

Request for Proposals:

HOUSATONIC RIVER NATURAL RESOURCES RESTORATION PROJECT
CONNECTICUT SUBCOUNCIL REQUEST FOR PROPOSALS (RFP)

RECEIVED
JAN 19 2007
INLAND FISHERIES

Part A: RESPONDER AND PROJECT SUMMARY FORM

Please read "RFP: Overview of Selection Process" before completing this form.

Part A must be completed using Submittal Form A.

Responses may be entered electronically using the Microsoft Word version of Part A of this form available on the Housatonic River Basin Natural Resource Restoration Project in Connecticut website (www.housatonicrestoration.org), saved and printed. Alternatively, the responder may print the form and complete it with black ink.

An Adobe Acrobat version of the entire form (Part A and Part B) is also available on the Housatonic River Basin Natural Resource Restoration Project in Connecticut website

Project Name Provide a brief working name.

Fish Ladder Repair and Riparian Vegetation Restoration, Cornwall

Responder – if there is more than one party involved in the project, please provide the information for the primary or lead party.

Housatonic Valley Association, Inc. (HVA), Caprice Shaw
Name

Water Protection Director
Title

P.O. Box 28
Address

150 Kent Rd
Address

Cornwall Bridge, CT 06754
City State Zip

860-672-6678
Phone

cshaw@hvatoday.org
Email

Type of Entity

Check the box that best describes the primary respondent.

- Private individual
- Non-profit organization
- Municipal government
- State government
- County government
- Federal government
- Tribal government
- Corporation or Business
- Academic Institution
- Other (explain)

Project Implementation

Does the responder plan to be the Project Sponsor and respond to the Request for Supplemental Information (RSI) pending approval of this Proposal?

Yes No

If yes, please list any other project participants. HVA, the Connecticut Department of Environmental Protection Inland Fisheries Division (IFD), and property owner Ms. Joanne Wojtusiak are partnering on this project. If selected, HVA and IFD will administer this project while Ms. Wojtusiak will provide access, input on design plans, and permission to restore the eroded bank.

Request for Proposals:

If the responder does NOT plan to be the Project Sponsor and does NOT intend to respond to the Request for Supplemental Information (RSI), is the responder interested in being a project participant and assisting a different Project Sponsor on this project?

Yes No

Request for Proposals:

Restoration Priority Funding Category See Sec. 3 of "RFP: Overview of Selection Process" for category descriptions.

Primary Restoration Category. Check the restoration category that is the primary goal of the project.

Check one box.

- Aquatic Natural Resources Restoration/Enhancement
 Riparian & Floodplain Natural Resources Restoration/Enhancement
 Restoration/Enhancement of Recreational Uses of Natural Resources

Secondary Categories. Check all relevant boxes.

- Aquatic Natural Resources Restoration/Enhancement
 Riparian & Floodplain Natural Resources Restoration/Enhancement
 Restoration/Enhancement of Recreational Uses of Natural Resources

List Specific Injured Natural Resources and/or Impaired Natural Resource Services to Benefit from Project

RESOURCE: Furnace Brook is a class B/A waterway, stocked with trout by the IFD. Furnace Brook provides thermal refuge for trout species as the warmer summer months make the Housatonic River water temperatures unlivable for trout. Trout ready to spawn seek these cold freshwater tributaries—the ideal habitat for young fry. Historically, Furnace Brook has been a spawning ground.
PROBLEM: Recent bridge repair work (2004) created a one- to two-foot drop, and required construction of a fish ladder. The bottom of the fish ladder was irreparably damaged in Spring 2006 flooding, and must be repaired. That same flooding damaged riparian vegetation along the shoreline.

Project Location (if known) See directions and "RFP: Overview of Selection Process" for additional materials to provide (maps, aerial photographs)

Municipality/ies:

At the Connecticut Department of Transportation bridge on Route 4 (Bridge #: 01932) near the intersection of 7, Cornwall, Connecticut.

