

Merrimack Valley Metropolitan Planning Organization Unified Planning Work Program Federal Fiscal Year 2024

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I. Front Matter

Funding Disclaimer

This work program was funded in part through grants from the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), United States Department of Transportation (USDOT). The views and opinions of the Merrimack Valley Metropolitan Planning Organization (MVMPO) expressed herein do not necessarily state or reflect those of the USDOT.

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Arabic

في الحضري التخطيط لمنظمة التابع التمييز لمنع السادسة الفقرة بمنسق الاتصال يُرجى ،أخرى بلغة المعلومات هذه إلى بحاجة كنت إذا 51 الأرقام اضغط وثم 0519-374-978 ؛الهاتف على فالى ميريماك

Endorsement Statement

Endorsement of Federal Fiscal Year 2024 MVMPO Unified Planning Work Program

The signature below certifies that the Merrimack Valley Metropolitan Planning Organization (MVMPO), at their meeting on June 28, 2023, hereby approved the following action in accordance with the Comprehensive, Cooperative and Continuous transportation planning process.

In accordance with the requirements of 23 CFR Part 450 Section 308(c) of Federal Regulations, the MVMPO has completed its review and hereby endorses the Merrimack Valley Unified Planning Work Program for Transportation Planning Activities for October 1, 2023, through September 30, 2024.

June 28, 2023

for

Gina Fiandaca, Secretary and CEO of MassDOT

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II. Executive Summary

What is the Unified Planning Work Program?

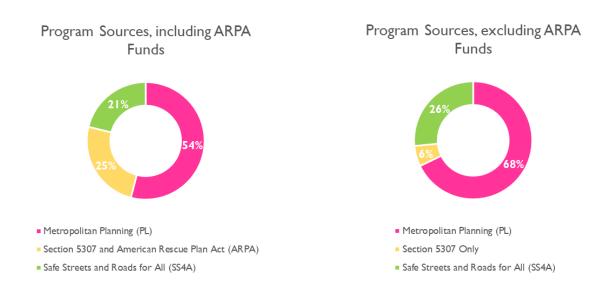
The Unified Planning Work Program, (UPWP) is the federal certification document that details the anticipated work of Merrimack Valley's Metropolitan Planning Organization (MVMPO) over the course of a single year. Because MVMPO's primary funding sources are federal aid, the document must show the tasks and subtasks that MVMPO staff intend to perform, how many hours will be dedicated to those tasks, and any projected direct cost expenditures that support MVMPO's work. Staff typically prepare the document in the spring and summer of each year, aiming for MVMPO Board approval by mid-summer. Following endorsement, the work program becomes effective at the start of the new federal fiscal year on October 1.

Federal Fiscal Year 2024 Sources and Uses

Sources

Four different federal aid sources fund 18 subtasks allocated across four different tasks. As is typical, federal Metropolitan Planning Program (PL) funds are the primary source of support of MVMPO work. MVMPO staff also hold a contract with Merrimack Valley Transit (MeVa), the region's transit authority, which passes Section 5307 funds—and in this cycle, potentially American Rescue Plan Act (ARPA) funds—to the MVMPO to support short-term planning work. While \$450,000 of ARPA funding has been programmed in previous UPWP cycles and remains programmed in this cycle, MeVa has not yet determined what percentage of those funds will be passed to the MVMPO for short-term planning. Finally, the FY24 UPWP programs Safe Streets and Roads for All (SS4A) discretionary program funding, which will result in the development and endorsement of a comprehensive safety action plan. Figure 1 and and Figure 2 summarize the FFY24 UPWP's percentage of funding sources, with and without potential ARPA funds.

Figure 1 - Program Sources incl. ARPA and Figure 2 - Program Sources excl. ARPA



Uses: Tasks, Subtasks and Deliverables

The FFY24 UPWP programs four tasks—3C Program Management, Data Collection and Analysis, Transportation Planning, and Other Planning Support—and 18 total associated subtasks, as listed below. Detailed descriptions of each subtask can be found in Section V. under the "Tasks" header.

Task 1 - 3C Program Management

- Subtask 1.1 Program Management, Support, and Growth
- Subtask 1.2 Public Participation
- Subtask 1.3 Unified Planning Work Program
- Subtask 1.4 Transportation Improvement Program
- Subtask 1.5 Title VI, Environmental Justice and Equity

Task 2 - Data Collection and Analysis

- Subtask 2.1 Supportive Field Services
- Subtask 2.2 Asset Management Program Development
- Subtask 2.3 Supportive GIS and Information Technology
- Subtask 2.4 Travel Time Reliability and Competitiveness
- Subtask 2.5 Benchmarks and Performance Measures

Task 3 - Transportation Planning

- Subtask 3.1 Active Transportation and Complete Streets
- Subtask 3.2 Safe Streets and Roads for All (SS4A)
- Subtask 3.3 Transit Planning
- Subtask 3.4 Regional Vitality
- Subtask 3.5 Network Sustainability and Resilience
- Subtask 3.6 Roadway Safety Engagement and Planning

Task 4 - Other Planning Support

- Subtask 4.1 County & State Planning Support
- Subtask 4.2 Local Technical Assistance and Grants Coordination

Work on performed in support of these tasks will generate the following deliverables:

- Regional Comprehensive Safety Action Plan (Task 3.2)
- Active Transportation Plan (Task 3.1)
- Fare Free Report for MeVa (Task 3.3)
- Capital Purchase Program (Task 3.4)
- FFY25-29 Transportation Improvement Program (TIP, Task 1.4)
- FFY25 Unified Planning Work Program (UPWP, Task 1.3)
- Revised Transportation Evaluation Criteria Scoring Process (Task 1.4)
- Regional Analysis of Performance Measure One (Task 2.5)

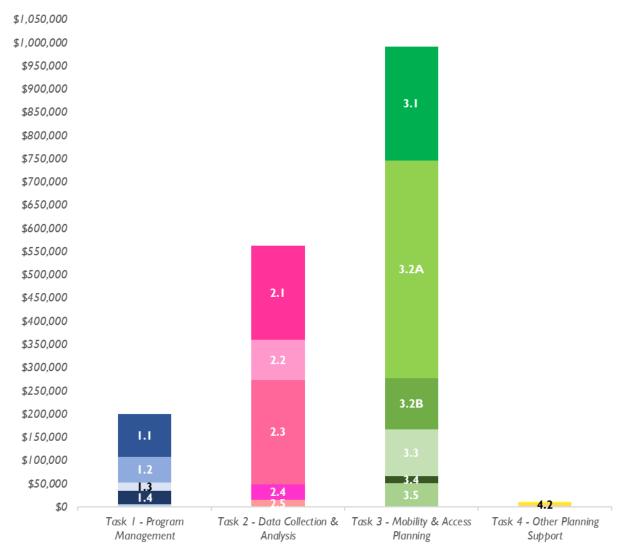
- Traffic Counting for the MS2 Program (to be integrated into a regional web viewer, Tasks 2.1 and 2.3)
- Local and Regional Traffic Counting (to be integrated into a regional web viewer, Tasks 2.1 and 2.3)
- Updated Equity Maps (to be integrated into a regional web viewer, Task 1.5)
- Automatic Passenger Counter Validation for MeVa (Task 3.3)
- American with Disabilities Act Third Party Review for MeVa (Task 3.3)
- Local Technical Assistance Menu (Task 4.2)

The FY24 UPWP also includes resources for continued prospecting and exploration of programs, services, and topics that could potentially support the region. These deliverables are not concrete, but include:

- Pavement and Asset Management Exploration (Task 2.2)
- Bus Stop Planning for MeVa (Task 3.3)
- Interactive Transit-Vehicle Mode Share Competitiveness Mapping (Tasks 2,3 and 2.4)

Figure 3 depicts task expenditures by task and subtask for the purposes of comparison regarding level of effort.

Figure 3 - Comparison of Expenditures by Task and Subtask



Opportunities for Public Review and Comment

MVMPO released its proposed FFY24 UPWP for public review and comment on May 24, 2023 by unanimous MPO Board member vote. MVMPO Board staff advertised the public comment period and its associated public hearings through notice to member communities, on the MVPC website, and through several local papers: *The Eagle Tribune, Haverhill Gazette, Andover Townsman, Newburyport Daily News* and Spanish language paper *Rumbo*. MVMPO staff held public hearings on June 21, 2023 at 1pm and 6pm. Staff did not receive comments at these hearings, nor through electronic mediums (e.g. the website's "provide comments button; email). During the development process for the FFY24 UPWP, MVMPO staff presented their proposed approach to the Board and larger MVPC Commission at several advance meetings, all of which were noticed in accordance with the MVMPO's Public Participation Plan and Commission standard operating procedure.

Concurrent with the comment period, staff facilitated internal review and intergovernmental review, resulting in several comments and edits. The appendix documents these comments and any associated edits to the FFY24 UPWP draft.

III. Work Program Overview

Federal Aid Basics and Relation to the 3C Transportation Planning Process

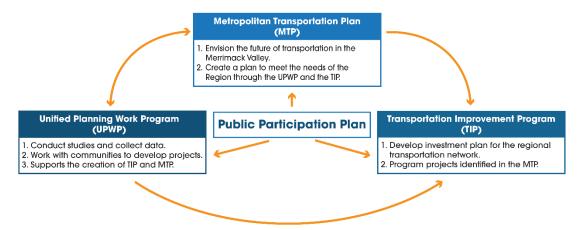
The MVMPO coordinates with its member communities to program apportioned and discretionary federal aid (i.e. obligate the use of federal funds to support local needs). Apportioned aid is made available to states by the federal government in an amount determined by formula included in federal surface transportation legislation, the most recent being the Investment in Infrastructure and Jobs Act, which is more commonly referred to as the Bipartisan Infrastructure Legislation (BIL). Apportioned aid comprises most of the federal aid that MPOs are responsible for programming. MPOs are also responsible for programming discretionary aid—aid that is not guaranteed in surface transportation legislation, which is often awarded to regions and municipalities through competitive grant processes—and earmarks.

To remain eligible to program available federal aid, MPOs must produce and endorse four certification documents: the Unified Planning Work Program (UPWP), the Transportation Improvement Program (TIP), the Metropolitan Transportation Plan (MTP), and a Public Participation Plan. Table 1 describes the role of the certification documents in the 3C funding process.

Table 1 - 3C Certification Documents

Document	Purpose	Horizon	Update Timeline
Unified Planning	Establishes the annual work program	One Year	Annually, endorsed in spring
Work Program	for the MVMPO staff, including		
(UPWP)	studies and tasks that support		
	member communities.		
Transportation	Programs federal and state aid	Five Years	Annually, endorsed in spring
Improvement	funding for specific transportation		
Program (TIP)	projects.		
Metropolitan	Establishes the long-range vision for	Twenty to	Updated every four to five years,
Transportation Plan	a region, including goals and	Twenty-Five	depending on current surface
(MTP)	objectives. Identifies projects and	Years	transportation legislation; typically
	strategies to realize the vision.		endorsed in summer.
Public Participation	Establishes standards and policies for	Continuous	Approximately every five years
Plan (PPP)	engaging communities in the 3C		
	transportation planning process.		

Figure 4 depicts the relationship between the four primary federally required certification documents.



The region's Metropolitan Transportation Plan (MTP)—which is a long-term, high-level visioning document—includes a fiscally-constrained list of projects that are potential candidates for state and federal aid. These projects often originate from studies or tasks included in the region's annual Unified Planning Work Program (UPWP). The MTP may also recommend potential studies or tasks for future UPWP cycles.

The UPWP always includes a line item for the development of the annual Transportation Improvement Program (TIP). This document programs projects for federal aid based on their benefits and readiness. Projects on the TIP must also be included in the most recent MTP, or at the very least, have a strong relationship to the MTP's vision.

