

As voted by the Board of Trustees and in accordance with the notice of the meeting, the monthly Workshop Meeting of the Board of Trustees of the Portland Water District was held in the Nixon Training Center at the general offices of the District, 225 Douglass Street, Portland, Maine on October 17, 2016. In attendance from staff were Messrs. Crovo, Kane, Wallace, Johnson, Firmin and Mses. Katsiaficas and Demers.

All Trustees were present.

President Cote convened the meeting at 6:41 p.m.

1. Nancy Gallinaro, Portland's Water Resource Manager.

Ms. Gallinaro discussed the responsibilities and activities of the new division within the City's reorganized Department of Public Works.

Ms. Gallinaro had a power point presentation for the Board. Her presentation was entitled Clean Water Equals Clean Growth. Ms. Gallinaro began her presentation by explaining that the Water Resources division is a part of the public works department. It consists of 40 employees. The City operates the sewer system and a stormwater utility. She presented a history of the City's regulatory obligations which began in 1991 with the CSO consent agreement. The City is presently in the midst of tier III of the CSO agreement. In 2015, a capacity management operations and management compliance schedule was approved. Several of the City's permits are due in 2018.

The original 1993 CSO Master Plan called for elimination of 33 of 39 CSOs. Separation was the original focus of the Plan. Because this was not going to reach the City's goals fast enough, storage conduits were added to the Plan.

Ms. Gallinaro described the City's operation and maintenance of the sewer and stormwater systems. She described the cleaning operations undertaken by the City of its infrastructure, the street sweeping program and the City's efforts at building green infrastructure. The City cleans approximately 3,000 miles of surface per year.

The City spends \$1.1 million dollars a year for R&R on the sanitary sewer collection system. This winter is the first winter that the City will have its water resources operations division fully staffed and dedicated to its operations, although they will assist in clearing streets in snow events. The City has undertaken an oil and grease program reducing oil and grease from traps in local restaurants. It undertakes to clean and maintain its catch basins on a regular basis.

Storage conduits were then discussed. In December, 2015, the estimate to do the next storage conduit was \$75 million at 75% design. The City paused the process and evaluated the design again. CDM Smith is reviewing the design. Other separation projects are proceeding as the conduit continues to be explored. The Portland Water District is replacing water mains on the same streets where the City is conducting its separation projects.

Green infrastructure is being incorporated.

Funding sources for the City's activities are the sewer enterprise fee and the stormwater service charge.

An asset management program has also been implemented. Assets have been located and identified. A work order system has been created. The City now has a system prioritizing pipes according to established standards. They now look at the consequence of failure and the likelihood of failure of the pipe. It is a way of making sure the City spends its money in the right place.

The City will continue to evaluate its long term control plan. It is sustaining investments in the City's water resource infrastructure. Stormwater service charge outreach is continuing, as is the City's integrated planning efforts.

EPA is promoting integrated planning. It provides more participation by stakeholders and more flexibility in identifying issues and implementing solutions.

The City's ultimate goal is to be in compliance with its regulatory requirements.

President Cote asked if Ms. Gallinaro believed there is a change coming from EPA so that there is more common sense in their decisions and requirements. Ms. Gallinaro indicated that she has experience in Region 1 and Region 6 of EPA. A personal relationship is important. She said EPA has been supportive - they simply wanted to see more progress. EPA is now seeing progress from the City of Portland and they understand that the City is transparent in its operations. Integrated planning will change the City's consent order. She sees this as positive. It may give the City a longer period of time to accomplish its objectives.

Trustee Libby asked for her assessment of the conduit under Baxter Boulevard. Ms. Gallinaro felt it was successful as it captures the first inch of precipitation. It has reduced the amount of overflows. There have been a few problems structurally. She does not believe it was a waste of money. Ledge has presented large costs for conduit installations as tunneling is required.

Trustee Levinsky asked about swimming off East End Beach. Ms. Gallinaro said most of the City's work is around the back cove. She was not familiar with what goes on at the beach. Economic development is driving where the City's attention is being focused.

Trustee Garrison commended Ms. Gallinaro for her work and said much of the City's progress in program implementation is due to her efforts. Ms. Gallinaro complemented her team for her success. She also thanked the Council, City Manager and new public works director.

President Cote asked if the stormwater fee would increase. Ms. Gallinaro said she was not sure if and when the fee would increase.

President Cote invited Ms. Gallinaro to return to the Board for a presentation next year.

2. 30” Transmission Line in North Gorham.

Jim Wallace, Director of Water Operations and Chris Crovo, Executive Director of AMaP discussed the recent leak on a 30” transmission line in North Gorham. The discussion included the initial response, subsequent events and lessons learned.

Mr. Wallace gave a timeline for the transmission line break event. It appears to have begun around midnight. At the time, only one reservoir was in service. By 3:00 am, PWD had lost about half the water in the reservoir. There were no low pressure alarms anywhere in the system. It became evident that the problem was in the core of the District’s system.

