



TOWN OF BRUNSWICK, MAINE

MAQUOIT BAY WATER QUALITY TASK FORCE AGENDA

Zoom & Room 206

Tuesday, July 18, 2023, 2:00 P.M.

THERE IS AN OPPORTUNITY TO ATTEND THIS MEETING VIA ZOOM

Members of the public who do not serve on the committee should follow this link to join via <https://us02web.zoom.us/j/87964094924?pwd=dUpiM1VhU2djbTlxRmhLVSttSEs2dz09>

Comments are allowed during the public comment period and at the discretion of the Chair. The public may provide comments via email (jflood@brunswickme.org) prior to the meeting or they may provide live comment at the meeting via zoom or in person.

5:00 | Call to Order & Introductions

5:05 | Review Task Force Responsibilities and Expectations

5:10 | Selection of Task Force Chair and Vice-Chair

5:15 | Discuss Future Meeting Logistics

5:20 | Review of Draft RFP/discussion of feedback

5:45 | Review Selection Process for Consultant

5:50 | Public Comment

6:00 | Adjournment



Town of Brunswick, Maine

INCORPORATED 1739

OFFICE OF THE TOWN ENGINEER

85 UNION STREET

BRUNSWICK, MAINE 04011-2418

TELEPHONE 207-725-6659

FAX 207-725-6663

Project Description

Maquoit Bay Watershed Non-Point Source Study

Issued: July XX, 2023

Sealed Request for Proposals, plainly marked "**RFP- Maquoit Bay Watershed Non-Point Source Study**" on the outside of the mailing envelope, addressed to Engineering Department, Town Hall, 85 Union Street, Brunswick, ME 04011 will be accepted until **10:00 a.m. on Friday, August XX, 2023**.

There will be a **mandatory pre-proposal meeting on Tuesday, July XX, 2023 at 10:00 a.m.** at the Brunswick Town Hall, 85 Union Street, Brunswick, Maine 04011 and via Zoom. All interested parties will have the opportunity to ask questions at this meeting. No proposal will be accepted from firms who do not attend the mandatory pre-proposal meeting.

The Town of Brunswick reserves the right to reject any or all proposals, to waive technical or legal deficiencies, and to accept any proposal that it may deem to be in the best interest of the Town.

If you have any question, please contact Jim Flood, Project Engineer at (207)725-6659 or at jflood@brunswickme.org, or Ashley Charleson, Environmental Planner at (207)725-6660 ext. 4025 or at acharleson@brunswickme.org. Questions must be received by **August XX, 2023**.

I. Project Goals

Nitrogen and fecal coliforms have been identified as potential sources of contamination to Maquoit Bay and are presumed to affect the bay's water quality and shellfish resources. Stormwater runoff from land uses within the watershed surrounding the bay has been suspected as one of the major potential pathways for contaminants. Shellfish bed closures have resulted from excessive concentrations of fecal coliform bacteria. Fish kills result from an algal bloom which may in part have been prompted by watershed-derived nutrients, primarily nitrogen.

The purpose of this study will be to establish baseline water quality of water within and entering Maquoit Bay, evaluate the water quality impacts associated with existing and future land uses in the watershed, and to develop water quality loading models to predict present and future loadings of nitrogen and fecal coliforms from these land uses. For the purposes of this study, all work is to be done within the Brunswick portion of the watershed.

Predicted pollution loadings from the model, in conjunction with the water quality monitoring data, is intended to be used as a basis for recommending measures to modify sources or pathways to reduce pollutant loading originating within the watershed.

II. Location Description

The Maquoit Bay watershed is located within Brunswick and Freeport, Maine. It has a surface area of approximately twelve square miles.

