

Massachusetts Department of Fish and Game

Division of Ecological Restoration

Invested in Nature and Community

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REQUEST FOR RESPONSE
MASSACHUSETTS DIVISION OF ECOLOGICAL RESTORATION
DEPARTMENT OF FISH AND GAME
Culvert Replacement Municipal Assistance
For the Replacement of Ecologically High Value Culverts
FY23 Grant Program

RFR ID: DER 2022-03

Dated: 02/14/22

WHAT'S NEW IN FY23 GRANT ROUND?

1. Revised eligible project criteria in Section 1.4 to better align with goals of Massachusetts Stream Crossing Standards to restore fish and wildlife passage and reconnect stream habitat.
2. Allow up to 3 culvert or bridge replacements on the same local connected stream network per application.
3. Addition of a new Mitigation Disclaimer in Section 1.5 to clarify eligibility for projects with a direct connection to or obligation for compensatory mitigation.
4. Updated Funding Availability Section 1.6, including typical range of awards.
5. Revised scoring, review criteria and application instructions in Section 3.
6. Incorporated environmental justice criterion to align with the Executive Office of Energy and Environmental Affairs (EEA) Environmental Justice Policy (June 2021).
7. Updated and clarified Project Terms and grant requirements.
8. Revamped appendices, including a how-to guide for using the new Stream Crossing Explorer online mapper (Appendix B: DER Tools to Determine Environmental Benefits), and a reference guide for typical culvert replacement tasks (Appendix C: Proposed Work Checklist).

TYPE OF PROCUREMENT:

1. GRANT OPPORTUNITY SUMMARY:

- 1.1 PROPOSALS SOUGHT:** The Division of Ecological Restoration (DER) is seeking proposals from Massachusetts municipalities interested in replacing undersized, perched, and/or degraded culverts located in areas of high ecological value. The purpose of this funding is to encourage municipalities to replace aging culverts with better designed crossings that meet improved structural and environmental design standards and flood resiliency criteria.

Only projects that intend to meet the goals of the Massachusetts Stream Crossing Standards¹ will be considered for funding. Incorporating these Standards into culvert replacement designs will improve river function and access for fish and wildlife, and will reduce hazards to public safety, such as flooding, culvert failure, and road washout. Projects should be designed to facilitate fish & wildlife passage, maintain the natural movement of water and sediment through the stream crossing, and reconnect upstream and downstream habitat. Interested communities should refer to an overview of the Stream Crossing Standards in Appendix A.

This opportunity will provide funding for selected municipalities to advance a single or multiple culvert replacement project(s) toward completion. See Section 1.4 for more details about Eligible Projects. Funding will be limited to the Commonwealth of Massachusetts Fiscal Year 2023 (July 1, 2022 – June 30, 2023). See Section 1.7 for funding details.

- 1.2 OVERVIEW AND GOALS:** DER’s Stream Continuity Program provides state-wide assistance to communities interested in replacing degraded and/or undersized road-stream crossings with better designed culverts or bridges that meet improved environmental and flood resiliency criteria. To help municipalities install better designed replacement crossings, the Stream Continuity Program provides technical assistance and training to municipal road managers and provides financial assistance when available. The Stream Continuity Program develops tools to help municipalities carry out efficient and cost-effective culvert replacements that meet the Massachusetts Stream Crossing Standards.
- 1.3 ELIGIBLE APPLICANTS:** All Massachusetts municipalities are eligible to apply. Municipalities are also eligible to apply jointly and should submit one application together with one municipality serving as the lead applicant and fiscal agent.

¹ An overview of the Massachusetts Stream Crossing Standards can be found in Appendix A. The full Massachusetts River and Stream Crossing Standards can be found here: http://streamcontinuity.org/sites/streamcontinuity.org/files/pdf-doc-ppt/MA%20Crossing%20Stds%203-1-11%20corrected%203-8-12_1.pdf

The municipality should designate a municipal project lead who will serve as the primary point of contact throughout the duration of the grant period. This person will be responsible for communicating directly with DER's Grants Manager about the project, site specifics, and the town's project goals and needs.

Municipalities awarded funding through the CRMA grant program in a previous year are eligible to apply for a new project or apply for continued work on the previously awarded project.

- 1.4 ELIGIBLE PROJECTS:** Eligible projects must be culvert or bridge replacements located on a public way², owned and maintained by an applying municipality, and must cross a natural freshwater, non-tidal river or stream channel. The stream channel may be either intermittent or perennial. **Projects must intend to meet the goals of the Massachusetts Stream Crossing Standards¹.**

Each municipality may submit one grant application for this funding opportunity. Each grant application may propose the replacement or removal of a single culvert/bridge or of multiple culverts/bridges located within the same local connected stream network.

Project proposals may include up to three structures per application.³

In cases where multiple structures are being proposed by adjacent municipalities under a joint application, no more than three structures on the same local stream network can be included in the joint application.

Culverts identified with the greatest potential for improving aquatic connectivity and stream ecology via culvert replacement will receive more points under the ***Benefit to the Environment*** evaluation criteria (see Section 3.2 *Evaluation Criteria*). See Appendix B: DER's Tools to Evaluate Environmental Benefits of Culvert Replacements.

Projects are eligible for the CRMA grant program at any phase in the culvert replacement process, from project planning through construction. Typical project phases for culvert replacement include *project planning and field data collection (i.e., new projects), design*

² The existing structure and roadway approach should be publicly owned or be acquired through public leasehold, right-of-way or easement before execution of a grant award.

³ For purposes of clarity for this RFR, we provide the following definitions:

Local Connected Stream Network: Includes structures located on the same named stream reach, as well as projects located on direct tributaries draining to the main stream reach.

Grant Application: Formal request for funding submitted via the online submission portal. Each municipality may submit one application for this funding opportunity.

Project: Refers to the entire proposed project, regardless of whether it includes a single or multiple culvert(s) or bridge(s).

Structure: Refers to a culvert or bridge which conveys a road over a freshwater, non-tidal stream.

and engineering, permitting, preconstruction activities (e.g. bidding, materials testing, fabrication, etc.), and construction.

Applicants may apply for work needed in one or multiple phases; however, work proposed in this application must be completed within the Commonwealth of Massachusetts Fiscal Year 2023. **Applicants should only apply for funding for the portion of the project that can be completed by June 30, 2023.**

Municipalities seeking construction funding must demonstrate that the proposed project meets the goals of the Massachusetts Stream Crossing Standards. Projects that are construction-ready but do not meet the Stream Crossings Standards must be redesigned to meet the Standards. Redesign work is eligible for funding under this grant program.

Projects where a culvert will be completely removed and the road decommissioned are eligible for funding as well.

- 1.5 Mitigation Disclaimer:** DER will only support voluntary, proactive culvert replacement projects through the Culvert Replacement Municipal Assistance Grant Program. Projects that have a direct connection to compensatory mitigation and/or have an independent prior obligation to perform restoration/mitigation pursuant to statute, regulation, ordinance, consent decree, judgment, court order, permit condition, contract, enforcement order or other requirement of law will not be considered. This does not preclude projects from receiving compensatory mitigation funding for future phases of work outside the Culvert Replacement Municipal Assistance Grant Program’s period of performance.

This does not apply to Municipalities facing a requirement from the MA Department of Environmental Protection to replace existing structures to comply with the Massachusetts Stream Crossing Standards as outlined under their purview of the Massachusetts Wetlands Protection Act or similar state regulations.

- 1.6 APPLICATION DEADLINE:** Applications are due **5:00 p.m. March 14, 2022.** (See further detail on deadlines and grant program calendar in Section 4, *Deadlines and Procurement Calendar*)

FUNDING AVAILABILITY: Total funding available is anticipated to be **\$2,750,000** (pending authorization) to support culvert replacements in locations of high ecological value. DER anticipates making awards to multiple municipalities with this funding.

If additional funds become available (above the funding described above) either prior to or after initial awards, and prior to the end of Fiscal Year 2023, DER reserves the right to increase the maximum obligation to some or all contracts executed as a result of this

Grant Announcement, or to execute contracts with Applicants not funded in the initial selection process.

Individual awards typically range from \$25,000 to \$400,000, depending on the number of structures and project phases and work proposed. Awards are not anticipated to exceed \$400,000, regardless of the number of structures proposed. Applicants may request funding to support tasks from multiple project phases, based on the status of the individual culvert replacement(s) and need; however, **applicants should only request support for work that can be completed by June 30, 2023.**

Exceptions to the number of awards and range of funds awarded may be made at DER's discretion, dependent on funding allocations. Total amount of funding available is subject to annual authorized spending plans.

- 1.7 MATCH REQUIREMENT:** Applicants are not required to provide match. Although DER will award funding to cover a full phase of work (e.g., design and engineering), DER does not anticipate being able to provide funding for the full cost of a culvert replacement (e.g. field data collection, design, engineering, permitting and construction). Applicants are encouraged to report other known sources of funding for the proposed project on the Application Form, both secured and anticipated sources.

Projects seeking construction funding should demonstrate the ability to obtain and secure the balance of funds prior to the start of the grant contract period (i.e., July 2022).

