

Cacapon Institute
WV Chesapeake Bay Program Objective #32.24
Warm Springs Run Natural Stream Restoration Plans
REQUESTS FOR PROPOSAL

- 1) **Preface: Time is of the essence.** This project is funded by the U.S. EPA Chesapeake Bay Program and a WV DEP – DWWM—Watershed Improvement Branch Non-Point Source Grant for Fiscal Year 2020 (ending June 30, 2021). **Cacapon Institute must receive the completed designs no later than TUESDAY, JUNE 1, 2021. NO EXTENSIONS ARE POSSIBLE.**
 - a) Cacapon Institute anticipates the two Natural Stream Restoration (aka “streambank stabilization”) plans, together, to cost in the range of \$40,000 but all proposals will be accepted and reviewed and, while price is a primary consideration, we will weigh all elements of the proposal in our selection process.
 - b) The Contractor will be paid for delivering the plans in installments of one-quarter, one-quarter, and final payment as laid out in the timeline.
 - c) Applicants submit proposals at no cost. No one will be paid for writing a proposal in response to this RFP.
- 2) **Client:** Cacapon Institute (aka “the Institute”)
 - a) From the Cacapon River, to the Potomac, to the Chesapeake Bay, we protect rivers and watersheds using science and education.
 - b) Contact: Frank F. Rodgers, Executive Director,
frodgers@cacaponinstitute.org | 304-240-2721 (cell) | 304-258-8013 (o) | #10 Rockford Road, Great Cacapon, WV 25422
 - c) This project is a collaboration between the Institute and Morgan County Schools.
- 3) **Beneficiary:** Morgan County School System is the primary beneficiary of streambank stabilization designs for Warm Springs Run through Widmyer Elementary School and Berkeley Springs High School.
 - a) Additional beneficiaries include:
 - i) Warm Springs Watershed Association
 - ii) The Eastern Panhandle Conservation District.
- 4) **“Contractor”:** The Contractor is the individual, firm, or corporation responding to this RFP.
 - a) The Contractor shall hold a license in the State of West Virginia to perform such work.
 - b) The Contractor must demonstrate they have the work capacity and abilities required to submit the completed plans on time.

- c) The Institute seeks a Contractor who can demonstrate they have employed Natural Stream Restoration designs in previous work.
 - d) The Institute seeks a Contractor with a demonstrated propensity for working on public lands with input from multiple stakeholders.
- 5) **Submissions.** Contractors may submit via email or post to the Institute and are encouraged to request a delivery or read receipt.
- a) Deadline for proposals to arrive at the Institute is Monday, February 1, 2021.
 - b) The Institute will favor early submissions (as a demonstration of the Contractor's ability to perform work in a timely fashion).
 - c) Proposals should address the objectives, background, priority & context, workflow, deliverables, and timeline outlined below.
 - d) There is no set format or requirement for length, or brevity, of the proposal.
 - e) Pre-proposal inquiries are welcome so asking questions will not disadvantage applicant-Contractors. Likewise, the Institute reserves the right to question applicant-Contractors before and after the deadline.
 - f) Cacapon Institute will choose a Contractor within two days of the RFP deadline (i.e., February 3, 2021).
- 6) **Objectives:** Prepare plans and specifications for the restoration of two sections of Warm Springs Run. This project will include the complete preparation of plans and specifications necessary for implementing the streambank stabilization project.
- a) Implementation of Natural Stream Restoration design principles including (but not limited to):
 - i) Grading of nearly vertical banks to stable slopes to decrease shear stresses and increase the width of the flood prone areas
 - ii) Soil bioengineering methods and vegetation to stabilize banks
 - iii) Boulder toe protection for banks subject to great shear stresses
 - iv) Bankfull benches with or without shrubs and vegetation
 - v) In-stream J-Hooks, V-Weirs, or W-Weirs to guide flows in a desired direction to protect man-made structures.
 - b) Completed streambank stabilization plans for two stream segments ([map](#))¹:
 - i) Widmyer Elementary School. ~1,300 linear feet classified as a Rosgen C4 stream-type. It is not overly confined by structures (but does include a buried instream sewer)
 - ii) Berkeley Springs High School. ~800 linear feet classified as a Rosgen G4

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<https://cacaponinstitute.maps.arcgis.com/apps/webappviewer/index.html?id=025895512d154f38894f8aa09cf31e35>

stream-type with three pedestrian bridges. It is <50 feet from the school building, outbuildings, a sidewalk, and a fence line. The instream sewer is exposed.

