
Blandford	1	1		1		1			4
Brimfield		2	3	2	1			1	9
Chester	1	2	1	1	1			3	9
Chesterfield	1						1		2
Chicopee	4	1	3	3	3	3	1	2	20
Cummington	1		1		1		1	1	5
East Longmeadow	2	2		1	1	1	1	3	11
Easthampton	3	3	2	1	3	1	1	5	19
Goshen	1	1	1		1	1	1	1	7
Granby		2		3				1	6
Granville		1	1	1	1		1		5
Hadley	1	3	4	2	1	2	1	2	16
Hampden	1		2		1		1	1	6
Hatfield				1			1		2
Holland	1	1				1	2	1	6
Holyoke	3	5	6	3	3	3	6	6	35
Huntington	1	1	1	2	1		1		7
Longmeadow	3		1	4	2	1	4	2	17
Ludlow	7	1			2		1	2	13
Middlefield		1							1
Monson	1	1		1				1	4
Montgomery			1	2	1			1	5
Northampton	7	6	5	7	3	4	5	6	43
Palmer	1					3	3	2	9
Pelham	1	1		1				1	4
Plainfield	1	1	1	1	1				5
Region Wide	38	29	33	34	28	30	26	24	242
Russell	1	1	1	1		1			5
South Hadley	3	1	2	4	3	2	1	4	20
Southampton	1	1	2	1		1	2	1	9
Southwick	6	2	1	2	3	1	2	3	20
Springfield	8	12	10	6	6	10	14	11	77
Tolland			1	1	1		1	1	5
Wales			1	1			1	2	5
Ware	5	2	1	2	2	3	2	2	19
West Springfield	4	3	2	2	1	1	3	9	25
Westfield	1	1	3	3	1		2	5	16
Westhampton	2			1	1			1	5
Wilbraham	1		1	1	1		2	1	7
Williamsburg	1		3	1	1	1	2	1	10
Worthington	1						1	1	3
Grand Total	121	95	101	102	80	76	97	117	789

Traffic Counts By Community and Year

Community	2010	2011	2012	2013	2014	2015	2016	2017
Agawam	6		1		1		1	1
Amherst	5	7	5	8	4	8	4	9
Belchertown	2	9				1		
Blandford	1	2		1				
Brimfield			17					4
Chester	1	1	1	2	2	1	4	1
Chesterfield	4						2	
Chicopee	10	1	1	1	16	1	13	7
Cummington	2		2		2		4	
East Longmeadow	8	4		1		3		1
Easthampton	10	4	3	16	3	6	8	5
Goshen	3	1	1		2		1	
Granby		1		6		10		1
Granville		3	2	1	1	2		
Hadley	1	1	3	8	1	21	1	1
Hampden	6		2		2	3	2	
Hatfield							1	
Holland		1		1				
Holyoke	11	29	13	2	10	3	5	4
Huntington	3			2		2		
Longmeadow	4		1	3	1		1	
Ludlow	9	1			1	6		
Middlefield								
Monson	2	7		2		3	1	3
Montgomery			2					
Northampton	18	8	16	34	8	10	7	6
Palmer	3							
Pelham	1	7		1		1		1
Plainfield	1	2	6		2		1	
Russell	4	4	1	1				
South Hadley	6	12	1	4	3	25	1	26
Southampton	4	14			3			
Southwick	21	2	1	2	28	14	3	4
Springfield	10	15	35	28	24	9	6	13
Tolland			2	1	2	3		4
Wales			2	4				
Ware	9	1			15			1
West Springfield	9	1	36	1	8	3	3	1
Westfield	1	4	5	20	2	6	3	5
Westhampton	1	1		1	3	1	4	1
Wilbraham	5		3	2	7	2	3	
Williamsburg			13		3	6	2	
Worthington	1					2		1

