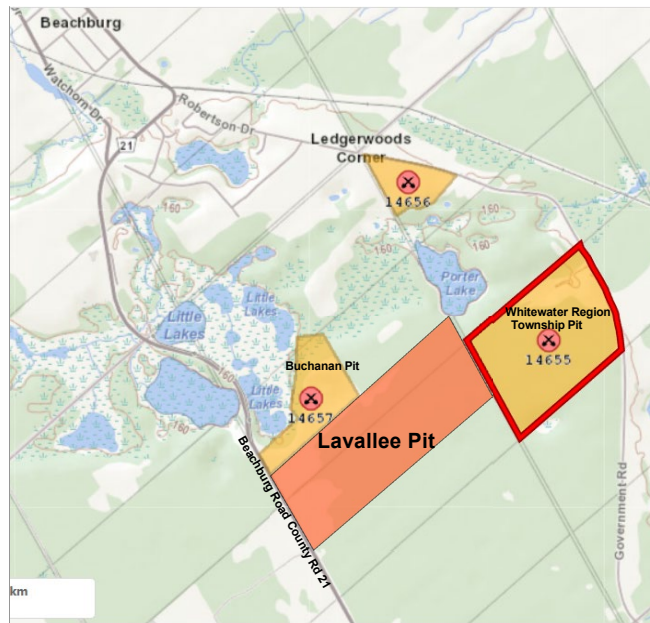


# AGGREGATE RESOURCES ACT SUMMARY REPORT

## For “Lavellee Pit” Licence Application

Prepared for: Jeffery Lavellee in support of an application for a Class “A” pit licence to excavate below the water table, more than 20,000 tonnes annually pursuant to the Provincial Standards, Parts 1, 2 and 4) adopted by Ontario Regulation 244/97 under the Aggregate Resources Act.



Location of site: Part Lots 3 and 4, Concession 5,  
Geographic Township of Westmeath  
Township of Whitewater Region  
Renfrew County, Ontario

Prepared By: Gary McLaren

November 14, 2024  
Revised November 20, 2024



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## 1.0 INTRODUCTION

Milestone Aggregate Consulting Services Inc. has undertaken the preparation of a Summary Report which consolidates all technical requirements and notification and consultation requirements for an **application for a Class "A" pit licence to excavate more than 20,000 tonnes annually** pursuant to Provincial Standards, Parts 1 (Site Plan Standard), 2 (Technical Reports) and 4 Circulation Standard) adopted by *Ontario Regulation 244/97 under the Aggregate Resources Act*.

- Applicant:** Jeffery Lavallee  
379 Pleasant Valley Road  
Beachburg, ON K0J 1C0
- Site Location:** Part Lots 3 and 4, Concession 5,  
geographic Township of Westmeath  
now Township of Whitewater Region  
Renfrew County, Ontario  
(See Key map figure 1.0)
- Project:** Class "A" Pit Licence Application to extract a maximum  
of 500,000 tonnes annually from a 60.75-hectare pit  
below water, subject to the Provincial Standards under  
the Aggregate Resources Act
- Pit Name:** Lavallee Pit
- Owners:** Jeff Lavallee,

The study site for the pit application is located within the south quarter of Lot 3 and the northern half of Lot 4, Concession 5, in the geographic Township of Westmeath, now the Township of Whitewater Region, Renfrew County. The site was mainly a mixed forest which has recently been clear cut in preparation of the pit application for the intended land use. There are two cleared and cultivated fields that front onto Beachburg Road which form the west boundary of the proposed pit.

This report was triggered by a pit application under the Aggregate Resources Act to extract sand and gravel below the water table, pursuant to the compilation of 3 of the Provincial Standards (Site Plan Standard, Technical Report and Information Standard, and the Circulation Standard), adopted by Ontario Regulation 244/97 under the *Aggregate Resources Act*.

The site consists of 64.9 hectares with an extraction limit of 58.1 hectares.

The Summary Report contains the following:

- Application Form;
- Summary Statement as per Part 1.0 of the Technical Reports Standard;
- Site plans; and
- Technical Reports (Natural Environment, Archeological, Hydro Geological Assessment Level 1 and Level 2 Water Report and Maximum Predicted Water Table Report, and Acoustical Report)

The Recommended References in three of the four Provincial Standards were considered along with relevant sections of the **Aggregate Resources Program Policy and Procedures Manual (MNR, 2006)**. e.g. A.R. 2.01.02 Licence Applications: New Properties and A.R.2.01.05, Licence Application: Summary Statement Report Standards, etc.).

This report may also serve to support a Planning Report to amend the zoning category from Extractive Industrial Reserve (EMR), a Sand and Gravel holding zone to Extractive Industrial (EM).

