

**AGENDA**  
**BOARD OF TRUSTEES**  
**PORTLAND WATER DISTRICT**  
**1-408-418-9388**  
**Access Code 132 320 5904, Meeting Password 96332356**  
**6:00 p.m., Monday, August 24, 2020**

- |     |   |                      |
|-----|---|----------------------|
| 1.  | <u>Roll Call</u>  | Clerk                |
| 2.  | <u>Convene Meeting</u> with vote to conduct the meeting remotely.   | Clerk                |
| 3.  | <u>Acceptance of Minutes</u> of Regular Meeting of July 27, 2020, the Workshop Meeting of August 10, 2020.  | President Douglas    |
| 4.  | <u>Invitation for Public Comment</u>  | President Douglas    |
| 5.  | <u>Reports:</u>   |                      |
|     | ▪ Operations Committee Reports  | Trustee Beck         |
|     | ▪ Planning Committee Reports  | Trustee Siviski      |
|     | ▪ Administration & Finance Committee Reports  | Trustee Garrison     |
|     | ▪ General Manager's Report  | General Manager      |
| 6.  | <u>New Business</u>   |                      |
|     | <b>A. <u>Order 20-025</u></b> authorizing the General Manager to execute a professional services contract with Wright-Pierce for the Wastewater Network #2 Upgrade Project.   | Operations Committee |
|     | <b>B. <u>Order 20-026</u></b> authorizing the General Manger execute a professional services contract with Hazen and Sawyer for the Windham Center Elevated Water Storage Tank Replacement.   | Operations Committee |
|     | <b>C. <u>Order 20-027</u></b> authorizing a salary adjustment for the General Manager.  | President Douglas    |
| 7.  | <u>Other Business.</u> An item may be added to this agenda provided seven trustees vote to waive the rule regarding agendas.  | President Douglas    |
| 8.  | <u>Second Invitation for Public Comment.</u>  | President Douglas    |
| 9.  | <u>Trustee Comments.</u>  | President Douglas    |
| 10. | <u>Executive Session.</u> A motion may be made to go into Executive Session at any time during the meeting to discuss, pursuant to 1 M.R.S. §405(6)(A) personnel, 1 M.R.S. §405(6)(C) real estate, 1 M.R.S. §405 (6)(D) labor negotiations, or 1 M.R.S. §405(6)(E) legal matters. | President Douglas    |
| 11. | <u>Adjournment.</u>   | President Douglas    |

Donna M. Katsiaficas  
Clerk

**Portland Water District**  
**Board of Trustees Regular Meeting**  
**August 24, 2020**

**New Business**  
**Agenda Items 6A-6C**



Portland Water District  
*From Sebago Lake To Casco Bay*

## **BOARD OF TRUSTEES / AGENDA ITEM SUMMARY**

Agenda Item: 6A Order 20-025  
Date of Meeting: August 24, 2020  
Subject: Wastewater Network #2 Upgrade Project  
Professional Services Contract - Selection  
Presented By: Paul Rodriguez, Senior Project Engineer

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### **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 Wright-Pierce in the amount of \$79,980 for the Wastewater Network #2 Upgrade Project (2019 -SP 177/ Project 3126); 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**

The PWD's SCADA system utilizes four individual radio networks to communicate data from each of the 130+ remote sites to the SCADA servers. The data collected from these remote sites is critical for our operations and engineering groups to maintain system operation and perform PWD's mission as a public utility.

Many of these remote sites utilize communications hardware which dates back to the original installation over twenty years ago. As the network hardware is approaching the end of its lifecycle, the District is in the process of upgrading each network over time. This CIP project will include an upgrade to the radio system supporting Wastewater Network #2 (WWN2) which services PWD's remote wastewater sites in Windham, Gorham, Westbrook, and Cumberland.

