

Culvert Replacement Municipal Assistance Grant Program



4/1/2020



COMMONWEALTH OF MASSACHUSETTS

Division of
Ecological
Restoration

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Massachusetts Department of Fish and Game
Division of Ecological Restoration
DERCulverts@mass.gov

Today's Grant Briefing

1. Program Background
2. Grant Opportunity Summary
3. Performance and Contract Specifications
4. Instructions for Application Submissions
5. Deadlines and Procurement Calendar
6. Culvert Replacement Training Sites
7. Application Submission and Project Examples
8. General Questions
9. *Project-Specific Questions (1:1)*



Public Benefits:

- Movement of goods and people
- Access to critical locations (food, hospitals, municipal and emergency operations, etc.)
- Provides for continuous free flow of traffic
- Accommodates various vehicle types, sizes, speeds and traffic volumes

4/1/2020



Environmental Benefits:

- Movement of fish and wildlife
- Access to critical habitat (feeding, spawning, and shelter)
- Conveys flow of water, sediments and natural materials
- Accommodates full range of wildlife types, life stages and movement abilities

Massachusetts Stream Crossing Standards (SCS)

0.82 Openness ratio

Large span, 1.2x bankfull width

Open arch

2 feet
Embedment

Natural
substrate



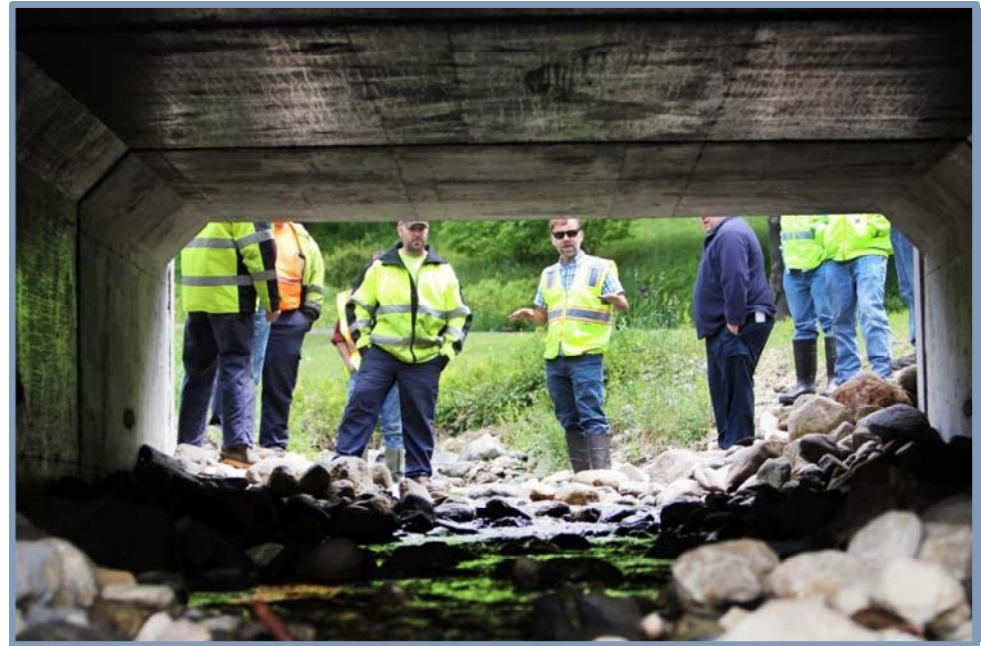
Paul Nguyen

Banks, dry
passage

Comparable depth and
velocity, up & downstream

Program Goal

Increase Town's ability to replace culverts meeting the Massachusetts Stream Crossing Standards.