Pavement Data Collection By Community and Year

Community	2010	2011	2012	2013	2014	2015	2016	2017
Agawam		X			X		X	
Amherst		X			X	X		X
Belchertown	X				X			X
Blandford		X				X		
Brimfield	X					X		
Chester							X	
Chesterfield	X					X		
Chicopee	X		X			X		
Cummington		X				X		
East Longmeadow	X	X				X		
Easthampton	X	X					X	X
Goshen		X				X		
Granby	X					X		
Granville		X				X		
Hadley	X					X		
Hampden		X				X		
Hatfield	X					X		
Holland	X					X		
Holyoke	X		X			X		X
Huntington	X					X		
Longmeadow		X			X		X	
Ludlow	X				X			X
Middlefield	No Federal Aid Eligible Roadways							
Monson	X					X		
Montgomery	X					X		
Northampton	X			X	X		X	
Palmer	X					X		
Pelham	X					X		
Plainfield	X		X			X		
Russell	X					X		
South Hadley	X					X		X
Southampton	X					X		X
Southwick	X	X				X		
Springfield	X		X			X		
Tolland		X				X		
Wales	X					X		
Ware	X					X		
West Springfield		X			X		X	
Westfield	X			X		X		
Westhampton		X				X		
Wilbraham	X					X		
Williamsburg		X				X		
Worthington	X					X		

PLANNING ACRONYMS

3C - Continuing, Comprehensive, and Cooperative Planning Process

AADT - Average Annual Daily Traffic

AASHTO - American Association of State Highway and Transportation Officials

ADA - Americans with Disabilities Act (1990)

ADT - Average Daily Traffic

AFV - Alternative Fuel Vehicles

ATR - Automatic Traffic Recorder

AVR - Average Vehicle Ridership

BAPAC - Barnes Aquifer Protection Advisory Committee

BID - Business Improvement District

BLOS - Bicycle Level of Service

BMP - Best Management Practice

BMS - Bridge Management System

CAAA - Clean Air Act Amendments of 1990

CBD - Central Business District

CDBG - Community Development Block Grant

CDC - Centers for Disease Control

CEDS - Comprehensive Economic Development Strategy

CIP - Capital Improvements Plan (or Program)

CMAQ - Congestion Mitigation and Air Quality Improvement Program

CMP - Congestion Management Process

CNG - Compressed Natural Gas

CO - Carbon Monoxide

COG - Council of Governments

Comm-PASS - Commonwealth Procurement Access and Solicitation System

CPA - Community Preservation Act

CPTC - Citizen Planner Training Collaborative

CRCOG - Capitol Region Council of Governments

CSO - Combined Sewer Overflow

DCR - Department of Conservation and Recreation

DEP - Department of Environmental Protection

DHCD - Department of Housing and Community Development

DLTA - Direct Local Technical Assistance

DOT - Department of Transportation

DPW - Department of Public Works

E.O. - Executive Order

EDC - Economic Development Council

EIR - Environmental Impact Report

EIS - Environmental Impact Statement

EJ - Environmental Justice

ENF - Environmental Notification Form

EOA - Economic Opportunity Area

EOEEA - Executive Office of Energy and Environmental Affairs

EPA - Environmental Protection Agency

FA - Federal Aid

FAST - Fixing America's Surface Transportation Act

FC - Functional Classification (of roadways)

