

**AGENDA**  
**PORTLAND WATER DISTRICT**

225 Douglass Street, Portland, Maine

Jeff P. Nixon Training Center

6:00 p.m. on Monday, April 22, 2024

Remote Meeting Participation Available to the Public via Zoom at:

<https://us06web.zoom.us/j/84150819248?pwd=LanDvo9HMnTEUdHqKBQca8bfUtn9xi.1>

1. Convene Meeting with Pledge of Allegiance and moment of silence President Lunt
2. Roll Call Clerk
- 3a. Acceptance of Minutes of the Regular Meeting of March 25, 2024 President Lunt
- 3b. Acceptance of Minutes of the Workshop Meeting of April 8, 2024 President Lunt
4. Invitation for Public Comment President Lunt
5. Reports:
  - Operations Committee Report Trustee Shattuck-Heidorn
  - Planning Committee Report Trustee Crockett
  - Administration & Finance Committee Report Trustee Cote
  - General Manager's Report General Manager
6. New Business:
  - A. Resolution 24-004 awarding the DiPietro Scholarship for 2024 Scholarship Committee
  - B. Order 24-013 authorizing actions related to Sebago Lake Water Treatment Facility (SLWTF) Roof Replacement Phase 1 Operations Committee
  - C. Public Hearing regarding the amendment of Resolution 24-002, to increase the authorized water bond amount by \$300,000 Admin. & Finance Committee
  - D. Resolution 24-005 authorizing an amendment to a bond to increase the authorized bond amount for the Sebago Lake Water Treatment Facility's Roof Admin. & Finance Committee
  - E. Order 24-014 authorizing the allocation of a portion of the 2023 annual operating fund change in the Windham Fund Admin. & Finance Committee
  - F. Order 24-015 authorizing an amendment to the Capital Improvement Plan Project 2023 021-3264 Operations Committee
  - G. Order 24-016 authorizing actions related to the North Windham Sewer Project Operations Committee
  - H. Order 24-017 authorizing the General Manager to execute a contract with Gorrill Palmer for professional services Planning Committee
7. Other Business An item may be added to this agenda provided seven trustees vote to waive the rule regarding agendas. President Lunt


8. Second Invitation for Public Comment President Lunt
9. Trustee Comments President Lunt
10. Executive Session A motion will be made to go into Executive Session, President Lunt  
pursuant to 1 M.R.S. §405 (6)(E) regarding legal rights and  
responsibilities of the Board
11. Adjournment President Lunt

Donna M. Katsiaficas  
Clerk

**Portland Water District**  
**Board of Trustees Regular Meeting**  
**April 22, 2024**

**New Business**

**Agenda Item 6A – 6H**



**RESOLUTION**  
**PORTLAND WATER DISTRICT**  
**BOARD OF TRUSTEES**



WHEREAS the Board of Trustees has established the Joseph A. DiPietro Scholarship in memory of Mr. DiPietro's fifteen years of dedicated service representing the city of Portland as a Trustee of the District, and

WHEREAS Abigail Ouellette, a resident of Gorham, is pursuing a degree in Environmental Science at the University of Southern Maine, and

WHEREAS Ms. Ouellette has demonstrated need for the scholarship, and

WHEREAS the Board of Trustees' Scholarship Committee unanimously recommends Ms. Ouellette to be a recipient of the 2024 Joseph A. DiPietro Scholarship,

NOW THEREFORE BE IT RESOLVED that the Board of Trustees recognizes the accomplishments and needs of Ms. Ouellette and supports her academic endeavors by awarding her the \$1,500 scholarship for 2024 established in tribute to Joseph A. DiPietro.

Adopted this 22<sup>nd</sup> day of April 2024.

\_\_\_\_\_  
Attest:  
Donna M. Katsiaticas  
Clerk

\_\_\_\_\_  
William. M. Lunt, III  
President  
Board of Trustees





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

Agenda Item: 6B Order 24-013  
Date of Meeting: April 22, 2024  
Subject: Sebago Lake Water Treatment Facility Roof Replacement Phase 1  
Presented By: Joshua Hudak, CFM Facilities Manager

---

### **RECOMMENDATION**

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

ORDERED, the General Manager is authorized to execute a construction contract with Garland DBS in the amount of \$862,290 for the Sebago Lake Water Treatment Facility (SLWTF) Roof Replacement Phase 1 2024 CIP 122-3287; and

BE IT FURTHER ORDERED, that the project budget is amended by increasing it by \$300,000 and that the total budget for the project SLWTF Roof Replacement Phase 1 2024 CIP 122-3287 is hereby authorized not to exceed \$960,000; 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 SLWTF Roof Replacement Phase 1 was programmed and approved in the 2024 CIP for \$660,000 to replace the failing metal roof at the SLWTF. PWD used its roofing specialist Garland DBS to scope out what needed to be replaced and the costs associated with this. The cost of simply replacing the metal roof which was not installed correctly and has many fail points, was close to the budget cost, however, the need to remove the leaking skylight added to this cost. By removing the skylight, it was determined that a steel contractor and structural engineer would be needed to add support to the roof. The skylight also is connected to the storefront entryway of the facility which means that also needs to be replaced. The water intrusion has been extensive so we will need to replace damaged areas within the office as well.

