

FFY 2023 UNIFIED PLANNING WORK PROGRAM

MONTACHUSETT METROPOLITAN PLANNING ORGANIZATION

MPO Endorsed
5/18/22



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Montachusett Metropolitan Planning Organization (MMPO)
and Montachusett Regional Planning Commission (MRPC)
Title VI Coordinator
MRPC
464 Abbott Ave.
Leominster, MA 01453
(978) 345-7376
geaton@mrpc.org

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One Ashburton Place, 6th Floor
Boston, MA 02109
617-994-6000 ~ TTY: 617-994-6196

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French: Si cette information est nécessaire dans une autre langue, s'il vous plaît communiquer avec le coordonnateur MRPC Titre VI au 978-345-7376.

MONTACHUSETT

REGIONAL PLANNING COMMISSION

Offices: 464 Abbott Ave., Leominster, Massachusetts 01453
(978) 345-7376 Fax: (978) 348-2490



MPO ENDORSEMENT FFY 2023 UNIFIED PLANNING WORK PROGRAM

The Unified Planning Work Program (UPWP) for the Montachusett Metropolitan Planning Organization (MPO) is a financial programming tool developed annually as part of the federally certified transportation planning process. In accordance with federal guidelines, the FFY 2023 (October 1, 2022 - September 30, 2023) Unified Planning Work Program for the Montachusett MPO was developed and submitted for a 21-day public review and comment period. Comments received have been addressed and are reflected in the final FFY 2023 Unified Planning Work Program. The Montachusett Joint Transportation Committee (MJTC) has reviewed the document and has recommended its endorsement by the members of the MPO.

The Committee of Signatories representing the Montachusett Metropolitan Planning Organization (MMPO) by a majority vote hereby endorses the FFY 2023 UPWP for the Montachusett MPO with the chair signing on behalf of all members.

*Jamey Tesler, Secretary and CEO
Massachusetts Department of Transportation*

Date

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MONTACHUSETT METROPOLITAN PLANNING ORGANIZATION SIGNATORIES

Massachusetts Department of Transportation (MassDOT) Secretary	Jamey L. Tesler
MassDOT Highway Division Administrator	Jonathan L. Gulliver
Montachusett Regional Planning Commission (MRPC) Chairman	Guy Corbosiero
Montachusett Regional Transit Authority (MART) Chairman/Mayor City of Leominster	Mayor Dean Mazzarella
Mayor City of Gardner	Mayor Michael J. Nicholson
Mayor City of Fitchburg	Mayor Stephen DiNatale
Winchendon Board of Selectmen <i>Subregion 1</i>	Barbara Anderson
Ashburnham Board of Selectmen <i>Subregion 2</i>	Rosemarie Meissner
Lunenburg Board of Selectmen <i>Subregion 3</i>	Michael-Ray Jeffreys
Lancaster Board of Selectmen <i>Subregion 4</i>	Jason Allison

MPO SUB-SIGNATORY COMMITTEE MEMBERS

David Mohler, Director OTP, MassDOT, for Secretary Jamey L. Tesler
Arthur Frost, Project Development Engineer for Administrator Jonathan L. Gulliver
Glenn Eaton, Executive Director, MRPC, for Chairman Guy Corbosiero
Bruno Fisher, Administrator, MART, for Chairman Mayor Dean Mazzarella

EXOFFICIO MEMBERS

Jeffrey H. McEwen, Division Administrator	Federal Highway Administration
Peter Butler, Administrator	Federal Transit Administration

MONTACHUSETT REGIONAL PLANNING COMMISSION (MRPC) OFFICERS

Guy Corbosiero, Chairman	Winchendon
John Telepciak, Vice Chairman	Phillipston
Laura Shifrin, Treasurer	Townsend
Roger Hoyt, Asst. Treasurer	Ashburnham
Shaun Copeland, Secretary	Ayer

MONTACHUSETT JOINT TRANSPORTATION COMMITTEE (MJTC) OFFICERS

Chairman	
Dick Kilhart, Vice Chairman	Athol
Guy Corbosiero, Secretary	Winchendon

MONTACHUSETT REGIONAL PLANNING COMMISSION STAFF

Glenn Eaton, Executive Director
Holly Ford, Administrative Manager
Linda Quinlivan, Fiscal Director
Christopher McNamara, Fiscal Assistant
Brad Harris, Transportation Project Director
George Snow, Principal Transportation Planner
Sheri Bean, Principal Transportation Planner
Brian Doherty, AICP, Principal Transportation Planner
Karen Chapman, Planning and Development Director
Jonathan Vos, Regional Planner
Jennifer Burney, Senior Planner
Meagen Donoghue, Senior Planner
Jeffrey Legros, Principal Planner
Tyler Godin, Regional Planner
Ryan Doherty, Economic Development Intern
Jason Stanton, GIS & IT Director
Kayla Kress, GIS & IT Analyst

MONTACHUSETT JOINT TRANSPORTATION COMMITTEE

COMMUNITY

APPOINTED BY SELECTMEN/MAYOR

APPOINTED BY PLANNING BOARD

Ashburnham	Rosemarie Meissner	Roger Hoyt
Ashby		Alan Pease
Athol	Dick Kilhart	
Ayer	Shaun Copeland	Mark Archambault
Clinton	Phil Duffy	
Fitchburg	Nicolas Bosonetto	Paula Caron
Gardner	Trevor Beauregard	Robert Swartz
Groton		Russell Burke
Harvard	Tim Kilhart	Stacia Donahue
Hubbardston	Travis Brown	Alice Livdahl
Lancaster		Roy Mirabito
Leominster	David DiGiovanni	Peter Latchis
Lunenburg	Todd Dwyer	Matthew Brenner
Petersham	Nancy Allen	
Phillipston	Gordon Robertson	
Royalston	Roland Hamel	
Shirley		Janet Tice
Sterling	Richard Maki	Kirsten Newman
Templeton		Charles Carroll II
Townsend	Veronica Kell	Beth Faxon
Westminster		Gregg Buckman
Winchendon	Brian Croteau	Guy Corbosiero

EXOFFICIO MEMBERS

Derek Krevat	Office of Transportation Planning (OTP), Massachusetts Department of Transportation (MassDOT)
Jeffrey H. McEwen	Federal Highway Administration (FHWA), Division Administrator
Peter Butler	Federal Transit Administration (FTA), Administrator
	Department of Environmental Protection (DEP)
Paula Simmons	MassDOT Highway Division - District 2
Arthur Frost	MassDOT Highway Division - District 3
	Montachusett Regional Planning Commission (MRPC)
Bruno Fisher	Montachusett Regional Transit Authority (MART)

ORGANIZATION MEMBERS

Al Futterman	Nashua River Watershed Association (NRWA)
	Amalgamated Transit Union #690 (ATU 690)
Richard Liberatore	Fitchburg Airport Commission
Roy M. Nascimento	North Central MA Chamber of Commerce
Joan Goodwin	Fitchburg Council on Aging
Jessica Strunkin	Mass Development
Peter Lowitt	Devens Enterprise Commission (DEC)
	Montachusett Opportunity Council, Inc.
Joshua Preville	The ARC of Opportunity

INTRODUCTION

The Unified Planning Work Program (UPWP) for the Montachusett Metropolitan Planning Organization (MPO) is a financial programming tool developed annually as part of the federally certified transportation planning process. This document contains task descriptions of the transportation-planning program of the MPO, with associated budget information and funding sources for the FFY 2023 program year.

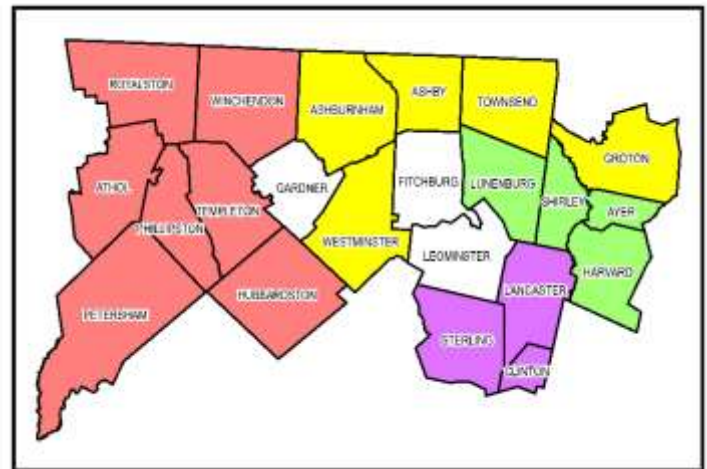
The purpose of the UPWP is to ensure a comprehensive, cooperative, and continuous (3C) transportation planning process in the Leominster - Fitchburg Urbanized Area and the Montachusett Region. In addition, this document provides for the coordination of planning efforts between communities in the Montachusett Region.

MONTACHUSETT METROPOLITAN PLANNING ORGANIZATION (MMPO)

All urbanized areas with a population greater than 50,000 are required by the U.S. Department of Transportation (USDOT) Federal regulations to designate an MPO for the area. The establishment of an MPO is necessary for the State to receive Federal transportation funds. In the Montachusett Region, the Montachusett Regional Planning Commission (MRPC) serves as staff for the MPO. The MRPC staff annually produces a Transportation Improvement Program (TIP) and Unified Planning Work Program (UPWP). In addition, a Regional Transportation Plan is updated every four years to reflect the changing transportation needs of the area. In July of 2019, the MPO endorsed the most recent 2020 Regional Transportation Plan.

The MPO in the Montachusett Region (after reorganization in October 2001) is currently comprised of:

- the Secretary and CEO of the Massachusetts Department of Transportation (MassDOT);
- the Administrator of MassDOT Highway Division;
- the Chairman of the MRPC;
- the Chairman of the Montachusett Regional Transit Authority (MART);
- the Mayors of Fitchburg, Leominster and Gardner and;
- one Selectman from each of four geographically defined sub Regions.



These sub regions are composed as such:

- Subregion 1) Athol, Hubbardston, Petersham, Phillipston, Royalston, Templeton, and Winchendon;
- Subregion 2) Ashburnham, Ashby, Groton, Townsend, and Westminster;
- Subregion 3) Ayer, Harvard, Lunenburg and Shirley and;
- Subregion 4) Clinton, Lancaster, and Sterling.

Legend	
MPO Membership	
Fitchburg/Gardner/Leominster	• Secretary & CEO of MassDOT
Representative Subregion 1	• Administrator, Highway Division, MassDOT
Representative Subregion 2	• Chair of the MRPC
Representative Subregion 3	• Chair of MART
Representative Subregion 4	

These 10 members serve as the MPO Policy Board for the regional "3C" transportation planning process. It was felt that increasing the MPO to 10 members would allow for more local input and greater public participation and as such an inter-agency Memorandum of Understanding, entitled "Memorandum of Understanding (MOU) Relating to the Comprehensive,

Montachusett MPO	
Signatories	Representing
Secretary & CEO	Massachusetts Department of Transportation (MassDOT)
Administrator	Massachusetts Department of Transportation (MassDOT) Highway Division
Chair	Montachusett Regional Planning Commission (MRPC)
Chair	Montachusett Regional Transit Authority (MART)
Mayor	City of Fitchburg
Mayor	City of Gardner
Mayor	City of Leominster
Representative	Subregion 1 - Athol, Hubbardston, Petersham, Phillipston, Royalston, Templeton, Winchendon
Representative	Subregion 2 - Ashburnham, Ashby, Groton, Townsend, Westminster
Representative	Subregion 3 - Ayer, Harvard, Lunenburg, Shirley
Representative	Subregion 4 - Clinton, Lancaster, Sterling

Continuing and Cooperative Transportation Planning Process for the Montachusett Region Metropolitan Planning Organization”, defining the expanded MPO, was formally agreed to in September 2001. This MOU was reviewed, revised, updated and endorsed by the MPO on February 4, 2009. The makeup and composition of the MPO remained the same but a revised method to select subregion representatives was adopted. On April 13, 2011, the MOU was updated and endorsed to reflect the Massachusetts Transportation Reform Act enacted on June 26, 2009 that established the Massachusetts Department of Transportation. During the fall/winter of

2015/2016, the representatives and alternates for the four identified subregions went through a selection process to update membership and participation. These individuals will serve for an approximate three-year period beginning in September/October. Staff will review the overall selection process in order ensure a comprehensive input process.

In addition to the MPO signatories, members/representatives from various federal, state and regional agencies are identified as Ex-Officio Members to the MPO that provide valuable input and guidance to all MPO actions and decisions. The Ex-Officio Members are identified on page vii of this document.

TRANSPORTATION/TRANSIT PLANNING IN THE MONTACHUSETT REGION

During the FFY 2023 program year, the MRPC will continue its efforts to maintain a viable transportation planning process through several tasks outlined in this UPWP. If necessary and the current MRPC staff are unable to meet the requirements of a particular work effort, ex. engineering design, etc., an outside agency may be sought. Staff will coordinate and seek approval from MassDOT and FHWA staff before a decision is reached. Each task describes the efforts to be made to address a particular issue or area of concern along with intended products, timeframes, budgets, and funding sources.

The Geographic Information System (GIS) department will continue to support various work activities under several of the UPWP tasks. Again, this program year, the MRPC will continue to provide to our member communities 8 free hours of GIS services. Since 2019 the MRPC, has worked on 21 separate projects for 13 of our 22 communities as part of this program. The GIS Department continues to work to expand and improve the MRPC’s online GIS web mapping program, MRMapper (<https://mrmapper.mrpc.org/>). Information such as traffic counts, roadway functional classification, crash data and analysis, and trail locations will continue to be updated. New datalayers will also be added as the program year moves forward.

MRPC will continue its efforts to update and maintain a trail database for the region. Significant data has been compiled over the last few program years and the development of a trail app has extended efforts to include members of the public. Additionally, staff will continue to participate and collaborate with the Montachusett Regional Trail Coalition (MRTC).

In addition, the MRPC will continue to expand upon several tasks that provide benefits to multiple member communities. This would include the Data Collection and Analysis Program, Environmental Justice and Title VI, the Climate Change Program, and the Public Participation Program. Each task seeks to collect, inform, educate, and assist communities in addressing important

transportation and transit issues. The Data Collection and Analysis Program has evolved from an initial focus on the collection of traffic counts to include additional data needs such as regional pavement conditions, ADA Public Right of Way (PROW) data and crash location identification. Expanding the Public Participation Program continues to be a vital and important objective of the transportation planning process for the MRPC and the Montachusett MPO. A major part of this is the Montachusett Joint Transportation Committee (MJTC) that meets every month on the second Wednesday to discuss transportation projects and issues of regional importance. Membership consists of representatives solicited every April to June from communities and organizations. Participation in these meetings has increased during the past COVID restrictions mostly due to the establishment of online participation. Upon the formal re-establishment of in-person meetings, the MRPC will continue to provide an online meeting option to those who wish to participate. The same increase and level of participation has also been seen in the MPO over the same COVID time frame. Information on all MRPC meetings along with instructions on how to participate online are provided on the MRPC website (www.mrpc.org) through the Calendar of Events and the individual meeting announcements.

With the addition of an online meeting option for the public, the Montachusett MPO has had to work to adjust the Public Participation Plan (PPP) to include information on virtual participation. Over the last program year, revisions and updates have been reviewed and compiled into a new PPP that follows the state's PPP. In addition, feedback from the MassDOT Office of Diversity and Civil Rights (ODCR) has been sought throughout the development process. Formal adoption by the MPO will be sought as soon as practical.

Issues of Environmental Justice and Title VI of the Civil Rights Act of 1964 and their relationship to the MRPC will continue to be reviewed during the upcoming program year. Efforts will continue to be made to improve our outreach process and our contact lists through the use of the MassDOT Engage website and contact with any Title VI, EJ and LEP groups that can be identified.

The MPO has also sought an update to the Limited English Proficiency (LEP) Access Plan endorsed in 2019. Additionally, the submittal of any annual reports related to Title VI and EJ will be undertaken to ensure that state and federal regulations are and will continue to be met. As part of the MPO's overall outreach process, the MRPC will continue to update and maintain its web page at www.mrpc.org with the posting of meeting agendas, announcements, documents and any related material needed to improve and enhance public awareness, outreach and participation.

The Unified Planning Work Program (UPWP) also continues to demonstrate a high level of cooperation between MRPC and the Montachusett Regional Transit Authority (MART).

Prior federal provisions have identified the Massachusetts Department of Transportation as the recipient of statewide Section 5303 program funds and to also have the responsibility under present state law to administer FTA grants and to establish a statewide transit-planning program in cooperation with the MPO. The Montachusett MPO has been allocated \$64,575 in federal and \$16,144 in state for a total of \$80,719 in FY2023 Section 5303 funds. The MMPO holds harmless this allocation.

During this program year, the MPO will continue to be involved in several planning areas relating to mass transit and will continue to coordinate with other transportation related activities undertaken by the MPO. The planning areas include coordination with 3C management process, continuation of monitoring services and updating mass transit activities in the Montachusett Region, cooperation in developing transit related funding categories for the TIP and conducting special studies.

During the FFY 2020 program year, staff completed data collection and analysis on the on-time performance of the existing fixed route bus services in Fitchburg, Leominster and Gardner and provided MART with recommendations.

In the FFY 2022 program year, staff focused on assessing the ADA accessibility of the fixed route bus stops run by the Montachusett Regional Transit Authority (MART) Region in the Gardner area. This follows a similar study conducted in FFY 2021 that examined the Fitchburg-Leominster fixed route system. The purpose of these studies was to determine the level of accessibility of each stop in MART system in relation to ADA Accessibility guidelines. Through the collection of field information, how each bus stop complies with accessibility requirements was determined. The type and need for improvements were also identified where applicable.

PRIOR YEAR UPWP TASK RESULTS

During the prior program year from October 1, 2021 to September 30, 2022, the following studies and/or tasks were undertaken. Some tasks were under development at the time of the writing of this UPWP. In those cases, the anticipated outcome is identified. For more detailed information regarding any of these tasks, please contact the MRPC.

Task 2.1 Regional Demographics & Model

- Review input data for regional demographics and demographic projections
- Model development
- Regional Greenhouse Gas Analysis
- 2020 Census coordination

Task 2.2 GIS Mapping and Analysis

- Assist member communities with the MaPIT tool as necessary.
- Maintain and incorporate GPS data as collected.
- Continue support and enhancement of MRMapper online GIS program.
- Provide local support related to the use of MRMapper.
- Ongoing training and enhancement of staff and system abilities.
- Continued collection, analysis and refinement of data sets in order to provide inputs for various planning tasks.
- Integration of existing databases (accident and road inventory) into the GIS as appropriate.
- Support of UPWP tasks and special reports where appropriate and necessary.
- Produce applications based on needs
- Provide local support related to developed apps as requested.
- Local GIS Technical Assistance support.

Task 2.3 Data Collection and Analysis Program

- Traffic counts taken at approximately 35 locations around the region
- GIS mapping of various datasets – including traffic counts & high crash locations
- Safety analysis of high crash locations developed for the region
- Download and utilize most recent MassDOT GIS crash data
- Inventory and analyze non MassDOT Park & Ride locations

Task 2.4 Pavement Management Systems

- Database of roads to be inventoried compiled
- Field surveys to be conducted in the Summer months

Task 2.5 Performance Measures

- Filling data needs and gaps (December 2021 – September 2022)
- Maintenance of PM Dashboard
- Coordinate regional PMs with state and federal PMs as they are developed

Task 2.6 Regional Transportation Plan Update

- Identified various stakeholders and schedule outreach meetings
- Work with stakeholders to identify any language or accessibility challenges
- Update & Re-launched RTP website

Task 3.1 Mobility & Access Planning

- Compile all prior reports and studies related to mobility and access
- Review and coordinate needs within Statewide Modal Plans
- Identify and locate Park & Ride locations along with Transit connections
- Identify and map congestion corridors and/or bottlenecks
- Identify gaps in the transportation network

- Prioritize gaps for closure & potential projects
- Conveyable and Accessibility Observatory data will be used where appropriate

Task 3.2 Corridor Profiles

- Review and analysis of adjacent land uses, environmental constraints and collected data.
- Develop and identify potential short, medium- and long-term improvements based upon issues and feedback from the community.
- Right of way analysis and cost estimates will be determined to the extent feasible.

Task 3.3 Climate Change Program

- Map major roadways and rail lines within flood zones within the region;
- Assess flood vulnerability of identified roads and rail lines;
- Conduct GHG analysis of applicable TIP projects based upon MassDOT guidelines
- Identify bottleneck study area, develop study, produce report
- Assist communities with Stormwater App as needed

Task 3.4 Community Trail Planning

- Engage the Montachusett Regional Trails Coalition and other stakeholders
- Update existing trail infrastructure
- Identify gaps/future projects based on sidewalks, bike lanes, rail trails, etc.
- Identify strategies to advance trail projects

Task 3.5 Intersection Analysis

- Meet with communities to determine thoughts/concerns at the intersections;
- Conduct vehicle and pedestrian traffic counts;
- Examine the intersections using Level of Service analysis, Average Daily Traffic analysis, Signal Warrant analysis, Safety analysis, Land Use analysis and Existing Geometry and Design Conditions analysis;
- Develop improvement recommendations aiming to diagnose and rectify issues at the intersections;

Task 4.4 Bus Stop ADA Accessibility Evaluation

- Examine all Bus Stops in MART fixed Bus Route System
- Bus Stop Survey Information: Location, Amenities, Landing Pad, Roadway, and Sidewalk Condition and Signages.
- Analyze results using quantitative and qualitative methods.
- Identify key themes and concerns addressed in data.
- Produce a report summarizing the findings from the study and provide recommendations

UPWP DISTRIBUTION OF STUDIES AND TASKS

As part of the development of the UPWP, the Montachusett MPO has conducted a geographic and social equity analysis of past and current tasks undertaken in this and prior UPWPs.

For most of these analyses, the 2015-2019 American Community Survey 5-year estimates were utilized as they were the most current data available for certain demographics at the time of this study. The 2020 Decennial Census population counts were only utilized to determine areas with significant minority populations. For some of the data, census estimates were only available at the Census Tract level. This data dealt with Foreign Born, Disabilities and Non-English Spoken at Home. The remaining census data estimates were available at the Block Group level. The tables below list the ACS and Decennial Census data sources as well as whether they were broken down to the Census Tract or Block Group level. The data in these tables, therefore, were used to determine Environmental Justice (EJ) and Title VI designated areas.

2015-2019 ACS 5-Year Estimates

By Block Group

Variable	2015-2019 ACS Table
Total Population	B03002
Poverty Determined Population	B17021
Below Poverty Population	B17021
Population 65 Years or Older Population	B09020
Median Household Income	B19013
Limited English Proficiency (LEP) Households	C16002

2020 Decennial Census Counts

By Block Group

Variable	2020 Census Table
Total Population	P2
Majority Population	P2

2015-2019 ACS 5-Year Estimates

By Census Tract

Variable	2015-2019 ACS Table
Total Population	DP02
Foreign Born	DP02
Individuals with Disabilities	DP02
Percent Household Limited English Proficiency (LEP)	S1602
Percent Language Spoken at Home – Non-English	DP02

EJ and Title VI populations are defined differently by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA). In addition, EJ analysis is based on different criteria, ex. poverty based on the statewide median income rather than the regional median income. The tables below define the Title VI and EJ criteria utilized in the regional analysis.

Environmental Justice and Title VI Definitions for Analysis

Environmental Justice Block Groups	Analysis Criteria
1. Block group whose annual median household income is equal to or less than 65 percent (%) of the statewide median (\$81,215 in 2019);	Statewide Median Income: \$81,215 65% of Median Household Income: \$52,790 Geography: Block Group
2. Twenty-five percent (25%) or more of the residents identifying as minority;	Minority Population Equal or Greater Than 25% Geography: Block Group
3. Twenty-five percent (25%) or more of the households having no one over the age of 14 who speaks English only or very well - Limited English Proficiency (LEP).	Limited English Proficiency Equal or Greater Than 25% Geography: Block Group

FTA Title VI Communities	Analysis Criteria
1. Minority – Percent of population including Hispanic or Latino of any race that is considered non-white and is higher than the regional average	Regional Average: 25.00% Geography: Block Group
2. Low Income - Percent estimated below poverty level that is higher than the regional average	Regional Average: 9.42% Geography: Block Group

FHWA Title VI Communities	Analysis Criteria
1. Elderly – Percent of Total Population > 65 that is higher than the regional average	Regional Average: 15.45% Geography: Block Group
2. Individuals with Disabilities – Percent of population with a disability that is higher than the regional average	Regional Average: 11.79% Geography: Census Tract
3. Minority – Percent of population including Hispanic or Latino of any race that is considered non-white and is higher than the regional average	Regional Average: 25.00% Geography: Block Group
4. Foreign Born – Percent of population that is Foreign Born and is higher than the regional average	Regional Average: 8.67% Geography: Census Tract
5. Language – Percent of Population Spoken Language Other than English that is higher than the regional average	Regional Average: 15.70% Geography: Census Tract

Listed below are tasks from the past five UPWPs (FFY 2018 to FFY 2022) as well as tasks in this FFY 2023 UPWP. The tasks identified for this analysis were limited to specific reports or studies attributable to a community or group of communities.