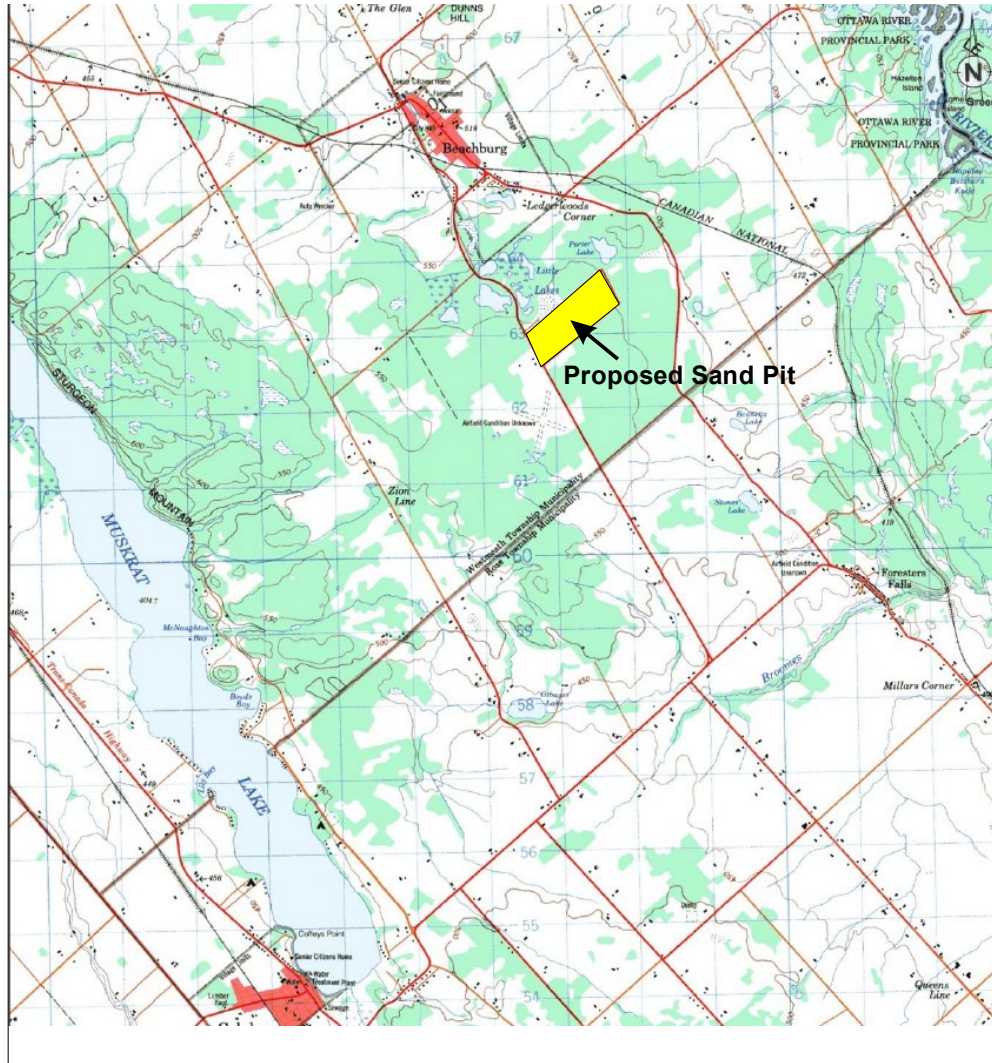
The Ontario Geological Survey, Aggregate Assessment for the County of Renfrew Open **File Report (OFR) 5579, Map P2688** shows the majority of the Lavallee site as good quality, granular A, 5/8's coarse aggregate with granular B and C aggregates on the eastern extremity of the site. The test pit digging and well drilling on site, further confirm quality sand and gravel materials at the locations indicated by the mapping.

The sand and gravel is considered a specialty aggregate and is in great demand to the local and regional market area (Pembroke, Town of Renfrew, west end of Ottawa) for use in asphalt and granular material for road maintenance, concrete for structures, filtration for water and sewer systems and winter sanding of roads.

This material is in demand for construction and the justification of "need," to justify its importance and market demand is not a requirement according to the Provincial Policy Statement 2020 and the County of Renfrew Official Plan.

## 2.0 KEY PLAN – Topographical Image of Lavallee Pit

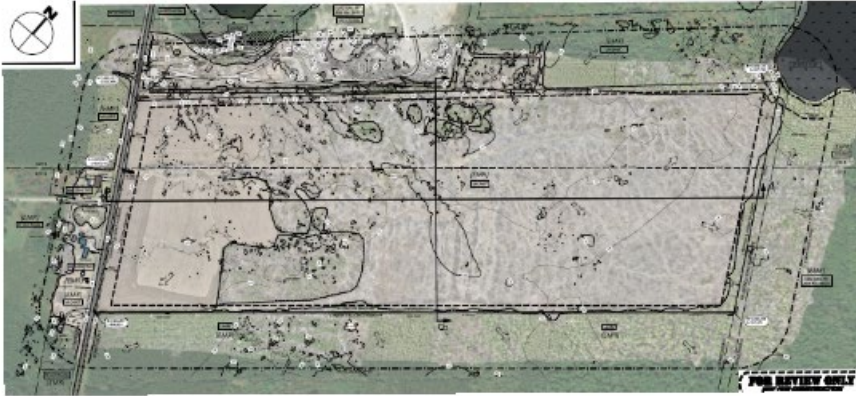
Figure 1.0 Topographical Map showing location of Proposed Lavallee Pit



Lavallee Pit  
Part Lots 3 and 4, Concession 5, Geographic Township of Westmeath now Township of  
Whitewater Region, Renfrew County, Ontario

Figure 2.0 Excerpt from Existing Features Site Plan

**Drone Image of Pit Boundary Location and 120 metre surrounding land use**





### 3.0 SITE PLAN STANDARDS

Site Plans are the primary regulatory instrument used to indicate existing land uses, and ecological and socially sensitive areas associated with the operation and rehabilitation of pits and quarries. The site plans for this particular site were prepared pursuant to Part 1 of the Provincial Site Plan Standards, as adopted by **Ontario Regulation 244/97 under the Aggregate Resources Act**. The set of site plans for this application consist of 5 drawings (Existing, Operation, Cross-section, Rehabilitation and Recommendation from Technical Reports) and associated notes, recommended conditions and mitigation measures. The site plans, prepared by Egis Canada, are included as **Appendix B** to this report.