PWD has received and reviewed three proposals and assembled a committee that ranked each response based on the criteria advertised in the RFP. Wright-Pierce received the best score of the three candidates and is therefore recommended for award of a contract in the amount of \$79,980 for alternatives analysis, preliminary design, hardware selection, and detailed design documentation necessary for implementation of the upgrade. Future recommendations will include construction phase engineering services based on the project scope developed during the design phase.

**Project #:** 2019 -Subprogram 177/ Project 3126

**FISCAL REVIEW/FUNDING**

This project includes engineering services for the WWN2 Upgrade Project. The design will lead to the replacement of the radios in this network and costs will be proportionately allocated to the impacted funds. The total project budget is \$350,000.

**LEGAL REVIEW**

Corporate Counsel has reviewed the proposed order as to form.

**CONCLUSION(S)**

Staff recommends awarding the contract for radio network design services for the WWN2 Upgrade Project to Wright-Pierce. The Committee recommended that the item be forwarded to the Board by a vote of 3-0.

**ATTACHMENT(S)**

SUPPORTING INFORMATION

## **SUPPORTING INFORMATION**

This project will include design phase services for the WWN2 upgrade project. This includes updating all of the radios for these sites, as well as some of the programmable logic controllers (PLCs), which will be replaced as needed in order to communicate with the new radio systems. The scope of the RFP included: a preliminary design analysis, alternatives analysis and hardware selection, network analysis and configuration and preliminary hardware testing. The purchase and installation of the new radio system will be completed under a separate future contract.

PWD will work with the consultant to undergo a hardware alternatives analysis to determine the most cost effective, reliable radio system within the project budget. PWD has utilized Esteem radio systems since the installation of the SCADA radio networks. Esteem remains a reliable and viable option within the industry and offers the added benefit of being consistent with the hardware in our other three radio networks. However, all options will be considered and weighed appropriately to provide the best equipment lifecycle value to the PWD.

The project will also include a radio path study, pilot testing and a network path diagram to be utilized during the installation. This will include a desktop analysis utilizing mapping software and radio path analysis, as well as on-site testing with radio equipment to determine the strongest possible network paths for each RTU site. The result of this effort will be a network path diagram which will increase the efficiency and reduce the testing and downtime associated with the future installation and integration phase. The selected radio system will also be pilot tested at one of our remote sites to ensure that the product works as advertised, and can be integrated into our network system as advertised.

Finally the engineer will be responsible for assistance with licensing and integration planning. Depending on the hardware selected, new licensing may need to be obtained by PWD prior to the upgrade. With this design completed, PWD will move forward with installation of the upgrade, which is scheduled for mid 2021.

PWD issued an RFP in June of 2020 and three qualified engineering firms responded to the RFP: Tilson, Woodard & Curran, and Wright-Pierce. A selection team of three PWD staff including representation from Wastewater Operations and AMAP was assembled to review each firm's proposal.

Each selection team member then ranked the proposals based on the two non-fee categories identified in the RFP; Methods & Approach (35%) and Qualifications & Experience (35%) and a final review meeting was held. Each proposal was ranked for each category using a 1-3 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. The lump sum fee information for each proposal was opened and added to the overall ranking of the proposals (at 30%). Therefore a total of 100 represents a perfect score and the lowest fee.

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, Wright-Pierce received the best overall score (115).

Key factors that led to recommendation of the Wright-Pierce team include the following:

- Strong level of effort and emphasis on the need for alternatives evaluation to explore the most reliable long term telemetry configuration available;
- The project team’s depth of experience with telemetry system upgrades projects of this size and nature;
- The integration team’s demonstrated ability delivering successful projects similar in scope and complexity;

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

<b>Criteria</b>	<b>Wright-Pierce</b>	<b>Woodard &amp; Curran</b>	<b>Tilson</b>
<b>1. Methods &amp; Approach</b>			
Weight - 35% (Best Score = 35)			
<b>Methods Score</b>	35	70	105
<b>2. Qualifications &amp; Experience</b>			
Weight - 35% (Best Score = 35)			
<b>Qualifications Score</b>	35	70	105
<b>3. Fee</b>			
Weight - 30% (Best Score = 30)			
Lump Sum Fee (through Final Design)	\$79,980.00	\$66,836.00	\$63,935.78
<b>Fee Score</b>	45.05	32.72	30
<b>Total Score</b>	115	173	240
<b>Rank</b>	<b>1</b>	<b>2</b>	<b>3</b>

As a result of this ranking, the review team recommends award to Wright-Pierce for an amount of \$79,980.00 for completion of the Wastewater Network #2 Upgrade project.