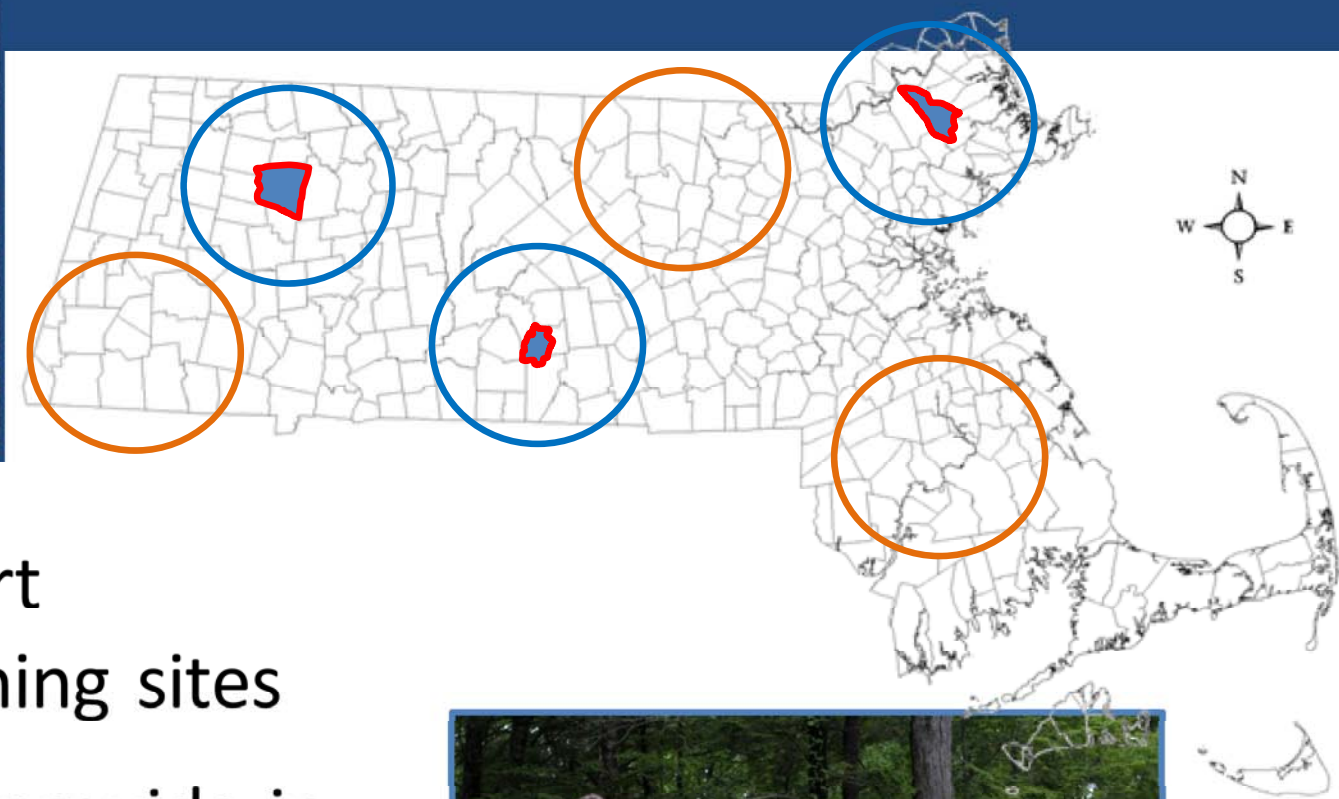


- Culvert Surveys & Assessments
- Technical Assistance

- Tools & Resources
- Training
- Grants

4/1/2020

Culvert Replacement Training Sites



- Network of culvert replacement training sites
- Case studies and provide in-depth training opportunities
- Local road managers and surrounding communities



Culvert Replacement Municipal Assistance Grant Program

- Statewide Needs Assessment
 - **Funding = Barrier**
- All Phases of Culvert Replacement
 - Planning & Field Data Collection
 - Engineering & Design
 - Permitting
 - Construction



Identifying Municipal Needs for Replacing Culverts

The MA Division of Ecological Restoration (www.mass.gov/der) is developing a state-wide program to help cities and towns replace failing or undersized culverts with structures that incorporate the new MA Stream Crossing Standards. See link below. Research has shown that culverts meeting the stream crossing standards hold up better during floods, are more cost-effective for municipalities in the long term, and restore river health. Your response to this survey will help us shape this program and the type of assistance and materials we will offer.

Your time and input are greatly appreciated. The survey should only take 5-10 minutes to complete. We would appreciate your response by June 25th, 2015. Please feel free to forward this survey to fellow road managers and community decision makers to spread awareness. Thank you!

Please feel free to contact me:
Tim Chorey
Stream Continuity Specialist
231 Causeway St, Suite 400
Boston, MA 02114
Desk: (617) 625-1541

A link to a summary of the MA Stream Crossing Standards -
(<http://www.mass.gov/eea/docs/dtg/der/interways/stream-crossing-standards.pdf>)

Continue »

16% completed

Section 1: Grant Opportunity



Culvert replacement project in
Colrain, MA

Grant Opportunity Summary

1.1 Proposals Sought

- Projects in ecologically high value areas.
- Purpose is to encourage culvert replacements with better designs.
- Only projects intended to meet the goals of the MA Stream Crossing Standards (SCS) will be funded.
- Each municipality can apply for only **ONE** culvert or bridge project.

Grant Opportunity Summary

1.1 Proposals Sought

- ***NEW for Fiscal Year 2021!*** Municipalities meeting additional eligibility requirements may be considered for status as a DER Culvert Replacement Training Site.
- Selected Culvert Replacement Training Sites eligible for technical assistance and grant funding until culvert replacement project is completed.

Grant Opportunity Summary

1.2 Overview and Goals

- To help municipalities replace existing culverts with better designed crossings.



Grant Opportunity Summary

1.3 Eligible Projects

- Must be on a public way, owned and maintained by the municipality, cross freshwater, non-tidal river or stream channel.
- Can be either intermittent or perennial.
- Any phase – Planning through Construction.
- Proposed work must be completed in FY21 (7/2020-6/2021)

Grant Opportunity Summary

1.3 Eligible Projects

- Construction projects must meet SCS goals or details redesigned – covered by the funding.
- Projects where a culvert will be completely removed and the road decommissioned are eligible.

Grant Opportunity Summary

1.4 Eligible Applicants

- All Massachusetts municipalities are eligible.
- Ideally, the DPW staff responsible for managing culverts is the primary applicant and point of contact.
- Municipalities awarded funding in a previous year may apply for a new project or apply for continued work on the previously awarded project

Grant Opportunity Summary

1.5: Application Deadline

5:00PM – May 11, 2020

Grant Opportunity Summary

1.6 Funding Availability

- Total funding available is anticipated to be \$750,000-\$1,500,000.
- Additional funds become available - will include in FY21 grant awards.
- Awards may range from \$25,000 to \$200,000, depending on phase and work proposed.
- Request funds only for work that can be completed by June 30, 2021.

Grant Opportunity Summary

1.7 Match Requirement

- There is no match requirement.
- Applicants are encouraged to report other known sources of funding for the proposed project (secured and anticipated).

Grant Opportunity Summary

1.8 Total Anticipated Duration of the Grant

- Awarded grants are expected to be available in August 2020.
- The contract duration will be through June 30th, 2021.

Section 2: Performance and Contract Specifications



Performance and Contract Specifications

2.1. Project Terms

- A final contract is subject to negotiation of agreed upon scope of work.

2.2 Deliverables, Ownership and Credit Due

- DER requires all technical deliverable produced under the contract be delivered to DER.
- Structures will remain property of the Municipality.

Performance and Contract Specifications

2.3 Reporting

- Necessary reports and deliverable are project specific and will be identified during contracting.

2.4 Invoicing

- Payment procedure is by **reimbursement for costs** incurred during the contract period
- Only tasks identified in the scope are eligible for reimbursement

Section 3: Application Submission




Application Submission

3.1 Online Submission Portal

- Applicants fill in basic details about their project and upload application materials.
- **The link to the online submission portal will be provided upon release of the RFR on February 25th, 2020.**

Application Submission

3.1 Online Submission Portal

- Required documents include:
 - Application Form
 -  **All in one File**
 - Culvert Replacement Municipal Assistance Grant Application Form **(Required)**
 - Proposed Work Checklist **(Required)**
 - Culvert Replacement Training Site Request **(Optional)**
 - Project Photos **(Required)**
 - Supporting Documentation **(As Applicable)**
- Application materials can be submitted in Microsoft Word or PDF.