- 1.8 TOTAL ANTICIPATED DURATION OF GRANT(S):** Contracts for awarded grants are expected to start in July 2022. The contract duration will be through June 30, 2023. (See further detail on anticipated contract duration in Section 2.1).
- 1.9 APPLICABLE PROCUREMENT LAW:** Grants MGL c. 7A, § 7; St. 1986 c. 206, § 17; 815 CMR 2.00

2. Performance and Contract Specifications

2.1 PROJECT TERMS: A final contract is subject to successful negotiation of an agreed upon scope of work (SOW). Please note that DER does not guarantee that any contracts or technical assistance may result from this RFR or that any amount of funding or particular funding level will be awarded. It is anticipated that awarded grants will be available July 2022. The SOW detailed within FY23 grant award contracts must be completed no later than June 30, 2023.

Upon request, **only construction phase grant contracts** may be extended or otherwise amended at the sole discretion of DER. **Requests for extension are strongly discouraged** and will be considered only under extraordinary circumstances. Any extensions granted will not necessarily change, or increase, the monetary value of the contract.

All contracts are subject to available funding, whether through the appropriations or capital planning process. If available funding ceases for any reason, a contract shall be deemed under suspension and contract performance must halt. A contractor will not be entitled to compensation for any performance provided during the period of contract suspension. DER may lift the suspension if available funding is received. In the absence of foreseeable available funding, DER may terminate the contract.

DER reserves the right to fund a portion, to modify or amend the scope and/or add or delete tasks of any project proposal in coordination with the applicant, to more closely meet the purposes of the program. Respondents will have the option of rejecting the grant award if the revised scope does not meet their goals.

2.2 DELIVERABLES, OWNERSHIP, AND CREDIT DUE: DER requires that all technical deliverables produced under the contract resulting from this award be delivered to DER in native format, either electronic or hardcopy, as decided under scope and contract. Deliverables may include software, maps, reports, contracts with construction firms, design plans, etc., to execute work on culvert replacements. Culverts replaced under this grant will maintain their original ownership.

2.3 REPORTING: Necessary reports and other deliverables are project specific and will be identified in coordination with the applicant at the time of contract award and project scoping.

2.4 INVOICING: The payment procedure for grants resulting from this RFR is by reimbursement for costs incurred during the contract period. Only those tasks/deliverables identified in the grant scope of work are eligible for reimbursement. Reimbursement is made within 45 days subsequent to the receipt of a correctly executed invoice with appropriate documentation and deliverables. No payments shall be made for Massachusetts sales tax.

- 2.5 PROMPT PAY DISCOUNT:** Applicants responding to this RFR **must** agree to offer discounts through participation in the Commonwealth Prompt Payment Discount (PPD) initiative for receiving early and/or on-time payments, unless the vendor can provide compelling proof that it would be unduly burdensome.
- 2.6 CONTRACT EXPANSION:** If additional funds become available during the grant contract duration period, DER reserves the right to increase the maximum obligation to some or all contracts executed as a result of this Grant Announcement. Contract terms may also be modified if additional funding is available. This is subject to available funding, satisfactory contract performance, project need, and based on successful negotiation with the applicant.
- 2.7 CONDITION OF AN AWARD:** Within a reasonable timeframe from the public announcement of the award, the awardee will execute a contract with DER. If other related factors (for example other anticipated financial sources, required approvals, etc.) are not resolved by the awardee thereby preventing the awardee from signing a contract, DER reserves the right to withdraw financial support of the project and will provide the awardee with 30 days written notice.

3. Instructions for Application Submission

- 3.1 SUBMISSION INSTRUCTIONS:** All applications must be submitted through the online submission portal. No paper applications will be accepted. ***Applications received after the deadline will automatically be rejected.*** Complete all items and submit as instructed. Applicants must include all required documents. ***Each municipality may submit ONE grant application for this funding opportunity.*** Proposed projects may include up to 3 culverts or bridges on the same stream or local connected stream network per application.

INSTRUCTIONS FOR ONLINE SUBMISSION

Once the Application Forms have been completed, applicants must submit the application online. Applicants will fill in contact information and basic details about their project and upload the application materials listed below through an online submission portal. ***The link to the online submission portal is: <https://www.mass.gov/forms/culvert-replacement-grant-application>***

Required documents include:

- **Culvert Replacement Municipal Assistance Grant Application Form** – This provides project background and information as well the proposed work associated with this funding request. **(Required)**
- **Project Photos** – Photos can be submitted as one document or as separate photo files. **(Required)**

- **Supporting Documentation** – Attach electronic copies of all relevant work completed to date on the proposed culvert replacement, including but not limited to field notes, technical reports and analyses, design plan sets, permits, cost estimates, design or construction bids, etc. **(As Applicable)**

The application materials uploaded via the online submission portal cannot exceed 20MB in total. Required documents can be uploaded in Microsoft Word, *or to reduce file size*, the document may be converted and uploaded as an Adobe PDF file. Supporting documentation should be uploaded with the online submission form when feasible.

To make arrangements for submitting additional supporting documentation exceeding the file size limit or if you have trouble with your online submission, please contact:

Ione Hughes, Program Coordinator
Ione.S.Hughes@mass.gov
617-626-1545

You will receive an email confirming receipt of your application and supporting documentation within 2 business days following submission. If you do not receive a confirmation email, please contact **Ione Hughes** (see above).

All Applications, including receipt of all the supporting materials, must be received by DER by 5:00 p.m. on March 14, 2022. Applications received after the deadline will automatically be rejected.

Responses will be accepted and are encouraged to be submitted in advance of the submission deadline.

Note: Incomplete or incorrectly submitted applications will be disqualified prior to the review process.

If you have complications with your on-line application, please contact Ione.S.Hughes@mass.gov prior to the grant deadline for assistance.

DER reserves the right to reject any and all proposals or request additional information and documentation if needed.

As part of the review of proposals, DER may perform a site visit or call applicants. DER may request a site visit with the applicant present during the review process.

By submitting a proposal, the applicant acknowledges the terms and specifications contained within the RFR.

3.2 EVALUATION CRITERIA: Applicants must submit a completed application that includes all of the required supporting materials, agree to the program conditions, and meet the eligibility requirements, in order to be considered for a reimbursable grant award. An interagency review committee will evaluate proposals on a competitive basis. The review committee will review all proposed projects based on the Evaluation Criteria below. The review committee may consider statewide geographic distribution in its final recommendations for funding. The review committee reserves the right to request, a site visit, additional details and documentation, and to reject any or all proposals that do not meet the goals and terms of this RFR.

EVALUATION CRITERIA:

DEMONSTRATED NEED (25 POINTS)

PROJECT BACKGROUND (15 POINTS) - How well does the applicant describe the current condition and identify the problems associated with the existing crossing(s)? Does the applicant demonstrate why the project is a high priority for the municipality? The applicant should consider the physical condition of the culvert, risk of failure, maintenance and flooding history, erosion, environmental concerns such as impacts to fish and wildlife, and hazards to the community.

PROJECT STATUS/READINESS (5 POINTS) – The applicant should describe all initiated and completed work to date. This may include, but is not limited to, the planning and steps taken to prioritize, develop and scope the project; conduct field data collection and analyses; design and permit the project; and coordinate utilities and/or construction. *Applicants should submit all relevant supporting documentation (e.g., technical reports, design plans, permits, opinion of probable costs, etc.) with the application.* Is it a *new project* or a project work has been initiated and completed? Based on overall application, project documents submitted, and proposed work, does the applicant demonstrate a good understanding of the project needs and approach? Has the project been properly planned for, scoped, and ready to receive funding requested for the work proposed?

If the Municipality was awarded funding through the CRMA grant program in a previous year, are they in good standing? A previously awarded applicant in good standing will be determined by timely submittals of progress reports and grant deliverables, timely correspondence, and compliance with program guidelines.

FINANCIAL NEED (5 POINTS) - How well does the applicant demonstrate the municipality's need for financial assistance for the proposed crossing replacement(s)? Does the applicant describe other anticipated or secured funding sources that will support portions of this project?

PROJECT DESCRIPTION (30 POINTS)

PROJECT SCOPE (15 POINTS) -How well does the applicant describe the proposed culvert replacement(s) and the proposed work to be covered by this funding? This includes proposed projects tasks, personnel, and desired outcome for the project.

*Applicants may want to refer to **Appendix C: Proposed Work Checklist**. The Proposed Work Checklist is intended to help applicants determine what tasks to include in the funding request to DER. The tasks listed comprise a typical culvert replacement project scope and are arranged in general project order. Applicants are not bound to the tasks/activities listed on the Proposed Work Checklist for the funding request but should consider including tasks that may have been omitted from the project's previous work history.*

PROJECT BUDGET (10 POINTS) – Did the applicant complete the budget table on the Application Form? How well does the applicant estimate and describe project costs, given the current status and understanding of the culvert replacement(s)? Do the cost estimates seem reasonable and feasible for this project? For projects at an advanced level of design, does the applicant (1) demonstrate a realistic understanding of project costs for both the overall project and the proposed work to be supported by this DER grant and (2) provide supporting documentation (e.g., budget with detailed and credible cost estimates)? New projects should at least provide a cost estimate of the proposed work to be supported by this DER grant. If applicable, applicants should describe additional sources of funding for the project and the amount, including sources both in-hand and anticipated, and the expected timeline for which funds will be available. If applicable, did the applicant describe any anticipated cost benefits for including more than 1 structure for the proposed scope of work? If seeking construction funding, does the applicant demonstrate the ability to obtain and secure the balance of funds prior to the start of the grant contract period (i.e., July 2022)?