Portland Water District  
*From Sebago Lake To Casco Bay*

## **BOARD OF TRUSTEES / AGENDA ITEM SUMMARY**

Agenda Item: 6B Order 20-026  
Date of Meeting: August 24, 2020  
Subject: Windham Center Elevated Water Storage Tank Replacement in Pressure Zone 407 North - Professional Services Contract - Selection  
Presented By: Paul Rodriguez, Senior Project Engineer

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### **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 Hazen and Sawyer in the amount of \$197,000 for design phase engineering services for the Windham Center Elevated Water Storage Tank Replacement (CIP 2018-307/2658); and

BE IT FURTHER ORDERED, that a total engineering design phase Professional Services Contract budget is hereby authorized, not to exceed \$207,000; 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**

The existing elevated water storage tank in Windham was constructed and placed in operation in 1957. The tank was targeted for replacement in the 2003 Comprehensive Water System Strategic Plan (CWSSP). The most recent maintenance was completed in 2019 when two leaks were repaired on the riser. The tank is beyond its useful life and due for replacement.

The engineering assessment will consider hydraulics, recommended piping improvements, and life cycle costs for various options to establish a recommend approach to replacing the tank to meet the objectives of adequate volume, high quality drinking water, and infrastructure reliability and safety.

Staff reviewed and scored six proposals from qualified teams that provided proposed methods for achieving the project goals. Based on the outcome of the review and ranking, Hazen and Sawyer received the best overall score (125). Staff therefore recommends award to Hazen and Sawyer for an amount of \$197,000, which includes design phase services from preliminary design through project bidding. Future recommendations will include construction phase engineering based on the project scope developed during the design phase.

**Project #:** 2018-Subprogram 307/ Project 2658

**FISCAL REVIEW/FUNDING**

This project includes comprehensive engineering services for the Windham Center Elevated Water Storage Tank Replacement design. It is anticipated this effort will lead to a recommendation of future upgrades that are expected to total \$2,900,000. Construction is scheduled for 2022 and the estimated operating fund impact is \$145,000. The design and land acquisition for the new tank qualified for a DWSRF loan and the construction of the new tank will be submitted for consideration for the DWSRF project list for funding through MMBB.

**LEGAL REVIEW**

Corporate Counsel has reviewed the proposed order as to form.

**CONCLUSION(S)**

Staff recommends awarding the contract for design engineering services for the Windham Center Elevated Water Storage Tank Replacement in the 407 North Pressure Zone to Hazen and Sawyer. The Committee recommended that the item be forwarded to the Board by a vote of 3-0.

**ATTACHMENT(S)**

SUPPORTING INFORMATION



## **SUPPORTING INFORMATION**

The existing Windham Center elevated water storage tank was constructed and began operation in 1957. The tank has received minimal maintenance for the past 30+ years and is at the end of its useful life. This project will include a preliminary system assessment of various tank replacement options and conduct life cycle costing to establish the basis for recommendation.

The engineering design phase shall include a preliminary hydraulic and cost assessment of two options. Option 1 is replacing the existing tank with a larger volume elevated tank on a parcel adjacent to the existing tank, but not currently owned by PWD. Option 2 is replacing the tank with a larger volume ground level storage tank at 101 Falmouth Road in Windham on land owned by PWD.

This effort will include establishing a design basis report outlining the components of the preliminary design and associated cost breakdown, followed by development of the plans and specifications with intermediate milestones to confirm scope objectives and project cost. The scope of the construction phase engineering services will be refined based on work sequencing and other project requirements developed during design.

