



INFRASTRUCTURE SERVICES *Staff Report*

REPORT NO: IS 2023-01

TO: Council

SUBMITTED BY: Jeff Molenhuis P.Eng., Director of Infrastructure Services

PREPARED BY: Jeff Molenhuis P.Eng., Director of Infrastructure Services

REVIEWED BY: Sharon Chambers, CAO

DATE: April 3, 2023

SUBJECT: Township Gravel Pit Operational Report

RECOMMENDATION:

THAT staff be directed to investigate utilization opportunities for the Township-owned gravel pit facility at 1768 Huron Road; and further,

THAT, if feasible, staff be directed to issue an Expression of Interest for further use opportunities at the pit facility.

SUMMARY:

The gravel pit on Huron Road, owned by the Township, has been used for gravel extraction to support operating programs for the past number of years. Based on the existing license for extraction and potential for use under new provincial regulations for excess soil, alternatives to the current operation of the gravel pit are being provided by staff for Council consideration.

This report details the current gravel pit operations and potential future alternatives that would allow for effective utilization and potential for alternative revenue streams.

BACKGROUND:

In 1961, the Township purchased approximately 40 ha (100 acres) of land at the corner of Huron Road and Queen Street (1768 Huron Road). Commencing in the early 1970's, the Township began to extract sand and gravel that was used for road construction, winter maintenance, road maintenance activities and to support various operational activities of the utilities division. Portions of the property have also previously been leased for farming operations.

Although the entire gravel pit encompasses 41.2 ha, approximately 6.0 ha are wooded, 3.75 ha are being progressively rehabilitated and 4.4 ha are not considered viable for extraction purposes. The remaining 27.0 ha is comprised of farmland and areas of active extraction.

The current licence permits extraction to a maximum of 75,000 tonnes annually. The Township has historically utilized approximately 5,000 tonnes annually for operational program needs. A study was undertaken in 2020 to quantify remaining life and extraction opportunities for the pit. Based on preliminary investigations completed in 2020, from below the existing pit floor level and into the water table, the granular material is extremely coarse and clean. The gravel pit operations currently extract "M" gravel, "B" gravel and sand using extraction from below the water table. There is material present that could be valuable to other industries, but not material that would be useful to Township operations.

In recent years, the cost of supplied gravel from third-party local pits has been more cost-effective than undertaking the process of extracting gravel from the pit.

REPORT:

Historic Operations

The gravel pit at 1768 Huron Road is currently used for Township operations purposes only. The license administration and regulatory compliance reporting is managed by internal Township staff. Management of pit operations includes annual ministry compliance reporting on extraction volumes, rehabilitation status reporting, and health and safety reporting. This requires safe site management, material quantity tracking, documentation of all on-site activities and contractor management by Township staff.

The processes required to make usable aggregate products, such as extraction, blending, screening, moving and crushing of the aggregate materials, needed to be contracted out due to equipment, expertise and personnel constraints. As a result, extraction and material management has historically completed by tender through contracted services as part of the annual base operating budget. A tender was prepared annually for a limited volume of extracting, crushing and stockpiling of material.

For Township road maintenance projects, such as the gravel maintenance program, Township labour and equipment was used to haul material from the pit to the project site. Tracking and

recording of material quantities leaving the pit would be completed at the pit with a scale and ticket operation.

Current operations

Due to the direct cost of extraction and stockpiling, as well as labour and equipment costs to administer pit operations and material hauling, staff has shifted toward sourcing materials directly from third-party local pits. This decision was based on analysis of cost per tonne of aggregate crushed at the Township gravel pit and delivered to site, which is more costly when completed by the Township than it is to hire a contractor to supply and deliver. This analysis did not take into consideration the administrative costs and staff time required to manage licensing processes and dealing with the various provincial ministries on labour or operational regulations.

As part of the Aggregate Resources Act, pits and quarries are required to be rehabilitated during their operational lifetime. Rehabilitation must happen on areas where work is completed while extraction is still occurring in other areas of the site. In most cases, the rehabilitation requires the importation of excess soils, which requires even further material and administrative costs. Recently emerging legislation regarding On-Site and Excess Soil Management (O.Reg 406/19) creates additional management needs if importing fill for rehabilitation purposes under the current ownership and licensing framework. At this time, there is no financial or operational plan in place to address the full rehabilitation burden currently associated with pit operations.

Utilization and Cost Effectiveness

As noted, there are a number of unquantified administrative and labour hours associated with license management and general pit operations. An annual direct operating cost is budgeted at \$12,500 to account for scale calibration, sampling, consulting and contracted services and licensing costs. There are major capital items, such as the scale unit and rehabilitation, that need to be maintained as long as the pit is operated by the Township.

Regular Township operations require a relatively small amount of sand and gravel. The amount of administrative and management effort to support the program in this format far outweighs the benefit of having a gravel-producing pit for municipal operations. With low extraction rates and high administrative burden, the cost-effectiveness of the program format is also in question.

Business Case

Based on the information above, staff are seeking direction from Council to explore opportunities to further utilize the pit potential, reduce the rehabilitation liability and maximize benefit to the Township. This could include:

- Partnership arrangements

- Lease opportunities
- Asset disposal opportunities
- Review of excess soil receiving potential

An Expression of Interest could be issued to explore the current market, where staff could outline potential opportunities for pit operations. Staff are not recommending outright disposal of the asset at this time, though that is an opportunity that could be considered further.

Assuming the opportunity exists to further utilize the pit through an agreement, staff are recommending that they be directed to issue calls for Expression of Interest to understand the specifics of pit operation opportunities and report back to Council with proposals and interest received.

ALIGNMENT WITH THE TOWNSHIP OF WILMOT STRATEGIC PLAN:

This initiative supports the goals and strategies of enhancing:

- Economic prosperity through Economic Development and Smart Growth

FINANCIAL CONSIDERATIONS:

As noted above the base operating budget includes \$12,500 annually for scale calibration, sampling, consulting and contracted services and licensing costs.

In the event that staff release an EOI and return to Council with a proposal, the financial implications of future proposed uses on the base operating budget, and the legislative requirements under PSAB of asset retirement obligations (ARO's), would be further outlined at that time.

ATTACHMENTS:

Figure 1 – 1768 Huron Road