FFY 2025 UPWP Universe of Proposed Discrete and Program-Based Studies

Ongoing Work

ID	Project Name	Project Purpose and Outcome	Estimated Budget	Source	Staff Comments
ACTIVE TRANSPORTATION					
A-1		Investigate the use TILE2NET (https://github.com/VIDA-NYU/tile2net) for greatly improving the extent and accuracy of the MPO's database of pedestrian facilities (i.e., sidewalks and crosswalks). The only source for this data currently available to the MPO is the MassDOT Road Inventory. Although work has been done on the sidewalk data in the Road Inventory, it has been a relatively low priority for MassDOT, and most if not all of the work has been done manually. TILE2NET offers the opportunity to generate sidewalk (and crosswalk) data from aerial imagery automatically. Given the availability of high-resolution (15 cm) aerial imagery for the entire state, and TILE2NET's success in generating sidewalk and crosswalk data for Cambridge and Washington, D.C. (among other places), employing it systematically to generate this data for a representative sample of MPO cities and towns seems like a logical next step. In order to 'scope' the project, rather than undertaking running TILE2NET on the entire MPO region (or entire state) for starters, we propose to do it on a representative sample of cities and towns in the MPO region - possibly one city or town in each MPO subregion - in order to evaluate the effectiveness of the tool on a variety of landscapes. The results would then be shared with the TILE2NET development team, which could use this information to further refine their algorithms if needed. (If TILE2NET is shown to be effective, the MPO might considering work on TILE2NET by the TILE2NET development team directly in future.) The results would also be compared with the sidewalk data in the Road Inventory and shared with MassDOT for the purpose of updating the sidewalk data in the Road Inventory as needed.	Benjamin Krepp, bkrepp@ctps.org	Road inventory/SPR funding?	

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A-2	Comparative Analysis of Sidewalk Infrastructure Expenditure in MPO Communities: A Case for Pedestrian Infrastructure Investments and Local Implementation of Complete Streets Design Standards	Introduction: The Boston Region Metropolitan Planning Organization (MPO) plays a crucial role in transportation planning and investment decisions in the region. As part of its commitment to promoting sustainable and accessible transportation options, it is essential to understand the current state of sidewalk infrastructure and the investment patterns of MPO communities. This study aims to conduct a comparative analysis of sidewalk infrastructure expenditure across MPO communities, with the goal of highlighting the need for pedestrian infrastructure investments and advocating for local implementation of Complete Streets design standards. Objectives: a) To assess the current state of sidewalk infrastructure in MPO communities. b) To compare and analyze the expenditure patterns of MPO communities on sidewalk infrastructure. c) To evaluate the correlation between sidewalk infrastructure expenditure and pedestrian safety and accessibility. d) To identify best practices and successful strategies for local implementation of Complete Streets design standards. e) To provide evidence-based recommendations for prioritizing pedestrian infrastructure investments and advocating for the adoption of Complete Streets design standards at the local level. Methodology: a) Data Collection: i) Conduct a comprehensive review of existing literature, reports, and studies on sidewalk infrastructure expenditure and Complete Streets design standards. ii) Collaborate with MPO communities to collect data on sidewalk infrastructure expenditure, including capital investments, maintenance costs, and repair expenses. iii) Gather information on pedestrian safety and accessibility indicators, such as pedestrian accidents and injuries, sidewalk conditions, and connectivity to key destinations. iv) Identify communities that have successfully implemented Complete Streets design standards and gather data on their experiences and outcomes. *(cont.)*		Iolando Spinola, ispinola@walkboston.org	Potential practical and timeline limitations

(cont.)

