



Augusta County, Virginia

Procurement of Professional Services Request for Proposals

Issue Date: June 9, 2017

RFP# 81010-17-02

Title: Hearthstone Dam- Design/Construction Administrative Services and Geotechnical Investigation

Issuing Agency: County of Augusta, Finance Department
Corey Richie, Senior Purchasing Assistant, VCA
18 Government Center Lane
P.O. Box 590
Verona, VA 24482

Location of Work: Hearthstone Lake Dam, Augusta County, Virginia

Proposals will be received subject to the conditions attached hereto until **July 6, 2017 at 2:00pm** from qualified architectural/engineering firms to provide a geotechnical investigation and design/construction administrative services for the Hearthstone Dam Rehabilitation Project

All inquiries for information should be in writing and directed to: Corey Richie, Senior Purchasing Assistant at crichie@co.augusta.va.us.

Proposals may be mailed or hand delivered to the issuing agency shown above. NO FAXED OR EMAILED PROPOSALS WILL BE ACCEPTED.

The face of the envelope or shipping container shall be clearly marked in the lower left hand corner as follows:

RFP#: 81010-17-02

FOR: Hearthstone Dam- Design/Construction Administrative Services and Geotechnical Investigation

PROPOSALS DUE: July 6, 2017, 2:00pm

In compliance with this Request for Proposals and to all the Conditions imposed therein and hereby incorporated by reference, the undersigned offers agrees to furnish the goods/services in accordance with the attached signed proposal or as mutually agreed upon by subsequent negotiation.

Firm Name and Address:

Telephone () _____

Fax () _____

Email: _____

Signature _____

Date: _____

Type/Print: _____

Title: _____

Note: This public body does not discriminate against faith-based organizations in accordance with the Code of Virginia, § 2.2-4343.1 or against a bidder or offeror because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by state law relating to discrimination in employment.



Augusta County, Virginia

Procurement of Professional Services Request for Proposals

DESCRIPTION AND CONDITIONS

INTRODUCTION

Upper North River 77, Hearthstone Lake Dam is a flood control structure located 4 miles north of Stokesville in Augusta County on Little River. The Upper North River 77 watershed is 10,131 acres (15.83 square miles). All of the drainage area above the dam is located within the North River district of the George Washington National Forest. The dam is owned and operated by the Headwaters Soil and Water Conservation District (HSWCD) under a Special Use Permit issued by the US Forest Service (USFS). Access to Upper North River 77 is via a short gated access road off of Tilman Road.

Virginia NRCS completed a 95% Design for the rehabilitation of Upper North River 77 in the Fall of 2016. Based on the results of an Independent Review conducted by the NRCS NDCSMC in November 2016, filter compatibility and internal erosion failure modes for the embankment must be addressed in the final design of the project. As a project sponsor, Augusta County is seeking to procure professional services in order to achieve a final 100% design under agreement with NRCS no later than December 31, 2017.

During a geotechnical investigation conducted in the fall of 2012, it was not possible to advance borings with a hollow stem auger through the embankment due to the presence of oversized materials in the fill. It is necessary to obtain samples from the various zones (sections) of the embankment for slope stability and zone compatibility calculations.

Virginia NRCS addressed all of the Independent Review comments except for the comments related to filter compatibility and internal erosion failure modes for the embankment. A 95% Design Folder has been assembled to document the Virginia NRCS design process. Virginia NRCS lacks the technical capacity to fully address the filter compatibility and internal erosion failure mode issues.

The NDCSMC provided consultative technical assistance for addressing the filter compatibility and internal erosion failure modes in Technical Assistance Report "Upper North River 77 Filter Compatibility Analysis" March 3, 2017. The Report includes a description of the potential filter compatibility and internal erosion failure mode issues and recommendations for addressing the identified problems. The Report is included in the Design Folder.

The NRCS Engineering Job Class for this project is VIII. This determination is based upon NEM, Part 501.08, dated July 2010, for the practice Dam, Floodwater Retarding (code 402). The structure is classified as High hazard and the effective dam height (NEM 520.21 definition) is 84 feet.

PURPOSE

The purpose of this solicitation is to select an architectural/engineering firm to provide professional services to the County for the following:

A. Geotechnical Investigation:

Geotechnical investigation to support the design process of the rehabilitation of the Upper North River 77. The purpose of the investigation is to collect geotechnical information about the existing earthen embankment, potential borrow areas, and other features as needed for use in verifying the current determination that there

is a filter zone incompatibility within the embankment, and ultimately arriving at an approved design for the project.

