




Hamilton

COMMUNICATION UPDATE

TO:	Mayor and Members City Council
DATE:	June 8, 2022
SUBJECT:	Kenilworth Soil Removal – HW 22.04 (City Wide)
WARD(S) AFFECTED:	City Wide
SUBMITTED BY:	Mark Bainbridge Director, Water and Wastewater Planning and Capital Public Works Department
SIGNATURE:	

Since the discovery of contaminated soils in 2020 on top of the Kenilworth Water reservoir, City staff have been diligently working with the project consulting engineer and contractor to remove the material from site. As reported to Public Works Committee on May 2, 2022, all the loose soil material had been removed and preparations were being made to address unexpected slag that was found under the soil cover. Committee support was provided to remove the consolidated slag, the majority of which has now been taken off site. As part of that effort, a portion of the consolidated slag material was found to be bonded to the reservoir structure requiring more aggressive methods and additional expense to separate it from the concrete reservoir surface. Hamilton Water staff have identified that this challenging slag material will be left in place. This conclusion was reached after consultation with the project team and discussion with Public Health and the local Ministry of the Environment, Conservation, and Parks (MECP). This approach successfully removes the majority of reservoir cover material, avoids extraction activities that pose risk due to stresses applied on the structure, and avoids more additional costs not known at the time of the last Council communication. Work has now commenced to install a 1 m cover of new soil across the entire reservoir surface including the areas where slag, impractical to remove, was left behind. Please note that this work also included repairs to the expansion, perimeter, and construction joints of the concrete to provide a repaired seal for the roof structure. An existing drain system is in place to direct drainage water away from the surface of the facility which received minor repair.

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

The following points are provided for additional context related to this issue:

- It is estimated that 10,000 m³ of soil has been removed from the site.
- An estimated 2,300 m³ of slag was discovered at the site.
 - Approximately 2,100 m³ of slag material has been extracted from the concrete surface of the reservoir.
 - Approximately 200 m³ of bonded slag material will remain in place to avoid aggressive extraction requirements.
- Previous slag material sample results showed the presence of Poly Aromatic Hydrocarbons (PAH) but at levels below the only comparator we have under O.Reg. 406/19 Table 3 soil limits.
- Public Health and local MECP discussion on this matter has been undertaken by Hamilton Water to communicate the approach.

The proactive actions taken on this project reflect the following estimated results: 100% removal of loose soil from the top of the reservoir, 91.3% removal of the consolidated slag material identified. 8.7% of the slag will remain in place (approximately 1.6% of all cover material) avoiding further heightened costs and risks to the Kenilworth structure. Qualified professionals have identified that the material remaining in place is unlikely to leach and represents a low risk to the water supply. The Kenilworth Reservoir project has successfully mitigated the threat of contaminated materials that were discovered, to a degree that represents a reasonable approach to the problem. The remaining material left in place is not expected to pose a threat to water storage housed within the confines of the concrete reservoir structure below it. Work is currently being undertaken to place new soil cover in order to finish this project in 2022.

APPENDICES AND SCHEDULES ATTACHED

Not Applicable