FHA - Federal Housing Administration

FHWA - Federal Highway Administration

FRCOG - Franklin Regional Council of Governments

FRTA - Franklin Regional Transit Authority

FTA - Federal Transit Administration

GHG - Greenhouse Gas

GIS - Geographic Information System

GPS - Global Positioning System

HOV - High Occupancy Vehicle

HUD - U.S. Department of Housing and Urban Development

ISTEA - Intermodal Surface Transportation Efficiency Act of 1991

ITS - Intelligent Transportation Systems

JARC - Job Access and Reverse Commute

JLSB - Jacob's Ladder Scenic Byway

JLT - Jacob's Ladder Trail

JTC - Joint Transportation Committee

LEP - Limited English Proficiency

LOS - Level of Service

LPMS - Local Pavement Management System

LRV - Light Rail Vehicle

LTA - Local Technical Assistance

M.G.L. - Massachusetts General Laws

MAP 21 - Moving Ahead for Progress in the 21st Century

MARPA - Massachusetts Association of Regional Planning Agencies

MassDOT - Massachusetts Department of Transportation

MassGIS - Massachusetts Geographic Information System

MEPA - Massachusetts Environmental Policy Act

MMA - Massachusetts Municipal Association

MOA - Memorandum of Agreement

MOU - Memorandum of Understanding

MPO - Metropolitan Planning Organization

MUTCD - Manual of Uniform Traffic Control Devices

NFA - Non-Federal Aid

NHS - National Highway System

NHTSA - National Highway Traffic Safety Administration

NOx - Nitrogen Oxide

NTSB - National Transportation Safety Board

OCI - Overall Condition Index (Pavement)

PCI - Pavement Condition Index

PL - [Metropolitan] Planning Funds

PMS - Pavement Management System

PMUG - Pavement Management Users Group

PPP - Public Participation Process

PVTA - Pioneer Valley Transit Authority

QVCD - Quabog Valley Community Development Corp.

REB - Regional Employment Board

RIF - Roadway Inventory Files

RPA - Regional Planning Agency
RTA - Regional Transit Authority
RTP - Regional Transportation Plan
SAFETEA-LU - Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SBA - Small Business Administration
SIP - State Implementation Plan (for air quality)
SKC - Sustainable Knowledge Corridor
SOV - Single Occupancy Vehicle
SPR - Statewide Planning and Research Funds
STIP - Statewide Transportation Improvement Program
STP - Surface Transportation Program
TCSP - Transportation and Community System Preservation [Pilot Program]
TDM - Transportation Demand Management
TEA-21 - Transportation Equity Act for the 21st Century

TIP - Transportation Improvement Program
TMC - Turning Movement Count
TND - Traditional Neighborhood District
TOD - Transit Oriented Design (or Development)
TRB - Transportation Research Board
TRO - Trip Reduction Ordinance
TSM - Transportation Systems Management
UMass - University of Massachusetts
UPWP - Unified Planning Work Program
VMT - Vehicle Miles Traveled
VOC - Volatile Organic Compound
VOR - Vehicle Occupancy Rate
WBE - Women-owned Business Enterprises
WRWA - Westfield River Watershed Association
WRWSAC - Westfield River Wild & Scenic Advisory Committee
ZBA - Zoning Board of Adjustment (or Appeals)

