

Grand River Conservation Authority

Report number: GM-10-22-85

Date: October 28, 2022

To: Members of the Grand River Conservation Authority

Subject: Environmental Contamination Update – River Road/Birkett Lane, Brantford and 810 Clyde Road, Cambridge

Recommendation:

THAT Report Number GM-10-22-85 Environmental Contamination Update – River Road/Birkett Lane, Brantford and 810 Clyde Road, Cambridge be received as information.

Summary:

The Grand River Conservation Authority has an estimated liability of \$812,912 as at December 31, 2021 for future remediation of two of its properties. The properties include a former landfill site located on River Road near the intersection with Birkett Lane in the City of Brantford, and a former residential site located at 810 Clyde Road in the City of Cambridge. The Ministry of the Environment, Conservation and Parks has requested remediation on the Brantford and Cambridge properties.

Report:

River Road/Birkett Lane, Brantford

The Grand River Conservation Authority is the owner of a parcel of land located between River Road and the Grand River, in the vicinity of the intersection with Birkett Lane, in the City of Brantford (see Figure 1). The property was acquired in 1974 as part of the property acquisitions related to the construction of the flood control dikes. Provincial records indicate that the property was historically a municipal landfill site and unauthorized dumping has occurred.

As outlined in report GM-06-13-72, in May 2013, it was reported to the Ministry of the Environment and Climate Change (MOECC) that there was a substance leaking from barrels on the riverbank. It was thought the barrels became exposed after high spring flows. The substance did not enter the river and was later determined to be asphalt roofing tar. An immediate clean-up was undertaken to remove the exposed barrels as well as additional solid asphalt-like material that was discovered while removing the barrels. Grading work was undertaken to stabilize the slope where the exposed materials were removed. No work orders were issued by the MOECC in relation to this incident. The Ministry did express concern with future potential issues and impacts to the river, and requested that a long-term action plan be prepared for the property.

In 2014, Ministry staff inspected the property as part of a province-wide landfill review project. No specific action items were required as a result of the inspection, however it was noted that the previously identified concerns are to be addressed to the Ministry's satisfaction. The GRCA hired a consultant and site investigations and reporting were completed between 2014 and 2017. An action plan was developed which recommended excavating the buried material along the entire length of the shoreline and installing a geosynthetic membrane to stabilize the slope. Site securement was also recommended, including the installation of fencing. The estimated cost range was \$355,000 to \$654,000 depending on how much of the length of the shoreline needed to be mitigated.

In 2018, this area experienced a major ice jam which overtopped floodwall protection north of this property. An ice jam mitigation study was initiated, and it became apparent that any mitigation works on the River Road/Birkett Lane riverbank would need to be considered in the context of any ice jam mitigation options. The action plan previously developed would need to be revised to align with ice jam mitigation objectives.

Staff are reviewing whether the mitigation work should proceed independently from the ice jam study or if it is most efficient to wait until the ice jam design work is completed. It is expected that design updates, approvals, and construction would be a two to three year process.

810 Clyde Road, Cambridge

The Grand River Conservation Authority is the owner of a property known as 810 Clyde Road in Cambridge (see Figure 2). The property was acquired in 1974 for the Shade's Mill Flood Control Project. The property is designated as an environmentally sensitive landscape in the City's Official Plan and is zoned as open space. A house (Herkenberg residence) on the property was demolished in 2017 as part of the residential tenancy program wind-down. While preparing the site for demolition, a standing pipe was observed. It was determined the pipe was part of an underground heating oil storage tank that historically provided fuel to the house but was no longer in service. Petroleum impacts were discovered in the soil when the tank was removed. The tank itself was intact, and the leakage over an undetermined amount of time from a connecting line between the storage tank and the house.

The discovery was reported to the Ministry of the Environment-Spills Action Centre. An Inspectors Order was issued by the Technical Standards and Safety Authority (TSSA) to complete an assessment report to delineate the full extent of all petroleum impacts. Testing and reporting was undertaken, and contaminated soils were excavated and stockpiled on-site. The excavation area was backfilled with clean material that was segregated, stockpiled and tested during the excavation activities. Investigations concluded that groundwater was not impacted by the oil leakage. On March 13, 2019, the TSSA informed the GRCA that no further action was needed in relation to the removed underground fuel storage tank and the matter was considered resolved.

An Environmental Compliance Approval permit was initiated with the MOECC for treatment of the excavated stockpile on-site. The work did not proceed and updated sampling was completed in 2020. A report was completed in 2021 by a consultant to review current soil concentrations and re-visit options for the excavated soils and potential costs. The level of petroleum impact to the soils were found to exceed the "Table 1" levels recommended by the MECP (Ministry of Conservation and Parks) for a designated environmentally sensitive area, however the levels were below what would be expected to cause any adverse impact to human or ecological receptors in most land use scenarios. The soil was classified as non-hazardous solid waste. The volume of the impacted soil was estimated at 2400 cubic metres.

The report outlined two options to deal with the stockpile; Option #1 is to manage the soil on-site (cost range from \$15,000 to \$400,000) and Option #2 is to manage the soil off-site (cost range from \$350,000 to \$750,000).