### **FISCAL REVIEW/FUNDING**

The project was planned to be bond financed in the 2024 Budget. The additional \$300,000 increases the future debt service by approximately \$27,000.

### **LEGAL REVIEW**

Corporate Counsel has reviewed the proposed order as to form.

### **CONCLUSION(S)**

Staff recommends amending the original 2024 CIP 122-3287 SLWTF Roof Replacement budget from \$660,000 to \$960,000 to include the replacement of the failing roof, and skylight and repair the water damage caused by these failures. The Committee recommended the item be forwarded to the full Board for consideration with a vote of 2-0.

### **ATTACHMENT(S)**

Supporting Information  
Roof Inspection Report

SUPPORTING INFORMATION

<u>Item</u>	<u>Cost</u>
Metal Roof Replacement	\$ 681,335.00
Skylight Replacement	\$ 137,854.00
Storefront Entrance	\$ 43,101.00
Office Repairs from Water	\$ 60,000.00
Contingency	\$ 37,710.00
<b>Total:</b>	<b>\$ 960,000.00</b>

**Garland/DBS Price Based Upon Local Market Competition:**

<b>1 Triumph Roofing Inc</b>	<b>\$ 598,589</b>
2 St. Hilaire Contractors Inc.	\$ 689,101
3 Hahnel Bros Co	\$ 705,375
4 Tech Roofing	\$ 818,563

**Add-Alternate Wall Panel:**

<b>1 Triumph Roofing Inc</b>	<b>\$ 82,746</b>
------------------------------	------------------



# Construction Details

**Client:** Portland Water District

**Facility:** Standish Water Treatment

**Roof Section:** Metal Roof



## Information

<b>Year Installed</b>	1994	<b>Square Footage</b>	13,584
<b>Slope Dimension</b>	4	<b>Eave Height</b>	14'
<b>Roof Access</b>	Ladder Needed	<b>System Type</b>	Metal

## Assembly

Roof #	Layer Type	Description	Attachment	R-Value	Thickness
1	Deck	Metal Deck		-	1.5"
1	Insulation	Polyisocyanurate	Mechanically attached	-	-
1	Cover Board	Wood Fiber	Adhesive	-	Composite Ins Board
1	Base Sheet	Organic Asphalt Saturated Base Sheet	Mechanically attached	-	-
1	Metal Standing Seam	Prefinished Galvanized	Mechanically attached	-	-



# Photo Report

**Client:** Portland Water District

**Facility:** Standish Water Treatment

**Report Date:** 12/02/2022

**Title:** Inspection Report

**Roof Section:** Metal Roof

## INSPECTION OVERVIEW

This roof is in failed condition for multiple reasons and I recommend planning/ budgeting for replacement. Two replacement options are available for this sloped roof sections: new metal roof or replace with shingles. Primary issues and recommendations are listed below.

### METAL PANEL

- Issue: metal panel is tearing mid span due to assembly; panel is architectural and non structural, so it is weak and failing in many areas; panel seams are failing and are weak; panel is rusting at eaves; panel is poorly detailed at eaves/ gutters; panel should have been installed in one continuous piece instead of 2 per ridge to eave run.
- Solution:
  - Metal Option (~40 yr lifespan): replace with a true T Seam (Rmer Span) style roof over a fully adhered high temp underlayment. One continuous panel required from eave to ridge.
  - Shingle Option (~20 yr lifespan): install high temp underlayment and architectural shingles.

### SKYLIGHT

- Issue: poorly designed; on plane with metal roof; in line with gutter/ internal drain uproof of skylight; connected poorly to metal roof; causing damage to the walls/ windows/ roof below due to snow/ice movement and no ability to control snow runoff.
- Solution:
  - Remove: remove skylight completely and enclose with roofing in-kind
  - Upgrade: install new skylight system (i.e. Kalwall or storefront) set on a curb to raise it above the adjacent roof system; decommission internal drain/ gutter uproof of skylight and install cricket uproof of skylight to control water; install new roof system.

### INTERNAL GUTTER/ DRAIN AT EAVES

- Issue: poorly designed (square to round connection); collects organic matter/ debris; very small and offers no slope; backs up snow and ice; doesn't promote proper snow/ water shedding; lined with EPDM over metal which will fail.
- Solution: decommission design and extend new roofing over eaves; install eave mounted gutter with downspouts and splash blocks.

### SNOW MOVEMENT/ SNOW FENCE

- Issue: snow tab design is tearing metal panel apart due to lightweight system; tabs only have 1 set screw so they move; denting/ tearing metal panel creating open holes
- Solution:
  - Metal Roof: install S5! style snow fence system with ice flags; install multiple rows
  - Shingle Roof: snow retention system not required.