PROJECT TIMELINE (5 POINTS) - How well does the applicant describe the overall proposed culvert replacement project timeline *and* the timeline for proposed work supported by DER grant funding? Does the applicant list milestones or goals? Can the proposed work realistically be completed by June 30, 2023?

PROJECT BENEFITS (45 POINTS)

BENEFIT TO THE ENVIRONMENT (25 POINTS) – The Division of Ecological Restoration will evaluate the proposed project's overall benefit to the environment, based on the existing site conditions, proximity to important habitat, available ecological data, and additional notes provided by the applicant.

DER will consider the feasibility for and extent to which the proposed project will improve ecological function. For example, DER will weigh whether the new stream crossing(s) will

(a) allow natural stream processes to occur, (b) allow the channel to naturally adjust and change over time, and (c) improve passage for fish and wildlife. DER will consider the severity of the existing barrier(s) to fish passage and the expected magnitude of improvements with a replacement structure meeting the Stream Crossing Standards.

Did the applicant provide any additional environmental information about the culvert site(s) or possible environmental benefits from the proposed culvert replacement(s) (e.g., information on critical habitat, bank erosion, water quality, fish and wildlife species that inhabit the site/area, and problems for these organisms to pass through the existing culvert(s)?

*Appendix B: DER's Tools to Evaluate Environmental Benefits of Culvert Replacements provides examples of decision-support tools that DER will use in part to assess Environmental Benefits of the proposed culvert replacement. This list is provided for informational purposes. **Applicants are not required to seek information about their culverts using these tools.***

PUBLIC SAFETY BENEFITS (8 POINTS) – To what extent will the proposed project improve public safety and health and reduce risk to the community through elimination of a hazard? Is the project likely to reduce vulnerability and enhance resiliency to changing climatic conditions, such as flooding and damage caused by more frequent, high intensity storms? For example, will the culvert replacement(s) decrease the likelihood of road closure or washout during a major storm, thus maintaining access to municipal and emergency services? Does information provided in the narrative or other supporting materials (e.g., photos, recent inspection reports, news stories, etc.) document the hazard and/or anticipated public safety benefits of the project? Has the project been identified in a town or region-wide vulnerability or resiliency plan, e.g., *Hazard Mitigation Plan (HMP)* or *Municipal Vulnerability Preparedness (MVP) assessment and resiliency plan*?

ECONOMIC AND COMMUNITY BENEFITS (4 POINTS) – Will the proposed project have a positive impact on the local economy? This may include but is not limited to improving or protecting infrastructure, decreasing costs associated with flooding impacts, eliminating safety hazards, reducing culvert maintenance costs, maintaining or improving transportation routes for commerce, achieving cost-savings by bundling projects, and/or enhancing recreation.

ENVIRONMENTAL JUSTICE (EJ) COMMUNITIES (8 POINTS) – Projects located in a mapped Environmental Justice neighborhood, i.e. EJ block group, will receive 5 pts and projects located within 0.5 mile of an EJ Block Group will receive 3 pts. Up to an additional 3 points may be awarded to projects with direct project benefits to an EJ Community and/or for projects ranked highly for environmental benefits (i.e. receive more than 12 points under the Benefit to the Environment review criteria). Where is the EJ neighborhood located geographically relative to the project site? How will the project increase climate resiliency, public safety, and/or socio-economic benefits for this EJ population? Has there been any demonstrated support from the EJ population for the project (e.g., Community-Based Organizations that work with or in an EJ Community who have assisted municipality in engaging the community, volunteering, planning, etc. in support of the project or related efforts)?

For more information about Environmental Justice Populations in Massachusetts, visit <https://www.mass.gov/info-details/environmental-justice-populations-in-massachusetts>. This website includes links to interactive maps – the [Environmental Justice Map Viewer](#) displays the 2020 EJ block groups, based upon three demographic criteria developed by the state's Executive Office of Energy and Environmental Affairs (EEA); and [Languages Spoken Map](#) that displays where at least 5% of the population has speakers who self-identify as “do not speak English very well”. Applicants can search by project address and click on the maps to get more information on EJ population criteria and languages spoken. The 2020 Environmental Justice Populations data is also available for [download](#).

3.3 INSTRUCTIONS FOR COMPLETING APPLICATION FORMS: The Culvert Replacement Municipal Assistance Grant Application should be completed in the Microsoft Word form provided and then uploaded to the online submission portal.

3.3.1 CULVERT REPLACEMENT MUNICIPAL ASSISTANCE APPLICATION (Required)

Instruction numbers correspond to the fields in the application. Boxes should expand as you fill them in. Enter your information in the spaces provided:

1) APPLICANT INFORMATION

- i. **Funding Request** – Enter the amount of DER grant funds requested
- ii. **Town-** Enter the town who will be the Lead Municipality for the project.
- iii. **Applicant’s Name** – Enter the primary contact for the grant application.
- iv. **Email/Phone** – Enter the email or phone number of the primary contact.

2) Project Summary – Please provide a descriptive *Brief Summary* for the project (e.g., 4 sentences), including existing conditions, environmental and community benefits and goals of the proposed project.

- 3) Demonstrated Need** – Please provide information on *Project Background, Project Status, and Financial Need* in the boxes provided. Refer to *Evaluation Criteria (Section 3.2 under Instructions for Application Submission, pp. 9-12)* for guidance. The boxes on the form should expand as you write.
- 4) Project Description** - Please provide information on *Project Scope, Project Budget* (including Overview and Narrative), and *Project Timeline* in the boxes provided. Complete the budget table to the best of your ability. Where possible, provide additional supporting documentation (e.g., budget details, opinion of probable costs, design or construction bids, etc.). Refer to *Evaluation Criteria (Section 3.2 under Instructions for Application Submission, pp. 9-12)* for guidance. The boxes on the form should expand as you write.

Municipalities proposing new culvert replacement projects, i.e., projects that are in the early planning phase, are encouraged to consult DER's website (<https://www.mass.gov/how-to/culvert-replacement-municipal-assistance-grant-program>) for an example of a culvert replacement bid request and scope of work to help develop and inform the *Project Scope*.

Municipalities who engage Engineering Firms for culvert or bridge replacement projects meeting the MA Stream Crossing Standards may want to verify that the selected firm or its subcontractors have:

- *River assessment experience and knowledge about river processes, dynamics, and features.*
- *Demonstrated ability to design structures to meet the MA River and Stream Crossing Standards.*
- *Capacity to perform geotechnical borings and subsurface analysis for geotechnical design of a replacement structure.*
- *Experience with performing existing hydrology and hydraulic modeling.*
- *Skilled staff to perform resource area delineation and experience completing environmental permits.*
- *MassDOT prequalification and/or MassDOT Chapter 85 review experience, as applicable*

- 5) Project Benefits** – Please provide information on *Benefits to the Environment, Public Safety Benefits, Economic and Community Benefits*, and benefits to EJ Communities (if applicable) in the boxes provided. If a portion of your project falls in or within 0.5 miles of a mapped *Environmental Justice* Neighborhood, i.e., EJ Block Group, then please describe the climate resiliency, public safety and/or socio-economic benefits for this EJ population. Refer to *Evaluation Criteria (Section 3.2 under Instructions for Application Submission, pp. 9-12)* for guidance. The boxes on the form should expand as you write.

3.3.2 ONLINE SUBMISSION PORTAL:

In addition to the information provided above, applicants will need to provide some basic project details as part of the online submission. We advise all applicants to review the information below and to have the application and all supporting documents ready to be uploaded prior to beginning the online submission.

A. Applicant Information

- **Municipal Project Lead** – If different from the Applicant, then enter the name of the designated municipal Project Lead, e.g., DPW Director or Superintendent.
- **Municipal Project Lead's Phone** – Enter the phone number for the Municipal Project Lead
- **Municipal Project Lead's Email** – Enter the email for the Municipal Project Lead
- **Joint Application** – Please indicate if you applying jointly with another municipality. If yes, then please provide the contact details for the other municipality.

B. Project Information

- **Number of Structures** – Select number of structures included in your application. *Please note the online form will create sections for the questions below for each structure. Please fill in starting with the upstream most structure moving downstream.*
- **Road** - Provide road name.
- **Stream** - Enter the name of the stream. If unknown or unnamed, enter UNKNOWN.
- **Latitude**- Enter, in decimal degrees, the Latitude of the culvert location at the center of the road. One way the Latitude and Longitude can be determined is through [Google Maps](#), by zooming in to the culvert location, right clicking the mouse directly over the culvert, and selecting the Latitude and Longitude coordinates.
- **Longitude**- Enter, in decimal degrees, the Longitude of the culvert location at the center of the road. See instructions for Latitude above.
- **Location**- Briefly describe the location of the culvert, e.g., next to a physical address or a specific distance from a cross road. This will help DER make sure we evaluate the correct culvert.
- **Culvert Type**- Enter the shape and material of your culvert, i.e., Concrete Box, Corrugated Metal Pipe (CMP), Reinforced Concrete Pipe (RCP), etc.
- **Length**- Enter the length of the culvert from inlet to outlet. **Record in feet.** If there are multiple culverts at this location with variable lengths, enter the length of the longest structure AND include on the application form under Project Background (3)(i) a description of the crossing including the width and length of each structure.

