

As voted by the Board of Trustees and in accordance with the notice of the meeting, a special meeting of the Board of Trustees and the monthly Workshop Meeting of the Board of Trustees of the Portland Water District were held in the Nixon Training Center at the general offices of the District, 225 Douglass Street, Portland, Maine, on Monday, December 11, 2023. In attendance from staff were S. Garrison, C. Crovo, D. Kane, S. Firmin, J. Wallace, and D. Katsiaficas.

All Trustees were present except Trustee Shattuck-Heidorn.

President Lunt convened the Public Hearing at 6:30 p.m.

1. Biosolids Management Plan

Scott Firmin, Director of Operations – Wastewater, presented on the recent Biosolids Master Plan Update. Mr. Firmin explained that biosolids, or wastewater sludge, is generated when wastewater is treated at PWD's four treatment facilities. Biosolids generated at the Cape Elizabeth and Peaks Island Wastewater Facilities are treated at the East End Wastewater Treatment Facility. A total of about sixteen trucks per week of biosolids at 20% total solids are hauled from the East End and Westbrook/Gorham Regional Wastewater Facilities. This material is currently landfilled.

Mr. Firmin reviewed biosolids management costs over the past 15 years. After enjoying very favorable costs and contract provisions, the PFAS challenges that began in 2020 caused a doubling of costs in just a few years while significantly restricting the reliability and sustainability of disposal. Late last winter there was a disposal crisis as the Juniper Ridge Landfill was overwhelmed by material generated throughout Maine for a short period. However, PWD successfully negotiated a five-year contract (with possible renewal terms) at a comparably low fee of about \$131 per wet ton with inflationary increases in the coming term. While urgency remains, this contract does provide some time to move forward with the Master Planning efforts.

The Biosolids Master Plan focuses on volume reduction and having less material to manage while exploring possible advanced treatment technologies to further reduce the volume and PFAS in the biosolids. A sludge dryer would be capable of producing a dry granular product and reduce the number of biosolids hauls from 16 trucks to 4 trucks per week. Additionally, this dry material would not require the bulky waste that is currently required to stabilize biosolids in landfills. Two siting options remain under consideration – onsite (constrained by available land at the East End Facility) and off-site or “regional” options.

A more immediate effort has focused on dewatering improvements. The goal of this project would be to increase the throughput (how quickly material can be processed) and to increase the total solids. Two technologies, screw presses, and centrifuges were evaluated and a number of potential configurations were considered. The Westbrook/Gorham Regional Wastewater Facility would require improvements to automate the operation and shutdown of the press after the regular work day to allow full trucks to be produced daily. The East End dewatering project is included in the 2024 Capital Improvements Plan.

Mr. Firmin discussed developing technologies that further reduce the volume of biosolids. Many use very high temperature and pressure to produce a carbon-like material called “biochar”. Through these processes, PFAS is greatly reduced. However, more information is needed on the possible emissions from these processes and the controls that could be included to further reduce emissions.

Mr. Firmin concluded by suggesting the immediate tasks will include full-scale pilot testing of dewatering technologies at the East End Facility. To further explore the viability of drying options, we will explore the viability of a regional facility with stakeholders that include other wastewater utilities, regulators (permitting), legislators (support and funding options), siting opportunities, technology providers, private partners, and others.

2. Other Business

Trustee Cote provided an update on the Water Bottle Filling Station Grant Committee to the Board. Forty-four applications were received. Eight recipients have been selected for 2023. A motion will be brought to the Board at the December business meeting.

3. Executive Session

Pursuant to 1 M.R.S. §405(6)(A) personnel, the Board went into Executive Session to conduct the General Manager's annual performance review.

Trustee Siviski motioned to go into Executive Session, pursuant to 1 M.R.S. §405(6)(A) personnel with a second from Trustee Cote. Voted all in favor.

Trustee Siviski motioned to come out of the Executive Session, with a second from Trustee Libby. Voted all in favor.

4. Adjourn

The meeting was adjourned at 8:31 p.m.

Submitted by,

Carrie E. Cote
Assistant Clerk