Longitude for approximate center of project area: 73 degrees 22' 09.56"W

Latitude for approximate center of project area: 41degrees 49' 07.09"N

Project Budget Estimate (if known)

Total Project Cost Estimate: \$ 27,593

Housatonic River NRD Fund Estimate: \$ 26,500. Approximately \$1,100 monetary match for volunteer labor at 6 volunteers attending 8 hours of field work, and 2 hours of report briefing, at the value of \$18.04 per hour (calculated by Independent Sector for 2005) for tasks such as planting and monitoring fish traps. We are also seeking additional matching funds.

PROJECT NARRATIVE PART B

Restoration Proposal from the Housatonic Valley Association Fish Ladder Repair and Riparian Vegetation Restoration, in Cornwall, CT

Item 1. Project Narrative

GOAL: To allow brown trout access to habitat in Furnace Brook from the Housatonic River by repair of an existing fish ladder and to restore riparian vegetation to achieve cooler water temperatures for young fry.

SIGNIFICANCE: Furnace Brook is a class B/A waterway, indicating that it is suitable for recreation, including fishing, and is stocked with trout by the CT DEP Inland Fisheries Division (IFD). Furnace Brook provides thermal refuge for trout species as the warmer summer months make the Housatonic water temperatures unlivable for trout. Trout migrate into these cold freshwater tributaries for spawning. Historically, Furnace Brook has provided suitable habitat for trout spawning and the rearing of young.

NEED: The Connecticut Department of Public Health, in a pamphlet based on their 2006 Fish Advisory, notes that PCBs are absorbed by fish such as trout, and therefore high-risk persons such as pregnant women are advised to have only one trout per month if caught in Furnace Brook. The potentially harmful effects of PCBs on fish include impaired reproductive, endocrine, and immune system function, increased lesions and tumors, and death.¹

This already weakened fish population is now challenged by another man-made barrier to survive. During 1992, Connecticut Department of Transportation (CTDOT) submitted a permit application (IW-91-136) with the Department of Environmental Protection Inland Water Resources Division (DEP IWRD) for bridge repair work on Route 4 that crosses Furnace Brook. The bridge repair work included patching deteriorated concrete as well as resurfacing the base with an additional two inches poured concrete. The IFD identified that the current bridge design, with a one- to two-foot vertical drop, obstructed fish from moving upstream in Furnace Brook. Therefore, the IFD required that a fish passage be constructed underneath the bridge.

On March 5, 1995, CTDOT submitted to DEP IWRD and IFD plans for a fishway and met with the abutting property owner Ms. Joanne Wojtusiak. On March 25, 1995, DEP reviewed and approved fishway plans. CTDOT installed the fish passage underneath the bridge to aid migrating trout. The ladder proved successful, but heavy river currents from seasonal storms damaged the downstream end of the fish ladder. During August 1995, the IFD made the first of many modifications to the base of the fish ladder. However, by summer 2006, the IFD observed that these “hand fixes” were not long-lasting: a more permanent fix was required. Also, the last few years’ hurricane storms have created strong currents that eroded the riverbanks and stripped vegetation from the shorelines.

OBJECTIVES:

Obj. 1 Improve the section of the fish ladder by installing a stronger permanent structure that blends into the environment, yet can handle the force of strong currents.

Project Benefits Measure:

¹ NOAA: *Fall 2001 status report on the Hudson River Natural Resource Damage Assessment*, to be found on the Web at <http://www.darrp.noaa.gov/northeast/hudson/pdf/hrfish.pdf>

- Fish ladder repaired and strengthened in Year 1.
- The IFD will create a monitoring protocol for the fishway. The plan will include one temporary fish trap at the upstream end to measure fish use of the fishway.
- Year 1 success will be measured as to the number of wild and stocked brown trout making the climb upriver. The daily numbers of fish trapped should be commensurate with the timing of the fall run during mid-October through late November.

Obj. 2 Restore surrounding eroded riparian shoreline with native plantings whose shade will keep water temperatures cool during warmer summer months—essential for fry.