The Public Participation Plan (PPP) establishes standards and policies for engaging communities in the development and approval of the other documents.

Unified Planning Work Program Overview

What is the Unified Planning Work Program?

The UPWP programs federal aid allocated to MPOs to support regional planning work. The word *program* signifies an obligation of MPO staff to use federal aid funding for a particular planning purpose, such as a study, activity, or particular form of engagement. There are three main types of expenditures that can be programmed: staffing costs, direct costs, and indirect costs, each described below.

Staffing Costs

Most federal aid programmed by MVMPO supports staff costs. The UPWP allocates federal aid for staff to perform tasks and subtasks based on the upcoming year's anticipated needs and deliverables. Many tasks are continuous from year to year. For example, MVMPO staff fulfill several annual functions including but not limited to:

- Facilitating the state's required traffic counting program and supplementing these counts with additional local and regional counts of interest;
- Maintaining geographic databases for use in transportation planning studies;
- Providing technical assistance to partner municipalities; and
- Preparing federal aid documents like the UPWP and the TIP.

Staff also program several deliverables that are not continuous but are instead relevant to only one, two, or three years of work. A few examples of such items in this fiscal year's work plan include the development of a new project scoring system, the development of a capital purchase program, and the creation and adoption of a regional comprehensive safety action plan.

Direct Costs

The UPWP also budgets for a wide range of direct costs. These include continuous needs, such as translation services for notices and Commission-produced documents. Other continuous costs include Commission-vehicle fuel and supplies for traffic counting data collection, such as spray paint and tape. Non-continuous costs vary year to year and can include the procurement of consultants to support engagement or technical work, professional development, training, software licenses, hardware replacement, and professional services (e.g., firms that review traffic data videos and provide outputs).

Indirect Costs

Per MassDOT guidance, each year the MVMPO undergoes an audit of its indirect cost rate. This rate accounts for MVMPO staff's portion of MVPC's administrative, information technology, and shared resource needs. The rate is applied to staff costs in each of the MVMPO's invoices for federal aid reimbursement.

Sources

The UPWP programs several different federal aid funding sources, which are typically authorized by the most current surface transportation legislation. In FFY2024, the Infrastructure Investment and Jobs Act, also referred to as the Bipartisan Infrastructure Legislation (BIL), authorizes programming. The BIL was signed into law on November 15, 2021, providing a critical funding stream for infrastructure and planning through FFY2026.

Metropolitan Planning Funds (PL)

The BIL's enactment authorizes the Federal Highway Administration's (FHWA) *Metropolitan Planning Program* (commonly referred to as PL in Massachusetts, but also MPP). The PL program comprises the largest share of program funding and establishes the federally mandated cooperative, continuous, and comprehensive (3C) transportation planning process, which ensures information sharing and coordination between different levels of government involved in transportation planning. PL funds require a match commitment, which has historically been provided by the state in an 80 percent federal — 20 percent state proportion. Per BIL requirements, 2.5% of PL funds must be expended on complete streets planning efforts; however, this 2.5% does not require a match.

Urbanized Area Formula Program Funding (Section 5307)

The BIL also authorizes Federal Transit Administration (FTA) programs, many of which support regional transit authorities (RTAs). Typically, MVMPO staff provide planning assistance to Merrimack's RTA, Merrimack Valley Transit (MeVa), functioning as a subrecipient of Urbanized Area Formula Funding Program resources (also called Section 5307). This funding stream provides urban areas and governors transit capital and operating assistance, of which MeVa passes a small portion to MVMPO staff to perform planning analysis and data collection. Like PL funds, planning-type work undertaken with Section 5307 funds requires a 20 percent match, which has been historically supplied by MVPC.

Other Discretionary Funding Sources

Federal aid programs that are not allocated to MPOs or RTAs by formula are called *discretionary* programs. The federal government often awards regions discretionary funding through competitive grant processes. In FFY24, MVMPO was awarded a Safe Streets and Road for All (SS4A) grant via a joint application with the Northern Middlesex Council of Governments (NMCOG). As lead applicant, MVMPO must program the entirety of the \$469,041 award, allocating a portion of that total to NMCOG as a direct cost. MVMPO also has programmed a share of MeVa's American Rescue Plan Act (ARPA) award, which, while programmed in full in the subject UPWP, will be spread across several work plan years.

Amendment & Adjustment Procedures

3C documents, including the UPWP, are not static. Documents may be amended, adjusted, or administratively modified. This practice is relatively common as progress on the annual UPWP unfolds during the year.

Amendments

Amendments are significant changes that require a 21-day comment period and a vote of approval by the MVMPO. UPWP amendments include the addition or deletion of a task or a change in a particular task's budget that exceeds 25 percent of the originally programmed total. Significant changes to a task's description also require amendment.

Adjustments

UPWP adjustments are changes that modify the scope of a task or the budget of a task in an amount less than 25 percent of the originally programmed total. Adjustments do not require a 21-day comment period; however, MVMPO must vote to approve an adjustment.

Administrative Modifications

Administrative modifications may be entertained for minor task descriptions, changes to project phasing, anticipated deliverables, etc. Such changes must be presented to the MVMPO but do not require a vote of approval, nor do they require the standard 21-day comment period.

This Year's Approach & Deliverables

The FY24 UPWP aligns staff capacity and financial resources with several concrete deliverables:

- Regional Comprehensive Safety Action Plan
- Active Transportation Plan
- Fare Free Report for MeVa
- Capital Purchase Program
- FFY25-29 Transportation Improvement Program (TIP)
- FFY25 Unified Planning Work Program (UPWP)
- Revised Transportation Evaluation Criteria Scoring Process
- Regional Analysis of Performance Measure One Safety
- Continued Traffic Counting for the MS2 Program (to be integrated into a regional web viewer)
- Continued Local and Regional Traffic Counting (to be integrated into a regional web viewer)
- Updated Equity Maps (to be integrated into a regional web viewer)
- Automatic Passenger Counter Validation for MeVa
- American with Disabilities Act Third Party Review for MeVa
- Local Technical Assistance Menu.

The UPWP also includes resources for continued prospecting and exploration of programs, services, and topics that could potentially support the region. These deliverables are not concrete, but include:

- Exploration and Development of Trail Counting Program
- Pavement and Asset Management Exploration
- Bus Stop Planning for MeVa
- Interactive Transit-Vehicle Mode Share Competitiveness Mapping

Historically, the region's UPWP has included four tasks with over 30 subtasks. The FY24 UPWP aggregates, amends, and reduces existing subtasks to improve administrative flexibility and public accessibility of the region's work program. Four larger tasks are retained, with 18 total subtasks. The UPWP allocates the deliverables and exploratory work noted above across the 18 subtasks. Section IV. Work Program & Budget depicts this allocation and anticipated resource expenditures. Section V. Tasks provides detailed information about each subtask.

Coordination with Federal Planning Factors & Planning Emphasis Areas

All UPWP tasks, deliverables, and processes will advance with consideration of federal transportation planning factors as defined in 23 CFR 450.306 as follows:

- 1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
- 2. Increase the safety of the transportation system for motorized and non-motorized users;
- 3. Increase the security of the transportation system for motorized and non-motorized users;
- 4. Increase accessibility and mobility of people and freight;
- 5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
- 6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- 7. Promote efficient system management and operation;
- 8. Emphasize the preservation of the existing transportation system;
- 9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and
- 10. Enhance travel and tourism.

Figure 5 documents the relationship between the FY24 UPWP deliverables and programs.

Figure 5 - Relationship to Federal Planning Factors

				P	lannin	g Fact	or			
Programmed Deliverables and Programs	ı	2	3	4	5	6	7	8	9	10
Regional Comprehensive Safety Action Plan	9	5		9					9	
Active Transportation Plan	9	9		9	9	9				9
Fare Free Report for MeVa	9			9	9		9			9
Capital Purchase Program	9	5		9	9				9	9
FFY25-29 Transportation Improvement Program	9	W		9	9		9	9		
FFY25 Unified Planning Work Program		W		9			9			
Revised Transportation Evaluation Criteria Scoring Process	9	5		9	9		9	9	9	
Regional Analysis of Performance Measure One - Safety	9	W		9						
Continued Traffic Counting for the MS2 Program	9			9			9	9		
Continued Local and Regional Traffic Counting	9			9			9	9		
Automatic Passenger Counter Validation for MeVa				5	5		9			
American with Disabilities Act Third Party Review for MeVa		5		9						
Local Technical Assistance Menu	9	(5)		9					9	
Pavement and Asset Management Exploration				9				5		
Bus Stop Planning for MeVa		9		9		9	9			9
Interactive Transit-Vehicle Mode Share Competitiveness Mapping	9			9	9		9			

In addition to the Federal Planning Factors, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) updated the Federal Planning Emphasis Areas (PEAs) in 2021. The PEAs are areas that FHWA and FTA encourage MPOs to consider when developing new UPWP tasks and programs. Thes include:

- 1. Tackling the Climate Crisis Transition to a Clean Energy Future: focus on achieving greenhouse gas reduction goal of 50-52 percent below 2005 levels by 2030 and net zero by 2050.
- 2. Equity and Justice 40 in Transportation Planning: focus on advancing equity for historically marginalized communities through non-motorized infrastructure, safety planning, mode shift, low and free fare transportation, demand-response service planning, and sustainable and equitable transit-oriented development.
- 3. Complete Streets: focus on roadways that meet the needs of all users, including nonmotorists, transit riders, freight providers, and micromobility device users.
- 4. Public Involvement: focus on expanding virtual public engagement and access throughout, and particularly at the beginning, or transportation planning processes.
- 5. Strategic Highway Network (STRAHNET)/United States Department of Defense Coordination: *focus on improving designated STRAHNET roadways for national and civil defense purposes in coordination with the United States Department of Defense.*
- 6. Federal Land Management Agency Coordination: focus on improving access to federal lands in coordination with Federal Land Management Agencies (FMLAs).
- 7. Planning and Environmental Linkages: focus on consideration of environmental, community, and economic goals early in the transportation planning process to inform environmental review processes to improve environmental outcomes and reduce duplicative efforts.
- 8. Data in Transportation Planning: focus on improving data sharing across and amongst agencies.

MVMPO considers the PEA across and throughout its work program by supporting alternative transportation projects, creating avenues for new and virtual forms of public involvement, considering access to public lands, and sharing data and information to reduce duplicative planning efforts and improve the efficiency of planning and implementation.

Coordination with Statewide Modal Plans

MassDOT's Office of Transportation Planning conducts a variety of statewide transportation planning projects, including the statewide Bicycle Plan, Rail Plan, and Freight Plan. Consistent with the intent of the Planning and Environmental Linkages and Data in Transportation Planning PEAs noted above, MVMPO makes use of these documents to inform its own planning efforts to reduce planning redundancy and improve efficiency. For more information about statewide plans, please see: https://www.mass.gov/statewide-plans.

IV. Fiscal Year 2024 Work Program & Budget

Federal Fiscal Year 2024 Sources

This fiscal year, MVMPO has programmed a total of \$1,768,923 to fund its annual work program, the majority of which is sourced by PL funding. The MVMPO also received a discretionary grant award to create a Comprehensive Safety Action Plan via the Safe Streets and Roads for All (SS4A) program; however, \$225,140 of the \$469,041 award will be set aside for MVMPO's sister agency, the Northern Middlesex Council of Governments, which applied with MVPC as a sub-applicant. MVPC and MeVa will continue their short-term planning relationship via contract. Typically, MeVa programs \$80,000 of Section 5307 federal aid to support short-term planning work, of which MVPC supplies the federally required 20 percent match through local assessment. For the purposes of simplicity, MVPC has historically shown the full \$100,000 in its work program even though only 80 percent of the source's total is federal aid. MeVa has also been awarded \$450,000 in American Rescue Plan Act (ARPA) funding, which—consistent with the previous year's UPWP—is included in the work program's sources documentation in the event MeVa chooses to add ARPA resources to its existing contract with MVPC. Table 2 depicts the total program against the region's obligation authority. Excluding the ARPA award, the region has programmed the full extent of its obligation authority for FY24.

