
Subject: Niagara-on-the-Lake WWTP and Lagoon Decommissioning – Update regarding Unexploded Explosive Ordinance Remediation

Report to: Public Works Committee

Report date: Tuesday, August 8, 2023

Recommendations

1. That Niagara Region Council **DIRECTS** staff to reach out to the Government of Canada to request their financial aid in funding and assistance in managing the Unexploded Explosive Ordinance (UXO) remediation of the Niagara-on-the-Lake (NOTL) WWTP and Lagoon land or in the alternative that the Government of Canada accept return of the subject land in an “as is” condition;
2. That the CAO and the Treasurer **BE AUTHORIZED** to execute any necessary funding agreements or related documents with the Government of Canada to support the remediation of the land and/or the return of the land on an “as is” basis, each in a form satisfactory to the Director of Legal and Court Services; and
3. That staff **PROVIDE** an update to Regional Council following receipt of a response from the Government of Canada related to Recommendation 1 regarding next steps for the decommissioning of Regional assets and restoration/return of the land.

Key Facts

- The purpose of this report is to seek Council direction for staff to submit a formal request to the Government of Canada to fund and manage the UXO remediation of the NOTL WWTP and Lagoon land so that Niagara Region can safely proceed with the decommissioning of Regional assets that necessitate disturbance of the land that may contain UXO that pre-date the Region’s occupancy of the land or in the alternative negotiate return of the property on a substantially “as is” basis such that remediation by Niagara Region is unnecessary.
- The NOTL WWTP and Lagoon Decommissioning project objective has been to decommission the land and restore the land to a naturalized state. Upon project completion and acceptance by Parks Canada Agency (PCA), the land will revert back to Federal ownership.
- The Region accepted the use of various parts of the land with each of the parties to the various transfers and leases recognizing the existence of ongoing risks

associated with UXO and an agreement to co-operatively deal with elements of that risk, including at the point in time of initial transfers, of ongoing use for weapons use.

- The Department of National Defense (DND) Center of Expertise for UXO completed a formal UXO Risk Assessment for the NOTL WWTP and Lagoon land. DND's experts have assessed the UXO risk level for the land as Medium which means that there is the remote possibility of UXO being present, which if not handled correctly, has the potential to cause a catastrophic event possibly leading to loss of life.
- In order to proceed with a Niagara Region conducted capital project to remove existing Niagara Region infrastructure, a UXO expert and qualified UXO Contractor is required.
- The decommissioning and restoration scope recommended through the project's Environmental Assessment would require a full scale UXO clearance, which would be extremely expensive and challenging according to DND experts.
- Absent the issue of costs and expertise needed to deal with UXO, return of the site to a natural state is the preferred alternative and one that is consistent with the replacement of wetland being disrupted by the new WWW plant being constructed approximately 800 metres from the site of the existing plant.

Financial Considerations

Niagara Region's capital project budget did not account for costs associated with UXO clearance and Niagara Region's capital budget forecast cannot support these additional costs.

Analysis

The existing NOTL WWTP and Lagoons reached the end of its service life and has been replaced by a new WWTP located approximately 800 metres to the west of the existing property. In February 2020 the new WWTP was placed into service with all treated sewage directed to Lake Ontario. Since then, the existing NOTL WWTP and Lagoons are no longer in use and have been scheduled for decommissioning and site restoration.

Located at 1738 Lakeshore Road, the existing NOTL WWTP and Lagoons consist of two parcels of land. An approximate 23.1 hectare parcel was transferred from Parks Canada Agency and the Department of National Defense to build the two existing facultative lagoons in 1965. This parcel of land is currently owed by the Region. An

additional 3.7 hectares of land was leased from PCA to facilitate construction of the existing mechanical and chemical facilities (including the aeration lagoons) in the mid-1990s. Collectively, these two parcels comprise the “Project Site” and represent the land area to be decommissioned, as shown in Appendix 1.

Prior to the construction of the sewage lagoons in the 1960s, the land was used by DND for training from 1908 through 1962. The area of the aeration ponds was a rocket range and was used after the construction of the lagoons and prior to the construction of the aeration ponds in the 1990s. Niagara Region has several land transfer agreements, lease agreements and MOUs with the Federal Government for the WWTP and Lagoon land, dating back to the 1980’s. Staff are not aware of circumstances or agreements preceding the authority of the Niagara Region. Appendix 2 includes a summary of key aspects of relevant agreements related to the subject land.

