

Request for Qualifications

Development of a Watershed Management Plan for the Winnicut River



February 26, 2016

New Hampshire Rivers Council

54-207 Portsmouth Street

Concord, NH 03301

Development of a Watershed Management Plan for the Winnicut River

Project background and geographic area

The New Hampshire Rivers Council, with support from the New Hampshire Department of Environmental Services (NHDES) and other partners, is seeking statements of qualifications from qualified firms, partnering organizations, and other entities to work with stakeholders to develop a watershed management and restoration plan for the Winnicut River watershed. The watershed includes the towns of Greenland, North Hampton, and Stratham and drains to Great Bay. In addition to NHDES and the towns, partners, and stakeholders involved in the evaluation and restoration of the watershed include community and civic groups, nonprofit organizations, and local businesses.

The Winnicut River and several of its tributaries are on the NHDES 2012 303(d) list as impaired for Aquatic Life Use and Primary Contact Recreation due to low levels of dissolved oxygen and elevated levels of *E. coli*. Additionally, the Winnicut River is one of seven major tributaries to Great Bay, which is on the same 303(d) list for Aquatic Life Use, likely due to nutrient enrichment from nitrogen. The Great Bay Nonpoint Source Study shows that the total nitrogen delivered to Great Bay from the Winnicut is twenty-three tons annually. The Piscataqua Region Estuaries Partnership reported in 2015 that over the last twenty years, the land area in towns in the Winnicut watershed have all exceed ten percent impervious cover, which increases pollutant levels in stormwater runoff. The Winnicut River's contributions to this runoff are difficult to eliminate without an in-depth analysis and the concerted effort of committed stakeholders.

I. DESIRED QUALIFICATIONS

Respondents should demonstrate their capabilities for relevant services in the Northeastern U.S. with a focus on New England river and stream systems. The New Hampshire Rivers Council and their project partners seek vendors that have a strong understanding of the underlying principles of watershed and restoration management and planning, and at least three years of experience demonstrating these capabilities. Specific desired qualifications include:

- Experience completing planning, design, and feasibility studies for river and watershed restoration;
- An understanding of river and watershed processes and the application of fluvial geomorphology and restoration principles;
- An understanding of river and watershed ecology and ecosystem-based habitat restoration for multiple species and life stages;
- An understanding of river engineering in the context of fluvial geomorphology and ecology, and the application of engineering services to river and stream restoration;

- Experience developing conceptual designs for river and watershed management and restoration projects (e.g. dam removal, channel design, daylighting, culvert design, streambank stabilization, bioengineering);
- Demonstrated experience in successful community and stakeholder outreach and planning processes;
- Experience providing effective presentation of complex and sometimes controversial information to the public; and
- A demonstrated ability to meet project goals within the projected timeline.

II. REQUIRED QUALIFICATIONS SUBMISSIONS

Qualifications packages shall include the following components as described below.

- Cover letter indicating a primary contact for the qualifications package and that person's title, address, phone number, and email address. The cover letter should note that the consultant is able to render services in New Hampshire, and include relevant professional certifications (e.g., professional engineer, certified wetland scientist, certified floodplain manager, etc.)
- Description of the respondent's general approach (i.e., "philosophy") to river and watershed management and restoration skills and specialties for which the respondent is qualified, and a summary of directly relevant work experience of the respondent. Responses must address how the respondent meets the desired qualifications outlined above; please consult Section VI - SELECTION CRITERIA (below) for additional guidance.
- List of references including names, titles, contact information. The Council prefers that the references be clients for whom similar work has been performed within the past five years.
- The project team, including project team organization, team member qualifications and the anticipated level of involvement of key team members in each phase of the project as described in the project approach and scope of work.
- Project reference pages, including a summary of the project, the specific role of the respondent in the project, and representative photographs.
- A technical proposal that describes the team's project approach and scope of work.
- A proposed project schedule.
- A Task Table that includes the following elements:
 - * Brief description of each task
 - * Proposed completion dates of each task
 - * Deliverables associated with each task and/or group of tasks

Complete and timely submittal of all required documents is required for the qualifications package to be considered.

Each respondent will submit one portable document format (PDF) file to RFQ@NHRivers.org (the entire email shall not exceed 19.5MB) and one hard copy printed double-sided, detailing its qualifications package (with no costs specified) by close of business (5:00 PM ET), on March 25, 2016 to Michele L. Tremblay, President, New Hampshire Rivers Council at (RFQ@NHRivers.org). The hard copy version must postmarked by March 24, 2016 and be mailed or shipped to the address below.

