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The Boston Region MPO is
composed of:

Massachusetts Department of
Transportation

Metropolitan Area Planning Council

Massachusetts Bay Transportation
Authority Advisory Board

Massachusetts Bay Transportation
Authority

Massachusetts Port Authority

Regional Transportation Advisory
Council

City of Boston

City of Beverly

City of Everett

City of Newton

City of Somerville

City of Woburn

Town of Arlington

Town of Bedford

Town of Braintree

Town of Framingham

Town of Lexington

Town of Medway

Town of Norwood

Federal Highway Administration
(nonvoting)

Federal Transit Administration
(nonvoting)

MEMORANDUM

DATE February 2, 2012
TO Boston Region Metropolitan Planning Organization
FROM Maureen Kelly, MPO Staff
RE Emergency Evacuation and Hazard Mitigation Mapping, Phase 2

The Emergency Evacuation and Hazard Mitigation Mapping, Phase 2, project was included in the federal fiscal year (FFY) 2011 Unified Planning Work Program (UPWP). This project built on the first phase of the project, which was funded through the FFY 2010 UPWP.

The products of the first phase were a series of maps showing the region's transportation network and the locations of proposed Transportation Improvement Program (TIP) projects in relation to areas vulnerable to natural hazards (flooding, hurricane storm surges, sea level rise, and earthquakes); additional data shown on these maps include routes and infrastructure that are important for emergency management.

The data gathered in the first phase are used in the security evaluation of TIP projects, which determines if proposed projects have design features that can help make transportation facilities more resilient to the impacts of severe weather or more able to function in such conditions, or that can help improve the functioning of the transportation system in terms of emergency management.

In the second phase of this project, a GIS-based web application was created that displays the first-phase data and additional data requested by MPO members. Three of the new types of data have to do with potential hazards that could result from the failure of certain infrastructure: the location of dams, with their potential inundation zones; areas that could be affected in the event of a spill from an LNG carrier; and evacuation zones for nuclear power plants. The other new data layer that was added is the locations of weight restricted, structurally deficient, and functionally obsolete bridges.

The web application has a tool that allows the user to query a location to find more information about the following displayed features: TIP projects, traffic control points*, bridge condition, hospitals, shelters, emergency operations centers*, and dam condition*. It also contains a reference document describing in detail all of the data in the application and giving their sources. The text of that document is attached.

Data regarding the items marked with an asterisk above have been provided to the MPO by other agencies and may not be released to the public at large. For that reason, the web application is password protected and can be made available to users only with the permission of these data providers. Also for that reason the application is being shown to the MPO members in executive session.

Staff have developed a second web application that mirrors the first, but only contains the data that are publicly available. With the MPO's approval, staff will post that application on the MPO's website.

MK/mk