

BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

Stephanie Pollack, MassDOT Secretary and CEO and MPO Chair Karl H. Quackenbush, Executive Director, MPO Staff

MEMORANDUM

- DATE: October 5, 2017
- TO: Boston Region Metropolitan Planning Organization
- FROM: Karl H. Quackenbush, Executive Director
- RE: Work Plan for Long-Range Transportation Plan: FFY 2018 and 2019

Action Required

Review

Project Identification

Unified Planning Work Program Classification

Certification Requirements

CTPS Project Number

8118

Client

Boston Region Metropolitan Planning Organization (MPO)

CTPS Project Supervisors

Principal: Lourenço Dantas Manager: Anne McGahan

Funding

MPO Planning Contract #101725 MPO §5303 Contract #98873 and subsequent contract

Impact on MPO Work

This is MPO work and will be carried out in conformance with the priorities established by the MPO.

Background

This work plan focuses on the Boston Region MPO's activities related to its Long-Range Transportation Plan (LRTP), which is one of the three major certification documents developed through the federally required "continuing, cooperative, and comprehensive planning process," or 3C process (discussed in more detail below). The LRTP guides transportation system investments for the Boston metropolitan region over a period of at least 20 years. The MPO adopted its most recent LRTP, *Charting Progress to 2040*, in July 2015 and amended it in August 2016.

The LRTP serves as the Boston Region MPO's guiding document as it plans investments in the region's transportation system from now until the year 2040. During the development of this document, the MPO established regional goals and objectives, which the MPO will use for future decision making.

Although the LRTP document is prepared quadrennially, the MPO's 3C process including its long-range planning activities—is ongoing. The MPO's robust LRTP development program helps meet the requirements of the current federal transportation legislation, Fixing America's Surface Transportation Act (FAST Act), which requires the measurement and tracking of the performance of the region's transportation system and the effectiveness of the MPO's programming in meeting regional goals. This work plan addresses those requirements and also scenario planning to generate data for future decision making.

The 3C Process

The federal government requires that MPOs conduct planning processes and prepare certain planning documents—the LRTP, Transportation Improvement Program (TIP), and Unified Planning Work Program (UPWP)—in accordance with federal regulations and guidelines. These documents guide and support information gathering and decision making related to policies and to the programming of federal transportation funds. MPOs must conduct this 3C process in order to remain certified and eligible to receive these funds. The 3C activities conducted by the Boston Region MPO staff are called certification activities.

The Certification Activities Group of the Central Transportation Planning Staff (CTPS), which is the staff to the MPO, has the primary responsibility for conducting this work and preparing the necessary documents. However, staff members from all of the groups at CTPS contribute to this process.

The 3C process is so named because it must be a continuing, comprehensive, and cooperative transportation-planning process. To be "continuing," the MPO must conduct the process all year long, not sporadically. To be "comprehensive," the MPO must be aware of the activities of the many agencies and interested entities involved in transportation planning in the MPO region, and must consider these and the transportation needs identified by all interested parties in its decision making. Finally, to be "cooperative," an MPO must invite the public to participate in its process, and must conduct its planning and decision making with an open and cooperative approach.

Objectives

This work plan describes the specific tasks that will be conducted during FFYs 2018 and 2019 that support two major initiatives. The first is the ongoing implementation of the current LRTP, *Charting Progress to 2040*, as amended, which provides a vision for the future of the transportation system in the Boston region and the means to monitor progress toward achieving that vision. A major part of LRTP implementation is the continued advancement of the MPO's performance-based planning and programming (PBPP) practice, which builds on the work conducted during development of the LRTP. The second is the production of a new LRTP, which is scheduled to be adopted in FFY 2019.

The objectives of this work plan are as follows:

- 1. Provide a comprehensive portrait of the Boston region that considers demographics, land use, economics, and the transportation system, as well as the relationships among these characteristics
- 2. Establish and implement the policies and priorities (including specific multimodal, intermodal, and management and operations strategies) needed to accomplish the MPO's vision and goals
- 3. Develop performance measures and implement the MPO's PBPP practice and other innovations that will inform the MPO's investment decisions
- 4. Gather information, conduct needs and scenario analyses, and communicate the results to support decision making
- 5. Complete the 2040 LRTP, which guides the investment programming of the TIP
- 6. Maintain compliance with federal regulations and requirements

Work Description

This work plan consists of nine tasks, which outline all of the LRTP work that will be undertaken during FFYs 2018 and 2019. Each task identifies the time frame in which each activity will occur.