ID	Project Name	Project Purpose and Outcome	Estimated Budget	Source	Staff Comments
		(cont.) Data Analysis: i) Analyze the collected data to determine the variation in sidewalk infrastructure expenditure among MPO communities. ii) Examine the correlation between sidewalk infrastructure expenditure and pedestrian safety and accessibility indicators. iii) Compare the outcomes and benefits of communities that have implemented Complete Streets design standards with those that have not. Expected Outcomes: a) A comprehensive understanding of the current state of sidewalk infrastructure in MPO communities b) Identification of the variation in sidewalk infrastructure expenditure among MPO communities. c) Assessment of the correlation between sidewalk infrastructure expenditure and pedestrian safety and accessibility indicators. d) Identification of best practices and successful strategies for local implementation of Complete Streets design standards. e) Evidence-based recommendations for prioritizing pedestrian infrastructure investments and advocating for the adoption of Complete Streets design standards at the local level. Conclusion: This study could to provide valuable insights into the expenditure patterns of MPO communities on sidewalk infrastructure and highlight the need for pedestrian infrastructure investments and local implementation of Complete Streets design standards. The findings and recommendations from this study will help the Boston Region Metropolitan Planning Organization make informed decisions regarding transportation planning, prioritization of investments, and policy advocacy for pedestrian-friendly infrastructure.			
A-2	Comparative Analysis of Sidewalk Infrastructure Expenditure in MPO Communities: A Case for Pedestrian Infrastructure Investments and Local Implementation of Complete Streets Design Standards			Iolando Spinola, ispinola@walkboston.org	Potential practical and timeline limitations

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ID	Project Name	Project Purpose and Outcome	Estimated Budget	Source	Staff Comments
A-3		Micro-Mobility impacts, outlook, and planning implications. Electric micro-mobility, from scooters to e-bikes, is spreading rapidly across the region. Last mile distances are stretching to 'last miles.' How does this impact station 'walk sheds?' How are transit stations impacted? (micro-mobility storage? bike lane access? e-bike share locations?) Policies to accommodate micro-mobility on transit - Size? Batteries (safety)? Where? If not accommodate on transit - storage at stations? Policies to accommodate micro-mobility on existing bike infrastructure - Bike lane usage? Dedicated bike path usage? Speed restrictions? Conflict risk with other modes on this infrastructure? What are the maximum distances travelers are willing to travel on micro-mobility? Does it replace transit? Reg bikes? Walkers? Drivers? Can micro-mobility improve access to transit from 'transit deserts?' or underserved populations/ areas? What are the impediments to broader adoption? Storage? Safety? Distance? Mode switching? Are there any safety risks associated with micro-mobility vehicles?		Chris Counihan, chris.h.counihan@gmail.com	
A-4	Regional Bicycle LTS Analysis	The Level of Traffic Stress (LTS) is a metric used to categorize how stressful it is to travel on a road or path. A bicycle LTS metric is often used in bike network planning to identify safe, comfortable bike routes throughout an area. Bike LTS metrics are currently used within Conveyal's routing algorithm and in different municipalities to support bicycle network planning (Boston and Cambridge). This study would allow the BRMPO to help coordinate a regional perspective to bike LTS assignment that could help identify regional needs for bike facility improvements. This project will 1) assess similarities and differences in existing bike LTS assignments in the Boston region, 2) develop a region-wide bike LTS metric for MPO planning efforts, and 3) identify a workflow to assess the impact of proposed bike facility improvements. Similar effort from DVRPC as reference: Bicycle LTS & Connectivity Analysis (https://www.dvrpc.org/webmaps/bike-lts/)		Emily Domanico, edomanico@ctps.org	final product could be useful for smaller munis
A-5	Making the Data Walk: Improving the use of the Bike-Ped Count Data Application	MPO staff presented an enhanced version of the Bike-Ped Count Data Application in the February Board Meeting. While this was a much needed and welcome effort, we still have work to do to improve the use of this application so that diverse stakeholders can access and engage with the data for a wide variety of purposes without requiring programming, data analysis, or spatial analysis skills. Some useful features to include in the next version of this application include the ability to summarize data across a range of years, filter data by location and facility type, compare data across different locations and time, and visualize counts by mode succinctly. An important update to the "middleware" is also necessary to enable some of these features. In addition to these technical updates, staff need to work on expanding the data inventory using both manual and automated methods and improving stakeholder engagement with this application. Such an effort would be key to improving our knowledge of active mobility patterns and informing better active transportation planning in our region.		Rounaq Basu, rbasu@ctps.org	

