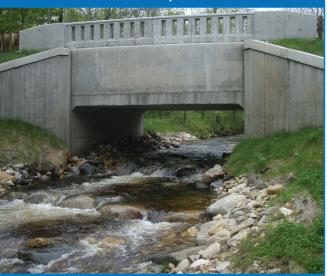
### IMPROVING STREAM CROSSINGS FLOOD-RESILIENT, FISH-FRIENDLY





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# Baystate Roads Program UMass Transportation Center 214 Marston Hall 130 Natural Resources Road Amherst, MA 01003 ST 140031

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If applicable, make checks payable to: University of Massachusetts PLEASE REGIST ER ONLINE at www.mass.gov/baystateroads

Please include course name and full name of attendee on check

214 Marston Hall, 130 Natural Resources Rd., Amherst, MA 01003 Mail to: Baystate Roads Program

## **Improving Stream Crossings**

Dates Requested:

Location (city/town): \_\_\_\_\_\_REGISTRATION FEE

\$40.00 municipal/\$60.00 private sector Light breakfast, lunch and course materials are included.

## Make checks payable to The University of Massachusetts

Cancellations must be received 4 days prior to the workshop or you will be invoiced.



Course Description

This workshop will focus on making stream crossings safer and more resilient in the face of future storms. Many crossings fail, in some cases repeatedly, due to their inability to pass high flows and the materials stirred up by the river at flood stage. These crossings require ongoing maintenance and repairs when they become plugged with debris. Crossings designed with rivers in mind – and meeting the Massachusetts Stream Crossing Standards – can safely pass huge volumes of water, sediment, and debris stirred up by high flows, and maintain safe passage for emergency personnel and residents. Stream Crossing Standards alone do not satisfy the need for proper engineering and design.

When sizing a crossing for high flows, communities must account for potential effects of climate change on future storm characteristics and changes in stream hydrology due to development. Expert presenters will provide best practices and case studies on replacing roadstream crossings – covering site assessment, engineering standards, permitting, funding and installation.

### Who Should Attend

These workshops are recommended for municipal public works supervisors and employees, town and city officials, planners, engineers and private consultants.

### Speakers

Julia Blatt, MA Rivers Alliance Alison Bowden, The Nature Conservancy Lealdon Langley (Mass DEP), Scott Jackson (UMass) Dan Rukakoski (Tighe and Bond) Dave Nyman of CEI

Amy Singler (American Rivers)

Carrie Banks (Ma Division of Ecological Restoration)

Dan Nietsche or Scott McCloud (MEMA)

or Rich Zingarelli (FEMA Hazard Mitigation)

Julie Conroy, (MAPC) or Bill Napolitano, (SRPEDD)

### Why Register Online?

- Instantly confirm registration!
- View how many seats are left!
- View all courses currently accepting registrations!
- View workshop flyers as well as Newsletters and Tech Notes!
- · Save paper and time!

### **Improving Stream Crossings**

Flood-Resilient, Fish-Friendly

### October 10, 2013

Holiday Inn Taunton 700 Myles Standish Blvd. Taunton, MA 02780

### October 17, 2013

Wakefield Sheraton Colonial One Audubon Road Wakefield, MA 01880

### October 29, 2013

Marlborough Courtyard by Marriott 75 Felton Street Marlborough, MA 01752

This Course counts towards
1.0 Roads Scholar Credit/0.5 CEUs
5.0 AICP Credits Pending



This Baystate Roads Program (LTAP) workshop is a cooperative effort of the Federal Highway Administration, Massachusetts Executive Office of Transportation and the University of Massachusetts Transportation Center.



### Agenda

8:30 am	Registration/Breakfast
9:00	Welcome
9:30	The Value of Road-Smart Stream Crossings
10:15	Stream Crossing Standards and Permitting
11:00	Break
11:15	Engineering Standards & Guidance
12:15	Lunch
1:00	Case Studies/Storm Response
1:45	Break
2:00	Technical & Funding Resources
3:00	Adjourn

The workshops are presented by Baystate Roads, in collaboration with the Massachusetts Rivers Alliance, Massachusetts Department of Transportation, Massachusetts Division of Ecological Restoration, American Rivers, The Nature Conservancy, UMass Amherst, Tighe and Bond Engineers, Metropolitan Area Planning Council, Southeastern Regional Planning and Economic Development District, OARS, Ipswich River Watershed Association, Trout Unlimited, and Comprehensive Environmental, Inc.

Funding is provided by Massachusetts Environmental Trust, Trout Unlimited, Massachusetts Division of Ecological Restoration, Taunton River Stewardship Council and the Sudbury, Assabet & Concord Wild and Scenic River Stewardship Council.





