



Portland Water District
From Sebago Lake To Casco Bay

OPERATIONS COMMITTEE / AGENDA ITEM SUMMARY

Agenda Item: 1
Date of Meeting: December 7, 2020
Subject: North Windham Wastewater Treatment Facility Project - Professional Services Contract - Selection
Presented By: Paul Rodriguez, Sr. Project Engineer

RECOMMENDATION

The following proposed language is presented for Board of Trustee approval:

ORDERED, the General Manager is authorized to execute a professional services contract with Tighe & Bond in the amount of \$876,000 for preliminary design phase engineering services for the North Windham Wastewater Treatment Facility Project;

BE IT FURTHER ORDERED, that a total project budget is hereby authorized, not to exceed \$961,000; and that the General Manager, and the Treasurer, each acting singly, are authorized to take such steps as may be necessary to accomplish the intent of the vote.

BACKGROUND ANALYSIS

Pursuant to the Memorandum of Agreement (MOA) approved May 26, 2020 (Order 20-020), PWD issued a request for proposals (RFP) for engineering services for the planning and design of wastewater collection, pumping, treatment, and effluent disposal facilities. This effort includes a holistic assessment of allowable groundwater discharge capacity within the Phase 1 area and an exhaustive review of available groundwater discharge technologies configured to maximize capacity.

The recommended engineering team will build on the wastewater planning work previously completed by the Town. The work will refine and accurately anticipate flows and loads, which will then drive the system sizing and cost factors based on a collaborative effort to evaluate different system extents and configurations that consider maximizing system value from both an affordability and ground water quality perspective.

Staff received responses from six engineering teams that provided proposed methods for achieving the project goals. Based on the outcome of the review and ranking, Tighe & Bond received the best overall score (159). Staff therefore recommends award to Tighe & Bond for an amount of \$876,000, which includes planning, preliminary design, and budget level cost estimating. A portion of the total

contract amount (\$226,000) is established in allowances for more detailed effort that will proceed only on written authorization pending the outcome of the initial assessments. As approved by Board Order 20-023 on June 22nd, 2020 the comprehensive method for procuring engineering services will be used for this project, meaning that it is anticipated that the same firm will be utilized for detailed design as well as construction services.

Project #: This project is proposed as an amendment to the 2020 CIP, Project 3241.

FISCAL REVIEW/FUNDING

This project includes comprehensive engineering services for the North Windham Wastewater Treatment Facility Project. It is anticipated this effort will lead to a recommendation of future upgrades, and that the expected total budget is to be determined by the proposed preliminary design effort. The project is expected to be eligible for SRF funding through the Department of Environmental Protection. Per the MOA, expenses incurred by either party in the design, construction and operation of the North Windham System shall be paid by the Town through its annual assessment by the District. Long-term obligations associated with this project are required to secure Town meeting approval prior to the District's commitment to finance the system. Should the District incur expenses that do not become part of the long-term commitment, those would be assessed per Section 9 of the District's Charter. The Town and District staff recommended that the District internal Engineering cost be capitalized for this project, The chart below reflects the total engineering budget for this project

| Engineering Phase - North Windham WW | |
|---------------------------------------|-----------|
| Tighe & Bond (Lump Sum not to exceed) | \$876,000 |
| PWD Engineering cost | \$85,000 |
| Total Budget | \$961,000 |

LEGAL REVIEW

Corporate Counsel has reviewed the proposed order as to form.

CONCLUSION(S)

Staff recommends awarding the contract for design engineering services North Windham Wastewater Treatment Facility Project to Tighe & Bond.

ATTACHMENT(S)

SUPPORTING INFORMATION

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In recent years, the Town of Windham (“Town”) has redoubled its efforts to address wastewater treatment needs in the northern area. These efforts led to the development of a Comprehensive Wastewater Management Plan published in May 2018 and subsequent investigations of two potential effluent disposal sites, one near Chaffin Pond and the other off Manchester Drive. The resulting reports, along with a 2011 Wastewater Facilities Plan, have been provided for review.

In a meeting on February 26, 2020 with representatives from the Town, Portland Water District (“PWD”), Maine DEP, and the Town’s consultant, it was made apparent that surface water discharge options in or near the Phase 1 area were not viable and that groundwater discharge options must be shown to have negligible impact to the kettle ponds. Modeling of groundwater discharge at the Chaffin Pond site raised long term water quality impact concerns, and the Manchester Drive site projected offsite down gradient surface expression. This scope of work is therefore focused on a holistic search within the entire Phase 1 area for potential groundwater disposal sites as well as alternatives for siting a treatment plant.

On May 26, 2020, the Town and PWD signed a Memorandum of Agreement to partner on the procurement of engineering services and construction of wastewater treatment facilities in North Windham to serve the Phase 1 Area identified in the attached map (see background information document 21.3.11) with considerations for future expansion to serve Phases 2 – 4. The Agreement describes the roles and responsibilities for the Town and PWD; both organizations have expressed their intention to proceed forward in the most expedited schedule possible to develop proposed facilities based on a thorough and well-informed decision making process focused on the best long term interests of the ratepayers and residents of Windham.