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A-1		The MPO should make a regional study of the various bicycle plans in the area: Boston Bike Network Plan, Cambridge Bicycle Plan, Somerville Bicycle Network Plan, Connect Arlington, the Sustainable Transportation Plan, Brookline Green Routes Bicycle Network Plan, Medford's Bicycle Infrastructure Master Plan, Lynn Walking and Bicycling Network Plan, Salem Bicycle Master Plan, City of Quincy Bicycle and Pedestrian Network Plan, Town of Milton Bicycle and Pedestrian Master Plan, Lexington's Town-wide Bicycle and Pedestrian Plan, Newton's Bicycle/Pedestrian Network Plan, Towns of Dedham & Westwood Bicycle and Pedestrian Network Plan, Needham Bike plan, Etc. This study should analyze whether these plans meet current standards and best practices in bike infrastructure, particularly the Separated Bike Lane Planning & Design Guide from MassDOT. It should also look at the proposed bike improvements on a regional scale, finding and proposing fixes for gaps in the networks created by municipal boundaries.		Cole Rainey-Slavick, c.raineyslavick@gmail.com	Casey is working on this over the next few years
A-2		Collect data and assess the impact of removal of parking on commercial streets and arterials on auto speeds, pedestrian safety and comfort, and business activity.		Anne L. McKinnon, am103477556@cs.com	Data is being collected but not specifically related to the removal of parking
A-3		Take counts at key locations entering Boston inner of Bluebikes, regular bikes, skateboards, scooters and helmet use on each.		Jeffrey Ferris, jeffrey@ ferriswheelbikeshop.com	Bluebikes does this work, could be incorporated into count work
FREIGHT					
F-1		In FFY 2023, the MPO took on a study titled "Sustainability and Decarbonization in the North Suffolk Region." This entry proposes a continuation of this study, focused on developing a regional freight decarbonization action plan. Stakeholder engagement in this study revealed strong interest in advancing decarbonization strategies such as electric fleet transitions. At the same time, there are long standing challenges that various areas within the Boston region that have on-going initiatives to address. This study will convene a group of stakeholders in the freight industry throughout the Boston region, including Environmental Justice advocacy groups/CBOs, interested municipalities, and industry actors. MPO staff are well positioned to facilitate larger conversations throughout the region outlining actionable steps to achieve emissions reductions goals.		Erin Maguire, emaguire@ctps.org	
F-1		Creating a regionwide freight priority network map of all roadways classified as major arterial or greater (and time-permitting, minor arterial). The study could be phased into specific corridors or based on subregions. Many available resources, including the 2023 Massachusetts Freight Plan (https://www.mass.gov/doc/draft-2023-massachusetts-freight-plan/download) focus on interstates that carry the majority of truck traffic, but do not reflect the roadways that are subject to many MPO studies and capital project investments.		Ethan Lapointe, elapointe@ctps.org	May be worked into freight dashboard? Can be covered within the freight program Could probably be a mapping exercise Does Replica have info on truck volumes?