### FLASHINGS/ DETAILS

- Issues: Coming apart at roof to wall head detail; minimal detailing at head/ pan end detail = access to indoors for



water; curb and penetration details are non metal roof approved or NRCA compliant; no curbs to move snow/water properly.

- Solutions: all details to be updated to manufacturer guaranteed; all details to be listed within bidding project; provide inspections during installation to verify compliance to specification.



*Photo 1*

Metal roof overview.



*Photo 2*

Glass "skylight" - storefront style.

This skylight is at/slightly below the metal roof line. Recommend either removing the skylight and roof over OR installing a different style skylight that is raised up ~8"-12" from the metal roof and sits on a curb. Instead of a drain/gutter unroof of the skylight (existing detail), install a saddle/cricket valley detail to pushes water/snow to either side of the new "skylight" assembly (engineering required).



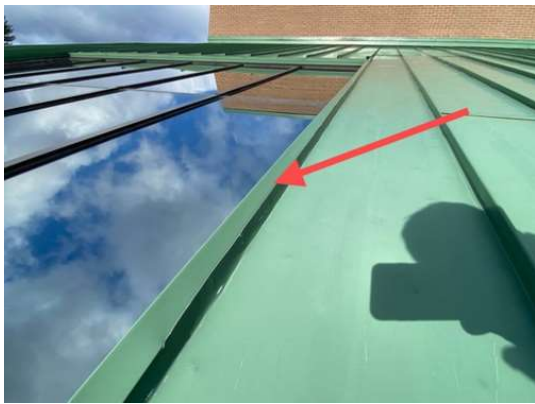
*Photo 3*

Overview of metal roof to skylight connection.



*Photo 4*

Metal wall panel at the eave edge of the main roof connecting to the gable entry roof. This metal wall panel is directly down roof of the skylight. Snow/ice slides off the skylight and onto this lower roof, which has over time damaged the lower entry roof and the metal wall panels.



*Photo 5*

Difficult to show, but this entire metal seam connecting the skylight trim to the metal roof is completely unzipped itself and has created an open condition within the assembly allowing water into the building.



*Photo 6*

Another view of the same seam that has unzipped itself from the roof-to-skylight connection. This photo shows the transition of the metal panels uproof of the skylight. They are connected by an internal gutter lined with EPDM. These internal gutter are poorly designed and should be decommissioned (see additional photos and comments for further explanation).



*Photo 7*

Overview of gutter/ internal drain connecting the upper metal roof panel to the skylight assembly.



*Photo 8*

Another view of the opposite side of the metal roof to skylight assembly = open condition allowing water into your building. Decommission this detail at roof replacement.



*Photo 9*

Internal drain within the skylight to metal panel transition.



*Photo 10*

Internal drain assembly at eave. This gutter is positioned directly over the building envelope and funnels water to internal drains. It has failed in most locations due to the design/ function of the system.



*Photo 11*

Gutter and internal drain overview.



*Photo 12*

Looking down the the internal drain. Per architectural drawings, this drain makes a transition from square to round pipe, another potential weak point within a system that is within the building envelope.



*Photo 13*

Roof panel inspection: tear in the metal panel over a seam clip where the fastener has backed out and the shearing effect of snow and ice has torn the metal = **OPEN CONDITION FOR WATER TO ENTER THE BUILDING**



*Photo 14*

Damaged panels at the eave edge leading to rust of the steel panels and holes into the system (red outline). Rusting fasteners throughout the assembly, these will continue to fail.



*Photo 15*

Connection of metal trim to the skylight - this entire connection detail should be improved/ updated.



*Photo 16*

Caulking/ sealant connecting the vertical window just below the skylight to the metal panel. This area sees snow and ice buildup (as evident from the condition of green metal panel) and the sealant has failed/ needs to be replaced to keep water out of the assembly.



*Photo 17*

Overview of gutter assembly at eaves. Rusting metal panel at the eaves, gutters filled with leaves slowing flow of water. rusting fasteners, etc.



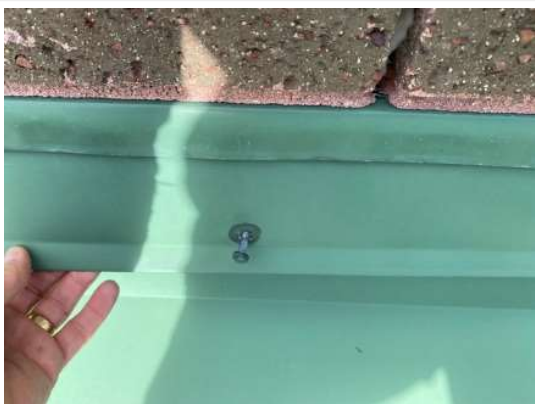
*Photo 18*

Tear in metal panel and scratching of metal panel most likely from trapped debris under sliding snow/ice.