Task 1 Update the LRTP Needs Assessment

The Needs Assessment has become a foundational resource for the MPO's transportation-planning work. The Needs Assessment includes information on the current state of the region's transportation system, how the system is used now and projected to be used in the future, and how it interacts with the region's current and projected land-use conditions and environment.

In FFY 2018, staff will conduct a comprehensive review and update of the Needs Assessment developed as part of *Charting Progress to 2040*—including the report, the Needs Assessment Application, and other related applications—to support the development of the LRTP and other MPO activities. This information will be available to the public via the MPO's website.

In FFY 2018 and 2019, staff will use data from the Needs Assessment to develop and analyze land-use and transportation options and scenarios. The data will also be used to review performance measures, set performance targets, evaluate progress toward the targets, and track other indicators of interest.

Subtask 1.1 Develop Demographic Projections

Staff will continue to work with the Massachusetts Department of Transportation (MassDOT), the Metropolitan Area Planning Council (MAPC), and other MPOs in the Commonwealth to develop a process for projecting demographic trends for use in the MPO's regional travel demand model. The projections will reflect the MPO's vision and goals, planned developments (documented in MAPC's development databases), and the goals and policies in MAPC's land-use plan, MetroFuture. Staff will coordinate with MAPC as they begin the MetroFuture update process.

Schedule:

• Summer 2018: finalize demographic projections

Subtask 1.2 Gather Data

Staff will continue to update existing data, identify newly available data from state- and CTPS-managed databases, and identify additional sources of data that are needed to implement the MPO's PBPP practice. The data collected will be used for tracking performance measures and targets, understanding trends, and updating data in the current Needs Assessment for an improved understanding of needs in the region.

Schedule:

• Ongoing in FFYs 2018 and 2019: update and gather new data for the Needs Assessment document and application and performance monitoring

Subtask 1.2 Collect Stakeholder Input on Transportation Needs

Staff will collect feedback from regional transportation stakeholders, including the public, on transportation needs in the region. This task will include developing informational materials and tools to collect feedback, such as surveys.¹ Staff will also seek opportunities to host or attend meetings to discuss and gather public input on needs. As part of this task, staff will coordinate with outreach efforts for other MPO activities, including, but not limited to, development of the TIP and the UPWP.

Schedule:

• FFY 2018: collect feedback on transportation needs

Subtask 1.3 Analyze Data

Staff will review the updated and new data and use it for analyses that will explore the extent of demographic and development changes and the implications for the region's transportation network and land use. Staff will also identify travel behavior trends and transportation system and user needs. Staff will discuss these findings with the MPO and the public. Using the new data and the performance measures established in Task 2, staff will assess and report on the progress toward reaching the MPO's vision for the region.

Schedule:

- Summer 2018: conduct analysis and document results in the Needs
 Assessment report
- Subtask 1.4 Incorporate New Data into the Web-Based Needs Assessment

New and updated data will be incorporated into the existing web-based Needs Assessment, which includes the report, the web application, and other data resources. This will involve developing text, tables, maps, and charts that summarize the new data and the analyses performed in Subtask 1.3.

Schedule: Ongoing in FFYs 2018 and 2019

¹ Certain outreach activities will be funded as part of the 3C Planning and MPO Support Program. The LRTP budget will support the development of informational materials for outreach activities.

Subtask 1.5 Make the Needs Assessment Available for Public Review

The Needs Assessment will be updated for public review and comment. Staff will produce a table that summarizes the public comments received. Final versions will be made available on the MPO website.

Schedule: Ongoing in FFYs 2018 and 2019

Products of Task 1

- Demographic projections
- Updated web-based Needs Assessment report, application, and data resources (including summaries of data analyses, maps, tables, and charts)
- A table summarizing public comments on the updated Needs Assessment report, application, and data resources

Task 2 Develop Performance Measures and Targets

Under the FAST Act, the MPO is required to develop and use performance measures in its planning process and decision making. Federal regulations for the performance measures were finalized in 2016 and 2017.