PREVIOUS TRANSPORTATION STUDIES

Jacob's Ladder Trail Scenic Byway - Landscape Inventory & Assessment
 Jacob's Ladder Trail Scenic Byway Study- Executive Summary
 Jacob's Ladder Trail Scenic Byway - Highway and Safety Analysis
 Jacob's Ladder Trail Scenic Byway- Cultural Resources Inventory
 Jacob's Ladder Trail Scenic Byway Study- Land Use Strategies
 Touring Jacob's Ladder Trail by Bicycle or Car
 Jacob's Ladder Trail Scenic Byway Development Guidebook
 Jacob's Ladder Trail Scenic Byway. Improvements Plan: Phase II
 Town of Hadley Ma. Americans with Disability Act. Transition Plan.
 The Pioneer Valley Plan For Progress
 Connecticut River Walk & Bikeway Analysis
 Valley Vision: The Regional Land Use Plan
 A View of Our Valley: Population
 A View Of Our Valley: Transportation
 A View of Our Valley: Employment & Income
 A View of Our Valley: Market Trends
 Employment Projections for the PVPC
 Major Employers Inventory for the Pioneer Valley Region
 1997 Major Employers Inventory Report
 Route 9 Corridor Study, Traffic Improvements
 I- 91 Corridor Study: An Impact Analysis of the Cultural Landscape
 Southwick Report: A Report on Traffic Issues
 1990 Transit Riders Study
 Route 10 Corridor Study
 Route 9 Corridor Supplemental Report
 Route 5 Corridor Study
 Rte.9 Corridor Study: Land Use Trends
 Rte.9 Corridor Study Addendum
 Rte. 5 Corridor Study Supplemental Reports:
 Rte. 5 Signal Coordination
 Elmwood Area Preliminary Travel Demand Analysis
 Route 10/202 Corridor Study
 Regional Traffic Count Reports
 Origin/Destination Survey of PVTA Rte. 107
 Complimentary Paratransit Plan
 Forging a Link Between Land Use & Transportation Planning in the Pioneer Valley Region
 Boston Road Corridor Study
 The VMT Reduction Workbook
 PVTA Economic Benefit and Impact Study
 1997 Pioneer Valley Regional Transportation Plan
 Regional Pavement Management Report
 State Street Signal Coordination Project
 Pioneer Valley Region Congestion Mgmt. System
 Traffic and Parking Study Update Report for Easthampton
 Connecticut River Scenic Farm Byway Study
 Route 20 Corridor Study – Westfield/West Springfield
 Town of Wilbraham Pavement Management Study
 Town of Belchertown Pavement Management Study
 Town of Ludlow Pavement Management Study
 PVTA Green 01 Transit Route Survey
 PVTA Bus Stop Survey
 Downtown Amherst Parking Study
 Downtown Ware Parking Study
 East Longmeadow Rotary Study
 There's No Place Like Our Home (Strategy 2000)
 Springfield Street Traffic Study – Agawam
 Norwottuck Rail Trail Parking Study
 Public Participation within the Transportation Planning Process
 State of the Pioneer Valley: 2000
 State of the Pioneer Valley: 2001
 Trends in Building Permits: 1988 to 1997
 Data Digest: Commercial and Industrial Capacity in the Pioneer Valley Region
 Data Digest: Residential Property in the Pioneer Valley Region: 1993 - 98
 Regional Profile: A Statistical Profile of the Hartford-Springfield Interstate Region
 Agawam Pavement Management Study
 Pioneer Valley Regional Bicycle and Pedestrian Transportation Plan
 Bradley Airport Study for Western Massachusetts
 2000 Pioneer Valley Regional Transportation Plan
[Outer Belt Transportation Study](#)
[Holyoke Downtown Flow Study](#)
 Hampden County House of Correction Parking Study
 Linden Street Traffic Study
 Northampton Transportation Plan
 2003 Regional Transportation Plan Update
 West Springfield Parking Study
 PVTA Garage Parking Study
[Longmeadow Route 5 Traffic Study](#)
[Norwottuck Rail Trail User Survey](#)
 Executive Order 418 Community Development Plans (various)
[Route 32 – Ware Traffic Study](#)
 Springfield – St. James Ave./St. James Blvd. Study
[Merrick/Memorial Neighborhood Plan – Phase I](#)
[Route 9 at North and South Maple Street Safety Study](#)
[Massachusetts Turnpike Exit 6 at I-291 Safety Study](#)
 Route 5 at Conz Street Safety Study
 Pavement Management Informational Brochure
[Springfield Riverwalk User Survey](#)
 Updates to the Regional Congestion Management System
 Center Street Traffic Study – Ludlow
 Feeding Hills Center Safety Study – Agawam
 Florence Road at Burts Pit Road Safety Study – Northampton
[Boston and Maine Railroad Bridge Safety Study – Northampton](#)
 West Street at Pantry Road Safety Study – Hatfield
 Regional Bike Map Update
 Amendment to the 2003 Regional Transportation Plan
 2006 Update to Joint Transportation Committee Bylaws
 Regional Traffic Count Report Summary: 2001-2005
 SABIS School Study – Springfield
[Amostown Road and Morgan Road Traffic Study – West Springfield](#)
 Connecticut River Walk and Bikeway Brochure
[Main Street at Jackson Street Safety Study – Holyoke](#)
 Route 141 Safety Study – Easthampton and Holyoke

