

# REGIONAL TRANSPORTATION ADVISORY COUNCIL



## Regional Transportation Advisory Council Meeting

### September 9, 2015 Meeting

3:00 PM, State Transportation Building, Conference Room 4, 10 Park Plaza, Boston, MA

### Draft Meeting Summary

#### Introductions

Mike Gowing, Chair (Acton) called the meeting to order at 3:00 PM. Members and guests attending the meeting introduced themselves. (For attendance list, see page 7)

#### Chair's Report—*Mike Gowing, Chair*

M. Gowing noted that there was no meeting in August.

#### Minutes - June 10, 2015

A motion to approve the minutes for the June 10 meeting was seconded. The minutes were approved with corrections as noted.

#### Climate Change Resilience: Addressing Risks, Consequences, and Adaptation Strategies - *Dr. Bahar Barami, Senior Economist, Volpe Center, U.S. DOT*

B. Barami defined climate change resilience as being achieved through strategies that address the risks threatening the infrastructure system prior to, during, and after a disruption; and the formulation of applicable adaptation and mitigation strategies. Risk management consists of a process of assessing the probability of climate-related threats; identifying infrastructure vulnerabilities and exposure levels; and calculating the economic costs of disruption.

B. Barami explained that four measures of climate-related risks have been steadily escalating in recent decades. Hazard frequency is rising as measured by the probability of disruptive events caused by higher temperatures, rising sea-levels, changing precipitation, and greater severity of storms. Asset exposure is increasing as a result of population growth and coastal development. Asset vulnerability is growing as a result of greater asset sensitivity, aging and inadequately-maintained and protected structures, and cascading interdependencies among technology-intensive subsystems. Consequences of disruption is escalating as a result of rapid growth in GDP and high

market-valuation of built assets, thus expanding the scale of assets at risk of economic loss.

Adaptation is the major mechanism for reducing risks. B. Barami identified four adaptive components of resiliency. Pre-incident adaptive prevention includes maintaining infrastructure to reduce vulnerabilities. Evolving threat analysis detects emerging threats and monitors unfolding events. Responding to an unfolding disaster is a key component to resiliency planning which considers redundant distributed power, asset substitution and potential decentralized operations; loose coupling is a distributed capability of using substitution and technological overlapping and bridging. The final adaptive component is post-disaster response and recovery.

B. Barami stated that climate-change accounts for about 80% of losses from natural disasters. Annual losses have risen from \$1B in 1960 to \$28B today. A small portion of these damages were from drought-related crop damage or non-climate-related natural disasters.

Disaster costs are escalating, but preventative adaptation measures for reducing vulnerabilities are highly cost-effective. B. Barami described an 8-step adaptation strategy implemented by the New York City 2008 Panel on Climate Change (NPCC) Adaptation Process. She stated that preventative measures developed through the NPCC process kept damage resulting from super-storm Sandy from being worse than it was. Barriers and ventilation seals were in place as a result of adaptation process.

B. Barami explained an adaptation strategy for “buying down risks” which has been employed by the US Corps of Engineers for reducing flood damages. Costs are calculated in terms of the differences in the estimated cost of the initial risk and the residual risk taking into account zoning, codes, outreach, evacuation planning, insurance and levee construction. A draw-back of this model is that the full scale of the “residual risk” has not been quantified. Another unforeseen problem with this model involves the inability to measure the “levee effect” on land-use growth; the problem of encouraging inherently risky development adjacent to mitigation measures.

The FHWA uses a climate change vulnerability assessment process which routinely assesses climate related hazards. The agency’s Vulnerability Assessment Scoring Tool (VAST) selects climate stressors for each asset type; identifies exposure levels; asset sensitivity and adaptation capability; and produces a scoring dashboard to reflect the scale of threats and mitigation measures.

B. Barami introduced the U.S. Global Change Research program for reducing climate-change impacts and consequences. Adaptive strategies identify the climate changes; offer adaptive strategies to reduce impacts; identify impacts on transportation; offer adaptive strategies to reduce consequences; and evaluate the consequences.