Application Submission

3.1 Online Submission Portal

- Application materials **cannot exceed 20MB in total.**
- To arrange for larger file sizes, to submit hard copies, or for questions re: online form, contact:

Ryan Barney, Program Assistant

Ryan.Barney@mass.gov

617-626-1545

- All applications materials must be received **by 5:00 p.m. on May 11, 2020.**

Application Submission

3.2 Evaluation Criteria

- Meet Program Priorities (5 Points)
- Demonstrated Need (25 Points)
- Project Description (30 Points)
- Project Benefits (40 Points)

Total : 100 Points

Application Submission

3.2 Evaluation Criteria

- **Meet Program Priorities (5 Points)**
 - Does the proposed project intend to meet the goals of the Massachusetts Stream Crossing Standards?

Application Submission

3.2 Evaluation Criteria

- **Demonstrated Need (25 Points)**
 - Project Background (15 Points)
 - Identify the problem and describe current condition
 - Project Status (5 Points)
 - Describe the current status of the project
 - Financial Need (5 Points)
 - Demonstrate the need for financial assistance.

Application Submission

3.2 Evaluation Criteria

- **Project Description (30 Points)**
 - Project Scope (15 Points)
 - Describe proposed culvert project and work.
 - Project Budget (10 Points)
 - Complete the budget table.
 - Describe Project Cost estimates and additional sources of funds.
 - Project Timeline (5 Points)
 - Describe overall project timeline and work to be completed by June 30th, 2021.

Application Submission

3.2 Evaluation Criteria

- **Project Benefits (40 Points)**
 - Benefit to the Environment (20 Points)
 - Review **Massachusetts Wildlife Climate Action Tool** and provide any additional environmental information.
 - DER's Tools to Evaluate Environmental Benefits is in Appendix D.
 - Public Safety Benefits (15 Points)
 - Describe improvements to public safety benefits and how project will reduce vulnerability risk.
 - Economic and Community Benefits (5 Points)
 - Describe positive impacts to local economy and community.

Section 4: Deadlines & Procurement Calendar



Section 4: Deadlines & Procurement Calendar

4.1 Pre-Request for Responses

- January 28, 2020 through February 25, 2020, 3pm.

4.2 Release of RFR

- February 25, 2020, 5pm through **May 11, 2020, 5pm.**

4.3 Question and Answer Period

- Closes March 30, 2020, 5pm.
- Answers posted on CommBuys by April 1, 2020.

4.4 Application Due Date

- **May 11, 2020, 5pm.**

4/1/2020

Culvert Replacement Training Site

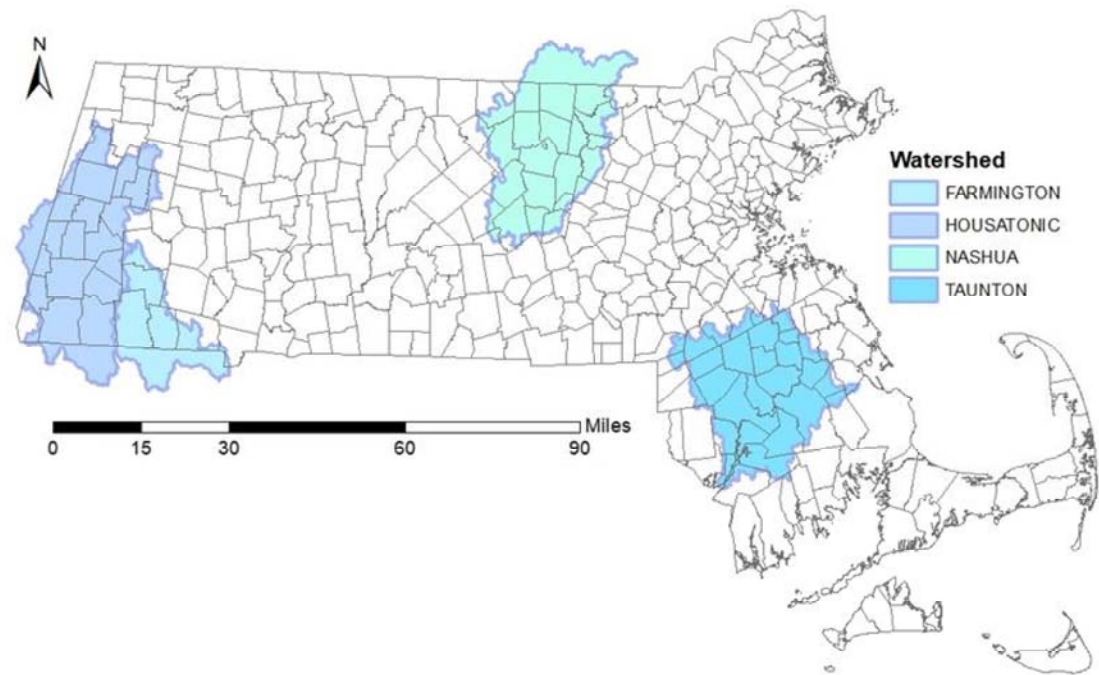
Eligibility Criteria, *in addition to meeting criteria outlined in the FY21 grant RFR:*

1. Eligible projects **must still be in the planning or field data collection phase** (i.e. a “new” project where no design and engineering has been completed).

Culvert Replacement Training Site

Eligibility Criteria:

2. Projects located in a priority watershed – i.e. Housatonic, Farmington, Nashua and Taunton – will be given preference for designation as a DER Culvert Replacement Training Site.



Culvert Replacement Training Site

Legal Status:

1. Only support voluntary, proactive culvert replacement projects not required to be performed for compensatory mitigation or restoration purposes.

Culvert Replacement Training Site

Evaluation Criteria:

1. Located in priority watershed.
2. Demonstrated commitment to serve as Training Site for duration of the project.
3. Ability to transfer project lessons to surrounding towns.
4. Projects with high ecological benefit.

Culvert Replacement Training Site

Evaluation Criteria:

5. Technical feasibility to implement Stream Crossing Standards.
6. Likelihood or project to be implemented, e.g. ability to leverage funds.
7. Ability for project site to safely accommodate 12-15 participants.
8. Overall project benefits and ability to meet goals of DER's Culvert Replacement Training Initiative.

Culvert Replacement Training Site

How it Works:

1. Expect to designate 3 projects as Training Sites.
2. Each municipality may submit one eligible project.
3. Selected Training Sites remains eligible for technical assistance and incentive grant funding, when available, until the project is complete.