### 4.0 SUMMARY STATEMENT

The Summary Statement was prepared pursuant to Part 2 of the Provincial Standards entitled **Aggregate Resources of Ontario: Technical Reports and Information Standards, August 2020**. The terms of reference for the Summary Statement is identified in Part 1.0 of the Technical Standard, and acts as a summary of the findings, potential impacts and recommended mitigation measures proposed from the technical reports which are placed into enforceable conditions and added to the site plan. The Aggregate Resources Program Policies and Procedures manual (MNR, 2006), particularly, **Licence Applications – Summary Statement Report Standards, section A.R. 2.01.05** was also referenced in preparation of this report.

The proposed “Lavallee Pit” abuts licenced pits on the north boundary (“Buchanan Pit” Lic. No. 14657) and the east boundary (The “Township of Whitewater Pit” Lic. No. 14655) and Lic. No. 14656 just a bit further north. (see **Figure 8**). These are all part of the surficial sand and gravel deposit identified in OFR 5579 for the Country of Renfrew. The total area to be licenced consists of 64.9 hectares with an extraction area of 58.1 hectares. The entire site would be extracted below water table creating a lake and wetland environment that would complement the adjacent natural Little Lake, Porter Lake and wetland system to the north. The tonnage condition for the proposed site will be limited to 500,000 tonnes annually.

The Summary Statement shall consider planning and land use compatibility, effects on agricultural resources, impacts to source water protection, the quality and quantity of resource, impacts from traffic, haulage routes, and entrance/exit locations, suitability of the progressive and final rehabilitation for the site and adjacent lands. This report further includes statements regarding the potential for any surface water and ground water impacts to water table, and direction of surface water runoff.



#### 4.1. Any planning and land use considerations (*section 1.2 of the Summary Statement Standard*)

#### **Provincial Policy Statement (PPS) 2024**

The PPS provides the framework for land use planning and development policies in the local Official Plan.

Section 4.5 of the 2024 Provincial Policy Statement discusses how Minerals Aggregate Resources should be protected for long-term use. The following excerpts in italics from the PPS are relevant to this report:

#### **4.5.2 Protection of Long-Term Resource Supply**

- 1. As much of the mineral aggregate resources as is realistically possible shall be made available as close to markets as possible. Demonstration of need for mineral aggregate resources, including any type of supply/demand analysis, shall not be required, notwithstanding the availability, designation or licensing for extraction of mineral aggregate resources locally or elsewhere.*
- 2. Extraction shall be undertaken in a manner which minimizes social, economic and environmental impacts.*
- 3. Mineral aggregate resource conservation shall be undertaken, including through the use of accessory aggregate recycling facilities within operations, wherever feasible.*
- 4. Mineral aggregate operations shall be protected from development and activities that would preclude or hinder their expansion or continued use or which would be incompatible for reasons of public health, public safety or environmental impact. Existing mineral aggregate operations shall be permitted to continue without the need for official plan amendment, rezoning or development permit under the Planning Act. Where the Aggregate Resources Act applies, only processes under the Aggregate Resources Act shall address the depth of extraction of new or existing mineral aggregate operations. When a license for extraction or operation ceases to exist, policy 4.5.2.5 continues to apply.*
- 5. In known deposits of mineral aggregate resources and on adjacent lands, development and activities which would preclude or hinder the establishment of new operations or access to the resources shall only be permitted if:
  - a) resource use would not be feasible; or*
  - b) the proposed land use or development serves a greater long-term public interest; and*
  - c) issues of public health, public safety and environmental impact are addressed.**

The PPS, subsection 2 above states that extraction shall occur in a manner that minimizes the impacts of operations on social values and the environment.

Section 4.5.3 of the PPS speaks to requirements for progressive and rehabilitate the pit or quarry considering surrounding land uses.

The Aggregate Resources Act supports the PPS by requiring the site to be rehabilitated back to its former use or a use compatible with the surrounding land use. In this particular case, the site will be moved from marginal farm land, and mixed bush, to a small lake and wetland environment similar to the lands to the north and north east of the site. The rehabilitation plan supports the natural environment values of the adjacent lake features and would not detract from surrounding passive agricultural use, mixed forest and low impact residential development along Beachburg Road.

The establishment and development of the Lavallee Pit, being part of a quality sand and gravel deposit and designated for extractive use is consistent with the 2024 PPS. The site is situated on a known glaciofluvial deposit containing active sand and gravel sources north and east of the site along the resource area. Beachburg Road is a primary route that is already used for the haulage of specialty aggregates, (sand and gravel) for use in asphalt and concrete and filter sands to service the local and regional markets as far away as the west end of Ottawa.

### **County of Renfrew Official Plan**

The County of Renfrew has an upper tier Official Plan which includes coverage for the Township of White-Water Region. The O.P. contains policies directing approval over consent applications, influence area concepts and map Schedules, A and B which describe the location of licence pit and quarry operations and resource reserves that can be used as a source for planning decisions. There is no lower tier O.P. for the Township of Whitewater Region.