Some tasks involve work or analysis that covers the entire region as a whole, i.e. Traffic Counts, Crash Data Analysis, etc. The identified tasks were then referenced against communities with either Block Groups or Census Tracts that meet the above referenced definitions for Environmental Justice and/or Title VI populations. Geographic equity was also analyzed.

Five Year Task Review													
UPWP Year	Community	Description	Task #	Funding	EJ Block Groups			Title VI Block Groups			Title VI Census Tracts		
					Income	Minority	LEP HH	Elderly	Income	Minority	Disabilities	Foreign Born	Language
2018	Gardner	Sidewalk Inventory & Bicycle/Pedestrian Connections	2.53	\$25,500	X	X		X	X	X	X		
2018	Regionwide (All 22 MRPC Communities)	Regional Development Initiative	2.73	\$19,500	X	X	X	X	X	X	X	X	X
2018	Athol	South Athol Road/Route 2 Interchange Analysis	3.13	\$39,500	*			X	*		X	*	
2018	Fitchburg Leominster	Climate Change Program (Merriam Ave./South St. Bottleneck Study)	3.33	\$36,000	* *	X X	*	X X	* *	X X	X X	* X	X X
2018	Regionwide (All 22 MRPC Communities)	Local ADA Transition Plan Development	3.53	\$33,500	X	X	X	X	X	X	X	X	X
2018	Regionwide (All 22 MRPC Communities)	Regional Bike & Ped Trail Update	3.73	\$23,000	X	X	X	X	X	X	X	X	X
2018	Fitchburg Leominster Gardner	Coordinated Transit Plan Update	4.43	\$31,250	X X X	X X X	X	X X X	X X X	X X X	X X X	X X	X X
2018	Fitchburg Leominster Gardner	Ridership Survey Distribution	4.53	\$15,750	X X X	X X X	X	X X X	X X X	X X X	X X X	X X	X X
2019	Regionwide (All 22 MRPC Communities)	Fatal Crash Corridor Analysis	2.54	\$26,250	X	X	X	X	X	X	X	X	X
2019	Lancaster Lunenburg Winchendon	Local ADA Transition Plan Development	3.54	\$68,500	X	X		X X X	X X	X	X	X	X
2019	Lunenburg	Town Center Walkability and Parking Study	3.64	\$29,500				X	X				
2019	Fitchburg Leominster Gardner	Bus Route Performance Evaluation	4.44	\$30,000	X X X	X X X	X	X X X	X X X	X X X	X X X	X X	X X

Five Year Task Review (Cont.)													
UPWP Year	Community	Description	Task #	Funding	EJ Block Groups			Title VI Block Groups			Title VI Census Tracts		
					Income	Minority	LEP HH	Elderly	Income	Minority	Disabilities	Foreign Born	Language
2020	Fitchburg Lancaster	Before & After Safety Study	2.51	\$28,250	X	X X		X X	X	X X	X	X X	X X
2020	Fitchburg Leominster Gardner	Travel Options & Rideshare Programs	3.11	\$44,250	X X X	X X X	X	X X X	X X X	X X X	X X X	X X X	X X X
2020	Regionwide (All 22 MRPC Communities)	Travel by Tourism	3.21	\$34,500	X	X	X	X	X	X	X	X	X
2020	Regionwide (All 22 MRPC Communities)	Regional Bike Plan	3.41	\$41,500	X	X	X	X	X	X	X	X	X
2020	Westminster Ayer	Local ADA Transition Plan Development	3.51	\$37,750		X		X X	X	X		X	
2021	Hubbardston	Pavement Management Assistance	2.4	\$26,000				X					
2021	Fitchburg	Corridor Study	2.5	\$40,000	X	X		X	X	X	X	X	X
2021	Fitchburg Hubbardston Townsend	Intersection Analysis	2.6	\$37,500	X	X		X X X	X	X	X	X	X
2021	Sterling Townsend	Walkability Studies	3.1	\$45,000				X X					
2022	Regionwide (All 22 MRPC Communities)	Mobility & Access Planning	3.1	\$46,750	X	X	X	X	X	X	X	X	X
2022	Ashburnham Shirley	Corridor Profiles	3.2	\$65,000		X		X X		X		X	X
2022	Sterling Winchendon	Community Trail Planning	3.4	\$40,000	X			X X	X		X		
2022	Hubbardston Leominster	Intersection Analysis	3.5	\$45,760	X	X	X	X X	X	X	X	X	X

* represent projects that have specific locations (an intersection, a section of road, etc.) and the project itself does not fall within an EJ/Title VI tract/block group but the project is within a community that has a tract/block group with that EJ/Title VI demographic.

Current Year Task Review													
UPWP Year	Community	Description	Task #	Funding	EJ Block Groups			Title VI Block Groups			Title VI Census Tracts		
					Income	Minority	LEP HH	Elderly	Income	Minority	Disabilities	Foreign Born	Language
2023	Regionwide (All 22 MRPC Communities)	Housing Coordination Plan	3.1	X	X	X	X	X	X	X	X	X	X
2023	Leominster Lunenburg Townsend	Intersection Analysis	3.3	X	X	X	X	X X X	X X	X	X	X	X
2023	Ayer Lunenburg Shirley	Freight Study	3.4			X X		X X X	X X	X X		X X	X X
2023	Ayer Devens Littleton Shirley	Transit Development Plan	4.4			X X X		X X X	X X X	X X X		X X X	X X X

A review of the work tasks identified over the past five-year period, i.e. from FFY 2018 to FFY 2022, shows:

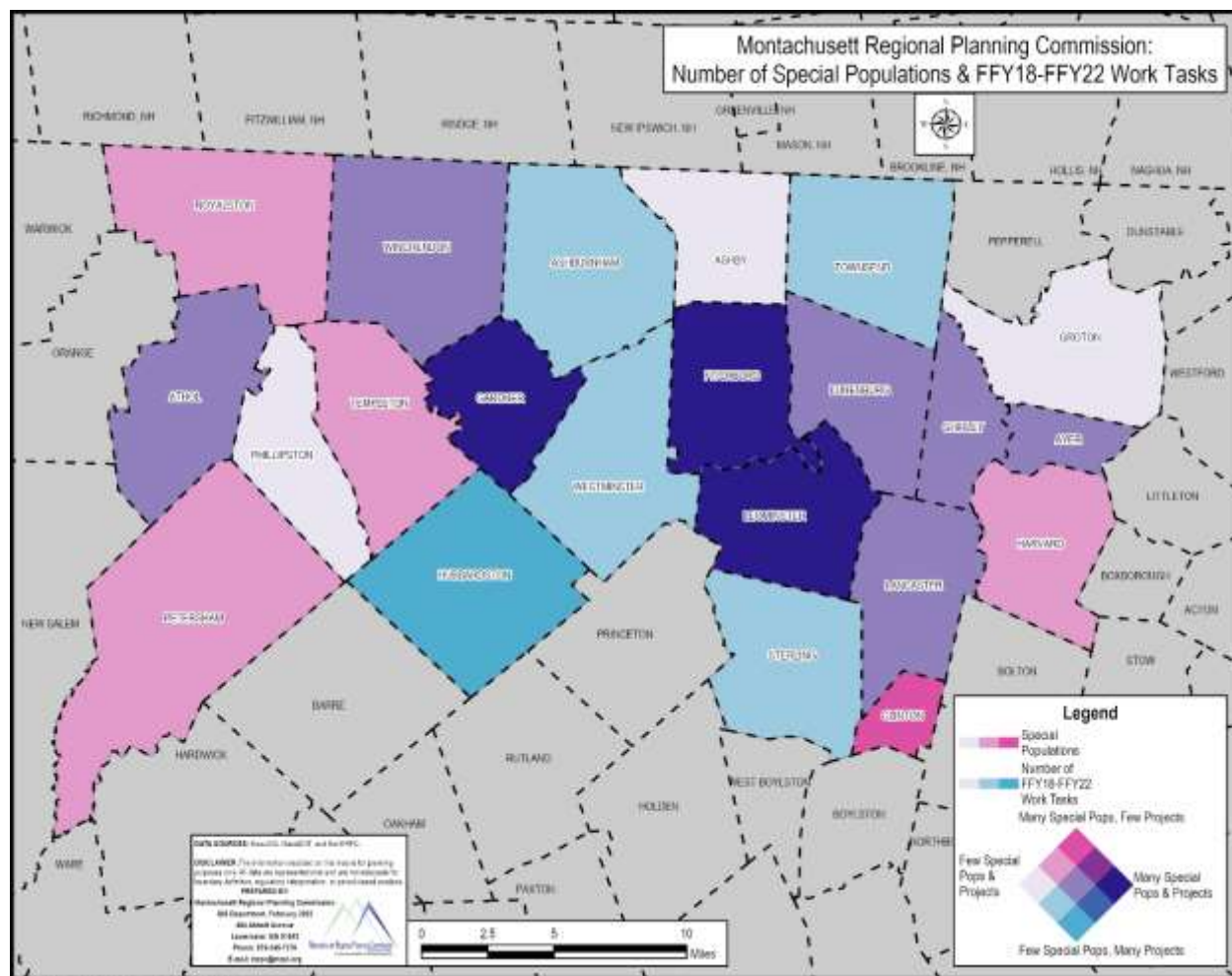
- Ten (10) communities were identified as having one or more Block Groups meeting the definitions for Environmental Justice populations, i.e. Low Income, Minority or LEP. Based upon the identified community specific work tasks over the prior five federal fiscal years, eight (8) of these communities, or 80%, had work conducted within them.
- Of the 12 identified FTA Title VI communities, community specific tasks were conducted in nine (9), or 75%, of those municipalities.
- Of the 21 identified FHWA Title VI communities with block groups meeting the definitions for Minority or Elderly populations, community specific tasks were conducted in fourteen (14), or 67%, of those municipalities.
- Of the 13 identified FHWA Title VI communities with census tracts meeting the definitions for Disabled, Foreign Born or LEP, eight (8), or 62%, had community specific tasks conducted in them.
- Identified EJ communities that lacked a community specific work task were Clinton and Harvard.
- FTA Title VI communities that lacked a community specific task are Clinton, Harvard, and Templeton.
- FHWA Title VI communities with identified populations based on block groups that lacked a community specific work task include Ashby, Clinton, Groton, Harvard, Petersham, Royalston, and Templeton. All of these municipalities were identified as having at least one Elderly population block group that exceed the regional average that identified them as FHWA Title VI communities.
- FHWA Title VI only communities with identified populations based on census tract that lacked a community specific work task include Clinton, Harvard, Petersham, Phillipston, and Royalston.

A summary table of each category is shown below. The rows that are highlighted in yellow show the communities that meet all three categories for Title VI and Environmental Justice. There are a total of 10 communities within the Montachusett Region that meet those criteria and all but two communities (Clinton and Harvard) have had individual projects done under the UPWP over the last five years.

Community Name	FHWA Title VI Community	FTA Title VI Community	Environmental Justice Community	Number of Community Specific Tasks (FFY18-FFY22)
Ashburnham	x			1
Ashby	x			
Athol	x	x	x	1
Ayer	x	x	x	1
Clinton	x	x	x	
Fitchburg	x	x	x	8
Gardner	x	x	x	5
Groton	x			
Harvard	x	x	x	
Hubbardston	x			3
Lancaster	x	x	x	2
Leominster	x	x	x	6
Lunenburg	x	x		2
Petersham	x			
Phillipston	x			
Royalston	x			
Shirley	x	x	x	1
Sterling	x			2
Templeton	x	x		
Townsend	x			2
Westminster	x			1
Winchendon	x	x	x	2

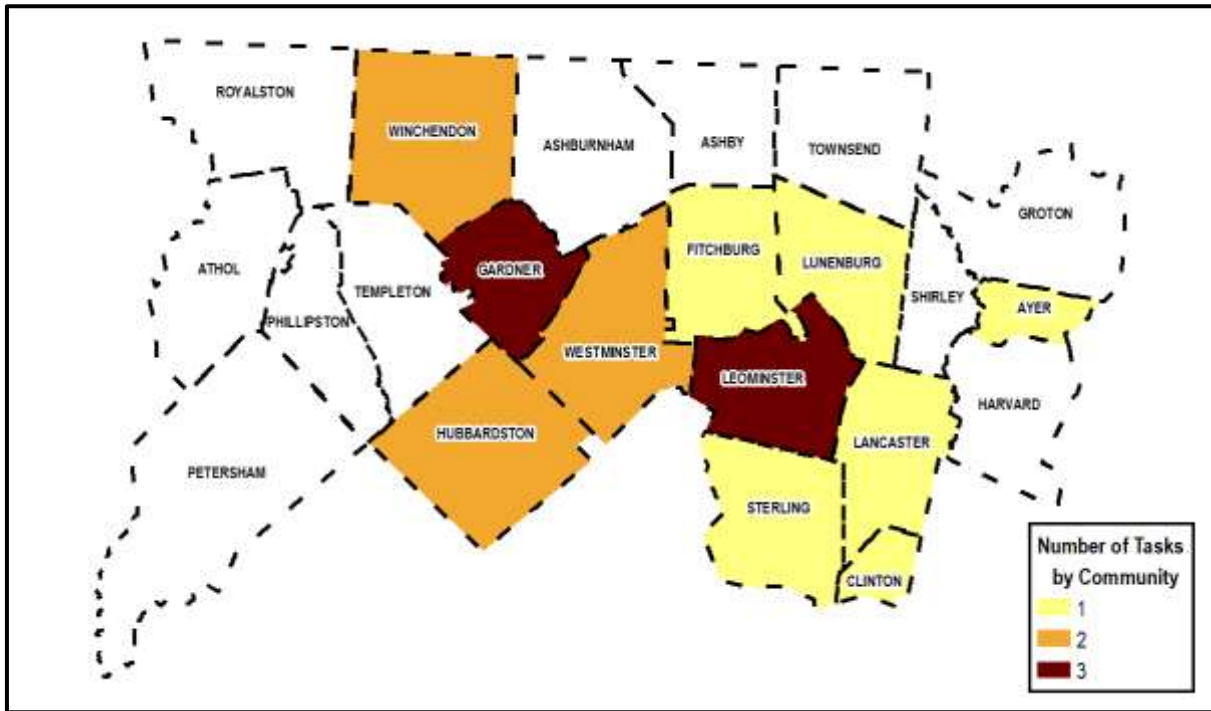
It should be noted that several tasks identified over the past five work program years, involved all 22 communities of the Montachusett Region and would likely entail some level of work in all of these identified communities. This includes data collection efforts, crash data analysis, pavement management inventories, tourism destinations and bike and pedestrian infrastructure inventory.

The map below shows the social equity distribution for community specific projects over the past five years.



The following map shows the geographic equity analysis that was also conducted based on the projects conducted over the past five years for those specific communities. The regionwide projects were left out of this analysis. The darker color shows where the most projects were conducted (5+) and the communities shown in white had no projects that were specific to that community over the past five years.

Past Five-Year (FFY2018 - FFY2022) Geographic Equity for Community Specific Projects



Based upon this analysis and review, it would appear that the Montachusett MPO is making an solid effort to address transportation planning issues in Title VI and EJ communities in the Region. Projects or work tasks, compiled in the last five years, have been developed in an attempt to be located in communities which either have an Environmental Justice population, FHWA Title VI population, FTA Title VI population, or a combination of all three. Future geographic equity efforts should focus on the communities of Ashby, Clinton, Groton, Harvard, Petersham, Phillipston, Royalston, and Templeton and social equity efforts in Clinton and Harvard. For geographic distribution, the bulk of community specific projects are located in the Region's major cities, Fitchburg, Gardner and Leominster. The map also shows that more effort could be made in the outer edges of the region.

AMENDMENT AND ADJUSTMENT PROCEDURES FOR THE UPWP

All 3C documents (TIP, LRTP, UPWP, PPP, etc.) endorsed by the MPO must follow a standardized procedure regarding amendments and/or administrative adjustments to the document. The procedures must also be clearly outlined in narrative form within the documents themselves. Below are general guidelines regarding the conditions that constitute an administrative adjustment or amendment to the Unified Planning Work Program (UPWP). All proposed administrative adjustments or amendments must be presented to the MPO for consultation prior to endorsement. Both adjustments and amendments must be voted on by the MPO members and amendments must be released for a 21-day comment period (or shorter if deemed necessary as outlined in the Public Participation Plan (PPP) for the MMPO) prior to endorsement.

The conditions that identify and constitute what is considered an administrative adjustment or an amendment is as follows:

UPWP Administrative Adjustment - Reallocation of budget funds under 25% of the total task budget
- Change in start/completion dates within the originally intended federal fiscal year(s)
- Minor change to project scope

UPWP Amendment
- Reallocation of budget funds over 25% of the total task budget
- Addition or removal of UPWP task(s)
- Change in start/completion dates outside of originally intended federal fiscal year(s)
- Significant change in project scope, cost and/or time allocation
- Funding increase above the originally approved UPWP overall budget

Additionally, the following must be adhered to for the Submission of a Budget Reallocation Request:

When submitting the standard Budget Reallocation Request form to MassDOT Office of Transportation Planning (OTP), all fields must be filled out with clear indication that the MPO was consulted prior to submission. Back up documentation must be submitted, including the UPWP description of the task(s) affected, original budget, revised budget, and justification for request.

A Significant Change is defined as a change to a project scope, budget, and/or project schedule when it alters the original intent of the project or intended conclusions of the project.

SOURCES FOR THE MONTACHUSETT UPWP

FHWA allocates Metropolitan Planning Funds (PL) to MassDOT who in turn distributes those funds to the state's RPAs based upon an agreed apportionment formula. As part of this process, each RPA enters into a yearly "3C" (Continuous, Cooperative and Comprehensive) transportation planning contract. Fiscal years for PL funds follow federal fiscal years, i.e. October 1 to September 30.

FTA also distributes funds to MassDOT for allocation to RPA's as Section 5303 monies for the conduct of transit planning activities. Section 5303 funds are used for planning and technical studies related to transit. Unless otherwise noted, FTA funds follow federal fiscal year time frames. The Section 5303 match was previously provided by the Montachusett Regional Transit Authority but is now provided by MassDOT as part of the combined PL/5303 contract administered by the FHWA.

Program years described in this UPWP therefore are as follows:

<u>Funding Source</u>	<u>Program Year</u>
FHWA/MassDOT	FFY 2021 October 1, 2022 - September 30, 2023
FTA/Section 5303/MassDOT	FFY 2021 October 1, 2022 - September 30, 2023

STATE AND FEDERAL POLICIES AND PROGRAMS

Infrastructure Investment and Jobs Act

“On November 15, 2021, President Biden signed the [Infrastructure Investment and Jobs Act \(IIJA\) \(Public Law 117-58, also known as the “Bipartisan Infrastructure Law”\)](#) into law. The Bipartisan Infrastructure Law (BIL) is the largest long-term investment in our infrastructure and economy in our Nation’s history. It provides \$550 billion over fiscal years 2022 through 2026 in new Federal investment in infrastructure, including in roads, bridges, and mass transit, water infrastructure, resilience, and broadband.” (FHWA) The BIL provides approximately \$350 billion for Federal highway programs over a five-year period (fiscal years 2022 through 2026). Most of this funding is apportioned (distributed) to States based on formulas specified in Federal law. However, the BIL Infrastructure Law also provides funding through a wide range of competitive grant programs.

The BIL continues the Metropolitan Planning Program, which establishes a cooperative, continuous, and comprehensive (3C) framework for making transportation investment decisions in metropolitan areas. Program oversight remains a joint Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) responsibility. Except as specified within the BIL legislation, the BIL continues all funding features that applied to Metropolitan Planning (PL) funding under the FAST Act.

The BIL does continue all requirements that applied to the Metropolitan Planning Program under the Fixing America’s Surface Transportation (FAST) Act. It also adds the following requirements, changes and/or standards to the program.

- Requires each MPO to use at least 2.5% of its PL funds (and each State to use 2.5% of its State Planning and Research funding) on specified planning activities to increase safe and accessible options for multiple travel modes for people of all ages and abilities. A State or MPO may opt out of the requirement, with the approval of the Secretary, if the State or MPO has Complete Streets standards and policies in place and has developed an up-to-date Complete Streets prioritization plan that identifies a specific list of Complete Streets projects to improve the safety, mobility, or accessibility of a street.

While the Commonwealth and several Montachusett communities (21 of the 23 including Devens) have Complete Streets standards, policies and/or prioritization plans in place, no opt out of this requirement has been sought by the Montachusett MPO at this time.

A review of the planning tasks within this UPWP, shows that \$206,250 (26%) of the \$795,512 Montachusett PL funds are targeted to planning activities that can “increase safe and accessible options for multiple travel modes for people of all ages and abilities.”

Task	UPWP Budget	Percent of PL Funds (\$795,512)
Task 2.3 Data Collection & Analysis	\$63,000	8%
Task 3.3 Intersection Analysis	\$70,750	9%
Task 3.4 Freight Study	\$72,500	9%
TOTALS	\$206,250	26%

- Adds several changes to housing considerations in the metropolitan transportation planning process, including:
 - Updating the policy to include, as items in the national interest, encouraging and promoting the safe and efficient management, operation, and development of surface transportation systems that will better connect housing and employment.
 - Adding officials responsible for housing as officials with whom the Secretary shall encourage each MPO to consult.

- Require the metropolitan transportation planning process for a metropolitan planning area to provide for consideration of projects and strategies that will promote consistency between transportation improvements and State and local housing patterns (in addition to planned growth and economic development patterns).
- Add assumed distribution of population and housing to a list of recommended components to be included in optional scenarios developed for consideration as part of development of the metropolitan transportation plan.
- Add affordable housing organizations to a list of stakeholders MPOs are required to provide a reasonable opportunity to comment on the metropolitan transportation plan.

The MRPC will work with the MPO to develop a specific outreach list targeted towards housing organizations and advocates in order provide for better opportunity to participate in the transportation planning process. Discussions will also be held with the state and the MPO to discuss a more formal role for housing organizations in the MPO.

Through the FAST Act and the subsequent continuation in the BIL, ten (10) planning factors must be considered by MPOs in their UPWP's.

1. **Economic Vitality** – Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency;
2. **Safety** – Increase the safety of the transportation system for motorized and nonmotorized users;
3. **Security** – Increase the ability of the transportation system to support homeland security and to safeguard the personal security of motorized and non-motorized users;
4. **Mobility** – Increase the accessibility and mobility of people and freight;
5. **Environment** – 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;
6. **System Integration** – Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
7. **System Management** – Promote efficient system management and operation;
8. **System Preservation** – Emphasize preservation of the existing transportation system.
9. **Reliability** - Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and
10. **Travel and Tourism** - Enhance travel and tourism.

These This UPWP seeks to incorporate these planning factors through the various tasks identified.

UPWP Tasks	Planning Factors									
	Economic Vitality	Safety	Security	Mobility	Environment	System Integration	System Management	System Preservation	Reliability	Travel and Tourism
1.5 EJ/Title VI				X	X					
2.1 Reg Demo & Model	X			X		X	X			X
2.2 GIS	X	X			X		X	X	X	X
2.3 Data Collection	X	X					X	X	X	
2.4 Pavement Management		X	X	X		X	X		X	X
2.5 Performance Measures	X			X	X	X		X		X
2.6 Regional Trans Plan		X	X	X	X	X	X	X	X	X
3.1 Housing Coordination	X	X		X	X		X			
3.2 Climate Change Program	X			X	X	X			X	X
3.3 Intersection Analysis	X	X	X	X		X	X			
3.4 Freight Study	X			X	X	X				X
4.2 Transit Development Plan	X	X	X	X		X	X			
4.4 Bus Stop ADA Accessibility	X			X		X			X	

Transit Asset Management

Prior funding legislation (MAP-21 and the FAST Act), authorized FTA to develop a rule to establish a strategic and systematic process of operating, maintaining and improving public transportation capital assets effectively through their entire life cycle. FTA's national Transit Asset Management (TAM) System Rule:

- Defines "state of good repair"
- Requires grantees to develop a TAM plan
- Establishes performance measures
- Establishes annual reporting requirements to the National Transit Database
- Requires FTA to provide technical assistance

In July 2016, FTA published a Final Rule for Transit Asset Management that requires FTA grantees to develop asset management plans for their public transportation assets to include only including vehicles, facilities, equipment (with a cost of over \$50k), and other guideway infrastructure.

