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Stream Crossings II: Building Town Capacity for Culvert Replacement: An Alternate Model for Habitat Restoration

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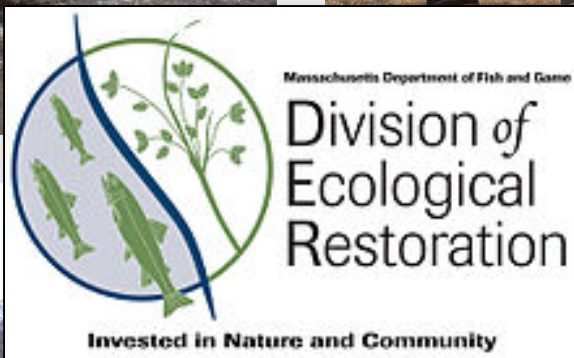
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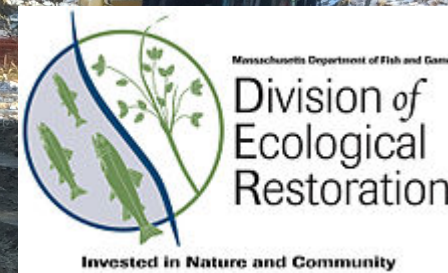
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Building Town Capacity for Culvert Replacement: An alternate model for habitat restoration



Standard restoration model: one project, many partners



**~5 projects
per year**

Hypothesis for culvert replacement:

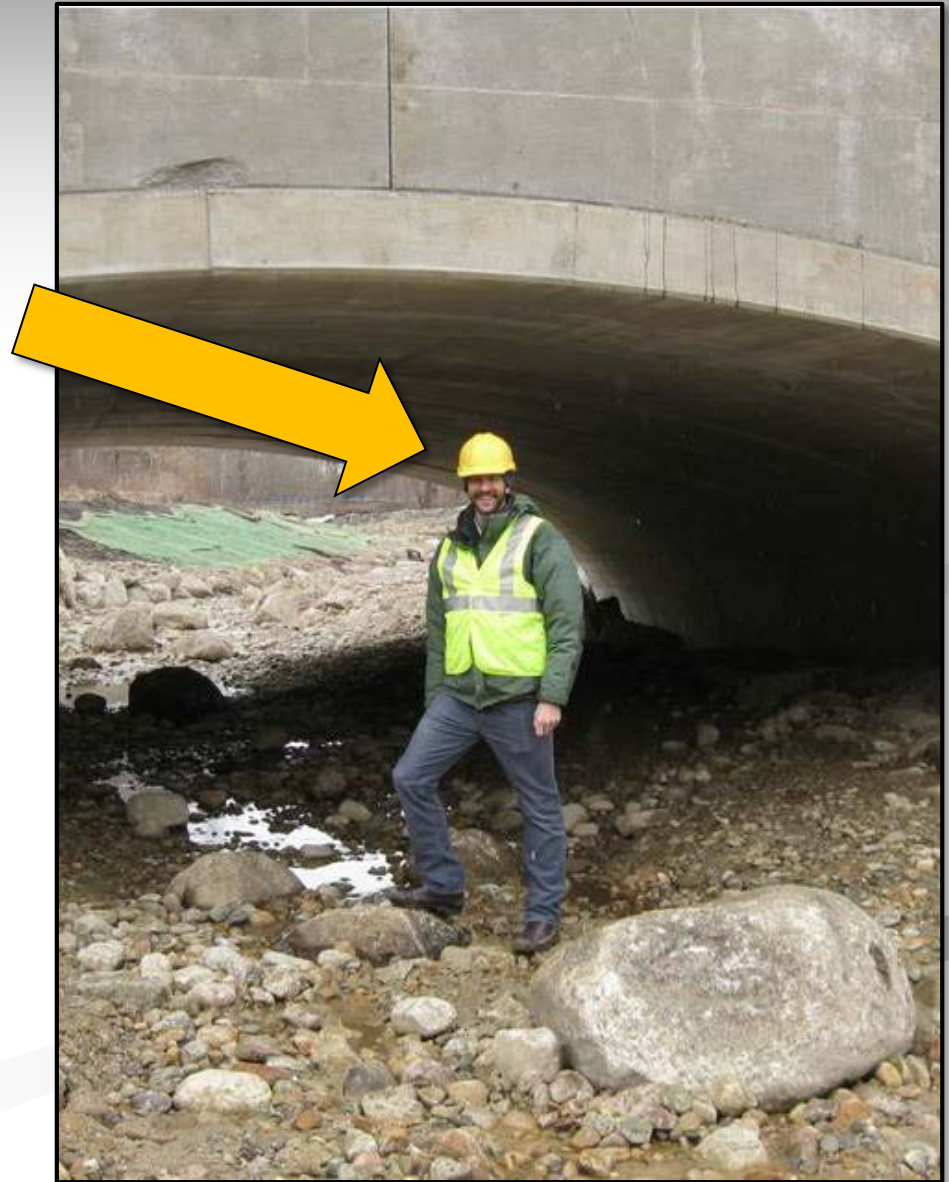
- Building local capacity will be more effective than traditional restoration approach
 - Road managers know their Towns
 - Dealing with infrastructure is part of their job
 - Aware of threat of aging culverts
 - New regulations