**Meeting the Challenge of Transportation Planning for Resilience -  
*William M. Lyons, Principal Technical Advisor for Transportation  
Planning, U.S. DOT, Volpe Center***

W. Lyons explained the role of the transportation planning process in responding to climate and extreme weather and contributions made by resilient communities. W. Lyons is involved in planning oversight including MPO certifications-a regulatory approach; a planning and research approach; and an international development approach.

Key concepts on resilience include the concept that more than adaptation is being addressed when discussing resilience. Resilience focuses on the complete transportation system and is multi-modal; it considers transportation and land-use, emergency preparedness and response. W. Lyons stated that MPOs can be leaders in dealing with resiliency issues.

W. Lyons takes a broad view of resilience suggesting we should also look at the social resilience and how social structures are impacted.

Since MPOs have a defined core of process and review through the certification documents, this is the ideal environment to view resiliency and it enhances the potential relevant for looking at resilience within the context of a planning framework. W. Lyons cited the potential for using the LRP, TIP, Project Selection and Performance Monitoring as means of addressing resilience.

W. Lyons stated that building-in adaptation can be accomplished through vision statements and new goals set within the context of the plan. Even though resilience is not specifically mentioned in Map21, MPOs can choose to incorporate it into their planning process. If it is important to the partners of and the MPO, then the Performance Based Planning module may be the implementing process.

Metropolitan Transit Commission in San Francisco is looking at vulnerability studying the East Bay. Infrastructure in this wide area includes the BART system, the Bay Bridge, Interstate 80, the SF International Airport and many housing and business areas. After determining risk to the infrastructure the goal is to build it into LRTP.

Resiliency planning is also being done at the New York Metropolitan Transportation Commission (NYMTC); the Hampton Roads (Virginia) area is furthest along in building resilience into the planning process.

The Dutch model of resilience, called the "Polder" model relies on compromise, cooperation and collaboration. The Dutch actively decide where to build water storage capacities.

An advantage of using the MPOs in resiliency planning is the availability of a national planning framework for integrated planning.

### **Questions and Comments:**

In response to a member's question on limited funding availability W. Lyons stated that the MPO must work directly with the transportation authority and elevate priority to regional level and in the long range plan. (B. Steinberg)

W. Lyons stated that climate really is regional in nature as it crosses state boundaries; by this nature it should be subject to national funding in response to a member's question on the failure of some states to act on a regional basis. (J. Businger). B. Barami added that intermodal and other regional expansion is a result of interdependencies. Uncertainty and risk are both growing, but so are technical capabilities.

In response to a question about the time frame of the LRTP, W. Lyons said that states might want to expand the planning horizon if they are addressing major shifts involving many stakeholders. (A. Strang)

W. Lyons expressed that there is a need for many avenues of exchange for developing and sharing data, information and communications particularly among responders involving multi-sectors. (J. McQueen)

### **Election Process**

D. Montgomery nominated the Committee's recommended slate of candidates: Tegin Bennett, Advisory Council Representative for Cambridge was nominated for Chair and Mark Sanborn, Representative for the Massachusetts Bus Association was nominated for Vice Chair. The floor was open to nominations of other candidates for both offices.

D. Montgomery explained the nomination and election process: Nominations will close at the end of today's meeting; voting will occur at the October 14 meeting; prior to that meeting, nominated candidates will produce a statement of candidacy. The new term begins November 1.

### **Old Business, New Business and Member Announcements**

M. Gowing presented proposed bylaws changes that were recommended by the Executive Committee. Members reviewed and discussed the proposed changes. D. Montgomery explained that the updates primarily dealt with the definition of membership for voting purposes. Voting on the proposed changes would occur at the October 14 meeting.

M. Gowing explained that any recommendations from members either today or before the meeting to vote on changes should be addressed to the Committee for consideration prior to the October meeting when a vote will be taken.