*Photo 19*

Seam caps pulling away from the standing seam roof. This is an **OPEN CONDITION FOR WATER TO ENTER THE BUILDING**



*Photo 20*

Flashing connection from the masonry wall to the metal roof assembly at the head (top) of the roof panel. Masonry pins pulling out. Update condition as metal moves constantly and it will overtime pull out concrete pins. This condition was found in multiple locations throughout the assembly.



*Photo 21*

Failed head/ wall flashing for the masonry to metal roof transition. In areas where the masonry pins have failed, this section of counter flashing was blowing in the wind (see next photo), which give direct access for water to enter the building.



*Photo 22*

Flashing detail failure.



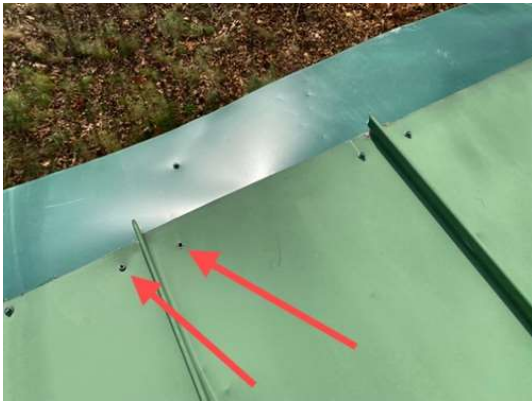
*Photo 23*

A DIY solution to stop leaks at the internal gutter detail. This light gauge flashing was tucked under the metal panel and fastened into the assembly a few month ago. Many screws have backed off and the metal flashing, although temporarily stopping many of the leaks, is not a long term solution as wind will shear the metal off creating an airborne hazard (see additional photos).



*Photo 24*

Screws that have sheered away due to wind moving the assembly. Now there are open conditions into the roof assembly.



*Photo 25*

Open holes in the metal panel from the fasteners failing.



*Photo 26*

Wind catching the end of the flashing/ DIY solution. This was already starting to tear, so I removed this section while onsite during the inspection.



*Photo 27*

Failed DIY flashing detail at the roof eave to gutter detail. I removed this piece during the site visit so it wouldn't become airborne on a windy day.



*Photo 28*

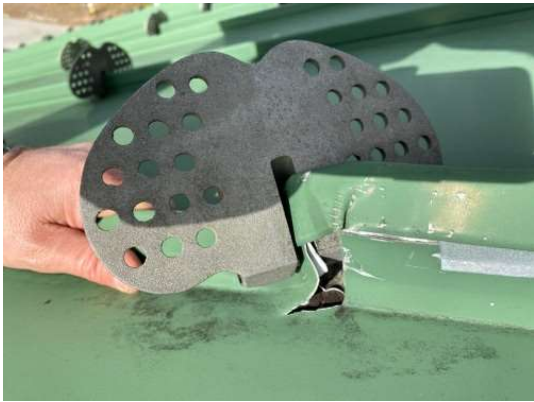
Improperly installed curb. The roofing panels should have been unseamed and removed to allow for a proper curb and pan assembly ideally installed with a cricket and valley. This curb flange was installed directly to the panels with sealants that will always fail over time as the curb limits the movement of the metal panel.





*Photo 29*

Silicon sealant installed at a failed seam where damage occurred along the way. This is not an acceptable repair.



*Photo 30*

These rib mounted snow tabs are not an acceptable solution for snow management on an architectural metal panel roof. There are MANY snow tabs that have similarly torn the metal panel and created an open condition in the roof.



*Photo 31*

Movement in the snow tab has damaged the panel rib leaving an open condition for water to enter the building. This condition was found in MANY locations around the roof area.



*Photo 32*

Additional open conditions at the snow tabs.



*Photo 33*

Only 1 fastener/ set screw was used to lock in the panel, this is what has allowed the snow tab to tear/ dent the metal panel rib.



*Photo 34*

Additional open conditions at the snow tabs.



*Photo 35*

Additional open conditions at the snow tabs.



*Photo 36*

These pipe boots do not withstand the movement of snow. Note the corners of the metal around the boot are folding up. Stainless steel fasteners should be used as well.



*Photo 37*

Failure at another pipe boot. No clamp ring used around the rubber to pipe connection.



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

Agenda Item: 6C-D Resolution 24-005  
 Date of Meeting: April 22, 2024  
 Subject: Water Bond Amendment  
 Presented By: David Kane, Executive Director of Administration

---

### **RECOMMENDATION**

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

RESOLVED, Resolution 24-002, authorizing the issuance of water bonds to finance the installation and renewal of water mains, replacement of the Sebago Lake Water Treatment Facility’s Roof, upgrade of the Windham Water Pump Station, and obtaining Service Lines’ GPS data points and related infrastructure projects, is hereby amended to increase the authorized bond amount from \$15,710,000 to \$16,010,000. The previously authorized bonds were also designated as Green Bonds pursuant to Order 24-003 adopted February 26, 2024. The amendment also designates the additional water bonds as Green Bonds. The full form of the Resolution attached hereto is hereby approved and shall be attached to and incorporated as part of the minutes of this meeting.