***Note: Further reference to "the O.P." in this report and associated policies and schedules will be referring to the County of Renfrew O.P. The Land use Schedules in the County O.P. are identified by lower tier Township administrative boundaries including settlement areas (towns, hamlets, villages).***

Schedule A to the O.P., identifies general land uses including mineral aggregates (sand, gravel and bedrock operations which are licenced by the Ministry of Natural Resources and Forestry (MNRF). Schedule B to the O.P. is a Mineral Aggregate and Mining Resource constraint map which identifies sand and gravel and potential bedrock resource areas suitable for aggregate extraction. Schedule A would also include reference to other provincial significant constraints such as wetlands (PSW's), areas of natural and scientific interest (ANSIs), fish and wildlife habitat, and threatened and endangered species and their habitat must be balanced against the need for aggregate resources.

The Schedule A Land Use Map for the O.P. shows the Lavallee pit application parcel designated as **Mineral Aggregate** on Schedule A map. Schedule A also shows the

area abutting the pit application site to the north, east and south as a **Mineral Aggregate** designation. (see **Figure 3**).

Schedule B indicates sand and gravel resource underlying the pit application site. Three **Aggregate Site Authorized** (*active pit licences*) are shown on the schedule in the immediate vicinity of the subject site. Two of these pits directly abutt the proposed site. (See **Figure 3**).

The O.P. contains clear policies dealing with the protection of active operations, resource areas, licence applications by the province and also the screening of development applications that could preclude or hinder these resource areas. Development applications are not relevant and have not been included in the excerpts from the O.P. policy below:

## **7.0 MINERAL AGGREGATE**

### **7.1 Introduction**

*Mineral aggregates consist of unconsolidated and consolidated materials such as sand, gravel and limestone, which provide the major raw materials for road building and construction.*

*The policies of this Section are intended to firstly, ensure that major aggregate deposits remain available for existing and future use. Secondly, they are intended to minimize impacts on adjacent uses and the natural environment from extractive operations.*

*Renfrew County is designated under the Ontario Aggregate Resources Act. The Act controls and licenses all aggregate operations in these areas. It requires progressive rehabilitation and final rehabilitation of all licensed pits and quarries.*

### **7.2 Objectives**

*(1) To protect known, significant deposits of aggregates, including existing pits and quarries, for future extraction.*

*(2) To identify lands within the County which are licensed for aggregate extraction and have potential for aggregate resource extraction.*

*(3) To prevent any change in land use that could conflict with legally existing pits and quarries or inhibit the future extraction of the aggregate resources.*

*(4) To ensure extraction is undertaken in a manner which minimizes social, economic and environmental impacts.*

### **7.3 Policies**

**(1) All Licensed pits and quarries and designated Mineral Aggregate resources are identified on Schedule "A". Those lands not currently located within the designations identified on Schedule "A" may be designated by an amendment to this Plan. Mineral aggregate resources as identified on Land Use Plan Schedule "B" – Map 3 shall be used as an information layer in the review of planning applications in meeting the policies of Section 7 of this Plan. It is the intent of this Plan that these resources are protected by directing development away from these areas.**

**(2) The Mineral Aggregate designation on the Land Use Schedule(s) shall mean that the predominant use of land will be for pits and quarries. Existing mineral aggregate operations shall be permitted without the need**

**(4) Existing extractive operations shall be recognized in the implementing local Zoning By-law. Areas designated Mineral Aggregate which are not currently used for pits and quarries or associated manufacturing uses shall be placed in a non-development type of zone in the implementing zoning by-law. New sensitive uses should be prohibited in the Mineral Aggregate Resource designation. The expansion or opening of a new commercial pit or quarry will require an amendment to the local zoning by-law with full public notice and opportunities for appeal. Wayside pits and wayside quarries are exempt from this provision and are governed by the provisions included in the**

**General Policies Section of this Plan. Where the Aggregate Resources Act applies, only processes under the Aggregate Resources Act shall address the depth of extraction of new or existing mineral aggregate operations. In considering an amendment to the local zoning by-law, the following matters shall be examined:**

- (a) degree of exposure of the operation to the public and the need for and effectiveness of any mitigating measures (berms, screening, etc.);**
- (b) the haulage routes and the resulting impact on the transportation system (traffic density, etc.);**
- (c) (c) the progressive rehabilitation and final rehabilitation plans, and the suitability of these plans having regard to the character of the surrounding lands:**
  - i. where extractive operations are proposed on prime agricultural lands (Classes 1, 2 and 3 soils) which are located within the larger Agriculture designation, Council shall require rehabilitation of the site to substantially restore the same acreage and average soil capability for agriculture; and**
  - ii. on prime agricultural lands, complete agricultural rehabilitation is not required if:**
    - 1. there is a substantial quantity of mineral aggregates below the water table warranting extraction; or**
    - 2. other alternatives have been considered by the applicant and found unsuitable. Other alternatives include resources in areas of Classes 4 to 7 agricultural lands, resources on lands committed to future urban uses, and resources on prime agricultural lands where rehabilitation to agriculture is possible;**

*3. the depth of planned extraction in a quarry makes restoration of pre-extraction agricultural capability unfeasible; and*

*4. in those areas remaining above the water table following extraction, agricultural rehabilitation will be maximized.*

*(d) the area in which the proposed operation is located should be within an area of known aggregate resources, of which there exists some estimate of the geographic distribution and potential of the deposits.*

*(e) the water table, existing and proposed drainage facilities, and setbacks from watercourses;*