Project Benefits Measures:

- Shoreline restoration of the spawning area's approximately 15-30 feet that was damaged by heavy and frequent 2006 storm water runoff and increased flow from Furnace Brook.
- Water temperature, by Year 3 will be cooler than the mainstream and within the limits for successful fry populations.

Obj. 3. Organize and conduct a volunteer-based monitoring and maintenance program to monitor the fish passage to measure success of the ladder in aiding fish migration.

Project Benefits Measure:

- At least 6 volunteers recruited, trained and actively monitoring the fishway, from mid-October through late November annually. We expect to involve members of fishing organizations.

Obj. 4. Organize volunteer-based monitoring and maintenance of stability of the shoreline.

Projects Benefits Measure:

- By year 3, roots of new plantings can withstand spring flooding.

Obj. 5. Long-term Measures of Success

Project Benefits Measures:

- Annual fishway monitoring will be done for five years, and alternate years thereafter.
- Annual monitoring and maintenance of shoreline and water temperatures will be done by volunteers organized by HVA.

PARTNERSHIPS:

HVA Project Lead and managers: oversee installment, create educational brochure, recruit and train volunteers, monitor fish traps, notify the IFD on ladder status, report results to the IFD, and public outreach via the media. Also: from the *Connecticut Native Tree and Shrub Availability List* (<http://www.dep.state.ct.us/burnatr/wildlife/pdf/ntvtree.pdf>), procure through purchase or donation the vegetation necessary to restore shoreline of spawning area; supervise professional and volunteers crews, and measure success.

IFD: fish ladder and trap design and installation, fish trap sampling protocol and procedures.

Adjacent Property Owner Ms. Joanne Wojtusiak: Allow access to install ladder, input on design plans and to restore eroded bank and stabilize trees on her side of the river.

Contracted Services: Mason to construct ladder from IFD design and professional landscape crews, if large equipment is needed, to restore the shoreline.

Item 2. Project Location –At the Connecticut Department of Transportation bridge on Rt. 4 (Bridge #:01932). **Please see attached map and site photographs of project location.**

NARRATIVE PART B

Restoration Proposal from the Housatonic Valley Association Fish Ladder Repair and Riparian Vegetation Restoration, in Cornwall, CT

Item 3. - Criteria Statements

1. Does the proposal contain the information identified by the CT SubCouncil as set out in the "Instructions for the Preparation and Submission of Restoration Project Proposals?"

Yes. Please find cover sheet, narrative, budget, map and photos in format requested.

2. Does the Proposed Project restore, rehabilitate, replace, and/or acquire natural resources or natural resource services equivalent to those that were injured by the release of PCBs or other hazardous substances from the GE facility at Pittsfield, MA?

Yes, the project restores a natural resource (brown trout) to their spawning ground and improving water temperatures for fry, the brown trout population in this area having been adversely affected by PCBs to the point where there is a health advisory for fish consumption.

3. Is the Proposed Project, or any portion of the Proposed Project, an action that is presently required under other federal, state, or local law, including, but not limited to, enforcement actions?

No, to the best of knowledge there is no legal action required.