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F-2	Decarbonizing the Freight Sector: Exploring the potential for using e-cargo bikes for first-/last-mile freight deliveries	Growing globalization coupled with a post-pandemic shift to online shopping has increased our dependence on freight, especially in urban areas. Urban societies rely on freight to serve a wide variety of needs, including but not limited to food, consumer goods, and fuel. However, residents have expressed concerns about the growing number of large trucks and freight delivery vehicles (e.g., Amazon vans) passing through and stopping in their neighborhoods. Some regions, both within the United States and around the world, are experimenting with a regional freight delivery system. Such a system depends on the establishment of neighborhood freight hubs to which freight vehicles transport their cargo, following which e-cargo bikes are used to provide the first-/last-mile connection from these hubs directly to people's homes. In addition to 'traditional' freight deliveries, e-cargo bikes are also thought of as a promising alternative to car-oriented food delivery systems (e.g., Doordash, Uber Eats). The City of Boston is currently running a pilot called 'Boston Delivers' to this effect for local businesses in Allston and Brighton. Building on these recent efforts, MPO staff should explore the potential for establishing neighborhood freight hubs and using e-cargo bikes for first-/last-mile freight deliveries across the Boston region (or in the Inner Core, at the very least). This system could address the urgent need to decarbonize the freight sector, in addition to mitigating the various other concerns residents regularly voice over the increased presence of freight vehicles near their homes.		Rounaq Basu, rbasu@ctps.org	Space carved out within freight program
F-3	Multimodal Mobility Hub Feasibility	Multimodal mobility hub provides an integrated platform of mobility services, amenities, and activities to maximize transportation network and the first- and last-mile connectivity. They are integrated as a community focal point in the network for all modes of transportation. Multimodal mobility hubs are usually categorized into two types: A passenger hub and a freight hub. A passenger hub can include infrastructure for pedestrians, bicyclists, transit users, and others such as e-cargo bikes, bike share, electric scooter share, bus connections, park-and-ride facility (personal vehicles, personal bikes, personal e-scooters, etc). Examples of important activities supported by a freight hub includes the transition of goods from large trucks to more small and sustainable vehicles like e-cargo bikes and electric commercial vehicles for last-mile delivery. These considerations in how we use transportation for daily trips as well as the movement of goods help in improving safety, noise and air quality conditions.		Shravanthi Gopalan Narayanan, sgnarayanan@ctps.org	Trying to address through freight program
ROADWAY AND MULTIMODAL MOBILITY					
M-1		Hey MPO Team: I am very interested to understand current levels of multi-modal trips that occur between active modes (bikeshare, personal bikes or other micromobility form factors) and the MBTA. For example, how well utilized are T bike parking facilities? How about bike racks on MBTA buses? We know that most people – with the exception of drivers – do the same thing every day or on every trip. What we need to understand is how people are making mid-trip connections and what we can do to encourage and support those types of trips more. Happy to chat in person, if helpful! Best, Mully		Scott Mullen, mully@abettercity.org	Sean to talk to Casey and Rounaq re this overlaps with later bikeshare study

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M-2	Bikes and Trains: A marriage made in heaven, at loggerheads, or a mix of both?	One of the most often cited challenges to using urban rail transit is the lack of decent first-/last-mile connections. Public bikesharing systems (such as Bluebikes) have the potential to address this concern by making it easier for some people to access rail transit stations. Of course, much depends on where the stations are located and who has the ability and willingness to bike (amidst valid concerns around safety and inclement weather, especially in our region). In recent years, MPO staff have engaged in several projects around bikesharing use in the region. Building on these prior efforts, it is time to examine a fundamental question: What is the relationship between Bluebikes and the T? Do Bluebikes really improve connectivity to the T, and, if so, what are the conditions that enable such a relationship? On the other hand, do people use Bluebikes as an alternative to the T, and, if so, what kinds of transit trips are most likely to be substituted? (As an aside, my money is on shorter trips, especially by bus.) This is a fundamental exploration to a better understanding of multimodality in the region, so that we can design a more efficient transit system that also accounts for the complementary as well as competitive nature of other modes. Extending this research, MPO staff could apply their analytic framework to examine the effect of transit service disruptions (such as the Orange Line shutdown or more recent service disruptions, especially along the Green Line) on Bluebikes usage. To what extent did 'usual' transit riders use Bluebikes when transit was not available or was simply too onerous to use?		Rounaq Basu, rbasu@ctps.org	More broad than some previous suggestions
M-3	Mode Shift: What would it take to move the needle?	Several municipalities across the country, including the City of Boston, have released Climate Action Plans that include ambitious mode shift targets. For example, the City of Boston hopes to achieve a mode shift to the effect of 75% of trips being made by non-auto modes by 2030. How are these cities going to get there? What mix of policy strategies can help them hit these lofty goals? How are they monitoring progress towards these goals? MPO staff should conduct a literature review of some of these Climate Action Plans to find answers to these questions, and explore case studies of successful mode shift implementation both within and beyond the United States with an eye towards parsing out what would be most valuable and effective for our region. While many of us know what policy levers would be needed to achieve these targets (e.g., more reliable and expanded transit service, safer conditions for walking and biking, parking space reductions, land use changes), we need to learn from those who have been more successful than us about how they were able to move from idea conceptualization to successful operationalization. How did they manage and coordinate interactions with partner agencies and synergistic policy goals? Perhaps a high-level analysis, along the lines of the 'Sources of Community Value' study, could also be done to estimate the impact of each individual policy strategy (e.g., to what extent would Bluebikes network expansion aid in mode shift?).		Rounaq Basu, rbasu@ctps.org	Could be a complement to MAPC's existing work - case studies on success stories of planning for modeshift - high level analysis of estimated impact to modeshift based on a list of potential policies/ criteria