*(f) effects on adjacent land uses, nearby communities, and natural heritage features;*

*(g) hydrology, wildlife or such studies as may be required due to special concerns related to a specific site; and (*

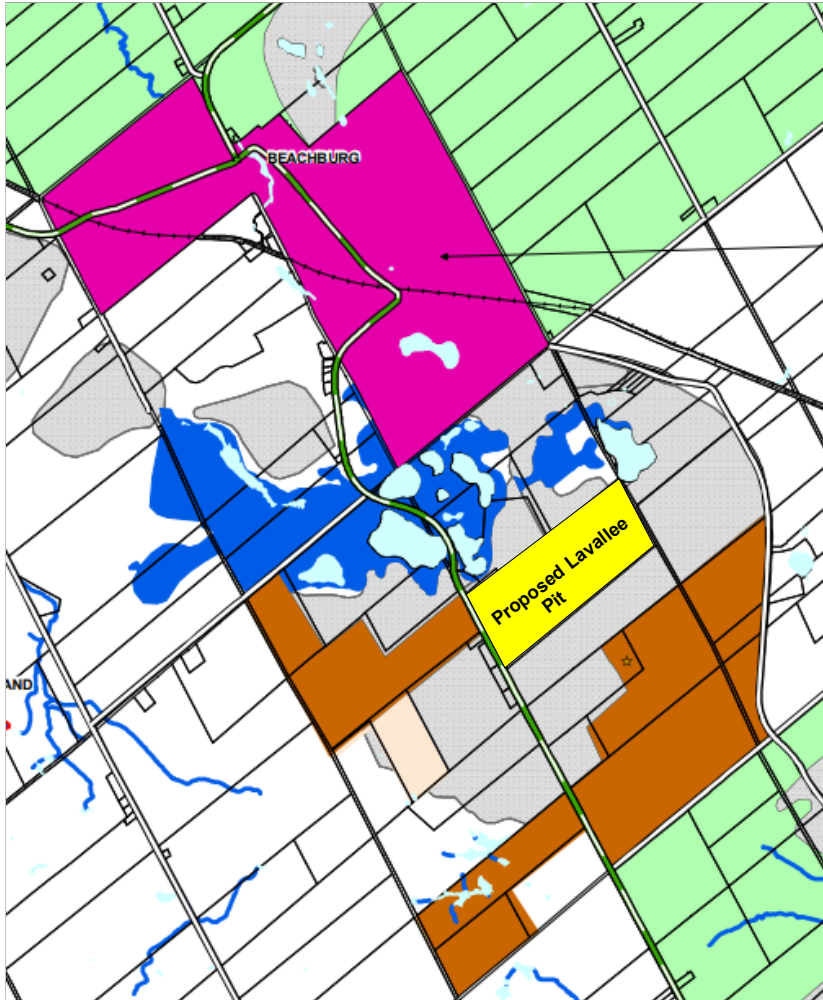
*h) any other matters which Council deems advisable.*

*(9) Mineral aggregate resources information is updated from time to time by the Province and Schedules may not contain the most current information. The Aggregate Resources Information Paper (ARIP) is the official provincial source of mineral aggregate resources information. The County shall ensure that updated sand and gravel and bedrock resources are identified and incorporated into the Official Plan as the information becomes available. Identification of mineral aggregate resources may be further refined through consultation with individuals qualified to determine local significance, feasibility and/or quality of aggregate deposits.*

Based on the current O.P. designations shown on the Land use Schedules (Schedule A - **Mineral Aggregate**, and Schedule B - **Sand and Gravel**), an official plan amendment is not required for the ARA pit application at this location.

Jeff Lavallee "Lavallee Pit"  
 Beachburg Road

Figure 3.0 County of Renfrew Official Plan, Schedule "A" Township of Whitewater Region

