Study Information					LRTP Goals					
ID	Project Name	Project Purpose and Outcome	Notes	Estimated Budget	S	SP/M	CM/M	TE	CA/SC	EV
ACTIVE TRANSPORTATION					**Key:** 5 = most relevant, 1 = least relevant					
A-1	Infrastructure Bank and Tactical Outreach	***Purpose:*** This work program would pilot some combination of a new MPO technical assistance program; new outreach and engagement modes; and a concept known as an "infrastructure bank" in which the MPO acquires materials such as traffic cones and street furniture and lends them out to municipal partners to test new street configurations. The MPO would purchase materials, provide them to municipalities or to community groups with municipal authorization, and use the opportunity to measure effects and engage participants/people in the neighborhood. ***Anticipated Outcome:*** Procurement of a library of materials for the MPO to lend out to municipalities for testing tactical roadway interventions and potential changes, and a series of workshops or programs in which the MPO partners with municipalities to do outreach to communities based on using the library of materials.	Project would be scalable. If MPO funding cannot be used for purchasing materials, foundation funding could potentially be sought in partnership with MAPC.	$100,000	5	2	3	4	5	4
A-2	Healthy Streets Lookback	***Purpose:*** Review of a variety of healthy/pandemic streets implementations, including analysis of use and implementation. Would support future applications to the Boston MPO Community Connections and MassDOT Shared Streets programs. Data would likely be gathered qualitatively from interviews with municipal and state staff. ***Anticipated Outcome:*** Development of a guidebook for future interim and permanent projects.		$40,000	5	2	4	3	3	4
A-3	Vision Zero Phase 2	***Purpose:*** Staff would research MPOs/RPAs/other regional bodies that have adopted a Vision Zero policy and learn about (1) their characteristics (of their region or of their organization) (2) their process for adopting this policy (3) the characteristics of the policy itself (4) how these MPOs implement this policy This research may involve interviews of staff or members of those MPOs. Staff might also look at Vision-Zero-adjacent policies that have been adopted by MPOs. As part of this research, staff could look at how these MPOs work with state DOTs and how they integrate their Vision Zero (or adjacent policy) with federal safety performance management requirements. Staff could compare these research findings with the characteristics and functions of the Boston Region MPO to determine a Vision Zero policy's viability and value, given the MPO's operating context. ***Anticipated Outcome:*** A report and MPO presentation on the findings of this research.		$60,000	5	4	4	4	4	4
LAND USE, ENVIRONMENT, AND ECONOMY										
L-1	Trip Generation Follow-Up	***Purpose:*** MPO members and other stakeholders have expressed interest in staff continuing work on trip generation as a follow-up to the FFY 2020 discrete study *Innovations in Estimating Trip Generation Rates* and the FFY 2021 discrete study *Trip Generation Rate Research*. This task would allocate funds to continue trip generation research, pending outcomes from the FFY 2021 study and stakeholder outreach to determine the direction of research. One possible area of research would explore how parking policy affects trip generation in urban mixed-use, multimodal environments. ***Anticipated Outcome:*** Coordination with stakeholders and a research memorandum summarizing new research findings.		$40,000	2	3	3	3	4	4
L-2	TDM Follow-Up	***Purpose:*** This task would allocate a modest amount of funding to continue to build momentum from the FFY 2021 task *Innovations in Travel Demand Management*, which included hosting two forums and discussing potential future structures for regional TDM coordination. This task would fund ongoing coordination with MAPC, municipalities, and other stakeholders in the form of a working group or a series of smaller conversations with the goal of swapping knowledge and practices and creating durable structures for regional collaboration. ***Anticipated Outcome:*** A series of collaborations with stakeholders, and possibly one or more public-facing events.		Scalable	2	3	4	2	3	4
L-3	COVID Recovery	***Purpose:*** Stakeholders have made apparent to staff the need for the MPO and its partner agencies to respond flexibly and rapidly to the changing needs of the anticipated recovery from the COVID-19 pandemic through studies, technical assistance, and other activities. This task would set aside some level of funding specifically for COVID-19 response tasks, such as transit service planning assistance; advising municipalities on street usage; and many others. ***Anticipated Outcome:*** A series of technical assistance and research projects responding to MPO member and partner needs as they emerge.		Scalable; at least $25,000	3	3	4	4	4	5