Mr. Wallace described the process used by water utility specialists to find the leak. At 6:25 am water was discovered at Plummer Rd. in Gorham; this was almost a mile away from the leak. Multiple valves were closed between 7:15 and 8:00 am. The valves were difficult to operate due to the changes in pressure on each side of the valves. The Little River was flooded with water and dissolved clay. The property flooded was owned by the Gorham Historical Society. Impacted customers were provided with temporary water service. Eleven customers were directly impacted. They were given bottled water. A temporary main was installed the next day. A do not drink order was issued. Many of those affected customers had pumps and had continued to draw water out of the broken main.

A boil water order was actually issued for 40 customers on Barstow Road; door to door notification was provided. This was precautionary. The next day all the water samples came back clean.

Mr. Wallace showed the Board some pictures of the broken pipe and the damage caused by the water flow.

PWD contacted DEP a day or two after the break. They agreed to visit the site in 3 days. The repair to the pipe was simple. The pipe was cut out and a portion replaced. The leak site was restored and downstream the area was stabilized. DEP visited the site after restoration. They asked to have some stones removed. This was accomplished. They also asked for a site plan to identify the restoration work that was completed. The DEP is satisfied with the restoration.

The 30 inch main has been repaired. One valve has been opened, and the main is in service, but not as a transmission main yet. Total direct costs to repair are approximately \$88,000. Transmission valves have been exercised, but there were still issues with some. Some new valves may need to be installed.

Lessons learned include that if no low pressure alarms exist, the right of way must be searched immediately. Customers and municipalities must receive more communications.

Mr. Crovo Director of Asset Management and Planning then addressed the Board. He provided a post break follow up. Additional flow monitoring and pressure sensors may need to be installed. A cause analysis needs to be conducted. The 7,500 feet of the 1902 transmission main will be inspected and rehabbed where needed. The 11 services fed from the main will be relocated so that the District can work on the main. Six transmission line valves need to be replaced. Six blow off valves will also be replaced. The pipe will be examined and inspected to see what the remaining life of the pipe might be. There was no evidence of deterioration of the pipe upon visual inspection.

Trustee Garrison discussed the various ways to examine the condition of the line with Mr. Crovo.

Flow and pressure monitoring will also be conducted along the transmission main.

The District checked to see if there was seismic activity in the area of the main break. USGS reported there was none. Pressure gauges around the system were also looked at. Cal Pine seemed to have a small spike in their 16” line about an hour before the leak occurred. It is unclear if this is related to the break. An automated valve out at the lake may have been operating too quickly – that is being studied. That line has not had many leaks historically. Staff is continuing to look at causes.

President Cote asked if PWD can expect to be fined. Ms. Katsiaticas stated that she believed PWD would not be fined. DEP did not require a permit by rule for the required restoration work and was satisfied with the restoration.

Trustee Libby mentioned the large leak in 1996 and the sensors that were placed in the system as a result of that leak. He asked why the sensors didn't point to where the leak was located. Mr. Crovo responded that PWD can look at one screen and see where drops in the pressure occurred. In the upper system, where this leak took place, there are not a lot of sensors. He indicated maybe flow monitoring needs to be installed at a few more sites, at least in this area, to assist in situations like this. Three transmission mains are close to each other, and if one lets go, it could affect the others.

Trustee Libby asked how expensive that would be. Mr. Gordon Johnson responded about \$20,000 per site. Mr. Wallace estimated about \$100,000 to do the pressure monitoring installations and SCADA.

Trustee Garrison said he believed there was more to it than pressure monitoring. Mr. Crovo agreed, saying flow monitoring would also be required, as well as other considerations.

President Cote indicated that the event was a “perfect storm” as the Rocky Hill Reservoir was out of commission at the time of the leak. He thanked the staff for their presentation.

3. Standish Steering Committee Membership.

The Town of Standish requested a meeting of the PWD Standish Steering Committee. It has been several years since the full Committee last met, so reconsideration of PWD's membership was in order. Current members include Trustees Lunt, Douglas and Ross.

President Cote asked Trustee Lunt to explain. Trustee Lunt indicated that the chair of the Standish side of the Committee called him. They want to have a meeting about the Route 35 project being proposed by the MDOT, as some residents have an issue with what is being proposed.

Trustee Douglas indicated she no longer had time to be on the Steering Committee. Trustee Ross was willing to remain on the Committee. Trustee Lunt is willing to stay as well. He has served for a long time on the Committee. He solicited other members to participate.

Trustee Siviski offered to join the Committee in Trustee Douglas's place. President Cote explained that the Route 35 project is important to the District as it is close to the water source. Staff will have a lot of input into the project.

Trustee Lunt asked to have the staff report as to the status of the project before the meeting is scheduled. He will also ask the Standish members to provide more information as to their position on the project.

Trustees Ross, Lunt and Siviski indicated Tuesday and Thursday evening could work for a meeting.

Trustee Lunt indicated he will have the meeting scheduled in November, after the November Trustee workshop if possible.

4. Adjourn.

Meeting was adjourned at 8:05 p.m.

Submitted by,

Donna Katsiaficas
Clerk