This work is well under way. The MPO adopted its goals and objectives in FFY 2015 as part of *Charting Progress to 2040*. As part of the planning process, the MPO used an initial set of performance measures for scenario planning and for evaluating LRTP projects and programs. In FFY 2017, the MPO initiated the development of performance targets, which are specific levels of performance that the MPO desires to achieve within a certain time frame.

In FFYs 2018 and 2019, the MPO will continue to formalize and expand its PBPP practice by establishing a set of MPO performance measures, to include measures required by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) and other measures of interest to the MPO. New measures may also be recommended by MassDOT or identified from emerging data sources. Staff will support the MPO in establishing targets for these measures, as federally required or desired by the MPO.

Subtask 2.1 Continue to Develop Performance Measures

Staff will continue to research and develop performance measures that correspond with the vision and goals in *Charting Progress to 2040*, to complement those required by FHWA and FTA. Staff will recommend performance measures for adoption by the MPO and prepare materials explaining the process of developing the recommendations and the reasoning behind them. These materials will also explain how the MPO will use the performance measures to track how well implementation of projects

programmed in the TIP and the LRTP helps to achieve the MPO's targets and goals, and to identify performance trends for measures that do not have specific associated targets.

As part of this research, staff will gather information on performance measures being developed by MassDOT and other agencies, and will use this information when making recommendations. The development of performance measures will be an ongoing process, and new information will be incorporated as it becomes available.

Throughout this process, staff will lead a series of discussions with the MPO and MassDOT about performance measures, staff recommendations, and the process for implementing the MPO's PBPP practice. Staff will seek guidance and concurrence from the MPO in all of the discussions. Discussion materials will be posted on the MPO's website for public discussion and comment.

Schedule: Ongoing in FFYs 2018 and 2019

Subtask 2.2 Gather Data on Performance Measures

Staff will continue to make data and information on performance measures available to the MPO and stakeholders, including the public. Staff developed a Performance Dashboard—a web-based visual tool that houses, organizes, manages, and presents data used for performance measurement. This tool will continue to be used to communicate information about the transportation system's performance to policymakers, stakeholders, and the public. This work is being coordinated with the Needs Assessment work and the MPO's Congestion Management Process (CMP), along with other MPO programs, including the Regional Equity and Bicycle and Pedestrian programs. Staff may produce other reports summarizing trend and progress information as needed or desired.

Staff has also established an agency-wide committee to develop an inventory of the data available for use by MPO staff and the public. Staff will continue to develop formats for housing and presenting data, giving consideration to the analysis needs of this PBPP work. Staff will then assemble the data into the agreed-upon formats.

Schedule: Ongoing in FFYs 2018 and 2019

Subtask 2.3 Develop Performance Measure Targets

Staff will recommend targets for federally required (and potentially other MPO) performance measures by establishing baseline conditions, using the updated data discussed in Subtask 2.2, and applying the national and state goals and the MPO's vision and goals. Staff will consider the availability of data and will also account for the possibility that some information may be

7

qualitative. Staff will coordinate with MassDOT and the region's transit agencies when recommending targets for federally required measures, and will coordinate with other stakeholders when developing targets for additional measures.

Schedule: Ongoing in FFYs 2018 and 2019²

Products of Task 2

- Materials and presentations that describe PBPP processes, recommend measures and targets, and provide rationales for these recommendations
- Updates to web-based Performance Dashboard
- Additional formats and systems for housing, managing, and reporting on performance measurement data
- Performance measurement data
- A summary of public comments on performance measures

Task 3 Incorporate PBPP into MPO Decision Making

As is the case for many of the tasks in this work plan, the tasks outlined below will involve ongoing and often detailed consultation with the MPO with the goal of creating agreement and policy on the MPO's PBPP practices. In FFYs 2018 and 2019, the MPO will formalize and expand its PBPP practice in the context of both the LRTP and TIP programs. This work will be coordinated with the MPO's ongoing CMP and other MPO activities.

Subtask 3.1 Integrate Performance Measures into Planning and Programming Decision Making

Staff will review the current criteria that are used for project and program selection in the MPO's 3C certification documents—the LRTP, TIP, and UPWP—and recommend revisions to the criteria, as necessary, to ensure they are consistent with the performance measures identified in Task 2. (This work will be done in conjunction with the work plans for the TIP and UPWP.)

