



**Request for Proposals
Watershed Management Plan Hybrid
Arctic Brook
RFP No.: P16-004**

**Purchasing Department
73 Harlow Street
Bangor, Maine 04401
207-992-4282**

Issue Date: June 30, 2015

I. Introduction

The City of Bangor seeks bids from qualified proposers to conduct a Stream Corridor Survey and Fluvial Geomorphic Assessment, a Watershed Sector Survey/Stormwater Retrofit Reconnaissance Inventory, and from that work, prepare a Watershed Management Plan. The final document must be acceptable to the Maine DEP and the US EPA. This City will utilize this plan to meet water quality goals. It will be available on the City's website for use by citizens and other interested parties. All women-owned and minority businesses are encouraged to submit proposals.

II. General Information

General information is available on the City's website at the following web address: www.bangormaine.gov/bids/proposals. By submitting a response to this solicitation, the bidder accepts the responsibility for downloading, reading and bidding by the terms and conditions set forth in the City's "General Information for Vendors". All questions shall be directed in writing to bids@bangormaine.gov.

III. Submission

To be considered, return the Proposal Form and any other information the Proposer deems important in an envelope **clearly** marked "**Proposal No.: P16-004: Arctic Brook Hybrid Watershed Management Plan**" by **2:00 PM, Wednesday, July 29, 2015** to City of Bangor, Purchasing Department, 73 Harlow Street, Bangor, Maine 04401.

Proposals may also be submitted via email by sending to: bids@bangormaine.gov. If emailing, please reference "**Proposal No.: P16-004: Arctic Brook Hybrid Watershed Management Plan**" in the subject line. Proposals will be publicly opened on the date and time stated above.

IV. Requirements

Qualified firms or proposers must at a minimum meet the following requirements:

- ✚ Completed at least 2 Watershed-Based Plans (based on the US EPA's 9 Elements and accepted by the Maine DEP);
- ✚ Completed at least 2 watershed restoration/implementation plans;
- ✚ Have multidisciplinary capabilities including on-staff aquatic biologists and wetland scientists;
- ✚ Have a proven successful track record working with the Maine DEP; and,
- ✚ Have completed at least 2 stream corridor surveys and 2 watershed sector surveys that was approved and accepted by the Maine DEP.

The proposal should be broken down by specific tasks and each task should describe an activity and a deliverable. Each deliverable should be a stand-alone document. The City reserves the right to terminate the contract at a task's completion if the work produced or the deliverable described is unsatisfactory.

V. Questions

All questions must be directed in writing to bids@bangormaine.gov no later than **4:30 PM, Wednesday, July 15, 2015**. The City will issue a response to any questions or inquiries submitted in writing by the date above, on or before **4:30 PM, Friday, July 17, 2015**. The response will be in the form of an addendum, which will be available on the City's website.

VI. Background

Arctic Brook is a Class B urban impaired stream located in the City of Bangor, Maine. The stream is 1.4 miles long, beginning just above Grandview Avenue in a high-density developed area within the watershed. The stream flows south, underneath Broadway Shopping Center, crosses Route 15, and then flows southwest parallel to Falvey Street. Arctic Brook then crosses Interstate 95 where it flows into Kenduskeag Stream just below Valley Avenue. The Arctic Brook watershed covers 1.2 square miles (768 acres) of land including a mix of forest, residential and commercially developed areas. Land uses in the watershed are predominantly developed (71%), including a large percentage of developed open space and high-density development along with medium and low-density development. A large area of forestland, agriculture and wetlands are prominent in the northern half of the watershed above Grandview Avenue.

Extent of Uses

The dominant land use is mostly medium and high-density residential development. There is one shopping center with associated parking as well as businesses, restaurants, gas stations, and other retail uses. The watershed also contains Bangor High School, with

associated sports fields, a city recreational forest with trails, the city nursery, several churches, and two church schools. There is one large wetland and undeveloped forestland in the northern portion of the watershed.

PROBLEM/NEED

NPS Problem & Need

Arctic Brook has been assessed by DEP as not meeting water quality standards for aquatic life use (habitat assessment and benthic macroinvertebrate bio-assessments) and was listed on the State's 303(d) list of impaired waters in 2002 - 2010 under category 5 (TMDL required), and category 4A (TMDL completed) in 2012.