Table 2 - Funding Sources

	Metropolitan Planning (PL) ¹	Section 5307 & ARPA (via MeVa) ^{2,3}	Safe Streets and Roads for All (SS4A)
FY2024 Total Funds Programmed	\$1,199,882	\$550,000	\$469,041
FY2024 Total Obligation Authority	\$1,199,882	\$100,000	\$469,041
Balance	\$0	\$450,000	\$0

¹80 percent of the total shown for the source is federal aid. The State of Massachusetts provides the required 20 percent match. ²Only \$80,000 of the programmed source is federal aid. The remaining \$20,000 of programmed funding is provided as a match via local Commission assessments.

Federal Fiscal Year 2024 Budget

Table 3 shows FY24 work program sources and uses. Table 4 follows, depicting the approximate hours that each MVPC employee will bill to the contract by subtask. Table 4 is not intended to be the *exact* distribution of work hours, but instead an approximation based on known staffing quantities and capacity. Finally, Table 5 and Table 6 summarize projected direct cost expenditures.

³The remaining \$450,000 represents ARPA funding that may be added, in some share, to MeVa's existing contract with MVPC, per MeVa's discretion.

Table 3 - FY24 Work Program Uses and Sources

	Funding Uses							Funding Sources					
Tasks and Subtasks ¹	Staff Cost (PL)	Indirect Cost (PL)	Direct Cost (PL)	Staff Cost (5307/ ARPA)	Indirect Cost (5307/ ARPA)	Direct Cost (5307/ ARPA)	Staff Cost (SS4A)	Indirect Cost (SS4A)	Direct Cost (SS4A)	Total Task & Subtask Cost	Total PL Program	Total 5307 & ARPA Program	Total SS4A Program
Subtask 1.1 – Program Management, Support, and Growth	\$25,535	\$35,164	\$33,000	\$0	\$0	\$0	\$0	\$0	\$0	\$93,699	\$93,699	\$0	\$0
Subtask 1.2 – Public Participation	\$22,803	\$31,402	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$54,205	\$54,205	\$0	\$0
Subtask 1.3 – Unified Planning Work Program	\$7,660	\$10,549	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$18,210	\$18,210	\$0	\$0
Subtask 1.4 – Transportation Improvement Program	\$12,404	\$17,081	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$29,485	\$29,485	\$0	\$0
Subtask 1.5 – Title VI, Environmental Justice and Equity	\$2,372	\$3,266	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,638	\$5,638	\$0	\$0
Total - Task I - 3C Program Management	\$70,774	\$97,463	\$33,000	\$0	\$0	\$0	\$0	\$0	\$0	\$201,236	\$201,236	\$0	\$0
Subtask 2.1 — Supportive Field Services	\$60,491	\$83,302	\$60,000	\$0	\$0	\$0	\$0	\$0	\$0	\$203,793	\$203,793	\$0	\$0
Subtask 2.2 – Asset Management Program Development	\$17,167	\$23,641	\$45,000	\$0	\$0	\$0	\$0	\$0	\$0	\$85,808	\$85,808	\$0	\$0
Subtask 2.3 – Supportive GIS and Information Technology	\$94,460	\$130,081	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$224,541	\$224,541	\$0	\$0
Subtask 2.4 – Travel Time Reliability and Competitiveness	\$10,245	\$14,108	\$10,000	\$0	\$0	\$0	\$0	\$0	\$0	\$34,353	\$34,353	\$0	\$0
Subtask 2.5 – Benchmarks and Performance Measures	\$6,384	\$8,791	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15,175	\$15,175	\$0	\$0
Total - Task 2 - Data Collection and Analysis	\$188,746	\$259,923	\$115,000	\$0	\$0	\$0	\$0	\$0	\$0	\$563,669	\$563,669	\$0	\$0
Subtask 3.1 – Active Transportation and Complete Streets	\$97,108	\$133,727	\$15,000	\$0	\$0	\$0	\$0	\$0	\$0	\$245,834	\$245,834	\$0	\$0
Subtask 3.2 – Safe Streets and Roads for All	\$0	\$0	\$0	\$0	\$0		\$55,780	\$76,815	\$336,446 ³	\$469,041	\$0	\$0	\$469,041
Subtask 3.3 — Transit Planning	\$0	\$0	\$0	\$37,327	\$51,403	\$11,271	\$0	\$0	\$0	\$100,000	\$0	\$550,000 ²	\$0
Subtask 3.4 — Regional Vitality	\$6,798	\$9,362	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$16,160	\$16,160	\$0	\$0
Subtask 3.5 – Network Sustainability and Resilience	\$21,540	\$29,662	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$51,202	\$51,202	\$0	\$0
Subtask 3.6 – Roadway Safety Engagement and Planning	\$37,243	\$51,287	\$21,542	\$0	\$0	\$0	\$0	\$0	\$0	\$110,072	\$110,072	\$0	\$0
Total - Task 3 - Transportation Planning	\$162,689	\$224,038	\$36,542	\$37,327	\$51,403	\$11,271	\$55,780	\$76,815	\$336,446	\$992,310	\$423,269	\$550,000	\$469,041
Subtask 4.1 — County & State Planning Support	\$1,277	\$1,758	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,035	\$3,035	\$0	\$0
Subtask 4.2 – Local Technical Assistance and Grants Coordination	\$3,648	\$5,024	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,672	\$8,672	\$0	\$0
Total - Task 4 - Other Planning Support	\$4,925	\$6,782	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,707	\$11,707	\$0	\$0
FY2024 Total Funds Programmed	\$427,134	\$588,206	\$184,542	\$37,327	\$51,403	\$11,271	\$56,587	\$77,926	\$334,528	\$1,768,923	\$1,199,882	\$550,000	\$469,041

¹Table does not account for rounding. Programmed amounts are +/- \$1 of approximated programmed totals.

²MeVa received an American Rescue Plan Act (ARPA) grant in the amount of \$450,000. The FY24 UPWP includes the award as a source in the event MeVa chooses to extend its current contract work with MVPC.

³Total direct costs include SS4A work completed by Northern Middlesex Council of Governments on behalf of their respective region (\$243,901). See SS4A budget detail (subtask 3.2).

Table 4 - Approximate Transportation Planning Hours per by Employee on PL Contract, Rounded to the Nearest Hour

Tasks	Patrick Reed	Danny Ovalle	Tony Collins	Jonah Williams	Elizabeth Maldari	Cece Gerstenbacher	Hannah Mogensen	Steve Lopez	Mikayla Minor	Joe Barmashi	
	Transp. Program Manager	Transp. Field Services Specialist	Transp. Planner	Regional Mobility Planner	Regional Mobility Planner	Environment al Program Manager	Coastal Resource Planner	Geographic Information Systems/IT Program Manager	GIS Analyst	GIS Specialist	TOTAL
Subtask 1.1 – Program Management, Support, and Growth	364	0	0	0	0	0	0	0	0	0	364
Subtask 1.2 – Public Participation	55	0	146	146	146	0	0	0	0	0	491
Subtask 1.3 – Unified Planning Work Program	109	0	0	0	0	0	0	0	0	0	109
Subtask 1.4 – Transportation Improvement Program	109	0	36	36	36	0	0	0	0	0	218
Subtask 1.5 – Title VI, Environmental Justice, and Equity	0	0	18	18	18	0	0	0	0	0	55
Total - Task I - 3C Program Management	637	0	200	200	200	0	0	0	0	0	1,238
Subtask 2.1 — Supportive Field Services	0	1121	0	182	0	0	0	0	0	0	1303
Subtask 2.2 – Asset Management Program/Program Development	36	0	0	346	0	0	0	0	0	0	382
Subtask 2.3 – Supportive GIS and Information Technology	0	0	0	0	0	0	0	728	728	728	2184
Subtask 2.4 – Travel Time Reliability and Competitiveness	36	0	0	182	0	0	0	0	0	0	218
Subtask 2.5 – Benchmarks and Performance Measures	91	0	0	0	0	0	0	0	0	0	91
Total - Task 2 - Data Collection & Analysis	164	1,121	0	710	0	0	0	728	728	728	4,179
Subtask 3.1 – Active Transportation and Complete Streets	364	0	1238	328	0	0	0	0	0	0	1,929
Subtask 3.2 – Safe Streets and Roads for All	218	0	22	197	764	0	0	0	0	0	1,201
Subtask 3.3 – Transit Planning	73	352	91	91	182	0	0	0	0	0	789
Subtask 3.4 – Regional Vitality	36	0	91	0	0	0	0	0	0	0	127
Subtask 3.5 – Network Sustainability & Resilience	0	0	0	0	0	273	273	0	0	0	546
Subtask 3.6 – Roadway Safety Engagement and Planning	146	0	14	131	510	0	0	0	0	0	801
Total - Task 3 - Transportation Planning	837	352	1456	746	1456	273	273	0	0	0	5,394
Subtask 4.1 – County & State Planning Support	18	0	0	0	0	0	0	0	0	0	18
Subtask 4.2 – Local Technical Assistance & Grants Coordination	18	0	18	18	18	0	0	0	0	0	73
Total - Task 4 - Technical Assistance and Support	36	0	18	18	18	0	0	0	0	0	91
FY2024 Hours Programmed	1,674	1,473	1,674	1,674	1,674	273	273	728	728	728	10,901

¹Table includes hours charged to all programmed sources, including PL, Section 5307, ARPA, and SS4A sources; figures +/- 1 hour due to rounding.

Table 5 - Anticipated Direct Cost Expenditure Summary — Total Costs

Subtask	PL	Section 5307/ ARPA	SS4A	Total
Subtask 1.1 – Program Management, Support, and Growth	\$33,000	\$0	\$0	\$33,000
Total - Task I - 3C Program Management	\$33,000	\$0	\$0	\$33,000
Subtask 2.1 — Supportive Field Services	\$60,000	\$0	\$0	\$60,000
Subtask 2.2 – Asset Management Program Development	\$45,000	\$0	\$0	\$45,000
Subtask 2.4 – Travel Time Reliability and Competitiveness	\$10,000	\$0	\$0	\$10,000
Total - Task 2 - Data Collection & Analysis	\$115,000	\$0	\$0	\$115,000
Subtask 3.1 – Active Transportation & Complete Streets	\$15,000	\$0	\$0	\$15,000
Subtask 3.2 – Safe Streets and Roads for All	\$0	\$0	\$336,446.36	\$334,528
Subtask 3.3 – Transit Planning	\$0	\$11,271	\$0	\$11,271
Subtask 3.6 –Roadway Safety Engagement and Planning	\$21,542	\$0	\$0	\$21,542
Total - Task 3 - Mobility & Access Planning	\$36,542	\$11,271	\$334,528	\$382,341
FY2024 Total Direct Costs	\$184,542	\$11,271	\$334,528	\$530,341

Table 6 - Anticipated Direct Cost Expenditure Summary - Uses

Subtask	Anticipated Direct Cost Expenditure
Subtask 1.1 – Program Management, Support, and Growth	translations, commission vehicle fuel, training, conferences, replacement hardware, software license maintenance fees
Subtask 2.1 – Supportive Field Services	traffic and trail counting equipment and back-end use
Subtask 2.2 – Asset Management Program Development	Cartegraph license, automated pavement data processing
Subtask 2.4 – Travel Time Reliability and Competitiveness	data and/or data services procurement
Subtask 3.1 – Active Transportation & Complete Streets	Active Transportation Plan consultant support
Subtask 3.2 – Safe Streets and Roads for All (SS4A)	MVPC consultant support, NMCOG staff time, NMCOG consultant support
Subtask 3.3 — Transit Planning	consultant support
Subtask 3.6 – Roadway Safety Engagement and Planning	engagement costs/support

V. Tasks

The following section details each task programmed in FY24. Task summaries include a description of the objective and/or rationale for inclusion, deliverables, deliverable scheduling, and funding.