- **Width-** Enter the width of your culvert. **Record in feet.** Width is the same as culvert diameter. If there are multiple culverts at this location with variable widths, enter the width of the widest structure AND include on the application form under Project Background (3)(i) a description of the crossing, including the width and length of each structure.
- **Utilities within Right of Way (ROW) or close proximity to the Culvert (check all that apply)** – Check all known underground and overhead utilities that are found within the road right-of-way or within close proximity to the culvert and/or stream. If you check “Other”, please include type of utility in the box.
- **Proposed Project Phases-** Select the Project Phases in which funding is being requested under this grant program for this location. Proposed work should be consistent with work proposed under the Project Scope and Budget in the Application Form.

C. Community Information – Check Yes or No to the following questions. If you check “other”, please provide additional information in the box provided (e.g., *Draft Plan awaiting approval*).

- **Does your town have an approved Hazard Mitigation Plan?** – (See <https://www.mass.gov/service-details/local-hazard-mitigation-planning> and scroll to the document titled ‘Massachusetts FEMA-Approved Local and Regional Multi-Hazard Mitigation Plans’).
- **Has your town enrolled in the Municipal Vulnerability Preparedness (MVP) program?** – (For more information about the MVP program, see <https://www.mass.gov/municipal-vulnerability-preparedness-mvp-program>).
- **Does your town have a signed Community Compact with an applicable Best Practice?** – (For more information about *Community Compacts*, see <https://www.mass.gov/lists/signed-community-compacts>).

D. Attachments to be Uploaded (Required)

- **Grant Application Forms** (see Section 3.3 for instructions)
- **Site Photos** – Photos may be inserted and uploaded as one document or uploaded individually. Please be aware of file size limits, we recommend photo files should not exceed 2 MB per photo. DER requests at least two color photos of each structure, preferably of the culvert inlet and culvert outlet view if feasible.
 - **Culvert Inlet** – A photo looking toward the culvert inlet.
 - **Culvert Outlet** – A photo looking toward the culvert outlet.

Applicants may also include photos of:

- **Upstream of the Culvert** – A photo looking upstream from the culvert inlet.

- **Downstream of the Culvert** – A photo looking downstream from the culvert outlet.
- **Road over culvert** – A photo showing all lanes of traffic over the culvert.
- **Supporting Project Documents** – Please attach electronic copies of all relevant work completed to date on the proposed culvert replacement, including but not limited to field notes, technical reports and analyses, design plan sets, permits, opinion of probable costs, design or construction bids, etc.

E. Application Submission

- **Save and Resume Later:** Applicants will have the option to save and resume the application submittal form for later. Formstack will generate a link you can copy and paste into your records and/or email (both are advised). **Please be aware that if you choose the *Save and Resume Later* option, you will need to reattach any attachments.** In addition, a new link is generated each time you save your application so be sure to copy and save the new link each time you choose this option.
- **Submit Form:** Once you hit submit form, it may take a few minutes for the submission to load. Please do not refresh the screen during this time. You will receive the following message upon successful submission: “Thank you, the form was submitted successfully.” The Lead Applicant should also receive an email confirmation with a copy of the submission.

3.4 ADDITIONAL REQUIRED DOCUMENTATION:

Additional Forms: If selected, the Respondent will be required to submit the following forms to complete a contract. Forms with an asterisk * need not be submitted, if they are already on file with the Commonwealth. All forms can also be downloaded from:

<https://www.macomptroller.org/forms-for-vendors>:

- Commonwealth Standard Contract Form, filled out and signed by the Respondent
- Commonwealth W-9 tax form with DUNS number and Federal Tax ID* filled out and signed by the Respondent
- Completed Contractor Authorized Signature Verification Form

Applicants are encouraged to review these forms prior to submission of a Response.

Grant payments will be made using Electronic Funds Transfer (EFT). If applicants are awarded a grant contract and are not set up to receive payments in this form, DER will require additional paperwork.

4. Deadlines and Procurement Calendar

4.1 RELEASE OF RFR: February 14, 2022, 11AM

4.2 QUESTION AND ANSWER PERIOD: Closes February 25, 2022 at 5PM. Only clarifying or technical questions regarding the application and application process may be answered following the release of the RFR.

During this time all questions should be submitted in writing to Lone Hughes, lone.S.Hughes@mass.gov by 5PM February 25, 2022. Questions will not be answered over the phone. Answers to all questions will be posted on DER's website and in COMMBUYS around the first week of March.

APPLICANT COMMUNICATION WITH DER AND THE COMMONWEALTH: Applicants are prohibited from communicating directly with any employee of DER regarding this Grant Opportunity during the RFR Period from February 14, 2022, 11:00 AM until March 14, 2022, 5PM except as specified in this Grant Announcement. No other individual Commonwealth employee or representative is authorized to provide any information or respond to any question or inquiry concerning this Grant Announcement. Applicants may contact the contact person for this Grant Announcement in the event this Grant Announcement is incomplete, or the applicant is having trouble obtaining or submitting any required attachments. Note that there is an open period to submit written questions up to the deadline specified in this Grant Announcement.

4.3 APPLICATION DUE DATE: 5:00 p.m. March 14, 2022.

4.4 ESTIMATED AWARD DATE: Awards are estimated to be announced by July 2022 with contract development to begin in July 2022.

4.5 ESTIMATED CONTRACT START DATE: DER anticipates execution of grant contracts in July of 2022.

5. Miscellaneous

- 5.1 TYPE OF PROCUREMENT:** Grant
- 5.2 USE OF THIS PROCUREMENT BY SINGLE OR MULTIPLE DEPARTMENTS:** This RFR is a single department procurement. All contracts awarded under this RFR will be utilized solely by the issuing entity.
- 5.3 REQUEST FOR SINGLE OR MULTIPLE CONTRACTORS:** Multiple contracts may be awarded under this RFR.
- 5.4 RFR DISTRIBUTION METHOD:** This RFR has been distributed electronically using the COMMBUYS system.
- 5.5 PUBLIC RECORDS:** All responses and information submitted in response to this RFR are subject to the Massachusetts Public Records Law, M.G.L., c. 66, § 10, and c. 4, § 7, cl. 26. Any statements in submitted responses that are inconsistent with these statutes, including marking information as confidential during the submission process, shall be disregarded.
- 5.6 REASONABLE ACCOMMODATION:** Bidders with disabilities or hardships that seek reasonable accommodation, which may include the receipt of RFR information in an alternative format, must communicate such requests in writing to the contact person. Requests for accommodation will be addressed on a case-by-case basis. A bidder requesting accommodation must submit a written statement which describes the bidder's disability and the requested accommodations to the contact person for the RFR. DER reserves the right to reject unreasonable requests.
- 5.7 APPENDIX**
- A. Appendix A – Overview of Massachusetts Stream Crossing Standards
 - B. Appendix B – DER's Tools to Evaluate Environmental Benefits of Culvert Replacements
 - C. Appendix C – Proposed Work Checklist Reference Guide
- 5.8 LIST OF ATTACHMENTS**
- A. Application Form

Department of Fish and Game (DFG)
Division of Ecological Restoration (DER)

Appendix A: STREAM CROSSING STANDARDS

Stream crossing standards are based on six important variables. While the specifics of the regulations listed below may change over time, the crossing guidelines presented in the Massachusetts Stream Crossings Handbook remain effective for fish and wildlife.

1. TYPE OF CROSSING

- General: Spans (bridges, 3-sided box culverts, open-bottom culverts or arches) are strongly preferred.
- Optimum: Use a bridge.

2. EMBEDMENT

- All culverts should be embedded (sunk into stream) a minimum of 2 feet, and round pipe culverts at least 25%.
- If pipe culverts cannot be embedded this deep, then they should not be used.
- When embedment material includes elements >15 inches in diameter, embedment depths should be at least twice the D_{84} (particle width larger than 84% of particles) of the embedment material.

3. CROSSING SPAN

- General: Spans channel width (a minimum of 1.2 times the bankfull width of the stream).
- Optimum: Spans the streambed and banks (at least 1.2 times bankfull width) with sufficient headroom to provide dry passage for wildlife.

4. OPENNESS

- General: Openness ratio (cross-sectional area/crossing length) of at least 0.82 feet (0.25 meters). The crossing should be wide and high relative to its length.
- Optimum: Openness ratio of at least 1.64 feet (0.5 meters) and minimum height of 6 feet. If conditions significantly reduce wildlife passage near a crossing (e.g., steep embankments, high traffic volumes, and physical barriers), maintain a minimum height of 8 feet (2.4 meters) and openness ratio of 2.46 feet (0.75 meters).

5. SUBSTRATE

- Natural bottom substrate should be used within the crossing and it should match the upstream and downstream substrates. The substrate and design should resist displacement during floods and maintain an appropriate bottom during normal flows.

6. WATER DEPTH AND VELOCITY

- Water depths and velocities are comparable to those found in the natural channel at a variety of flows.