- **Benthic Monitoring:** The Maine DEP conducted benthic monitoring in 1997 upstream of Valley Avenue above the Kenduskeag Stream. The data indicates that the brook is "non-attaining" (NA), meaning that it does not meet water quality standards for Class A, B or C conditions. Stormwater runoff from impervious cover (IC) is likely the largest source of pollution to the brook. Stormwater falling on IC in developed areas flows quickly off impervious surfaces, carrying pollutants, and sending high volumes of flow to the nearest section of the stream.
- **Stream Corridor Survey:** In 2010, a Level 1 stream corridor survey (rapid habitat and geomorphic assessment) was conducted by DEP, City of Bangor and AmeriCorps staff for four Bangor streams, including Arctic Brook. Results of the survey indicate that riparian cover for several of the stream reaches have been severely impacted by development, resulting in undercut banks, severe bank erosion and degradation of streamside cover, and that shallow stream reaches in culverts are likely a barrier to fish passage. All four reaches surveyed ranked "poor", indicating that actions are needed to improve riparian conditions in the stream.
- **Impervious Cover (IC) TMDL:** A pilot impervious cover TMDL assessment was completed in 2005, followed by the development of a formal Impervious Cover Total Maximum Daily Load (IC TMDL) report for Arctic Brook in 2011. The recent impervious cover (IC) analysis completed by DEP and FB Environmental Associates indicates the watershed is currently 23% impervious, with a target goal for the watershed of 8% impervious cover. This will require a 65% reduction in impervious cover or the equivalent effective impervious cover.

VII. Scope of Services

Data Gathering: Existing data and information about the stream will be gathered from various municipal, state, and federal sources. Topographic, watershed delineation, property lines/owners, soil types, known habitats, land use, impervious cover, sewer and stormwater systems will be gathered. Water quality findings at sampling sites and licensed discharges will also be noted. Appropriate maps will be developed for use by the

survey teams during survey activities. Data gathering protocol will be conducted according to standard quality assurance procedures.

Quality Assurance: Watershed Survey Implementation Plan. The DEP document 'Maine Lake and Stream Watershed Survey Generic Quality Assurance Project Plan' (QAPP) describes quality requirements for conducting watershed surveys of lake and stream watersheds. The selected consultant will perform the watershed survey in accord with the watershed survey QAPP and prepare a Survey Implementation Plan (SIP) based on a template provided by the Maine DEP to meet quality assurance requirements. The City of Bangor will provide this SIP template for DEP review and approval prior to finalizing design of the watershed survey.

Stream Corridor Survey Implementation Plan (SC SIP): The selected consultant will perform the stream corridor survey in accordance with the stream corridor QAPP and prepare a Survey Implementation Plan (SIP) to meet quality assurance requirements. Bangor will provide the SIP template to the consultant and then to for DEP review and approval prior to finalizing design of the stream corridor survey.

Survey Team Development and Training: The selected consultant will meet with staff to design the project and develop survey plans. The consultant, in conjunction with the two municipalities, will train and work with volunteers from their pool and from area grassroots organizations, stakeholders, property owners, local students and through public announcements. The consultant will lead two training sessions (one for each survey) to train the surveyors made up of consultant staff and volunteers. For both surveys, an indoor classroom style session and an outdoor, in-stream session will be conducted to practice actual surveying and data gathering under the supervision of the consultant. Survey equipment and supplies will be provided by the consultant.

Stream Assessment/Stream Corridor Survey and Fluvial Geomorphic Assessment: The team will walk the brook and along the banks and the immediate surroundings. Along the way they will conduct a stream habitat survey and rapid geomorphic assessment within each reach of the brook, focusing on rapid geomorphological, habitat, and macro-invertebrates. Along the way they will also make notes of the stream channel, banks, riparian buffers, and floodplains. Land uses (including commercial properties, industrial properties and gasoline filling stations close to and directly affecting the stream as well as historical effects that are clearly identified will be noted as well. Surveyors will take GPS data points, photographs, and record notes of all findings. A subtask to the Stream Assessment will include a Fluvial Geomorphic Assessment. This work will evaluate the stream channel and provide insight into the effects of current and future stormwater practices in the brook. The fluvial assessment

will include a background review and historic assessment, reach delineation, rapid geomorphic and stream assessment, detailed geomorphic assessment following standard protocols, data integration and analysis, water quality and geomorphic condition monitoring, and establishing a plan for monitoring and recommendations for in-stream habitat restoration. A Quality Assurance Project Plan (QAPP) and a SIP for this work will be developed and a template provided to the consultant by the City of Bangor.