### **BACKGROUND ANALYSIS**

At the January 22, 2024 Board meeting, a motion was approved authorizing issuing up to \$15,710,000 of water bonds. Bids for the Sebago Lake Treatment Plant Roof were obtained and the cost is expected to be up to \$300,000 higher.

<b>Project</b>	<b>CIP Reference</b>	<b>Total</b>	<b>Revised Total</b>
Water Mains	43/121	\$ 6,000,000	\$ 6,000,000
Sebago Lake Treatment Plant Roof	122/3287	\$ 660,000	\$ 960,000
Windham Water Pump Station	122/3211	\$ 850,000	\$ 850,000
Lead Rule Compliance:			
Galvanized Water Lines	43/3296	\$ 7,200,000	\$ 7,200,000
GPS of Service Lines	61/3282	\$ 1,000,000	\$ 1,000,000
Bond Authorization		\$ 15,710,000	\$ 16,010,000

### **FISCAL REVIEW / FUNDING**

The project was planned to be bond financed in the 2024 Budget. The additional \$300,000 increases the future debt service by approximately \$27,000.

### **LEGAL REVIEW**

Corporate Counsel has reviewed the proposed Resolution as to form.

### **CONCLUSION(S)**

Staff recommends the motion be approved. Assuming the Operation Committee approves the project budget amendment, the Committee unanimously agreed the motion amending the bond amount be forwarded to the Board for its consideration.

### **ATTACHMENT(S)**

A. Full Form of Motion

**PORTLAND WATER DISTRICT  
BOARD OF TRUSTEES  
AMENDMENT TO RESOLUTION 24-002  
(Water Fund)**

**WHEREAS**, pursuant to Resolution 24-002 adopted on January 22, 2024 (the “Prior Resolution”), the Board of Trustees of the Portland Water District authorized, among other things, the District’s Water bonds in an amount of up to \$15,710,000 to finance installation and renewal of water mains, replacement of the Sebago Lake Water Treatment Facility’s Roof, upgrade of the Windham Water Pump Station, and obtaining Service Lines’ GPS data points and related infrastructure projects (the “Original Project”); and

**WHEREAS**, project costs are now expected to be up to \$16,010,000; and

**WHEREAS**, the District now desires to amend the Prior Resolution to reflect the higher cost estimate;

**NOW THEREFORE, BE IT HEREBY RESOLVED** by the Board of Trustees of the Portland Water District Assembled, following a public hearing duly called, noticed and held under District Policy No. 6.50-15:

1. That the amount of District water bonds authorized to be issued by the Prior Resolution be and hereby is amended to replace the amount of \$15,710,000 with the amount of \$16,010,000,
2. That the \$16,010,000 water bonds authorized by the Prior Resolution, as amended hereby, are designated as ‘Green Bonds’, with the proceeds to be used for ‘Green’ purposes; and
3. That in all other respects, the Prior Resolution is hereby ratified and confirmed as if more specifically set forth herein.

Dated: April 22, 2024



## BOARD OF TRUSTEES / AGENDA ITEM SUMMARY

Agenda Item: 6E Order 24-014  
 Date of Meeting: April 22, 2024  
 Subject: Wastewater Transfer of Surplus Funds  
 Presented By: David Kane, Executive Director of Administration

### RECOMMENDATION

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

ORDERED, that a portion of the 2023 annual operating fund change in the Windham Fund in excess of the Operating Contingency Fund target balance is hereby transferred to its Capital Renewal and Replacement Fund.

### BACKGROUND ANALYSIS

The net results for each of the wastewater funds are listed below. Cape Elizabeth, Gorham, Portland, and Windham funds results were positive. Cumberland and Westbrook were negative primarily due to higher collection system and treatment plant costs, respectively. Both funds had adequate reserve balances to cover the shortfall.

As shown in the table below, all funds except Windham are below the Board established operating target balance of 25% of budget. Since Windham's has an amount in excess of the target, it is recommended to transfer the excess to the Windham's Renewal and Replacement Fund.

#### Operating Funds:

	1/1/2022 Balance	2023 Net Change (Unaudited)	12/31/2023 Balance	Target (25% of Budget)	Over/(Under) Budget
Cape Elizabeth	\$286,837	\$95,958	\$382,795	\$618,257	(\$235,462)
Cumberland	\$60,778	(\$33,638)	\$27,140	\$329,147	(\$302,007)
Gorham	\$94,176	\$18,789	\$112,965	\$433,831	(\$320,866)
Portland	\$3,452,153	\$723,357	\$4,175,510	\$4,376,958	(\$201,448)
Westbrook	\$313,278	(\$94,675)	\$218,603	\$1,059,048	(\$840,445)
Windham (South)	\$120,194	\$48,008	\$168,202	\$127,649	\$40,553

Renewal and Replacement Funds:

	Balance (Budget)	(5% of Asset)	Budget
Cape Elizabeth	\$741,324	\$957,546	(\$216,222)
Cumberland	\$187,441	\$474,002	(\$286,561)
Gorham	\$888,995	\$943,494	(\$54,499)
Portland	\$6,038,081	\$6,306,419	(\$268,338)
Westbrook	\$3,745,300	\$1,168,731	\$2,576,569
Windham (South)	\$405,193	\$196,066	\$209,127

**LEGAL REVIEW**

Corporate Counsel reviewed the proposed motion and approved it as to form.