Schedule: Ongoing in FFYs 2018 and 2019

Subtask 3.2 Track Data: Compare Current Conditions to Baseline Conditions

Staff will use the data collected in Tasks 1 and 2 to document the current conditions of the Boston region's transportation system with respect to identified performance measures. This information will be compared to prior

² Schedules for developing targets for federally required measures vary.

baseline conditions, and may itself serve as a baseline for future evaluations. Staff will incorporate baseline information into the Performance Dashboard in order to show changes in performance metrics over time.

Schedule: Ongoing in FFYs 2018 and 2019

Subtask 3.3 Prepare Process Support Materials

Staff will continue to prepare memoranda, presentations, and other materials that explain how the PBPP process will be used to guide MPO decision making on programming transportation funds. These materials will describe the national, state, and MPO goals and policy frameworks that affect the PBPP process. They also will discuss plans and schedules for monitoring the performance of the transportation system, development of targets and strategies, methods for evaluating progress, and reporting of data.

Schedule: Ongoing in FFYs 2018 and 2019

Subtask 3.4 Develop Strategies to Achieve Performance Goals

Staff will recommend investment strategies to implement in the LRTP and TIP that will help the MPO achieve its performance targets. Once adopted by the MPO, these strategies will be used to guide the MPO's investment decisions. This work will be coordinated with work to select projects and programs for the LRTP (see Task 6).

Schedule: Ongoing in FFYs 2018 and 2019

Subtask 3.5 Report on the MPO's Progress toward Performance Targets In addition to the Performance Dashboard, both the LRTP and TIP documents will include a performance report that describes trends and progress toward targets and the trends of non-target indicators of interest. In the LRTP, staff will create a performance report that describes the MPO's performance measures and targets, an evaluation of the transportation system's condition with respect to these measures and targets, and an estimate of progress made compared to previously established baselines. In the future, the development of each LRTP will provide an opportunity to review and document progress in meeting performance goals and, if needed, make adjustments to the LRTP to meet those goals. Staff will continue to update and refine the performance reports in the TIP to reflect MPO targets and estimates of the anticipated effect of programmed projects on achieving those targets.

Schedule:

• Spring 2018: development of FFYs 2019–23 TIP Performance Report

- Spring 2019: development of LRTP Performance Report and FFY 2020–24 TIP Performance Report
- Ongoing in FFYs 2018 and 2019: updates to Performance Dashboard and creation of other performance reports, as needed

Products of Task 3

- Updated LRTP, TIP, and UPWP project-selection criteria as needed
- Memoranda, presentations, and materials on the MPO's PBPP process
- · Recommendations for strategies to meet the targets
- Tables, databases, and other materials populated with performance measurement data
- Analyses that establish performance baselines and evaluate changes over time
- LRTP and TIP Performance Reports
- Other reports as needed

Task 4 Develop and Analyze Future Scenarios

The MPO has an ongoing practice of using the regional travel demand model set and other tools to generate forecasts and information about regional conditions and future transportation needs. These tools are also used to assess the effects of potential changes to the transportation network. The MPO plans to continue to use this information to make policy and capital investment decisions.

Throughout FFYs 2018 and 2019, staff will compare different investment and land-use scenarios by exploring impacts on travel behavior, transportation system reliability, air quality, mode shift, and economic vitality. Some of this work also may explore policy-related implications, as was done in the scenario-planning process conducted during the development of the current LRTP. In this way, the LRTP program will serve as an ongoing resource for current information, insights, and analysis for everyone involved in managing and improving the regional transportation network.

This scenario-planning process will culminate in the testing of a scenario that reflects the projects and investment programs that the MPO recommends for the LRTP. This stage will include evaluations of the air quality and equity impacts of these transportation projects and programs.