Relationship to MVision 2050

Each summary includes a few sentences describing the task's relationship to the region's forthcoming Metropolitan Transportation Plan, MVision 2050, which features the following broad vision statement:

"The MVMPO envisions a multimodal transportation system that is safe, equitable, accessible, sustainable, cost effective, and ensures our region is livable for people today and in the future."

Seven goals flow from this vision. Each summary references one or more of the following goals through the following icons:



Goal 1 – Significantly Reduce Severe and Fatal Injuries



Goal 2 – Improve Mode Share Balance



Goal 3 – Ensure Environmental Sustainability



Goal 4 – Promote Economic Vitality



 $Goal\ 5-Ensure\ Equitable\ Access$





Goal 7 – Support Strategic State of Good Repair

Some task summaries include a *general* MVPC icon (shown below), which indicates that a task advances each of the seven goals by widespread technical or administrative means.



General – Some tasks advance each of the above goals in a general manner through broad technical or administrative functions.

Previous Work and Relationship to Statewide Plans

This UPWP includes information about tasks performed over the past year. For more extensive information regarding past years' work, please see the FY23 Unified Planning Work Program, accessible in the transportation program page at https://mvpc.org/mvmpo/.

The state has undertaken and completed several statewide planning efforts, such as the long range Beyond Mobility Plan and updates to its Bicycle and Pedestrian Plans. The planning tools and recommendations detailed in these plans serve as guidance for future work at regional and local levels of planning. For more information about these documents, please visit MassDOT's statewide plans page at https://www.mass.gov/statewide-plans.

Task One – Management & MVMPO Support

Subtask I.I – Program Management, Support, and Growth

Subtask 1.1 – Program Management, Support, and Growth						
Objective and Rationale	 Maintain and manage a continuous, comprehensive, and cooperative (3C) transportation planning process with local, state, and federal partners. Oversee MVPC's transportation program. Review state and federal programs related to 3C planning. Coordinate with peer regions. Perform administrative functions including billings, annual reports, etc. Organize and participate in coordination efforts with various regional bodies, including but not limited to the Regional Coordinating Council and the Northern Boston Urbanized Area (UZA). Provide access to the 3C process through translation, as appropriate. 					
Deliverable(s)	 Annual report Monthly 3C billings and reports Annual review of contract Annual review of 3C guidance Active participation/facilitation in relevant coordinating meetings Translated 3C documents, where appropriate/relevant 					
Previous Work and Link to Metropolitan Transportation Plan	This task supports the general administrative functions of MVPC's transportation program. As such, it supports the MTP's seven goals by ensuring reporting and coordination requirements are met. In the previous year, staff executed the same administrative activities and fulfilled the 3C planning process, as is anticipated for this year.					
Schedule	Continuous					
Funding	Staff Costs: \$25,535 (PL) Indirect Costs: \$35,164 (PL) Direct Costs: \$33,000 (PL) Subtask Total: \$93,699					

Subtask 1.	.2 – P	ublic P	articipation
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<u>Subtask 1.2 – Public Participation</u>	
Objective and Rationale	 Maintain and implement the 3C process in alignment with documented procedures in the region's Public Participation Plan. Develop and manage stakeholder/outreach lists. Distribute relevant/required 3C documents as consistent with MVMPO's Public Participation Plan. Continue monthly/bi-monthly support of select stakeholder groups, including the DPW collaborative, mayors and managers group, and regional planners group. Prepare materials and facilitate MVMPO meetings. Monitor/participate in meetings of surrounding MPOs, as relevant and/or appropriate.
Deliverable(s)	 Updated Public Participation Plan, considering elements of MassDOT's forthcoming Public Participation Plan (anticipated in FY23, but currently delayed) Updated MVPC transportation program web page MVMPO minutes, documents, and presentations Notices and translations, as relevant and/or appropriate
Previous Work and Link to Metropolitan Transportation Plan	MVMPO staff work to ensure general and targeted access to the MVMPO transportation planning decision-making process. Transportations staff must align their noticing efforts with MVMPO's approved Public Participation Plan, but also provide targeted engagement for specific planning efforts. Standard engagement includes preparing and displaying public notices on-site and at municipal members' public sites, press releases for local news outlets, public hearings, and preparing web site content and web event material. For particular planning efforts, MVMPO staff create engagement opportunities at public events or local points of interest to best meet the communities where they reside. Importantly, MVMPO's engagement work is not solely billed to this subtask. Engagement associated with projects is billed to the relevant subtask for a given program or deliverable. As such, the FY24 budget for this subtask appears lower than the FY23 budget for this subtask as these efforts are spread and interwoven in with each of the MVMPO's significant undertakings.
Schedule	Continuous
Funding	Staff Costs: \$22,803 (PL) Indirect Costs: \$31,402 (PL) Subtask Total: \$52,405

Subtask 1.3 – Unified Planning Work Program

Subtask 1.3 – Unified Planning V	
Objective and Rationale	 Provide the public and member communities with a transparent understanding of how regional federal aid is expended in support of transportation planning. Organize work and effort to ensure deliverables are achieved. Right-size transportation planning efforts with internal capacity and budget.
Deliverable(s)	FFY2025 Unified Planning Work ProgramAdjustments/amendments, as necessary
Previous Work and Link to Metropolitan Transportation Plan	In FFY2023, the UPWP included a subtask for the development of the Metropolitan Transportation Plan, which developed a vision and goal for the region. This FFY's UPWP advances the anticipated vision and goals of the Metropolitan Transportation Plan by programming with consistent ends. The development of the FFY2025 UPWP, which is programmed in FFY2024 through this subtask, will also reference the Metropolitan Transportation Plan's goals and vision.
Schedule	June 2024
Funding	Staff Costs: \$7,660 (PL) Indirect Costs: \$10,549 (PL) Subtask Total: \$18,210

Objective and Rationale	 Develop a fiscally-constrained program of projects consistent with the region's Metropolitan Transportation Plan. Ensure projects' greenhouse gas emissions impacts are documented and acceptable based on projects' anticipated benefits. Participate in MassDOT's Congestion Mitigation and Air Quality (CMAQ) Consultation Committee. Score projects based on transportation planning evaluation criteria to support objectivity and pragmatism for MVMPO decision-making. Maintain MassDOT's eSTIP platform for the region. Research and develop investment programs that allow MVMPO to assist communities with the improvement of public spaces and development of complete streets. FFY2025-2029 Transportation Improvement Program (TIP), with updated project scores and greenhouse gas analyses.
Deliverable(s)	 Revised Transportation Evaluation Criteria Scoring (see subtask 2.3) Adjustments/amendments, as necessary
	Each year, including FFY23, MVMPO staff draft the TIP for MVMPO approval. The TIP is a five-year fiscally constrained document listing all federally funded transportation projects programmed to be recipients of federal aid. The TIP includes projects that are candidates to be funded by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). For the latter, MVMPO staff coordinate directly

Previous Work and Link
to Metropolitan
Transportation Plan

approval. The TIP is a five-year fiscally constrained document listing all federally funded transportation projects programmed to be recipients of federal aid. The TIP includes projects that are candidates to be funded by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). For the latter, MVMPO staff coordinate directly with Merrimack Valley Transit (MeVa) to ensure their capital and operating needs are met. Regarding the former, staff prepare two programming lists: regional target projects and statewide projects. Regional target projects are scored using regionally defined transportation evaluation criteria. Scores and costs are evaluated by the MVMPO board, which votes on the program of projects. MassDOT proposes a statewide program, which typically includes projects that are larger in scale or benefit, such as bridges or regional trails.

Projects programmed in the TIP must be included in the Metropolitan Transportation Plan (or must be related to a Metropolitan Transportation Plan project) and must be consistent with the MTP's vision and goals, as demonstrated by the MVMPO's approved transportation evaluation criteria scoring.

	criteria scoring.
Schedule	May 2024
	Staff Costs: \$12,404 (PL)
Funding	Indirect Costs: \$17,081 (PL)
	Subtask Total: \$29,485

Subtask 1.5	- Title VI,	Environmental	Justice, and	Equity
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Subtask 1.5 – Title VI, Environme	ntal justice, and Equity
Objective and Rationale	 Maintain and implement the MVMPO's Title VI Program. Ensure access to Title VI documentation. Maintain—and when relevant, update—environmental justice geographies. Target Environmental Justice (EJ) communities for engagement during project-specific planning efforts. Coordinate with MassDOT and FHWA to ensure best practices in Title VI compliance and EJ engagement. Support Merrimack Valley Transit (MeVa) compliance with Title VI.
Deliverable(s)	 Updated limited English proficiency maps Updated racial distribution maps Updated disability maps Updated income maps Locally-unwanted land use (LULU) maps (or similar product, data availability allowing). Annual Title VI Report
Previous Work and Link to Metropolitan Transportation Plan	The MTP specifically includes the goal "ensure equitable access." This goal pertains not only to projects but also the general transportation planning decision making process. In FY23, MVMPO staff updated their Title VI Plan, which includes updated maps and tables related to race, income, and English proficiency. These maps inform staff about where planning and engagement efforts should be focused for regional work. While subtask 1.5 focuses specifically on products that support Title VI and environmental justice, MVMPO maintain equity as an important consideration and undercurrent of all planning activities.
Schedule	April 2024 (maps) September 2024 (Title VI report)
Funding	Staff Costs: \$2,372 (PL) Indirect Costs: \$3,266 (PL) Subtask Total: \$5,638

Task Two – Supportive Data Collection & Analysis

Subtask 2.1 — Supportive Field Services

Subtask 2.1 – Supportive Field S	ervices
Objective and Rationale	 Collect traffic data to support planning studies, evaluations, and projects, including volumes, speeds, and vehicle classifications. Collect parking utilization data as-needed/available Consider and plan a trail counting program. Supplement MeVa counting and validation needs (also see Task 3.3)
Deliverable(s)	 Community-specific traffic data reports MS2 data submission (both state required and regional counts) and integration of counts into a public-facing, locally sourced web-viewer. Supportive services for other ongoing projects, including but not limited to the development of the Active Transportation Plan (3.1), Roadway Safety Engagement and Planning (3.6) and support of local technical assistance requests (4.2) Submissions to MeVa (also see Task 3.3)
Previous Work and Link to Metropolitan Transportation Plan	MVMPO staff facilitate the important work of collecting quantitative and qualitative data to document the region's current state of affairs. Each year, the MVMPO receives a list of state-required traffic counting sites from MassDOT. MVMPO staff supplement these counts with additional locations in the region. MVMPO staff also use this task to perform various other forms of data collection, including data collection for MeVa, and data collection in support of various other transportation planning projects, such as road safety audits (or similar exercises). In FY24, program staff, including the field services specialist, will also support two major efforts on an as needed basis: the Active Transportation Plan and the Comprehensive Safety Action Plan Finally, staff will advance exploratory work with region's pavement management program and potential trail counting program. Understanding the region's performance allows staff and local partners to determine safety needs, improve modal competition, and identify asset needs. In whole, these efforts support regional economic vitality.
Schedule	Ongoing, with MS2 submission and community-specific traffic data report anticipated in spring 2024
Funding	Staff Costs: \$60,491 (PL) Indirect Costs: \$83,302 (PL) Direct Costs: \$60,000 (PL) Subtask Total: \$203,793