B. Design and Construction Services:

Professional engineering services to include Engineer of Record services for final design and construction of the rehabilitation project. This shall also include performance of all operations necessary to prepare a final design, construction contract documents and provide construction management and oversight for the rehabilitation of Upper North River 77. This also includes permit assistance as required.

To rehabilitate Upper North River 77 to meet current Virginia Division of Dam Safety and NRCS safety and design criteria, a supplement to the watershed plan was completed in July 2015 by NRCS for the Sponsor (Supplemental Watershed Plan No. 7 and Environmental Assessment for the Rehabilitation of Floodwater Retarding Structure No. 77 of the Upper North River Watershed). The supplemental plan documents the process to address the resource issues and concerns to rehabilitate Upper North River 77.

SCOPE OF WORK

The project will consist of two (2) different tasks which are as follows:

Task Order #1 – Geotechnical Investigation

The scope of work is to provide a geotechnical investigation and report to support the design decisions for the project.

A Geotechnical Investigation Plan detailing the qualifications of personnel involved in the drilling, scope and extent of the investigation, equipment, methods to be utilized and a schedule will be submitted for approval prior to conducting the investigation.

Drilling methods not covered by the referenced specifications will be submitted for approval prior to mobilizing the equipment to the site.

Sheet 3 of 22 of the original As Built drawings details the zoning in the embankment. Boreholes in Section Nos. 1 and 2 will only be advanced using either hollow stem augers or sonic drilling procedures. An NX or similar method which utilizes either water or air to carry drill cuttings out of the boring to the surface will not be allowed in any part of Section Nos. 1 and 2. In Section Nos. 3, 4, and 5, if oversize material is encountered which does not allow the advancement of hollow-stem augers, the contractor can switch to the NX drilling method which utilizes spun casing to provide a conduit for water to circulate from the bottom of the boring to the surface. The purpose of the spun casing is to isolate the circulating water from the in situ embankment materials. However, before making this change in drilling methods, the contractor must obtain approval from Augusta County, which will in turn obtain approval from NRCS.

A certified Professional Geologist in Virginia shall be present during all drilling operations to log and classify the soil and rock samples. Conduct the necessary field determinations to adequately field classify the soil and rock samples. Keep accurate records of the following:

1. Hole Number, Station, Location, and Hole Elevation of drill holes on drill logs and soil and rock samples
2. Drilling footages for Hollow-stem augering, rock coring, hole grouting
3. Number of Standard Penetration Tests conducted, sample depth, sample length, sample recovery, and number of blows per each 6-inches increment
4. Number of undisturbed samples, sample depth, and recovery of each sample
5. Field classification of soil samples using the Unified Soil Classification System

6. Field Classification of rock samples using the Unified Rock Classification System
7. Rock Quality Designation (RQD) of rock core samples
8. Record water levels
9. Record any special features as clay seams, voids, soft zones, broken or hard rock zones, drop of core barrels, and water loss during drilling

Borehole Sealing: All boreholes shall be sealed according to Drilling Specification 459. A tremie pipe will be installed to a total depth of the borehole immediately upon the completion of drilling operations in each borehole. Boreholes located within the dam embankment shall be backfilled and sealed immediately after drilling has been completed. In other areas, boreholes will be left open at a minimum of 24 hours. At the end of the 24 hours, the water level in the borehole will be measured, and then immediately thereafter, the borehole shall be backfilled and sealed. All boreholes shall be backfilled and sealed with a cement/bentonite slurry mix.

All lab and field testing shall be in accordance with current ASTM testing procedures and standards.

A site visit shall be conducted between Augusta County, NRCS and the contractor prior to mobilization.

Deliverables shall be a detailed geologic investigation and a geotechnical report prepared, signed and sealed by a professional engineer or investigating geologist licensed in the state of Virginia. The report shall include, but is not limited to:

1. Plan view map of the site that illustrates the location of all boreholes.
2. Detailed, type-written, complete borehole logs, profiles, cross sections and soils test data shall be referenced from ground elevations.
3. Geotechnical data referenced to borehole logs, profiles, cross sections of the auxiliary spillways showing layers, soil classifications, plasticity index, Atterberg limits, bulk dry density, percent clay, representative diameter (d_{75}), sample locations, "n" values, and other relevant data.
4. Geotechnical data reference to borehole logs, profiles, cross sections characterizing the embankment and foundation of the dam showing layers, soil classifications, Atterberg limits, triaxial shear test results, sample locations, "n" values, and other relevant data. The geotechnical borehole logs, profiles, cross sections shall delineate between Section 1, Section 2, Section 3, Section 4 and Section 5 of the dam embankment.
5. Complete printouts, forms, and/or calculation sheets of all soil laboratory tests conducted.
6. Cross-sections and profiles with respective soil properties for TR-60 SITES evaluation for the auxiliary spillways and zone compatibility for slope stability in the dam embankments using GeoStudio SLOPE/W and SEEP/W software analysis for dam embankment modeling.
7. A summary of local and regional geologic conditions, subsurface conditions at the site, and other pertinent information.