TAM requirements in this final rule are part of a larger performance management context. MAP-21 created a performance-based and multimodal program to strengthen the U.S. transportation system, which is comprised of a series of nine rules overseen by FTA and the Federal Highway Administration (FHWA). FTA is tasked with developing other rules, including the National Public Transit Safety Plan and the Public Transportation Agency Safety Plan (PTASP), and has worked jointly with FHWA on a rule to manage Statewide and Metropolitan Planning.

MART sets new TAM target goals and certifies their plan annually. The TAM Plan was last self-certified by MART on February 2, 2022. The TAM Plan is also required to be updated every four years. The next update is due prior to October 1, 2022 in timing with the TIP process.

As dictated by the Final Rule, a Tier I TAM Plan must include the following nine elements:

1. Inventory of Capital Assets – An inventory of the number and type of capital assets. The inventory must include all capital assets that a provider owns, except equipment with an acquisition value under \$50,000 that is not a service vehicle.
2. Condition Assessment – A condition assessment of those inventoried assets for which a provider owns or has direct capital responsibility
3. Identification of Decision Support Tool or Processes – A description of analytical processes or decision-support tools that a provider uses to estimate capital investment needs over time and develop its investment prioritization
4. Investment Prioritization – A project-based prioritization of investments
5. TAM and SGR policy – A TAM policy is the executive-level direction regarding expectations for transit asset management; a TAM strategy consists of the actions that support the implementation of the TAM policy.
6. Implementation strategy – The operational actions that a transit provider decides to conduct, in order to achieve its TAM goals and policies.
7. List of key annual activities – The actions needed to implement a TAM plan for each year of the plan's horizon.
8. Identification of resources – A summary or list of the resources, including personnel, that a provider needs to develop and carry out the TAM plan.
9. Evaluation plan – An outline of how a provider will monitor, update, and evaluate, as needed, its TAM plan and related business practices to ensure the continuous improvement.

Public Transportation Agency Safety Plan (PTASP)

On November 15, 2021, President Biden signed into law the Bipartisan Infrastructure Law (BIL), which authorizes \$108 billion over the next five years for public transportation – the most significant federal investment in transit in the nation's history. The BIL amends FTA's safety program at 49 U.S.C. Section 5329(d) (Section 5329(d)) by adding to the public transportation agency safety plan (PTASP) requirements. The requirements under the BIL apply to those transit agencies

that must have an Agency Safety Plan in place under the PTASP regulation (49 CFR Part 673). The BIL establishes additional PTASP requirements. Most of these requirements are based on the size of the Urbanized Areas (UZA) that the transit agencies serve.

MART is currently classified in a Small Urban UZA. However new UZA boundaries are being developed with data from the 2020 Census which will affect MART's UZA. New UZA Maps will be released in the summer of 2022. The population will change and there are four possible outcomes which will affect MART's PTASP.

1. The Leominster-Fitchburg UZA will remain a Small Urbanized Zone Area with a total population of less than 200,000.
2. The Leominster-Fitchburg UZA will change from a Small Urban to a Large Urban with a total population above 200,000.
3. The Leominster-Fitchburg UZA will be split into new Urbanized Zones with some municipalities brought into the Boston UZA and some creating a new Small Urban UZA. If Fitchburg and Leominster are brought into the Boston UZA our plan must abide by the Large Urban rules.
4. The Leominster-Fitchburg UZA will be absorbed into the Boston UZA completely, also changing to a Large Urban UZA.

New Requirements:

- § (1) Each recipient or State shall certify that the recipient or State has established a comprehensive agency safety plan (ASP) that includes:
 - (A) For each recipient serving an urbanized area with a population of fewer than 200,000, a requirement that the agency safety plan be developed in cooperation with frontline employee representatives, followed by the board of directors (or equivalent entity) of the recipient approve, the agency safety plan and any updates to the agency safety plan. If the transit agency is not already compliant with the new PTASP requirements, an update to the agency's ASP must be updated to incorporate these new requirements by December 31, 2022.
 - (B) OR, in the case of a recipient receiving assistance under section 5307 that is serving an urbanized area with a population of 200,000 or more, the safety committee of the entity established under paragraph (5), followed by the board of directors (or equivalent entity) of the recipient approve, the agency safety plan and any updates to the agency safety plan.
 - (C) Strategies to minimize the exposure of the public, personnel, and property to hazards and unsafe conditions, and consistent with guidelines of the Centers for Disease Control and Prevention or a State health authority, minimize exposure to infectious diseases. Each transit agency should consider identifying mitigations or strategies related to exposure to infectious diseases through the safety risk management process described in the agency's ASP.
 - (D) In the case of a recipient receiving assistance under section 5307 that is serving an urbanized area with a population of 200,000 or more, a risk reduction program for transit operations to improve safety by reducing the number and rates of accidents, injuries, and assaults on transit workers based on data submitted to the National Transit Database.
 - (i). A reduction of vehicular and pedestrian accidents involving buses that includes measures to reduce visibility impairments for bus operators that contribute to accidents, including retrofits to buses in revenue service and specifications for future procurements that reduce visibility impairments; and
 - (ii). The mitigation of assaults on transit workers, including the deployment of assault mitigation infrastructure and technology on buses, including barriers to restrict the unwanted entry of individuals and objects into the workstations of bus operators when a risk analysis performed by the transit agency determines that such barriers or other measures would reduce assaults on transit workers and injuries to transit workers.
- § (4) In general, the transit agency (in a large urban area) shall establish performance targets for the risk reduction program using a 3-year rolling average of the data submitted by the recipient to the national transit database under section 5335. Performance targets for a risk reduction program are not required to be in place until FTA has updated the National Public Transportation Safety Plan to include applicable performance measures by December 31, 2022. Find additional guidance on planning and target setting on FTA's Performance-Based Planning pages. Transit operators also must certify they have a safety plan in place meeting the new additional requirements of the rule by December 31, 2022. The plan must be updated and certified by the transit agency annually.

- § (5) In general. —For purposes of this subsection, the safety committee of a recipient (in a large urban area) shall—
 - (i). be convened by a joint labor-management process
 - (ii). consist of an equal number of—
 - a. frontline employee representatives, selected by a labor organization representing the plurality of the frontline workforce employed by the recipient or, if applicable, a contractor to the recipient, to the extent frontline employees are represented by labor organizations; and
 - b. management representatives; and
 - (iii). have, at a minimum, responsibility for—
 - a. identifying and recommending risk-based mitigations or strategies necessary to reduce the likelihood and severity of consequences identified through the agency’s safety risk assessment.
 - b. identifying mitigations or strategies that may be ineffective, inappropriate, or were not implemented as intended; and identifying safety deficiencies for purposes of continuous improvement.

In addition to the previously discussed federal planning factors, the Commonwealth has developed several planning programs and directives to aid in the transportation planning process. MPO staff has taken steps to consider these programs, policy directives, planning reports and emphasis areas in the development of this UPWP.

Statewide and Regional Transportation Performance Management

FHWA defines Transportation Performance Management as a strategic approach that uses system information to make investment and policy decisions to achieve national performance goals. In short, Transportation Performance Management:

- Is systematically applied, a regular ongoing process;
- Provides key information to help decision makers allowing them to understand the consequences of investment decisions across transportation assets or modes;
- Improving communications between decision makers, stakeholders, and the traveling public;
- Ensuring targets and measures are developed in cooperative partnerships and based on data and objective information;

On a regional level, MRPC relies on its regional Performance Measures (systems information) to inform the TEC process (investment and policy decisions) to achieve regional performance goals. On the national level, FHWA has established its own Performance Measures to inform decision making.

Effective on April 14, 2016 FHWA established a final rule on the first of its Performance Measures, Safety Measures (PM1). For Calendar Year (CY) 2022, targets related to PM1 were set by MassDOT and adopted by the Montachusett MPO on January 19, 2022. Subsequently, FHWA established two additional performance measures that state Departments of Transportation and MPOs needed to adopt and track. The National Highway System Bridge and Pavement Condition Performance Measure (PM2) and the Systems Performance Measures, Congestion, Reliability and Emissions (PM3) were required to be established by the end of 2018. MassDOT then provided statewide target information for PM2 and PM3 to the Montachusett MPO for their review and either their adoption by the MPO or the establishment of their own regional PM2 and PM3. After review and discussion, the Montachusett formally adopted the statewide PM2 targets on October 17, 2018 and PM3 targets on October 21, 2020.

Safety Performance Measures (PM1)

Montachusett MPO has chosen to adopt the statewide safety performance measure targets set by MassDOT for Calendar Year (CY) 2022. In setting these targets, MassDOT has followed FHWA guidelines by using statewide crash data and Highway

Performance Monitoring System (HPMS) data for vehicle miles traveled (VMT) in order to calculate 5-year, rolling average trend lines for all FHWA-defined safety measures.

MassDOT CY22 Safety Performance Measure Targets (PM1)¹:

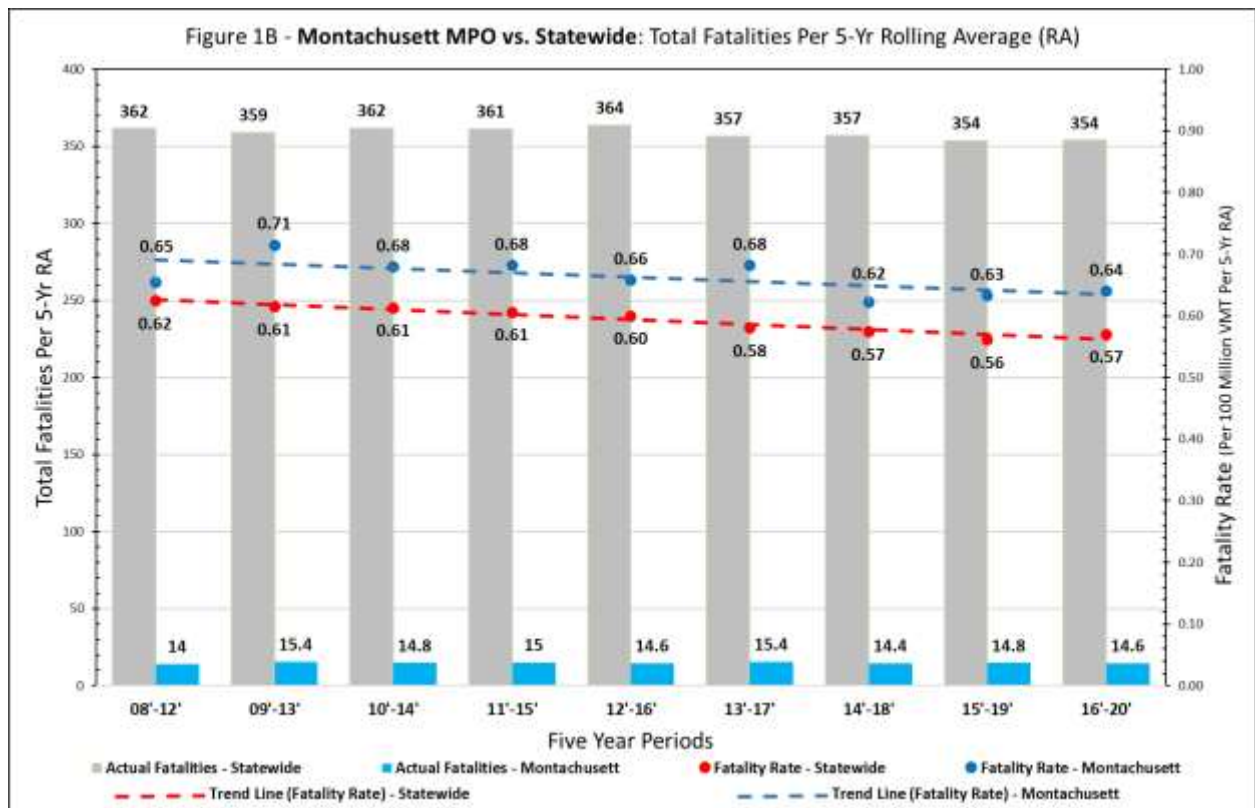
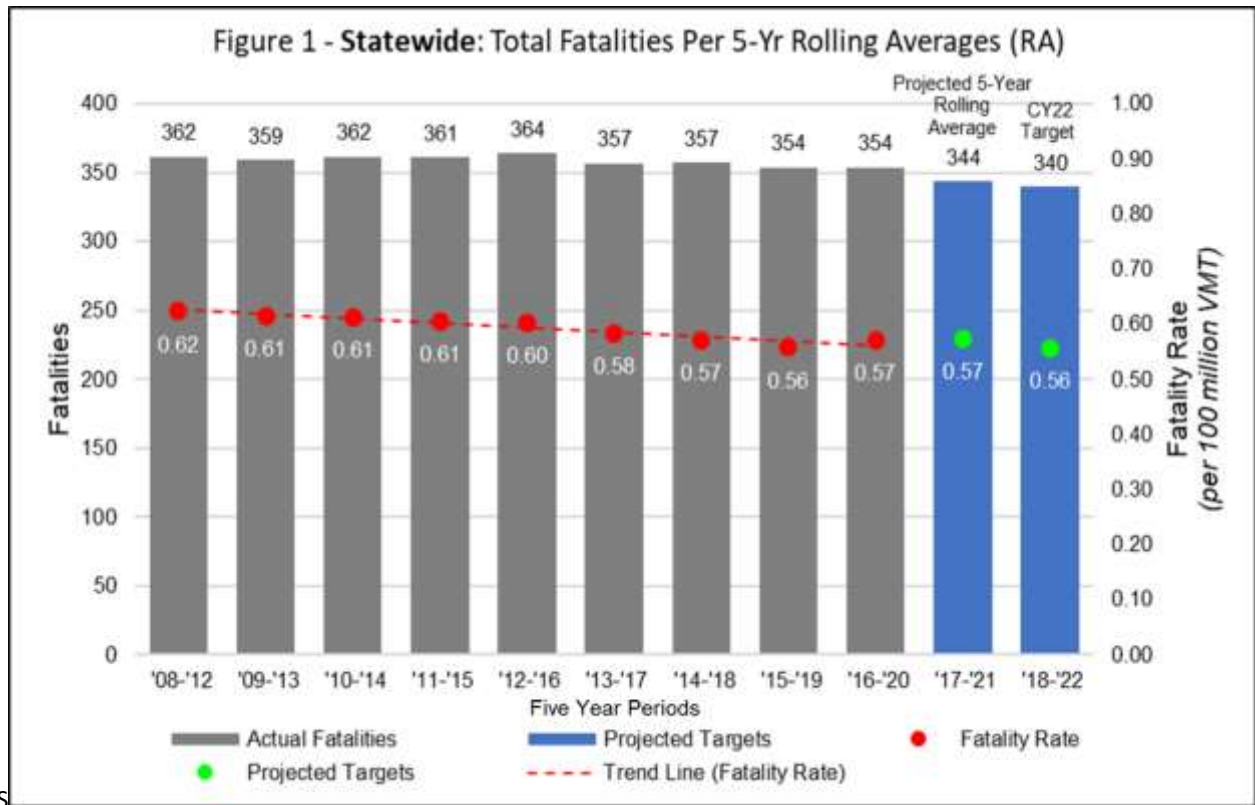
Statewide Total Fatalities: Per Federal Highway Administration (FHWA) guidance, the CY22 target setting process began with a trend line projection based on the most recent available data. Due to reduced vehicle miles traveled (VMT) related to the pandemic, actual 2020 fatalities did not follow this trend, so CY21 projections were based on trends from CY19 with CY20 data disregarded given the unique circumstances surrounding data from that year. CY22 projections are based on a 2.5% reduction in fatalities from CY21 resulting in a five-year average fatalities projection of 340 (see Figure 1 below). It is projected that fatalities will decrease based on MassDOT efforts in the areas of speed management and safe systems, among other safety strategies. As always, MassDOT's overarching goal is zero deaths and this goal will be pursued by implementing Strategic Highway Safety Plan (SHSP) strategies.

Montachusett Region Total Fatalities: In the Montachusett region, the 5-year average fatalities for the years 2016-2020 was 14.6 (see Figure 1B below).

Statewide Fatality Rate: The fatality rate represents five-year average fatalities divided by five-year average VMTs. The COVID-19 pandemic greatly impacted VMT, causing fatality rates to spike in 2020 with significantly lower VMT and slightly higher fatalities. The 2022 projection is now 0.56 fatalities per 100 million vehicle miles traveled for 2022 (five-year average of 2018-2022) (see Figure 1 below). The long-term goal is towards zero deaths, so the long-term fatality rate target is 0 fatalities per 100 million VMTs.

Montachusett Region Fatality Rate: In the Montachusett region, the average fatality rate for years 2016-2020 was 0.64 and generally follows the same downward trend as the statewide trend (see Figure 1B below).

¹ Safety Performance Measures CY22 - Regional Partner Handout.docx (MassDOT)

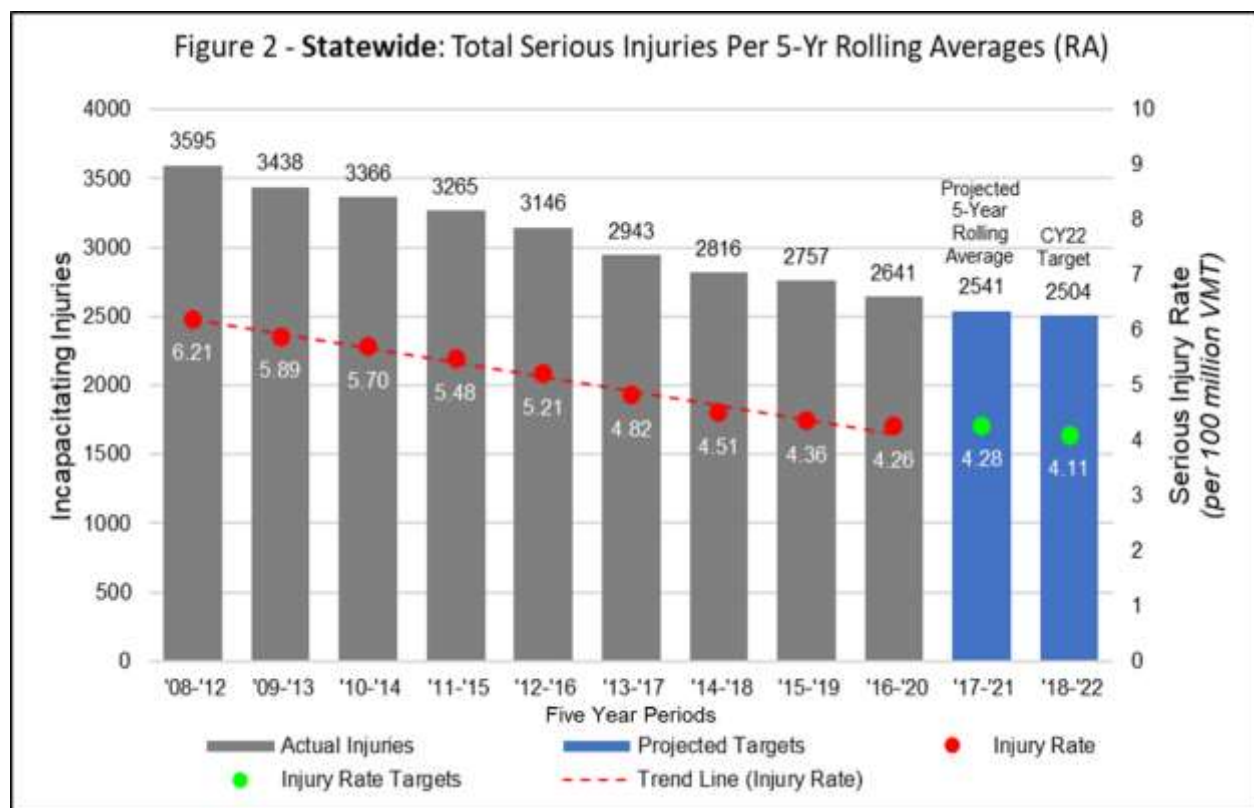


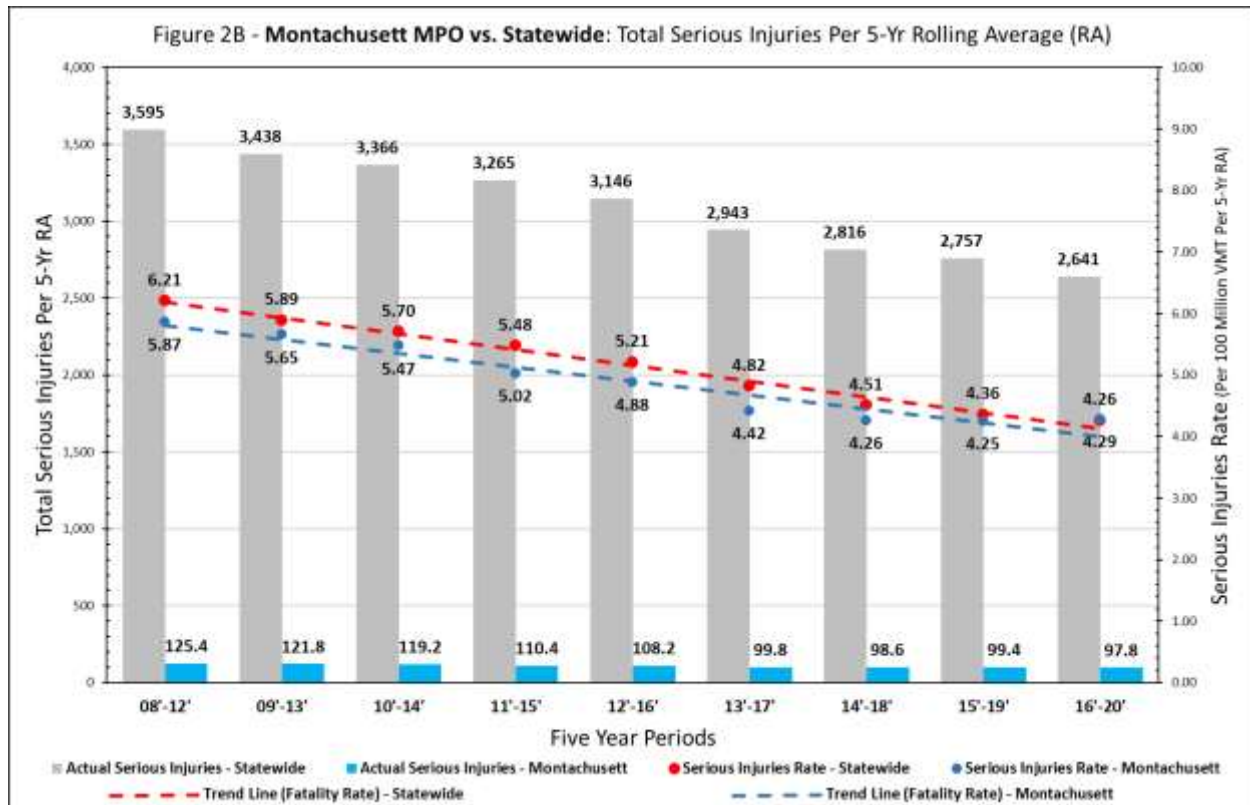
Statewide Total Serious Injuries: It is anticipated that there will be an overall decrease in the number of serious injuries due to a continual downward trend line as well as the implementation of countermeasures that are being developed as part of the 2018 SHSP. MassDOT projections in this category have used CY19 as a base to reflect changes in VMT due to the pandemic, and the CY22 target of 2,504 was set to reflect this trend (see Figure 2 below). Due to unpredictable fluctuations between 2019 and 2020 data and an overall decreasing trendline, a 3% reduction in annual serious injuries from 2018 to 2021, and a 4% annual reduction from 2021 to 2022, were assumed to calculate the CY22 target .

Montachusett Region Total Serious Injuries: In the Montachusett region, the 5-year average number of serious injuries for the years 2016-2020 was 97.8 (see Figure 2B below).

Statewide Serious Injuries Rate: Similar to the fatality rate, it is anticipated that the downward trend line will result in a drop in the rate of serious injuries from 4.28 per 100 million VMT between 2017–2021 to 4.11 between 2018–2022. Five-year VMT data were used between 2018 – 2022 to calculate this rate.

Montachusett Region Serious Injuries Rate: Although the Montachusett rate generally follows the same statewide downward trend, the 2016-2020 Montachusett rate of 4.29 was 0.03 of a point higher than the statewide rate of 4.26 (see Figure 2B below).