Su	btask	2.2	Asset	Ν	1anagement i	Prog	ram l	Devel	opment

Subtask 2.2 – Asset Managemen	
	Provide education and options for local communities related to pavement management. Public and approximate and approximate a local communities related to pavement management.
Objective and Rationale	Build upon previous work, exploring tools and mechanisms to document people in support of municipal work programs.
	document needs in support of municipal work programs. • Explore opportunities to expand beyond pavement into asset
	management (signs, trails, etc.).
	Assessment of local pavement management needs
Deliverable(s)	Draft program to pitch to local communities
Previous Work and Link to Metropolitan Transportation Plan	In 2019, MVPC staff collected data to support the region's long range transportation plan update (2020 LRTP), which is now known as the Metropolitan Transportation Plan (MTP). While no longer a MassDOT requirement for long range planning, MassDOT includes a performance measure (PM2) related to the state of regional pavement on National Highway System Roadways. The majority of these roadways are maintained by the state; however, some lanes mile are locally maintained. In 2020 and 2021, MVPC staff worked to build upon its longstanding pavement management work, which spans over 30 years of collection efforts. Staff collaborated with asset management company Cartegraph to customize their operating system platform to meet MVPC's data collection and analysis requirements. In 2023, staff worked to identify mechanisms to automate data collection to continue pavement management work. FFY24's work is largely exploratory. Staff will determine what local needs are related to pavement management, how MVMPO staff may support local needs, and pitch the benefits of a regional program to determine a potential program's return on investment. Staff may explore additional asset management needs beyond pavement management. Pavement management supports a state of good repair and economic vitality.
Schedule	Ongoing
	Staff Costs: \$17,167 (PL)
Funding	Indirect Costs: \$23,641 (PL)
•	Direct Costs: \$45,000 (PL)
	Subtask Total: \$85,808

Subtask 2.3 – Supportive GIS and Information Technology

Subtask 2.3 – Supportive GIS and	Information Technology
Objective and Rationale	 Provide MVMPO staff access to maps and tools in support of FFY24 work program efforts. Provide municipal partners access to maps and tools in support of local planning and asset management.
Deliverable(s)	Continued support of various GIS and IT needs throughout the duration of the FFY24 work program.
Previous Work and Link to Metropolitan Transportation Plan	MVMPO makes use of geographic information systems in all phases of its planning program. MVPC has a three person GIS staff, which the MVMPO leverages in support of various transportation planning maps and analyses. Additionally, this same team supports the program's information technology needs, including IT onboarding, hardware and software management, backing up files, maintaining online work platforms for the agency's hybrid work environment, and assessing and improving cybersecurity for both the transportation program (MVMPO staff) and larger commission (MVPC). The GIS team has and will continue to support numerous transportation projects, including mapping safety, managing partnerships with Cartegraph (see task 2.2), updating environmental justice and other equity geographies of interest, developing maps for Merrimack Valley Transit (MeVa), and supporting aerial photography and streetview photography via Eagleview to support various planning processes and applications. GIS and spatial analyses improve planning processes in support of larger MTP goals.
Schedule	Continuous
Funding	Staff Costs: \$94,460 (PL) Indirect Costs: \$130,081 (PL) Subtask Total: \$224,541

Subtask 2.4 – Tra	vel Time Reliabilitv	and Competitiveness	
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Subtask 2.4 – Travel Time Reliab	
Objective and Rationale	 Understand and communicate the region's travel time durations between significant points of interest and/or typical commutes. Depict and communicate disparities in travel time for typical auto vehicles and transit. Improve the competitiveness of transit and active transportation modes, which historically offer longer trip times between points of significant interest. Update and maintain the region's Congestion Management Process, as required/necessary.
Deliverable(s)	 Travel time assessment by mode Congestion management process report assessment, or similar product, as required/necessary
Previous Work and Link to Metropolitan Transportation Plan	The 2020 Long Range Transportation Plan and forthcoming MTP document the need to improve modal choice, reduce travel times, and improve travel time reliability. Historically, auto travel has offered more competitive travel times than transit and active modes of transportation in the region. Improving comfortable transit, pedestrian, and bicycling infrastructure may improve competitiveness; however, MVMPO staff have not yet undertaken an analysis to understand where the largest disparities and greatest benefits could be rendered. Previous UPWP cycles have included a task titled "Congestion Management Process." This activity used the National Performance Management Research Data Set (NPMRDS), which gathers travel time data for automobiles and trucks from various sources. The NPMRDS provides actual travel times and congestion measures. This data and other sources may be used to assess travel time reliability and modal competitiveness.
Schedule	September 2024
Funding	Staff Costs: \$10,245 (PL) Indirect Costs: \$14,108 (PL) Direct Costs: \$10,000 (PL) Subtask Total: \$34,353

Subtask 2.5 – Benchmarks and Performance Measures

Objective and Rationale	Assess regional performance relative to the state for safety, state of good repair, and travel time reliability.
Deliverable(s)	 Regional Analysis of Performance Measure One – Safety Endorsement of PM1, PM2, and PM3
Previous Work and Link to Metropolitan Transportation Plan	Each year the MVMPO reviews proposed statewide performance measure (PM) targets related to safety (for both drivers and nonmotorists), the state of pavement and bridges, and travel time metrics (PM1, PM2, and PM3, respectively). MVMPO staff prepare regional analyses and assessments for PM1 and collaborate with MassDOT for presentation of PM2 and PM3. Tracking these performance measures help the region and state identify needs and strategize potential solutions.
Schedule	Late winter, 2024
Funding	Staff Costs: \$6,384 (PL) Indirect Costs: \$8,791 (PL) Subtask Total: \$15,175

Task Three – Regional Transportation Planning

Subtask 3.1 – Active Transportation & Complete Streets

	ion & Complete Streets
Objective and Rationale	 Improve the competitiveness of active transportation modes by identifying major active transportation spines, current gaps, and appropriate facilities to fill those gaps. Seek municipal approval and adoption of the ultimate Plan in communities that lack existing pedestrian and bicycle plans. Develop a palate of tools that communities may use to improve the comfort and safety of nonmotorized transportation network users.
Deliverable(s)	Active Transportation Plan
Previous Work and Link to Metropolitan Transportation Plan	MVMPO staff have facilitated several projects and studies in support of active transportation, including numerous road safety audits, analysis of crash clusters, coordination with municipal staff—including DPWs, public safety, and fire departments—to support nonmotorist safety, support of regional trails such as the Border to Boston Trail (B2B), and input on municipal projects. Active transportation projects can be transformational for the region. Not only do they improve recreational opportunities, they may also reduce traffic by providing alternative travel options, improve health by encouraging exercise, and create opportunities for businesses when located proximate to activity centers. Active transportation facilities improve travel options for individuals who cannot afford their own personal vehicle, thus rendering an equity benefit. They also improve the resiliency of the transportation network by offering redundancy to the transportation network. Perhaps most importantly, planning comfortable and safe active transportation facilities will be a key component of advancing the region's Vision Zero goals (see subtask 3.2). MVMPO staff anticipate this project will run through the duration of FFY
Schedule	2024 and will continue into FFY2025.
Funding	Staff Costs: \$97,108 (PL) Indirect Costs: \$133,727 (PL) Direct Costs: \$15,000 (PL) Subtask Total: \$245,834 Note that this task represents approximately 20% of the region's total apportioned PL funding, of which 2.5% must be expended on complete streets planning. This does not

Subtask 3.2 – Safe Streets and Roads for All

Subtask 3.2 – Safe Streets and R	odds for All
Objective and Rationale	 Mitigate crashes to achieve forthcoming regional Vision Zero goal. Develop a comprehensive safety action plan (Vision Zero Plan) based on historical and predictive data to inform project prioritization in safety planning. Activate Merrimack Valley citizen participation in Vision Zero goal.
Deliverable(s)	 Regional Comprehensive Safety Action Plan Predictive Safety Analysis to inform/augment High-Injury Network
Previous Work and Link to Metropolitan Transportation Plan	During the previous FFY, MVMPO staff applied for and received federal assistance to develop a comprehensive safety action plan. This plan will ultimately adopt the goal of achieving zero roadway fatalities and severe injuries. The plan will identify challenges and barriers to safety and opportunities to reduce those barriers. The plan will prioritize projects to ensure resources are well spent. As currently anticipated, the safety action plan's planning process will include extensive outreach, trends-based analysis, predictive analysis, and will offer strategies and solutions to help communities achieve the region's Vision Zero goals. Transportation safety and comfort improve the competitiveness of alternate modes and drive equity by making facilities safer or individuals who rely on transit, walking, bicycle, and other non-personal automobile modes of travel. Supporting these road users is paramount since these individuals are the most vulnerable in a crash.
Schedule	June/July 2024; ideally, this subtask will be completed prior to the required submission date for the Summer 2024 Safe Streets and Roads for All Implementation funding grant cycle.
Funding	3.2 Staff Costs: \$55,780 (SS4A) Indirect Costs: \$76,815 (SS4A) Direct Costs: \$336,446 (SS4A) Subtask Component Total is equal to SS4A award amount: \$469,041

Safe Streets and Roads for All – Anticipated Budget Detail

The Safe Streets and Roads for All comprehensive safety action plan is funded through SS4A discretionary grant funding. Programmed direct costs for SS4A include the work of the Northern Middlesex Council of Government's staff (a sub-Applicant for the award) and their selected contractor(s). Subtask 3.2 breaks out anticipated expenditures by source. Table 7 below provides an anticipated budget detail for the project.

Table 7 - SS4A Anticipated Budget Detail

SS4A MVPC/NMCOG Breakdown (3.2) ¹	Budget	SF42A Federal Budget Categories	Uses
MVPC Staffing Costs	\$55,780.00	Subtask 3.2 supports staffing, indirect, and	
	\$55,780.00	Personnel TOTAL	consulting costs
			development of a
MVPC Indirect Costs	\$76,814.64	Indirect Charges	comprehensive safety action plan. MVPC's
	\$76,814.64	Indirect Charges TOTAL	staffing costs are related to the
			development of the plan, project
MVPC Technical Consultant	\$111,306.68	Contractual	management,
NMCOG Staffing & Overhead	\$124,166.77	Contractual	contractor oversight, and technical work.
NMCOG Technical Consultant	\$73,996.91	Contractual	Subtask 3.2 also supports the work of
NMCOG Direct Charges	\$26,976.00	Contractual	joint awardee NMCOG, which will be
	\$336,446.36	Contractual TOTAL	treated as an MVPC
			contractor (even though it will be
Total Award	\$469,041.00	Award TOTAL	operating as a public agency producing its
			own plan with its own subcontractor).
	Total per MPO	MPO Share	subcontinuctor).
MVPC Total	\$243,901.32	52%	
NMCOG Total	\$225,139.68	48%	

¹Blue rows denote anticipated MVPC expenditures. Yellow rows denote anticipated NMCOG expenditures.