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After the quality-based ranking is complete, the Council will request from the first ranked consultant a task-based cost proposal. The New Hampshire Rivers Council will proceed with contract negotiations with that consultant. If the parties cannot come to terms, the New Hampshire Rivers Council will request from the second ranked consultant a task-based cost proposal and follow the same procedure, working with each of the next ranked candidate(s) in order of their scores, until a contract has been successfully negotiated.

III. PROJECT TEAM AND LEVEL OF PARTICIPATION

The qualifications package will identify the individuals responsible for managing the project and conducting specific project tasks. The qualifications package will also estimate the expected level of participation in the project tasks and in the overall project. An organization chart showing lines of communication and decision-making hierarchy will be included in the qualifications package.

IV. PROJECT APPROACH/SCOPE OF WORK

The qualifications package must contain the elements contained in Attachment I. Attachment I contains a Scope of Work Guidance to assist in the development of the project approach/scope of work. It must be clear on how all these elements will be addressed and also how public participation and interaction with the various stakeholders will occur.

V. PROJECT SCHEDULE

The respondents will provide a schedule to conduct and complete the project. The schedule will include project tasks as identified in the Scope of Work. Project tasks will be laid out in a flow chart identifying the anticipated days to complete each task and the interrelationship of conducting and completing these tasks by June 30, 2017.

VI. SELECTION CRITERIA

Selection will be based on the qualifications package. Respondents will be assessed based on the following criteria.

1. *Specialized Experience of the Project Team (40 Percent)*

The respondent will be rated on:

- (a) their specialized experience directly relating to development of river and watershed management and restoration plans
- (b) demonstrated ability to complete the work within the required schedule and budget
- (c) demonstrated ability to effectively solicit, assess, and use comments and suggestions from stakeholders during project development
- (d) demonstration of successful cooperation with non-profits, local, state and federal agencies and private partners
- (e) demonstration of past project experience and success

2. *Project Personnel (40 Percent)*

The respondent will be rated on the principal team members' role and participation level, project management effectiveness, and the qualifications and experience of key personnel, their communication abilities, and availability during the project.

- Project Manager 30 Percent
- Task Managers 10 Percent

3. *Project Approach (20 Percent)*

The respondent will be rated on the approach to the project scope outlined in this RFQ, the understanding of the project scope and schedule of work and the interfacing of tasks.

VII. REQUEST FOR QUALIFICATIONS QUESTIONS

The New Hampshire Rivers Council and their project partners will not respond to telephone questions about the RFQ. Questions concerning this RFQ must be submitted via email to the New Hampshire Rivers Council at: RFQ@NHRivers.org.

Questions must be submitted by 5:00 PM ET on March 9, 2016. If you have a question, please follow this procedure to ensure consistency of answers. Any information obtained by speaking one-on-one with a project partner is not considered an official response for the purposes of this process.

A digest version of all questions and answers will be emailed to everyone that submits a question. Additional persons wishing to receive the digest version of all questions and answers should request a copy via email by contacting Michele L. Tremblay at RFQ@NHRivers.org (Subject: "Development of a Watershed Management Plan for the Winnicut River"). The New Hampshire Rivers Council is targeting distribution of the questions and answers digest by March 11, 2016.

Upon completion of ranking qualifications packages, the New Hampshire Rivers Council, in consultation with the project team will negotiate with the top-ranked firm for contract scope and price. The negotiated contract will be based on fair and reasonable compensation for the services required.

VIII. Time Line

February 26, 2016	Request for Qualifications release
March 9, 2016	Deadline for submittal of questions on RFQ (5:00 PM ET)
March 11, 2016	Questions and answers digest distributed to contractors
March 25, 2016	Deadline for receipt of qualification packages to RFQ (5:00 PM ET)
April 30, 2016	Anticipated final selection of contractor and notification to all firms

The New Hampshire Rivers Council reserves the right to conduct interviews with selected teams. The decision to conduct interviews may affect the specified time line.

IX. DISCLAIMER

This Request for Qualifications does not commit the New Hampshire Rivers Council to award a contract or pay any costs incurred during the preparation of the qualifications package. The New Hampshire Rivers Council reserves the right to reject any or all of the proposals for completing this work. The New Hampshire Rivers Council also reserves the right to eliminate the need for the selected firm to complete one or more tasks, pending the outcome of preceding related tasks or issues.