Culvert Replacement Training Site

Funding Availability:

1. Type and level of support determined annually.
2. Maximum value varies according to scope, nature of the project, and available funding.
3. Projects do not need to reapply to remain eligible for technical assistance and funding.
4. Match not required; however other funds likely will be needed to fully implement project.

Culvert Replacement Training Site

Town Responsibilities:

1. Agree to serve as Training Site throughout project.
2. Host up to 2 trainings per year.
3. Provide safety precautions for attendees during on-site trainings.
4. Pursue in good-faith and sustained effort to implement the culvert replacement project.

Application Submission

Online Submission Portal

Required documents include:

- ☐ Application Form
 - Culvert Replacement Municipal Assistance Grant Application Form **(Required)**
 - Proposed Work Checklist **(Required)**
 - Culvert Replacement Training Site Request **(Optional)**
- ☐ Project Photos **(Required)**
- ☐ Supporting Documentation **(As Applicable)**

Application Submission

Online Submission Portal

Culvert Replacement Grant ...

Eligibility Questions

Is your project a culvert replacement on a public way? *

☐

Is your culvert owned and maintained by the applying municipality? *

☐

Does your culvert cross a natural freshwater, non-tidal river or stream channel? *

☐

The stream channel may be either intermittent or perennial.

SUBMIT FORM

Application Submission

Online Submission Portal

Culvert Replacement Grant ...

Applicant Information

Funding Request *

Awards may range from \$25,000 to \$200,000, depending on the project phase and work proposed.

Town *

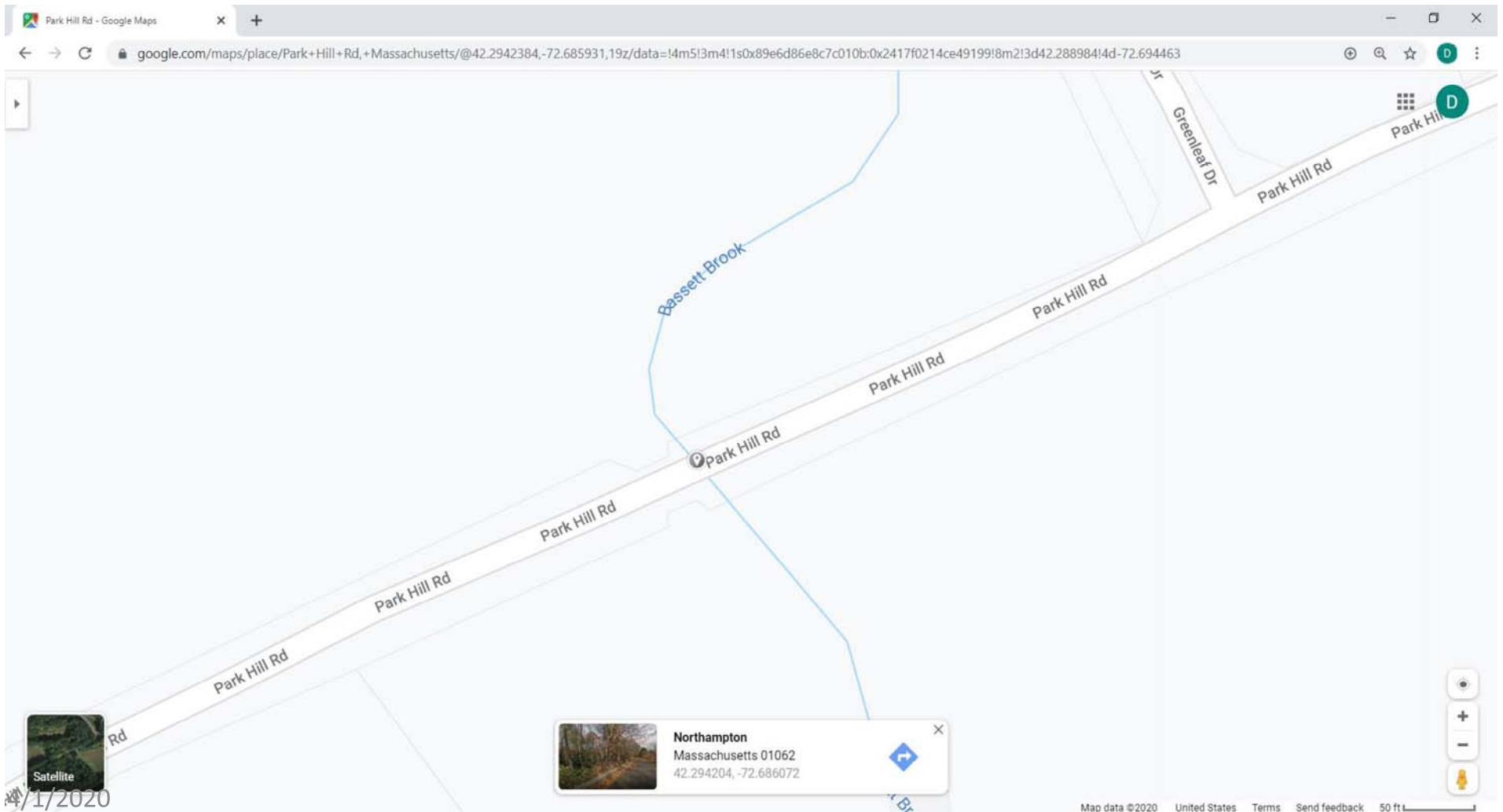
Applicant's Name *

First Name

Last Name

Application Submission

Online Submission Portal – GPS Coordinates



Application Submission

Online Submission Portal – Wildlife Action Tool

Culvert Replacement Grant ...

Massachusetts Wildlife Climate Action Tool Priority Crossings

The Wildlife Climate Action Tool Priority Crossings can be found at:

<https://climateactiontool.org/content/maintain-habitat-connectivity-retrofit-or-replace-culverts>

Review and then select applicable percentages or "My culvert is not showing up"

For additional instructions on how to use the tool see pages 13-14 of the RFR.

