

Draft Memorandum for the Record

Boston Region MPO Congestion Management Committee Meeting

December 19, 2013, Meeting

9:00 AM–10:00 AM, State Transportation Building Library, 2nd Floor, 10 Park Plaza, Boston

Lourenço Dantas, Chair, representing the Massachusetts Port Authority (Massport)

Decisions

There were no decisions made at this meeting.

Meeting Agenda

1. Introductions

2. Chair's report—*Lourenço Dantas, Massport*

There was none at this meeting

3. Approval of minutes of December 6, 2012, and March 21, 2013, Congestion Management Committee meetings

The minutes of the December 6, 2012, and the March 21, 2013, Congestion Management Committee meetings were approved

4. TIP Intersection Improvement Program: status update

CMP staff prepared a presentation that focused on three topics; the TIP intersection improvement program status, the procurement of INRIX data (see below), and the selection of congestion performance measures for freeways (see below).

CMP staff began by giving a brief description of the TIP Intersection Improvement Program:

In the FFY 2014 TIP, \$350,000 has been allocated to fund the selection of signalized intersections, hire a consultant, and coordinate with municipalities to provide the consultants access to the traffic signal cabinets. It is important to calibrate signals periodically because travel patterns and land use of the surrounding areas change over time.

Since the last committee meeting, CMP staff and the committee chair met with the MassDOT Highway Division and the MassDOT Office of Transportation Planning to discuss the program. The next step is to have MassDOT's CMAQ Committee approve this project, after which the CMP staff and the consultant can begin the final location selection process. The hope is for the Intersection Improvement Program to become a continuous program. The program should ideally be approved soon in order to show the benefits of the program before the FFY 2015 TIP programs are determined.

Questions and comments

A question was asked about the location selection and if the work of choosing the locations and municipalities had been completed. CMP staff responded that the consultant and the CMP staff will finalize the locations. If the first location is not suitable for the program within a municipality, the municipality may recommend an alternate location. The consultants will contact the municipalities to get permission to enter the cabinet. For this year [inaugural year of the program], this program will focus on isolated intersections. In the future, the focus may also be on signal coordination. The selection of intersection locations is based on the congestion level. Up to 80 intersections can be recalibrated with the MPO's program. MassDOT intersections are not included in the MPO's program because MassDOT has its own program.

A committee member suggested that the percentage of signals that have loop detector problems should be evaluated, and the results presented to members of the public to give them an idea of how widespread the problems are. It would also be beneficial if the consultant could spend a little extra time to work with the municipality to figure out the circumstances under which the loop detectors failed.

5. Purchase of electronic travel time data through INRIX

Since 1995, the Boston Region MPO's Congestion Management Process has collected travel time data using probe vehicles equipped with GPS devices. This collection process was labor intensive and yielded too few data samples for each roadway segment. With the availability of new technology, vendors such as INRIX are able to gather travel time data from fleet vehicles, automobile manufacturers, and private vehicles on the roadways through GPS satellites. The Boston Region MPO purchased historical travel-time data for 2012 from INRIX for the Boston region and Worcester County.

Questions and comments

A CMP Committee member asked if there is a map that shows which areas the data cover. CMP staff will be able to provide this map at the next meeting.

A member asked if the MPO may share data with municipalities. Yes, the license agreement with INRIX allows the MPO to share data with partner agencies.

MPO staff mentioned that there are two limitations of the data. The first is that these data do not include vehicle classification types. Staff cannot distinguish between fleet vehicles or private vehicles. The second limitation is that the data are not lane-specific; therefore HOV monitoring will continue as a separate MPO project.

6. Congestion Management performance measures

Performance measures are required of the MPO. CMP performance measures indicate how long congestion lasts, its intensity and geographical extent, and how reliable travel is on a facility. The performance measures mentioned are currently only intended for monitoring freeways. Performance measures for arterials will be discussed at a later meeting. One or two of these measures will be chosen to be the representative CMP measure for the Long-Range Transportation Plan.

Other types of performance measures were also discussed and defined at the meeting. Duration measures indicate the length of time that a roadway segment experiences congestion or delay. Some of the proposed duration-related performance measures that were proposed are congested time and hours of delay. Extent measures display the geographical span of congestion in a region or how many travelers are affected by congestion. Proposed extent-related measures include lane-miles of congestion and freeway congestion scan. Intensity measures indicate how bad or extreme the congestion is. Two previously used performance measures, the average travel speed and the speed index, are used to measure extent. In addition to these performance measures, the bottleneck factor and delay per mile are being considered for measuring extent.

Reliability performance measures are being promoted by the FHWA. Reliability performance measures compare perfect travel conditions to travel conditions that are imperfect. One such measure, the travel time index, compares free-flow travel time to the average travel time during the peak period. The planning time index compares the worst-case scenario travel time to free-flow travel time. These measures inform a traveler how much extra time needs to be allotted for commuting in traffic.

Interactive tool

The CMP staff has been working with the IT department to develop an online interactive mapping tool for the CMP. This tool will be used by everyone from data analysts to the general public, and will display information on performance measures. The data will be presented in a mapped or table format.

Questions and comments

A CMP committee member asked why “vehicle hours of travel” is not recommended as a performance measure by staff. CMP staff mentioned that certain metrics (such as vehicle volume) that would be needed to calculate specific performance measures are not available at this time.

A CMP committee member commented that the performance measures they presented do not factor in land use, which needs to be considered when selecting performance measures.

Next steps:

- Make progress developing the online interactive tool.
- Make progress developing performance measures for arterials. The arterials may have different performance measures from the freeways.
- Accept and incorporate the comments on the performance measures that were presented by CMP committee members.
- Have a more in-depth discussion on the performance measures at the next CMP committee meeting. The next CMP committee meeting will take place on January 9.
- After the discussion on January 9, these measures might be voted on by the MPO board at its January 23 meeting.

7. Other Business

There was none.

8. Adjournment

The meeting was adjourned at 10:00 AM.

Attendance

Members	Representatives and Alternates
At-Large Town (Lexington)	Richard Canale
Massachusetts Port Authority	Lourenço Dantas
At-Large City (Everett)	James Errickson
City of Boston	Thomas Kadzis
Regional Transportation Advisory Council	David Montgomery
North Suburban Planning Council (City of Woburn)	Ed Tarallo

Other Attendees Affiliation

Steve Olanoff	Three Rivers Interlocal Council/Town of Norwood
Marie Rose	MassDOT

MPO Staff/Central Transportation Planning Staff

Hiral Gandhi
Ryan Hicks
Anne Mcgahan
Efi Pagitsas
Scott Peterson