I-291 Exit 6 off ramp at Shawinigan Drive Safety Study – Chicopee
[Downtown Huntington Parking Study](#)
 Route 57 intersection study – Southwick
 Regional CMS Data Collection Update
 Merrick/Memorial Truck and Pedestrian Surveys
 Palmer Park and Ride Lot Study
 Local Technical Assistance Requests (various)
 2007 Regional Transportation Plan Update
 Route 141 Safety Study Updates – Easthampton and Holyoke
 Valley Vision 2
[Regional Bicycle and Pedestrian Plan Update](#)
[Feeding Hills Center Transportation and Safety Study Final Report](#)
 Regional CMP Annual Report Update
[Top 100 Crash Locations in the Pioneer Valley](#)
 Route 202 Transportation Study – Belchertown
 Florence Road Traffic Study – Northampton
 Palmer Redevelopment Authority Track Capacity Improvements
 Route 10/202 Transportation Study – Southwick
 Route 57 Transportation Study – Southwick
 North Pleasant Street at Fearing Street Study – Amherst
 PVPC Regional Bridge Map
 Palmer Bike Path Study
 Route 112 Scenic Byway Study - Draft
 Public Participation Plan for the Pioneer Valley MPO Update
 STCC Environmental Justice Analysis
 Regional Traffic Counts: 2003-2007
 State of the Region/People 2008
 PVTA Fare Assessment
 Route 10 Corridor Study Existing Conditions Analysis– Easthampton
 R41 and Nashawannuck Express Passenger Surveys
 PVTA System wide Passenger Survey
 Amherst Parking and Transit Survey
 Granby Master Plan – Transportation Component
 Adams Road Safety Study – Williamsburg
 Feeding Hills Center Crash Data Review – Agawam
 Route 9 at North Street and Petticoat Hill Road Study – Williamsburg
 Southwick Transit Study
 Intermodal Connector Review
 Major Employers Report Update
 Westfield CBD Traffic Circulation Study
 Page Boulevard at Goodwin Street Congestion Study - Springfield
[Berkshire Avenue at Cottage Street Congestion Study - Springfield](#)
 Route 5 Traffic Signal Coordination Study – Holyoke
[Granby Road at McKinstry Avenue and Montgomery Street Safety Study – Chicopee](#)
 Maple Street at Resnic Boulevard Safety Study – Holyoke
 Dwight Street at Worthington Street Safety Study – Springfield
[Congestion Management Process Report \(CMP\)](#)
 Jacob's Ladder Trail II – Transportation Section Update
[Chicopee Parking Study](#)
[Telecommuter Survey](#)
[North Main Street at Wilbraham Street, Sykes Street, and Shearer Street Safety Study – Palmer](#)
[Public Participation Plan for the Pioneer Valley MPO Update](#)

[Regional Traffic Count Report: 2005 – 2009](#)
[PVTA Northern/Eastern Region Onboard Bus Rider Survey](#)
[Regional Bottlenecks Report](#)
[Route 116 at Route 33 and Lyman Street Safety Study – South Hadley](#)
[East Street at Winsor Street and Hampden Street Study – Ludlow](#)
[West Avenue at Fuller Street Study – Ludlow](#)
 Transportation Chapter – Ludlow Master Plan
 Manhan Rail Trail User Survey
[Downtown Ware Signalization Study](#)
 Longmeadow Local Pavement Management
 West Springfield Local Pavement Management
 Greenleaf Community Center Safety Study
[FFY 2012 Unified Planning Work Program](#)
 FFY 2011 Transportation Improvement Program Amendments
 FFY 2012 – 2015 Transportation Improvement Program
 Project Development Process Primer Video
 Manhan Rail Trail User Survey Report
[2012 Update to the Regional Transportation Plan](#)
 Transit Mystery Rider Reports
[PVTA Non-Rider Survey](#)
 Route 10 Build Out Analysis – Easthampton
 Springfield Crash Data Analysis
 Cottage Street at Robbins Road Safety Study – Springfield, MA
 Route 9 (Locust Street) at Hatfield Street Safety Study – Northampton, MA
 Valley Vision Update
 Pioneer Valley Trail Map
 Southampton Local Pavement Management Study
[FFY 2013 Unified Planning Work Program](#)
 FFY 2012 Transportation Improvement Program Amendments
[FFY 2013 – 2016 Transportation Improvement Program](#)
[Route 9 \(Federal Street\) at Bay Road Safety Study – Belchertown, MA](#)
[Cottage Street, Robbins Road and Industry Avenue Intersection: Springfield Safety Study](#)
 PVPC/CRCOG MOU
 Regional Traffic Count Report: 2007 – 2011
 Regional Saturation Flow Rate Analysis
 Paratransit User Survey
 Mobility Chapter – Southampton Master Plan
 Pleasant Street Congestion Study – Holyoke, MA
 Regional Pavement Management Report Update
[Top 100 High Crash Intersections 2007 - 2009](#)
 Williamsburg Pedestrian Safety Study
 I-91 Corridor Planning Study Data Collection
 PVTA Schedule Changes and Updates
[Coordinated Public Transit Human Service Transportation Plan](#)
 PVPC Green Tips
 Valley Vision ToolBox Update
 2012 Bike Commute Week
 Merrick/Memorial Phase 2 Data Collection
 FFY 2014 Unified Planning Work Program
 FFY 2013 Transportation Improvement Program Amendments
 FFY 2014 – 2017 Transportation Improvement Program
 CMP Report Update
 EJ and Title VI Reports to MassDOT
 Regional Saturation Flow Rate Report