Stream Crossings *

- ☐ 5%
- ☒ 10%
- ☐ 15%
- ☐ My Culvert is not showing up

Coldwater Stream Crossings *

- ☒ 5%
- ☐ 10%
- ☐ 15%
- ☐ My Culvert is not showing up

Application Submission

Maintain habitat connect x

Secure | <https://climateactiontool.org/content/maintain-habitat-connectivity-retrofit-or-replace-culverts>

Massachusetts Wildlife
Climate Action Tool

KEYWORD SEARCH

Quick Start About Us User Guide Contact & Feedback

HOME • [BACK TO LAST SEARCH](#) • Maintain habitat connectivity: Retrofit or replace culverts

Adaptation Strategies and Actions

Maintain habitat connectivity: Retrofit or replace culverts

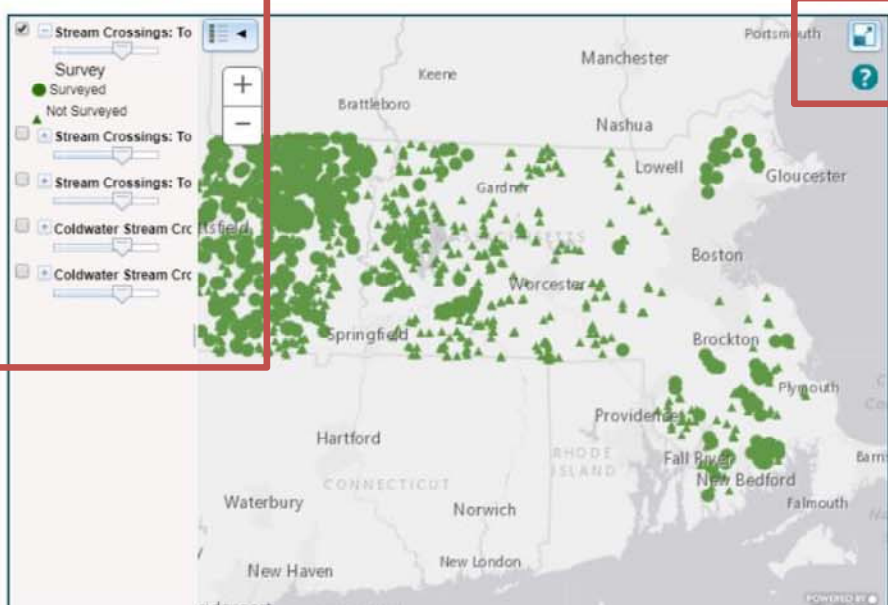
Adaptation type:
Removal of dams and other barriers to aquatic connectivity
Roadway infrastructure, crossings, and dams

Strategy:
Restore and maintain terrestrial and aquatic connectivity sufficient to maintain healthy ecosystems and wildlife populations

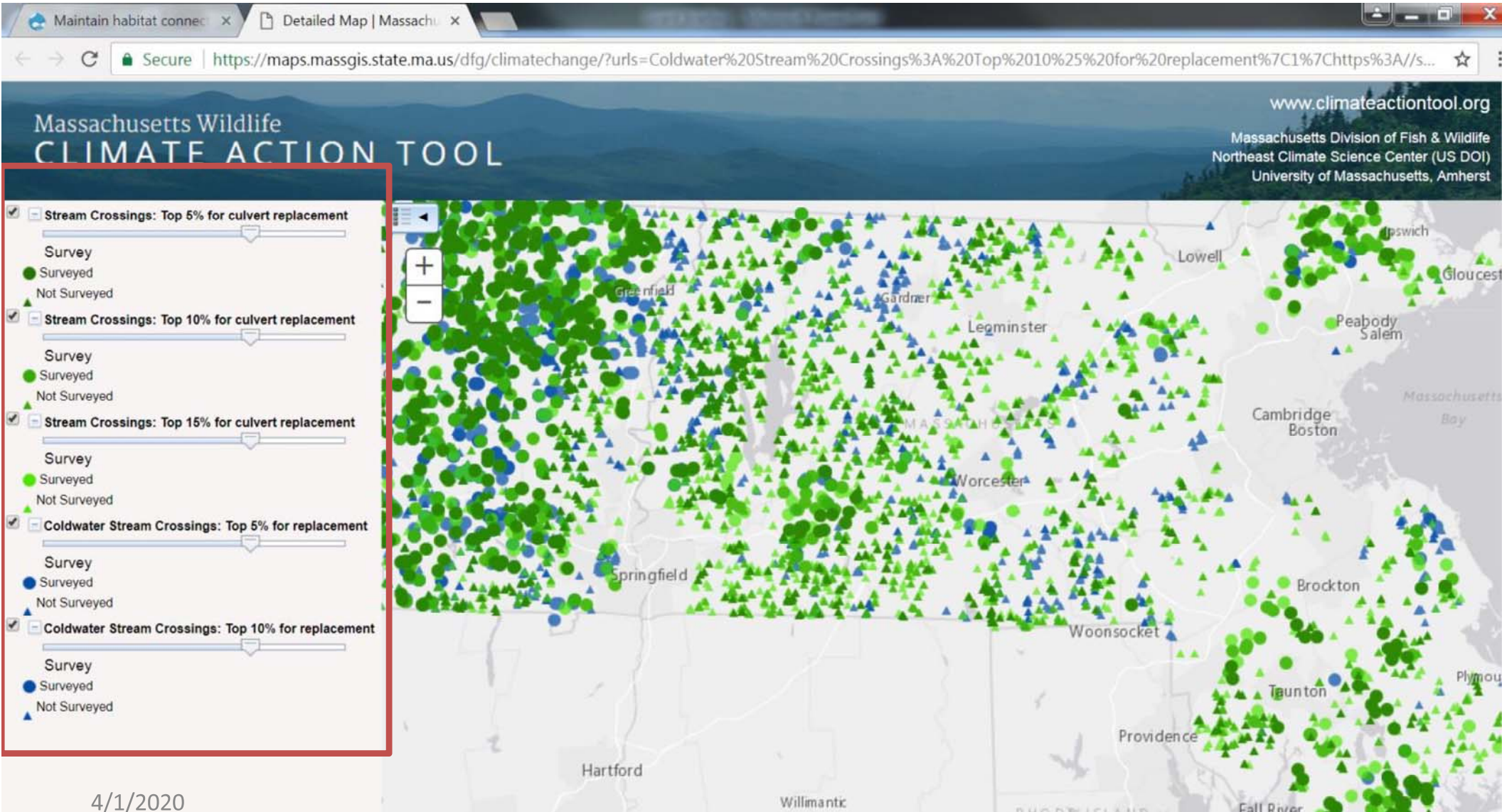
Animal movements (of individuals or their offspring) across the landscape are important for maintaining healthy wildlife populations. Climate change is likely to result in changes to habitat conditions (temperature, rainfall, vegetation) that will require adjustments in the areas occupied by many species. Restoring and maintaining landscape connectivity sufficient to allow wildlife populations to adjust their distribution over time is a critically important strategy