- 7) **Background.** As long as anyone can remember, managing Warm Springs Run through the school system's property in Berkeley Springs has been a challenge. Natural Stream Restoration offers the best opportunity to control the run, protect school property, improve aquatic habitat, and reduce nutrient and sediment pollution.
 - a) Several assessments and concept designs are available.
 - i) Description of the two stream lengths. Cacapon Institute - Green Rivers Narrative (2020):
https://drive.google.com/file/d/1I9NGomHLpy_io4Xr_kRmhrfIKBJ97nXL/view?usp=sharing (11MB)
 - ii) A potential solution for Berkeley Springs HS. USDA NRCS "Trip Report" (2018): <https://drive.google.com/file/d/1Qr1O5Sltmvbm-UlrKzEgyfI6K5NzN-2K/view?usp=sharing> (1.3MB)
 - iii) Warm Springs Watershed Assoc. Green Infrastructure Study (2014):
<https://drive.google.com/file/d/1eTkuvle3cmIoXnOgMoH52LDKXCyfbpgP/view?usp=sharing> (77MB)
 - iv) Warm Springs Watershed Assoc. Comprehensive Plans(2012):
<https://warmspringswatershed.webs.com/2012%20Comprehensive%20Plan.pdf> (19MB)
 - v) Warm Springs Watershed Assoc. Assessment (2010):
https://warmspringswatershed.webs.com/Warm_Springs_Run_Watershed_Assessment_2010%5B1%5D.pdf (6MB)
- 8) **Priorities and Overall Context:** This planning project is a priority for Cacapon Institute because, we believe, it will lead to federal and state funding to stabilize Warm Springs Run. Stabilizing Warm Springs Run will:
 - a) Meet priorities of Morgan County Schools including:
 - i) Improve student safety—Controlling the land-water interface will safeguard vehicular and pedestrian access at the schools
 - ii) Protect school property—Stabilizing the stream, specifically through Natural Stream Restoration designs will, to the extent possible, protect man-made structures during high water events
 - iii) Improve education potential—Making the run more stable, and therefore more accessible to students, will improve opportunities to study stream hydrology, fish, amphibians, and benthic macroinvertebrates
 - iv) Increase appearance—A more stable, less damaging, stream will be easier to maintain and landscape and, therefore, more attractive.
 - b) Meet the environmental priorities of Cacapon Institute and Warm Springs Run Watershed Association including:

- i) Stream bank stabilization—Over time, a stable stream and landscape planning will establish desirable vegetation and lead to improved stream temperatures and aquatic habitat
 - ii) Reduce nutrient and sediment runoff pollution—Stream stabilization will reduce sediment and accompanying nutrient deposition in Warm Springs Run and downstream to the Potomac and Chesapeake Bay
 - iii) Demonstrate Natural Stream Restoration—The Town of Bath has incorporated Green Infrastructure in the Main Street project, Warm Springs Watershed Association is rehabilitating two wetlands and maintaining several rain gardens, and Sleepy Creek Watershed Association has implemented two Natural Stream Restoration projects so these plans, when implemented, will add to innovative demonstration projects in Morgan County.
- c) In addition to being a local priority project, the WV DEP has identified streambank stabilization and restoration as a priority of the WV Watershed Implementation Plan for the Chesapeake Bay Total Maximum Daily Load.
- 9) **Workflow: DEADLINE TO COMPLETE THE DESIGNS IS TUESDAY, JUNE 1, 2021.** Following is the proposed workflow for planning Natural Stream Restoration on Warm Springs Run. While the Contractor may propose alternate timelines for individual outcomes, the deadline is fixed.
- a) **Site Surveys.** The first activity to be undertaken is surveys of the two stream segments.
 - i) Topographic and fluvial geomorphic surveys are required to assess the existing condition of the stream segments including:
 - (1) departure from stable stream dimensions
 - (2) flow patterns
 - (3) profiles of the thalweg, bankfull lines, and flood plains.
 - ii) Surveys are required to prepare the base maps for designs and to establish locations for stream improvements.
 - iii) The accuracy of the survey and intensity of data collection is at the discretion of the Contractor so applicant-Contractors should outline their survey method and the intensity (i.e., intervals) of data collection.
 - iv) Applicant-Contractors should stipulate what they will survey including if the following is (or is not) required:
 - (1) A longitudinal profiles for one, or both, sections of the stream
 - (2) Elevations of stream segments including thalweg, water surface, and bankfull stage
 - (3) Location of riffles, runs, pools, and glides
 - (4) Cross-section measurements (and their frequency).
 - b) **Design Plans and Specifications:** The Contractor will take the lead on

developing the plans and specifications but must seek, and consider, input from Morgan County Schools and Cacapon Institute.