III. Existing Related Documents

Map showing approximate boundaries of the Maquoit Bay Watershed

Identification and Evaluation of Nutrient and Bacterial Loadings to Maquoit Bay, Brunswick and Freeport, Maine, Horsley & Witten, Inc., January 1996

Expanding and Sustaining the Shellfisheries of Casco Bay, Casco Bay Estuary Project, September 2003

Mare Brook Watershed Hydrologic & Hydraulic Study, GEI Consultants, March 2023

Maine Volunteer River Monitoring Program (VRMP) Quality Assurance Project Plan(2019 – 2024), Maine Department of Environmental Protection, March 2020

The Environmental Context of a Gyrodinium Aureolum Bloom and Shellfish Kill in Maquoit Bay, Maine, September 1988, Heinig and Campbell, 1992

Commented [JF1]: DP

IV. Scope of Work

The Town of Brunswick is requesting proposals from a qualified consultant to carry out the scope of as described tasks described below. The consultant may modify the desired scope of work presented below if, based on their professional expertise and knowledge, they can provide an approach that will more effectively address the goals of this project; however, the consultant shall not delete any requested task unless explicitly noted. Any changes to the scope of work would require Town approval.

Task 1 – Kick-Off Meeting – Staff

The consultant and their team will attend a kick-off meeting with Town Staff to review the scope of the project and schedule.

Task 2 – Data Quality Plan

Development of a data quality plan for nutrient and fecal coliform monitoring. Document to define data quality goals and quality assurance practices.

Commented [JF2]: Removed reference to MDEP VRMP QAPP - KF

Task 3 – Development of Water Quality Sampling and Analysis Plan

The consultant shall review relevant material and develop a sampling plan. The goal of sampling is to focus loading reduction efforts on the largest sources of total nitrogen and bacteria from within the watershed and establishing baseline concentrations in the bay during the summer. The consultant shall present the sampling plan and rationale to the Town.

Commented [JF3]: KF

Sampling plan should include sampling locations, frequency, and proposed analyte list. A draft sampling plan will be presented to the Town for comment with response to the RFP.

Commented [JF4]: DP

Task 4 – Maquoit Bay Baseline Sampling

Sampling will be conducted by the consultant with assistance from the Town.

Task 5 – Development of Bacteria Model

The model should produce and estimate of average fecal coliform loadings for different land uses within the watershed. It should also have the capability to run different scenarios such as comparing current and build-out conditions and land use changes relevant to the watershed. The model should also compare results for locations where field data was collected and generate pollutant loading estimates at new locations.

Task 6 – Development of Nitrogen Loading Model

The model should produce an estimate of average nitrogen loadings for different land uses within the watershed. It should also have the capability to run different scenarios such as comparing current and build-out conditions and land use changes relevant to the watershed. The model should also compare results for locations where field data was collected and generate pollutant loading estimates at new locations.

Task 7 – Presentation of Results and Recommendations – Public Meeting

The consultant shall prepare a written report of their findings and present to the Town Council. Consultant should summarize observations on sources of contaminants into the bay, and provide recommendations on possible ordinances the town and enact to reduce contaminant loading into the bay. The consultant shall also provide a tutorial to Town staff for use of the bacteria and nitrogen loading models.

V. Anticipated Project Schedule

Interested parties shall provide a detailed schedule of work broken out by task. The Town Anticipates the study work to begin in 2023, with sampling to occur in summer 2024 and project completion in winter 2024-2025.

Commented [JF5]: KF

VI. Required Submittals

Proposals shall include the following and shall be organized using each of below elements as section headings:

- A. Firm Description- provide a brief description of the firm including firm size and area of specialization, location of corporate headquarters, and potential satellite office proposed to handle this project.
- B. Project Team- Provide names and resumes of key professionals who would be assigned to the project. Each team member’s education and experience shall be listed. The project manager shall be clearly identified and a description of his/her relevant previous projects listed. A list of past relevant projects, which proposed project staff have played a central

role in developing, shall be also provided. If not the project manager, the individual(s) responsible for leading neighborhood meetings shall be clearly identified.

- C. Statement of project understanding- The consultant shall state in succinct terms their understanding of what is required by this Request for Proposal.
- D. Scope of Services- Describe in narrative form the consultant's approach and technical plan for accomplishing the work listed herein. The Consultant is encouraged to elaborate and improve on the tasks listed in the RFP; however, the consultant shall not delete any requested scope tasks unless explicitly noted. The Consultant shall submit a schedule for completing the scope of work for design.
- E. Project budget itemized by task and a **total project cost stated as a firm fixed fee**. Hourly rates for project staff shall also be provided.
- F. Three (3) references, including current contact name and phone number for similar project.