The options can be further broken down as follows:

- Option 1A - Leave Impacted Soil on Site – On-Site Treatment
 - on-site treatment to reduce the contaminant concentrations below "Table 1"
 - cost of option could range between \$250,000.00 – \$400,000.00 (excluding HST)
- Option 1B - Leave Impacted Soil on Site – Screening Level Risk Assessment and (potential) Risk Management Measures

- prepare screening level risk assessment to request approval from MECP to leave the stockpile in place and not undergo any treatment.
- risk management measures may be required and/or additional investigations.
- there is a potential the Ministry may request a full risk assessment.
- cost of option could range between \$15,000.00 – \$275,000 (excluding HST)
- Option 2A - Remove Impacted Soil from Site – Disposal
 - transporting the soil as a non-hazardous waste to a licensed treatment or disposal facility
 - cost of option could range between \$500,000.00 - \$750,000.00 (excluding HST)
- Option 2B - Remove Impacted Soil from Site – Beneficial Reuse
 - transporting the soil for beneficial re-use if a suitable receiving site can be found.
 - cost of option could range between \$350,000.00 – \$550,000.00 (excluding HST)

Staff undertook a review of options and eliminated Option 2A and 2B due to costs and the anticipated difficulty in finding a suitable, willing, receiving site (or sites) for beneficial re-use. Of note, access to the property is via a bridge with weight restrictions over a rail line. Considerable efforts would be required to move the soil in small quantities to a secondary staging area south of the rail line for loading into trucks, which increased the cost of any off-site option.

Staff have reviewed Options 1 A and 1B with the consultant, and will be obtaining updated sampling results. Depending on the results, staff anticipate proceeding with the lower cost Option 1B and submitting a screening level risk assessment to the Ministry.

Financial Implications:

Annual updates are provided to the Audit Committee and included in financial reporting to the General Membership. The annual GRCA audited financial statements also include note disclosure regarding contaminated sites. The GRCA is currently carrying a contaminated site liability of \$478,322.93 for the River Road/Birkett Lane property and \$334,578.64 for 810 Clyde Road, for a total of \$812,911.57.

Other Department Considerations:

Property and Engineering staff will continue to be involved. Planning staff will review a future permit for the River Road/Birkett Lane solution.

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Figure 1: Location of Property – River Road at Birkett Lane, Brantford

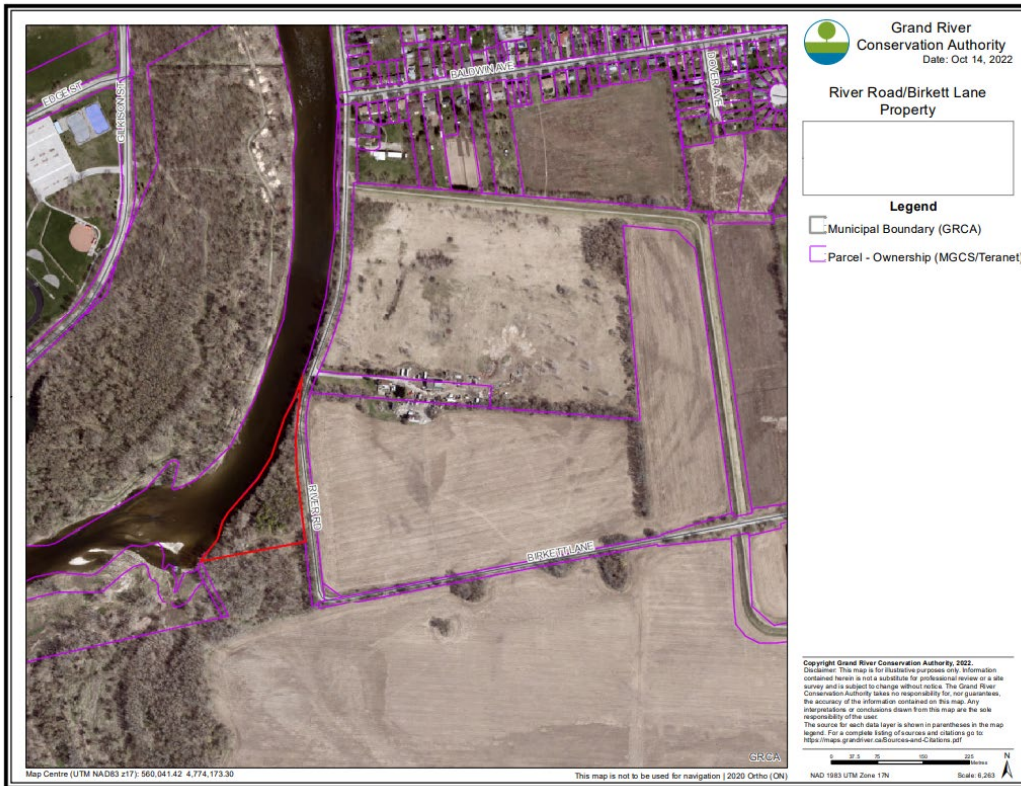


Figure 2: Location of Property – 810 Clyde Road, Cambridge