The agreements dealing with different sections of the existing land used by Niagara Region are not wholly consistent in requiring removal of infrastructure but there are elements of various documents that do include such requirements. At the same time the documents, in particular the September 1, 1982, Agreement and related transfer and elements of the 2009 MOU recognize the UXO issue as one that pre-dated the agreements; required involvement of both parties and potentially contemplated a decision to leave the lands “as is” upon transfer back to PCA.

As part of stakeholder engagement, Niagara Region staff provided project updates to the Federal Government including PCA and DND. In support of Niagara Region’s proposed workplan as developed during the Class Environmental Assessment and design scoping stage, the DND Center of Expertise for UXO completed a formal UXO Risk Assessment for the NOTL WWTP and Lagoon land. The UXO Risk Assessment reviewed historical information and record data pertaining to the properties use as military training grounds. The risk assessment determines the likelihood of UXO’s and the health and safety risk based on the type of ammunition used.

DND experts have assessed the UXO risk level for the land as Medium. A Medium Risk means that there is the remote possibility of UXO being present, which if not handled correctly, has the potential to cause a catastrophic event possibly leading to loss of life. The following summary was provided by DND:

“The Medium UXO risk on this land can be mitigated by increased on-site worker hazard recognition (via on-site safety briefings), pre-work UXO surveys, and selective (as necessary) UXO Clearance.

Accordingly, a UXO Contractor familiar with UXO procedures will be required on-site to ensure your work plan proceeds safely. In light of the fact that UXOs containing high explosives have been encountered on this land, DND recommends the following:

- That all on-site workers are provided with a detailed UXO Safety Briefing in advance of ground-breaking; and
- That a qualified UXO Contractor be retained for the duration of on-site work to assist with safety briefings; and any necessary UXO Surveys, Clearance, and or Avoidance Activities.”

Meetings were held between Niagara Region staff, PCA and DND to discuss the formal UXO Risk Assessment recommendations and their impact on the project. Through discussions, DND reported that Natural Resources Canada is now responsible for administering the *Explosives Act, 1985*, which includes UXO clearance. The costs associated with UXO clearance activities could be significant including a qualified UXO contractor and full-time on-site UXO expert. The UXO expert has the authority to stop work at any time to investigate anomalies, provide clearance or direct UXO removal activity.

The original project plan included two phases for design and construction: Phase 1 for decommissioning and removal of the WWTP buildings and clarifiers and Phase 2 for decommissioning the facultative lagoons and full site restoration.

Through a competitive bid process, Niagara Region retained Hatch to undertake Phase 1 design. Hatch has completed a topographical survey of the project site and has submitted the pre-design deliverables. The remaining Phase 1 design work is on-hold based on the UXO risk assessment.

A revised scope of work is currently being developed to remove all equipment, fixtures and appurtenances from buildings and process tanks within the existing site. The buildings will be emptied, sealed and abandoned in satisfaction of all applicable laws and regulations. No in-ground works, or in-ground removals will be completed. This revised scope of work is the only decommissioning task Niagara Region can complete without realizing UXO risks. The design and construction for this revised scope is scheduled for 2023-2024.

Based on the UXO Risk Assessment rating and information provided by DND, Niagara Region is faced with the following challenges associated with this land and capital project:

- Niagara Region staff do not have the expertise to develop the scope of work or assess qualifications to retain a UXO expert or Contractor.
- As per DND's comment: "Full scale UXO clearance – if undertaken – will be extremely expensive, challenging, and unpleasant. We should at least discuss the possibility of changing the design to avoid excavation in the areas of heightened UXO Risk". Niagara Region's capital project budget did not account for costs associated with UXO clearance and Niagara Region's Capital budget forecast cannot support these additional costs.
- Staff anticipate that it would be highly unlikely that public access to the lands would be permitted in the future given the documented conditions of the lands, regardless of remediation efforts. Should a full scale UXO clearance be conducted to allow for remediation, only areas of the site currently impacted by wastewater infrastructure would receive UXO clearance, still leaving portions of the site with UXO risk.
- Due to the UXO risks, the planned Phase 1 and 2 work is on-hold pending resolution and assignment of responsible party to remediate UXO debris.