Stream Watershed Survey / Stormwater Retrofit Reconnaissance Inventory:

The team will walk around the watershed looking for NPS sites connected to the brook through the municipal separate storm sewer system. They will note locations of excess sediment, or where potential toxins or nutrients may be contributing. Areas with a lack of shading or riparian cover may also be noted. GPS points, photographs and notes will be recorded by the surveyors. This survey will provide detailed information about many specific sites (focusing on directly connected sites) within the watershed, allowing the consultant to follow up on high priority areas and identify specific maintenance and pollution abatement BMPs for implementation in a later phase. Once the watershed survey work is completed, the Stormwater Retrofit Reconnaissance Inventory will follow an abbreviated method and approach utilized in other watershed planning projects. The reconnaissance will include an inventory and assessment of potential stormwater and on-site retrofit sites in the watershed. These retrofits will provide stormwater treatment in locations where BMP's were previously not installed. Specific in-stream needs, such as culvert retrofits and riparian recovery sites will be included in the prioritization process. The inventory will also include an assessment of potential non-structural measures including ordinance changes, maintenance activities and site management. The impact, cost, and feasibility of the identified structural, non-structural, and habitat retrofits will be assessed. A SIP for this work will be developed by the consultant using a template provided by DEP/City of Bangor.

Final Report & Municipal Action Items: A Final Report consisting of a combined Watershed Survey Report and a Corridor Survey Report will be completed that will provide preliminary information needed for a watershed management plan preparation. This report will include all field notes, inspection forms, color photographs and any and all pertinent data, interpretation and recommendations. Furthermore, public presentations will be held by both municipalities so that decision makers and the public will be provided with the critical information they need in order to understand the requirements needed to improve Arctic Brook and to develop a watershed management plan. The presentations will be followed by a discussion of next steps. The Final Report will include these discussions, including a list of action items proposed by each municipality.

Stakeholder Assessment: Work with City staff and stakeholder groups to prepare a Watershed Management Plan to meet the US EPA's 9 Elements of a Watershed-Based Plan. This could involve technical aspects, preparing an engagement plan for all parties involved, and arriving at realistic scenarios for the watershed.

Present Findings to Municipal Officials: Present watershed findings to appropriate municipal officials detailing planning activities. A document or deliverable is required as part of this task. Please state what product/deliverable will be submitted.

Data Assessment: Utilize and interpret water quality data and make suggestions/and or identify water quality data gaps. Prepare a monitoring plan targeted at improved water quality as well as addressing any gaps in past data collection by recommending specific parameters. Please state what deliverable will be submitted.

Prepare a Watershed Survey and Identify Geomorphic Conditions: Prepare a watershed management plan based on the watershed and stream corridor survey results for Arctic Brook. Deliverable required is a Restoration Sites' Report.

Prepare a Watershed Action Plan: This task must address non-structural and structural BMPs located in the watershed including updating the stormwater retrofit inventory. Please state the deliverable and type of forum to present findings.

Prepare a Watershed Management Plan: The revised plan must adhere to the US EPA 9 Elements for a Watershed-Based Plan and include summaries of all previous tasks. Two deliverables are required in this task: a draft and final Arctic Brook Watershed Management Plan.

VIII. Proposal Content

Proposals are to be written Proposals presented in a clear and concise manner. However, the City reserves the right to negotiate any portion of the proposal determined to be unclear or to inappropriately address the needs of the City of Bangor. All proposals shall remain firm for sixty (60) calendar days after receipt of the proposals.

A. Personnel

The responder shall describe its proposed staffing for the project. This will include an identification of the individuals assigned to the project and their responsibilities related to the project.

B. Schedule

A proposed project completion date shall be delineated.