Schedule:

- Fall 2017 through winter 2019: develop and test various LRTP scenarios
- Spring 2019: evaluate the effects of a preferred LRTP scenario

Products of Task 4

- A set of future investment scenarios for use in studying one or more issues
 of concern
- Results of scenario testing
- Memoranda documenting the scenario testing process and results
- Evaluation of air quality, equity, and other impacts of a preferred transportation investment scenario

Task 5 Review the MPO Vision, Goals, and Objectives

During each LRTP development process, the MPO has the opportunity to review and revise its vision, goals, and objectives. Staff will support this review process by organizing information, sharing recommendations, and soliciting input from the public. The framework set by this vision, goals, and objectives—whether maintained or updated—shapes the MPO's investment decisions in the LRTP and TIP.

Schedule: Fall 2017 through fall 2018

Product of Task 5

MPO vision, goals, and objectives, updated as needed

Task 6 Select LRTP Projects and Programs

Staff will work with the MPO and other stakeholders to select projects and programs to include in the LRTP (and ultimately fund through the TIP). These investment strategies are intended to meet the region's transportation needs and make progress toward performance goals.

Subtask 6.1 Create a Universe of Projects and Identify Potential Programs

Staff will work with MPO members, Boston region transportation agencies, municipal representatives, and other stakeholders to identify candidate projects or investment programs for the LRTP. Staff will document these potential projects in a universe for MPO consideration.

Charting Progress to 2040 also included investment programs—Intersection Improvements, Complete Streets, Bicycle Network and Pedestrian Connections, and Community Transportation/Parking/Clean Air and Mobility Program, which designate funding for specific types of projects to meet the MPOs goals. Based on the Needs Assessment and input from stakeholders, the public, and the MPO, staff may suggest new investment programs (or modifications to existing programs) for the LRTP.

Schedule: Summer 2018 through fall 2018

Subtask 6.2 Evaluate Candidate LRTP Projects

Staff will propose revisions to the criteria used for evaluating candidate LRTP projects based on the MPO's vision, goals, objectives, performance measures, and available data. Once the MPO has approved these criteria, staff will compile data on candidate projects, conduct the evaluations, and make results available for MPO and public review.

Schedule: Winter 2019

Subtask 6.3 Recommend LRTP Programs and Projects

Based on the universe of projects, project evaluations, and a list of projects being implemented by MassDOT, MBTA, and other agencies (without federal funding), staff will recommend a set of projects and programs—at recommended funding levels—to include in the LRTP. While developing its recommendations, staff may conduct public outreach to get feedback on policy and programming options, potentially via surveys or at public events. Staff will submit this set of projects and programs to the MPO for consideration and will facilitate discussions to support the creation of a preferred MPO programming scenario, which can be evaluated through the scenario planning process (see Task 4).

Schedule: Fall 2018 to spring 2019

Products of Task 6

- Universe of candidate LRTP projects and list of potential programs
- LRTP project evaluation criteria and candidate project evaluation results
- Summary of federal and state guidance for LRTPs
- Table detailing the estimated federal funding available for programming transportation investments in the Boston region
- Public outreach materials and summaries of public feedback on LRTP programming options
- Staff recommendations for LRTP projects and programs
- MPO preferred LRTP programming scenario

· Lists of non-MPO-funded projects to be included in the LRTP

Task 7 Document and Finalize the LRTP

Subtask 7.1 Document Plan Recommendations and Supporting Information

Staff will produce a draft LRTP document, in which staff will detail the recommended transportation projects and programs, summarize the process used to create the recommended plan, and organize relevant information from the various stages of LRTP development.

Schedule: Fall 2018 to spring 2019

Subtask 7.2 Make the Draft Plan Available for Public Review

Staff will circulate the draft LRTP document for public review and comment. At the conclusion of the review period, staff will produce a table that will summarize the public comments received (and will work with the MPO to respond to these comments).

Based on input and approval (endorsement) of the MPO, staff will produce a final version of the plan. The LRTP will be submitted to MassDOT and relevant federal and state agencies for review and approval. The document and supporting materials will be made available on the MPO website.

Schedule: Spring 2019

Products of Task 7

- Draft LRTP document, including all supporting chapters and materials
- · Public outreach materials for the draft LRTP
- · A table summarizing public comments on the draft LRTP
- Final LRTP document

Task 8 Adopt LRTP Amendments

One or more amendments to the current LRTP may be required in FFY 2018 or FFY 2019 if any changes are made to regionally significant projects in the TIP, or if there are changes to the State Implementation Plan. As these situations arise, staff will prepare informational materials for the MPO members' decision making and follow the MPO's procedures for informing and involving the public.