L-4	Freight, Mode Shift, and Land Use	***Purpose:*** The landscape of freight transportation in the Boston region has changed rapidly over the last several decades and is continuing to evolve rapidly, especially with the rapid growth of e-commerce and just-in-time logistics. Along with that change comes increased truck traffic and attendant concerns about air quality, congestion and safety on the region's roadways, as well as increased maintenance costs—challenges that MPO staff have heard about as serious issues of concern from member municipalities. This study proposes to explore the changing geography of freight and logistics in the Boston region and some strategies for mode shift and minimizing VMT added by deliveries, logistics, and e-commerce in the region, with an emphasis on coordinating freight and land use and exploring mode shift to rail where possible. It would involve coordination with MAPC, including leveraging work MAPC is currently conducting on industrial land use classification. ***Anticipated Outcome:*** Coordination with various stakeholders and a final report or storymap laying out findings.	Could be scaled up or down; the minimum version would involve a literature review to determine an approach and examining one or several municipalities as a proof of concept.	Scalable; at least $40,000	2	4	5	2	4	5
ROADWAY AND MULTIMODAL MOBILITY											
M-1	Addressing Safety, Mobility, and Access on Subregional Priority Roadways	***Purpose:*** During MPO outreach, MAPC subregional groups identify transportation problems and issues that concern them, often those relating to bottlenecks or lack of safe access to transportation facilities in their areas. These issues can affect livability, quality of life, crash incidence, and air quality along an arterial roadway and its side streets. If problems are not addressed, mobility, access, safety, economic development, and air quality are compromised. Tasks in these studies include data collection, technical analysis, development of recommendations, and documentation for selected corridors. ***Anticipated Outcome:*** Recommendations for addressing safety, mobility, and access for the selected subregional priority roadways.	Recurring study (every year)	$125,000	5	5	5	3	3	3
M-2	Addressing Priority Corridors from the LRTP Needs Assessment	***Purpose:*** These studies develop conceptual design plans that address regional multimodal transportation needs along priority corridors identified in the LRTP, *Destination 2040* . MPO staff would recommend conceptual improvements for one or more corridors, or several small sections within a corridor, that are identified by the CMP or the LRTP's Needs Assessment process. These studies provide cities and towns with the opportunity to review the requirements of a specific arterial segment, starting at the conceptual level, before committing design and engineering funds to a project. If the project qualifies for federal funds for construction of the recommended upgrades, the study's documentation also might be useful to MassDOT and the municipalities. MPO partners have suggested increasing the budget for these highly successful studies. ***Anticipated Outcome:*** Conceptual design plans for the selected priority corridors.	Recurring study (every year)	$125,000	5	5	5	3	3	3
M-3	Safety and Operations at Selected Intersections	***Purpose:*** The *Safety and Operations Analyses at Selected Intersections* study provides municipalities in the MPO with recommendations and conceptual designs for potential short-term, low-cost solutions or long-term, high-cost solutions for intersections that need safety improvements and congestion management. ***Anticipated Outcome:*** This study would select a number of intersections and produce reports documenting low-cost solutions to existing traffic and safety issues at the selected locations. A before-and-after analysis of previous work may be included, depending on the final scope of the study.	Recurring study (every other year)	$80,000	5	4	5	2	2	2

M-4	SWAP Warehousing, Logistics, and Mitigation Study	***Purpose:*** Communities in the SWAP subregion and neighboring municipalities have seen an influx of large-scale warehouse and distribution facilities permitted and constructed in the past several years. This is in part due to the surge in e-commerce activity across the country. While municipalities can take steps individually to mitigate some of these congestion impacts, a coordinated regional approach would provide more predictability for developers and tenants and offer regional transportation benefits. This proposal is for a comprehensive regional traffic mitigation strategy for the SWAP subregion and Holliston in response to the surge in logistics operations in region. The study would assess existing conditions, drawing on previous work by MPO and MAPC staff; develop a comprehensive mitigation strategy; and create long-term strategies to mitigate traffic impacts. It would involve MPO and MAPC staff working closely together. As growth in warehousing and logistics, especially relating to e-commerce, is a notable challenge across the MPO region, this study could serve as a template or model for future analysis in other geographic areas. ***Anticipated Outcome:*** A report or several memoranda summarizing findings and recommendations.	**Proposed by:** SWAP subregion Town of Holliston	$100,000	2	5	5	2	4	4