Six engineering teams responded to the RFP: Brown and Caldwell, Dubois and King, Hazen and Sawyer, Tighe & Bond, Wright-Pierce and Woodard & Curran. A selection committee of five PWD staff including representation from Wastewater Operations and AMaP was assembled to review each firm’s proposal. The selection committee conducted a review of the proposals and conducted follow-up question and answer sessions via Webex with four of the respondents.

Each selection team member ranked the proposals based on the criteria described below.

| # | Weighting Factor | Criteria Description |
|---|------------------|---|
| 1 | 10% | Core Team Demonstrated Experience Engineering New Centralized Wastewater Collection and Treatment Systems |
| 2 | 15% | Hydrogeologic Engineering and Groundwater Discharge Systems Qualifications and Experience |
| 3 | 20% | Accurate Construction, Operation and Maintenance Cost Estimating Experience |
| 4 | 20% | Demonstrated Collaborative Approach and Thorough Vetting of Creative Alternatives |
| 5 | 15% | Clarity of Scope and Understanding of Project Objectives |
| 6 | 10% | Project Management Approach and Demonstrated Success Managing an Expedited Schedule |
| 7 | 10% | Operation and Maintenance Considerations, System Longevity and Maximizing Return on Initial Investment |

Each proposal was ranked for each category using a 1-6 scale where a #1 ranking represented the proposal that best met the requirements. The rankings for each firm were averaged for the entire review team. Therefore a total of 100 represents a perfect score. The firms developed proposals that highlighted the proposed methods of addressing the challenges anticipated to achieve success. Based on the outcome of the review and ranking, the Tighe & Bond team received the best overall score (159).

Key factors that led to recommendation of the Tighe & Bond team include the following:

- An approach that focuses on the importance of the initial assessments that holistically evaluate the entire Phase 1 area to collaboratively determine the most cost effective project configuration;
- Recognition of the technical complexities of groundwater discharge in this area and a team with the breadth and depth of experience to consider the viability of creative alternatives;
- An approach that reflects the level of effort needed to establish a project budget that will mitigate risk factors typical of higher-level budgeting and establish a project scope with adequate detail to be brought forward for consideration by stakeholders with confidence;

The following table summarizes the results of the selection committee's evaluation of each respondent, including a scoring breakdown:

| Criteria | Brown and Caldwell | Dubois & King | Hazen and Sawyer | Tighe & Bond | Wright – Pierce | Woodard & Curran |
|---|---------------------------|--------------------------|-------------------------|-------------------------|------------------------|-----------------------------|
| 1. WW Collection and Treatment Experience Weight - 10% (Best Score = 10) | 36 | 60 | 42 | 20 | 14 | 38 |
| 2. Hydrogeologic Experience Weight - 15% (Best Score = 15) | 48 | 87 | 78 | 21 | 42 | 39 |
| 3. Cost Estimating Experience Weight - 20% (Best Score = 20) | 68 | 120 | 88 | 36 | 24 | 84 |
| 4. Collaborative Approach Weight - 20% (Best Score = 20) | 92 | 120 | 76 | 28 | 36 | 68 |
| 5. Clarity of Scope Weight - 15% (Best Score = 15) | 45 | 90 | 75 | 18 | 36 | 51 |
| 6. Project Management, Expedited Schedule Weight - 10% (Best Score = 10) | 44 | 60 | 40 | 16 | 20 | 30 |
| 7. O&M Considerations Weight - 10% (Best Score = 10) | 40 | 60 | 48 | 20 | 12 | 30 |
| Rank (Total) | 373 | 597 | 447 | 159 | 184 | 340 |

Following finalization of the rankings by the Selection Committee, PWD staff engaged with Tighe & Bond to negotiate a lump sum fee for the work necessary to conduct the initial assessments to establish the most cost effective system configuration. The proposed lump sum fee of \$650,000 meets with staff's expectation of the level of effort needed and by comparison with initial estimates and review of the other responses received. The outcome of the initial work will establish the most cost effective system configuration and further define the scope needed to complete the preliminary design. The following allowances have been negotiated to ensure that the initial scope does not exceed the known necessary effort:

- Hydrogeological assessment of additional effluent disposal sites including test pits, borings and soil analysis, perimeter testing and mounding analysis: \$35,000 per site, \$70,000 total
- Site evaluations including survey, geotechnical evaluations, and ledge probes for areas outside of the initial focus area: \$70,000
- Preliminary design development including drawings and cost estimating for areas outside of the initial focus area: \$78,000
- Assistance with public outreach: \$8,000
- Portland Water District Engineering: \$85,000

Total Allowances: \$311,000

Staff recommends award to Tighe & Bond for the total value of the lump sum work plus allowances of \$961,000 for completion of the preliminary design to develop a proposed project to be considered for approval. As approved by Board Order 20-023 on Monday June 22, 2020 the comprehensive method for procuring engineering services will be used for this project. Pending approval of the preliminary design and project budget, it is expected that detailed design services will be negotiated with the same engineering team and brought to the Board for approval.