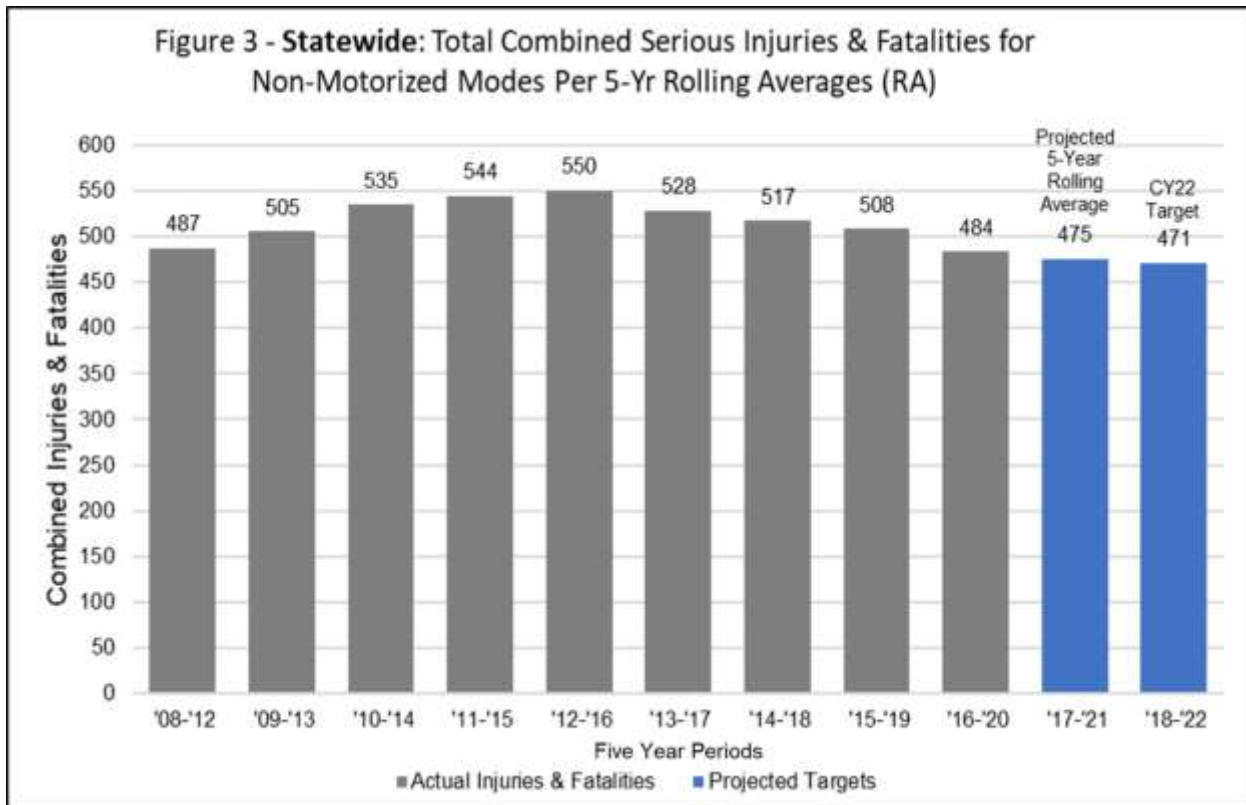




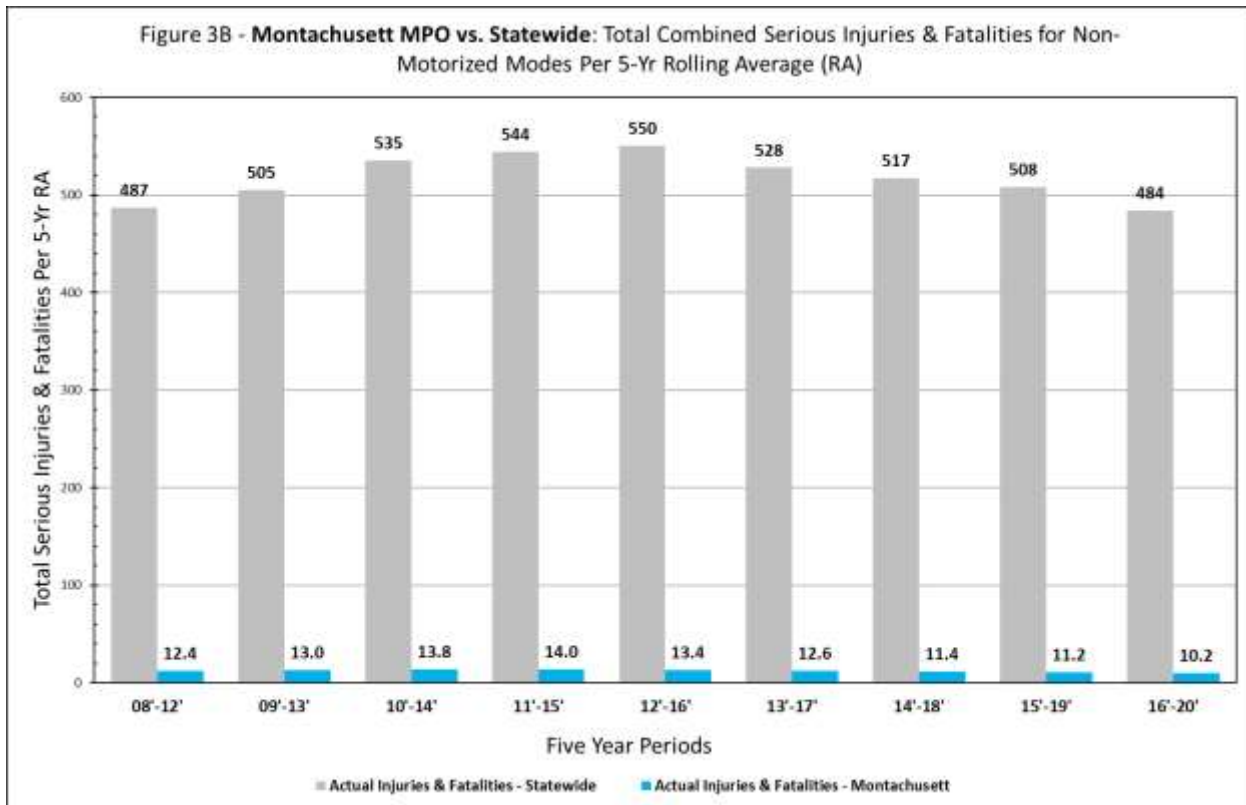
Statewide Total Number of Non-Motorized Fatalities and Serious Injuries: In 2020, during the COVID-19 pandemic, Massachusetts experienced a steep decline in both non-motorized fatalities and serious injuries. Because of the high fluctuations in the data, to establish MassDOT's CY22 target, CY21 non-motorist fatalities and suspected serious injuries were set to be equal to the average of CY17, CY18 and CY19 data. To project the non-motorist fatality and serious injuries for CY22, a 2% reduction was estimated. Overall, this translated to a CY22 5-year average of 471 fatalities and serious injuries combined for non-motorists (see Figure 3 below).

It is important to note that the inclusion criteria have changed for non-motorists. This year, the non-motorist type "not reported" was removed because, based on manual inspection, it appears that many of the persons in this category were not actually pedestrians or bicyclists but were bystanders (e.g. people who were in buildings when the building was struck by a vehicle). However, due to data quality and the ability, need and resources to manually review crashes, this field may continue to evolve.

Montachusett Region Total Number of Non-Motorized Fatalities and Serious Injuries: In the Montachusett region, the 5-year average total number of non-motorized fatalities and serious injuries for the years 2016-2020 was 10.2 (see Figure 3B below).



Note: The fatality and serious injury data contained here was developed to align with the data included within MassDOT's annual Highway Safety Improvement Program (HSIP) report. As such, historical data may be different from what was reported in prior years.



MassDOT’s effort to increase non-motorized mode share throughout the Commonwealth has posed a challenge to simultaneously reducing non-motorized serious injuries and fatalities. Rather than adopt a target that depicts an increase in the trend line, MassDOT has elected to establish a target of non-motorized serious injuries and fatalities and for CY 2022 that remains constant. MassDOT and the Montachusett MPO have invested in “complete streets,” bicycle and pedestrian infrastructure, intersection, and safety improvements in both the Capital Investment Plan (CIP) and Statewide Transportation Improvement Program (STIP) to address increasing mode share and to incorporate safety mitigation elements into projects. Moving forward, Montachusett MPO, alongside MassDOT, is actively seeking to improve data collection and methodology for bicycle and pedestrian VMT counts and to continue analyzing crash clusters and crash counts that include both motorized and non-motorized modes in order to address safety issues at these locations.

In all safety categories, MassDOT has established a long-term target of “Toward Zero Deaths” through MassDOT’s Performance Measures Tracker² and will be establishing safety targets for the MPO to consider for adoption each calendar year. While the MPO is not required by FHWA to report on annual safety performance targets, FHWA guidelines require MPOs to adopt MassDOT’s annual targets or to establish their own each year.

² <https://www.mass.gov/lists/tracker-annual-performance-management-reports>

Bridge & Pavement Performance Measures (PM2)

Montachusett MPO has chosen to adopt the 2-year (2020) and 4-year (2022) statewide bridge and pavement performance measure targets set by MassDOT. MassDOT was required to adopt a statewide target by May 20th, 2018, with MPOs either adopting the statewide target or establishing their own by November 2018. In setting these targets, MassDOT has followed FHWA guidelines by measuring bridges and pavement condition using the 9-point National Bridge Inventory Standards (NBIS); the International Roughness Index (IRI); the presence of pavement rutting; and the presence of pavement cracking. 2-year and 4-year targets were set for six individual performance measures: percent of bridges in good condition; percent of bridges in poor condition; percent of Interstate pavement in good condition; percent of Interstate pavement in poor condition; percent of non-Interstate pavement in good condition; and percent of non-Interstate pavement in poor condition. All of the above performance measures are tracked in greater detail in MassDOT's Transportation Asset Management Plan (TAMP).

Targets for bridge-related performance measures were determined by identifying which bridge projects are programmed and projecting at what rate bridge conditions deteriorate. The bridge-related performance measures measure the percentage of deck area, rather than the total number of bridges.

Performance targets for pavement-related performance measures were based on a single year of data collection, and thus were set to remain steady under the guidance of FHWA. These measures were reviewed and a decision was made to maintain the target levels as is.

MassDOT continues to measure pavement quality and to set statewide short-term and long-term targets in the MassDOT Performance Management Tracker using the Pavement Serviceability Index (PSI), which differs from IRI. These measures and targets are used in conjunction with federal measures to inform program sizing and project selection.

Performance Measure	Current (2017)	2-year target (2020)	4-year target (2022)
Bridges in good condition	15.22%	15%	16%
Bridges in poor condition	12.37%	13%	12%
Interstate Pavement in good condition	74.2%	70%	70%
Interstate Pavement in poor condition	0.1%	4%	4%
Non-Interstate Pavement in good condition	32.9%	30%	30%
Non-Interstate Pavement in poor condition	31.4%	30%	30%

Reliability, Congestion, & Emissions Performance Measures (PM3)

Montachusett MPO has chosen to adopt the 2-year (2020) and 4-year (2022) statewide reliability, congestion, and emissions performance measure targets set by MassDOT. MassDOT was required to adopt a statewide target by May 20th, 2018, with MPOs either adopting the statewide target or establishing their own by November 2018.

MassDOT followed FHWA regulation in measuring Level of Travel Time Reliability (LOTTR) on both the Interstate and non-Interstate NHS as well as Truck Travel Time Reliability (TTTR) on the Interstate system using the National Performance

Management Research Dataset (NPMRDS) provided by FHWA. These performance measures aim to identify the predictability of travel times on the roadway network by comparing the average travel time along a given segment against longer travel times. For LOTTR, the performance of all segments of the Interstate and of the non-Interstate NHS are defined as either reliable or unreliable based on a comparison between the 50th percentile travel time and the 80th percentile travel time, and the proportion of reliable segments is reported. For TTTR, the ratio between the 50th percentile travel time and the 90th percentile travel time for trucks only along the Interstate system is reported as a statewide measure. As this data set has but one year of consistent data, FHWA guidance has been to set conservative targets and to adjust future targets once more data becomes available. To that end, MassDOT’s reliability performance targets are set to remain the same.

Montachusett MPO — an agency whose planning area includes communities in the Boston Urbanized Area (UZA), and as a signatory to the 2018 Boston UZA Memorandum of Understanding (Boston UZA MOU)—has also adopted 2-year (2020) and 4-year (2022) Boston UZA-wide congestion performance measure targets. These performance measures are the percentage of non-single occupancy vehicle (SOV) travel and the Peak Hour Excessive Delay (PHED). Targets were developed in coordination with state Departments of Transportation and neighboring MPOs with planning responsibility for portions of the Boston UZA.

The percentage of non-SOV travel is approximated using the U.S. Census Bureau’s American Community Survey (ACS) Journey-to-Work data. In the Boston UZA, the proportion of non-SOV travel has been steadily increasing and is projected to continue increasing at a rate of 0.32% annually.

PHED is measured by totaling the number of hours spent in excessive delay (defined as travel time at 20 miles per hour or at 60% of the posted speed limit, whichever is greater) in peak hours (between 6:00am and 10:00, and between 3:00pm and 7:00pm) divided by the total UZA population. As of target-setting, there was only one year of data available. As such, the performance targets have been set flat until further data is available.

Emissions reduction targets are measured as the sum total of all emissions reductions anticipated through CMAQ-funded projects in non-attainment or air quality maintenance areas (currently the cities of Lowell, Springfield, Waltham, and Worcester, and the town of Oak Bluffs) identified in the Statewide Transportation Improvement Program (STIP). This anticipated emissions reduction is calculated using the existing CMAQ processes.

Measure	Current (2017)	2-year (2020)	4-year (2022)
Non-Interstate LOTTR	80%	80%	80%
Interstate LOTTR	68%	68%	68%
TTTR	1.85	1.85	1.85
PHED (Boston UZA)	18.31	18.31	18.31
% non-SOV (Boston UZA)	33.6% (2016)	34.82%	35.46%
Emissions Reductions	Baseline (FFY 14–17)	1,622 CO 497.9 Ozone	TBD CO (Springfield) 1.1 Ozone

Global Warming Solutions Act (GWSA)

The Global Warming Solutions Act (GWSA) was signed into law in August 2008 and makes Massachusetts a leader in setting aggressive and enforceable GHG reduction targets, policies and initiatives to achieve these targets. On December 29, 2010 the Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA), released the Massachusetts Clean Energy and Climate Plan for 2020. The targets for overall statewide GHG emissions are:



The MPOs are most directly involved in helping to achieve the GHG emissions reductions through the promotion of healthy transportation modes through prioritizing and programming an appropriate balance of roadway, transit, bicycle and pedestrian investments through the creation of a balanced multi-modal transportation system. This is realized through the transportation goals and policies presented in the 2020 and 2016 Regional Transportation Plans (RTPs); the major projects planned in those RTPs; and the mix of new transportation projects that are programmed and implemented through the TIPs. GHG tracking and evaluation processes enable the MPOs to identify anticipated GHG impacts of planned and programmed projects, and to use GHG impacts as a criterion in prioritizing transportation projects.

weMove Massachusetts

MassDOT released weMove Massachusetts (WMM): Planning for Performance, the Commonwealth of Massachusetts' 2040 Long-Range Transportation Plan (LRTP) in May of 2014. This plan includes seven major components:

1. Transportation Reform - emphasis on customers, innovation, accountability, performance management, efficiency, stewardship and stronger collaboration across transportation divisions;
2. Data and Analysis - critical to sound decision making;
3. Transportation System Needs Identification– to help choose the right transportation investments;
4. youMove Massachusetts Themes - ten value statements that capture the diverse values users;
5. Customer and Stakeholder Engagement– incorporate the priorities of customers and stakeholders;
6. Statewide Transportation Plans– implement modal plans;
7. Statewide Priorities and Policies– ensure accountability.

The policies of the Commonwealth are reviewed considered and incorporated in the planning studies developed as part of the work tasks outlined in this UPWP. Recommendations derived from these studies will be consistent with state policies.

Healthy Transportation Policy Directive

In 2013, MassDOT announced the Healthy Transportation Policy Directive designed to increase bicycling, transit and walking options. The directive is intended to promote multimodal access for users of the transportation networks and systems.

Elements included in the Directive are as follows:

- All MassDOT facilities will consider adjacent land uses and be designed to include wider sidewalks, landscaping, crossing opportunities and other features to enhance healthy transportation options;
- Reviews will be conducted of cluster sites where incidents have occurred with healthy transportation users;
- MassDOT will develop a guide to assist communities proposing Shared Use Paths on or along rail beds in order to accelerate the path design process.

Coordination in the Montachusett UPWP

The policies and goals of the Commonwealth, such as those listed above as well as those in state freight, bicycle, pedestrian and rail plans, will continue to be reviewed, considered and incorporated in the planning studies developed as part of the work tasks outlined in this UPWP. Tasks such as 1.4 Development of TIP, 2.1 Regional Demographics, 2.6 Regional Transportation Plan, 3.1 Housing Coordination Plan, 3.3 Intersection Analysis, 3.4 Freight Study, and 4.2 Transit Development Plan. Recommendations derived from these studies will be consistent with state policies.

Commission on the Future of Transportation in the Commonwealth

In 2018, Governor Baker signed Executive Order No. 579 which created a “Commission on the Future of Transportation in the Commonwealth” to provide recommendations on how to best account for potential changes in transportation in the future. “The Commission will explore anticipated changes in technology, climate, land use, and the economy to determine likely impacts on transportation between 2020 and 2040. This work will be conducted through a robust grounding in facts and trends, development of plausible future scenarios, and formulation of recommendations to the Governor, Lieutenant Governor, and other key decision makers.”

Based on this criterion, the following topics were examined;

1. Climate and Resiliency
2. Transportation Electrification
3. Autonomous and Connected Vehicles
4. Transit and Mobility Services
5. Land Use and Demographics

The Commission on the Future of Transportation in the Commonwealth completed their work in early 2019 and released a two-volume report. These reports outlined the current trends in the five topic areas and, through scenario planning, provided recommendations to prepare the transportation system in Massachusetts for the future in 2040. Reference to this report was made by staff in the development of the Montachusett 2020 Regional Transportation Plan (RTP).

1.0

MANAGEMENT AND SUPPORT

UPWP TASK NO. 1.1 – SUPPORT OF 3C PROCESS

Objective:

To assist, support, and provide the capability to maintain an open, comprehensive, cooperative, and continuing (3C) transportation/air quality planning and programming process at all levels of government; in conformance with applicable Federal and State requirements and guidelines, as described in the Memorandum of Understanding, and consistent with the DOT/EPA agreement. The task will include the presentation and preparation of transportation related planning activities, including those related to the Transportation Improvement Program (TIP), the Unified Planning Work Program (UPWP), the Regional Transportation Plan (RTP) and other major documents, to various committees and groups; analysis and review of related documents and studies; attendance at federal and state transportation related workshops and meetings; and coordination and liaison with federal, state and local officials.

This task will provide continued technical assistance and liaison with various coalitions/task forces including: the Montachusett Regional Trail Coalition (MRTC), the Montachusett Regional Transit Authority (MART), the Montachusett Regional Emergency Planning Committee (MREPC), the Community Health Network Area 9 (CHNA 9), the Fitchburg Line Working Group, the North Central Regional Coordinating Council (RCC) and the Montachusett Joint Transportation Committee (MJTC).

The Community Health Network of North Central Massachusetts (CHNA 9) is one of 17 CHNAs across Massachusetts, created by the Department of Public Health in 1992. CHNAs are an initiative to improve health through local collaboration. CHNA 9 is a partnership between the Massachusetts Department of Public Health, the Central MA Center for Healthy Communities, residents, hospitals, local service agencies, schools, faith communities, businesses, boards of health, municipalities, and other concerned citizens working together to: identify the health needs of member communities, find ways to address those needs and improve a broad scope of health in these communities. The Community Health Improvement Plan (CHIP) includes Transportation and Access as one of four priority areas.

The Fitchburg Line Working Group is a group of local officials that has worked with consultants and the Massachusetts Bay Transportation Authority (MBTA) to examine options for improving commuter rail service on the Fitchburg Line. The special advisory commission was established through state legislation with the purpose of “promoting and facilitating inter-local and inter-regional cooperation and to investigate, propose, evaluate and vote on recommendations to,” (MassDOT) “on the need for transportation improvements, enhancements, and alternatives for the municipalities and regions serviced by the Fitchburg MBTA commuter rail line.” The Advisory Commission is comprised of 24 members including the MRPC.

The North Central Regional Coordinating Council (RCC) is a voluntary coalition made up of human service representatives, state agencies, the transit authority, regional planning agency, consumers, advocates, etc. The RCC meets quarterly, on average, to discuss the transportation priorities and challenges within the region.

The MJTC is a sub-committee of the MRPC that focuses on transportation and transit issues. In addition to acting as a sounding board for the development of all “3C” documents, the MJTC serves as a public outreach forum to solicit input from all members of the public.

Additionally, the MRPC will continue to work with MassDOT related to the implementation of regulations and requirements related to the federal transportation authorization.

The current Memorandum of Understanding defining the MPO and the Transportation Planning process enacted in 2010 will be reviewed in cooperation with MassDOT and FHWA to determine any and all necessary updates. Additional MOU's that have been approved by the MPO include:

- Boston UZA between MA, NH & RI (2018)
- Worcester UZA between MA, CT, CMRPC, MRPC, NMCOG, MART & WRTA (2020)
- Nashua UZA between MA, NH & RPAs (2020)

Previous Work:

During FY 2022, the Montachusett Regional Planning Commission staff:

- Administered a viable 3C transportation planning process under the directives of the MPO, as outlined in the previous Unified Planning Work Program (UPWP);
- Scheduled, conducted and maintained an active citizen-participation process including private sector participation through the Montachusett Joint Transportation Committee (MJTC);
- Scheduled, conducted and maintained the operation of the Montachusett Metropolitan Planning Organization (MMPO);
- Coordinated the transportation planning program with local community planning and engineering departments;
- Maintained liaison and coordination with federal and state agencies;
- Administered all requirements and activities of the 3C planning contract.
- Led South Athol Road and Route 2 Studies Advisory Group, 2016 – Ongoing;
- Participation in the CHNA 9, 2017- Ongoing;
- Member and participant in the Worcester County Highway Association, 2014 – Ongoing;
- Participated in the North Central Regional Coordinating Council - Ongoing;

Methodology:

General 3C Support:

- Provide administrative and technical support to the 3C process such as:
 - Provide liaison and short-term planning assistance to all communities on transportation planning matters.
 - Review Federal and State transportation programs and regulations as required or necessary.
- Administer the UPWP, 3C Contract, FTA/The Office of Transportation Planning Technical Studies and other transportation related grants.
- Provide for and support public participation and private enterprise involvement in the 3C Process, FTA and Air Quality Programs.
- Participation in informational programs on transportation, air quality, hazardous waste, energy conservation and accessibility planning.
- Coordinate work with agencies involved in the 3C Contract, FTA and Air Quality Planning Programs.
- Review MassDOT "084" Forms which affect highway capacity, speed, or VMT as part of the MPO's annual Air Quality Consistency Review.
- Provide for participation of staff in educational development programs and conferences with concurrence with the Office of Transportation Planning and other agencies as needed.
- Review and comment on traffic studies submitted to member municipalities by developers under the MEPA process or as needed/requested.
- Ensure that transportation/air quality decisions are consistent with regional policies, goals, objectives, and the State Implementation Plan (SIP).
- Distribute for endorsement all necessary certification documents; maintain all MPO documentation records and files, and act as the general secretariat for the MPO in the Montachusett Region.
- Work with and assist MassDOT and OTP with the implementation of rules and regulations related to BIL.

- Coordinate work with state and regional agencies involved in the unified or combined Massachusetts state plan of the Federal WIOA.

Fitchburg Line Working Group:

- Continue participation on and liaison with the working group;
- Continue interaction and work with local officials, MBTA and Devens Enterprise Commission to review information, analysis and recommendations regarding study as developed by consultant, and continue process for development of projects for funding through the TIP, etc.

North Central Regional Coordinating Council

- Continue participating with the RCC
- Provide support services as needed

Montachusett Joint Transportation Committee

- Continue scheduling, coordination, and participation of and with the MJTC;
- Provide support services related to meetings and issues raised by the MJTC;
- Coordinate development of federal certification documents with MJTC.

Product:

The maintenance and certification of a viable 3C transportation planning process.