**CONCLUSION**

Staff recommends the Committee approve the motion. The Committee unanimously agreed the motion authorizing the Windham transfer be forwarded to the Board for its consideration.

**ATTACHMENT**

None



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

Agenda Item: 6F Order 24-015  
Date of Meeting: April 22, 2024  
Subject: East End Primary Sedimentation Basin Sludge Removal System Improvements  
Presented By: Christopher Cogan, Maintenance Manager

---

### **RECOMMENDATION**

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

ORDERED, the General Manager is hereby authorized to amend the Capital Improvement Plan Project 2023 021-3264 by increasing it by \$60,000 to a total amount of \$210,000.

### **BACKGROUND ANALYSIS**

The primary clarifier sludge removal system “cross collector screw” conveys sludge collected in the primary basins from the tanks to the sludge treatment system. Replacement of these screws was included in the 2023 CIP. There are three primary basins.

This year, multiple replacement quotes were evaluated. The system that was selected included stainless steel screws, drives, and drive chains. The cost of one is \$68,000 and installation is expected to cost no more than \$32,000.

The current budget for CIP Project 2023 21-3264 is \$150,000. To purchase a cross-collector screw in the second tank (which is currently being upgraded), the CIP budget will have to be increased. An increase of \$60,000 will allow for purchase and installation. Manufacturing lead time is expected to be in excess of 20 weeks.

### **FISCAL REVIEW/FUNDING**

This project will be completed using 2023 CIP Project 21/3264 for an adjusted budget of \$210,000. There is in excess of \$3,000,000 in the reserve capital fund.

### **LEGAL REVIEW**

Corporate Counsel has reviewed the proposed order as to form.

### **CONCLUSION(S)**

Staff recommends amending the CIP Project 2023 21/3264 by \$60,000 for a total project budget of \$210,000 to complete this work. The Committee recommended the item be forwarded to the full Board for consideration with a vote of 2-0.

### **ATTACHMENT(S)**

None





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

Agenda Item: 6G Order 24-016  
Date of Meeting: April 22, 2024  
Subject: North Windham Sewer Project – Project Budget Increase  
Presented By: Greg Pellerin, Senior Project Engineer

---

### **RECOMMENDATION**

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

ORDERED, the General Manager is hereby authorized to execute a construction management services contract amendment “GMP 2” (Guaranteed Maximum Price) with MWH Constructors, Inc. for the North Windham WWTF construction in the amount of \$21,000,000; and

BE IT FURTHER ORDERED, a construction management services contract amendment “GMP 3” with MWH Constructors, Inc. is hereby authorized for collection system installation in the amount of \$3,000,000; 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; and

BE IT FURTHER ORDERED, a professional services contract amendment with Brown & Caldwell is hereby authorized for the Project in the amount of \$1,500,000; 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; and

BE IT FURTHER ORDERED, that the Project (*CIP 2022-182/3324*) budget is amended by increasing it to a total of \$39,600,000; 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**

PWD and the Town of Windham are engaged in a collaborative effort to provide a new sewer collection system, WWTF, and effluent disposal system in the commercial area of North Windham along Rt. 302. The recent phase of the Design-Build project began in November of 2022, and significant progress has been achieved in the last 18 months. The project is nearing the final stages of design, and significant construction has already been achieved with the first construction contract: GMP 1 (Guaranteed Maximum Price), approved in May of 2023.

The project team staff is recommending a budget increase, and approval of several design and GMP amendments in order to proceed with the next phase of work. This phase will include the construction of the WWTF, and an additional collection system installation, as described below:

#### Engineering:

- Brown & Caldwell has proposed a contract amendment in the amount of \$1,500,000 for Design-Build construction phase engineering services throughout GMP 2 and GMP 3, including final design, resident engineering, and inspection.

CMAR Construction Contracts: MWH Constructors has proposed two CMAR contract amendments for the construction phase of the next two GMPs:

- GMP 2 in the amount of \$21,000,000 will include construction of the North Windham WWTF.
- GMP 3 in the amount of \$3,000,000 will include construction of approximately 600 LF of gravity sewer on Abby Rd, 1,100 LF of cross-country gravity sewer, 1,000 LF of cross-country sewer forcemain, and a sewer pumping station (“Manchester PS”) at the corner of Manchester Dr and Tandberg Trl.

To accommodate the contract amendments with MWH Constructors and Brown & Caldwell, PWD staff recommends increasing the Project budget to a total of \$39,600,000 of the current total available budget (see Fiscal section below). Additional budget increases will be necessary in future phases of the project.

