SHORERIVERS

REQUEST FOR PROPOSALS TO PROVIDE PROFESSIONAL SERVICES FOR STREAM RESTORATION, CONSTRUCTION PLANNING, AND DESIGN SERVICES- STUMPF FARM

Date of Advertisement: April 1, 2024 / Deadline for Receipt of Proposals: April 26, 2024

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ShoreRivers seeks qualified vendors to provide professional services for design/build of a stream restoration site on the STUMPF FARM in southern Cecil County, MD.
All prospective bidders may attend an optional site meeting 3pm on April 19. Meeting point will be at the shed on the north side of Whitehall Farm Rd, a ½ mile from Augustine Herman Hwy (39.37669722°; 75.87128611°) in Georgetown, MD. Bidders must RSVP to project manager Josh Thompson at jthompsonrestoration@gmail.com with intentions to attend the site meeting.

Project Description

This project is part of a holistic approach to improve habitat and water quality practices on a 1,120-acre row crop grain farm that sits on the north bank of the Sassafras River and borders the west bank of Coppin Creek. ShoreRivers conducted an initial desktop analysis of the property, specifically targeting potential eroding gullies, streambanks, and shorelines, and then followed up with a multi-day reconnaissance across the farm, walking the majority of the seven ravine/stream segments on the property.

This proposal is focused on "Reach B," an unnamed perennial stream that ranked as the highest priority segment on the Stumpf property when considering combined potential for nutrient reduction, floodplain connection and wetland restoration, and ecological uplift. The segment is approximately 3,600 linear feet of stream channel, approximately 12 acres of associated floodplain wetland, and multiple actively eroding lateral ravines formed off the main channel. Because of the overall length of this stream, and extensive nature of the associated eroding ravines, the decision was made to break this reach into two fundable phases: reach B.1 and B.2. This project will focus on restoration of the B.1 segment, which will encompass the downstream-most 1,857 feet of channel and the associated floodplain, as well as 258 linear feet of eroding ravine to the west side of the valley. There is a raised agricultural access roadway that intersects the stream valley and will act as a natural stable point to end Phase I work. The B.1 reach is characterized by a deeply entrenched channel disconnected from the adjacent forested floodplain; actively eroding banks on both sides with little stabilizing root matter, vegetation, or bank protection; highly erodible sandy loam soils; laterally migrating headcuts formed off of the main channel promoting more rapid drainage of floodplain wetlands and groundwater seeps; and vegetation dominated by invasive upland species that have thrived in the current degraded condition. This project will focus on restoring the hydrology and floodplain connectivity of a dynamic pre-development coastal plain headwater stream/wetland complex and will utilize a combination of restoration techniques to build a resilient, cost-effective project that will promote a dramatic upswing in ecological value, habitat, nutrient processing, and stormwater storage.

Technique: Part of the assessment and design process is the collection of data, modeling, and stream assessment work that will aid the design team and ShoreRivers in design decisions. The approach proposed here is subject to alteration depending on many factors, including modeling stormwater flow volumes and energy, projected earthwork cut and fill volumes, valley slope, stream type, etc. This restoration effort will break the stream length into multiple approaches.

- *Below roadway, Upper Reach:* The upper reach is highly entrenched within a steeper valley slope and has 6- to 10-foot 90-degree banks with no floodplain connection. This upper reach will be designed as a meandering single channel stream, with cobble riffles and deep pool habitat, incorporating toe wood in outer meander bends to reduce stress on the outer

bank and promote fish habitat. Cross valley log grade control structures, keyed into the valley slope, will be installed at 6" or 12" elevation intervals to prevent future downcutting. The stream channel will be realigned away from the valley slope and existing outer meander bends will be abandoned, graded into shallow floodplain pool habitat to mimic oxbow wetlands, and stabilized with coarse woody debris.

- *Below roadway, Lower Reach:* The lower reach is within a flatter valley slope and 3–5-foot bank heights are typical. The goal in this reach is to restore a slow coastal plain forested stream/wetland complex with maximum floodplain connection and hydrology connection between the stream, groundwater, and adjacent wetlands. Because there are minimal trees and vegetation present in this lower valley, some floodplain cut may be utilized to generate material to raise the stream channel and to lower areas to promote wetland hydrology. Cross valley grade control logs will still be utilized in this lower reach to prevent downcutting as the stream naturally meanders and braids. Grading of the floodplain to promote vernal pools and seep wetlands will be utilized, when possible, without impacting trees. The site will be designed to balance earthwork.

- *Ravine/headcut repair:* This stream segment includes several lateral headcuts that have migrated back into the adjacent landscape and are actively eroding. These headcuts are a major sediment source that accrete within the floodplain and smother wetland habitat, reduce in-stream habitat quality through embedded substrate, and migrate to the downstream tidal river, causing high turbidity, reducing light transmission, and impacting beds of submerged aquatic vegetation. These headcuts will be addressed through a combination of backfilling channel to raise and widen the ravine floor, thereby reducing stormflow energy; establishing a stable slope grade to convey stormflow to a stable point in the floodplain; and installing stable and permanent cross valley grade control structures to reduce risk of future downcutting of the ephemeral channel. Restored slopes will be stabilized with coir matting and planted with shrubs and trees.