- Fitchburg Line Working Group - Project list for the Fitchburg Commuter Rail Line within the Montachusett Region for use as input to the MBTA's Capital Improvement Plan and where appropriate.
- North Central Regional Coordinating Council – Meeting and data support as needed.
- Montachusett Joint Transportation Committee - Meeting support as needed & coordination with federal certification documents.

Schedule:

Management and support activities on a continuing basis throughout the program year.

Task Force and Organization activities to be carried out throughout the program year.

	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	July 2023	Aug 2023	Sep 2023
Support Activities												
Public Input												

Task 1.1

	Budget	Estimated Staff Effort
FHWA PL/FTA-5303	\$75,600	27.95 weeks
MassDOT	\$18,900	6.99 weeks
TOTAL	\$94,500	34.94 weeks

UPWP TASK NO. 1.2 – UNIFIED PLANNING WORK PROGRAM

Objective:

To develop and obtain MPO endorsement of an annual Unified Planning Work Program (UPWP) that provides a description of the overall transportation/air quality planning activities, ongoing and anticipated in the region, including funding sources and agency responsibilities. Distribution and notification of documents, drafts and applicable items will follow and be consistent with the Montachusett Public Participation Plan (PPP).

Previous Work:

Previous Unified Planning Work Programs and other Federal and State grant applications (including Prospectus) produced annually.

Methodology:

In conformance with applicable Federal and State guidelines, prepare and continually maintain a Unified Planning Work Program that describes all transportation-related planning activities anticipated within the Region during the next or upcoming program year regardless of funding sources. The UPWP will include tasks and budget information based upon federal and state guidance.

Maintain the current UPWP during the program year and revise, adjust or amend the UPWP as needed. Adjustments and amendments will be based upon criteria previously identified in this document. Any and all public comment periods will follow procedures outlined in the current Montachusett PPP.

Products:

- Annual Unified Planning Work Program endorsed by the MPO.
- Amendments, as necessary, endorsed by the MPO.

Schedule:

Update and endorsed annually during the middle segment of each Program Year. Development schedule is designed to coordinate with the state timeline for the Capital Investment Plan (CIP). Meetings to occur throughout the process from December 2022 to May/June 2023 time period. Draft documents prepared March to May 2023. MPO endorsement to be sought no later than June 2023.

Amendments are prepared and endorsed as necessary.

	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	July 2023	Aug 2023	Sep 2023
Start of Draft												
Public Input												
Draft for Comment												
MPO Endorsement												

Task 1.2

	Budget	Estimated Staff Effort
FHWA PL/FTA-5303	\$15,800	5.84 weeks
MassDOT	\$ 3,950	1.46 weeks
TOTAL	\$19,750	7.30 weeks

UPWP TASK NO. 1.3 – PUBLIC PARTICIPATION PROGRAM

Objective:

Under this task the Montachusett MPO will continue to support, review and update the Public Participation Plan (PPP) developed for the UPWP, TIP and Regional Transportation Plan (RTP). These processes outline the public outreach procedures to be followed by the MPO in developing and amending the Region's RTP, TIP, UPWP and other major documents as required. It is designed to ensure that all interested public and private agencies, organizations, including non-profits, and citizens have equal access to all transportation related policies, projects, and decisions made within the region. The encouragement of meaningful participation of local individuals in metropolitan transportation planning is one of the most important goals of the "3C" (continuous, cooperative, and comprehensive) process and the Public Participation Program.

An updated and revised Montachusett PPP was developed and endorsed in May 2016 in accordance with federal and state guidelines and regulations. In addition, input from the MassDOT Office of Diversity and Civil Rights (ODCR) related to Title VI was incorporated as necessary. A further revision to the PPP was undertaken in the last program year. At the time of this document, formal adoption by the MPO had not been sought. The newest iteration of the PPP seeks to reflect the state's PPP overall and in particular address the issue of virtual public involvement through online meeting presentations. The updated PPP will be subjected to a 45-day public review period. The PPP will continue to be reviewed and any subsequent revision or amendment will be implemented as deemed appropriate. Any action related to the PPP will seek endorsement by the MPO. Coordination with MassDOT's ODCR will also continue to be maintained and encouraged to ensure a viable and workable PPP. In addition, staff will continue to monitor, support and encourage public participation through the MJTC, the Montachusett MPO and the MRPC. Staff will continue to prepare for and attend public meetings, seek to identify underserved and underrepresented groups, populations and organizations, identify methods to improve participation in the MJTC, MPO and MRPC and examine new and innovated methods to disseminate materials in order to meet environmental justice, Title VI and other federal and state requirements. Staff will continue to expand virtual public engagement methods to the extent possible. Currently, the MRPC utilizes the GoToMeeting.com application for online meetings. However, staff continually examines available technologies in order to expand and improve the VPI process.

The MRPC website went through a significant update and redesign in spring 2013 and continues to be refined and updated to improve accessibility as needed. This update has allowed staff to better maintain the site and by extension improve the experience and usage by the general public. Continued refinements to the MRPC web page (www.mrpc.org) will continue to be undertaken. Efforts will continue to examine ways to make the MRPC website more accessible and easier to navigate for the public especially in relation to Title VI and Limited English Proficiency (LEP) needs or requirements.

Previous Work:

- Limited English Proficiency Plan update – November 2019
- Montachusett Public Participation Plan – May 2016.
- Title VI Annual Report – September 2017, December 2018
- MRPC website redesign – 2013 and Ongoing
- Montachusett Public Participation Plan Amendment – April 2010

Methodology:

As part of the continued development of the MRPC website:

- Prepare, publish, update and enhance the MRPC web page with information that indicates the status of transportation activities and programs in the region.

- Continue refinements to the site to meet Title VI and LEP needs and requirements to better serve all the interested public.
- When appropriate, hard copies of information contained on the web site will be distributed to the MPO, the MJTC, local planning boards, selectmen and the general public.

As part of the Public Participation Program/Plan;

- Conduct review of state Public Participation Program and related Title VI input/comments from ODCR.
- Identify elements of the PPP that need refinement and/or correction.
- Update the Public Participation Program that details efforts to involve citizens in the transportation planning process in accordance with FHWA/FTA Planning Regulations and any/all Title VI requirements.
 - Provide a proactive public involvement process that provides complete information, timely public notice, full public access to key decisions and supports early and continuing public involvement in developing UPWP's, Regional Transportation Plans, and TIP's and meets the eleven requirements and criteria specified in the regulations.
 - Continue efforts to broaden participation to include environmental, public health, elderly and disabled and other public and private interest groups for air quality and accessibility planning.
 - Continue efforts to address issues related to Title VI and public outreach and involvement to those identified populations.
- Continue to expand and improve the Virtual Public Involvement options of the PPP in order to provide easy access for interested individuals. This will include technology reviews and upgrades where possible.
- Identify Innovative Public Participation Techniques and Processes: Staff will attempt to identify innovative public participation techniques and programs that will enhance public participation. This will include virtual participation options.
- Identify Underserved/Underrepresented Groups: Under the Final Rule on Metropolitan Planning, MPO's are required to reach out to those groups who have been traditionally underserved in the provision of transportation services. MRPC staff will seek to identify these groups as well as others who, while not underserved, are not participating in the transportation planning process and attempt to get them more involved.
- Provide for Open Review of the Implementation of this Process: It is very likely that the Public Participation Program will require continued revision and refinement. MRPC will make sure that interested parties and the general public are involved in developing new and/or additional outreach procedures and will have ample opportunity to voice their opinions on these changes once proposed.
- Implement Public Participation Plan in All Aspects of MPO Planning: In addition to its use in developing/amending the RTP, TIP, and UPWP, the Public Participation Plan will be used, where appropriate, in other aspects of the MPO planning process.
- Present Transportation Plans and programs to the public for appropriate action.
- Utilize MRPC internet web page to promote and solicit public input and involvement in all planning aspects. Actively promote availability of web page.
- Continue to ensure that individuals who need a reasonable accommodation to fully participate in MPO sponsored activities and meetings, such as a tape of the draft document, a sign interpreter, large print materials, transportation, etc. are encouraged to contact the MRPC office at (978) 345-7376 for assistance.
- Maintain an ongoing review of the PPP to continue to address issues related to Environmental Justice and Title VI compliance. Update/change the PPP as needed.
- Continue review of Limited English Proficiency Plan (LEP) and its relation to the PPP. Update LEP and PPP as needed.
- The PPP, where appropriate, seeks to address the needs of individuals with limited English-speaking proficiency as well as all Title VI populations. In addition, the PPP seeks to recognize where appropriate that the development of Regional Transportation Plans will include consultations, as appropriate, with state and local officials responsible for Land Use Management, Natural Resources, Environmental Protection, Conservation, and Historic Preservation.

Product:

- Revised/updated PPP that address Title VI and other issues identified and highlighted by MassDOT's ODCR as well as through federal and state rules and regulations.
- Updated Web Page; Print copies as needed.
- Continued maintenance of a viable Public Participation Plan for the TIP, RTP, UPWP and where appropriate, other aspects of MPO planning.
- Maintain and update the VPI aspects of all applicable meetings.

Schedule:

To be carried out throughout the program year.

Update/revision to the PPP to be completed and endorsed by the MPO as needed.

Website to be updated on a continuing basis as information developed.

	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	July 2023	Aug 2023	Sep 2023
Web Revisions												
PPP Review												

Task 1.3

	Budget		Estimated Staff Effort
FHWA PL/FTA-5303	\$25,600		9.47 weeks
MassDOT	\$ 6,400		2.37 weeks
TOTAL	\$32,0000		11.83 weeks

UPWP TASK NO. 1.4 – DEVELOPMENT OF TRANSPORTATION IMPROVEMENT PROGRAM

Objective:

To develop and maintain a financially constrained staged multi-year program of transportation/air quality improvement projects that is consistent with the Regional Transportation Plan, the State Implementation Plan, EPA's Air Quality Conformity Regulations and FHWA/FTA Planning Regulations; and to conduct, on an as needed basis, amendments and administrative adjustments to the TIP regarding new project selection, air quality reviews, etc. based upon procedures outlined within the TIP. Amendments and adjustments would include development of draft and final documents, public and MPO notification, etc. Staff developed in 2019, a revised Transportation Evaluation Criteria (TEC) scoring mechanism based upon MJTC and MPO review and input.

The recently launched electronic STIP (eSTIP) application will be used as part of the annual development of the Transportation Improvement Program (TIP). Distribution and notification of documents, drafts and adjustments/amendments will follow and be consistent with the Montachusett Public Participation Plan (PPP) adopted in 2016 and updated in this UPWP program year.

Previous Work:

- Transportation Evaluation Criteria (TEC) Revision for the Montachusett Region – 2019
- Prior TIP's and Amendments developed on an annual basis.
- Regional Performance Measures and Goals through the 2016 Regional Transportation Plan - 2015
- MAP-21 Regionally developed Performance Measures – 2015/2016

Methodology:

GENERAL

- The TIP is a staged, multi-year, Intermodal program of transportation projects which are consistent with the Regional Transportation Plan (RTP). It is a management and project tracking tool that is used to monitor the progress in implementing the RTP;
- It seeks to ensure early involvement of key stakeholders and citizens through adherence with the Public Participation Plan prepared under the 3C Task;
- The TIP includes sections on:
 - Description of funding categories and amounts of Federal funds proposed to be obligated during each program year;
 - Previously funded projects and programs from the last TIP year;
 - A description of the criteria and Project Selection Process for prioritizing projects;
 - Air quality significance and relationship of the TIP to the State Implementation Plan (SIP);
 - A financial plan that compares revenue needs to revenue sources for highway and transit programs and identifies operating and maintenance costs for the existing transportation system. The MRPC recognizes the need to develop a financially constrained TIP and will work with all members of the MPO to ensure the development of such a document;
- The TIP utilizes Transportation Evaluation Criteria in the review and prioritization process for identified projects. A continued review of the revised TEC will be conducted in order to ensure a regionally specific TEC. Performance Measures as developed during the development of the 2016 RTP and additional measures developed by federal and state officials according Bipartisan Infrastructure Law (BIL) will be incorporated into the TEC as they come online.
- The TIP conducts a review and analysis where required to determine compliance and applicability to the Commonwealth's Global Warming Solutions Act. This includes an evaluation and tracking of Green House Gas (GHG) emissions and impacts of projects within the four years of the TIP.

DEVELOPMENT PROCESS OF THE FIVE-YEAR PROGRAM OF PROJECTS

- Update the list of all transit, highway, or air quality projects that are expected to require federal transportation funds for planning and engineering, construction or purchase during the federal fiscal years that the TIP is prepared for;
- Prepare a list of all regionally significant transportation projects or programs that require FHWA or FTA approval that are not using Federal transportation funds;
- For informational purposes list all regionally significant projects proposed to be funded with Federal funds other than from FHWA and FTA;
- For informational purposes list all regionally significant projects proposed to be funded with Non-Federal funds;
- The list of projects shall include:
 - The official MassDOT identifying project title;
 - Project description;
 - Transportation Evaluation Criteria Score;
 - Estimated total cost;
 - The amount of Federal funds proposed to be obligated during each program year;
 - Proposed source of Federal and non-Federal funds;
 - Identification of the recipient/sub recipient and State and local agencies responsible for carrying out the project;
 - Identification of those projects which will implement ADA plans.
- Project descriptions shall be of sufficient detail to permit air quality analysis in accordance with the U.S. EPA conformity requirements;
- The total costs of projects, seeking Federal funds, in each program year shall be in line with anticipated federal funds. Year of Expenditure (YOE) costs will be determined for projects contained within Years 2, 3, 4 and 5 for the TIP;
- The projects will be reviewed by MPO Staff, MassDOT Planning and MassDOT Highway Districts 2 and 3 based upon the procedures outlined in the Transportation Evaluation Criteria. Initial scores will be determined and reviewed by the MPO in order to establish the TIP;
- Projects will be reviewed and analyzed using MassDOT developed AQ spreadsheets in order to determine GHG impacts and/or reductions.

AIR QUALITY

- Prepare all documentation necessary for an air quality consistency determination required by EPA's recent regulations of "Criteria and Procedures for Determining Conformity to State of Federal Implementation Plans of Transportation Plans, Programs, Projects Funded or Approved Under Title 23 U.S.C. of the Federal Transit Act".
- A review of the past year's accomplishments within the Transportation element of the SIP.
- The TIP is based upon a conforming Regional Transportation Plan (RTP) and is therefore a conforming document. As such a quantitative air quality analysis of all regionally significant projects will be conducted only as needed and, on those projects, not contained within the conforming RTP. Major air quality projects are defined as those that change vehicular speed, reduce VMT or affect travel delay; as promulgated and endorsed by the State Air Quality Task Force. This as needed analysis will include projects which require an Environmental Impact Study (EIS), Environmental Impact Report (EIR) or Finding of No Significant Impact (FONSI); and will utilize methodology endorsed by the State Air Quality Task Force. The analysis will be based on a network-based transportation demand model which will be used to compare the action (build) alternatives to the baseline (no-build) alternative relative to air quality impacts.
- Prepare and review GHG emission impacts in order to assist in meeting requirements of the Commonwealth's Global Warming Solutions Act.

PUBLIC PARTICIPATION

- There will be reasonable opportunity for public comment in accordance with the Public Participation Plan developed and endorsed by the MPO in 2016 as well as the updated plan to be developed under this UPWP;
- The proposed and approved TIP will be published or otherwise made readily available for informational purposes.

CONSULTATION

- Through the TIP development process, consultation with various state and local officials as well as other groups/organizations and stakeholders is required by applicable federal and state rules and regulations. Through meetings with MassDOT and the MJTC, as well as the procedures outlined in the Montachusett Public Participation Plan, notification will be made to a number of “agencies and officials responsible for other planning activities within the Metropolitan Planning Area (MPA) that are affected by transportation” of the development of the TIP. Further coordination and/or consultation will occur as early as possible and as needed and requested. All efforts will be documented within the TIP.

TIP APPROVAL

- The above completed documents will be reviewed and endorsed by the MPO. The endorsed product will serve as the required air quality consistency documentation necessary for DOT (FHWA/FTA) and EPA conformity determination.

ADJUSTMENT/AMENDMENT/MODIFICATIONS

- Amendments and Adjustments to the TIP will require MPO approval and action. Procedures outlined in the Montachusett Public Participation Plan will be followed.

SELF CERTIFICATION

- During the development of the TIP and at the time of endorsement by the MPO, the MRPC will conduct an annual Self Certification Compliance. This will certify that the Comprehensive, Continuing, Cooperative Transportation Planning Process for identified fiscal year in the Montachusett Metropolitan Planning Organization is addressing major issues facing the region and is being conducted in accordance with all applicable requirements.
- Additionally, a self-certification will be conducted related to the Global Warming Solutions Act Requirements that will indicate compliance with applicable requirements of State Regulation 310 CMR 60.05.

PERFORMANCE AND ECONOMIC MEASURES

- When and where applicable, performance and economic impacts will be examined so as to be used as part of TIP development and Transportation Evaluation Criteria process. Performance measure impacts will be judged based upon the projects ability to address certain PM characteristics, such as Safety or Infrastructure both from a state and regional perspective. Economic impacts will be based upon whether a project helps to promote growth or access to identified commercial, industrial or other areas in a community. The TEC was updated in the winter of 2018 to improve the scoring process. Further refinements will continue to be examined.

Product:

An MPO endorsed Transportation Improvement Program, including, Year 1, 2, 3, 4 and 5 elements, a ranking of the projects based upon the Transportation Evaluation Criteria process, a quantitative analysis of all transportation related emissions as a result of the implementation of the TIP and a demonstration that its implementation is consistent with the SIP and meets EPA/DEP conformity criteria and disbursed in accordance with the latest distribution matrix.

Adjustments/amendments to the TIP as required. Amendments or administrative action based upon criteria outlined within the TIP.

The TIP and any adjustment or amendment will be a fiscally constrained document for each fiscal year covered.

Performance and economic measures based upon project types that can be used as part of evaluation criteria for TIP development.

Schedule:

The TIP will be submitted as required by MassDOT during the second/third quarter of the required Program year.

Draft document to be developed for public release and review in March 2023 to April 2023 time period.

Final and MPO Endorsed documents to be released in May 2023. Development schedule is designed to coordinate with the state timeline for the Capital Investment Plan (CIP). MPO endorsement to be sought no later than May 2023.

Amendments to the TIP are processed as needed.

Performance measures analysis ongoing throughout the year.

	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	July 2023	Aug 2023	Sep 2023
TIP Start												
Public Input												
Draft												
MPO Endorsement												
TIP Amendments												

Task 1.4

	Budget		Estimated Staff Effort
FHWA PL/FTA-5303	\$53,800		19.89 weeks
MassDOT	\$13,450		4.97 weeks
TOTAL	\$67,250		27.87 weeks

UPWP TASK NO. 1.5 – ENVIRONMENTAL JUSTICE AND TITLE VI

Objective:

To continue to integrate the basic principles of Environmental Justice (EJ) and Title VI (compliance to the Civil Rights Act of 1964) into the 3C Transportation Planning Process. Attempts will continue to be made to expand upon and incorporate recommendations previously developed and agreed to by the MRPC. The most updated revision of the Public Participation Plan (PPP) was completed in 2016 that sought to improve, encourage and expand participation and access in the transportation planning process by all area individuals. Issues related to Environmental Justice and its inclusion in local technical assistance reports, studies, etc. will continue to be reviewed to ensure the process contains no public involvement barriers to target populations. Methods to measure EJ efforts conducted through other studies/plans will be reviewed and compiled to allow for consistent “tracking” of regional efforts. The MRPC will continue efforts to meet Title VI requirements in accordance with state and federal policies. This includes the continued review and revision of the MPO Endorsed Limited English Proficiency Plan (LEP) as well as annual reports and updates to MassDOT regarding Title VI compliance and procedures. The MRPC will continue to work with the MassDOT Office of Diversity and Civil Rights (ODCR) towards the creation of a more robust Title VI program. Work efforts under this task will include continued work with MassDOT, ODCR, MassDOT’s Title VI Coordinator and the Massachusetts Office of Disability (MOD) to address areas identified by Federal Highway Administration (FHWA) and their incorporation into the planning process within the Montachusett Region. In addition, an equity analysis will be conducted for any 3C document that is developed.

Previous Work:

- 2020 Regional Transportation Plan;
- Update/Revised Limited English Proficiency Plan - 2019
- Updated/Revised Public Participation Plan – May 2016
- Public Participation Plan & Amendment – 2007 & April 2010;
- Montachusett Title VI Report – 2011, 2012, 2015, 2017, 2018, 2019
- Updated MRPC website – ongoing;

Methodology:

- Continue to identify procedures and methods to encourage and improve involvement and participation of all groups in transportation planning process.
- Coordinate discussions and meetings with MassDOT, FHWA and MRPC regarding Title VI issues;
- Continue to review PPP in relation to EJ and Title VI issues as necessary.
- Compile and submit on an annual basis to MassDOT a Title VI Report related to efforts and activities undertaken to meet applicable requirements.
- Continue to review and revise the Montachusett LEP Access Plan to reflect latest federal requirements.
- Continue to work and coordinate with MassDOT Office of Diversity and Civil Rights, MassDOT’s Title VI Coordinator and the Massachusetts Office of Disability (MOD) to address FHWA Title VI issues and needs.
- Continue to conduct equity analysis for Title VI and EJ populations for developed 3C documents, ex. the TIP and UPWP.
- Continue to update and revise the email contact database within MassDOT’s “Engage” Tool.

Product:

- Technical assistance memorandum, reports and workshops as needed.
- Mailing lists of EJ and Title VI related groups and organizations.
- Reports on efforts as needed.
- Limited English Proficiency Plan Updates

- Website updates and refinements
- Annual Title VI report
- Equity analysis of benefits and burdens within developed 3C documents.

Schedule:

To be carried out during the program year. Annual Title VI reports prepared and submitted – As required

	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	July 2023	Aug 2023	Sep 2023
Public Input												
Fed/State Coordination												

Task 1.5

	Budget		Estimated Staff Effort
FHWA PL/FTA-5303	\$42,200		15.60 weeks
MassDOT	\$10,550		3.90 weeks
TOTAL	\$52,750		19.51 weeks

DATA COLLECTION AND ANALYSIS FOR REGIONAL TRANSPORTATION PLANNING

UPWP TASK NO. 2.1 - REGIONAL DEMOGRAPHICS

Objective:

MPO staff will examine, collect and compile available data from various sources in order to establish and maintain a comprehensive demographic database for the region.

- MPO staff will continue to collect and update socioeconomic American Community Survey (ACS) data at the block group, tract, and community level as it pertains program initiatives. MPO staff will also collect 2020 Census data when it becomes available.
- MPO staff will seek to establish and incorporate data and demographic links to other RPA projects and reports including the Montachusett Region Comprehensive Economic Development Strategy (MRCEDS) plan.
- MPO staff will initiate development of a database related to resiliency in the region. Various critical and at-risk infrastructure will be identified and pertinent information will be collected. This database will be used for current and future climate change analysis.
- MPO staff will continue to collect and analyze data on Title VI and Environmental Justice populations. This will include data on vulnerable populations based on income, race, color, national origin, disability, age, and sex.
- MPO staff will begin to review and document what impacts the COVID pandemic had upon regional data, i.e. traffic volumes, travel patterns, regional developments, etc.

MPO staff will continue efforts to develop a viable regional model to assist with planning efforts. Current efforts have been limited due to staff resources, however, the availability of other state resources will be examined in order to improve and expand model capabilities.

- Data from the Massachusetts Travel Survey (MTS) will be examined and utilized for calibrating a regional travel demand model. The MTS was a large-scale effort that collected information on residents' travel patterns, preferences, and behavior in order to help build a fuller, more accurate picture of transportation needs.
- MPO staff will examine resources such as Conveyal and the Accessibility Observatory (AO) data provided by MassDOT. Data derived through these sources will assist staff with congestion planning, economic development, and other regional planning efforts.

To review, update and monitor regional population, household, and employment projections:

- MPO staff will work with the statewide Socio-Economic Projection Working Group in the development and review of population projections produced by MassDOT. Comparisons to projections from past years will be conducted as needed leading to new projections to be utilized with the next Regional Transportation Plan Update. This process is expected to continue into the next program year.
- MPO staff, where possible, will collect data on housing developments, both affordable and otherwise, in the region. Available information will be added to the MassBuilds (massbuilds.com/maps) development database that includes information on affordable housing units completed, under construction, or projected.

MPO staff will also continue to provide support services as part of the 2020 U. S. Census:

- Prior work has included participation in the Participant Statistical Area Program (PSAP) conduct by the Census Bureau to help improve the identification of Census Tracts and Block Groups. It is anticipated that as data becomes available, additional work will be required to review, analyze and distribute pertinent information to all departments of the MRPC as well as in response to local requests.