A Well Designed Crossing

Large size suitable for handling high flows

Open-arch design preserves natural stream channel

Openness ratio greater than 0.5m, suitable for most settings

Crossing span helps maintain dry passage for wildlife

Water depth and velocity are comparable to conditions upstream and downstream

Natural substrates create good conditions for stream-dwelling animals

Scott Jackson photo

APPENDIX B: DER's Tools to Evaluate Environmental Benefits of Culvert Replacements

Below are examples of online decision support tools DER will use as a part of the evaluation of environmental benefits for the proposed culvert replacement project. In addition to these tools, DER will use other planning and data resources and staff expertise to determine project benefits.

Applicants are not required to seek information about their culverts using the tools listed below. *This list is for informational purposes only.* Towns may find these tools useful for prioritizing culvert replacements and internal decision-making purposes. ***Culverts that do not appear in these online decisions support tools are still eligible for funding.***

Coldwater Fisheries Resources (www.mass.gov/info-details/coldwater-fish-resources)

A Coldwater Fish Resource (CFR) is a stream, river, or tributary where coldwater fish, such as trout, live and reproduce. CFRs are particularly sensitive habitats. **Applicability: State-wide.**

NAACC Road-Stream Crossing Database (<https://naacc.org>)

Based on field surveys of culverts and bridges, the North Atlantic Aquatic Connectivity Collaborative (NAACC) ranks culverts based on the severity of the fish passage barrier created by the crossing (e.g., *No Barrier, Insignificant Barrier, Minor Barrier, Moderate Barrier, Significant Barrier, or Severe Barrier*). **Applicability: State-wide (Approximately 22% of culverts in Massachusetts are surveyed).**

Stream Crossings Explorer (See link above and [Stream Crossing Explorer Quick Reference Guide](#) below.)

The Stream Crossings Explorer conveys information related to environmental benefits of rivers and, where available, risk of failure of road-stream crossings and associated disruption of emergency services. This tool is an extension of the NAACC database. **Applicability: State-wide.**

Mapping Data ([HTTPS://WWW.MASS.GOV/GET-A-MAP](https://www.mass.gov/get-a-map))

MassGIS provides geospatial mapping data for all of Massachusetts. Below are examples of map data DER may review as part of the grant review process: **Applicability: State-wide.**

Conservation

- Areas of Critical Environmental Concern
- Natural Heritage Data Estimated and Priority Habitats of Rare Wildlife
- Open Space

Images (Aerial Photos and Topographic Maps)

Infrastructure (Dams and Roads)

Physical Resources

- Anadromous Fish
- DFW Coldwater Fisheries Resources
- Hydrography Water Resources
- Outstanding Resource Waters
- Watershed Subbasins

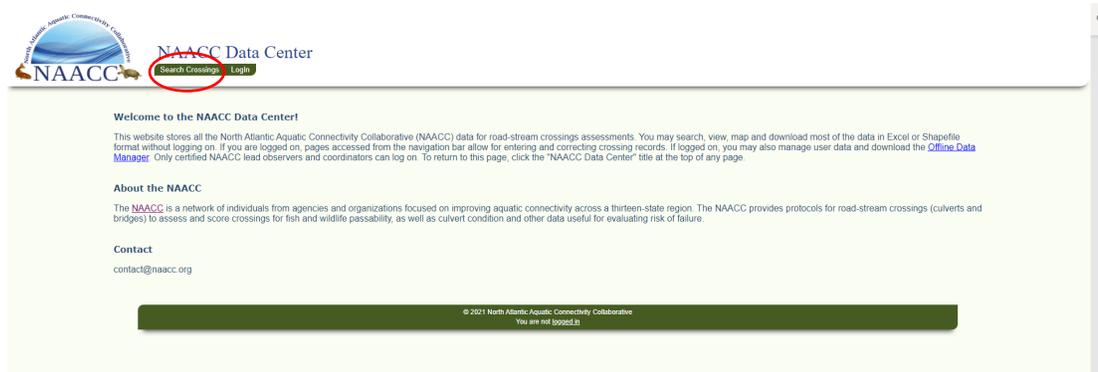
Wild & Scenic Rivers (Available at www.rivers.gov)

APPENDIX B: DER's Tools to Evaluate Environmental Benefits of Culvert Replacements

Stream Crossing Explorer Quick Reference Guide:

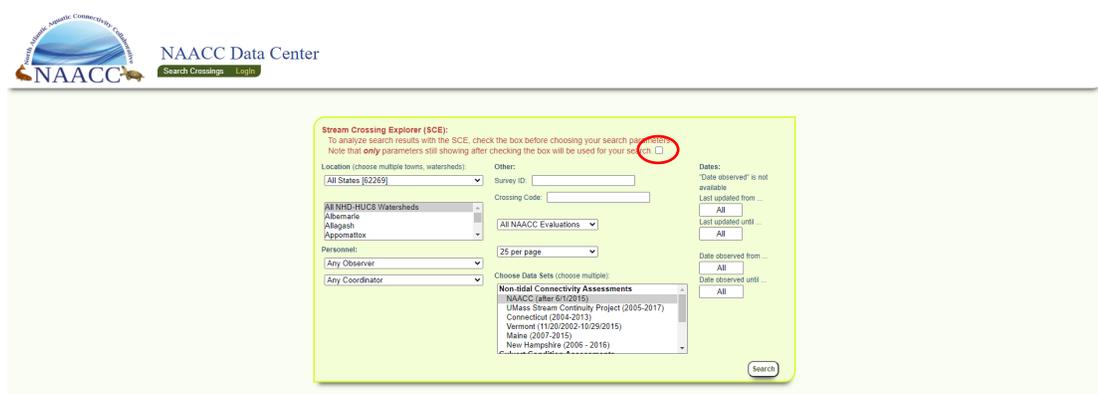
Outlined below are steps to access and display data in the Stream Crossing Explorer. The steps are intended to show users how to access data for a specific municipality and to display locations with the best opportunities to reconnect upstream and downstream habitat. Additional search parameters and data selection options are available to further refine and select areas of interest.

Step 1: Select "Search Crossing" at www.naacc.org

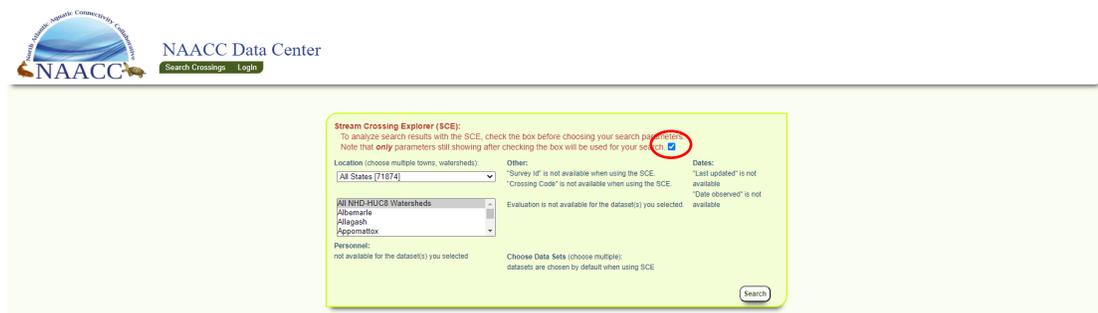


Step 2: Be sure to click checkbox for Stream Crossing Explorer!

Box unchecked:

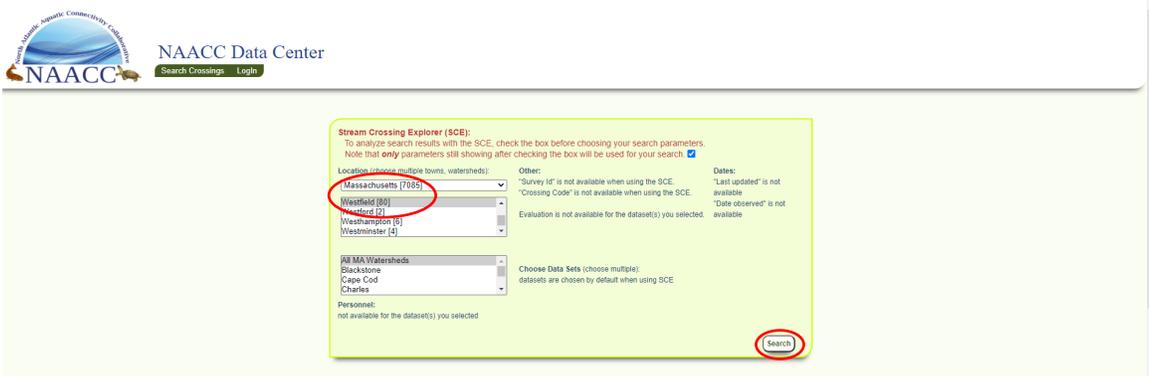


Box checked (Correct Search Box):