All geologic investigation, reporting, and laboratory testing activities shall be conducted in accordance with the following:

1. NRCS National Engineering Manuel (NEM) Part 531, Geology dated July 2010.
2. NRCS National Engineering Handbook (NEH) Part 631, Geology dated April 2012.
3. NRCS Technical Release 60, Earth Dams and Reservoirs dated July 2005.
4. NRCS NEH Part 628, Chapter 50, Earth Spillway Design dated August 1997.
5. NRCS NEH Part 628, Chapter 51, Earth Spillway Erosion Model dated August 1997.
6. NRCS NEH Part 628, Chapter 52, Field Procedure for Headcut Erodibility dated August 1997.
7. U.S. Army Corps of Engineers ER 1110-1-1807, Procedures for Drilling in Earth Embankments dated March 2006.
8. Drilling Specification 451, Mobilization & Demobilization, 4/17.
9. Drilling Specification 452, Hollow-stem Auger, 4/17.
10. Drilling Specification 454, Penetration Split Barrel, 4/17.
11. Drilling Specification 456, Rock Core Boring, 4/17.

12. Drilling Specification 457, Undisturbed Samples, 4/17.
13. Drilling Specification 458, Sonic Drilling, 4/17
14. Drilling Specification 459, Grouting Drilling Holes, 4/17.
15. ASTM D4318 Atterberg Limits.
16. ASTM D698 Standard Proctor Test.
17. ASTM D4767 Triaxial Shear Test.
18. ASTM D2487 and D2488 Classification of Soils.

Task Order #2 – Design and Construction Administrative Services

The scope of work is for professional engineering services to include Engineer of Record services for final design and construction of the rehabilitation project. This shall also include performance of all operations necessary to prepare a final design, construction contract documents and provide construction management and oversight for the rehabilitation of Upper North River 77. This also includes permit assistance as required.

A geotechnical investigation to support the design process is required. The investigation shall be conducted in accordance with the "Statement of Work Geotechnical Investigation Upper North River 77, Hearthstone Lake Dam Rehabilitation Project".

The design shall meet all current NRCS and Virginia Dam Safety policies, criteria and regulatory requirements.

The final design shall use the Virginia NRCS 95% Design Folder as a basis for the design and will also incorporate measures to address the identified filter compatibility and internal erosion failure mode issues. The A&E is responsible for verifying and incorporating or modifying as appropriate the design components and assumptions contained in the Virginia NRCS 95% Design Folder.

The final design shall generally be in compliance with the recommended alternative detailed in the Supplemental Watershed Plan No. 7 and Environmental Assessment for the Rehabilitation of Floodwater Retarding Structure No. 77 of the Upper North River Watershed.

The design process shall be fully documented in a Design Folder format that is similar to the Virginia NRCS 95% Design Folder. Construction and material specifications shall follow NRCS policy and NEH642 format. The link to the eDirectives website is <https://directives.sc.egov.usda.gov/>

Coordination with Virginia NRCS is required. An Independent Review as detailed in NRCS NEM policy is required. The final design will require concurrence by the NRCS CED Director and approval by the Virginia NRCS State Conservation Engineer.

Engineer of Record services during construction will include, but are not limited to:

- Coordination with NRCS.
- Assist with procurement process, including, but not limited to, development of the construction bid package and selection of contractor.
- Onsite Quality Assurance inspections and materials testing as detailed in the Quality Assurance Plan.
- Review and approval of Contractor submittals.
- Contract drawing and specification modification as required by CO directed contract change orders.
- Final inspection and acceptance of the completed work.
- Preparation and submittal of required State Dam Safety construction completion documentation.
- Preparation of As Built construction drawings and a NRCS format construction completion report sealed and signed by the Virginia licensed professional engineer responsible for the design

INFORMATION AVAILABLE

The following information will be available at <http://www.co.augusta.va.us> and under Current Bids, and also digital copies will be available by request from Bid Officer.