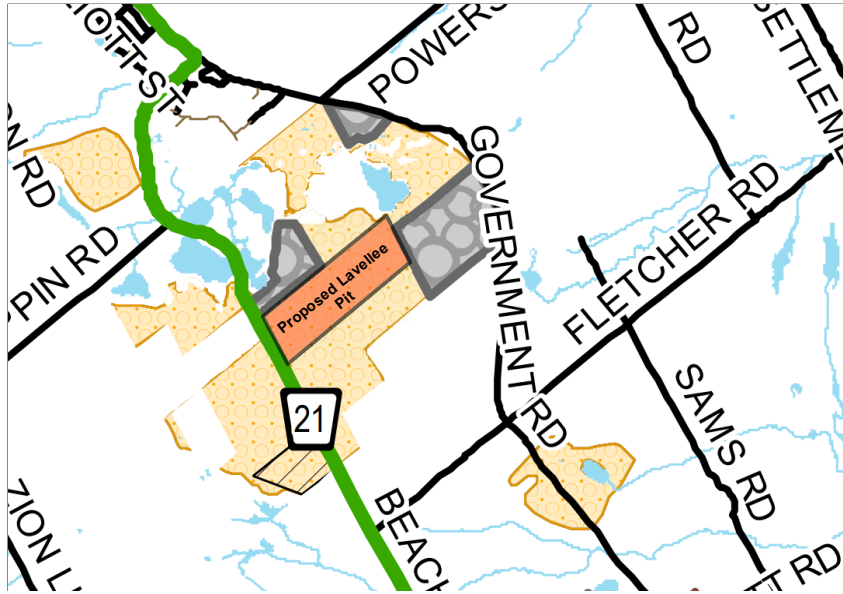


**LEGEND**

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| <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: grey; border: 1px solid black; margin-right: 5px;"></span> Non County Areas</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #f4a460; border: 1px solid black; margin-right: 5px;"></span> Crown Land</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #444; border: 1px solid black; margin-right: 5px;"></span> Urban Community (see Local Official Plan)</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #e91e63; border: 1px solid black; margin-right: 5px;"></span> Village Community</li> <li><span style="display: inline-block; width: 15px; height: 10px; border: 1px solid black; margin-right: 5px;"></span> Rural Hamlets</li> <li><span style="display: inline-block; width: 15px; height: 10px; border: 1px solid black; margin-right: 5px;"></span> Rural (for North Algonia Wilberforce see Policy 5.4 (C) - Forestry)</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #90ee90; border: 1px solid black; margin-right: 5px;"></span> Agriculture</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #ccc; border: 1px solid black; margin-right: 5px;"></span> Mineral Aggregate</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #0000ff; border: 1px solid black; margin-right: 5px;"></span> Environmental Protection Area</li> <li><span style="display: inline-block; width: 15px; height: 10px; border: 1px solid red; margin-right: 5px;"></span> Provincially Significant Wetland</li> <li><span style="display: inline-block; width: 15px; height: 10px; border: 1px dashed red; margin-right: 5px;"></span> Area of Natural &amp; Scientific Interest</li> <li><span style="display: inline-block; width: 15px; height: 10px; border: 1px solid cyan; margin-right: 5px;"></span> Highly Sensitive Lakes (see Policies 9.4 (1) and 9.4 (3))</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #add8e6; border: 1px solid black; margin-right: 5px;"></span> Lakes and Rivers (for all islands in Bonnechere Valley see Policy 9.4 (2))</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #8b4513; border: 1px solid black; margin-right: 5px;"></span> County Forest</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #ffff00; border: 1px solid black; margin-right: 5px;"></span> Mining Resource</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #ffa500; border: 1px solid black; margin-right: 5px;"></span> Active Waste Disposal Site</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #808080; border: 1px solid black; margin-right: 5px;"></span> Inactive Waste Disposal Sites</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #333; border: 1px solid black; margin-right: 5px;"></span> Social Policy Exemption Areas</li> </ul> | <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid blue; margin-right: 5px;"></span> Environmental Protection</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid green; margin-right: 5px;"></span> Flood Plain</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Municipal Roads</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid grey; margin-right: 5px;"></span> Municipal Seasonal Roads</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid lime; margin-right: 5px;"></span> Crown Access Roads</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid darkgreen; margin-right: 5px;"></span> County Roads</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid brown; margin-right: 5px;"></span> Provincial Highways</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px dashed black; margin-right: 5px;"></span> Railway</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px dotted magenta; margin-right: 5px;"></span> Natural Gas Pipeline</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Municipal Boundary</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px dotted black; margin-right: 5px;"></span> Lot and Concession Lines</li> <li><span style="display: inline-block; width: 15px; border: 1px solid black; margin-right: 5px;"></span> Geographic Township Boundary</li> </ul> |
|--|---|

Jeff Lavallee "Lavallee Pit"  
 Beachburg Road

Figure 4.0 County Of Renfrew Official Plan Schedule "B" Mineral Aggregate and Mining Resource Map



 Provincial Highway	 Aggregate Site Authorized – Active
 County Road	 Aggregate Site Authorized – Inactive
 Municipal Road	 Bedrock
 Municipal Seasonal Road	 Sand & Gravel
 Private Road	 Mining Resource
 Crown Road	 Copper & Nickel
 Permanent Stream/River	 Copper & Zinc
 Water	 Dolomite
 Non County Areas	 Magnesium
 Municipal Boundary	 Zinc & Lead