Project #: 2022-Subprogram 182/Project 3324

#### **FISCAL REVIEW/FUNDING**

PWD and the Town of Windham secured funding approval for a \$38.9M loan with an estimated 1.5% interest rate and \$3.25M in principal forgiveness from the Department of Environmental Protection (DEP) Clean Water State Revolving Loan Fund in April of 2022. Windham approved, by referendum vote in June of 2022, the North Windham Sewer project with up to \$38.9M of SRF financing. Additionally, the project has been awarded a total of \$6.5M in grants and additional funding for the project, increasing the total available budget to \$45.4M.

The Town is expected to bond the available SRF loan capacity, and the remainder will be funded using the grants and SRF loan principal forgiveness. Future operating costs for the wastewater system will be funded through user fees and the debt service will be funded through the Town’s tax incremental financing created for the commercial zone of North Windham. Phase 1 of this project is expected to be on-line by January 1, 2026. Future phases will be constructed as funding becomes available.

#### **LEGAL REVIEW**

Corporate Counsel has reviewed the proposed order as to form.

#### **CONCLUSION(S)**

Staff recommends increasing the project budget in the amount of \$25,500,000 and increase the Project budget to \$39,600,000. The Committee recommended the item be forwarded to the full Board for consideration with a vote of 2-0.

#### **ATTACHMENT(S)**

Supporting Information

**SUPPORTING INFORMATION**

Since 2020, The Town of Windham and PWD have been engaged in a collaborative effort to provide a new sewer collection system, WWTF, and effluent disposal system in the commercial area of North Windham along Rt. 302. This system is intended to meet the needs of existing and future commercial development in the area. PWD and the Town selected Brown and Caldwell (Engineering) and MWH Constructors (CMAR Contractor) in the fall of 2022 to join the project team and deliver technical services required for the project. The first construction contract or GMP 1 was approved by the Board in May of 2023, and is in active construction. GMP 1 includes a sewer interceptor line, utility work on the new WWTF access Rd., and the installation of the plant’s subsurface effluent disposal system.

During the last year, the team has worked extensively on design and the GMP construction contracts for the new WWTF, and the next phase of the collection system installation. The initial proposal for the WWTF construction (GMP 2), in November of 2023, was significantly over budget. In response, the project team conducted a comprehensive value engineering process to re-align the project with the program budget goals. This process included making adjustments to the facility in all disciplines, reducing costs while still achieving PWD’s operational and compliance requirements.

The value engineering process was successful in reducing the proposed WWTF budget by about \$3M. PWD and the Town have agreed that this budget is appropriate and are preparing to advance the necessary contracts to proceed with the next phase of design and construction. Future expected construction will include additional collection system construction during the coming years. The current forecasted total project budget is provided below:

**Total Project Budget Forecast:**

Project Phase	Firm	Price	
Preliminary Design	Tighe & Bond	\$ 1,127,000.00	Previously Approved
CMAR Design Services	MWH	\$ 600,000.00	
Misc. Eng. Support	Multiple	\$ 50,000.00	
30-60% Full Project	Brown and Caldwell	\$ 1,800,000.00	
Final Design Full Project	Brown and Caldwell	\$ 1,389,000.00	
30-60%	Stantec	\$ 50,000.00	
Total Project Expense	PWD	\$ 300,000.00	
GMP 1	MWH	\$ 8,650,000.00	Current
<b>GMP 2</b>	<b>MWH</b>	<b>\$ 21,000,000.00</b>	
<b>GMP 3</b>	<b>MWH</b>	<b>\$ 3,000,000.00</b>	
<b>Construction Phase Engineering (GMP 2-3)</b>	<b>Brown and Caldwell</b>	<b>\$ 1,500,000.00</b>	Expected Future
Construction Phase Engineering (GMP 4-5)	TBD Est:	\$ 334,000.00	
Remaining Collection System	TBD Est:	\$ 8,000,000.00	
	Current Total Budget	<b>\$ 47,800,000.00</b>	

Engineering costs are currently estimated to run about 15% of the future total project budget, which is within the industry standard range.



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

Agenda Item: 6H Order 24-017  
Date of Meeting: April 22, 2024  
Subject: Standish Route 114/35 Intersection Stormwater Treatment Design Contract  
Presented By: Chad Thompson, Source Protection Coordinator

---

### **RECOMMENDATION**

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

ORDERED, the General Manager is hereby authorized to execute a contract with Gorrill Palmer for professional services in the amount of up to \$21,500 for engineering to modify the existing ditch adjacent to Northeast Road Extension and modify the drainageway on District-owned land.

### **BACKGROUND ANALYSIS**

In December, 2023, the District partnered with the Town of Standish on a project to make improvements to the intersection of Route 35 and Route 114. While the town's goals are to improve traffic flow, the District's objective is to enhance the protection of water quality in the Lower Bay of Sebago Lake by redirecting the majority of the stormwater from Standish Brook to an existing ditch and natural drainageway on District-owned land adjacent to Northeast Road Extension.