- Virginia NRCS 95 % Design Folder
- Bid Documents

SCHEDULE

RFP Issue Date:	June 9, 2017
Proposals Due:	July 6, 2017
Selection/Interview Process Completed	Week of July 10, 2017
Notice of Award and to Proceed:	July 27, 2017

PROPOSAL PREPARATION AND SUBMITTAL REQUIREMENTS

SUBMITTAL: Proposals must be submitted no later than 2:00 PM, July 6, 2017 to:

Corey Richie, VCA, Senior Purchasing Assistant
Finance Department
P.O. Box 590
18 Government Center Lane
Verona, VA 24482

RESPONSE: In order to be considered for selection, an offeror must submit a complete response to this Request for Proposals (RFP). Failure to submit all information requested may result in the rejection of the incomplete proposal. Five (5) copies of the proposal must be submitted. Proposals shall be signed by an authorized representative of the offeror. Each copy of the proposal should be bound in a single volume. All documentation submitted with the proposal should be bound in that single volume.

PROPOSAL PREPARATION: The County intends that a response to this RFP be concise, informative, and inexpensive for the offeror to prepare. Response must, in any event, contain the following information, preferably in this order:

- Transmittal letter
- Table of Contents
- Introduction of the firm, giving a brief history of the firm, its location, and the locations of any satellite offices, including sub-consultants intended to provide services under the proposal.
- Statement of offeror's understanding of the services to be provided under this RFP. In addition, the offeror must give assurance that this contract will be fulfilled on time.
- Team organization chart.
- **GSA Form SF 330**
- This RFP does not require that offerors furnish estimates of man-hours or cost for services. However, at the discussion stage, the County may require nonbinding estimates for hourly rates for personnel expected to provide services under the RFP.

EVALUATION AND AWARD

Contract will be awarded to the most responsive and responsible offerors whose proposals are deemed most advantageous to the County. The County reserves the right to accept the proposals which in its judgment, will best serve the interests of the County. Following the receipt of proposals, a committee will review the proposals received and rate the proposals based on the qualifications and directly applicable experience of each offeror and individuals making up the project team. Particular attention will be paid by the County in the selection process to similar projects and instances where individual team members have worked together.

The County's evaluation criteria will include the following:

- Qualifications and experience of the firm in performing similar projects. (25 pts.)
- Experience and qualifications of key individuals to be assigned to the work. (25 pts.)
- Ability to meet time requirements. (20 pts)
- Firm's demonstrated understanding of the tasks and quality assurance approach/procedures. (10 pts.)
- Degree of firm's capability to perform tasks in-house. (10 pts.)
- Overall quality and completeness of proposal. (10 pts.)

When all proposals received have been reviewed and rated, the County anticipates that interviews will be conducted with top offerors based on the evaluation criteria. Once these interviews have been conducted, the offerors final ranking will be based on proposal content and the interview. The County, at that time, will begin negotiations with the firm ranked first. If a contract cannot be negotiated that is both economical and advantageous to the County, negotiations will be terminated and the County will begin negotiations with the firm ranked second. Negotiations will proceed with firms in their ranked order until a contract has been awarded.

In the event that a single offeror is uniquely qualified, or clearly more highly qualified than other offerors offering proposals for this service, the County may so state this fact, give a reasonable explanation for this decision and enter into negotiations with the uniquely qualified offeror.

The County reserves the right to reject any and all proposals and to waive any informality or technical defects if, in its judgment, the best interests of the County will be serviced as specified in Virginia Code §2.2-4319.

The County will provide public notice announcing its decision to award the contract by posting the Notice of Intent to Award on the County website and by mailing the notices to all offerors submitting a proposal.

PRE-PROPOSAL CONFERENCE

At this time, it is believed that a pre-proposal conference is not required. However, should there be questions, please contact Corey Richie, Senior Purchasing Assistant at crichie@co.augusta.va.us or 540-245-5741, for clarification of this Request for Proposal. In the event specific information not contained in the this Request for Proposal is provided to any offeror, the same specific information will be provided to any offerors who have indicated interest, and also provided on the County of Augusta's website, along with Virginia's eProcurement website (<https://eva.virginia.gov>).

GENERAL TERMS AND CONDITIONS

PRECEDENCE OF TERMS: In the event there is a conflict between the general terms and conditions and any special terms and conditions which may be included in this solicitation for use in a particular procurement, the special terms and conditions shall apply.

CLARIFICATION OF TERMS: If any prospective offeror has questions about the specifications or other solicitation documents, the prospective offeror should contact the contact person whose name appears on the face of this Request for Proposal, no later than five (5) days before the opening date. Any revisions to the solicitation will be made only by addendum issued by the County.