M-5	Congestion Pricing	***Purpose:*** This long-term conceptual study would enhance understanding of the potential benefits of congestion pricing schemes and applicability to the Boston region, and help inform regional conversations and the development of scenarios for the Long-Range Transportation Plan using travel demand modeling. It would examine the benefits, equity and sustainability implications, and other elements of different examples of congestion pricing, including the recently approved congestion pricing system in New York City and the cordon system in London. While the future of any congestion pricing scheme in the Commonwealth is uncertain, decisions should be made in an informed context, and this study would enhance the understanding of the ability for a congestion pricing system to self-fund and/or generate new funding for other entities such as transit agencies. This work would be grounded in previous conceptual work by various entities including MassDOT, and would consider uncertainties relating to the impacts of the pandemic. ***Anticipated Outcome:*** A report or memorandum documenting findings of the study.		$80,000	3	5	5	4	5	3
M-6	Future of the Curb Phase 3	***Purpose:*** Staff will identify specific curb management strategies to study (such as bus lanes, pick up/drop off zones, and freight/delivery designated spaces). Staff will also find various examples where they are active within the Boston Region, keeping in mind different community types, then collect data to measure their efficacy through digital data sources available (such as APC derived bus delay data, municipal parking data) and through in person data collection efforts (such as turnover counts in parking spaces). Staff will then analyze the results to compare the metrics throughout the region and generate a model to estimate the effect curb management changes will have on different community types. ***Anticipated Outcome:*** A method to estimate curb space usage by management strategy and municipality type, developed from data collected within the Boston region.		$80,000	4	4	4	3	3	4
M-7	Route 28 Blue Hills Study	***Purpose:*** We propose a traffic study of Route 28 between Chickatawbut Road and Route 93, where trails in the Blue Hills Reservation cross the highway. The study should include traffic volume and speed as it relates to the safety of several trail crossings that link one section of the Blue Hills to another, with the goal of identifying how to improve the safety of crossing the highway for hikers. The study should explore the need for traffic calming, speed regulations, or pedestrian traffic signals. ***Anticipated Outcome:*** A memorandum or report summarizing findings and making recommendations for this corridor.	**Proposed by:** Judy Lehrer Jacobs, Executive Director, Friends of the Blue Hills **Staff note:** Could likely be covered under Subregional Priority Roadways or Community Transportation Technical Assistance.	n/a	5	4	4	2	3	2
M-8	Work Zone Impacts	***Purpose*** **:** We propose designing and executing a series of representative work zone scenarios to evaluate the usefulness of different travel demand and operational models. The study will identify key metrics and useful insights to inform work zone planning and present an assessment of the estimation of these metrics through different modeling approaches. ***Anticipated Outcome:*** A memorandum describing the different approaches to supporting work zone planning and recommendations by work zone extent.		$75,000	4	4	4	1	2	2

TRANSIT											
T-1	Opportunities for BRT in the Boston Region	***Purpose:*** Staff will select 10 to 20 potential corridors in the Boston Region for new BRT, possibly using suggestions from stakeholders. Staff will then conduct an analysis to find which corridors would provide the greatest accessibility improvements to the greatest number of disadvantaged people. This will be accomplished by measuring improvements to accessibility using GTFS, US Census, and MBTA Survey data. ***Anticipated Tool:*** A report outlining findings and a recommendation of the best five corridors for future BRT in the Boston Region.		$60,000	2	4	5	3	3	2