Deliverables

The selected firms or partnerships will complete a fully constructable design. Proposal must include (but not be limited to) all assessment, permitting, modeling, survey, design, and nutrient calculation work to generate a ready-to-construct design. Deliverables to ShoreRivers will include:

- Plan set versions submitted to project manager for review and approval at concept, 60%, 90%, and final
- All local, state, and federal permits in-hand; coordinate pre-application meeting with project manager
- Full itemized construction bid sheet with engineer's estimate for costs
- All assessment data including stormwater modeling, BEHI and NBS data, stream protocol calculations, soil sample lab results, etc. to be provided to the project manager
- Full planting plan with species, container stock size, seed mixes, and guarantee and maintenance plan
- Detailed construction sequence

Submittal & Selection Process

Interested firms shall submit their competitive proposals, **to be received on or before 5pm on April 26, 2024,** to:

Kristin Junkin

kjunkin@shorerivers.org

Proposals may be submitted via email in PDF format. Applicants assume the risk of timely delivery. Any proposals received after the deadline will not be considered.

Responses shall include the following information that will be utilized by the selection committee to determine qualifications and rankings:

1. Expertise and experience in headwater wetland and stream restoration as outlined in this RFP.
2. At least three examples of completed projects within the past seven years, with a brief scope of project work, overall project cost, and contact for reference. Preferably include pre- and post-construction photos.
3. Demonstrated ability to perform the services outlined in this RFP.
4. Capacity to meet requirements of the contract, in addition to capacity to construct project if funded.
5. Project budget breakdown including all aspects of design, assessment work, permitting, survey, and follow-up. Budget should assume a full permitted, turn-key, ready-to-construct project design with all digital plans, design criteria, assessment work, modeling, and all applicable stream protocol and wetland credit calculations to be submitted to ShoreRivers as deliverables.

The submitted proposals shall be concise, not to exceed 10 pages (not including the cover page), 8.5" x 11", printed on one side. The minimum font size shall be 10 point. Facsimile submittals will not be accepted.

Each response will be ranked by the selection committee, based on the evaluation criteria. The list of qualified candidates will then be narrowed to the highest-ranking firms based on the scoring results. The top-ranked firms may be interviewed individually, if deemed necessary, to discuss proposed project sites and design specifics. A final ranking will be made based on the interviews. If interviews are deemed necessary, elected firms will be given notice of times and dates for scheduled interviews, which will be held in-person. Negotiations will begin with the firm having the highest final ranking and will proceed until a selection or selections are made. All respondents will receive notice of contract award. ShoreRivers maintains the right to make the selection decision without conducting interviews.

Respondents are reminded that it shall be the responsibility of the engineering consulting firm to be current with any professional registrations or certifications as required by law to work in the project area. Additional certifications, such as Professional Wetland Scientist and Certified Ecological Practitioner, are preferred. The professional engineer for this work must have related experience in watershed restoration and stream design.

The firm(s) awarded the contract will be required to enter into a professional services contract with ShoreRivers (standard contract available upon request).

License and Insurance Requirements

Contractors must maintain and provide copies of the following:

Current Certificate of Liability Insurance

Workers Compensation Insurance, if required by law

Questions may be submitted to the project manager, Josh Thompson, at:

jthompsonrestoration@gmail.com

302-841-0176

Stumpf/Whitehall Site Map

Legend

Reach B-2

Reach F

Reach E

Whitehall Farm Rd

Reach C

Reach B-1

Untitled Placemark

Target Reforestation

Reach A

Reach C-a

Reach D

213

Google Earth

3000 ft

N

STUMPF FARM

PERCENT SLOPE

SHORERIVERS

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Suite 301
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Legend

Eastern_Shore selection

Slope

Value

- 0.001 - 15
- 15.001 - 35
- 35.001 - 55
- 55.001 - 75
- 75.001 - 284.082

ANALYZED ----

CHECKED ----

DATE: 9/26/2023

Stumpf/Whitehall Farm Site Photos

Unstable outer meander bend

Tree sloughing on unstable, migrating bank.

Unstable outer meander, showing headcut forming in floodplain below lateral ravine entering floodplain, effectively draining seep wetland above.

Upper ravine – laterally unstable banks; typical trash found in upper ravines on farm

Understory dominated by microstegium vivenium; laterally migrating, unstable banks

Typical incised channel in ephemeral upstream headcut areas

Lower bank height nearing tidal interface

Unstable bank undercutting mature hardwood trees / major bank collapse

Downstream tidal interface off of mainstem Sassafras with public access