10% of MA Towns initiating a road-stream crossing project every year =

35 improved road crossings per year

Program Development Process

1. Hire culvert construction expert
2. Assess Town needs
3. Develop tools, approaches, policies, etc.
4. Implement program
5. Evaluate program



Needs Assessment

Goal:

1. Collect basic information on culvert replacement
2. Identify **obstacles faced by Towns** for replacing culverts to meet Stream Crossing Standards.

3. In the past 5 years, how many culvert repair, replacement, or installation projects has your city/town completed? *

Mark only one oval.

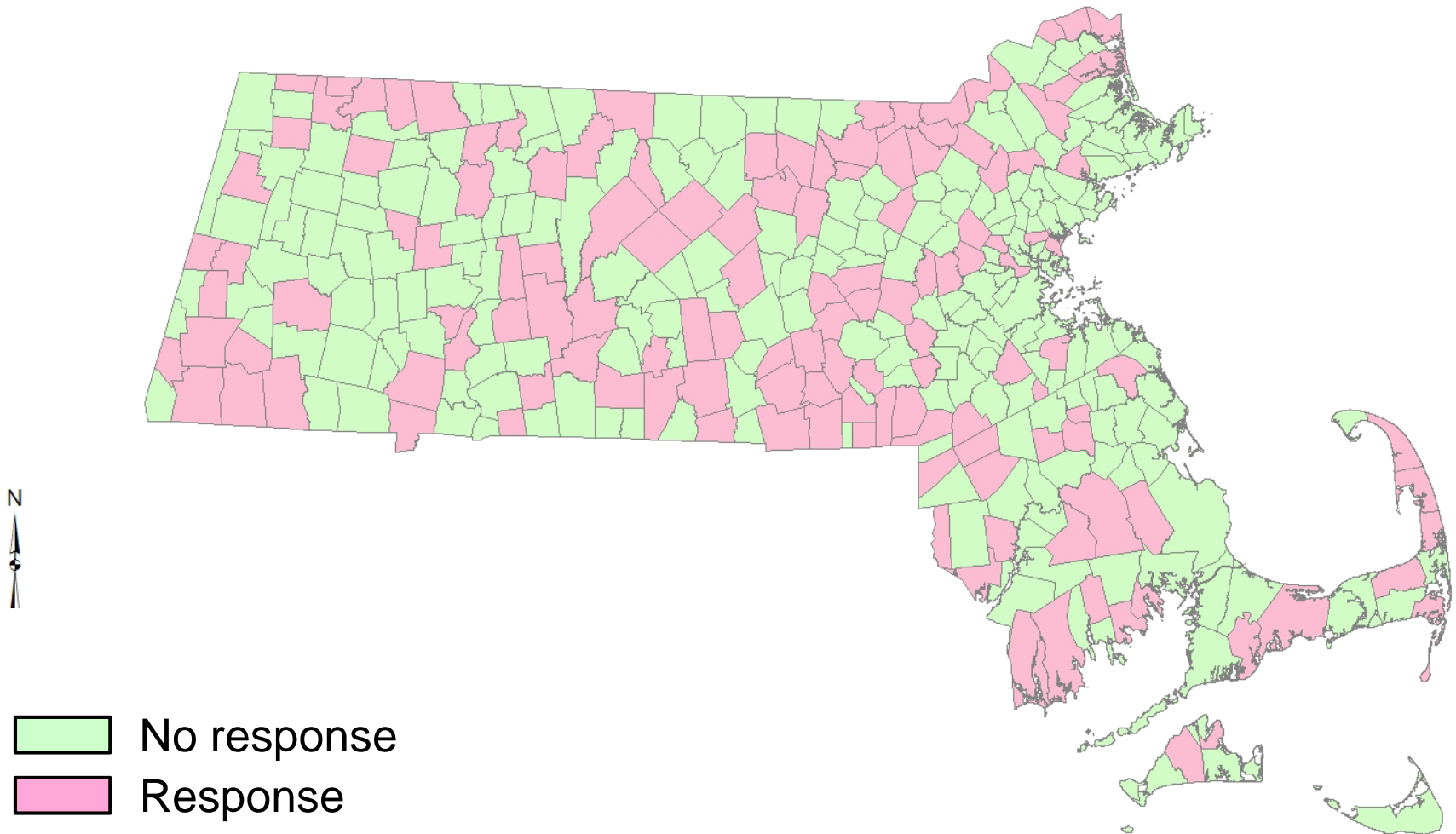
- 0
- 1
- 2-4
- 5+
- Unsure

Examples of Potential Obstacles for DPWs

- Obtaining funding for engineering, permitting, or construction
- Environmental permitting
- Coordination among Town departments
- Concern re: increasing downstream flooding
- Site constraints (buildings and utilities)
- State DOT engineering review process
- Administering contracts
- Traffic disruptions during construction

136 of 351 MA Towns Responded

Survey Response by Town



Results*

- Obstacle for a few towns
 - Coordination between Town departments
- Obstacles for ~50% of the towns
 - Managing contracts for design or construction
 - Obtaining Town approval
- Obstacle for ~ 75% of towns
 - Environmental permitting
 - Required review by MA DOT
 - Traffic disruptions
- Lack of funding was an obstacle for most towns
- Most Towns wait for culverts to fail

*applicable only for the Towns that responded to the survey

The Menu Approach for Building Capacity

- Help Towns access existing funding; research new sources
- Reduce costs of project
 - Develop/find/share less expensive construction methods
 - Support MA DOT in clarifying review
- Help Towns deal with design / construction
 - Standards scopes of work, standard engineering details, structure recommendations for common situations
- Continue to improve permitting process

Starting Point

- Pilot tools first
- Identify “culvert mentor” Towns
- Invite surrounding DPWs to observe/participate in culvert replacement process via trainings
- Develop tools and test them as we go



A Year From Now...

- Municipal Culvert Incentive Program
 - Incentive funding for road-stream crossings that have high potential ecological value
 - Menu of options to assist towns with identifying priority culverts, carrying out design, and bidding out construction
 - Towns must attend training / work with the culvert specialist to get funding
- Develop plan for necessary policy changes, coordination among agencies, etc., particularly re: emergency replacements

Take Home Messages

- Culvert assessment for AOP has caught on in conservation community
- Towns / road managers are aware of AOP requirements and safety threats of undersized culverts
- Awareness \neq on-the-ground change
- Incentives combined with capacity-building may bridge the gap



*To be
continued...*

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