Accordingly, staff have recommended a formal request whereby PCA and/or DND would either assume funding obligations and provision of expertise to deal with the UXO issue and thereby facilitate Niagara Region proceeding with removal of infrastructure and creation of a wetland area or alternatively determine whether return of the lands in an 'as is' state is a preferable solution recognizing the difficulties associated with remediation and removal of infrastructure.

Alternatives Recommendations Reviewed

1. Niagara Region take responsibility to remediate the UXO debris – This alternative places an enormous liability and cost on Niagara Region.
2. Do Nothing – This alternative may result in Niagara Region not being in compliance with certain provisions of existing agreements, depending on the position taken by the PCA and the named superintendent as referenced in various agreements. In addition, it would not create wetland to compensate for wetlands lost for the newly leased lands for the new WWTP. The lands will continue as an ongoing responsibility of Niagara Region including liability for maintenance and security.

Relationship to Council Strategic Priorities

This recommendation is related to the Responsible Growth and Infrastructure Planning, Protecting Niagara's Natural Environment. The decommissioning of NOTL WWTP and Lagoon capital project's intent is to remove all infrastructure and return the land to a natural state, which supports protecting our natural environment and Niagara Region's practices in environmental stewardship.

Other Pertinent Reports

Not Applicable.

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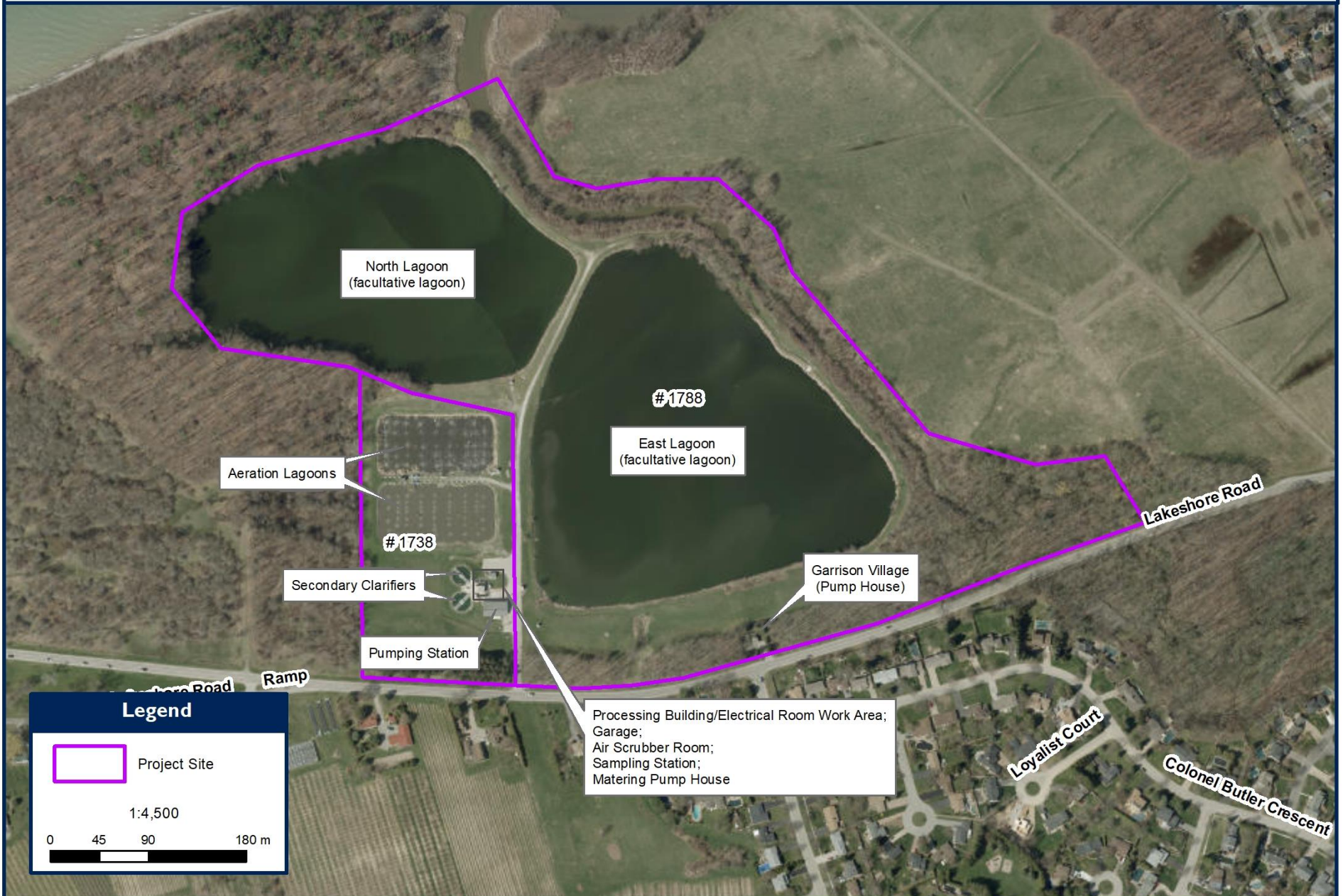
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This report was reviewed by Joe Tonellato, Director, Water and Wastewater Services, Tony Cimino, Associate Director, Engineering Water and Wastewater Services, Sterling Wood, Legal Counsel, Corporate Services and Rachael Ball-Condron, Government and Stakeholder Relations Specialist.

