Building Municipal Capacity and Flood-Resilient, Fish-Friendly Structures

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Restoring and protecting the Commonwealth's rivers, wetlands and watersheds for the benefit of people and the environment.
Partnerships!
DER, DOT and MassWildlife
Stream Crossings

In Massachusetts, there are over 25,000 culverts and small bridges in Massachusetts, many municipally-owned and managed.
Aging and Degrading Infrastructure
Culverts and Changes in Precipitation Events:
Changes in the precipitation events make culverts a critical issue for natural resource conservation and protection of infrastructure and public safety.

Newer Design Approaches

- Account for water AND river processes
- Assume stream will change and adjust over time and attempt to account for that
- Reduce barriers to fish and wildlife
- Reduce risk to the road/culvert
Increase Town’s ability to replace culverts meeting the Massachusetts Stream Crossing Standards.

- Road-Stream Crossing Inventories
- Technical Assistance to Towns
- Culvert Replacement Training Sites
- Grants, Tools & Resources
$750,000 total annually
  • Additional funds when available, e.g. mitigation funds.
• One project per municipality
• Intends to meet MA SCS
• All Phases of Culvert Replacement
  • Field data collection, Design, Permitting, Construction
• FY22 RFR February-March 2021

www.mass.gov/how-to/culvert-replacement-municipal-assistance-grant-program
Culvert Replacement Toolkit

**Goal:** Develop new and highlight existing resources to support municipalities through the culvert replacement process

**Tools Under Development:**
- Site Considerations and Structure Selection
- Scope of Works
- Design Review Checklists
- Example Plans
- Dewatering Approaches
- Streambed Design and Construction Guidance
Beware: Design Review Loop

- Submit NOI
- OOC Issued
- Permit Designs
- Design Modifications
- Near-Final Design
- Chapter 85 Review
- Chapter 85 Approval
- Construction Plans
- Construction

Stop!

Adds time and cost
Beware: Design Review Loop

Submit NOI → Permit Designs → OOC Issued → Near-Final Design → Chapter 85 Review → Chapter 85 Approval → Construction Plans → Construction

Success!
Tidal Wetland Restoration

- Muddy Creek – Rt. 28, Chatham/Harwich
- MassDOT-owned structure
- Partner-led project
- Paved a path and built a bridge for future collaboration
Tidal Wetland Restoration

- Parkers River – Rt. 28, Yarmouth
- Collaborative relationship with MassDOT
- Early and often coordination
- Understand level of review with MassDOT
Questions?

www.mass.gov/river-restoration-culvert-replacements