Previous Work:

During the previous program years, the following has been accomplished:

- Updated development data for MassBuilds

- Collection of updated ACS data
- Updated regional and community demographic data
- Identification of Census Tracts and Block Groups through the PSAP
- Regional Profiles
- Title VI and Environmental Justice data sets

Methodology:

MPO staff will seek to undertake the following:

Regional Demographics

- Review input data for regional demographics and demographic projections
 - Review US Census websites for the most recent updates to 2020 Census and ACS information.
 - Review, establish and compile data and various linkages to MRPC departments and plans including the Montachusett Region Comprehensive Economic Development Strategy (MRCEDS) plan.
 - Compile listings of critical infrastructure and obtain available data for at risk and climate change analysis.
 - Collect and analyze data on Title VI and Environmental Justice populations.
 - Construct a development database of recent, current, or anticipated residential and commercial development projects in the Region. Collected data will be added to MassBuilds to document data on housing developments, both affordable and otherwise.
 - Staff will attend and work with the statewide Socio-Economic Projection Working Group in the development and review of population projections.

Regional Greenhouse Gas Analysis

MPO staff will continue to use existing methodologies to analyze the GHG impacts of transportation projects as well as identified in the TIP and other project level studies as needed.

2020 Census

Staff will continue to coordinate with the U. S. Census Bureau in order to provide support services as the results of the 2020 Census proceeds.

During the program year, the products developed from the models and the compiled databases will be reviewed, evaluated, and utilized as part of the development of the Transportation Improvement Program and other applicable studies/projects for the Region.

Interim documents, if produced, will be forwarded to the MassDOT Office of Transportation Planning and MassDOT Highway Division Districts as completed.

Products:

Regional Demographics

Updated demographic data that will be used to develop demographic projections, modeling, and for a variety of other planning purposes in the Region. Beneficiaries include all the communities in the MRPC region.

Regional Demographics Projections

Through work with the MassDOT Socio-Economic Working Group, any updated demographic projections will be used when applicable for a variety of planning purposes in the Region. Beneficiaries include all the communities in the MRPC region.

2020 Census Participation

Improved census data analysis throughout the Region. Beneficiaries include all the communities in the MRPC region.

Schedule:

Regional Demographics

To be carried out between October 2022 to September 2023.

Regional Demographics Projections

To be carried out through participation in the MassDOT Socio-Economic Working Group based upon their schedule. Updated regional projections based on updated methodologies and feedback on state-wide projections as needed between October 2022 to September 2023.

2020 Census Participation

To be carried out throughout the program year

	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	July 2023	Aug 2023	Sep 2023
Regional Demographics												
Regional Demographic Projections												
GHG Model												
2020 Census Participation												

Task 2.1

	Budget	Estimated Staff Effort
FHWA PL/FTA-5303	\$18,400	6.8 weeks
MassDOT	\$4,600	1.7 weeks
TOTAL	\$23,000	8.5 weeks

UPWP TASK NO. 2.2 – GIS MAPPING AND ANALYSIS

Objective:

The MRPC will continue to improve and develop staff capabilities with the Geographic Information Systems (GIS) purchased during previous program years. The GIS allows the MRPC to store, display, manage and analyze transportation, demographic, land use, environmental, etc. data for different work tasks under this UPWP as well as within the entire organization. Data will continue to be developed and updated as part of various transportation analysis projects that can be utilized in the decision-making process.

MRPC will also continue to develop and enhance its web-based mapping system for use by member municipalities. This online system is entitled “MRMapper.” Developed in 2012, the online web mapping system allows users to view, query and edit data utilizing advanced spatial analysis and geoprocessing tools. Staff will also continue to develop and release various mobile applications in response to data needs and projects.

MRPC staff will continue to:

- Maintain, develop, and archive digital data for the Region. Current hardware and software requirement for the GIS will be evaluated and upgraded as appropriate. Approval on expenditures over \$1,000 will be obtained prior to purchase.
- Support member communities as part of the MRPC GIS Technical Assistance program. MRPC provides each member community with 8 free hours per calendar year of GIS technical assistance on various mapping and analysis projects. Staff consistently reviews the latest GIS principles and products and attempts to work with communities to identify areas where assistance and support can be provided. Prior work has included development of official town street maps, refinements to zoning maps, assistance in implementing online assessor maps, local pavement conditions and cemetery mapping.
- Provide communities with feedback and assistance in developing their GIS capabilities, technical support related to equipment/software, mobile app development and data acquisition.
- Collect and map data related to Title VI, Environmental Justice and other vulnerable populations (i.e. based on income, race, color, national origin, disability, age, and sex). Data related to seniors and disabilities will be reported separately.
- Based upon other MRPC work, staff will seek to collect and map affordable housing data in the region. Staff will work to incorporate appropriate data, i.e. affordable housing units completed, under construction, or projected, into the MassBuilds development database.
- Collect existing information on sidewalks and sidewalk coverage in the region for mapping.
- As part of MRPC work related to economic development, staff will work to identify Priority Development Areas (PDAs), 43D Priority Development Sites, and Transformative Development Initiative Districts (TDIs) within the Montachusett region.
- Identify and map:
 - Transit routes and bus stops;
 - Park & Ride lots and facilities;
 - Congestion corridors and/or bottleneck locations and;
 - Vulnerable infrastructure assets that are at risk of climate change impacts.

Previous Work:

- MRMapper online web-based GIS mapping system;
- Mobile applications development;
- Montachusett Regional Transit Authority Transit Route update maps;
- Update Trail Inventory Databases;
- Pavement data updates/mapping;
- Traffic Count data updates/mapping;
- Title VI Mapping;
- Transportation Improvement Plan;
- Roadway Safety Improvement Project;

- Climate Change Mapping;
- Regional Transportation Plan Mapping;
- Census Mapping and Data Management;
- Regional Bicycle Infrastructure Inventory;
- Regional Sidewalk Inventory – Pedestrian Plan Mapping;
- Trail Data Collection Application Development;
- ADA PROW Application Development

Methodology:

- Continued collection, analysis and refinement of data sets in order to provide inputs for various planning tasks.
- Continue support and enhancement of MRMapper online GIS program.
- Provide local support related to the use of MRMapper.
- Ongoing training and enhancement of staff and system abilities.
- Support of UPWP tasks and special reports where appropriate and necessary.
- Produce handheld applications based upon project needs.
- Provide local support related to developed apps as requested.
- Local GIS Technical Assistance support.

Products:

- Continue updating of a data report/listing of archived GIS data for member communities.
- Custom maps and overlay files that can be utilized for numerous tasks including: travel demand modeling, traffic assignment, capacity analysis, accident reporting and analysis, pavement management, transit routing, environmentally sensitive areas, economic development, title VI and Environmental Justice data, affordable housing, etc.
- MRMapper Online Web based mapping system with relational data for MRPC communities.
- Handheld apps as project needs are developed.

Schedule:

- To be carried on throughout the program year.
- Technical support: As needed throughout program year.
- MRMapper applications and updates throughout the program year based on needs.
- Handheld applications developed throughout the program year based on needs

	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	July 2023	Aug 2023	Sep 2023
Technical Support												
MRMapper Updates												
App Development												
Data Layer Maintenance												
Various Identified Map Sets												

Task 2.2

	Budget	Estimated Staff Effort
FHWA PL/FTA-5303	\$68,729.60	25.41 weeks
MassDOT	\$17,182.40	6.35 weeks
TOTAL	\$85,912	31.77 weeks

UPWP TASK NO. 2.3 – DATA COLLECTION & ANALYSIS PROGRAM

Objective:

The objective of this task is to continue to develop and maintain a region wide database of information related to regional transportation issues that can be used in the development of studies, analyses, and the decision-making process.

Included in this task is the yearly traffic counting program that utilizes automatic traffic recorders (ATRs) and the intersection Turning Movement Count (TMC) program to determine Level of Service (LOS) at major intersections. MRPC also utilizes a video traffic counting system purchased in early 2013 known as Miovision to conduct TMCs, volume counts, pedestrian/bicycle counts as well as other non-traditional/difficult counts. Two Radar counters purchased in 2015 assist with speed studies. A bicycle and pedestrian counter (Eco Counter) has been purchased to conduct bicycle and pedestrian data along roadways, rail trails and hiking trails. This data will assist with identifying gaps in our bicycle and trail networks as well as the bikeability and/or walkability for a particular area.

Under the MRPC Regional Safety Review Program, staff will continue to cooperate with the FHWA to meet the goal of the MAP-21 Safety Planning Factor and the vision of the 2018 MassDOT Strategic Highway Safety Plan (SHSP) which is to create “a roadway system with zero deaths and serious injuries”. Staff will seek to improve safety at Fatality / Serious Injury Locations and Corridors (High Crash Locations (HCLs) / High Crash Corridors (HCCs)) through the Highway Safety Improvement Program (HSIP). HSIP is a data driven program that includes crash report gathering and analysis, identification of HCLs and HCCs prioritization, implementation of projects that improve safety at HCLs and HCCs and evaluation of the effectiveness of those safety improvement projects. Staff will continue to refine and update our GIS Regional Crash Database as new crash data is obtained both from the state and local municipalities and to work with the MassDOT Road Safety Audit (RSA) program. Staff will seek to meet with communities in the region to identify and encourage safety improvement project development at HCLs and HCCs.

In addition, staff will provide data support as needed to address local and regional issues as they are identified. These areas will also include an examination of the the following datasets:

- Park & Ride Lot Occupancy - Data will be collected at Park & Ride Lots within the region that are outside of MassDOT owned Park & Ride Lots. Counts will be conducted in alignment with MassDOT procedures.
- Asset Management – Staff will seek data based upon coordination with MassDOT and local municipalities.
- Bicycle and Pedestrian Count Data – Staff seek to collect data at identified trails using current equipment. Staff will also review MassDOT informational guidance currently under development in order to assure compatibility with the state.
- Transit – Staff will update data and maps on the existing fixed route system.
- Sidewalk Coverage – Staff will collect and map existing sidewalk data in the Region. Additional data locations will be examined for further data collection. Any data generated will be shared with MassDOT.

Previous Work:

Traffic Count Program:

- Traffic counts taken since the initiation of the program in FY 84-85;
- Computerized file system of historical traffic volumes on a town/roadway basis;
- Online maps and database of historical traffic count data;
- Video traffic counting system – 2013
- Radar traffic counting system – 2015
- Bicycle and Pedestrian counting system - 2018

Regional Safety Review Program:

- MRPC Regional Crash Database (ongoing)
- MRPC HCLs and HCCs website application (ongoing)
- MRPC Fatal Crash Corridor Analysis 2018 / MRPC Region Fatal Crashes Report 2019 (ongoing)
- RSA - Old Union Turnpike at Route 2, Exit 34, Lancaster – 2020
- Before & After Safety Performance Report: Roundabout at John Fitch Highway & Ashby State Rd (Rt 31), Fitchburg - 2020
- South Athol Road Interchange Study, Athol - 2019
- RSA - South Street at Wanoosnoc Road, Fitchburg - 2019
- RSA - Greenville Rd (Rt 31) at Turnpike Rd, Ashby - 2018
- RSA - Main Street Corridor - Prichard St to Summer St & Water St at Laurel St, Fitchburg - 2018

Methodology:

The FY23 Traffic Count Program will consist of the following sub-tasks:

- Provide assistance to MassDOT's state-wide traffic counting program. MRPC will count approximately 32 locations in the region normally taken as a part of the MassDOT traffic count program;
- Maintain a testing program of traffic counters to ensure accuracy of data based upon MassDOT procedures;
- Continue to establish database link of regional counts to GIS;
- Maintain ADT computer file system on a town/roadway basis;
- Continue to develop, refine and implement a permanent regional traffic counting program of approximately 300 locations;
- Conduct Turning Movement Counts (TMC) at major intersections region wide as part of the regional traffic counting program to determine Level of Service (LOS) for those locations.
- Provide for special count requests within the region as requested for local technical assistance.
- Update traffic count data posted on MRPC website (www.mrpc.org).
- Implement Video Traffic Counting System at various locations to collect TMCs, volumes, bicycle/pedestrian trail counts, etc.
- Conduct Bicycle and Pedestrian counts along various trails and roadways to determine bike and walkability as well as identify multimodal gaps.
- Upload all traffic count data to the statewide MS2 website.

For the Regional Safety Review program, the following sub-tasks will be undertaken:

- Staff will attend SHSP and HSIP meetings and receive training as needed.
- To update the GIS Regional Crash Database the following will be undertaken:
 - Receive and collect crash data from MassDOT and communities;
 - Review, verify and correct crash data at selected locations;
 - Coordinate crash data with GIS for mapping purposes;
 - Update crash data.
- Develop a candidate Top 100 HCLs and HCCs List Report to inform communities of the need to improve safety for the purpose of seeking the development of safety improvement projects.
- Create individual community reports of candidate Top 100 HCLs and HCCs as needed or requested.
- Seek to meet with communities in the MRPC region to discuss developing projects or to recommend further study at the candidate Top 100 HCLs and HCCs or other locations identified through safety analysis, local requests, state request, local or regional studies or other data.
- Continue to work cooperatively with the MassDOT RSA program to conduct RSAs at candidate Top HCLs and HCCs to meet the goal of the state HSIP to develop safety improvement projects for the TIP. An RSA will be sought on any TIP project that has candidate Top 100 HCLs and HCCs.

- Recommend further study into implementing low-cost safety improvements that can be constructed relatively quickly to help remediate a safety problem at candidate Top 100 HCLs and HCCs.

As part of the additional data collection tasks, the following will be undertaken:

- Identify non-MassDOT owned Park & Ride Lots in the Region and establish data collection parameters that are comparable to MassDOTs;
- Coordinate with MassDOT regarding data requirements of Asset Management planning. Work with local municipalities to collect available data as needed.
- Continue to update bicycle and pedestrian infrastructure using the MrMapper web application that was created in 2019 and identify locations for regular data collection.
- Staff will compile existing sidewalk data and identify locations and/or municipalities for additional data collection.

Product:

Traffic Count Program

- Complete 75 to 100 traffic counts throughout the Region (including approximately 32 MassDOT permanent coverage stations);
- Complete 10 to 20 TMC at intersections throughout the Region;
- Complete 3-5 bicycle and pedestrian counts throughout the Region;
- Maintain a file of traffic counts on a town/roadway basis and a datalayer of regional counts with GIS;
- Maintain documentation/records of testing procedures and accuracy of equipment utilized in data collection
- Update and maintain count data on MRPC website and statewide MS2 site.

Regional Safety Review Program

- Updated GIS Regional Crash Database;
- Updated Candidate Top 100 HCLs and HCCs MRPC website application;
- Regional and Community Candidate Top 100 HCL and HCC Report which is a list of potential safety improvement projects;
- Completed RSAs for various Candidate Top 100 HCLs and HCCs;
- List of HSIP Projects for TIP.

Regional Data Sets

- Park & Ride Lot Vehicle Counts
- Regional Asset Management Database
- Regional Sidewalk Locations

Schedule:

Most data collection to occur from April through November, depending upon local weather conditions. Other support efforts likely to occur throughout the program year, i.e. LOS analysis, Travel time analysis, etc.

Regional Safety Review Program and Data Collection and Review – October 2022 to August 2023; Community Reports and outreach – November 2022 to September 2023.

Sidewalk Inventory & Pedestrian/Bicycle Connections Program – Data collection and Review – October 2022 to August 2023 depending on weather conditions.

	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	July 2023	Aug 2023	Sep 2023
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Traffic Counts												
Safety Data Collection												
Safety Analysis												
Safety Review												
Community Safety Reports												
Road Safety Audits												
Sidewalk Inventory												
Ped & Bike Program												
Data Collection – Other Sets												

Task 2.3

	Budget		Estimated Staff Effort
FHWA PL/FTA-5303	\$50,400		18.64 weeks
MassDOT	\$12,600		4.66 weeks
TOTAL	\$63,000		23.3 weeks

UPWP TASK NO. 2.4 – PAVEMENT MANAGEMENT SYSTEMS

Objective:

The objective of this task is to continue regional efforts to maintain a Pavement Management program for federal aid eligible roads.

The Pavement Management Program, begun under prior work programs, will continue to evaluate federal aid eligible roadways within the Region. There are approximately 660 miles of Federal Aid roads in the Montachusett Region that will continue to be surveyed and incorporated into the pavement management program. MRPC has established a four-year program to inventory and analyze these roads. RoadManager Software will be used as the MRPC continues to build its database. The annual “Regional Pavement Profile” report will include a comprehensive analysis comparing the condition of these roadways and the trends over the years.

In addition, this task will allow for our participation in the RPA/State Pavement Management User Group, a group of RPA pavement management users from across Massachusetts which meets as needed to share best practices, as well as other potential work based upon arrangements and directives from MassDOT and FHWA.

Staff will also continue its outreach to area DPW Superintendents, Planning Directors, etc. to provide communities with pertinent data and materials. Communities utilize their limited Chapter 90 funds to address local road condition issues based upon various local parameters. To assist them in attempting to maximize the value of funding, this program will continue to provide available data related to their towns through various outreach methods. If a community wishes to consult with staff on the benefits of a pavement management program, how one functions, or have staff demonstrate the benefits of a program to a specific group or board in the community, this task will allow time to do so.

Staff will also maintain its membership and participation in the Worcester County Highway Association.

Previous Work:

- Database development under RoadManager Software
- RoadManager software program purchase and training
- Data migration to Road Manager system
- 2020 Montachusett Regional Transportation Plan
- 2016 Montachusett Regional Transportation Plan
- 2012 Montachusett Regional Transportation Plan
- 2011 – 2021 reports “Regional Pavement Profile”
- Database of Federal Aid Eligible Roads
- 4 Year Inventory Schedule
- Montachusett Pavement Inventory Program – 2008 - 2021
- Technical Support Groups (Pavement Management Users Group)

Methodology:

- Data collection based on Road Manager input requirements
- Analysis reports utilizing new Road Manager software
- Develop local condition maps for member communities.
- Participation in RPA Pavement Management Users Group as needed.
- Technical assistance to MassDOT Highway as part of state PMS program based upon mutually agreeable scope.
- Assist interested communities with PMS programs as requested.

- Public outreach and presentation where necessary and requested
- Conduct project specific pavement analysis and profiles as needed
- Assist communities in the compilation of local projects, the PNF/PIF process and public awareness as needed.

Products:

- Year-end report “Regional Pavement Profile” analyzing region and municipal pavement data
- Individual municipal specific profiles as needed
- Pavement Management database for federal aid eligible roads.
- Integration of data and analysis into project level reports as needed.
- Community condition maps.
- PNF/PIF’s for federal aid eligible roads based upon community needs

Schedule:

Pavement Management – Data collection efforts to be carried out during October/November 2022 and April to September 2023. Analysis and review of data to be conducted from December 2022 to September 2023. Annual mailing occurs on an as needed basis, typically in the spring. Year-end report will be available in September 2022.

	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	July 2023	Aug 2023	Sep 2023
Pavement Data Collection												
Pavement Analysis												

Task 2.4

	Budget	Estimated Staff Effort
FHWA PL/FTA-5303	\$22,400	8.28 weeks
MassDOT	\$ 5,600	2.07 weeks
TOTAL	\$28,000	10.35 weeks

UPWP TASK NO. 2.5 – PERFORMANCE MEASURES

Objective:

The creation of Performance Measures (PMs) was a main focus of the 2016 Montachusett Regional Transportation Plan (RTP) and will again be included in the upcoming 2024 RTP. PMs are meant to inform and improve the MPO decision making process. PMs are set to achieve a desired set of goals for a multimodal transportation network. After an MPO develops their set of goals and PMs they are tracked over time to determine the progress in meeting them. In addition, the 2020 RTP has expanded on those PMs originally set in 2016.

This task includes continued work on maintaining a centralized database of PMs (or PM Dashboard) which was originally created during the 2016/2017 UPWP. This PM Dashboard is designed to monitor PM progress and inform MPO data needs throughout the program year. The PM Dashboard will also inform the public on the conditions in the transportation network and progress being made towards goals which have been set. The PM dashboard will be made available on the MRPC website during this program year.

This task will also include the coordination of existing regional PMs with state and federal PMs. With the development of the 2024 RTP, staff will take the opportunity to fine tune existing PMs and amend them where needed. Also, consultation and review of MassDOT PMs, along with PMs established by neighboring RPA and RTAs will occur.

Effective on April 14, 2016 FHWA established a final rule on the first of its Performance Measures. Safety Measures (PM 1), Pavement and Bridge Condition Measures (PM2) and Performance of NHS, Freight and CMAQ Measures (PM3) were established by MassDOT and adopted by the Montachusett MPO in 2018. MPO staff will work with MassDOT to monitor and present these Performance Measures to the MPO as needed. MPO staff will work with MassDOT to monitor, amend and present these Performance Measures to the MPO as needed.

In July 2016, FTA published a Final Rule for Transit Asset Management (TAM). The rule requires FTA grantees to develop asset management plans for their public transportation assets, including vehicles, facilities, equipment, and other infrastructure. MPO staff will work with MART to monitor and present their TAM plan to the MPO as needed. Additionally, MART developed and presented their Public Transit Agency Safety Plan (PTASP) to the MPO in late 2020 and early 2021 where the safety targets developed were adopted. As MART continues to monitor and update items as needed, the MRPC will work to ensure appropriate action is taken.

Previous Work:

- Roadway Safety Improvement Project Selection Report – 2018
- Adopted MassDOT PMs for Federal Highway Reporting – 2018
- PM Dashboard and Data Warehouse – 2017
- Montachusett Regional Transportation Plan – 2016 & 2020
- Goals & Objectives for the 2016 Regional Transportation Plan - 2015
- Regional PMs and Targets - 2015
- Regional Crash Database (ongoing)
- Traffic Counting Program (ongoing)
- Geographic Information System for the Region (ongoing)
- Pavement Management Regional Report (ongoing)
- Regional Trail Inventory (ongoing)
- Climate Change and Transportation in the Montachusett Region (ongoing)

- Road Safety Audits (ongoing)
- Roadway & Alternate Mode Access to Commuter Rail in the Region
- Siting of Renewable Energy Facilities

Methodology:

The following activities will be undertaken as part of the development of this program:

- Filling data needs and gaps (December 2021 – September 2022)
- Maintenance of PM Dashboard (February – September 2022); Information will be presented related to existing statewide PMs as adopted by the MPO as well as the measures developed for the prior RTP. Users should be able to ascertain how the MPO is proceeding related to these PMs.
- Coordinate regional PMs with state and federal PMs as they are developed - throughout program year

Products:

Updated PMs and PM Dashboard through an excel spreadsheet. Online posting will be incorporated.

Schedule:

To be carried out throughout the program year as follows:

	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	July 2023	Aug 2023	Sep 2023
List of New Data Needs												
Data Collection												
Refinements												
Present and Adopt PM1												
Update Dashboard												
PM Coordination												

Task 2.5

	Budget		Estimated Staff Effort
FHWA PL/FTA-5303	\$18,400		6.8 weeks
MassDOT	\$ 4,600		1.7 weeks
TOTAL	\$23,000		8.5 weeks

UPWP TASK NO. 2.6 – REGIONAL TRANSPORTATION PLAN

Objective:

The objective of this task is to complete the development of an update to the 2020 Regional Transportation Plan (RTP) for the Montachusett Region that was endorsed by the Montachusett MPO on July 30, 2023. Federal regulations require that the RTP be updated and revised every 4 years. The RTP is a comprehensive, multi-modal transportation plan which is used to enhance the decision-making capability of local, regional, and state officials by identifying both short range and long-range improvements to the regional transportation system. This effort will reflect the 3C (Continuing, Cooperative and Comprehensive) process and will be based on federal and state policies, regional goals and objectives, detailed technical data and analysis, input from local technical assistance activities conducted by the RPA, and citizen participation.

Federal legislation (Intermodal Surface Transportation Efficiency Act (ISTEA), 1991) established the primacy of the Regional Transportation Plan in the 3C transportation planning process. Provisions in the Act governing the contents of the plan were designed to promote the development of an intermodal transportation system and to have that system help meet the NAAQS (National Ambient Air Quality Standards) set forth in the CAAA (Clean Air Act Amendments) of 1990 and the mobility provisions established under ADA (Americans with Disabilities Act). ISTEA identified key factors which must be considered in developing the Transportation Plan including 20-year forecasts of population and employment, the elimination and prevention of congestion, consideration of the land use impacts of planned transportation projects, and the preservation of existing transportation facilities as well as a number of additional areas. The 2016 RTP was developed in accordance with these requirements and the requirements of MAP-21 (Moving Ahead for Progress in the 21st Century) (2012). The update for the 2024 RTP will likewise be developed in accordance with all necessary requirements contained within the new federal legislation Bipartisan Infrastructure Law (BIL) (2021) and applicable policies of the Commonwealth such as the MassDOT GreenDOT Policy, Mode Shift Goals, youMove Massachusetts, and the Healthy Transportation Policy Directive.