- c) **Project Review Meetings.** Project planning presentations, and reviews, will occur during the planning process as outlined in the timeline. The Contractor will make presentations to, and solicit comments and concerns from, the following:
 - i) Superintendent of Morgan County Schools represented by:
 - (1) School Facilities
 - (2) School Safety Officer
 - (3) Principal of Widmyer Elementary
 - (4) Principal of Berkeley Springs High School
 - ii) Cacapon Institute
 - iii) Citizens of Morgan County represented by (but not limited to):
 - (1) Warm Springs Run Watershed Association
 - (2) Morgan County Planning Commission
 - (3) Eastern Panhandle Conservation District.
- d) **Permitting:** No construction will occur during this planning process so no permits will be required.
 - i) However, even though permits are not anticipated for this work, the Contractor should draw the plans in consideration of required construction permits including (but not limited to):
 - (1) Stream Activity Permit (West Virginia Office of Land and Streams)
 - (2) Nationwide Permit 27 Pre-Construction Notice (the Corps of Engineers)
 - (3) Construction Stormwater Notice of Intent (WVDEP)
 - (4) Erosion and Sediment Control Approval (Eastern Panhandle Conservation District).
- e) The West Virginia Watershed Network has prepared a permit guide booklet called [West Virginia Stream Disturbance Permitting Requirements²](#). The booklet provides an overview of the various permits, and certifications, required before a contractor can begin restoration work on West Virginia streams and wetlands.

10) **Deliverables:** The deliverables for this project are:

- a) Concept level plans (presented at the first and second review meetings)
- b) Final design plans with specifications to construct the streambank

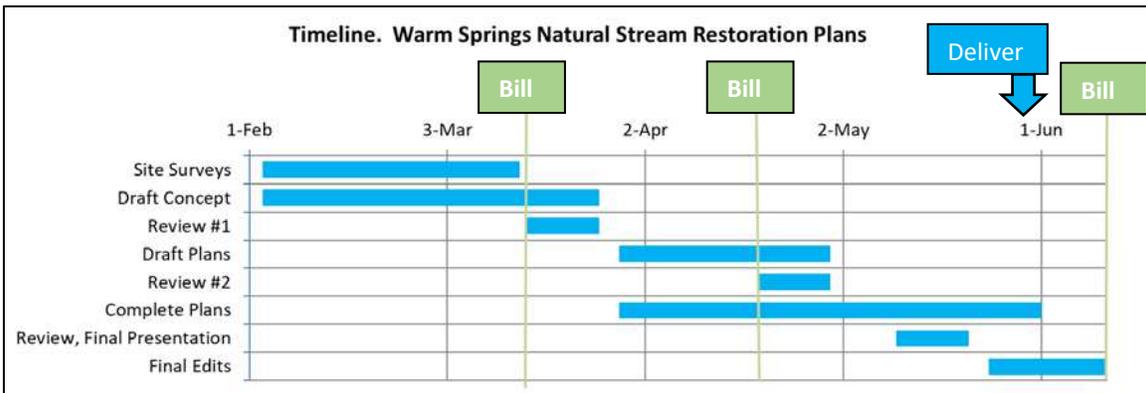
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<https://dep.wv.gov/WWE/Programs/nonptsource/streamdisturbance/Documents/StreamDisturbancePermittingGuide.pdf>

stabilization project (presented at the 2nd and final review meeting). The final design plans will include no less than:

- i) cover sheet
- ii) existing conditions survey
- iii) final conditions design plans
- iv) grading plan sheets
- v) planting plan sheets
- vi) detail sheets
- vii) cross sections sheets
- viii) erosion and sediment control sheets
- ix) outline of anticipated permit requirements as addressed in the plan.

11) Timeline. DEADLINE FOR COMPLETION IS FRIDAY, JUNE 11, 2021.



- a) February-March. Survey the sites, define the areas of disturbance, and conceive a concept level plan.
- b) March 15-26. First Review Meetings. Present areas of disturbance and plan concepts. Contractor my bill for one-quarter of the planning contract.
- c) March – April. In consultation with the Institute, refine the plan concepts to include input from the First Review Meeting, and begin specific design plans for stream stabilization including details for employing Natural Stream Restoration techniques.
- d) April 19-30. Second Review Meetings. Present detailed plan proposals. Contractor my bill for second quarter of the planning contract.
- e) March – May. In consultation with the Institute, draft the complete plan
- f) May 10-21. Final Review Meetings. Present the final draft of the plans.
- g) June 1. Deliver the final complete stream stabilization plans to Cacapon Institute and edit as required.**
- h) June 11, 2021. Plans completed. Contractor my bill for remaining half of the planning contract.