Stream Crossings: To
☒ Survey
☐ Not Surveyed
☐ Stream Crossings: To
☐ Stream Crossings: To
☐ Coldwater Stream Crc
☐ Coldwater Stream Crc

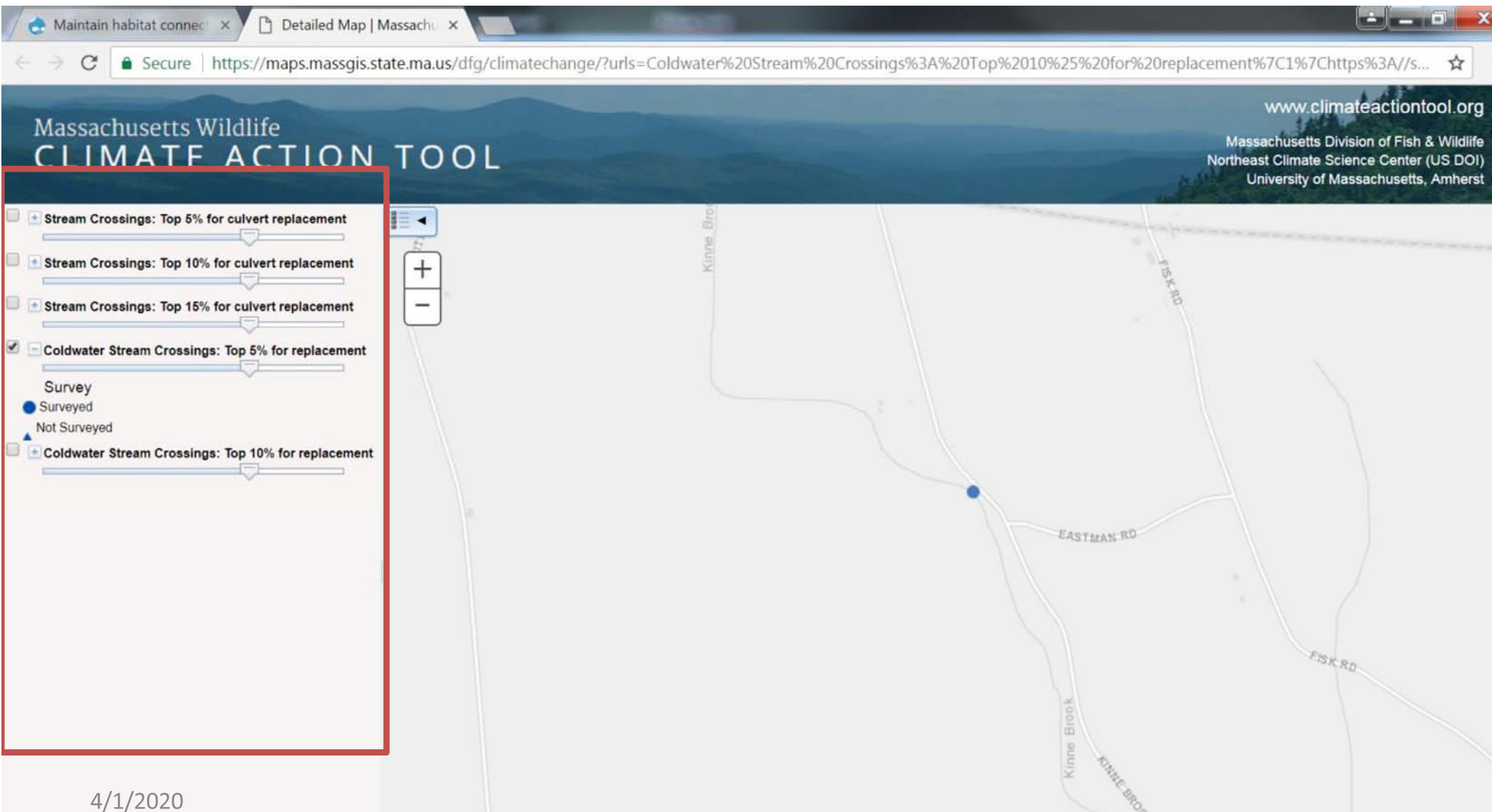
Priority crossings for possible culvert replacement or retrofit are represented by green dots and triangles. If these are not visible, use the plus sign to zoom in. You can layer in locations for...
[Read More](#)



Application Submission



Application Submission



4/1/2020

Application Submission

Online Submission Portal

Required documents include:



Application Form

All in
one File

- Culvert Replacement Municipal Assistance Grant Application Form **(Required)**
- Proposed Work Checklist **(Required)**
- Culvert Replacement Training Site Request **(Optional)**



Project Photos **(Required)**



Supporting Documentation **(As Applicable)**

Grant Application Form

APPLICATION FORM CULVERT REPLACEMENT MUNICIPAL ASSISTANCE GRANT APPLICATION FORM FY21 RFR ID: DER 2020-04 (See Section 3.3.1 in the RFR for instructions on how to fill out the Application Form)		
1) APPLICANT INFORMATION		
i. Funding Request: \$		ii. Town:
iii. Applicant's Name:	iv. Email/Phone:	
2) CULVERT INFORMATION		
i. Road:	ii. Stream:	
iii. Location:		
iv. Does this crossing have multiple culverts?	<input type="checkbox"/> Yes (Please provide more details under (4)(i) Project Background)	<input type="checkbox"/> No
v. Culvert Type:		
vi. Length:	Width:	
vii. Utilities within Right of Way and/or close proximity to the Culvert (check all that apply):		
<input type="checkbox"/> Gas <input type="checkbox"/> Electric <input type="checkbox"/> Water <input type="checkbox"/> Sewer <input type="checkbox"/> Telecommunications <input type="checkbox"/> Stormwater Infrastructure <input type="checkbox"/> Other <input type="text"/>		
3) PROJECT SUMMARY		
i. Brief Summary: Provide a brief descriptive summary for the project (e.g. 4 sentences), including existing conditions, project benefits, and goals of the project.		