ATTACHMENT I - SCOPE OF WORK GUIDANCE

Development of a Watershed Management Plan for the Winnicut River

BACKGROUND

The Winnicut River and several of its tributaries are listed on the NH DES 2012 303(d) report as impaired for Aquatic Life Use and Primary Contact Recreation due to low levels of dissolved oxygen and elevated levels of *E. coli*. Additionally, the Winnicut River is one of seven major tributaries to Great Bay. Great Bay is listed on the state's 2012 303(d) list as impaired for Aquatic Life Use likely due to nutrient enrichment from nitrogen sources. The 2014 *NH DES Great Bay Nonpoint Source Study* (GBNPSS) shows that the total nitrogen delivered to Great Bay from the Winnicut River watershed is twenty-three tons annually.

Sources of nitrogen loading include human waste, animal waste, chemical fertilizer, and atmospheric deposition (pathway: stormwater). There is no significant industry or a sewage treatment plant within the watershed. The river flows primarily through residential areas and along highway and roadsides. The Piscataqua Regions Estuaries Partnership reported in its 2015 planning assessment report that in the past twenty years, the towns' land areas in the watershed have all exceeded ten percent of impervious cover, which increases pollutant levels in stormwater runoff. The river's problems result primarily from non-point source pollutants difficult to eliminate without in-depth analysis and the concerted effort of dedicated stakeholders.

In order to address the watershed impairments, the New Hampshire Rivers Council secured Section 319 (U.S. EPA Clean Water Act) funding from the New Hampshire Department of Environmental Services (DES) to develop a watershed restoration plan for the Winnicut River watershed. The watershed planning effort for the river will provide scientific understanding of nutrient and sediment loads, identify pollutant hot spot areas, and provide recommendations for specific restoration actions to improve water quality. The plan will incorporate U.S. EPA's nine elements of watershed planning.

The New Hampshire Rivers Council will act as the project manager and coordinate directly with the hired consultant to ensure that project objectives and tasks are completed as written in the contract between the New Hampshire Rivers Council and the consultant.

OVERALL PROJECT DESCRIPTION

The project consists of developing a watershed management plan as described in the following project description. The plan will incorporate U.S. EPA's nine elements of

watershed planning. The selected consultant will also convene and facilitate public and project partner meetings, and contribute content to semi-annual and final reports to project partners.

Please note that the Task number sequence presented below corresponds to the Grant Agreement between the State of New Hampshire and the New Hampshire Rivers Council. The selected firm will not be responsible for completing Tasks 1 through 5 as listed in the Grant Agreement since those Tasks are associated with the RFQ solicitation process and execution of the contract between the New Hampshire Rivers Council and the selected firm. Additionally, the selected firm will not be responsible for completing Tasks 24 and 25 in the Grant Agreement between the State of New Hampshire and the New Hampshire Rivers Council because those tasks will be completed by the New Hampshire Rivers Council or another party.

I. Attend project kick off meeting

The consultant will participate in a kick-off meeting to introduce the project to the public.

Task 6. Coordinate with the project team to define consultant's role in meeting; attend meeting.

II: Evaluate water quality data and modeling data for the watershed and determine assimilative capacity for pollutants of concern

The consultant will calculate assimilative capacity for pollutants of concern.

Task 7: Gather existing watershed data including water quality, modeling results from previous efforts, and other information as identified. Obtain water quality and modeling data for the watershed from the DES Environmental Monitoring Database and other sources.

Task 8: Determine historical and current median nitrogen (N), total phosphorus (TP), and dissolved oxygen (DO) levels for the river. Analyze and process data to determine concentrations.

Task 9: Calculate assimilative capacities for N, TP, and DO; determine if load reductions are needed. Provide written documentation of assimilative capacity calculations (for use in water quality goal setting).

III: Estimate pollutant load reductions needed to meet water quality goals

The consultant will develop water quality goals that are realistic, achievable, and approved by the project's Water Quality Advisory Committee (WQAC).

Task 10: Coordinate with the project team to establish a WQAC to review water quality results and set water quality goals for the watershed plan.

Task 11: Establish and outline the WQAC's goal setting process.

Task 12: Implement goal-setting process. Host 3 - 6 meetings to discuss water quality data and outputs of watershed loading modeling. Determine load reductions needed to meet water quality standards, and set goal.

Task 13: Document water quality goal. Formally document the water quality goal in a memorandum (develop draft document, provide to WQAC for review, and finalize).