Mystery Rider Reports
 PVTA Schedule Changes and Updates
 PVPC Green Tips
 Valley Vision ToolBox Update
 2013 Bike Commute Week
 Merrick/Memorial Phase 2 Existing Conditions
 Brimfield Safety Study
[State of the Pioneer Valley Update](#)
 Southern Service Area Customer Satisfaction Survey
 Pine Street Congestion Study – Florence, MA
 Final Top 100 High Crash Intersections 2007 – 2009
 FFY 2015 Unified Planning Work Program
 FFY 2014 Transportation Improvement Program
 Amendments
 FFY 2015 – 2018 Transportation Improvement Program
 I-91 Corridor Planning Study – Existing Conditions
 Merrick/Memorial Phase 2 Study
 Ware Shuttle Survey
 Palmer Shuttle Survey
 Route 9 Safety and Livability Study Data Collection
 Depot Street/Sheep Pasture/Powder Mill Road Safety Study
 Route 202 at Amherst Street Traffic Signal Warrant Analysis
 2014 Bike Commute Week
 Regional Traffic Count Summary (2009-2013)
 Valley Vision Toolbox Update
 FFY 2016 Unified Planning Work Program
 FFY 2016 Transportation Improvement Program
 Amendments
 FFY 2016 – 2019 Transportation Improvement Program
 FY2016 Update to the Regional Transportation Plan
 MassDOT Crash Data Updates
 CMP Corridor and Bottleneck Update
 EJ and Title VI Reports to MassDOT
 CMAQ and Greenhouse Gas Analysis
 Mystery Rider Reports
 PVTA Schedule Changes and Updates

2015 Bike Commute Week
 Updated Transportation Evaluation Criteria (TEC)
 Route 9 Safety and Livability Study Draft Report
 Updates to the Regional Transportation Model
 FFY 2017 Unified Planning Work Program
 FFY 2016 Transportation Improvement Program
 Amendments
 FFY 2017 – 2021 Transportation Improvement Program
 2016 Bike Commute Week
 Updated Transportation Evaluation Criteria (TEC)
 Regional Transportation Model – Report on Future Traffic
 Projections
 Updated Public Participation Plan
 Updates to Regional Data Indicators
 Regional Freight Congestion Survey
 GHG Analysis for Major Corridors
 I-391 Ramp Congestion Study
 Top 100 High Crash Intersection Report
 Draft Critical Infrastructure Vulnerability Assessment
 PVTA Northern Tier On-Board Survey
 Regional Performance Measures Updates
 FFY 2018 Unified Planning Work Program
 FFY 2017 Transportation Improvement Program
 Amendments
 FFY 2018 – 2022 Transportation Improvement Program
 2017 Bike Commute Week
 High Speed Tolling Analysis for Massachusetts Turnpike
 Agawam/West Springfield Route 147 Improvement Project
 Analysis
 Updated Online Regional Bike Map
 Palmer Sidewalk Inventory
 State Freight Plan Advisory Committee
 Easthampton – Route 10 at South Street Intersection Study
 Draft Union Station Roadway Safety Audit
 Draft Top Crash Locations by Community Report
 Bike Share Scope of Work and Station Locations