The RTP comprehensively examines the existing transportation network in the region, identifies those issues and problems which either require or will require improvement, and outlines possible courses of action designed to facilitate these improvements. It considers virtually all forms of transportation in the region and is developed so that it is consistent with the region's comprehensive, long-term land use plans as well as any social, economic, environmental, and energy conservation goals and objectives.

Information developed as part of the 2020 RTP, previous studies conducted during past program years, as well as the MRPC's GIS, will be utilized as part of the 2024 RTP as well as a new Air Quality Conformity Determination based upon the requirements of EPA (Environmental Protection Agency) and DEP (Department of Environmental Protection).

Short and long-range improvements related to transit will also be identified and incorporated into the 2024 RTP in order to promote the development of an intermodal transportation system that will help meet NAAQS set forth in the CAAA and the mobility provisions established under ADA.

The 2020 RTP was developed in accordance with federal and state requirements and the update for the 2024 RTP will likewise be developed in accordance with all necessary requirements contained within any current or new federal and state legislation.

Previous Work:

- 2020 Montachusett Regional Transportation Plan - July 17, 2019
- Adopted MassDOT PM1 , 2 and 3 targets for Federal Highway Reporting – 2018, 2020
- Roadway Safety Improvement Project Selection Report - 2018

- Pavement Management Systems - 2018
- Traffic Count Program - 2018
- Regional Crash Database - 2018
- Geographic Information System for the Region - 2018
- Road Safety Audits - 2018
- Regional Travel Demand Model - 2018
- Public Participation Plan - 2018
- Regional Trail Inventory - 2018
- Roadway Safety Improvement Project Selection Report - 2018
- Climate Change and Transportation in the Montachusett Region - 2018
- Sidewalk Inventory and Pedestrian/Bicycle Connections – 2018
- Freight Corridor Identification and Screening - 2018
- Regional Development Initiative - 2018
- Route 2 at South Athol Road Proposed Interchange Study - 2018
- Coordinated Transit Plan Update - 2018
- Ridership Survey Distribution - 2018
- Local ADA Transition Plan Development - 2018
- Regional Transportation Needs Assessment - 2018
- Montachusett PMs Report - 2018
- Montachusett Trail Map & Visitor Guide - 2018

Methodology:

The following areas will be conducted/developed utilizing traditional system planning combined with public participation as part of the revision process:

1. Identify various stakeholders within the region and coordinate meetings with individuals/groups to incorporate and integrate their thoughts/ideas/input/plans into the RTP. Efforts will be made to conduct coordination as early as possible in the update process. Stakeholders are considered members of the public, the business community, various local and state agencies, governments and other interested parties. Efforts will be documented within the final RTP
2. Review previous public outreach program. Update and revise as needed
3. Update and re-launch RTP specific website
4. Conduct local meetings and workshops to discuss and present the RTP
5. Review and incorporate prior studies and analyses into identified RTP elements
6. Update relevant chapters to incorporate the Bipartisan Infrastructure Law (Bil) requirements as well as applicable state policies like the MassDOT GreenDOT Policy, Mode Shift Goals, youMove Massachusetts, and the Healthy Transportation Policy Directive
7. Develop and review evaluations of alternative solutions to identified problem areas
8. Develop plan elements to ensure a multi-modal approach. To include highway, mass transit, pedestrian and bicycle facilities, railroads and airports
9. Develop and review the air quality issues and strategies of the plan and its relationship to attaining and maintaining NAAQ Standards. Conduct Air Quality Conformity Determination based upon requirements established and by utilizing the Regional Travel Demand Model
10. Development of the Plan will include consultations, as appropriate, with state and local officials responsible for land use management, natural resources, environmental protection, conservation, and historic preservation.
11. Develop and review the Financial Section of the Transportation Plan: Federal regulations require that each project and/or program appearing in the RTP must also have an identified source of funding that can reasonably be assumed to be

available for implementation. Staff will work with MassDOT, FHWA, the Office of Transportation Planning and FTA to refine the transportation project funding level projections made in the RTP. Staff will also examine in greater detail the following basic activities required to produce a Long-Range Transportation Plan:

- Assessment of current financial conditions;
- Projection of future financial requirements for operation and maintenance;
- Assessment of ability to meet future financial requirements, based on analysis of existing revenue sources;
- Identification of potential revenue sources to meet possible future shortfalls, including innovative financing methodologies;
- Analysis of existing and future revenue sources, to include long-term availability and sensitivity to external factors;
- Forecasts of baseline transportation system costs for use in making service and investment decisions

12. Seek full MPO endorsement of the plan when applicable

13. Print document for distribution when applicable. Electronic versions will also be distributed

Interim documents, if produced, will be forwarded to MassDOT as completed.

Products:

The final product will be a comprehensive, multi-modal transportation plan endorsed by the MPO for the Montachusett Region to include an Air Quality Conformity determination. Distribution of endorsed copies will be to local public officials, MPO and MJTC members and other interested parties. Copies will also be made available to the general public thru the MRPC website (www.mrpc.org).

Schedule:

To be carried out throughout the program year as follows:

	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	July 2023	Aug 2023	Sep 2023
Identify Stakeholders												
Review & Update Public Outreach												
Launch RTP Website												
Conduct Public Outreach												
Incorporate Prior Studies												
Update Chapters												
Evaluation of Alternatives												
Multi-modal Approach												
Air Quality Issues												
Plan Consultations												
Financial Section												
MPO Endorsement												
Print RTP												

Task 2.6

	Budget		Estimated Staff Effort
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FHWA PL/FTA-5303	\$64,852		23.98 weeks
MassDOT	\$ 16,213		6.00 weeks
TOTAL	\$81,065		29.98 weeks

TRANSPORTATION PLANNING STUDIES

UPWP TASK NO. 3.1 – HOUSING COORDINATION PLANNING

Objective:

This task will combine existing reports, materials and data related to transportation, housing, and economic development goals and strategies in order to develop a housing coordination plan that includes projects that may be considered in the Montachusett Metropolitan Planning Organization's (MMPO) Regional Transportation Plan (RTP). The housing coordination plan will develop regional goals for the integration of housing, transportation, and economic development strategies; identify the location of existing and planned housing and employment developments; and identify transportation options that connect housing and employment centers. Staff will also identify and compare the RTP to local comprehensive master plans, housing production plans, Complete Streets Prioritization Plans, and other applicable plans and studies that may affect road use, public transportation ridership and housing development. Additional emphasis will focus on identified disadvantaged and underserved populations.

Previous Work:

- Mobility & Access Plan
- Regional Bike & Pedestrian Plans
- Walkability Reports – Groton, Sterling, Townsend, Westminster
- Travel by Tourism
- Lunenburg Walkability & Parking Study
- Regional Trail Inventory
- Sidewalk Inventory & Pedestrian/Bicycle Connections (Fitchburg/Leominster/Gardner)
- Trail Connections
- Safe Routes to School Reports
- Complete Streets Prioritization Plans – Shirley and Sterling
- Master Plans
- Housing Production Plans
- Regional Comprehensive Economic Development Strategy
- 2018 Coordinated Public Transit – Human Services Transportation Plan (CPT-HST)

Methodology:

1. Compile all prior reports and studies related to transportation, housing, and economic development.
2. Identify goals and strategies that better connect housing and employment, expand housing and economic development near existing transportation facilities, and increase the percentage of the population with sufficient and affordable access to transportation in the region.
3. Identify and map existing and potential dense housing developments, employment centers, and goods/services.
4. Identify gaps in the transportation network to employment centers, housing clusters, and goods/services
5. Prioritize gaps for closure & potential projects
6. Conveyal and Accessibility Observatory data will be used where appropriate

Products:

The final product will be a housing coordination plan integrating transportation, housing and economic development goals and strategies regionwide and will identify prioritized areas for gap closures within the transportation network.

Schedule:

To be carried out throughout the program year as follows:

	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	July 2023	Aug 2023	Sep 2023
Inventory Options												
Community Involvement												
Prioritize Options												
Impact Analysis & Final Report												

Task 3.1

	Budget	Estimated Staff Effort
FHWA PL/FTA-5303	\$60,792	22.48 weeks
MassDOT	\$ 15,198	5.62 weeks
TOTAL	\$75,990	28.10 weeks

UPWP TASK NO. 3.2 – CLIMATE CHANGE PROGRAM

Objective:

An annual part of our Climate Change Program is updating the vulnerable infrastructures identified in the 2020 RTP. This data is to be included in transportation decision making. Major roadways and rail lines will be identified and mapped to assess their proximity to various flood zones in order to assess vulnerability. The MRPC has developed Pre-Disaster Mitigation Plans for individual communities in the Region. Data from these reports will be incorporated where applicable. Information will also be sought from local resiliency plans from member communities.

Congestion mitigation and greenhouse gas reduction is an important part of combating the effects of climate change. Staff will identify an area in the region which a bottleneck exists and conduct a bottleneck study. This study will include analysis of existing conditions, determine causes of congestion and alternatives for improvement. Accessibility Observatory (AO) data provided by MassDOT will be included where applicable. This study stems from a goal set in the 2016 and 2020 Regional Transportation Plans to “reduce congestion and improve mobility”. One performance measure set under this goal was to “identify one (1) bottleneck location and conduct a study every 2 years in order to develop and/or implement corrective measures”. The corridors selected for bottleneck study areas are determined through local knowledge of congested area’s in the region, areas of concern from past RTP surveys and the MRPC’s data collection programs. The Regional Integrated Transportation Information System (RITIS) will be utilized where applicable.

MRPC staff will also continue to work with and assist MassDOT in relation to GreenDOT initiatives. This includes the analysis and calculation of possible Greenhouse Gas Emissions (GHG) of transportation projects within the Transportation Improvement Program (TIP) where appropriate.

Staff will also seek to examine issues related to electric vehicles, their use and the location and availability of charging stations and other supporting infrastructure within the region.

Previous Work:

- Community Pre-Disaster Mitigation Plans – 2016
- Merriam Avenue – South Street Corridor Bottleneck Report
- 2016 Montachusett Regional Transportation Plan – August 2015
- Travel Time Data and Analysis – 2014-2016
- GIS Datalayer – Travel Time 2014, 2015
- Stormwater App – 2016-17
- Climate Change Data Update 2016-2021

Methodology:

- Map major roadways and rail lines within flood zones within the region;
- Assess flood vulnerability of identified roads and rail lines;
- Conduct GHG analysis of applicable TIP projects based upon MassDOT guidelines
- Identify bottleneck study area, develop study, produce report
- Assist communities with Stormwater App as needed

Products:

- GHG emissions analysis for TIP projects (May 2022)
- Updated vulnerable infrastructures database (August 2022)

- Bottleneck Study (September 2022)
- Consider a mapping structure similar to the Cape Cod Coastline - <https://www.capecodcoast.org>

Schedule:

To be carried out throughout the program year as follows:

	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	July 2023	Aug 2023	Sep 2023
Data Research												
Data Collection												
Database Updates												
Flood Zone Mapping												
Vulnerability Analysis												
GHG Analysis												

Task 3.2

	Budget		Estimated Staff Effort
FHWA PL/FTA-5303	\$42,480		15.71 weeks
MassDOT	\$10,620		3.93 weeks
TOTAL	\$53,100		19.63 weeks

UPWP TASK NO. 3.3 – INTERSECTION ANALYSIS

Objective:

The objective of this task will be to conduct intersection analyses of the intersections listed below. These intersections were identified by the individual communities as locations of particular interest to the municipality. The communities identified problems related to safety for pedestrians, bikers, and vehicles. Changes to the land usage at or around these intersections have raised concerns that now need to be addressed. An intersection analysis analyzes the information generated by the MRPC transportation management systems for an intersection, recommends short-term and long-term operational and physical improvements and the possible need for further study.

It is anticipated that congestion analyses, capacity analyses and safety analyses will be conducted at the intersections. The analyses will identify specific and general problems and provide improvement alternatives to improve safety, vehicular and pedestrian traffic flow as needed at the intersections.

- Leominster – Route 117 at Jungle Road
- Lunenburg – Route 13 at Northfield Road
- Townsend – Route 13 at Route 119

Previous Work:

- Intersection Analysis: Route 68 at High Street, Hubbardston – 2022
- Intersection Analysis: Mechanic Street at Leominster Connector/Commercial Road, Leominster – 2022
- Intersection Analysis: Main Street at Canal/West Elm Street, Townsend - 2021
- Intersection Analysis: Route 12 at Route 31 Intersection, Fitchburg - 2021

Methodology:

- Meet with communities to determine thoughts/concerns at the intersections;
- Conduct vehicle and pedestrian traffic counts;
- Examine the intersections using Level of Service analysis, Average Daily Traffic analysis, Signal Warrant analysis, Safety analysis, Land Use analysis and Existing Geometry and Design Conditions analysis;
- Develop improvement recommendations aiming to diagnose and rectify issues at the intersections;

Products:

- Reports of the various intersections similar to the *Intersection Analysis: Route 12 at Route 31 Intersection, Fitchburg* report completed in 2021;

Schedule:

To be carried out throughout the program year as follows:

	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	July 2023	Aug 2023	Sep 2023
Scope Development/Local Issues Identified												
Data Collection & Analysis												
Recommendation/Alternatives Development												
Final Report & Public Presentations												

Task 3.3

	Budget		Estimated Staff Effort
FHWA PL/FTA-5303	\$56,600		20.93 weeks
MassDOT	\$14,150		5.23 weeks
TOTAL	\$70,750		26.16 weeks

UPWP TASK NO. 3.4 – FREIGHT STUDY

Objective:

The objective of this task is to assist the communities of Ayer, Lunenburg, and Shirley with identifying major truck routes that provide heavy truck access to destinations within these communities and to address their concerns with the heavy truck traffic. There are currently several large commercial operations, as well as a number of future planned developments, that generate/will generate heavy truck traffic and safety concerns for these communities. The freight study will also provide potential solutions/improvement alternatives to mitigate current and future heavy truck conditions and needs.

Previous Work:

- Freight Corridor Report – 2019
- Freight Corridor Report Update – 2020

Methodology:

The Freight Study will contain a review of several management systems including: Traffic Counting (including heavy truck traffic counts); Congestion Management; Safety; Pavement Management System; MassDOT Bridge Management System (BMS) and will include applicable freight concepts from the Massachusetts Freight Plan.

Freight Study Task will include:

- Identification and engagement of stakeholders and heavy truck operators. Engagement will include the creation of a Freight Study Guiding Committee to help guide the study
- Study area identification: the transportation network impacted by existing and future heavy truck traffic
- Analyze the heavy truck transportation network using:
 - level of service analysis; average daily traffic and heavy truck traffic analysis; signal warrant analysis; safety analysis; and existing geometric conditions analysis
- Review and analysis of adjacent land uses, right of way, environmental constraints
- Identification of heavy truck traffic constraints within the study area
- Develop and identify potential short, medium, and long-term improvements based upon feedback from the Freight Study Guiding Committee
- Develop and prepare draft reports and the final Freight Study

Products:

The final product will be a study showing the major trucking routes within the communities of Ayer, Lunenburg, and Shirley that identifies the heavy truck congestion, safety, and other concerns as well as improvement alternatives. The preferred alternative may result in the programming of future TIP projects.

Schedule:

To be carried out throughout the program year:

	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sep 2023
Engagement												
Data Collection Efforts												
Data Analysis												
Recommendations and draft report												
Final Study												

Task 3.4

	Budget		Estimated Staff Effort
FHWA PL/FTA-5303	\$58,000		21.45 weeks
MassDOT	\$14,500		5.36 weeks
TOTAL	\$72,500		26.81 weeks

4.0

TRANSIT PLANNING ACTIVITIES

UPWP TASK NO. 4.1 – TRANSPORTATION EQUITY AND PUBLIC INVOLVEMENT

Objective:

The objective of this task is for the staff to participate in the Montachusett Joint Transportation Committee (MJTC) and the Montachusett Regional Planning Commission (MRPC) for transit involvement issues to represent the needs of the Montachusett Regional Transit Authority (MART). Staff will also continue to work with the Montachusett Regional Emergency Planning Committee (MREPC) on evacuation and security plans in an emergency situation. Also, staff will continue to participate in the Fitchburg Line Working Group to improve rail service on the Fitchburg Line in the Montachusett Region; the Leominster Crime Stoppers Group to continue to educate the public in participating in the crime stopper program; the North Central Regional Coordinating Council (NCRCC) to identify unmet needs, formulate regional priorities, and build coalitions around new transportation projects and coordinate existing services at the local level to serve more people and increase the sustainability of services; and the Human Service Transportation (HST) Coordination Advisory Group to assist MART, other RTAs, and the communities in their effort to improve access to transportation services for persons with special mobility needs.

In addition, staff will continue efforts to meet applicable Title VI requirements, including any updates to the MPO endorsed Limited English Proficiency (LEP) Access Plan as well as other issues related to Environmental Justice, Title VI, and state and federal policies as necessary. In particular, staff will address Federal Transit Administration (FTA) requirements and transit issues regarding Title VI, Environmental Justice, and LEP as they are raised and as they relate to any underserved populations that see environmental justice planning as an opportunity to address local transit issues. This task also includes efforts to encourage private enterprise and minority business participation throughout the planning process.

Previous Work:

- North Central Regional Coordinating Council (NCRCC) – ongoing
- Montachusett Regional Transportation Plan (RTP) Update – 2019
- Montachusett MPO Endorsed Limited English Proficiency (LEP) Access Plan Update – 2019
- Public Participation Plan Updated with Amendment No. 1 – 2017
- Public Participation Plan Amendment- 2015
- Regional Low-Income Threshold- 2016
- Montachusett Regional Transportation Plan (RTP) Update - 2016
- Montachusett MPO Endorsed Limited English Proficiency (LEP) Access Plan – 2013
- Annual Title VI Report – 2011-2012; 2015, 2017, 2019
- Montachusett Regional Emergency Planning Committee (MREPC) - ongoing
- The Human Service Transportation (HST) Coordination Advisory Group- ongoing
- Fitchburg Line Working Group - ongoing
- MinuteVan Regional Transit Group- ongoing
- North Central Massachusetts Community Reinvestment Act Coalition (NCMCRA) - ongoing
- Montachusett Region Comprehensive Economic Development Strategy (MRCEDS) - ongoing
- Leominster Crime Stoppers Group - ongoing

Methodology:

- Coordinate planning activities through participation in the MJTC.
- Prepare required information/data which can assist in ongoing efforts to identify clients and available public transit services.

- In addition, issues related to Environmental Justice and Title VI will be reviewed and addressed through the various aspects of this task. Where appropriate action will be taken through the various coalitions and participation plans to improve the involvement of those traditionally not part of the planning process.
- Interim documents, if produced, will be forwarded to MassDOT as completed.

Product:

Regionwide database of relevant socioeconomic data based upon collected information.

Schedule:

Ongoing throughout the program year.

	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	July 2023	Aug 2023	Sep 2023
Public Participation												

Task 4.1

	Budget	Estimated Staff Effort
FHWA PL/FTA-5303	\$5,600	2.07 weeks
MassDOT	\$1,400	0.52 weeks
TOTAL	\$7,000	2.59 weeks

UPWP TASK NO. 4.2 – HUMAN SERVICES TRANSPORTATION PLAN

Objective:

The objective of this task is to update the demographic data to the 2020 Census data for the three (3) target populations within the MRPC and MART regions for the Coordinated Public Transit - Human Services Transportation Plan (Coordinated Plan) endorsed in September 2018. The three target populations are: individuals with disabilities; low-income individuals (or persons below the poverty level); and the elderly. The 2018 Coordinated Plan identifies gaps in existing transportation services and the needs to meet those gaps.

Along with the updated demographic data, the updated Coordinated Plan will include newly identified gaps and issues.

Previous Work:

- Coordinated Public Transit - Human Services Transportation Plan & Updates - 2008, 2014, 2018;
- Montachusett Regional Transportation Plan – 2020;

Methodology:

- Update the demographic data to 2020 Census data for the targeted populations;
- Update existing Coordinated Plan with the new demographic data;
- Identify new needs and issues;

Product:

Updated demographic data and new identified needs and issues for the Coordinated Plan (CP).

Schedule:

Ongoing throughout the program year.

	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sep 2023
Update Target Populations												
Identify Needs and Issues. Revise / Update the CP												
Draft CP Review												
Final report												

Task 4.2

	Budget	Estimated Staff Effort
FHWA PL/FTA-5303	\$25,600	9.47 weeks
MassDOT	\$6,400	2.37 weeks
TOTAL	\$32,000	11.83 weeks

UPWP TASK NO. 4.3 – TECHNICAL ASSISTANCE TO MART

Objective:

To provide technical planning services and assistance to the Montachusett Regional Transit Authority (MART) which will include the coordination of special transit planning projects, GIS assistance and mapping on identified transit projects such as transit and impact analyses, technical assistance at RTA board meetings and with MART's Job Access Reverse Commute Program (JARC).

Previous Work:

- 2020 Montachusett Regional Transportation Plan (RTP) – 2019
- 2016 Montachusett Regional Transportation Plan (RTP) - 2015
- GIS mapping of Fixed-Route Transit Services and Updates – 2012-2013, 2015-2017, 2018-2019, 2020
- Solar Voltaic Energy Production and Energy Management System Project – 2013-2014
- 2012 Montachusett Regional Transportation Plan (RTP) - 2011
- Categorical Exclusions for Ayer Commuter Rail Parking Improvements - 2011
- Expansion of MART Storage Facility Leominster – 2010
- Categorical Exclusions for Acquisition of Property in Leominster for Temporary Parking- 2010
- Wachusett Extension Application for TIGER Discretionary Grant – 2009
- Fitchburg Commuter Rail Line – License Plate Survey – 2009
- Gardner MART Storage and Maintenance Facility - 2008

Methodology:

The FY22 MART technical assistance activities will consist of the following sub-tasks:

- Provide planning and management services as needed, including the maintenance of record-keeping systems.
- Coordinate short-range transit planning projects with long-range transit goals and planning for the Region.
- Provide technical planning assistance to MART and member communities.
- Assist MART in meeting federal reporting requirements related to fixed-route services.
- Assess and evaluate bus and van routes, schedules, and fare structures.
- Prepare information and data for FTA reports.
- Conduct and review air quality-related analysis and data for transit projects.

Product:

Reports to public groups concerning MART activities.

Schedule:

The planning assistance program to the RTA is to be carried out continuously during the program year.

	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	July 2023	Aug 2023	Sep 2023
LTA												

Task 4.3

	Budget	Estimated Staff Effort
FHWA PL/FTA-5303	\$11,600	4.29 weeks
MassDOT	\$2,900	1.07 week
TOTAL	\$14,500	5.36 weeks

UPWP TASK NO. 4.4 – TRANSIT DEVELOPMENT PLAN (TDP) FOR MART EASTERN COMMUNITIES

Objective:

The objective of this task is to develop a Transit Development Program (TDP) to meet the existing public transit demands and guide the future development of the transit operations for MART's eastern communities in a financially feasible manner. The TDP will include the communities of Ayer, Shirley, Littleton, and Devens and future development will cover a 5-year period. The plan will envision community needs and requirements and identify concerns regarding the environmental justice population and how they can benefit from the new transit services, if implemented. The planning process will include the collection and analysis of demographic, land-use, and transit operations information to be included in the TDP. Staff will also analyze the latest demographic and socioeconomic data of the existing work force in neighboring MART communities that are connected to Devens.

Previous Work:

- Transit Development Program Update, Gardner - 2015
- Transit Development Program Updates, Fitchburg and Leominster - 2013
- Bus Stops & Bus Shelters Location Maps - 2009
- Transit Development Program Update, Glink - 2005
- Fixed Route Service Maps, Fitchburg, Leominster & Gardner - 2010

Methodology:

- Compile applicable 2020 Census data for the service area
- Review current transit services and transit operations
- Identify short comings related to access, populations, facilities, and services
- Update mapping of services
- Recommend service changes to address identified needs

Products:

- Transit Development Program with Service Recommendations
- Map of potential service

Schedule:

Ongoing throughout the program year.