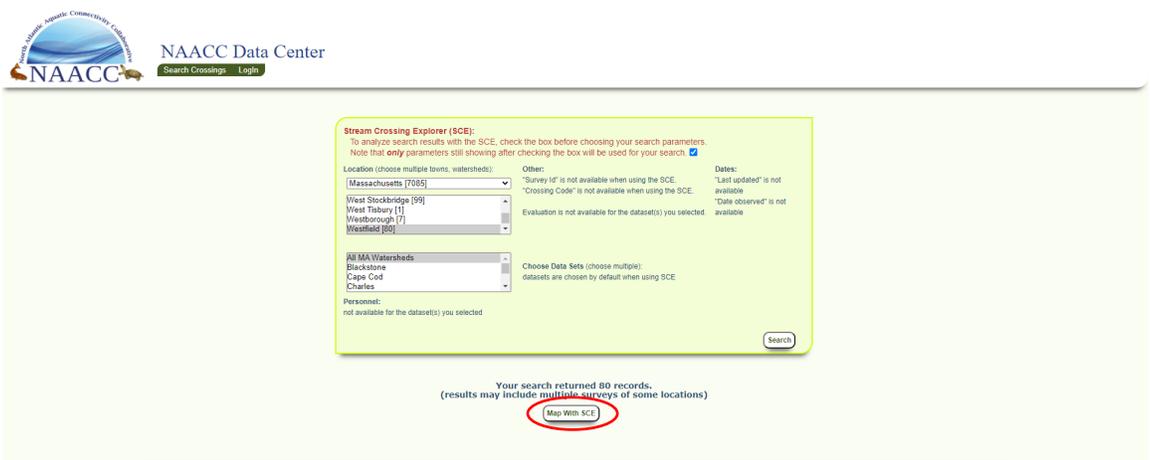


APPENDIX B: DER's Tools to Evaluate Environmental Benefits of Culvert Replacements

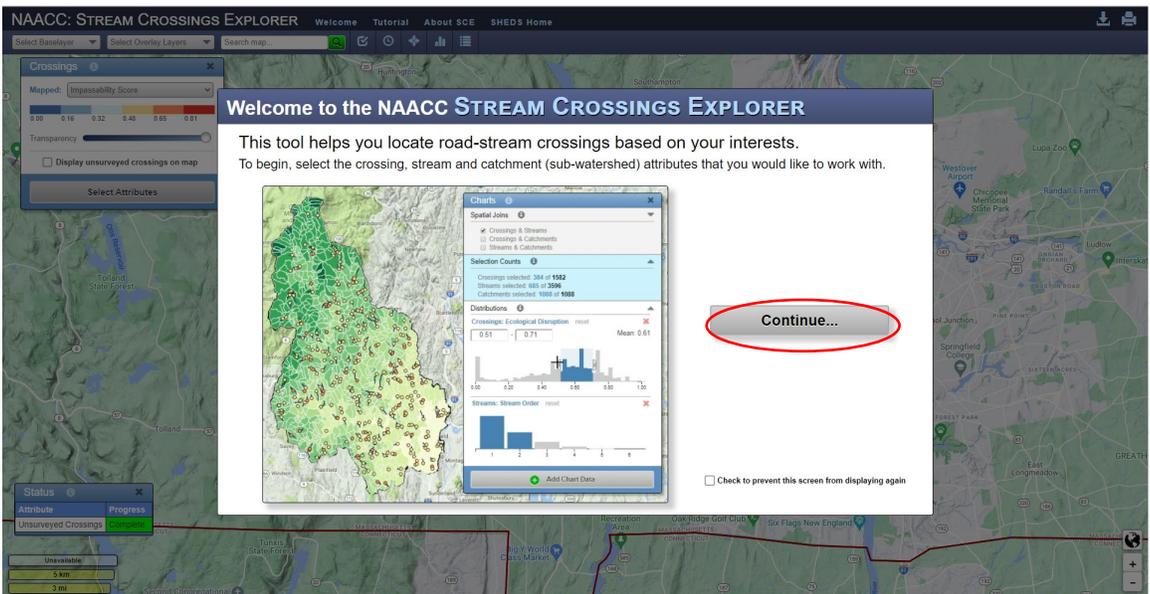
Step 3: Search by State and Town.



Step 4: Click Map with SCE.

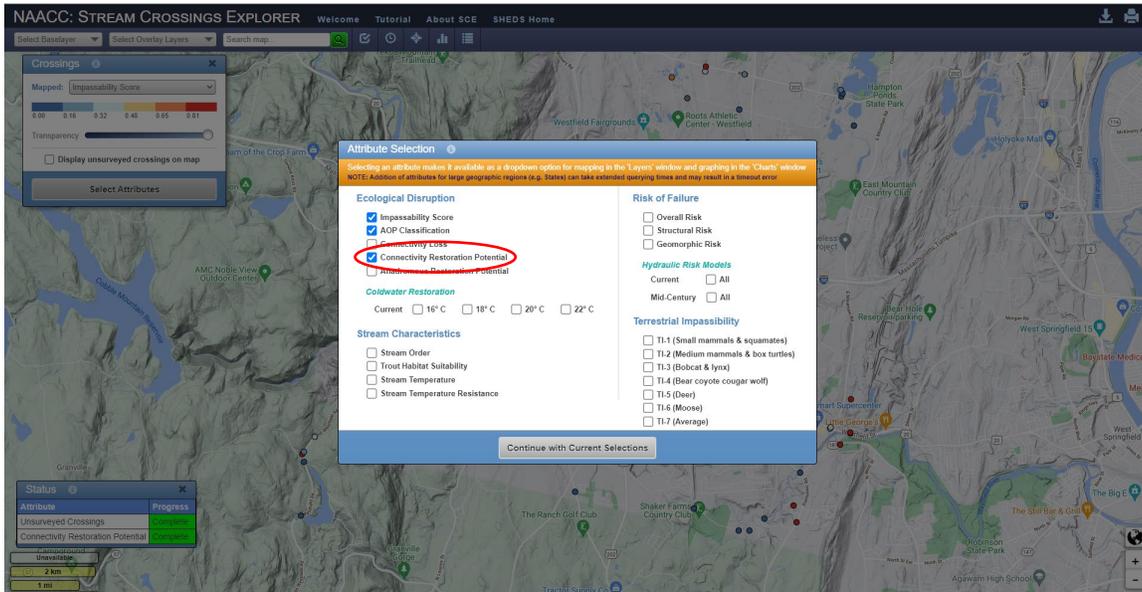


Step 5: Click through Tutorial Screens by hitting "Continue", "Next" or "Skip".

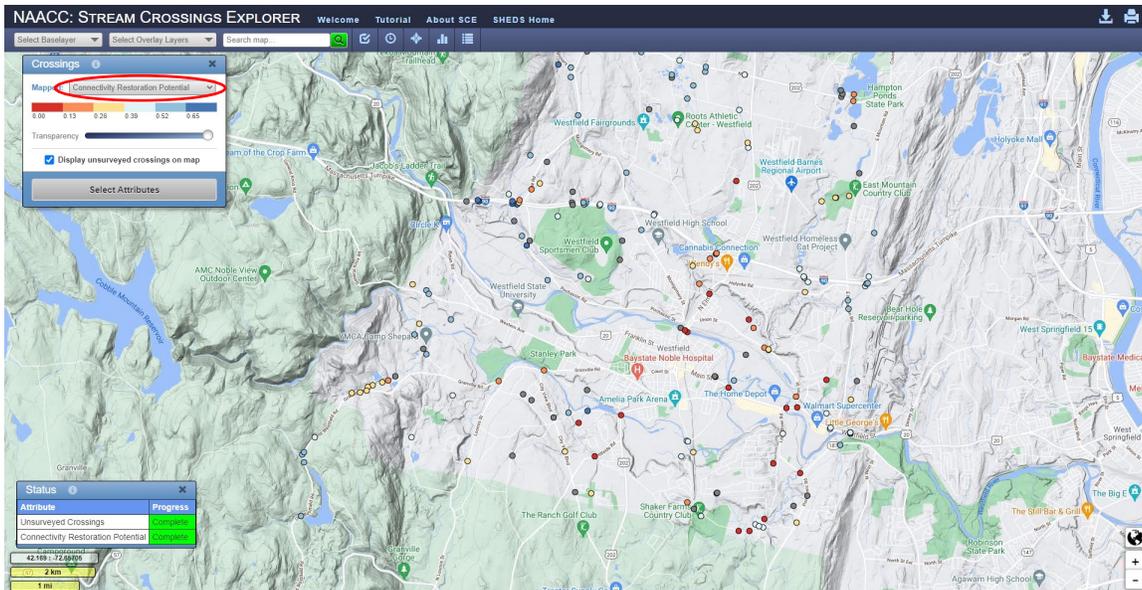


APPENDIX B: DER's Tools to Evaluate Environmental Benefits of Culvert Replacements

Step 6: Select “Connectivity Restoration Potential” checkbox on the Attribute Selection table (You may want to unselect the pre-selected boxes to reduce amount of data displayed).