T-2	Addressing Equity and Access in the Blue Hills	***Purpose:*** The Blue Hills Reservation, located just four miles from Mattapan Square, is an area rich in natural and cultural resources, and the location for many recreational activities, such as hiking, biking, swimming, skiing, etc. It also is home to a number of cultural and environmental organizations—including a community farm, a nature museum, and a certified arboretum—which welcome visitors to enjoy and participate in their activities. Access to areas of natural beauty and wilderness is also documented to be critical for psychosocial wellness and mental health, especially in a time of social distancing. The problem is that for tens of thousands of families in Boston and surrounding communities, and especially those without a car, the Blue Hills and its resources remain inaccessible: there is no MBTA public transit service that connects transportation hubs in Boston to the Blue Hills. We urge MPO to conduct an "Equity and Access Feasibility Study" that would study altering existing or creating new MBTA bus routes that connect T-hubs and Boston neighborhoods to the Blue Hills Reservation. For example, a simple alteration to one existing bus route could connect residents of Roslindale, Mattapan, and Hyde Park to all of the resources the Blue Hills Reservation has to offer. ***Anticipated Outcome:*** MPO outreach and engagement activities to help qualitatively determine how best to provide access to the Blue Hills, and a report or other document summarizing engagement activities and technical recommendations.	**Proposed by:** Michelle Cook, Co-Founder, Urban Outdoors Association Jerel Ferguson, Co-Founder, Urban Outdoors Association Judy Lehrer Jacobs, Executive Director, Friends of the Blue Hills Shavel'le Olivier, Executive Director, Mattapan Food and Fitness Coalition Cathy Smith, President, Brookwood Community Farm Mark Smith, Executive Director, Mary May Binney Wakefield Arboretum	$80,000	3	4	4	5	5	2
T-3	Microtransit Tracking and Integration	***Purpose:*** Microtransit (a flexible, demand-response-based transit service using vans or small vehicles that can be called with an app) is an emerging mode choice, including in Eastern Massachusetts, where several programs are up and running and others have applied to the MPO's Community Connections Program or other funding sources. This task would use the data that those services report to their sponsors to track microtransit projects, evaluate the data to establish metrics for success or failure, and attempt to correlate those metrics with factors such as land use and provision of fixed-route transit. Ultimately the study would seek to establish the conditions under which microtransit can be successful, including examining possibilities for integrating it into the larger transit system through fare policy and technology, scheduling, and other planning fundamentals. This task would be structured as a multi-year study, perhaps over two to three years, with a small amount of money committed each year. ***Anticipated Outcome:*** Documentation of findings and promulgation of metrics for anticipating success or failure of microtransit in the Boston region, as well as recommendations for integrating microtransit services into the fixed-route transit network.		$20,000 annually for several years	2	4	4	2	2	2

T-4	Bus Electrification	***Purpose:*** This bus electrification technology study would ideally 1. Examine zero-emission bus technologies used internationally and domestically, including in-motion charging from catenary wires (also known as battery trolleybus technology), simple trolleybus operations without batteries, and in-route charging, and compare them to one another and existing MBTA and RTA bus technologies, similar to the TSP guidebook prepared in 2018 by CTPS. 2. Determine the characteristics of the different service typologies (both spatial and temporal) that would be best served and enabled by different kinds of electrification. 3. Survey existing MBTA and RTA traction power infrastructure and investigate ease of integration thereof with different electrification types. 4. Estimate life cycle costs and investigate how costs scale with different kinds of electrification. 5. Estimate the upgrades to existing bus maintenance facilities needed to support different kinds of zero-emission bus technologies. ***Anticipated Outcome:*** A report summarizing findings.	**Proposed by:** TransitMatters Len Diggins, Arlington Select Board, MBTA ROC, RTAC City of Chelsea Conservation Law Foundation MBTA ROC Sierra Club MA ITDP MassPIRG	$100,000	2	5	5	4	5	2
T-5	Advanced Parking Management Systems Study for MBTA Parking Lots	***Purpose:*** Especially considering the coming implementation of a Regional Rail operating model, there is a need to examine more accessible, flexible, and sophisticated methods of payment for many MBTA parking lots. Advanced systems are often able to provide real-time information about how full lots are. Any advanced parking management systems that have been implemented in the United States will need to be researched and documented in a brief literature review. Station locations will then be selected for this project. Analysis will need to be conducted for the selected locations. This work would be coordinated with MBTA work to avoid redundancy and would encourage use of MAPC's collective purchasing framework for procurement. ***Anticipated Outcome:*** Collaboration with the MBTA to produce recommendations about specific lots and/or a general strategy for modernizing parking payment and integrating it into the fare structure and technology.		$75,000	2	5	4	2	2	2