Seven qualified engineering firms were invited to respond to the RFP: Hazen and Sawyer, Jacobs, Brown & Caldwell, Tighe & Bond, Woodard & Curran, Tata & Howard, and Hoyle Tanner & Associates. Six proposals were received. A selection team of four PWD staff including representation from Water Operations and AMaP was assembled to review each firm's proposal. The selection committee conducted a review of the proposals and conducted follow-up interviews with five of the respondents.

Each selection team member then ranked the proposals based on the two non-fee categories identified in the RFP; Methods & Approach (35%) and Qualifications & Experience (35%) and a final review meeting was held. 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. The lump sum fee information for each proposal was opened and added to the overall ranking of the proposals (at 30%). Therefore a total of 100 represents a perfect score and the lowest fee.

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 Hazen team received the best overall score (125).

Key factors that led to recommendation of the Hazen and Sawyer team include the following:

- Focused effort and expertise capable of completing the hydraulic modeling that will allow us to make the best decision for the new tank replacement location;
- An approach focused on configuring this replacement to leverage the most cost effective alternative available;
- Demonstrated grasp of the key drivers for project success being preliminary hydraulic modeling, tank siting, tank sizing, water quality, and maximizing economic value for the ratepayers, with considerations for configuring the upgrade to support future pressure zone operation optimization goals;

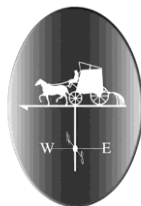
The following table summarizes the results of the selection committee’s evaluation of each respondent, including a scoring breakdown:

Criteria	Hazen	Jacobs	Brown & Caldwell	Tighe & Bond	Woodard & Curran	Tata & Howard
<b>1. Methods &amp; Approach</b>						
Weight - 35% (Best Score = 35)						
<b>Methods Score</b>	35	87.5	105	131.25	166.25	210
<b>2. Qualifications &amp; Experience</b>						
Weight - 35% (Best Score = 35)						
<b>Qualifications Score</b>	35	105	96.25	140	148.75	210
<b>3. Fee</b>						
Weight - 30% (Best Score = 30)						
Lump Sum Fee (through Bidding)	\$190,400	\$229,413	\$239,682.40	\$135,088	\$138,915	\$136,000
<b>Fee Score</b>	54.57	71.89	76.46	30	31.7	30.41
<b>Total Score</b>	125	264	278	301	347	450
<b>Rank</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>

In addition to the lump sum proposal to provide a new tank in the lot adjacent to the existing Windham Center tank, Hazen provided a proposal for additional services that would be necessary should the team recommend the Falmouth Road site instead, at a cost of \$5,600. These additional services include site stabilization and access roadway design to address the relatively steep grade along with additional geotechnical work. In addition, staff requested a separate cost proposal from Hazen for assistance with demolition of the existing Windham Center tank (\$1,000). Therefore, we are requesting award to Hazen and Sawyer for an amount of \$197,000, with the additional tasks to be executed only if determined appropriate following completion of the preliminary design.

Staff also recommends approving a \$10,000 contingency for a total design phase services budget of \$207,000. The contingency will address items that cannot be determined until a tank style and location is chosen, such as the design of a separate controls building.

This project includes design phase engineering services, including preliminary design, detailed design and bidding. As approved by Board Order 18-018 on April 23<sup>rd</sup>, 2018 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. An amendment to this agreement with Hazen and Sawyer is therefore anticipated to cover construction phase services once the final design is complete and the required scope can be refined.



Portland Water District  
*From Sebago Lake To Casco Bay*

**BOARD OF TRUSTEES / AGENDA ITEM SUMMARY**

Agenda Item: 6C Order 20-027  
Date of Meeting: August 24, 2020  
Subject: General Manager Annual Review  
Presented By: President Louise Douglas

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The 2019 annual review of the General Manager's performance has been completed. Based upon this review, the following Order is proposed:

ORDERED, that the General Manager's annual compensation shall increase 3.5% effective January 1, 2020.