Subtask 3.3 – Transit Planning	
Objective and Rationale	 Support Merrimack Valley Transit's transportation Improvement Program (TIP) programming needs by coordinating on the annual draft and facilitating amendments and adjustments. (appx. 40 hours) Provide technical mapping assistance for route planning, bus stop planning, and shelter location. (appx. 130 hours) Provide ongoing technical assistance support as a third-party American with Disabilities Act comment reviewer. (appx. 20 hours) Provide technical assistance related to passenger counting, automatic passenger counter validation, and National Transit Database reporting. (appx. 350 hours) Assess and document the success of MeVa's fare free policy. (appx. 200 hours) Continue support of planning for the elderly and/or disabled. (appx. 50 hours)
Deliverable(s)	Ongoing technical assistanceFare Free Report for MeVa
Previous Work and Link to Metropolitan Transportation Plan	Historically, MVMPO staff and the broader MVPC Commission staff have been a resource for Merrimack Valley Transit (MeVa, formerly Merrimack Valley Regional Transit Authority or MVRTA). MVMPO and MeVa partner on state priorities and interface opportunities, but also have, by contract, partnered to realize federal reporting requirements for the National Transit Database and the American with Disabilities Act. MVMPO staff additionally have provided technical assistance in mapping, bus route planning, and bus stop planning. In FY23, staff completed an update to the Coordinated Human Services Transit Plan (CHSTP) in support of the needs of the disabled and elderly and will continue working with providers to help them access Community Transit Grant opportunities. Beyond typical technical assistance and capital planning support, this FFY features a Fare Free Success Report. This report will document how MeVa's fare free policy has improved regional equity and opportunity, as well as transit's competitiveness with personal automobile travel. Better transit allows for a greater breadth of mobility options, improving the resiliency of the overall transportation network.
Schedule	Fare Free Report: September 2024 Technical Assistance: Ongoing/Continuous
Funding	Staff Costs: \$37,327 (Section 5307/ARPA) Indirect Costs: \$51,403 (Section 5307/ARPA) Direct Costs: \$11,271 (Section 5307/ARPA) Subtask Total: \$100,000

Subtask 3.4 – Regional Vitality

Subtask 3.4 – Regional Vitality	
Objective and Rationale	 View transportation in the context of the larger regional economy. Improve the vibrancy of public spaces. Support travel and tourism planning, as required/necessary. Support the implementation/realization of actions and strategies documented in MVPC's Comprehensive Economic Development Strategy (CEDS).
Deliverable(s)	Capital Purchase Program
Previous Work and Link to Metropolitan Transportation Plan	Transportation is not an end within itself, but rather a means to an end. For this reason, MVMPO staff routinely participate in ongoing work relevant to transportation that is focused on other areas, such economic development, recreation planning, public health, or public space design. Over the past year, staff have participated in the Community Economic Development Strategy (CEDS) planning process, which was facilitated by the broader MVPC team's Community and Economic Development Program. This planning process identified objectives, actions, and measures related to transportation assets and services that impact the regional economy. In FFY24, MVMPO intends to provide further support to CEDS implementation and also seeks to implement a capital purchase program. This program will create a competitive process for communities to access federal aid in support of small-scale public streetscape purchases, such as bus shelters and bicycle racks. This program will reduce the barrier to entry to obtain important streetscape/transportation elements that make walking, bicycling, and riding viable and desirable modes of transportation. If successful, the program will improve economic vitality and the environment at a micro-scale.
Schedule	Ongoing, with MVMPO Board decision-making related to the proposed capital purchase program anticipated in the April/May timeframe (in concert with the Transportation Improvement Program)
Funding	Staff Costs: \$6,798 (PL) Indirect Costs: \$9,362 (PL) Subtask Total: \$16,160

Subtask 3.5 – Network Sustainability & Resilience

Subtask 3.5 – Network Sustainat	
Objective and Rationale	 Continue to improve regional stormwater management collaboration and education regarding best practices. Equip regions and towns with technical assistance to access transportation-related electric vehicle and green energy federal aid programs. Provide technical assistance relevant to Green Communities.
Deliverable(s)	 Ongoing local technical assistance, including MS4 support, facilitation of the region's Stormwater Collaborative, Merrimack River Collaborative, hazard mitigation technical assistance and clean-energy planning. Develop initial materials/program outline to advance electric vehicle charging infrastructure.
Previous Work and Link to Metropolitan Transportation Plan	The MTP recognizes links between the environment and transportation infrastructure. This subtask furthers efforts to reduce the footprint of transportation and improve the resiliency of the region. Over the past few years, MVPC staff have worked with member communities to prepare hazard mitigation plans, support local green community planning efforts, and have put forth significant effort in facilitating the regional Stormwater Collaborative. Staff have also undertaken exploratory work to understand the role of MVPC and MVMPO in advancing electric vehicle opportunities. Further planning will allow the region/its communities to better leverage various EV infrastructure opportunities. Staff will continue these various sustainability and resiliency efforts.
Schedule	Ongoing/continuous
Funding	Staff Costs: \$21,540 (PL) Indirect Costs: \$29,662 (PL) Subtask Total: \$51,202

Subtask 3.6 – Roadway Safety E	ngagement and Planning
Objective and Rationale	 Develop crash clusters—or similar crash analysis products—for public view/display. Coordinate, schedule, and perform walk audits, road safety audits, or similar public-facing safety oriented fieldwork. Advertise and market safety related material in the online website and through on-the-ground means such as tabling and via engagement contractors
Deliverable(s)	High-Injury Network (trends based)Online roadway safety viewer(s)
Previous Work and Link to Metropolitan Transportation Plan	Previous UPWPs have included a Safety Monitoring System task, which was used to monitor crash logs, assess state-compiled data, and develop crash clusters based on a local Equivalent-Property Damage scoring system. This task continues these efforts, emphasizing the display and marketing of such materials with the intent of improving awareness of our region's roadway safety challenges to inspire change. This task envisions \$21,542 of contractor support for technical support (GIS/graphics) and engagement support (graphics, liaisons, participation incentives).
Schedule	Ongoing/continuous
Funding	Staff Costs: \$37,243 (PL) Indirect Costs: \$51,287 (PL) Direct Costs: \$21,542 (PL)

Subtask Component Total: \$110,072

Task Four – Local Transportation Planning Support

Subtask 4.1 – County & State Planning Support

Objective and Rationale	Respond to county and state planning needs that supplement the main work program of MVMPO staff.
Deliverable(s)	No programmed deliverable (supplementary task)
Previous Work and Link to Metropolitan Transportation Plan	Previous UPWPs have included several subtasks related to interests of the state and county. These include intelligent transportation systems (ITS) planning, security planning, and county road adjudication. MVMPO do not perform regular or directed work in support of these tasks, but instead participate in supportive work or learning opportunities as they become necessary and/or available. This past year, MVPC environmental staff supported regional transportation security by helping municipal partners update their hazard mitigation plans. MVMPO staff provided technical assistance to a title firm as related to the layout of a former county road (Chapter 82 of Massachusetts General Laws state that regional planning agencies have the responsibility to lay out, alter, relocate, and discontinue highways and order specific repairs thereon in areas where no county government or council of governments exists). Additionally, staff annually attends updates from MassDOT's ITS team. Staff will continue to fulfill these functions on an as-needed basis.
Schedule	As needed, requested, or available
Funding	Staff Costs: \$1,277 (PL) Indirect Costs: \$1,758 (PL) Subtask Total: \$3,035

Subtask 4.2 – Local Technical Assistance

Objective and Rationale Deliverable(s)	 Function as a comprehensive resource for partner member communities. Respond to requests for data collection, analysis, engagement, expertise, and/or other technical assistance. Local technical assistance services menu Other deliverables, as requested. 							
Previous Work and Link to Metropolitan Transportation Plan	Each year, MVMPO staff receive requests for assistance from member communities. Capacity-allowing, staff work to provide transportation-planning related support. Services include grant proposal writing, warrant analyses, conceptual design, data collection, engagement, etc. Staff often perform these tasks quickly due to their urgency or interest by municipal partners. In FFY2023, staff supported a placemaking project in Lawrence, a Heavy Commercial Vehicle Exclusion application in Newbury, conceptual design of the Three Roads intersection in Newburyport, etc. Tasks such as these typically help maintain a state of good repair (asset management, mobility management) or improve the livelihood and vitality of a place, however, tasks can vary slightly based on municipal needs.							
Schedule	As needed, requested, or available							
Funding	Staff Costs: \$3,648 (PL) Indirect Costs: \$5,024 (PL) Subtask Total: \$8,672							

VI. Equity & Distribution of Effort

Equity in Transportation Planning

Transportation is not an end within itself, but instead a means to an end. Because access correlates with opportunity, planning must prioritize resource expenditures in marginalized communities. Figure 6 depicts MassDOT's Regional Environmental Justice Plus Communities (REJ+), which aids MVMPO's perspective on resource prioritization. Documentation for the REJ+ methodology can be found in this UPWP's appendix.

Distribution of Previous Planning Tasks

This UPWP cycle primarily programs projects of regional benefit rather than community-based deliverables; however, deliverables such as the regional comprehensive safety action plan and active transportation plan will serve as springboards for future work in communities of interest. These plans will identify potential projects in REJ+ Census blocks and help prioritize these projects.

The FY23 UPWP identified the distribution of projects by community through 2023, as shown in Table 8. Due to retirements, the Road Safety Audits shown in the third column were not completed in FFY23 and will likely be wrapped into FFY24's SS4A project in a revised format. Throughout FFY24, staff will track these efforts and local technical assistance projects in support of future updates to Table 8.

Community	# Regional/ Local/ Sub- regional UPWP Studies 2016-2022	Proposed 2023 Studies	# Studies Located in/ adjacent to a low-income or minority Census Tract¹	Federal- Aid Roadway Center- line Miles (2015)	# Studies between 2016-2023 at a Crash Clusters location ²	# Crash Clusters 2018- 2020	Total Pop. ¹
Amesbury	4		3	32.98			17,366
Andover	2		0	78.02		3	36,569
Boxford	2		0	27.43			8,203
Georgetown	2		0	20.43			8,470
Groveland			0	17.31			6,752
Haverhill	7		1	79.88	1	19	67,787
Lawrence	13 2		13	41.54	15	31	89,143
Merrimac	2		0	15.95			6,723
Methuen	10	10 1 7		58.14	4	6	53,059
Newbury	5		0	27.11			6,716
Newburyport	ort 4		0	23.09			18,289
North Andover	3 1		2	41.9	3	5	30,915
Rowley	1		0	19.4	1	1	6,161
Salisbury	1	1	0	28.22	2	2	9,236
West Newbury	3		0	19.59			4,500
Regionwide	3		1				
Total	64		27	530.99	26	67	369,889

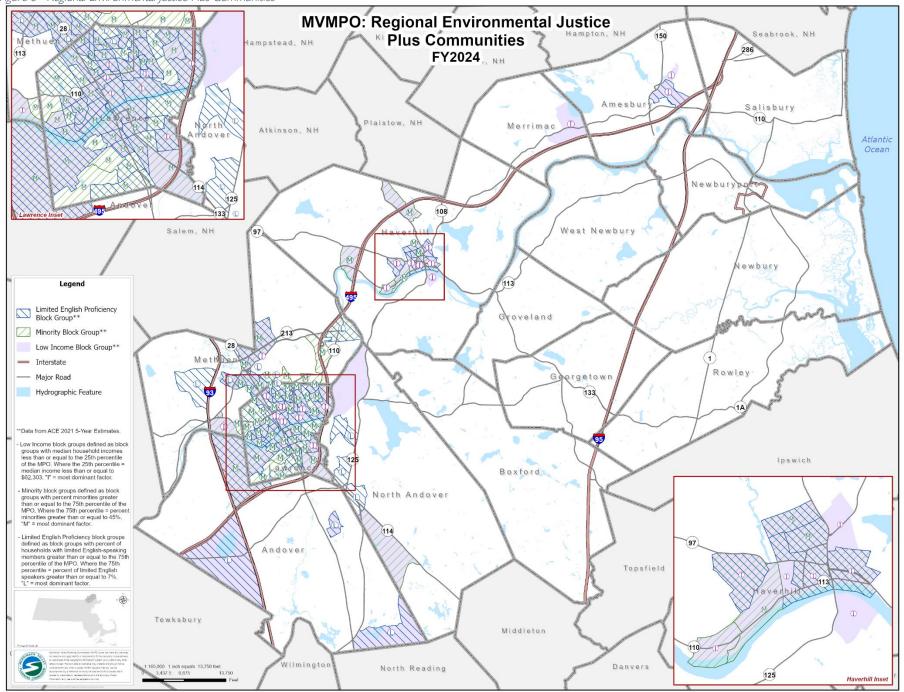
Data from 2020 Census. Information based on Census Tracts.