M. Murray questioned how the proposed changes will affect the number of voting members present. D. Montgomery explained that the current system requires one-third of the voting membership present for quorum. There are 40 voting member-entities and the presence of 14 members constitutes a quorum. The proposed changes set up a two-tiered membership status which technically exists today, though seldom fully implemented; voting members and non-voting members alike attend and participate in discussion at regular meetings. Attendance will change to non-voting status if attendance by the entity falls off—this would be done without changing the entity's membership recognition. The non-voting designation for entities attending few meetings will allow the Council to conduct business, primarily for voting on minutes or drafting letters. Regular attendance by the representative will not affect member entity's voting status.

J. McQueen asked if attendance would be considered historically or would it be attendance moving forward. D. Montgomery indicated that the attendance would look within a given fiscal year. He stated that existing bylaws currently allow for removal for non-attendance, even though this has not been enforced. The proposed changes allow for the consideration of a given fiscal year, so the most recently completed fiscal year would be reviewed to determine if the member entity retains voting status for quorum concerns.

B. Steinberg clarified that the voting status of the member entity is being considered. The entity would still be considered a member even if they would not vote until the status was restored through ongoing attendance.

M. Gowing explained that the Council is reluctant to remove members for low attendance, but these non-participating member entities are still considered part of the base for calculating quorum. The proposed changes make quorum calculations reflect actual attendance. The goal is to encourage participation not to exclude it.

D. Montgomery explained that there is no statute of limitations on quorum challenges so these issues should be resolved definitively. In response to a question from former-member S. Olanoff, he stated that language was added clarifying the process of new member entities and also, of how the Chair asks the Vice Chair to serve in the Chair's place at MPO meetings. In Article III, under "Membership", a clarification reference to Title VI of the Civil Rights Act of 1964 was added.

J. McQueen suggested that the attendance for the previous fiscal year with affected voting status updates be brought to the November meeting, should the proposed changes be passed in the October meeting.

M. Murray encouraged that the Council add outreach efforts to try to increase attendance. D. Montgomery explained that staff and officers regularly engage in outreach activities to towns and organizations on an ongoing basis. Individual members who feel there might be a potential town member candidate should feel encouraged to invite the town or organization to a meeting. M. Gowing explained that there is often a gap in intentions to be a member and actually attending the meetings regularly for a variety of reasons. He stated that the overall goal is to encourage participation from a broad range of backgrounds and perspectives.

M. Gowing asked that members send any question or comments on the proposed bylaws changes to Vice Chair, D. Montgomery prior to the next meeting.

### **Adjournment**

A motion to adjourn was made and seconded. The motion passed and the meeting adjourned at 4:35 PM.

## ATTENDANCE

### Municipalities (Voting)

Acton  
Cambridge  
Needham  
Westwood

Mike Gowing  
Cleo Stoughton  
David Montgomery  
Trevor Laubenstein

### Citizen Groups (Voting)

AACT  
American Council of Engineering Companies  
Association for Public Transportation  
Eastern Massachusetts Freight Rail Coalition  
Massachusetts Bus Association  
MassBike  
National Corridors Initiative  
Riverside Neighborhood Association  
WalkBoston

Mary Ann Murray  
Fred Moseley; Tom Daley  
Barry M Steinberg  
Jenna Bernabe  
Mark Sanborn  
David Ernst  
John Businger  
Marilyn Wellons  
John McQueen

### Agencies (Voting)

MassRides

Gary St Fleur

### Municipalities (Non-Voting)

Everett

Jay Monty

### Agencies (Non-voting)

MassDOT - Aeronautics Division  
MAGIC  
TRIC  
US EPA

Steven Rawding  
Franny Osman  
Steve Olanoff  
Abby Swaine

### Guests

Dr. Bahar Barami  
William Lyons  
Susan Ringler  
John MacDougall  
Frank DeMasi  
Christopher Blackler  
Arthur Strang  
Ed Lowney

Volpe Center  
Volpe Center  
350MA  
350MA  
APT  
East Boston Resident  
Cambridge Resident  
Malden Resident

### Staff

Matt Archer, Maureen Kelly, David Fargen