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M-4	Roadway Pricing: Balancing the need for a transition to sustainable mobility with equity considerations	MPO staff recently presented their takeaways from interviews with a range of roadway pricing program administrators around the country and proposed key recommendations for us to keep in mind as we think about a similar strategy in our region. With widespread adoption of electric vehicles looming on the horizon (and being encouraged by both the State and the Federal administrations), the gas tax is unlikely to remain a viable fiscal source to support public transit. While electric vehicles may have lower tailpipe emissions than their fossil fuel-fueled counterparts, they are unlikely to be a silver bullet for the many challenges associated with auto-dependence. MPO staff can build on their recent study to further explore the idea of roadway pricing, but with more focused attention to the Boston region. Using data from the MA Vehicle Census and Replica, MPO staff should be able to examine vehicle miles traveled by different communities within our region. Such an analysis could allow us to provide rough estimates of revenue generated by different pricing strategies (such as cordon pricing around a particular central zone, or a direct tax on miles traveled). It would also be possible to examine the disparate impacts of such policies on different communities and, thereby, advocate for targeted discounts or subsidies for EJ communities and those who are forced into car ownership by a lack of high-quality alternatives.		Rounaq Basu, rbasu@ctps.org	Abby is planning on working on roadway pricing from a policy perspective Sarah and Rounaq to connect Could be a low budget small project, just the data piece to complement the policy work

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TRANSIT					
T-1	Learning from Transit Outage and Closure Experiences	Purpose The need to plan for and respond to emergency situations in the Boston region is becoming more urgent year after year. Even the definition of an "emergency" could be expanded beyond traditional definitions to include MBTA maintenance shutdowns, weather-related incidents, climate impacts, and public health events, such as the need for social-distancing during the COVID-19 pandemic. Specifically, recent closures such as the MBTA's Orange Line shutdown in August of 2022, as well as the closure of the Green Line Central Tunnel in January 2024 for emergency repair work has highlighted the need for additional transportation resilience strategies when critical transportation infrastructure are reduced or unavailable. In response to these significant closures in August of 2022, the MBTA and the City of Boston, among other partners, provided alternative transportation options including replacement bus services, as well as free, 45 minute Bluebike bikeshare trips to supplement service provided by the Orange Line. Additionally, the City implemented quick-build bike and bus lanes to ensure the replacement services were efficient, safe, and effective. These solutions helped to ease the discomfort related to the closure and offered a variety of ways for users to navigate the diversion. Looking forward, the region is expecting many additional maintenance closures, as well as ever-increasing risks of extreme weather, which continue to threaten the continuity and access afforded by the transit network. This study would be an opportunity to learn from past transit closure experiences, and provide recommendations on how to provide better substitute services and provide continuity of the transit network. The goals of this study will be to Study and document best practices and effective strategies (locally and nationally) for public transportation access during a variety of emergency situations Document how the use of temporary infrastructure during an emergency can be used as a demonstration project for permanent street changes This study advances the MPO goals for Reliability and Uncertainty by helping planners adapt to closure of significant parts of the transportation network and expanding the realm of knowledge and data regarding how to respond to these closure events. Furthermore, the study will help to clarify effective strategies to respond to planned closures, unexpected or emergency events. The study would further support the MPO's goals of Mobility and Reliability, Access and Connectivity by supporting the continued availability and utility of the public transit network during times of emergency or unexpected outages. Further, it would support the MPO's goal of resilience, by exploring potential substitutions and solutions for public transit when parts of the network are unavailable.	*(cont.)*	Logan Casey, lkcmaine@gmail.com