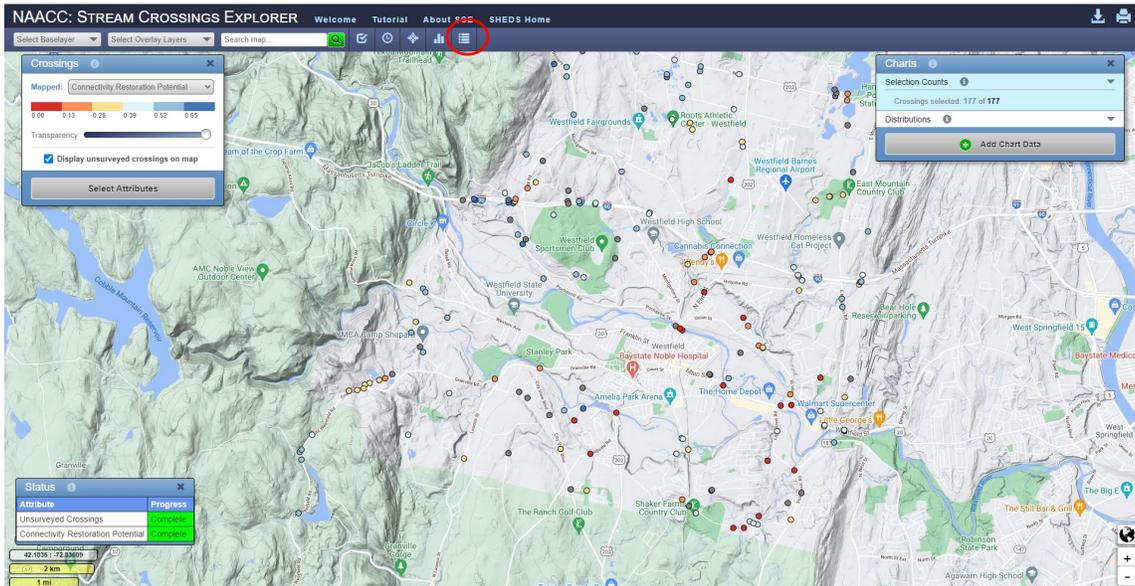


Step 7: Be sure the Crossings Layer has “Connectivity Restoration Potential” selected from the drop-down menu next to “Mapped” and the box is checked next to “Displayed unsurveyed crossings on map.” This should display all the mapped stream crossings within your community.

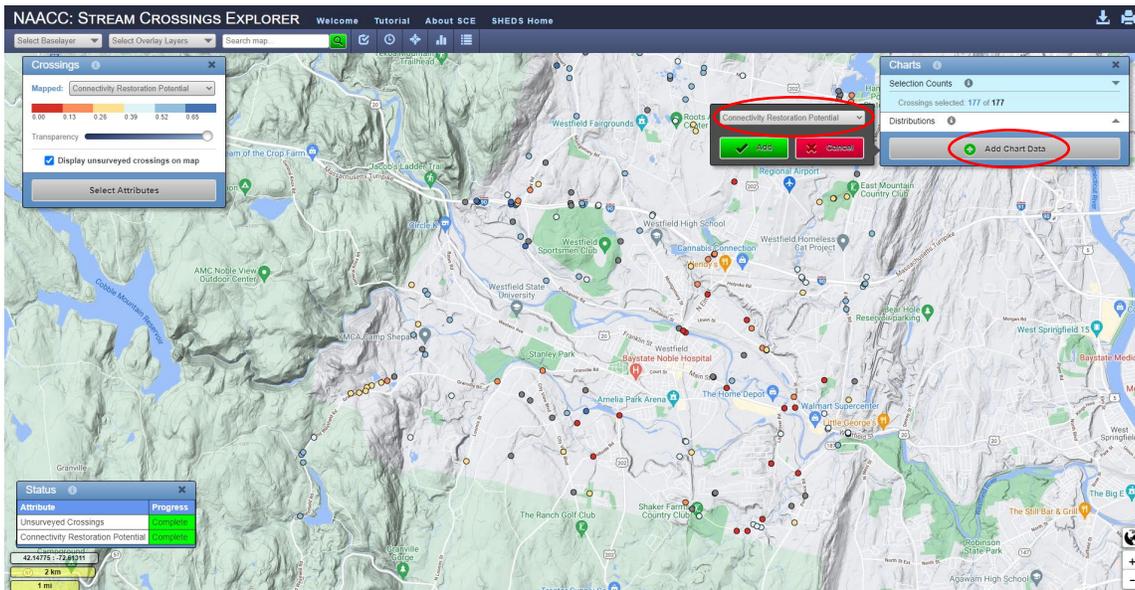


APPENDIX B: DER's Tools to Evaluate Environmental Benefits of Culvert Replacements

Step 8: Select the “Charts” icon on the website header.

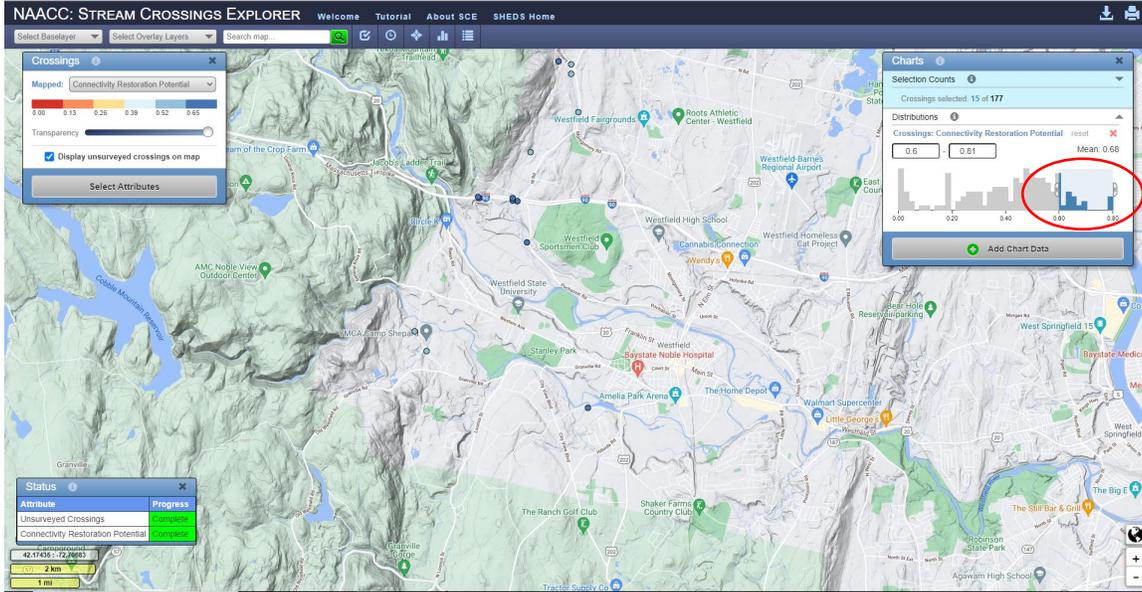


Step 9: Click “Add Chart Data” and then select “Connectivity Restoration Potential” from the drop-down menu. Click “add.”

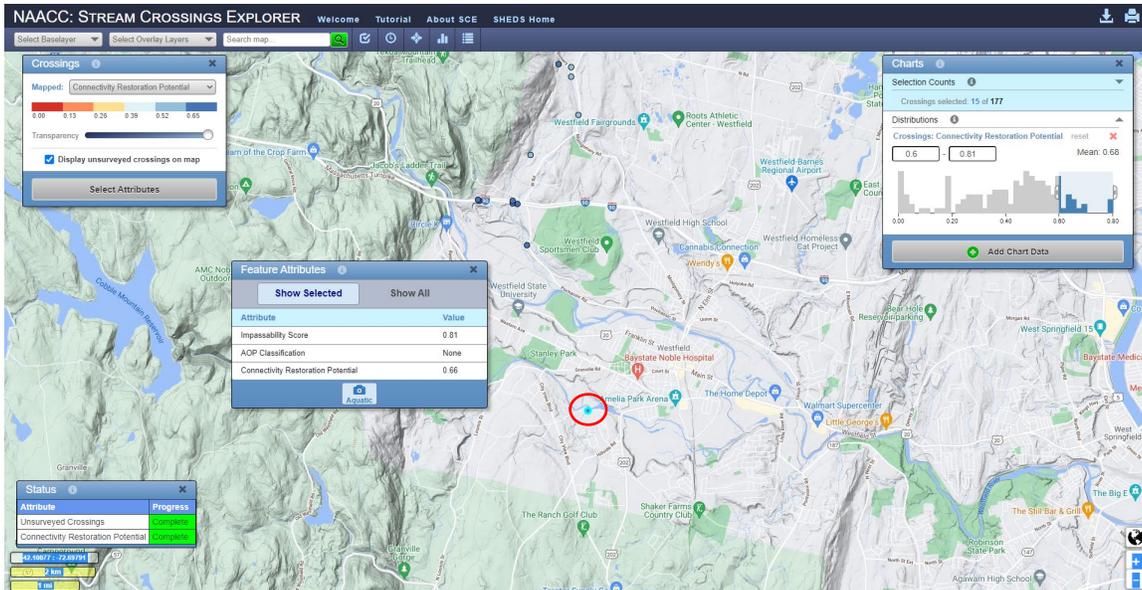


APPENDIX B: DER's Tools to Evaluate Environmental Benefits of Culvert Replacements

Step 10: All crossings within your town will be displayed in the map. Stream crossings with the highest potential for restoration will be at the higher end of the scale. You can adjust the view by adjusting the range in the chart box and/or clicking and holding down your cursor to adjust the range box. The number of crossings selected is displayed above the chart data and on the map.