Example: Culvertville, MA

5) PROJECT DESCRIPTION

PLEASE USE AS MUCH SPACE AS NEEDED. THE BOXES WILL EXPAND AS YOU FILL THEM.

i. **Project Scope:** Please describe the proposed culvert replacement and the specific work to be covered by this funding (end date 6/30/21). Consider project tasks, personnel, deliverables, etc. As guidance, you may use, but are not limited to the topics listed on the *Proposed Work Checklist* with the purple header.

EXAMPLE: PERMITTING & CONSTRUCTION – Culvertville, MA over Trout Brook

- **Task 1: Permitting**
- **Deliverables:** Geotechnical, Hydrologic-Hydraulic and Structural Reports and Plans; Final Environmental Permits
- **Task 2: Construction Bidding**
- **Deliverables:** Construction Bid Documents
- **Task 3: Construction**
- **Deliverables:** Photos and As-Built Plans

Example: Culvertville, MA

ii. **Project Budget:** To the best of your ability, complete the table below, which incorporates project cost and funding needs by project activity. In the box at the bottom, provide a short but descriptive budget narrative. Refer to *RFR Section 3. Instructions for Application Submission, Evaluation Criteria, Project Budget* for additional guidance.

Budget Overview:

Project Phase	Funding Requested from DER	Secured Funding (list source in Budget Narrative)	Pending/ Remaining Funds Needed	Total Cost Estimate
Field Data Collection and Analyses				
Engineering				
Permitting	\$5,000	\$10,000		\$15,000
Construction	\$195,000	\$36,000	\$39,000	\$270,000
Other				
Totals	\$200,000	\$46,000	\$39,000	\$285,000

Example 1: Culvertville, MA

Budget Narrative: Briefly explain the project budget and how cost estimates were determined. Be sure to describe how DER funds will be used. Where possible, provide supporting documentation. List any additional sources of known funding for the culvert replacement and the amount. This includes anticipated sources/amount and funding in-hand.

- Permitting: The Town budgeted \$10,000 in Chapter 90 funds for FY19 for this task. We anticipate needing additional funds in FY19 to complete this task.
- Construction: Bidding and Specification documents will be prepared by in-house engineer (\$10,000 in-kind services). Town budgeted 10% of total construction costs from FY20 Chapter 90 funding allocation.
- The Town will apply for a \$25,000 grant from the Fund Investing in Saving Habitat (FISH). Based on final bid prices and pending receipt of the FISH grant, the Town will seek the balance of funds through a Town Bond and/or Chapter 90 funds.



Please check if Supporting Documentation is attached (e.g., budget details, Opinion of Probable Costs, design or construction bids, etc.)

Example: Culvertville, MA

30% DESIGN CONSTRUCTION ESTIMATE					
TOWN : CULVERTVILLE, MA PROJECT: RIVER ROAD, TROUT BROOK FILE: 639-969 12/26/2018					
ITEM #	DESCRIPTION	QUANTITIES	UNIT	UNIT \$ PRICE	TOTAL \$ VALUE
		PART.			
100.*	SCHEDULE OF OPERATIONS-FIXED PRICE	1	LS	\$10,000.00	\$10,000.00
101.	CLEARING AND GRUBBING	0.04	A	\$21,000.00	\$840.00
115.1	DEMOLITION OF EXISTING CULVERT	1	LS	\$5,000.00	\$5,000.00
120.21	EARTH EXCAVATION	1189	CY	\$28.00	\$33,292.00
120.1	UNCLASSIFIED EXCAVATION	680	CY	\$33.00	\$22,440.00

Example: Culvertville, MA

iii. **Project Timeline:** Describe the estimated timeline for the overall culvert replacement project *and* the timeline for proposed work to be covered by this funding (end date 6/30/21). Topics listed on the *Proposed Work Checklist* with the purple header may provide direction for the type of milestones or goals to be included in a timeline.

August-October: Secure Final Permits

November–December: Construction Bidding

January-March: Fabrication

April-May: Construction*

June 2021: Road reopened

*Construction staging will begin by April 15th, 2021. Construction should take 4-6 weeks. We do not anticipate any time of year restrictions per correspondence with the permitting agencies.

Proposed Checklist Form

PROPOSED WORK CHECKLIST CULVERT REPLACEMENT MUNICIPAL ASSISTANCE GRANT APPLICATION FY21 RFR ID: DER 2020-04 (See Section 3.3.2 in the RFR for instructions on how to fill out the Application Checklist)					
PROJECT INFORMATION					
Road Name: River Road			Town: Culvertville		
FIELD DATA COLLECTION					
PROJECT STATUS					TASK
Proposed	In Progress	Complete	Not Started	Not Applicable	
					Please indicate under Project Status if the Tasks listed below are "Proposed" to be completed under this grant application, currently "In Progress" , "Complete" , "Not Started" or if you have determined the Task "Not Applicable" to the project. Mark the appropriate column with an "X" .
		X			<i>Wetland Resources Delineation: A wetland resource area delineated and flagged by a qualified person, including data plots.</i>
	X				<i>River Substrate Analysis: An analysis of stream characteristics and substrate to be used as a reference for the replacement crossing design.</i>
X					<i>Geotechnical Evaluation: Geotechnical borings and substrate analysis for structural properties.</i>
					<i>Bedial Site Survey: A detailed survey of the crossing area, including elevations of</i>

Culvert Replacement Training Site Form

CULVERT REPLACEMENT TRAINING SITE REQUEST

FY21 RFR ID: DER 2020-04

(See section 3.3.3 in the RFR for instructions on how to fill out section below)

1

Applicability Questions

- | | | |
|--|------------------------------|-----------------------------|
| 1) Would you like your project to be considered for status as one of the Division's <i>Culvert Replacement Training Sites</i> ? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2) Projects in any watershed can apply; however, preference will be given to projects located in one of DER's priority watersheds. Is your project located in one of the priority watersheds below? If Yes, then please indicate which watershed.