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ID	Project Name	Project Purpose and Outcome	Estimated Budget	Source	Staff Comments
		(cont.) Approach Staff will collect data to measure the effects of transit network shutdowns through data sources available (such as Bluebike trip data, MBTA shuttle replacement service data, cell phone data [such as StreetLight]) and potentially in-person data collection efforts (such as rider interviews) to better understand how the Bluebikes network can support the resilience of the transit network in emergency or unexpected circumstances. Further, CTPS could also document quick-build actions that were taken as part of the closure response, such as the implementation of quick-build bike and bus lanes. CTPS staff will then analyze the results to understand the effectiveness of the resilience strategies, such as creating alternative bus service, dedicated bus and bike lanes, and increasing service in the Bluebikes network to support public transportation needs during emergency situations. CTPS staff will generate a report to summarize the data and create recommendations of best practices for future closures or emergency events affecting all or portions of the transit network. Final deliverables will include: Case studies including local and national examples of how public transportation systems have approached a variety of closures and emergencies A "how-to" guidebook to share with municipal staff, transit agencies, and regional planners to help them prepare for and respond to emergency situations			
T-1	Learning from Transit Outage and Closure Experiences			Logan Casey, lkcmaine@gmail.com	
T-2		How to identify long-term operation funding sources for on-demand transit options and how to expand on-demand transit in other regions, understanding that grants are not feasible for long-term operational funding.		Darlene Wynne, dwynne@beverlyma.gov	

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T-3	Understanding Suburban Change and Impacts to Transit Demand	(Updated from a 2024 proposal) There is a common narrative that the suburbs, both nationally and in the Boston area, are changing. MBTA would like to better understand how that change is happening; to what extent, and where, narratives of change and available demographic data match up; and what that means for transit demand current and future. Tasks may include 1. Task 1: Qualitative engagement with suburban stakeholders to identify perceptions of change and changing need 2. Task 2: Analysis of demographic data 3. Task 3: Analysis of suburban transit provision, by MBTA, RTAs, or other operators, relative to peer metros 4. Task 4: Identifying priority areas for transit improvement This concept partially follows up on the work done in the FFY 2022 UPWP study "An Exploration of Destination Access and Transportation Cost Analyses." Among other things, that study examined demographic change from the 2010 Census to the 2020 Census, and used 2020 Census data to examine destination access for protected populations. We propose expanding the analysis to include the 2000 Census, giving a longer-term view of demographic change over time, and exploring the ability to use destination access tools and past transit schedule data to examine change in destination access over time. In turn, this analysis would be used to analyze the impact those changes might have on demand for transit. It could also draw on a scope Steven Andrews has previously developed to analyze the quantitative elements of this type of research.		Sandy Johnston, sjohnston2@mbta.com	We don't have historic destination data back to 2000 maybe for MAPC Infogroup publishes data on workplaces what did Steven work on in the past?
T-1		It's been 6 years since Greater Boston saw it's first pop-up dedicated bus lane in Everett- using cones and a few cops. Since then, bus lanes have sprouted up, in various forms, throughout the region, and many more are planned. Most of the research to date focuses solely on the immediate impacts of the bus lanes on time savings and reliability improvements for bus riders, and, to a lesser degree, ridership. Little data exists on how dedicated bus and bus/bike lanes have impacted general traffic or road safety. Now that most of these bus lanes have been in operation for at least 1-3 years, the time is right to study not just how bus lanes improve travel for bus riders, but for everyone using the street. MAPC can collaborate on this with you!		Julia Wallerce, jwallerce@mapc.org	Rose currently scoping a study using Replica to determine whether volumes have shifted
T-2		Changes in mode split on arterials where bus lanes and bike lanes have been implemented by eliminating a travel lane. How did LOS and queues change and what was the impact on air quality.		Anne L. McKinnon, am103477556@cs.com	May require a pre/post framework, hard to do in one year include in programs sheet linked with Julia's idea