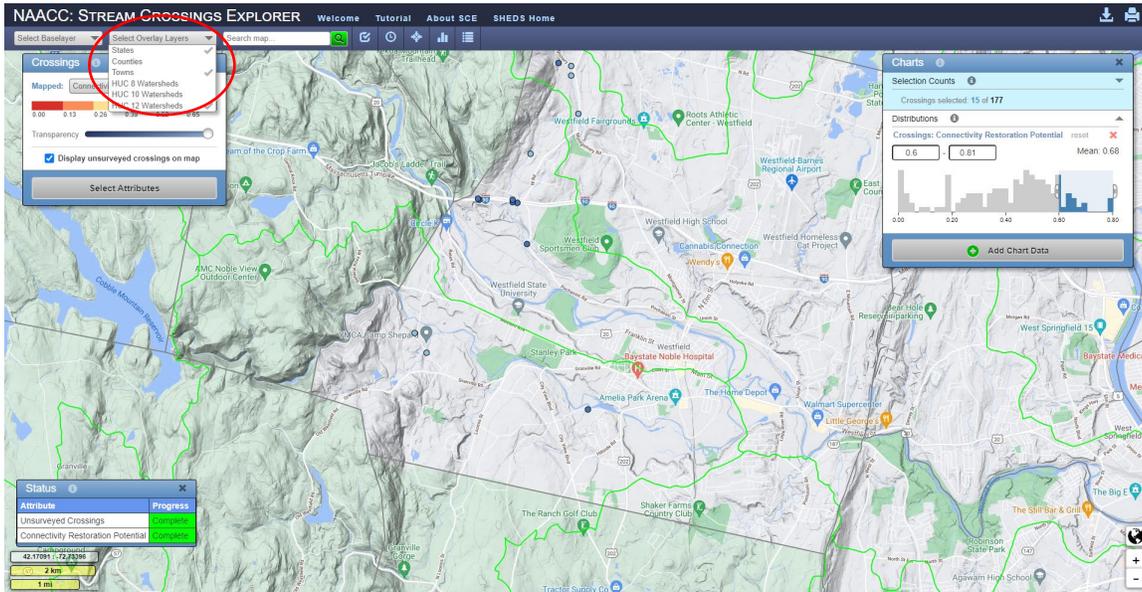


Step 11: Select crossing of interest to view available data, e.g. the Connectivity Restoration Potential Score.

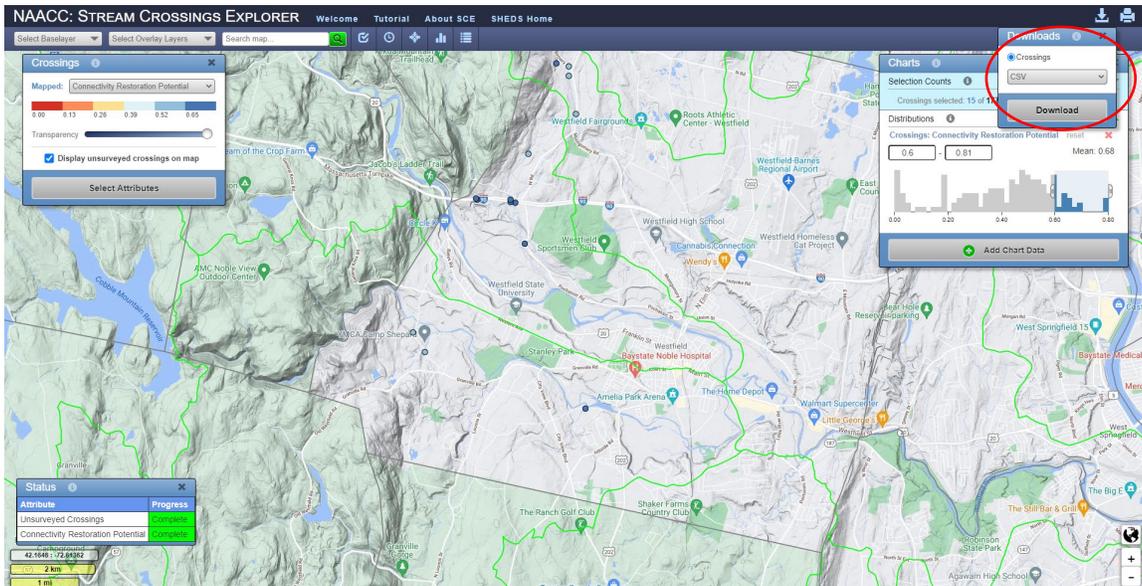


APPENDIX B: DER's Tools to Evaluate Environmental Benefits of Culvert Replacements

Optional: To add Town boundaries and/or HUC 12 Watershed Layer, you can select from the “Select Overlay Layers.” You can also change the map baselayer under “Select Baselayer” drop-down menu.



Optional: You can download the displayed data (as a .csv, shapefile or GeoJSON file) by selecting the download icon in the upper righthand corner.



APPENDIX C: PROPOSED WORK CHECKLIST

The Proposed Work Checklist is intended to help applicants determine what tasks to include in the funding request to DER. The tasks listed comprise a typical culvert replacement project scope and are arranged in general project order. Applicants are not bound to the tasks/activities listed on the Proposed Work Checklist for the funding request but should consider including tasks that may have been omitted from the project's previous work history.

PROPOSED WORK CHECKLIST			
FIELD DATA COLLECTION			
PROJECT STATUS			TASK
Proposed	Complete	Not Applicable	
			Wetland Resources Delineation: A wetland resource area delineated and flagged by a qualified person, including data plots.
			River Substrate Analysis: An analysis of stream characteristics and substrate to be used as a reference for the replacement crossing design.
			Geotechnical Evaluation: Geotechnical borings and substrate analysis for structural properties.
			Radial Site Survey: A detailed survey of the crossing area, including elevations of the crossing inverts, road surface, road edge, site utilities, approximately 50-100ft radius around crossing location.
			Longitudinal Profile Survey: A detailed survey of the stream profile several hundred feet upstream and downstream of the crossing locating stream features and elevations.
			Hydrologic Study: A calculation of existing storm events using standard methods and watershed characteristics to determine runoff volumes, time of concentration, and peak discharge.
			Hydraulic Analysis: Modeling of the existing crossing for water surface elevation, scour, and velocity to understand the hydraulic forces.
			Recommended Replacement Summary: A detailed summary of structure types evaluated and recommended structure type for the project location. Considerations include site constraints, ease of construction, structure lifespan, potential for erosion and head-cutting, stream stability and risk of stream channel adjustment, benefits to stream habitat, storm flow conveyance, potential to affect property or infrastructure, and cost of replacement.

APPENDIX C: PROPOSED WORK CHECKLIST

DESIGN & ENGINEERING			
PROJECT STATUS			TASK
Proposed	Complete	Not Applicable	
			<i>Preliminary Design Plans: Design regarding footprint, dimensions, site constraint considerations, and resource area impacts.</i>
			<i>Hydraulic Design: Model the proposed structure for water surface elevation, scour, sediment transport, and velocity to understand the hydraulic forces and design the stream bed so that flow conditions and hydraulic dynamics in the culvert are comparable to the upstream and downstream stream channel and meet MassDOT standards when applicable.</i>
			<i>Geotechnical Design: Design the crossing within the limitations of the substrate characteristics and meet MassDOT standards when applicable.</i>
			<i>Structural Design: Design the crossing to meet the structural needs of the road type and meet MassDOT standards when applicable.</i>
			<i>Construction Details: Design the crossing with sufficient details for a contractor to construct the crossing and meet MassDOT standards when applicable.</i>
			<i>Final Design Plans: Complete all other design requirements for a P.E. to stamp the plans.</i>
PERMITTING			
PROJECT STATUS			TASK
Proposed	Complete	Not Applicable	
			<i>Permitting: Including required local, state and federal environmental and permit reviews.</i>
			<i>Chapter 85, Section 35 MassDOT Review: Replacement structure spans over 10ft are subject to MassDOT design requirements and review in accordance with MGL Chapter 85, Section 35. For more information about the MassDOT requirements see: Municipal Small Bridge Program design requirements for new and full bridge replacement projects (PDF 98 KB)</i>
<i>The following are examples of permits that could be required for culvert replacement projects. Note that this list is not comprehensive and the need for the various permits listed may be dependent on the project scope.</i>			
1) Notice of Intent (Conservation Commission)			6) Massachusetts Historical Commission Project Notification Form

APPENDIX C: PROPOSED WORK CHECKLIST

2) <i>Massachusetts Endangered Species Act (MESA) Project Review</i>	7) <i>Army Corps of Engineers 404 Programmatic General Permit</i>
3) <i>Massachusetts Department of Environmental Protection (DEP) Section 401 Water Quality Certificate</i>	8) <i>MassDOT Chapter 85, Section 35 Review</i>
4) <i>Massachusetts Department of Environmental Protection (DEP) Chapter 91 Waterways Jurisdictional Determination</i>	9) <i>FEMA Floodplain Letter of Map Revision/Conditional Letter of Map Revision</i>
5) <i>Massachusetts Environmental Policy Act (MEPA) Filing</i>	

CONSTRUCTION

PROJECT STATUS			TASK
Proposed	Complete	Not Applicable	
			<i>Construction Bidding: Final construction specifications and project plans have been stamped and construction</i>
			<i>Construction: Explain the scope of construction in Section 5) i. on the Application Form.</i>

Project Meets the Massachusetts Stream Crossing Standards:

- YES** Projects requesting construction funds must meet the MA Stream Crossing Standards. If the project design is final but does not meet these criteria, or if the applicant is unsure, check this box to update and/or redesign the crossing to meet the MA Stream Crossing Standards before construction.
- NO**