4. Is the Proposed Project inconsistent with any federal, state, or local law or policy?

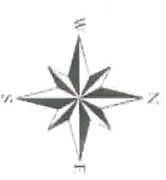
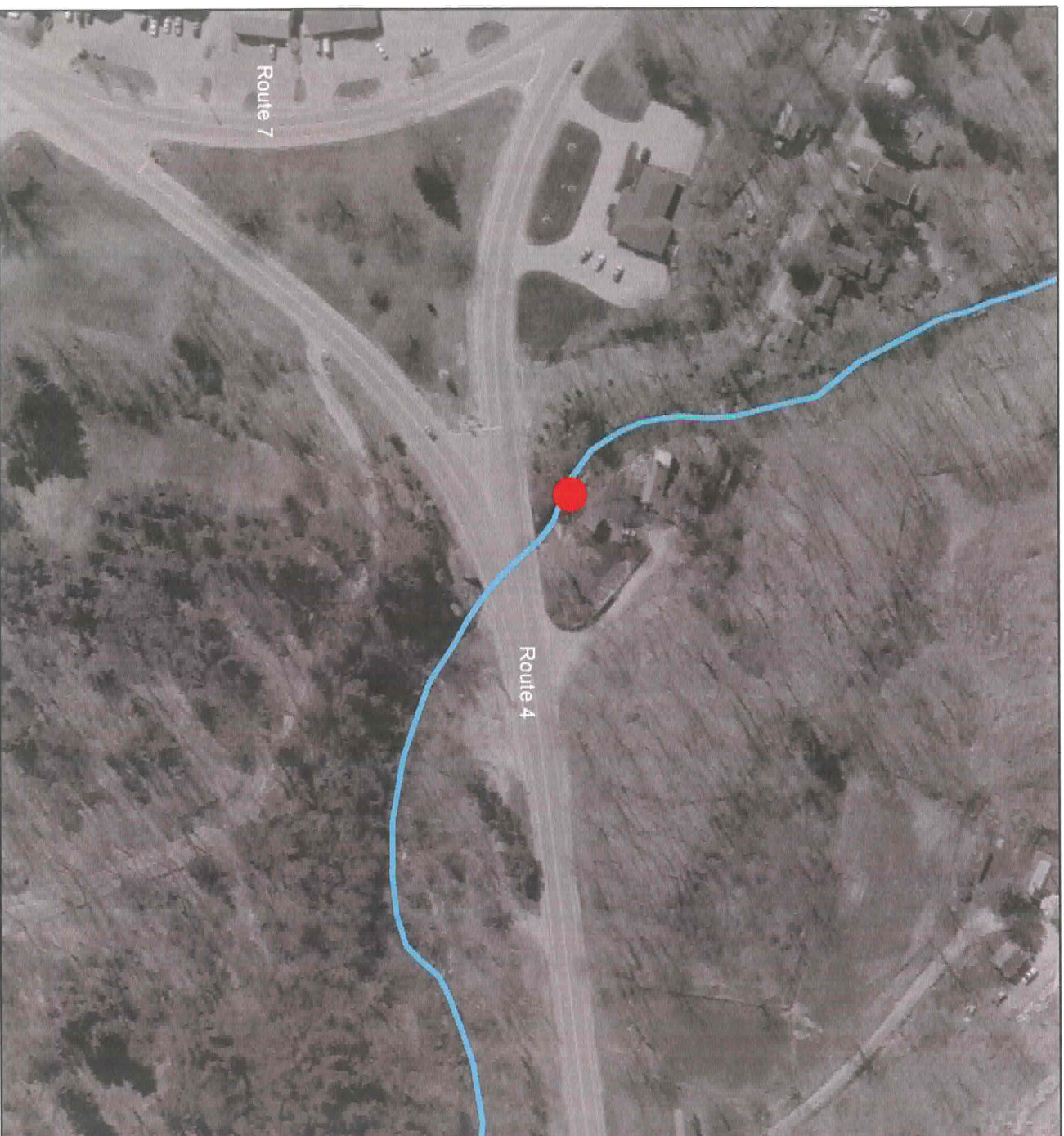
No, to the best of our knowledge it is not inconsistent with government law at any level.

5. Will the proposed project, or any portion of the proposed project, be inconsistent with any ongoing or anticipated remedial actions in the Housatonic River watershed?

No. In fact it is complementary to ongoing improvements in water quality, temperature, and flow.

Furnace Brook Fish Ladder Restoration

Cornwall, CT



Legend

 Furnace Brook

1 inch equals 150 feet

**Restoration Proposal from the Housatonic Valley Association
Fish Ladder Repair and Riparian Vegetation Restoration, in Cornwall, CT**

Site Supporting Materials: Site Photographs

The subject area is where the wall ends and there is a large drop off