IV: Identify current and future pollutant loading causes and sources to the extent at which they are present in the watershed

Sources of current and future pollution needing to be controlled are identified and documented.

Task 14: Determine current annual pollution source load estimates. Identify appropriate scale and model for load estimates and run the model to determine current load estimates; provide output to WQAC for review.

Task 15: Estimate future loading for selected parameters. Select appropriate model and determine data needs for buildout analysis; run buildout analysis to predict future loads based on projected population and land use change; provide output to WQAC for review.

Task 16: Document modeling output for use in watershed plan. Develop modeling technical memo to describe process and outputs including identification of pollutant loading causes and sources to the extent at which they are present in the watershed.

V: Identify the actions needed and resources required to reduce pollution

The consultant will identify and describe approaches and required resources for reducing pollutant loads for critical implementation areas.

Task 17: Develop survey/inspection forms, and/or best management practice (BMP) optimization model to assess and identify stormwater management and other restoration opportunities; additionally, conduct culvert data review to determine how culverts affect water quality and river flow. Develop and implement methodology for identifying on the ground opportunities to address problem culverts and reduce pollutant loading from stormwater runoff; implement methodology and develop list of locations for culvert upgrades and BMPs for stormwater management.

Task 18: Conduct septic system risk analysis to assess septic systems. Research records at local and state level to identify septic systems at risk for contributing pollutant loads to the river; develop a priority list of areas to target for potential septic upgrades or installations.

Task 19: Identify other actions needed to reduce pollution (including nonstructural approaches such as voluntary fertilizer reductions, etc.). Identify approach and pinpoint actions.

Task 20: Develop list of priority actions, locations, and approaches for reducing pollution and improving water quality. Ground truth findings as needed and develop priority list based on cost/load reduction or other method as identified; host public stakeholder meeting to get input on priorities.

Task 21: Meet with the Project Steering Committee (PSC) and stakeholders to review priority list and ensure it is realistic; finalize list for inclusion in the watershed plan.

VI: Develop costs and authority for watershed plan implementation

The consultant will develop and document costs, responsible parties, and potential matching contributions for watershed plan implementation.

Task 22: Develop conceptual cost estimates for implementation actions described in the watershed plan including structural and non-structural pollutant load reduction actions, monitoring, outreach, etc. Estimate the amount of technical and financial assistance needed to implement restoration measures outlined in the plan.

Task 23: Coordinate with the PSC to ensure the estimates and responsible parties are realistic; finalize and document costs and authorities for inclusion in the watershed plan. Identify potential sources of funding for actions (grants, etc.). Conduct meeting with stakeholders to review and revise estimates; produce final documentation.

VII: Incorporate the remaining EPA key elements into the Winnicut River Watershed Management Plan and develop final management plan

The consultant will develop the final watershed plan.

Task 26: Coordinate with stakeholders and potential responsible parties to develop a realistic implementation schedule that accounts for property access (BMPs), funding cycles, grants, match commitments, etc.

Task 27: Develop interim milestones for determining whether actions described in the plan are being implemented. Review actions and set meaningful programmatic milestones to measure implementation success (number of BMPs implemented, number of ordinances adopted, etc.).

Task 28: Establish criteria for measuring and demonstrating environmental progress toward achieving water quality and restoration goals. Develop a set of criteria or statistical analyses to determine if the water quality goals are being met.

Task 29: Develop a monitoring plan to evaluate effectiveness of implementation efforts.

Task 30: Develop first draft of watershed management plan for review by the PSC; send plan out to PSC for review and incorporate comments.

Task 31: Present second draft of watershed plan to the public at a facilitated meeting and solicit final comments on the plan. The PSC will record public comments and provide them to the consultant for final plan review.

Task 32: Finalize the plan and coordinate with the PSC to publish the plan.

BACKGROUND RESOURCES

1. U.S. EPA watershed planning guidance

http://cfpub.epa.gov/watertrain/pdf/modules/introduction_to_watershed_planning.pdf

<http://www.epa.gov/polluted-runoff-nonpoint-source-pollution/handbook-developing-watershed-plans-restore-and-protect>

2. Watershed plan examples

http://des.nh.gov/organization/divisions/water/wmb/was/watershed_based_plans.htm

3. Winnicut River Resource Information

<http://des.nh.gov/organization/divisions/water/wmb/vrap/data-winnicut.htm>

<http://www.nhrivers.org/winnicut/>