PAYMENT TERMS: Payments will be made upon completion of the project, unless otherwise negotiated with the successful offeror and agreed to by the County.

QUALIFICATIONS OF OFFERORS: The County may make such reasonable investigations as deemed proper and necessary to determine the ability of the offeror to perform the work, and the offeror shall furnish to the County all such information and data for this purpose as may be requested. The County reserves the right to inspect offeror's physical facilities prior to award to satisfy questions regarding the offerors capabilities. The County further reserves the right to reject any proposal if the evidence submitted by, or investigations of, such offeror fails to satisfy the County that such offeror is properly qualified to carry out the obligations of the contract and to complete the work or furnish the item(s) contemplated therein.

ASSIGNMENT OF CONTRACT: A contract shall not be assignable by the offeror in whole or in part without the written consent of the County.

ETHICS IN PUBLIC CONTRACTING: By submitting its proposal, each offeror certifies that its proposal is made without collusion or fraud, and that it has not offered or received any kickbacks or inducements from any other offeror, supplier, manufacturer or subcontractor in connection with its proposal.

ANTI-DISCRIMINATION: By submitting its proposal, each offeror certifies to the County that it will conform to the provisions of the Federal Civil Rights Act of 1964, as amended, as well as the Virginia Fair Employment Act of 1975, as amended, where applicable, and § 2.2-4311 of the Virginia Public Procurement Act, and that during the performance of this contract, such offeror agrees as follows:

- a) The offeror will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by the state law relating to discrimination in employment, except when there is bona fide occupational qualification reasonably necessary to the normal operation of the offeror. The offeror agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
- b) Notices, advertisements and solicitations placed by or on behalf of the offeror will state that such contractor is an equal opportunity employer.
- c) Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.

- d) The offeror will include the provisions of the foregoing paragraphs a, b and c in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

DRUG-FREE WORKPLACE: During the performance of this contract, each offeror agrees to (i) provide a drug-free workplace for the offeror's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the offeror's workplace and specifying the actions that will be taken against employees for violation of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the offeror that the offeror maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

PUBLIC INSPECTION OF PROCUREMENT RECORDS: Proposals submitted shall be subject to public inspection only in accordance with Virginia Code § 2.2-4342.

COSTS OF PROPOSAL PREPARATION: Any costs incurred by an offeror in preparing or submitting a proposal are the offeror's responsibility. The County will not reimburse any offeror for any costs incurred as a result of a response to this Request for Proposal.

SPECIAL TERMS AND CONDITIONS

OWNERSHIP OF MATERIAL: Ownership of all data, material and documentation originated and prepared for the County pursuant to this Request for Proposal shall belong exclusively to the County and be subject to public inspection in accordance with the Virginia Freedom of Information Act. Trade secrets or proprietary information submitted by an offeror shall not be subject to public disclosure under the Virginia Freedom of Information Act (Virginia Code § 2.2-3700 et seq.); however, the offeror must invoke the protection of this section prior to or upon submission of the data or other materials, and must identify the data or other materials to be protected and state the reasons why protection is necessary.

Ownership of Documents: Electronic files including but not limited to geotechnical, hydrologic, hydraulic modeling, stability and integrity analysis and calculations shall be provided as well as any GIS or AutoCAD, HEC, and all other electronic files of any work and any other information required to run the models.

- a. GIS files can be in ESRI File Geodatabase or ESRI Shapefile formats, and shall have an appropriate and correctly defined spatial reference system assigned (horizontal & vertical). Area features shall be represented by properly closed polygons, this includes inundation zones and drainage basins.
- b. AutoCAD Files shall be compatible with Civil 3D
- c. All provided electronic files shall be complete enough to reproduce and rerun the modeling input parameters to produce the same model outputs.

CANCELLATION OF CONTRACT: The County reserves the right to cancel and terminate any resulting contract, in part or in whole, without penalty, upon 60 days written notice to the successful offeror.

INSURANCE COVERAGE: Prior to the execution of a contract, the successful offeror shall furnish to the County evidence of professional liability, workers' compensation and automobile insurance, in amounts acceptable to the County, in the exercise of its reasonable discretion. Such evidence of insurance shall indicate the effective dates and limits of such coverage.

OBLIGATION OF OFFEROR: By submitting a proposal, each offeror covenants and agrees that it has satisfied itself, from its own investigation of the conditions to be met, that it fully understands its obligation and that it will not make any claim for, or have right to cancellation or relief from the contract because of, any misunderstanding or lack of information.