INFORMATION REPORT

TO:	Mayor and Members General Issues Committee
COMMITTEE DATE:	November 4, 2020
SUBJECT/REPORT NO:	Kenilworth Reservoir Soils (PW20074) (Ward 4)
WARD(S) AFFECTED:	Ward 4
PREPARED BY:	Andrew Grice (905) 546-2424 Ext. 1461
SUBMITTED BY: **SIGNATURE:**	Andrew Grice Director, Hamilton Water Public Works Department 

COUNCIL DIRECTION

Not applicable

INFORMATION

The Kenilworth Reservoir was constructed in 1964 and is an important asset within our drinking water system. The reservoir is comprised of two (2) separate cells and has a total volume of 150,000 m^3. The reservoir is supplied by the Woodward Water Treatment Plant and is one of the main feeds to supply drinking water to residents and businesses on the Hamilton Mountain.

In 2020, a capital rehabilitation project was initiated at the Kenilworth Reservoir to upgrade structural elements and extend the life of the asset. The scope of work encompasses both internal and external restoration works in both reservoir cells. As this is an operating reservoir, one cell must remain operational, while the second cell is offline to accommodate construction activities. While excavating material on top of the reservoir for the expansion joint repairs, the City's contractor noticed some visual concerns with the soil and requested it be analyzed at a laboratory. Two of the soil samples were found to exceed the provincial regulatory site condition standards for benzo(a)pyrene, which is a known carcinogenic polycyclic aromatic hydrocarbon (PAH).

A firm specializing in soil management (Sirati) were retained to conduct a soil quality assessment on the entire Kenilworth Reservoir soil overburden surface, which identified that approximately 50% of the reservoir fill material contained varying levels of PAH's.

The City has been working closely with the Ministry of Environment, Conservation and Parks (MECP) since becoming aware of the issue. Additionally, the contractor working on site has been following all the appropriate measures for handling the material, including wearing adequate personal protective equipment. As a precautionary measure, City staff collected water quality samples from the Kenilworth Reservoir to confirm there was no impact to the drinking water in the reservoir. In consultation with Public Health staff, it has been determined that there are no water quality or public health impacts related to the contaminated soil.

Hamilton Water also retained the services of Jacobs (CH2M Hill Canada Limited) to analyze options for the removal and / or reuse of the contaminated soil. Jacobs provided the opinion that, from a regulatory perspective, the contaminated soil could remain on site as suitable fill material for the purposes of completing the current capital project. However, staff are currently working to engage Jacobs on a more comprehensive soil management plan for the entire Kenilworth Reservoir site to determine the best approach for long term management. A rough capital cost estimate for soil removal, disposal and replacement with clean fill is approximately $6.5M.

While the contaminated soils at the Kenilworth Reservoir have be in place for over 55 years and do not pose a risk to our drinking water quality, it is important that further analysis be conducted and appropriate steps be taken to ensure our residents and drinking water system remain safe. Additional information will be shared with committee as it becomes available.

APPENDICES AND SCHEDULES ATTACHED

Not applicable