² MassDOT Crash clusters. The crash clusters vary over time depending on the number of crashes. This number is based on the crash clusters at the time of the study. Crash clusters between 2018-2020 are based MassDOT designation.

Distribution of Current Planning Tasks

This FFY programs deliverables that provide regional benefits, such as a regionwide safety action plan and regionwide active transportation plan. MVPC routinely provides services for local municipalities by request, such as traffic counting, warrant studies, or intergovernmental liaison services. MVMPO staff assume that these efforts will continue. Some municipally-focused efforts will occur and be billed to Subtask 4.2 – Local Technical Assistance, while efforts of a larger scale may require a separate contract and will not require the use of federal aid. Subtask 4.2 includes the development a technical assistance menu to provide municipalities information about work that may be covered using 3C federal aid and work which will require its own contract.

Figure 6 - Regional Environmental Justice Plus Communities



VII. Appendices

Federal Fiscal Year 2024 Formula Allocation

	FF	Y 23 (PL)	FF	Y 22 (PL)	Δ		
apportionment	\$	12,095,567	\$	11,858,399	1.0		
obligation authority		90.0%	-	90.0%	0.000		
federal PL funds only	\$	10,886,010	\$	10,672,559	2.0%		
matching funds added	\$	13,607,513	\$	13,340,699			
Total funds (PL funds+ 5303)*	\$	18,287,935	\$	17,929,945	2.0%		

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

Notes 5303 funding will be transferred from FTA to FHWA and be administered as a Combined Planning Grant
Updated population numbers are based on SFY 2023 Chapter 90 apportionments

The recommended PL Allocation Formula was developed by the Massachusetts Association of Regional Planning Agencies and recommended by MassDOT to FHWA, 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.

		6 of total ds/ten Os	30% of funding	for relative size o				30% of funding for population	relative size	of urbanized	§5303 Full Amount w/ Match (FFY 23)	§5303 Full Amount w/Match FFY 24		Total FFY 24 funding by MPO (2020 Population)	(2020	
			-			2010 Population	2020 Population	- 1		44 000 05						
MPOs PL funded	5	5,443,005		(%)	(%)	(\$)	(\$)			\$4,082,254					—	
						\$4,082,254	\$4,082,254									
Berkshire**	\$	544,301	131,219	2.03%	1.86%	\$ 83,055	\$ 75,930	88,795	1.49%	\$ 60,901	\$ 77,358	\$ 77,191			\$	6,203
Boston	\$	544,301	3,087,975	47.88%	48.49%	\$ 1,954,539	\$ 1,979,485	3,026,176	50.84%	\$ 2,075,536	\$ 2,470,364	\$ 2,517,632	\$ 6,955,046	\$ 7,116,954	\$	161,907
CTPS*	\$	440,883				\$ 1,583,177	\$ 1,603,383			\$ 1,681,184	\$ 2,037,574	\$ 2,076,561	\$ 5,670,167	\$ 5,802,012	\$	131,844
MAPC	\$	103,417				\$ 371,362	\$ 376,102			\$ 394,352	\$ 432,790	\$ 441,071	\$ 1,284,879	\$ 1,314,942	\$	30,063
Cape Cod	\$	544,301	215,888	3.35%	3.31%	\$ 136,647	\$ 135,123	198,826	3.34%	\$ 136,367	\$ 137,616	\$ 140,422	\$ 938,904	\$ 956,212	\$	17,308
Central Mass	S	544,301	556,698	8.63%	8.73%	\$ 352,363	\$ 356,381	462,724	7.77%	\$ 317,364	\$ 323,722	\$ 333,563	\$ 1,513,945	\$ 1,551,609	\$	37,663
Merrimack Valley	\$	544,301	333,748	5.17%	5.34%	\$ 211,246	\$ 217,992	316,362	5.32%	\$ 216,980	\$ 213,344	\$ 220,609	\$ 1,166,802	\$ 1,199,882	\$	33,080
Montachusett	S	544,301	236,475	3.67%	3.62%	\$ 149,677	\$ 147,778	171,236	2.88%	\$ 117,444	\$ 131,526	\$ 134,544	\$ 927,037	\$ 944,066	\$	17,029
Northern Middlesex	\$	544,301	286,901	4.45%	4.48%	\$ 181,594	\$ 182,885	277,474	4.66%	\$ 190,309	\$ 193,105	\$ 197,883	\$ 1,091,344	\$ 1,115,377	\$	24,034
Old Colony	\$	544,301	362,406	5.62%	5.68%	\$ 229,386	\$ 231,872	342,110	5.75%	\$ 234,640	\$ 207,883	\$ 214,223	\$ 1,196,437	\$ 1,225,035	\$	28,598
Pioneer Valley	\$	544,301	621,570	9.64%	9.07%	\$ 393,424	\$ 370,260	537,074	9.02%	\$ 368,358	\$ 408,131	\$ 410,462	\$ 1,688,604	\$ 1,693,381	\$	4,778
Southeastern Mass	\$	544,301	616,670	9.56%	9.42%	\$ 390,322	\$ 384,548	531,236	8.93%	\$ 364,354	\$ 426,198	\$ 433,893	\$ 1,699,705	\$ 1,727,096	\$	27,391
11.11	\$	5,443,005	6,449,550	100.00%	100.00%	\$ 4,082,254	\$ 4,082,254	5,952,013	100.00%	\$ 4,082,254	\$ 4,589,246	\$ 4,680,422	\$ 17,929,945	\$ 18,287,935		

	SPR th	e year (federal	FFY 23 total	FFY 24 total	
RPAs SPR funded	∆ only)		funding by RPA		Δ
Franklin**	2.0% \$	521,684	\$ 652,105	\$ 664,891	\$ 12,786
Martha's Vineyard**	2.0% \$	299,173	\$ 373,966		
Nantucket**	2.0% \$	254,485	\$ 318,106	\$ 324,343	\$ 6,237

The SPR funding provided to the RPAs not officially recognized as MPOs is adjusted year-to-year based on the change in funding experienced by the MPOs for their PL funds.

*CTPS 5303 includes MassDOT 5303

Regional Environmental Justice Plus Documentation

MassDOT's Regional Environmental Justice Plus (REJ+) methodology informed MVMPO staff's equity analysis.

A Regional Environmental Justice "Plus" (REJ+) Community is a designation assigned to block groups with relatively high shares of residents that are especially impacted by changes in or to transportation networks. This designation is 'regional' in nature because the socioeconomic characteristics that designate REJ+ status are considered in relation to regional percentiles(through comparing block group characteristics to metropolitan planning organization-level percentiles rather than statewide percentiles); the designation is called 'plus' because MassDOT has included characteristics beyond traditional 'environmental justice' definitions in order to identify the 'most dominant factor' that defines a community's social vulnerabilities.

To qualify as an REJ+ community, a block group must meet at least one of the following thresholds that correspond to traditional environmental justice criteria.

- Income: Annual median household income ≤ MPO 25th percentile
- Race and ethnicity: Percent of individuals that identify as Hispanic or Latino; Black or African
 American; American Indian or Alaska Native; Asian; Native Hawaiian or Other Pacific Islander; Some
 other race; or Two or more races and do not identify as White alone ≥ MPO 75th percentile
- Limited English proficiency (LEP): Percent of households with limited English-speaking members ≥ MPO 75th percentile

While MassDOT relies on these community characteristics that traditionally define environmental justice communities to establish areas that are particularly vulnerable to social, economic, and political pressures, MassDOT also recognizes that these characteristics do not capture other socioeconomic contexts that indicate areas of high need with respect to transportation issues. Therefore, as MassDOT calculates and identifies the 'most dominant factor' that drive transportation and accessibility needs in each community, it also includes the following characteristics for this specific determination:

- Car ownership: Percent of households without an available vehicle ≥ MPO 75th percentile
- Disability: Percent of households with one or more persons with a disability ≥ MPO 75th percentile
- Age: Percent of individuals aged 65 or older ≥ MPO 75th percentile

These three additional characteristics represent the 'plus' elements of MassDOT's analysis. All data used for this analysis was retrieved from the U.S. Census at data.census.gov. The unit of analysis is census block groups (ACS 2021 5-year estimates).

ACS Tables Used

- B19013 Median Income
- B03002 Hispanic or Latino, and Not Hispanic or Latino by Race
- C16002 Household Language by Household Limited English-Speaking Status
- B25044 Tenure by Vehicles Available
- B01001 Age
- B22010- Receipt of Food Stamps/SNAP in the Past 12 Months by Disability Status for Households *Median income:* For each block group, identify the median household income (001E). Please note that where incomes exceeded \$250,000, the Census bureau enters a text value of "250,000+". MassDOT re-coded

these as the numeric value \$250,001. The same is true for incomes of less than \$2,500, which the Census bureau enters as "2,500-", and we re-coded as \$2,499.

Race and ethnicity: For each block group, identify the total number of people who do not identify as White by subtracting the estimated number of people included in the "Not Hispanic or Latino, White Alone" category (003E) from the total number of individuals in the block group (001E). To calculate the percent of individuals who are not white in each block group, divide this number by the total population of the block group (001E).

Limited English proficiency (LEP): For each block group, calculate the percent of households with members of limited English proficiency by adding the number of households with limited English proficiency for each language group (004E, 007E, 010E, 013E) and dividing by the total number of households in each block group (001E).

Car ownership: For each block group, add the number of owner-occupied (003E) and renter occupied (010E) households without access to a vehicle. Divide this total by the total number of households in each block group (001E) to calculate the percent of zero-vehicle households.

Disability: For each block group, add the number of households with 1 or more persons with a disability (003E, 006E) and divide this by the total number of households in each block group (001E) to calculate the percentage of households with individuals with disabilities.

Age: For each block group, add the number of males and females aged 65 and over and divide this total by the block group population (001E) to calculate the percent of seniors.

Thresholds

MassDOT developed unique thresholds for each MPO region to control for the regional differences in socioeconomic and demographic characteristics across the Commonwealth. To calculate the thresholds, MassDOT used the QUARTILE function in Excel to determine each MPO-specific threshold value within each 'environmental justice' or 'plus' category. Block group-level values for each characteristic are then compared to their respective MPO threshold to determine if the block group meets the criteria for REJ+ designation.

The Merrimack Valley's specific regional thresholds are as follow:

• Income: \$62,303

• Percent Nonwhite: 45%

• Percent Limited English Proficiency: 7%

• Percent Disabled: 31%

• Percent of Households with No Vehicles: 13%

• Percent Senior: 23%

Most Dominant Factor

For block groups that are identified as REJ+ communities, MassDOT has identified which of the six characteristics is the 'most dominant' in terms of the greatest dissimilarity or 'distance' from the MPO threshold. This identification provides a deeper sense of the social contexts that shape local transportation

needs. Knowing that an REJ+ community's most dominant factor is a lack of automobile access, or a high proportion of individuals with physical disabilities, or a high share of older individuals, provides greater insight into the programs, initiatives, or investments that can be made to promote accessibility and mobility for those who may need extra support.

To calculate the 'most dominant factor', for each characteristic, MassDOT calculated the difference between the value for each block group, and the MPO threshold. MassDOT used an INDEX, MATCH, MAX function in Excel to identify the characteristic that is the most 'different' from the MPO threshold, and thus the 'most dominant factor' value.