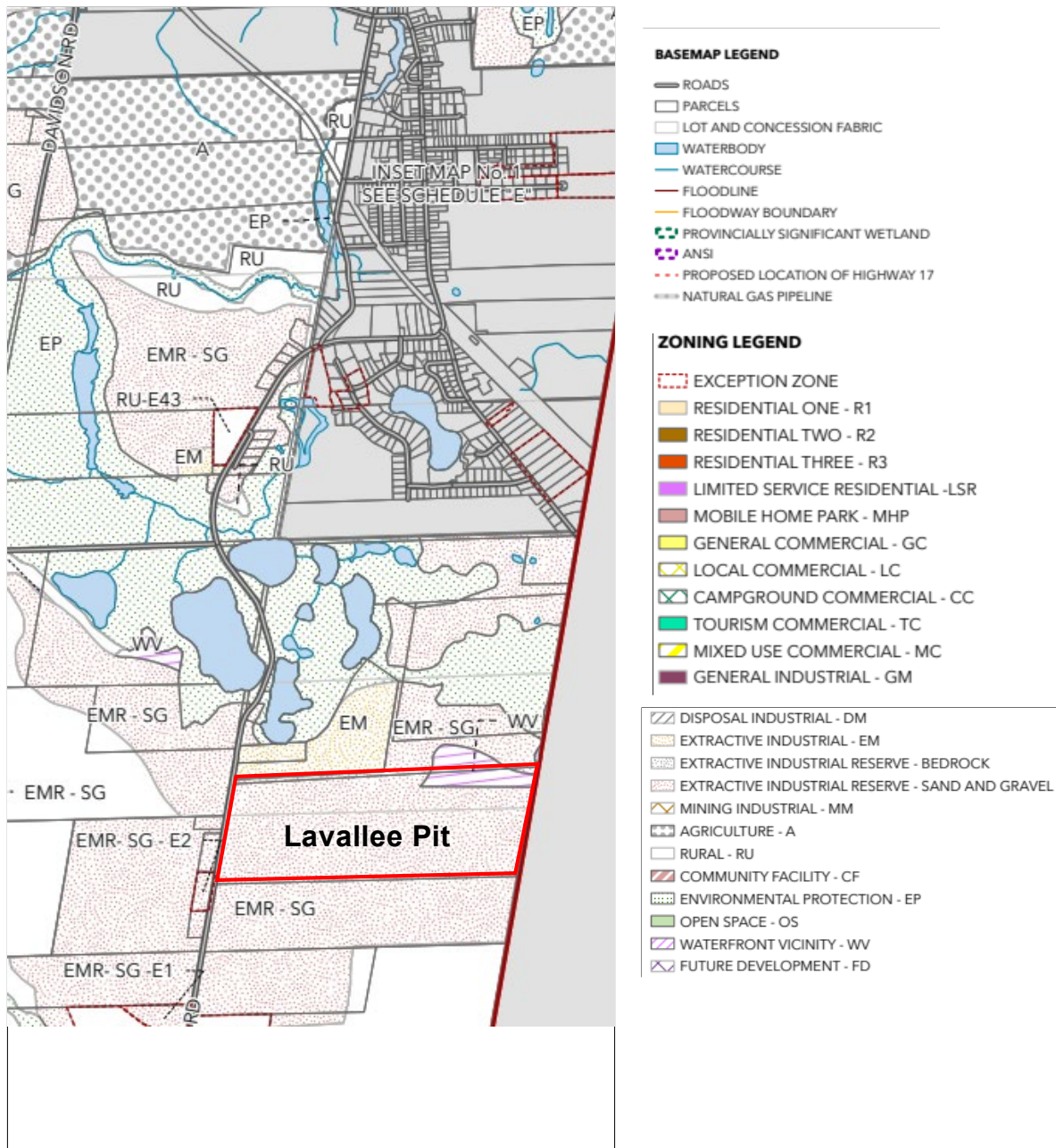
### **Township of Whitewater Zoning By-law**

Sections 16.0, 17.0 and 18.0 of the Zoning By-law deal with permitted uses and descriptions for Extractive Industrial zones for pits and quarries, and holding zones for bedrock reserves and sand and gravel reserves respectively. The by-law indicates there are 3 symbols relating to extractive industrial use for pits and quarries. **EM** signifying existing licences, **EMR-B** for potential bedrock reserve and **EMR-SG** for sand and gravel reserves. The proposed extraction site is located within an **Extractive Industrial Reserve, Sand and Gravel (EMR-SG)** zone according to the Township of Whitewater Schedule "A" Zoning Land Use Map. (see **Figure 5**).

The EMR-SG would be considered a 'Holding' zone for future sand and gravel resource extraction. A concurrent application for a re-zoning would be requested to remove the holding.

Jeff Lavallee "Lavallee Pit"  
Beachburg Road

Figure 5.0 Township of Whitewater Region, Schedule 'A' Zoning Map West Half of Westmeath



4.2 Agriculture classification, Canada Land Inventory (CLI) for soils

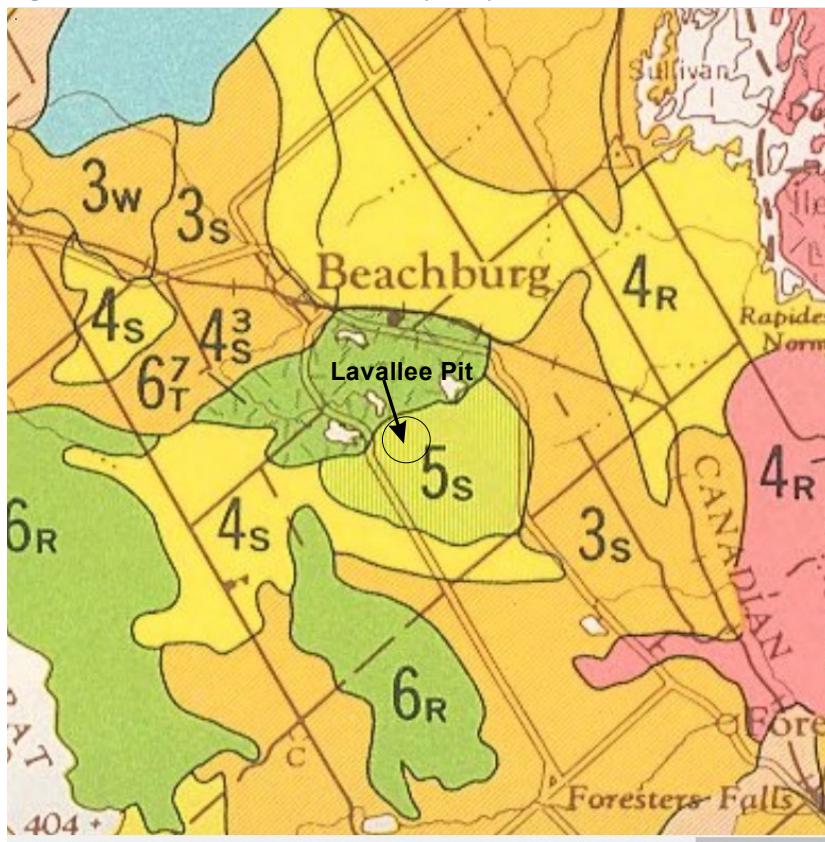
The Canada Land Inventory (CLI) is the primary basis for determining soil classification and capability for agriculture and competing land uses in Ontario. Proponents and approval authorities for pit and quarry applications need to consider CLI information to meet PPS policies 2.3.1 (protection of prime agricultural areas) and 2.5.4.1 (rehabilitation requirements in prime agricultural areas on prime agricultural land). CLI

classification is also considered when applying for a license under the Aggregate Resources Act. Section 1.1 of the Summary Statement standard, indicates that the CLI map shall be used to determine classification of soils and rehabilitation techniques if the site is to be returned to agricultural land use.