Appendices

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| Appendix 1 | NOTL Wastewater Treatment Plant Project Site Map |
| Appendix 2 | Land Agreements Summary |



Land Agreements Summary

The following summarizes the key aspects of the NOTL WWTP and Lagoons land agreements:

- The December 2, 1982 Land Transfer Agreement with the Government of Canada for the facultative lagoon land and included within an attached agreement a statement that allowed the Federal Government the full right to shoot or impel shells, bullets, missiles, projectiles and grenades over, across or onto the lands from the defence establishment and contemplated the necessity of ongoing discussion and co-operation arising from the issue of dangers created by the use of the area as a range for weapons.
- A lease agreement was established June 3, 1982, between Niagara Region and the DND for the purpose of operating and maintaining two aeration cells as an addition to the existing sewage lagoons. This agreement states that at the expiry or prior to termination of this agreement, unless otherwise directed by the landlords' superintendent, Niagara Region must remove all structures, fixtures, and improvements placed or erected or caused to be erected on the lands and shall leave the land in a condition satisfactory of the Superintendent.
- An agreement was established September 1, 1982, which was attached to the previously identified Land Transfer Agreement between Niagara Region and the DND and which dealt with:
 - The transfer of 57.088 acres to Niagara Region with the proviso that should Niagara Region cease to use the lands for the designated purposes, Her Majesty can re-enter and repossess the said lands; and
 - Constructing, maintaining and operating the forcemain. This agreement includes the military reserve and aeration cells. This agreement states that in the event Niagara Region abandons or discontinues use of the forcemain, approval is terminated. As federally owned land, Niagara Region will either be required at the election of His Majesty to remove and restore the pipeline area to a condition satisfactory of His Majesty or leave the forcemain in place and forfeit to and vest in His Majesty, resulting in no entitlement to compensation.
- An MOU was established between the Region and PCA in 2009 related to Niagara Region's interest in returning the existing lands leased and/or transferred to Niagara Region in accordance with the previously described documents in exchange for new

lands upon which a new plant would be constructed. The MOU contemplates negotiations toward a new lease for the contemplated new construction; co-ordination with the Department of Defense respecting UXO and funding by Parks Canada Agency respecting the front end costs of the environmental assessments and various tasks to be undertaken by Niagara Region; and assuming the role of legal Federal Agency for the purposes of complying with the Canadian Environmental Assessment Act. Of particular importance is section 3.2.8 which indicates that:

- Prior to the surrender of any lands to PCA, complete, at their sole cost, an environmental assessment of the existing sewage lagoons to confirm the extent of any contamination in order to determine if any environmental clean up of the sewage lagoons is required prior to the surrender of the lands to PCA or if they can be left “as is”. The decision to leave the lands in an “as is” condition must be mutually agreeable to both Participants.