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RESILIENCE					
R-1	Modeling Flood Impact on Destination Access	Motivation/Approach: CTPS has recently gained access to and begun analyzing the Woods Hole Group's Massachusetts Coastal Flood Risk Model (MC-FRM) outputs, which detail exposure to coastal flood risk from 2018 to 2070. While initial work in the agency has estimated total population exposure to this risk, there has not yet been work in identifying how potential flooding might impact the transportation system for different populations in terms of destination access. Using the MC-FRM with other data sources (e.g., demographic data, elevation data, the Road Inventory, the OSM network, GTFS data, MBTA service alerts), staff would utilize Conveyal to measure this impact regionwide. Depending on data availability, this work could extend to include inland flooding as well, potentially as a future phase. Outcomes: Technical memo detailing motivation, methodology and initial results; potential for a relatively simple interactive app Notes: The primary unexplored analytical aspect of this work is devising a methodology for what links in the transportation system (including transit) might become flooded and unable to travel through as a result. Estimated budget of $60-70K. Supporting Work: This study builds well upon previous data work using MC-FRM or Conveyal (e.g. Equity Metrics dashboard, Applying Conveyal to TIP Scoring study). It could also build a foundation for future work to create modified GTFS files that reflect accessibility limitations. Additionally, this study could complement work involving the travel demand model and the MC-FRM. Applicable Themes/Programs: Resiliency, Equity		Tanner Bonner, tbonner@ctps.org	More of a discrete study but interesting. Should look at this in comparison to model
R-1		The MPO funds dozens of projects each year, several of which aim to reduce congestion and improve air quality. While the MPO often makes projections about how air quality may improve after the completion of a project, the organization lacks a process for evaluating these outcomes in air quality on a project or localized basis. A study that evaluates the change in air quality metrics in close proximity to recently completed projects in the region would help inform future planning decisions. We would evaluate the change in air quality using PurpleAir monitors, which are small devices that can be installed on structures near roadways. These monitors can report Particulate Matter (pm 2.5 and pm 10) and Ozone levels, and both metrics are reported as part of Congestion Management and Air Quality performance reporting. Placing PurpleAir monitors near recently completed projects, especially Complete Streets-type projects that have a quantified estimate of decreased emissions, would allow MPO staff to evaluate the effectiveness of programs and projects that aim to reduce emissions. Since improving air quality is a function of both the Climate Resilience and Air Quality Program, as well as Performance-Based Planning and Programming, it is possible that such work would need only be partially funded by the UPWP, and that some funds for staff time could be found within those two programs. Funds for the study would be spent in three main areas: purchasing PurpleAir monitor equipment, MPO staff time, and Communications and Engagement outreach to local planners and organizations in municipalities where air quality would be evaluated.		Sam Taylor, staylor@ctps.org	Could fit into PBPP, Resilience, or CMP programs monitors have to be purchased as an operating cost not within a program budget perhaps not a discrete study but definitely within a program added EJ lens?

23 Total study concepts

Abbreviations:

BPDA = Boston Planning & Development Agency. BRMPO = Boston Region Metropolitan Planning Organization. CBO = community-based organizations. CMP = Congestion Management Process. CTPS = Central Transportation Planning Staff. DVRPC = Delaware Valley Regional Planning Commission. EJ = environmental justice. EV = electric vehicles. FFY = federal fiscal year. GLX = Green Line extension. GTFS = General Transit Feed Specification. LOS = level of service. MAPC = Metropolitan Area Planning Council. MassDOT = Massachusetts Department of Transportation. MBTA = Massachusetts Bay Transportation Authority. MPO = Metropolitan Planning Organization. OSM = OpenStreet Map. PBPP = Performance-based Planning and Programming. RTA = regional transportation authority. SOV = single occupancy vehicles. SPR = Statewide Planning and Research. TIP = Transportation Improvement Plan.