	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sep 2023
Data Collection Efforts												
Data Analysis												
Public Outreach												
Recommendations and draft report												
Final report												

Task 4.4

	Budget	Estimated Staff Effort
FHWA PL/FTA-5303	\$24,776.80	9.16 weeks
MassDOT	\$6,194.20	2.29 week
TOTAL	\$30,971	11.45 weeks

Montachusett Regional Planning Commission			
FFY 2023 Program Year Staffing Report			
Staff	Title	Expected Time on PL/FTA Contract	Estimated Time on Transit Tasks
Bradford Harris	Transportation Project Director	85%	15%
George Snow	Principal Transportation Planner	85%	15%
Sheri Bean	Principal Planner	100%	2%
Brian Doherty	Principal Planner	100%	2%
Jason Stanton	GIS Project Director	65%	15%
Kayla Kress	GIS Analyst	65%	15%
Jeffery Legros	Principal Planner	10%	-
Jonathan Vos	Regional Planner	10%	-
	Transportation Intern(s)	100%	-

Please note that staff will be devoting some of their time to Transit related planning efforts as outlined within this UPWP.

MONTACHUSETT REGIONAL PLANNING COMMISSION

October 1, 2022 to September 30, 2023

Task No.	Task Description	PL/FTA	MassDOT	Total Budget
1.0 Management and Support				
1.1	Support of 3C Process	\$75,600.00	\$18,900.00	\$94,500.00
1.2	Unified Planning Work Program	\$15,800.00	\$3,950.00	\$19,750.00
1.3	Public Information & Participation Program	\$25,600.00	\$6,400.00	\$32,000.00
1.4	Development of TIP	\$53,800.00	\$13,450.00	\$67,250.00
1.5	Environmental Justice/Title VI	\$42,200.00	\$10,550.00	\$52,750.00
Subtotal:		\$213,000.00	\$53,250.00	\$266,250.00
2.0 Highway Surveillance				
2.1	Regional Demographics & Model	\$18,400.00	\$4,600.00	\$23,000.00
2.2	GIS Mapping and Analysis	\$68,729.60	\$17,182.40	\$85,912.00
2.3	Data Collection & Analysis Program	\$50,400.00	\$12,600.00	\$63,000.00
2.4	Pavement Management Systems	\$22,400.00	\$5,600.00	\$28,000.00
2.5	Performance Measures	\$18,400.00	\$4,600.00	\$23,000.00
2.6	Regional Transportation Plan	\$64,852.00	\$16,213.00	\$81,065.00
Subtotal:		\$243,181.60	\$60,795.40	\$303,977.00
3.0 Transportation Plan				
3.1	Housing Coordination Plan	\$60,792.00	\$15,198.00	\$75,990.00
3.2	Climate Change & Resiliency Program	\$42,480.00	\$10,620.00	\$53,100.00
3.3	Intersection Analysis	\$56,600.00	\$14,150.00	\$70,750.00
3.4	Freight Study	\$58,000.00	\$14,500.00	\$72,500.00
Subtotal:		\$217,872.00	\$54,468.00	\$272,340.00
4.0 Multimodal Planning Activities				
4.1	Transportation Equity & Public Involvement	\$5,600.00	\$1,400.00	\$7,000.00
4.2	Short Range Transportation Planning (CPT-HST)	\$25,600.00	\$6,400.00	\$32,000.00
4.3	Technical Assistance to MART	\$11,600.00	\$2,900.00	\$14,500.00
4.4	Transit Development Plan for Eastern Communities	\$24,776.80	\$6,194.20	\$30,971.00
Subtotal:		\$67,576.80	\$16,894.20	\$84,471.00
TOTAL		\$741,630.40	\$185,407.60	\$927,038.00

SUMMARY OF FUNDING BY SOURCE AND ELEMENT
PROGRAM YEAR FFY 2023

<u>ELEMENT</u>	<u>PL</u>	<u>FTA - 5303</u>	<u>MassDOT</u>	<u>TOTAL</u>
1	\$189,600	\$23,400	\$53,250	\$266,250
2	\$225,330	\$17,852	\$60,795	\$303,977
3	\$203,280	\$14,592	\$54,468	\$272,340
4	\$18,200	\$49,377	\$16,894	\$84,471
TOTAL	\$636,410	\$105,221	\$185,408	\$927,038

SUMMARY OF FUNDING BY SOURCE AND GRANTEE
PROGRAM YEAR FFY 2023

<u>GRANTEE</u>	<u>PL</u>	<u>FTA - 5303</u>	<u>TOTAL</u>
MRPC	\$636,410	\$105,221	\$741,630
MassDOT	\$159,102	\$26,305	\$185,408
TOTAL	\$795,512	\$99,021	\$927,038

MRPC FEDERAL FISCAL YEAR "PL" ALLOCATIONS

FY	ANNUAL ALLOCATION	CUMULATIVE
1974-2004	\$1,434,456	\$5,875,735
2005	\$506,127	\$6,381,862
2006	\$496,737	\$6,878,599
2007	\$508,486	\$7,387,085
2008	\$546,217	\$7,933,302
2009	\$567,231	\$8,500,533
2010	\$582,543	\$9,083,076
2011	\$563,751	\$9,646,827
2012	\$563,751	\$10,210,578
2013	\$555,297	\$10,765,875
2014	\$570,098	\$11,335,973
2015	\$544,557	\$11,880,530
2016	\$585,751	\$12,466,281
2017	\$621,347	\$13,087,628
2018	\$647,248	\$13,734,876
2019	\$661,145	\$14,396,021
2020	\$676,534	\$15,072,555
2021	\$671,457	\$15,744,012
2022	\$747,979 **	\$16,491,991
2023	\$927,038 **	\$17,419,029

** Beginning with 2022, the Annual Allocation includes both the PL and FTA 5303 Allocations for Montachusett.



2023
Unified Planning Work Program Funding

	FFY 23 PL	FFY 22 PL (Distributed)	Δ
apportionment	\$ 11,858,369	\$ 9,837,301	91.0%
obligation authority		\$ 91.0%	
federal PL funds only	\$ 10,672,559	\$ 8,951,944	16.1%
matching funds added	\$ 13,340,698	\$ 11,260,322	

FFY 22 PL
(Actual)
\$9,634,967

The recommended PL Allocation Formula was developed by the Massachusetts Association of Regional Planning Agencies and recommended by MassDOT to FHWA, it is based upon the following three factors: 40% of available funds divided equally among the ten MPOs, 30% is allocated based on each MPO's relative share of Massachusetts population, and 30% is allocated based on each MPO's relative share of urbanized population. These factors result in the percentages shown.

PL funds are provided to the MPOs from the previous year's federal-aid ("forward funding")

	40% of total funds / ten MPOs	30% of funding for relative size of population	30% of funding for relative size of urbanized population	\$5303 Full Amount w/ Match (FFY 22)	\$5303 Full Amount w/Match FFY 23	Total FFY 22 funding by MPO	Total FFY 23 funding by MPO	Δ
MPOs PL funded	\$ 5,336,280	\$ 4,002,210	\$ 4,002,210	\$ 49,166	\$ 77,358	\$ 615,143	\$ 13,340,698	
Berkshire	\$ 533,628	\$ 131,219	\$ 131,219	\$ 81,427	\$ 126,855	\$ 615,143	\$ 752,120	\$ 136,977
Boston	\$ 533,628	\$ 3,087,975	\$ 3,087,975	\$ 1,916,215	\$ 2,548,266	\$ 5,723,971	\$ 7,032,949	\$ 1,308,978
CTPS*	\$ 432,229			\$ 1,629,031	\$ 2,115,477	\$ 4,673,982	\$ 5,748,069	\$ -
MaPC	\$ 101,369			\$ 333,272	\$ 432,790	\$ 1,047,998	\$ 1,294,879	\$ -
Cape Cod	\$ 533,628	\$ 215,888	\$ 215,888	\$ 133,693	\$ 91,232	\$ 763,338	\$ 938,904	\$ 175,566
Central Mass	\$ 533,628	\$ 556,688	\$ 556,688	\$ 345,454	\$ 204,115	\$ 1,202,452	\$ 1,513,945	\$ 311,493
Merimack Valley	\$ 533,628	\$ 333,748	\$ 333,748	\$ 207,104	\$ 141,638	\$ 941,381	\$ 1,166,802	\$ 225,421
Montachusett	\$ 533,628	\$ 236,475	\$ 236,475	\$ 146,742	\$ 80,719	\$ 747,979	\$ 927,837	\$ 179,858
Northern Middlesex	\$ 533,628	\$ 286,901	\$ 286,901	\$ 178,034	\$ 131,464	\$ 894,690	\$ 1,091,344	\$ 206,654
Old Colony	\$ 533,628	\$ 362,406	\$ 362,406	\$ 224,888	\$ 130,019	\$ 959,201	\$ 1,196,437	\$ 237,237
Pioneer Valley	\$ 533,628	\$ 621,570	\$ 621,570	\$ 385,710	\$ 274,585	\$ 1,348,622	\$ 1,688,604	\$ 339,981
Southeastern Mass	\$ 533,628	\$ 616,670	\$ 616,670	\$ 382,669	\$ 293,706	\$ 1,361,900	\$ 1,699,705	\$ 337,805
	\$ 5,336,280	\$ 6,449,550	\$ 6,449,550	\$ 4,002,210	\$ 4,667,148	\$ 14,548,876	\$ 18,007,847	\$ 3,458,971

	SPR the year before (federal only)	FFY 22 total funding by RPA	FFY 23 total funding by RPA	Δ
RPA's SPR funded				
Franklin	16.1%	\$ 449,255	\$ 561,569	\$ 112,314
Martina's Vineyard	16.1%	\$ 257,637	\$ 322,046	\$ 64,409
Nantucket	16.1%	\$ 219,153	\$ 273,941	\$ 54,788

* CTPS 3303 includes MassDOT 3303
The SPR funding provided to the RPA's not officially recognized as MPOs is adjusted year-to-year based on the change in funding experienced by the MPOs for their PL funds.

APPENDIX A – MRPC FUNDING SOURCES AND PLANNING ACTIVITIES

Other planning activities currently taking place involving the Montachusett Regional Planning Commission include the following:

- MRPC received a Planning Assistance Grant Award in the amount of \$70,000 from the Federal Economic Development Administration (EDA) for the year April 1, 2021, through March 31, 2022, enabling the MRPC to implement regional economic development strategies, provide economic development technical assistance to municipalities and implement the Montachusett Region Comprehensive Economic Development Strategy.
- MRPC applied for a Planning Assistance Grant Award from the Federal EDA for the year April 1, 2022, through March 31, 2023, enabling the MRPC to implement regional economic development strategies, provide economic development technical assistance to municipalities and implement the Montachusett Region Comprehensive Economic Development Strategy.
- MRPC received a \$400,000 grant award from the EDA in July 2021 to last two years to accomplish the following tasks:
 1. Short-term and long-term economic development planning and coordination to update the Montachusett Comprehensive Economic Development Strategy (CEDS) focused on pandemic recovery and resiliency.
 2. Funding for MRPC to hire a regional Disaster Economic Recovery Coordinator (DERC) for a two-year period to serve the communities and local governments and work with business leaders across the geographic region to stimulate economic growth within the business community.
 3. Enhance MRPC capacity support for coronavirus response, including technology costs and personnel costs for MRPC staff members directly working on or supporting the work of the coronavirus-related economic development response.
- MRPC staff put together Planning Assistance Grant applications to fund four Master Plan Chapters for the Town of Ashburnham, an updated solar bylaw for the Town of Hubbardston, an update to the Town of Townsend's Open Space and Recreation Plan, and climate resiliency planning for the Town of Phillipston. Grants were due to the state Executive Office of Energy & Environmental Affairs (EOEEA) on May 28, 2021. All four grant applications were funded in the amount of \$148,000 in December 2021 and work has commenced.
- MRPC staff received a Planning Assistance Grant from the state EOEEA in the amount of \$98,000 to fund the Implementation Plan of the Town of Hubbardston's Master Plan, three Master Plan Chapters for the Town of Sterling, and downtown zoning for the Town of Athol. Work will be completed by 6/30/22.
- On October 1, 2019, the federal Environmental Protection Agency (EPA) selected the Montachusett Regional Planning Commission (MRPC) for a \$300,000 Community-wide Brownfields Assessment grant for hazardous substances contaminated sites. This three-year grant ends on September 30, 2022.
- On December 1, 2021, MRPC applied for the federal Environmental Protection Agency (EPA) Community-wide Brownfields Assessment grant for hazardous substances contaminated sites in the amount of \$500,000 to complete Phase I and II environmental assessments in the region.
- Lancaster Hazard Mitigation Plan – MRPC has contracted with the Town of Lancaster to update their expired Hazard Mitigation Plan in the amount of \$25,000. The Plan will be completed and submitted to MEMA and FEMA by the end of June 2022.

- MRPC continues to assist the Towns of Ashby, Athol, Clinton, Fitchburg, Groton, Harvard, Hubbardston, Lancaster, Royalston, Shirley, Townsend, and Westminster with their Green Communities Grant Awards. Tasks associated with managing the grant awards include quarterly and annual reporting, procurement, completing Competitive Grant applications, and data management, as well as project initiation and management. MRPC received \$80,700 to assist our communities with Green Communities tasks in October 2021 from the MA Department of Energy Resources (DOER). The contract ends 5/31/23.

MRPC prepared and submitted Annual Reports for the towns of Ashby, Athol, Fitchburg, Groton, Harvard, Lancaster, Royalston, Shirley, Townsend, and Westminster that were due November 6th. Questions from reviewers on the Annual Reports are beginning to come in and these will be addressed with the communities.

MRPC submitted a Green Communities Competitive Grant application to DOER on October 8th on behalf of the Towns of Athol, Ashby, Groton, and Westminster. We are awaiting awards for these projects.

- A grant in the amount of \$104,039 has been received from the MA DOER. The DOER's Energy Efficiency Division is funding regional planning agencies (RPAs) to develop programs and provide clean energy training to municipal or community organizations that support low-income populations. This funding will allow RPAs to increase knowledge of the Commonwealth's low-income residential clean energy programs, expanding the reach of existing successful programs. The contract began October 9, 2019 and ends June 30, 2022. MRPC is wrapping up this project.
- MRPC was awarded a \$75,000 grant to help all the non-Age Friendly communities in the Montachusett Region become certified as Age Friendly. MRPC received the executed contract on July 24, 2020. MRPC staff are currently finalizing a virtual public forum for all non-Age Friendly communities and several other participating organizations, including Fitchburg State University, to review the Age Friendly process, answer questions, and establish working groups with each participating community. Comprehensive assessment and community engagement plans to serve as benchmark indicators are in the process of being submitted and evaluated by the grant manager.
- MRPC received MA District Local Technical Assistance funds in the amount of \$207,475 to help our communities with economic development, housing, land use, master planning, open space planning, zoning, and mapping. The contract is 1/1/22-12/31/22. Contracts are currently underway to assist our communities with the new state MBTA Communities law requiring increased density for housing, updating Open Space and Recreation Plans, developing Housing Production Plans, and implementing affordable housing goals and objectives.

SUMMARY OF OTHER MRPC FUNDING SOURCES

Agency	Program	Funding Total
Federal: Department of Commerce Economic Development Administration	Section 203 Area Planning Assistance Grant 4/1/21 - 3/31/22	\$ 70,000
Federal: Department of Commerce Economic Development Administration	EDA COVID Section 209 & 703 Public Works 7/1/20 - 6/30/22	\$400,000
Federal: Environmental Protection Agency	Brownfields 7/1/19 - 9/30/22	\$300,000
State: Executive Office of Energy & Environmental Affairs (EOEEA)	Planning Assistance Grant Ashburnham, Townsend, Hubbardston, Phillipston 12/8/22-6/30/23	\$148,000
State: Executive Office of Energy & Environmental Affairs (EOEEA)	Planning Assistant Grant Sterling, Hubbardston, Athol 11/1/20 - 6/30/22	\$ 98,000
State: Department of Energy Resources	Regional Energy Planning Assistance Grant 10/1/21- 5/31/23	\$ 80,700
State: Department of Energy Resources	Affordable Access Regional Coordination AARC 10/1/19 - 9/30/21	\$104,039
State: Massachusetts Dept of Housing & Community Development DHCD	District Local Technical Assistance 1/1/22 - 12/31/22	\$207,475
Regional: Department of Public Health	Montachusett Age Friendly Project 7/1/20 - 6/30/22	\$ 75,000
Local: Town of Lancaster	Hazard Mitigation Plan 9/30/21 – 5/30/22	\$ 25,000
Local: Town of Hubbardston	Hubbardston Green Community 10/01/20 – 8/30/22	\$ 5,000
Local: Town of Templeton	Templeton Green Community 2/10/21 - 10/31/22	\$ 7,000
Local: Town of Townsend	Townsend Green Community 3/8/22 – 12/31/22	\$ 3,000
Local Communities: All	Local Technical Assistance 7/1/22 - 6/30/23	\$ 85,401
Local Communities: Some	GIS 7/1/21 - 6/30/22	\$ 8,000

APPENDIX B – GLOSSARY/ ACRONYMS

Acronyms and Abbreviations

3C	Continuing, Cooperative and Comprehensive Transportation Planning
AADT	Average Annual Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
ABP	Accelerated Bridge Program
ADA	Americans with Disabilities Act (1990)
ADT	Average Daily Traffic
AMPO	Association of Metropolitan Planning Organizations
ANR	Approval Not Required Plans
APA	American Planning Association
APTA	American Public Transportation Association
ATR	Automatic Traffic Recorder
AVL	Automatic Vehicle
BMP	Best Management Practice
BMS	Bridge Management System
CAAA	Clean Air Act Amendments of 1990
CDBG	Community Development Block Grant
CEDS	Comprehensive Economic Development Strategy
CFR	Code of Federal Regulations
CIP	Capital Improvement Program
CHNA 9	Community Health Network Area 9
CMAQ	Congestion Mitigation and Air Quality
CMS	Congestion Management System
CRFCs	Critical Rural Freight Corridors
CSS	Context Sensitive Solutions
CUFCs	Critical Urban Freight Corridors
DEP	Department of Environmental Protection
DHV	Design Hour Volume
DLTA	District Local Technical Assistance
DRS	Demand Responsive Service
EDA	Economic Development Administration
EIR	Environmental Impact Report
EIS	Environmental Impact Study/Statement
EJ	Environmental Justice
ENF	Environmental Notification Form
EOEEA	Executive Office of Energy and Environmental Affairs
EPA	Environmental Protection Agency
EPDO	Equivalent Property Damage Only
FAST Act	Fixing America's Surface Transportation Act (2015-2020)
FASTLANE	Fostering Advancements in Shipping and Transportation for the Long-term Achievement of National Efficiencies Grants Program
FEIR	Final Environmental Impact Report
FEMA	Federal Emergency Management Agency
FFY	Federal Fiscal Year (begins October 1 st to September 30 th)
FHWA	Federal Highway Administration

FO	Functionally Obsolete
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
FY	Fiscal Year (July 1 st to June 30 th)
GANs	Grant Anticipation Notes
GIS	Geographic Information System
GPS	Global Positioning System
GVW	Gross Vehicle Weight
HAZMAT	Hazardous Material
HCM	Highway Capacity Manual
HCS	Highway Capacity Software
HOV	High Occupancy Vehicle
HPMS	Highway Performance Monitoring System
HPP	High Priority Project
HSIP	Highway Safety Improvement Program
HTF	Highway Trust Fund
I/M	Inspection and Maintenance
IM	Interstate Maintenance
ISTEA	Intermodal Surface Transportation Efficiency Act (1991-1997)
ITC	Intermodal Transportation Center
ITE	Institute of Transportation Engineers
ITS	Intelligent Transportation System
JARC	Job Access Reverse Commute
LOS	Level of Service
LRT	Light Rail Transit
L RTP	Long-Range Transportation Plans
MAP	Mobility Assistance Program
MAP-21	Moving Ahead for Progress in the 21 st Century (2012-2015)
MARPA	Massachusetts Association of Regional Planning Agencies
MART	Montachusett Regional Transit Authority
MARTA	Massachusetts Association of Regional Transit Authorities
MBTA	Massachusetts Bay Transportation Authority
MassDOT	Massachusetts Department of Transportation
MEMA	Massachusetts Emergency Management Agency
MIS	Major Investment Study
MJTC	Montachusett Joint Transportation Committee
MMPO	Montachusett Metropolitan Planning Organization
MOE	Measures of Effectiveness
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
MRPC	Montachusett Regional Planning Commission
MRTC	Montachusett Regional Trail Coalition
MSA	Metropolitan Statistical Area
MUTCD	Manual on Uniform Traffic Control Devices
NAAQS	National Ambient Air Quality Standards

NARC	National Association of Regional Councils
NEPA	National Environmental Policy Act
NFA	Non-Federal Aid
NHFN	National Highway Freight Network
NHFP	National Highway Freight Program
NHS	National Highway System
NHTSA	National Highway Traffic Safety Administration
NSBP	National Scenic Byways Program
NTP	Notice to Proceed
NTS	National Transportation System
OA	Obligational Authority
OTP	Office of Transportation Planning
PHF	Peak Hour Factor
PHFS	Primary Highway Freight System
PL	Planning Funds
PMS	Pavement Management System
PMT	Personal Miles Traveled
PMUG	Pavement Management User's Group
PPP	Public Participation Program
PRC	Project Review Committee
PS&E	Plans, Specifications & Estimates
PWED	Public Works/Economic Development
RABA	Revenue Aligned Budget Authority
RFP	Request for Proposals
RFQ	Request for Quotes
RFR	Request for Referrals
ROW	Right of Way
RPAs	Regional Planning Agencies
RPOs	Rural Planning Organizations
RRF	Request a Release of Funds
RTA	Regional Transit Authority
RTP	Regional Transportation Plan
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (2005-2009)
SEIR	Supplemental Environmental Impact Report
SIP	State Implementation Plan
SPR	State Planning and Research Funds
SOV	Single Occupant Vehicle
STIP	Statewide Transportation Improvement Program
STP	Surface Transportation Program
TCM	Transportation Control Measure
TCSP	Transportation and Community System Preservation
TDM	Travel Demand Management
TDP	Transit Development Plan
TE	Transportation Enhancement
TEA-21	Transportation Equity Act for the 21 st Century (1998-2003)
TIGER	Transportation Investment Generating Economic Recovery

TIGGER	Transit Investment in Greenhouse Gas and Energy Reduction
TIP	Transportation Improvement Program
TMA	Transportation Management Area
TMC	Turning Movement Count
TOD	Transit Oriented Development
TSM	Travel/Transportation System Management
UPWP	Unified Planning Work Program
UZA	Urbanized Areas
V/C	Volume to Capacity Ratio
VMS	Variable Message Sign
VMТ	Vehicle Miles Traveled
VOCs	Volatile Organic Compounds
VPН	Vehicles Per Hour

APPENDIX C – COMMENTS AND RESPONSES

FFY2023 UPWP Comments	
Action	
Comment 1	MassDOT OTP - Completeness
	Page V - MrMapper link is broken.
	Social equity distribution map (page 16) is pixelated and difficult to read. Geographic equity map (page 17) missing legend.
	Please update MPO members list on MRPC website, last updated 9/1/2017.
	Please create and list the acronyms and partner agency list in the table of contents
Response 1	Noted and changes were made. There is an acronyms list in Appendix B.
Comment 2	MassDOT OTP - Narrative
	Please include a brief discussion on MOU's that goes beyond updates in the past
Response 2	Additions and updates have been made to the narrative as requested.
Comment 3	MassDOT OTP - UPWP Tasks
	Please explicitly include efforts to coordinate performance-based planning with MassDOT, RTAs, and neighboring RTAs on relevant performance targets in Task 2.5. Refer to UPWP Narrative Guidance.
	Missing a congestion mitigation planning task. It looks like Task 3.1 from FFY 2022 UPWP captured this work. Please define congestion mitigation planning efforts more thoroughly in proposed tasks, or develop new task to capture this need.
Response 3	Updates and changes were made to each task mentioned as requested.
Comment 4	FHWA
	For accessibility considerations: is it possible to add a descriptive title above every image and table? Many are missing titles, though some have them. Likewise, please provide alt text for all images to improve screen reader access.
	Page 8 - Secretary Tessler is listed as "Acting" on this page.
	Page 24 - Under "Program Year" at bottom of page: I believe the "2021" should read "2023" on this page
	Page 26 - Thank you for the detailed analysis linking Planning Factors and UPWP tasks.
	Page 31 - If possible, it would be preferable to include readable text versions of these images, from an accessibility/screen reader standpoint. Please ensure alt text is accurate, at a minimum.
	Page 47 - Budget Table: It appears there is an extra "0" in the total line.
	Page 66 - Will a similar effort to establish performance measures be underway for the next RTP?
Response 4	Corrections, additions and updates have been made as requested.