



MEMORANDUM

Date: September 26, 2024
To: Hampden Environmental Trust Committee
From: Matthew Reynolds
Subject: Comments Provided by HET Member Lippincott

On August 12, 2024, Bill Lippincott provided comments and questions regarding Drumlin's August 10 Review and Update memorandum. We appreciate this input and additional information related to these comments and questions is provided below. (Comments are paraphrased.)

Comment: Table 2 shows that out of 28 wells, seven show a downward trend, 19 show **no change** in the last five years after 13 years of remediation two wells are **up** in the last five years after 13 years of remediation

I'm concerned about the high values, and the characterization that 19 show no change in the last five years. It looks to me like the low values have gone down on around 10 of the wells.

Additional Information: High level do remain in several areas. In the northeast, the wells with the highest values are MW98-601A and MW98-601B, which are both immediately next to the toe of the landfill. These wells reflect the leachate-impacted groundwater migrating from the landfill toward the northeast. The corrective actions that influence groundwater at these wells are the cover system and the perimeter drain around the original Conventional Landfill. Because of their location, these wells are likely to be slow to have their concentrations drop.

The other primary location where high concentrations are present is at wells MW02-801A,B and MW03-803A,B to the south and southwest of the landfill. PTL is planning to add an additional extraction well near the MW03-803A,B area in 2024 or early 2025 with the goal of accelerating improvement in these wells.

As noted, the majority of the wells show no trend over the past 5 years. This is an indication that the size and magnitude of the landfill is sufficient that groundwater quality will be slow to improve, even with corrective actions in place. Continued monitoring will be important over the next 5 years to gauge whether the existing corrective actions are adequate or additional corrective actions will be needed.

Comment: My main question is about PFAS levels.

- Do you have any updated PFAS leachate test results?
- I would also like to find out if Casella used sludge amended soil from their Hawk Ridge facility for the topsoil used that's over the final cover of the landfill. We know they used sludge amended soil for the cover of the Conventional landfill until the expansion was built over that which may explain PFAS contamination that we're seeing.
- With a note that DEP is in the process of seeing if more monitoring is needed, wouldn't it make sense to start testing the offsite wells for PFAS? And begin work on a remediation plan for PFAS at the landfill?

Additional Information:

- To complete the five sample requirement for landfill leachate sampling from LD1600, one additional leachate sample was collected in the fall of 2023, after the 2023 summary provide to the Town. The concentration of the six PFAS compounds regulated in drinking water by the State of Maine (Maine 6) was 2,086 ng/L in this sample, which was within the range of the previous four samples (i.e., 1,800 to 2,710 ng/L).
- According to the April 19, 2022 letter from the MDEP to NEWSME, "DEP records indicate that sludge-amended topsoil (e.g., topsoil blended with wastewater treatment plant sludge/biosolids or paper mill sludge) may have been used as part of the cover system for Pine Tree Landfill". The origin of the sludge/biosolids is not identified in the MDEP letter. As summarized in Drumlin's June 9, 2022 Review & Update, NEWSME collected 4 composite soil samples from the PTL cover, which ranged in concentration from 15.0 to 23.3 ng/g for the Maine 6 and is below the 2021 MDEP Remedial Action Guidelines.
- Sampling conducted to date for PFAS in groundwater at PTL (and other landfills in Maine) has been in response to requirements from the Maine Legislature and has been funded by the State of Maine. The requirements by the Legislature and MDEP for future sampling and remedial planning are still being considered, but are not currently in place.

Based on review of the PFAS data from groundwater at PTL and groundwater flow and quality data gathered historically at the site, the priority for testing offsite wells would to the east and this has been communicated to the MDEP.

It is also important to recognize, that while PTL may be a source of PFAS detected in off-site wells, PFAS has been present for many years in multiple household and commercial items. This means that there many be other sources of PFAS in groundwater off-site, which may complicate interpretation and evaluation of the data.

I hope that this additional information is helpful to the Environmental Trust Committee. I would be glad to discuss further questions any time.