C. Current/Related Assignments

Please highlight your firm's and in turn your key staff members capacity to undertake this work, should your firm be awarded the contract, in relation to existing and pending assignments.

D. Qualifications

In order to aid in the evaluation of its proposal, the responder must submit qualifications/experience statements. These are to include information concerning the firm's background and experience and the skills and qualifications of its staff. Information on particularly relevant projects shall be summarized including an identification of the applicable project, the project location, consultant role; the results of the project; and the name, address, and phone number of contacts.

Resumes of staff members to participate in this project shall be provided detailing their relevant experience and expertise. A list of three references shall be provided; the references shall be clients for whom the consultant or staff members have provided similar work. The list of references should indicate whether the work experience is that of the firm or of individual staff personnel. The references shall be identified with respect to the type of work provided, the organization's name, its address and telephone number, and the name of a contact person.

Other information demonstrating the responder's qualifications to undertake the proposed assignment may be submitted. All information is to be provided in an 8 1/2"x11" format and bound into the Requests for Proposals submission.

E. Cost Proposal

Submit a proposed fee schedule by service or task. Fee schedules must include a general description of anticipated services to be provided as well as an itemized estimate of reimbursable expenses, estimated number of hours to complete each task and a "not to exceed" fee for each service or task.

The final contract price will be negotiated with the successful consultant with regard to scope of work and City staff participation and involvement from the departments involved with the project.

IX. Selection Process

A. Evaluation Criteria

All proposals will be evaluated to assure that they meet all the project requirements and are fully responsive to this Request for Proposals. The proposal must include all submission requirements and must fully address all items in this request.

Proposals meeting all the project requirements will then be evaluated based on the following criteria. The criteria are not necessarily in order of importance.

- Firm Experience/Capabilities/Capacity
- Staff Experience/Capabilities/Capacity
- Project References, and
- Fee Proposal
- Time allowed for delivery

B. Selection process

The proposals determined to be responsive will be evaluated by the City. The City will evaluate the proposals on the basis of the information submitted only. The City reserves the right to select the Proposer deemed most advantageous or not award all or any the work in the Request for Proposals.

C. Schedule

The City reserves the right to interview selected Proposer(s).

D. Disclaimer

The City of Bangor will not be responsible for any costs incurred in the preparation of a response to this Request for Proposals.

E. Qualifications

No contract will be awarded except to a responsible Proposer capable of performing the work contemplated. Proposer must comply with all State, Federal and municipal laws. Before the award of any contract, Proposer may be required to show that he/she has the necessary facilities, experience, ability, and financial resources to perform the work in a satisfactory manner.

F. Proposal Acceptance

The City reserves the right to select the Proposer(s) best able to provide the services required. In evaluating proposals, the City of Bangor reserves the right to use any or all of the ideas from the proposals submitted without limitation and to accept any part or the entire successful proposal in selecting the services considered to be the most advantageous to the City. All material submitted becomes the property of the City of Bangor. The evaluation of proposals and determination of the award will be at the discretion of the Finance Committee and its judgment shall be final and without right of recourse by any Proposer.

G. Rejection of Proposals

The City of Bangor reserves the right to reject any and all proposals received and to waive any informality, technical defect, or clerical error in any proposal as the interest of the City may require. Rejection of any proposal shall be construed as meaning simply that the City does not deem the proposal to be acceptable or that another proposal is deemed to be more advantageous to the City for the particular services proposed.



Request for Proposals
 Watershed Management Plan Hybrid
 Arctic Brook
 RFP No.: P16-004

Purchasing Department
 73 Harlow Street
 Bangor, Maine 04401
 207-992-4282

Note: Services must be bid by using this Bid Form, in addition to other requested documents. Failure to comply with the above may result in disqualification.

Item	Description	Qty.	Total Price
1	All personnel, labor and materials necessary for the completion of requested work.	Lump Sum	\$ _____
Number of days to complete the work upon receipt of a purchase order: _____ days			
<i>Price must include all miscellaneous charges: permits, fuel, transportation etc. No other charges will be accepted.</i>			

Business Name:			
Street or PO Box			
City, State, Zip			
Telephone Number			
Fax Number			
Email Address			
Contact Name			
Title		Date	