As a result of the ongoing stormwater redirection project, stormwater flow to the existing infiltration ditch alongside Northeast Road Extension is projected to increase tenfold. As a result, the existing ditch needs to be modified to handle the increased flow, and a section of the subsequent drainageway on PWD land needs to be modified to avoid potential impact to the historic railroad turnstile. The Department of Environmental Protection has been consulted on this project and has determined that no permits are needed for this work.

Once completed, this project will remove and treat the majority of intersection stormwater currently flowing to Standish Brook. This will provide a significant reduction in the amount of polluted stormwater that is currently flowing from the intersection to the Lower Bay of Sebago Lake. Treatment by District-owned forest, and three natural wetland areas along the drainageway will significantly mitigate stormwater pollution currently flowing to the Lower Bay of Sebago Lake.

### **FISCAL REVIEW / FUNDING**

The project cost of up to \$21,500 will be withdrawn from the Trustee Watershed Protection Fund. The fund currently has an available balance of \$224,524.

### **LEGAL REVIEW**

Corporate Counsel has reviewed the proposed order as to form.

### **CONCLUSION(S)**

Staff recommends contracting with Gorrill Palmer to engineer modifications to the existing infiltration ditch adjacent to Northeast Road Extension and the subsequent drainageway on District-owned land. The Committee supported the request and voted to send it to the full Board for consideration and approval.

**ATTACHMENT(S)**

Proposed contract with Gorrill Palmer

February 26, 2024

Mr. Chad Thompson  
Portland Water District  
225 Douglass Street  
Portland, ME 04104

Subject: Proposal for Route 114 & 35 Portland Water District Stormwater  
Construction Documents & Construction Phase Services

Dear Chad,

**Gorrill Palmer (GP)** is pleased to submit this proposal for the Route 114 & 35 Portland Water District stormwater design. This proposal covers additional design work to re-route existing drainage from the existing outfall to the drainage system along the Northeast Road Extension. This rerouting will require design to increase the capacity of the existing storm drain piping, existing ditch, and the stormwater treatment system. Our prior work has identified that the outfall piping and existing ditch system needs to be expanded to accommodate the flows from the Route 114/35 intersection that are currently being conveyed and discharged to Standish Brook. The benefit of this rerouting will be enhanced stormwater treatment and removing a significant amount of road drainage from Standish Brook, which discharges directly to Sebago Lake. The drainage system along Northeast Road Extension appears to be internally drained and does not have an outlet to Sebago Lake.

### **Scope of Services**

We propose the following scope:

1. Modify the previously developed hydrologic model to size the expanded storm drain pipes, existing drainage ditch, and do design a new stormwater treatment best management practice (BMP). We will use the model to evaluate the capacity of the entire drainage outfall system and determine the peak capacity of the internally drained ditch and pond system.
2. Design the rerouted and upgraded storm drain collection system. This will include storm drain piping from the Rte 114/35 intersection to the outfall near Northeast Road Extension, resizing the drainage ditch that parallels Northeast Road Extension and into the adjacent woods; a new stormwater treatment BMP near the existing snowmobile trail (likely a underdrain filter/infiltration BMP), design/resize existing ditching the BMP area to the existing ditch/swale along the southerly side of the old rail bed along the southerly send of Sebago Lake.
3. Prepare design plans and specifications that will modify the current stormwater design that was included in the Town of Standish bid plans for the intersection improvements. Design plans in areas beyond the limit of survey for the Standish Intersection project will be based on aerial photographs and LiDAR contours from the Maine GIS website.
4. Prepare an opinion of probable construction cost for the stormwater system upgrades.
5. Coordinate with the Town's Contractor for the intersection project to obtain updated pricing for the proposed stormwater improvements.
6. State permitting requirements are currently unclear. We have not included time and scope for Maine DEP permitting at this time. Based on our site observations we do not believe that the existing drainage ditch system would be considered a stream. If this determination changes and DEP requires permitting, we will submit a supplemental scope and fee for the permitting work.



**Schedule**

We anticipate that design work for this additional work will take about 2 to 4 weeks to complete. We are anticipating that construction will occur in 2024 construction season.

Please note there are many factors outside Gorrill Palmer’s control which may affect our ability to complete the services provided in this scope. Gorrill Palmer will perform these services with reasonable diligence and expediency consistent with sound professional practices.

**Fee**

We propose to complete this scope of services for a **lump sum fee of \$21,500**. Including reimbursable expenses for mileage, printing, etc. We have not included permit applications fees, if any, or any abutter notification or public notification fees.

**Closure**

We look forward to working with the Portland Water District on this project. If you would like to proceed, please sign, and return one copy of this contract modification for our records. We assume we would be subject to the Portland Water District standard contract language. Please contact us with any questions.

Sincerely,

Gorrill Palmer

A handwritten signature in black ink that reads "William C. Haskell".

William C. Haskell, PE  
Principal

**Portland Water District**

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name & Title

\_\_\_\_\_  
PO # (if necessary)