T-6	Fare Policy Post-Covid to Address Flexible Telecommuting	***Purpose:*** This study would research and analyze new fare policy ideas for the MBTA and RTAs to support commuters who may have newly flexible schedules. Monthly passes may become significantly less popular especially on the commuter rail system. Other types of multi-trip fare policies will be useful to encourage riders to use the system for commuting even if they no longer have a daily commute. The project could research various fare policies from around the United States and the world that support more flexible use of the transit system. Various ideas could be analyzed to determine their effects on MBTA and RTA revenue and ridership. ***Anticipated Outcome:*** A report, coordinated with the MBTA, on various possibilities for flexible fare structures.		$50,000 to $75,000	1	4	4	5	3	3
T-7	Paratransit Operations in the Boston MPO Region	***Purpose:*** MPO staff have heard considerable input from stakeholders that many users experience paratransit services in the MPO region as fragmented and not always conducive to the types of travel that paratransit users need. This UPWP study would provide an overview of paratransit operations provided by the MBTA and RTAs in the MPO district. Special attention would be paid to how these paratransit providers interact at RTA borders, specifically in terms of passenger transfers and passenger fares. The study would examine case studies where existing paratransit operations have been regionalized or otherwise consolidated to lay the groundwork for future high level analysis of what a unified regional paratransit operation might look like in terms of operating costs, customer experience, and passenger fares. Further consideration should also be given to the regulatory environment in which RTAs provide paratransit, and how, if any, these regulations would hamper or help a region-wide paratransit operation. ***Anticipated Outcome:*** A report documenting findings of this research.	**Proposed by:** Brian Kane, Executive Director, MBTA Advisory Board	$80,000	2	5	4	5	2	2
T-8	MBTA Construction Costs	***Purpose:*** This study would consist of a literature review of existing documents considering and comparing the cost estimates of MBTA projects compared to similar projects in North America and elsewhere in the world. ***Anticipated Outcome:*** A report documenting findings on this topic.	**Proposed by:** Brian Kane, Executive Director, MBTA Advisory Board **Staff note:** This concept could be expanded to include all modes, with such research potentially informing MPO decision-making about capital project policy in future years.	$80,000	2	5	5	2	2	3

T-9	Capacity Constraints in the Boston-South Shore Corridor	***Purpose:*** We propose to conduct a corridor study of how to improve commuter rail capacity from Braintree to South Station. A key piece of the study should be focused on eliminating single-track sections and other chokepoints or schedule constraints along the Old Colony Commuter Rail Line. The study should identify necessary rights-of-way, and the full range of possibilities to implement full double-track commuter rail on the main line. ***Anticipated Outcome:*** The study should include both planning and conceptual engineering.	**Proposed by:** Rep. Joan Meschino (Third Plymouth/Hull)	$500,000 over multiple years	2	5	5	3	3	4
T-10	Innovative Transit Financing	***Purpose:*** The study will focus on shuttle bus routes created outside of the typical MBTA/RTA operations with innovative funding and governing partnerships. The research will delve into the best financing and operation models currently in use in Massachusetts and across the country, and make policy recommendations based on best practices. The study would canvass transit operators, municipalities, and other stakeholders to establish needs and desires with regard to funding and future policy. ***Anticipated Outcome:*** A report summarizing research and stakeholder feedback and making recommendations about innovative transit financing options in the Boston region.	**Proposed by:** Rep. Michelle Ciccolo (15th Middlesex/Lexington, Woburn)	$80,000	2	4	4	2	3	4
TRANSPORTATION EQUITY											
E-1	Transportation User Costs Over Time	***Purpose:*** In light of recent stakeholder discussions about transportation equity, particularly with regard to MBTA and RTA fare structures, this study would research the relative costs to the user and comprehensively analyze the subsidies provided to each mode over time. It could also examine the relationship of the findings to other goals expressed by the MPO and other stakeholders. ***Anticipated Outcome:*** A report or other document summarizing findings.		$60,000	2	3	3	5	4	4