Because several block groups across the state do not have income information available (437 total block groups), a modified formula that pulls on just the remaining five characteristics was used in these cases.

Acronym Glossary

Acronym Glossary Active Transportation Network	ATN
Advance Construction	AC
Americans with Disabilities Act	ADA
Bipartisan Infrastructure Legislation, or Infrastructure Investment and Jobs Act	BIL (also IIJA)
Capital Investment Plan	CIP
Clean Air Act	CAA
Clean Air Act Amendments	CAAA
Congestion Management Process	CMP
Environmental Justice	EJ
Environmental Protection Agency	EPA
Equivalent Property Damage Only	EPDO
Federal Highway Administration	FHWA
Federal Transit Administration	FTA
Fixing America's Surface Transportation Act	FAST ACT
Functionally Obsolete (refers to bridge status)	FO
Green House Gas	GHG
Highway Performance Monitoring System	HPMS
Long-Range Regional Transportation Plans	LRTP
Massachusetts Bay Transportation Authority	MBTA
Massachusetts Department of Environmental Protection	MASSDEP
Massachusetts Department of Transportation	MASSDOT
Merrimack Valley Metropolitan Planning Organization	MVMPO
Merrimack Valley Planning Commission	MVPC
Merrimack Valley Transit (Merrimack Valley Regional Transit Agency)	MeVa (MVRTA)
Metropolitan Area Planning Council	MAPC
Metropolitan Planning Organization; Merrimack Valley Metropolitan Planning Organization	MPO, MVMPO
National Ambient Air Quality Standards	NAAQS
National Highway Freight Network	NHFN
National Highway System	NHS
Northern Middlesex Council of Governments	NMCOG
Nitrogen Oxides	NOx
Priority Development Area	PDA
Public Participation Plan	PPP
Regional Transportation Plan, Metropolitan Transportation Plan	RTP, MTP
Road Safety Audit	RSA
Structurally Deficient (refers to bridge status)	SD
State Transportation Improvement Program	STIP
Surface Transportation Program	STP
Transportation Control Measures	TCM
Transportation Evaluation Criteria	TEC
Transportation Improvement Program	TIP
Unified Planning Work Program	UPWP
Vehicle Miles Traveled	VMT
Volatile Organic Compounds	VOC

Comments on Public Draft and Documented Revisions

Individual	Organization	Date Comment Received	Comment	Response
Cece Gerstenbacher (internal)	Merrimack Valley Planning Commission	5.23.23	Add reference to ongoing work with the Merrimack River Collaborative in Subtask 3.5.	This reference has been added to the description of Subtask 3.5.
Jenifer Dunlap (internal)	Merrimack Valley Planning Commission	5.23.23	The supplemental budget totals \$105,072 and the UPWP shows \$110,072—off by \$5k.	The initial error is acknowledged. The SS4A budget and budget detail for 3.2A has been updated to reflect current thinking regarding the anticipated program.
Jenifer Dunlap (internal)	Merrimack Valley Planning Commission	5.23.23	I calculate the overhead rate at 1.3771 to come out to \$29,675 where the UPWP draft shows \$29,662 (1.3765).	The transposition error has been amended so the budget table and task description figures align. (The former "9" as the last digit of staffing costs has been replaced with a "0").
Elizabeth Maldari (internal)	Merrimack Valley Planning Commission	5.23.23	The "U" is missing from the cover page.	The "U" has been added back on the cover page.
Elizabeth Maldari (internal)	Merrimack Valley Planning Commission	5.23.23	There is an extra tab in the equity section's narrative before Figure 6.	The additional tab has been eliminated.
Elizabeth Maldari (internal)	Merrimack Valley Planning Commission	5.23.23	 Suggest the following phrasing revisions to SS4A task description's Objectives and Rationale: Mitigate crashes to achieve forthcoming regional Vision Zero goal. Develop a comprehensive safety action plan based on historical and predictive data to inform project prioritization in safety planning. Activate Merrimack Valley Citizen participation in Vision Zero goal. 	These changes have been made.

Elizabeth Maldari (internal)	Merrimack Valley Planning Commission	5.23.23	Suggest the following phrasing revisions to SS4A task description's Link to Metropolitan Transportation Plan: • Transportation safety and comfort improve the competitiveness of alternate modes and drive equity by making facilities safer or individuals who rely on transit, walking, bicycle, and other non-personal automobile modes of travel. Supporting these road users is paramount since these individuals are the most vulnerable in a crash.	This change has been made.
Tony Collins	Merrimack Valley Planning Commission	5.30.23	Suggest adding the 3C graphic that includes the Public Participation Plan.	The graphic including the Public Participation Plan has been added to the document, replacing the previous graphic. Text has been adjusted slightly, as appropriate/related to the graphic.
Derek Shooster	Massachusetts Department of Transportation	6.15.23	Please reference the federal emphasis areas in the Bipartisan Infrastructure Legislation (BIL).	A reference to the Federal Planning Emphasis Areas has been added to the document.
Derek Shooster	Massachusetts Department of Transportation	6.15.23	Please add 'of MassDOT' to Secretary's signature title. Also, please remove self-certification and Air Quality pages from UPWP. These are only necessary for TIP.	The requested changes have been made.
Derek Shooster	Massachusetts Department of Transportation	6.15.23	Please reference Statewide modal plans if/when appropriate relative to UPWP task coordination.	A general reference to the statewide modal plans has been added to the document.
Derek Shooster	Massachusetts Department of Transportation	6.15.23	Please clean up the graphic at the beginning to show "U" in UPWP.	Staff has made the requested change.
Derek Shooster	Massachusetts Department of Transportation	6.15.23	[referencing individual tasks' reference to community beneficiaries] Although this is addressed on p. 43, please consider more	Staff has added a narrative related to the distribution of FFY24 deliverables, which are

			explicit highlight of community beneficiaries either at a task level, or perhaps by including a matrix of task applicability to any communities. Thank you.	all regional in scale. The narrative addresses Local Technical Assistance (Subtask 4.2).
Derek Shooster	Massachusetts Department of Transportation	6.15.23	Please consider briefly summarizing the opportunities for the public to review and comment on the plan, perhaps a sentence or two in the Executive Summary would be appropriate.	Staff have added a summary of public engagement to the Executive Summary.
Chris Timmel	Federal Highway Administration	6.16.23	MPO Board list should include ex-officio (non-voting members) FHWA and FTA.	The list has been updated to include MVMPO ex-officio members. Staff have confirmed ex-officio members from the Rockingham and Nashua MPOs and are awaiting input from the Boston and Northern Middlesex MPOs.
Chris Timmel	Federal Highway Administration	6.16.23	[in regard to PL funds description] Perhaps you want to indicate 100% Federal coverage for 2.5% complete streets activities (FHWA). No cap FTA for eligible activities.	Staff has added additional clarification related to FHWA PL funds. More clarification is necessary related to FTA program funds.
Chris Timmel	Federal Highway Administration	6.16.23	All transportation planning activities in the region should be referenced in the UPWP regardless of funding source	The list of deliverables reflects the extent of planned transportation deliverables— excluding request-based LTA activities. No changes made.
Chris Timmel	Federal Highway Administration	6.16.23	It would be helpful to have total funding summed for each task documented throughout UPWP.	Staff have added totals to each task description. Note that the SS4A budget and budget detail for 3.2A has been updated to reflect current thinking regarding the anticipated program.
Chris Timmel	Federal Highway Administration	6.16.23	Is the plan for this to be more than pavement management if you are changing the title of the task?	Staff plans to primarily focus on pavement management, with exploration of other asset management opportunities (trails, signs, etc.). MVMPO previously invested in Cartegraph

				and was building out an asset management/pavement management program, but disruptions in staffing continuity have resulted in an uncertainty about municipal needs and ROI for MVMPO's level of effort. Due to the investment in Cartegraph, staff intend to spend the next few years identifying needs and piloting opportunities. If ROI is limited, staff will recommend MVMPO move its resources/technical expertise into other spaces.
Chris Timmel	Federal Highway Administration	6.16.23	Does task 3.1 represent your 2.5% complete streets minimum? Is this where you intend for this to apply? Keep in mind FTA also has a waiver, with no cap. If you intend to utilize 5303 funds for complete streets 100% share, this will also need to be identified explicitly.	To keep budgeting clean, staff intends for the 2.5% requirement of PL funds to apply to this subtask (in support of planning the Active Transportation Plan). Additional detail has been added to the task description. Because 2.5% of complete streets planning activities require no federal match, staff intends to request MassDOT provide an additional \$5,999.41 in PL funding, representing the 20 percent match of the 2.5 percent PL requirement (which requires no federal match). This would be added to support direct costs for Subtask 3.1, if permitted by MassDOT. Staff will coordinate with MeVa and may seek 5303 in support of complete streets planning to optimize funding potential, but this would

Chris Timmel	Federal Highway Administration	6.16.23	[In reference to error in subtask 3.1 description's intended reference to SS4A] This is subtask 3.1. Is this supplemental needed to produce the SS4A comprehensive safety action plan that you received the grant award for? If so, this may require some additional documentation/requirements as it relates to the grant agreement and use of Title 23 funding. and what is this for exactly? Is there staff/overhead built into the grant award already?	need to occur through amendment and would fall within Subtask 3.3. This reference has been revised to subtasks 3.2A and 3.2B. Additional details have been added to the task descriptions. The 3.2A task is focused on the development of a safety action plan and is funded through the SS4A award. The 3.2B task facilitates typical safety planning work that would occur in a given work program year, regardless of the SS4A award or safety action plan project. Given the interplay of the two subtasks, they have been folded under
			(documented above)	the same messaging umbrella but will support separate elements of MVMPO's work.
Jerrard Whitten	Merrimack Valley Planning Commission	6.16.23	[In reference to the deliverables list] Should we mention our pilot bike/ped counting efforts here?	Trail counting was added to the list of exploratory deliverables.
Jerrard Whitten	Merrimack Valley Planning Commission	6.16.23	[In reference to subtask 2.1's description] Should we mention production of a public-facing regional vehicle/bike/ped web application?	Staff has added the production of a public-facing viewer into the task description.
Jerrard Whitten	Merrimack Valley Planning Commission	6.16.23	Our PM work dates back more than 30 years, do you think it's important to reference that this has been a long-standing element of MVMPO work?	MVMPO staff have added additional detail to the task description to acknowledge long-standing efforts.
Jerrard Whitten	Merrimack Valley Planning Commission	6.16.23	[In reference to Subtask 3.4] This should be referenced as MVPC's Comprehensive Economic Development Strategy (CEDS).	Staff have made this correction.

Jerrard	Merrimack	6.16.23	[In reference to REJ+] Is the word "justice" still	Staff have corrected this omission.
Whitten	Valley Planning		used in this context?	
	Commission			
Patrick Reed	Merrimack	6.16.23	Subtask 3.2A requires an updated based on	Staff have amended the budget detail for
	Valley Planning		current budget assumptions and federal	subtask 3.2A and reflect these changes in the
	Commission		reporting category assumptions.	overall FFY24 budget table.
Patrick Reed	Merrimack	6.16.23	The current MTP vision statement requires an	Staff has revised the forthcoming MTP's vision
	Valley Planning		update based on the most recent MPO meeting.	statement to reflect content from the most
	Commission			current MVMPO meeting (May 22, 2023).
Patrick Reed	Merrimack	7.7.23	Overlap between SS4A program and PL	Per federal guidance, fully separated and
	Valley Planning		program is not acceptable without additional	delineated roadway safety tasks. Created new
	Commission		documentation per federal guidance.	task 3.6, demonstrating that it is re-named
				version of previous UPWP's "Safety
				Monitoring System" task. Detailed different
				components of SS4A program.