STUDIES COMPLETED AS PART OF THE FY 2018 UPWP

[Community and Facility Profiles](#) (various)
 Local Technical Assistance Requests (various)
 MassDOT Crash Data Updates
 CMP Corridor and Bottleneck Updates
 EJ and Title VI Reports to MassDOT
 CMAQ and Greenhouse Gas Analysis
 Mystery Rider Reports
 PVTA Schedule Changes and Updates
 FFY 2019 Unified Planning Work Program
 FFY 2018 Transportation Improvement Program
 Amendments
 FFY 2019 – 2023 Transportation Improvement Program
 2018 Bike Commute Week Report
 Final Union Station Roadway Safety Audit
 Safety Compass Final Report
 Draft At-Grade Railroad Crossing Safety Study
 Draft At-Grade Multi-Use Trail Crossing Safety Study
 Agawam Safety Study – Pine Street at Barry Street
 TEC Evaluation Criteria Assessment
 PVTA Fare Increase and Service Changes Title VI Planning
 Before and After Congestion Studies – Atkins Corner and
 Pleasant at Conz Street
 Regional On-road Bike Lane Counts

FUNDING SUMMARY

Transportation Funding	Value	% of Total
FHWA PL (80%)	\$ 851,364.00	54.10%
MassHighway PL (20% match)	\$ 212,839.00	13.52%
FTA Section 5307 (80%)	\$ 176,000.00	11.18%
PVTA Section 5307 (20% match)	\$ 44,000.00	2.80%
FTA Section 5303 (80%)	\$ 223,655.00	14.21%
PVTA Section 5303 (20% match)	\$ 55,914.00	3.55%
Local Funds (includes in-kind contributions)	\$ 10,000.00	0.64%
Total	\$ 1,573,772.00	100.00%
Other Funding	Value	% of Total
Other Commonwealth of Massachusetts	\$ 2,838,131.00	45.80%
US Environmental Protection Agency	\$ 75,000.00	1.21%
US Department of Agriculture	\$ 200,000.00	3.23%
US Department Health/Human Services	\$ 360,000.00	5.81%
US Economic Development Administration	\$ 70,000.00	1.13%
US Department of Homeland Security	\$ 90,000.00	1.45%
Other Federal Revenue	\$ 263,000.00	4.24%
Local Grants	\$ 2,200,000.00	35.51%
Local Assessments	\$ 100,088.00	1.62%
Total	\$ 6,196,219.00	100.00%

Overall Funding	Value	% of Total
FHWA PL (80%)	\$ 851,364.00	10.96%
MassHighway PL (20% match)	\$ 212,839.00	2.74%
FTA Section 5307 (80%)	\$ 176,000.00	2.27%
PVTA Section 5307 (20% match)	\$ 44,000.00	0.57%
FTA Section 5303 (80%)	\$ 223,655.00	2.88%
PVTA Section 5303 (20% match)	\$ 55,914.00	0.72%
Local Funds (includes in-kind contributions)	\$ 10,000.00	0.13%
Other Commonwealth of Massachusetts	\$ 2,838,131.00	36.53%
US Environmental Protection Agency	\$ 75,000.00	0.97%
US Department of Agriculture	\$ 200,000.00	2.57%
US Department Health/Human Services	\$ 360,000.00	4.63%
US Economic Development Administration	\$ 70,000.00	0.90%
US Department HUD	\$ 90,000.00	1.16%
Other Federal Revenue	\$ 263,000.00	3.38%
Local Grants	\$ 2,200,000.00	28.31%
Local Assessments	\$ 100,088.00	1.29%
Total	\$ 7,769,991.00	100.00%

SUMMARY OF COMMENTS ON THE DRAFT UPWP

Task/Section	Comment	From	Response

MPO ENDORSEMENT