E-2	Measuring Inequities in Transportation Impacts in the Boston Region	***Purpose:*** The purpose of this study is to define transportation equity specific to the Boston region and develop a baseline assessment of current inequities. The study would have two parts. It would start by gathering qualitative data by getting input from equity populations and advocates across the region about how transportation affects them and the impacts they see in their communities. The second component would consist of quantitative analyses of impacts (selected in part from the results from the public outreach) to measure the extent of benefits and burdens on equity populations that currently exist, and where those inequities are most extreme. The analyses would be done both regionally and subregionally, and the results of this study will provide information about where the MPO can target projects to improve equity in the region. ***Anticipated Outcome:*** A report and online tool documenting the results of the quantitative and qualitative analyses.		$80,000	3	3	3	5	2	2
RESILIENCE											
R-1	CTPS Resilience Program	***Purpose:*** This task would pilot the creation of a new ongoing program to address resiliency in the Boston region. It will provide funding to continue coordination with municipalities and state and regional agencies. It will allow staff to identify areas that may require additional studies through the UPWP, assistance through the MPO's Technical Assistance programs, and projects that could potentially be funded in the TIP. To this point, this work has been funded through the LRTP. ***Anticipated Outcome:*** Creation of a new program; coordination of meetings with stakeholders; and a presentation reporting on the pilot to the MPO.		$30,000, and potentially scalable	5	5	3	4	5	3
R-2	Network Resilience, Importance, and Sustainability	***Purpose:*** This task would incorporate consideration of network importance to the assessment of roadway susceptibility to disruption from disasters. We will leverage the routable roadway network from the regional travel demand model to identify the importance of roadway segments for direct connectivity and as detour routes if other facilities are disabled. This, in combination with travel demand, will better highlight the criticality of roadway segments. ***Anticipated Outcome:*** Development of a new procedure to conduct the roadway network assessment. Memo documenting the procedure and flagging the most critical roadway segments in the region.		$40,000	5	5	3	3	5	2

TECHNICAL SUPPORT and OTHER											
O-1	Staff-Generated Research and Technical Assistance	***Purpose:*** This program supports work by MPO staff members on topics that relate to the Boston Region MPO's metropolitan transportation-planning process, that staff members have expressed interest in, and that are not covered by an ongoing UPWP study or discrete project. This program brings forth valuable information for the MPO's consideration and would support staff's professional development. The opportunities afforded to staff through this program could yield highly creative solutions to transportation-planning problems. Starting in FFY 2020, the range of projects that could be funded through this budget line was expanded to include small technical assistance projects in addition to research. Individual MPO staff are able to identify small-scale needs in the diverse communities within the MPO region and work with partner entities to make recommendations to solve the problems. This budget line allows staff to then use some of their time to study the problem—involving their colleagues with specialty skills if staff resources and availability allow—and make recommendations to solve it. ***Anticipated Outcome:*** Reports on staff-proposed innovative research and small technical assistance projects.	Recurring study (every year)	Typically $20,000 to $40,000	n/a*	n/a*	n/a*	n/a*	n/a*	n/a*

Notes:
* = Relationship to Goals and Objectives depends on the individual project(s) selected

31 Total study concepts

Acronyms:
APC = Automatic Passenger Counter. BRT = Bus Rapid Transit. CA/SC = Clean Air/Sustainable Communities. CM/M = Capacity Management and Mobility. CMP = Congestion Management Process. DOT = Department of Transportation. EV = Economic Vitality. FFY = Federal Fiscal Year. GTFS = General Transit Feed Specification. ITDP = Institution for Transportation and Development Policy. LRTP = Long-Range Transportation Plan. MAPC = Metropolitan Area Planning Council. MassDOT = Massachusetts Department of Transportation. MassPIRG = Massachusetts Student Public Interest Research Group. MBTA = Massachusetts Bay Transportation Authority. MPO = Metropolitan Planning Organization. ROC = Rider Oversight Committee. RPA = Regional Planning Agency. RTA = Regional Transit Authority. RTAC = Regional Transportation Advisory Council. S = Safety. SP/M = System Preservation and Modernization. SWAP = Southwest Advisory Planning Committee. TDM = Travel Demand Management. TE = Transportation Equity. TIP = Transportation Improvement Program. TSP = Transit Signal Priority. VMT = Vehicle Miles Traveled.