Schedule: As needed

Product of Task 8

LRTP amendment(s), if required

October 5, 2017

Subtask 9.1 Respond to Requests for Information

Throughout the course of the year, the MPO staff receives requests for information associated with the LRTP or information that was developed during the LRTP process, from MPO members, staff of various transportation and planning agencies, and members of the public. Staff will respond to these requests for information, as needed.

Schedule: As needed

Subtask 9.2 Monitor Planning Best Practices

The LRTP program plays an important role in keeping the MPO abreast of current state-of-the-practice communication methods, planning tools, and approaches. In collaboration with MAPC, the MPO staff will explore effective ways to gather information, understand the Boston region's needs, and analyze transportation and land-use options. As part of FFYs 2018 and 2019 work activities, staff will research the best practices in metropolitan transportation planning and other facets of planning.

Schedule: Ongoing

Products of Task 9

- Responses to information requests
- Adoption of state-of-the-practice communication methods and planning tools and approaches, as applicable

Estimated Schedule

The tasks described above support both the implementation of *Charting Progress to 2040* and the development of the LRTP to be adopted in FFY 2019. The schedule in Exhibit 1 reflects items that will take place in the 24 months of FFYs 2018 and 2019.

Estimated Cost

While the tasks described above will be conducted during FFYs 2018 and 2019, the budget in Exhibit 2 reflects the total cost of program tasks to be conducted in FFY 2018 only. The FFY 2018 cost is estimated to be \$371,670. This includes the cost of 115.5 person-weeks of staff time and overhead at the rate of 105.66 percent. A detailed breakdown of estimated FFY 2018 costs is presented in Exhibit 2.

KQ/AM/am

Exhibit 1 ESTIMATED SCHEDULE Work Plan for Long-Range Transportation Plan FFYs 2018-2019



Products/Milestones

- A: Demographic Projections
- **B:** Needs Assessment Report
- C: LRTP and TIP Performance Reports
- D: Scenario Results
- E: Scenario Results
- F: Scenario Results
- G: Revised Goals and Objectives, as needed
- H: Universe of Projects
- I: Evaluate Projects
- J: Recommended Projects
- K: Draft Plan for Public Review
- L: Adopt Final Plan

Exhibit 2 ESTIMATED COST Work Plan for Long-Range Transportation Plan FFY 2018

Direct Salary and Overhead

\$371,670

\$371,670

	Person-Weeks								Direct	Overhead	Total
Task	M-1	P-5	P-4	P-3	P-2	P-1	Temp	Total	Salary	(105.66%)	Cost
1. Update Needs Assessment	2.0	12.5	9.9	1.0	1.6	2.7	1.0	30.7	\$47,013	\$49,674	\$96,688
2. Develop Performance Measures and											
Targets	1.2	8.5	10.3	0.6	0.5	1.3	0.6	23.0	\$35,417	\$37,421	\$72,838
3. Incorporate PBPP into Decision											
Making	1.0	7.0	10.7	0.2	0.0	0.5	0.6	20.0	\$31,048	\$32,806	\$63,854
4. Analyze Scenarios	2.5	15.3	13.9	4.0	0.5	0.3	0.5	37.0	\$59,048	\$62,391	\$121,439
5. Review Vision, Goals, Objectives	0.4	1.1	0.8	0.1	0.1	0.0	0.0	2.5	\$4,182	\$4,419	\$8,601
6. Select Projects and Programs	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.3	\$520	\$549	\$1,069
7. Finalize Plan (FFY 2019)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$00	\$00	\$00
8. Adopt Amendments (as needed)	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.5	\$952	\$1,006	\$1,958
9. Other Ongoing LRTP Activities	0.1	0.9	0.4	0.0	0.0	0.1	0.0	1.5	\$2,539	\$2,683	\$5,222
Total	7.2	46.0	46.1	5.9	2.7	4.9	2.7	115.5	\$180,721	\$190,949	\$371,670
Other Direct Costs											\$0

TOTAL COST

Funding

MPO Planning Contract #101725 MPO §5303 Contracts #98873 and subsequent contract