

Report No.:	2020-05-01
Report Page:	Page 1 of 2
Meeting Date:	May 28, 2020
File No.:	



**To:** Chair and Members  
Lambton Area Water Supply System Joint Board of Management

**From:** Clinton Harper  
General Manager

**Subject:** WTP Reservoir Update #2

## Recommendation

---

It is recommended that the LAWSS Joint Board of Management receive this report as information and defer matter to the 2021 budget deliberation.

## Background:

---

After a leak was identified late in 2019 the LAWSS Board authorized up to \$50,000 for an emergency inspection of the WTP's 67,000m<sup>3</sup> reservoir. The reservoir serves an important role in the treatment process. Without the reservoir the WTP is unable to provide the required amount of chlorine contact time (CT) for disinfection. OCWA and LAWSS worked closely with the MECP to develop an operational narrative that ensured water quality was maintained through the maintenance period. LAWSS and OCWA kept an open dialog with the Provincial regulators throughout the maintenance event.

## Comments:

---

As planned, on March 2, 2020 the WTP reservoir was taken offline and the west cell was completely drained to allow for a thorough inspection. A final inspection report was provided to LAWSS staff on April 30, 2020. The inspection identified several items that require remedial action but suggested that the structure was in relatively good condition. Special compounds used to seal concrete joints will break down over time. This normal wear and tear was submitted as the cause of the leak previously identified. The report provided recommendations on how to extend the reservoirs service life by implementing remedial actions within a 2-3 year or within a 5-10 year timeframe.

The WTP reservoir was designed and built in the early 1970s with two cells installed in series. At that time, it was not considered necessary to build the system to allow for flow independently through the individual cells. Increased requirements around CT were implemented by the Province in the early 2000s. As a result, the WTP reservoir underwent a major retrofit in 2003 to install baffling designed to satisfy this requirement. The retrofit did not address the in-series configuration. Since the increased

Report No.: 2020-05-01
Report Page: Page 2 of 2
Meeting Date: May 28, 2020
File No.:



CT requirements went into place and the subsequent retrofit, inspections of the reservoir have been primarily completed using divers or remotely operated vehicles. This recent call to drain the reservoir for a more detailed inspection revealed a critical maintenance issue with the system that must be addressed before the maintenance schedule in the inspection report can be implemented. Specifically, due to the in-series configuration, it is not possible to bring the reservoir offline for an extended period of time without severely impacting the operation of neighbouring businesses and homes.

## Consultation:

---

Due to the CT issue, an alternative operational narrative was designed by OCWA Operational Staff in consultation with LAWSS. The narrative was finally reviewed and approved by the MECP. The City of Sarnia Public Works Department and the affected business were accommodating for the duration of the work. Throughout the inspection an open dialog was necessary and maintained between all parties. The final inspection report was finalized in consultation with OCWA Operational Staff.

## Financial Implications:

---

On December 5, 2019 the LAWSS Board approved up to \$50,000 to cover the cost of decommissioning, cleaning, inspection, disinfection and recommissioning for the reservoir for this purpose. The project was completed for \$39,242. This cost included an attempted spot repair at the location of the leak within the reservoir.

The financial impact of the report's findings will be presented at the 2021 Budget Deliberation. Staff will be recommending that the Capital Plan be adjusted to accommodate the maintenance and repair schedule identified in the inspection report.

This report was prepared by Clinton Harper, LAWSS General Manager

Attachment(s):