<input type="checkbox"/> Farmington River Watershed <input type="checkbox"/> Nashua River Watershed

<input type="checkbox"/> Housatonic River Watershed <input type="checkbox"/> Taunton River Watershed | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3) Is your culvert replacement project still in the planning or field data collection phase (i.e. is it a "new" project where no design and engineering work has been completed)? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4) Will you be able to host up to 2 trainings per year throughout the duration of the project? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 5) <i>Please provide a brief statement of why you think your proposed project would serve as a good culvert replacement case study and how it provides an opportunity for training local road managers in your region. See Appendix B – Evaluation Criteria for Status as DER's Culvert Replacement Training Site for additional information.</i> | | |

Application Submission

Online Submission Portal

Required documents include:

- ☒ Application Form
 - Culvert Replacement Municipal Assistance Grant Application Form **(Required)**
 - Proposed Work Checklist **(Required)**
 - Culvert Replacement Training Site Request **(Optional)**
- ☒ Project Photos **(Required)**
- ☐ Supporting Documentation **(As Applicable)**

Application Submission

Project Photos



i. Road Over Culvert



ii. Culvert Inlet



iii. Upstream of Culvert



iv. Culvert Outlet



v. Downstream of Culvert

Other



Application Submission

Online Submission Portal

Required documents include:

- ✓ Application Form
 - Culvert Replacement Municipal Assistance Grant Application Form **(Required)**
 - Proposed Work Checklist **(Required)**
 - Culvert Replacement Training Site Request **(Optional)**
- ✓ Project Photos **(Required)**
- ✓ Supporting Documentation **(As Applicable)**

Email: Ryan.Barney@mass.gov

617-626-1545



Questions?

Carrie Banks

Grants Manager

Massachusetts Division of Ecological Restoration

DERCulverts@mass.gov 413-579-3015

Ryan Barney

Massachusetts Division of Ecological Restoration

Ryan.Barney@mass.gov 617-626-1545

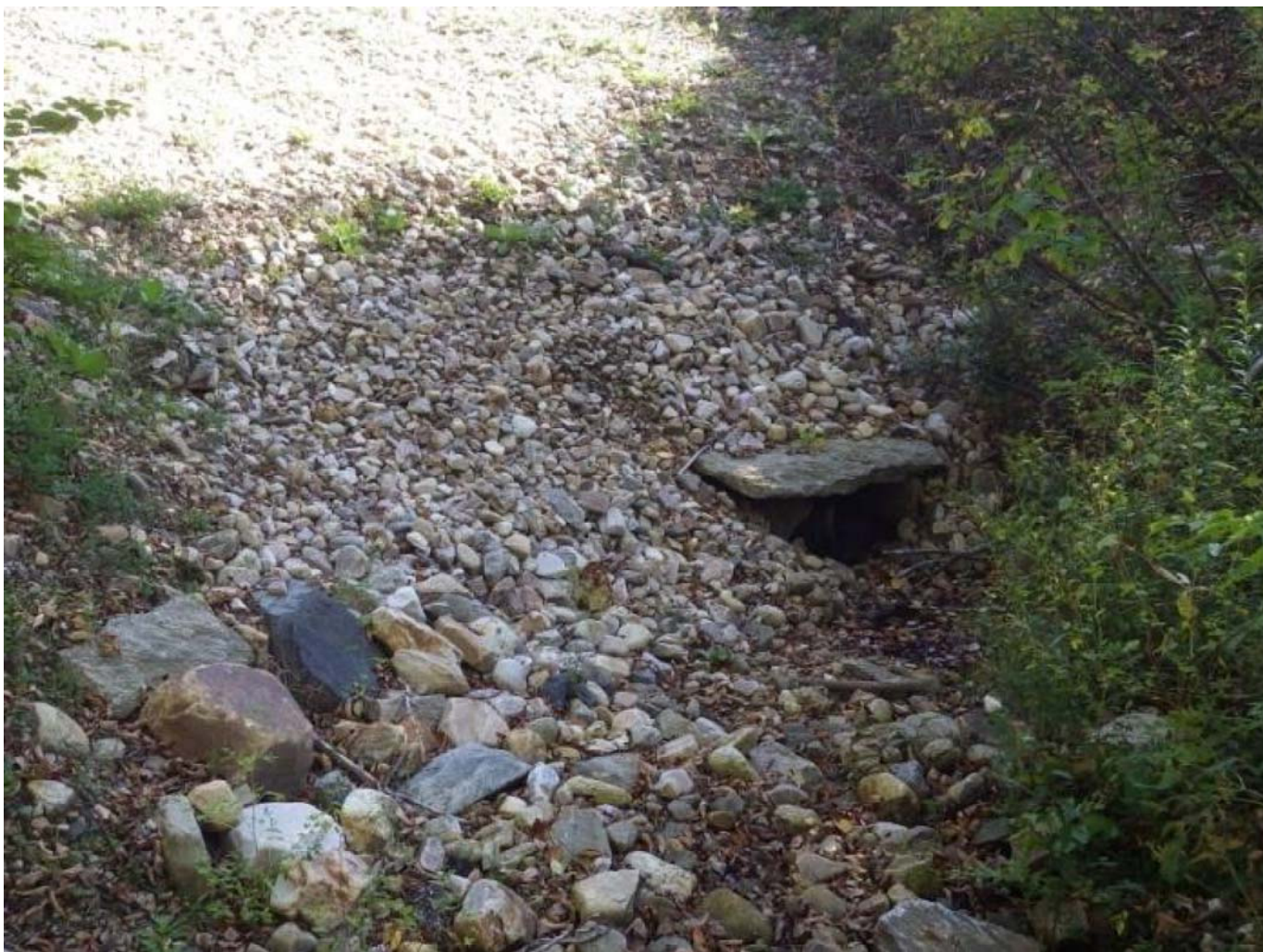
Full CRMA Grant Announcement:

<https://www.mass.gov/how-to/culvert-replacement-municipal-assistance-grant-program/>

FY2018 Funded Projects



FY2018 Funded Project



4/1/2020

FY2018 Funded Project

Before



Construction



FY2018/FY2019 Funded Project

Before



Before



After



FY2019 Funded Projects



FY2019 Funded Projects



FY2019/FY2020 Funded Projects



4/1/2020

FY2020 Funded Projects



4/1/2020