*The agricultural classification of the proposed site, using Canada Land Inventory Classes;*

The Canada Land Inventory (CLI) (*Department of Agriculture, 1966*) for soils lists this site as **Class 5 and Class 6** soils (See figure 6) with a stoniness classification of S5 which indicates excessive stones. Class 6 soils class contain no arable culture or permanent pasture capability. The site has been used for planting of forage crops on the west side of the subject lands abutting Beachburg Road and recently harvested mixed forest on the east side of the site. The site underlain by a glacial fluvial deposit of sand and gravel which is not well suited to agricultural crop production.

Figure 6.0 Canada Land Inventory Map, 1966 Pembroke Sheet



KARS	Neutral to alkaline gravelly to very gravelly coarse sand or loamy coarse sand glacio-fluvial material containing cobbles	Gravelly sandy loam or coarse sandy loam, or coarse sandy loam	K1 K2 K3 K4 K5	Excessive to good Imperfect to poor Excessive to good Imperfect to poor Excessive to good	Less gravelly, mainly coarse sand Less gravelly, mainly coarse sand Mainly coarse sand with gravel layers
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### STONINESS CLASSES

Class	Description	% Stones on Surface
\$1	Slightly stony	0.01 - 0.1
\$2	Moderately stony	0.1 - 3.0
\$3	Very stony	3.0 - 15.0
\$4	Exceedingly stony	15.0 - 50.0
\$5	Excessively stony	>50.0

Stones have a diameter greater than 15 cm.

#### CLASS 1

Soils in this class have no significant limitations in use for crops. The soils are deep are well to imperfectly drained, hold moisture well, and in the virgin state were well supplied with plant nutrients. They can be managed and cropped without difficulty. Under good management they are moderately high to high in productivity for a wide range of field crops.

#### CLASS 2

Soils in this class have moderate limitations that restrict the range of crops or require moderate conservation practices. The soils are deep and hold moisture well. The limitations are moderate and the soils can be managed and cropped with little difficulty. Under good management they are moderately high to high in productivity for a fairly wide range of crops.

#### CLASS 3

Soils in this class have moderately severe limitations that restrict the range of crops or require special conservation practices. The limitations are more severe for Class 2 soils. They affect one or more of the following practices; timing and ease of tillage; planting and harvesting; choice of crops; and methods of conservation. Under good management they are fair to moderately high in productivity for a fair range of crops.

#### CLASS 4

Soils in this class have severe limitations that restrict the range of crops or require special conservation practices or both. The limitations seriously restrict one or more of the following practices; timing and ease of tillage; planting and harvesting; choice of crops and methods of conservation. The soils are low to fair in productivity for a fair range of crops but may have high productivity for a specially adopted crop.

#### CLASS 5

Soils in this class have very severe limitations that restrict their capability to producing perennial forage crops, and improvement practices are feasible. The limitations are so severe that the soils are not capable of use for sustained production of annual field crops. The soils are capable of producing native or tame species of perennial forage plants and may be improved by use of farm machinery. The improvement practices may include clearing of bush, cultivation, seeding, fertilizing, or water control.

Jeff Lavallee "Lavallee Pit"  
Beachburg Road

CLASS 6

Soils in this class are capable only of producing perennial forage crops, and improvement practices are not feasible. The soils provide some sustained grazing for farm animals, but the limitations are so severe that improvement by use of farm machinery is impractical. The terrain may be unsuitable for use of farm machinery, or the soils may not respond to improvement, or the grazing season may be very short.

CLASS 7

Soils in this class have no capability for arable culture or permanent pasture. This class also includes rockland, other non-soils areas, and bodies of water too small to show on the maps.

0

Organic Soils (Not placed in capability classes)

Jeff Lavallee "Lavallee Pit"  
Beachburg Road

This land is not considered as prime agricultural land and is outside the boundary of the four "provincial plans" (Oak Ridges Moraine Conservation Plan; Greenbelt Plan; A Place to Grow: Growth Plan for the Greater Golden Horseshoe; and the Niagara Escarpment Plan). For these reasons, an Agricultural Impact Assessment report was not required for this site. The final slopes above the water table will be returned to a mixed deciduous coniferous forest area. These forested areas will provide natural habitat for flora and fauna and will be compatible with the lake ecosystem to the north, the aggregate extraction areas to the northwest and north east, the interim agricultural use on site and the scattering of residential strip development along the west side of Beachburg Road. The majority of the pit area will be extracted below water table to form a small lake with some hummocks or islands which will also compliment a lake and adjacent wetland' environment.



#### 4.3 The quality and quantity of aggregate on site (section 1.4. of the Summary Statement Standard)

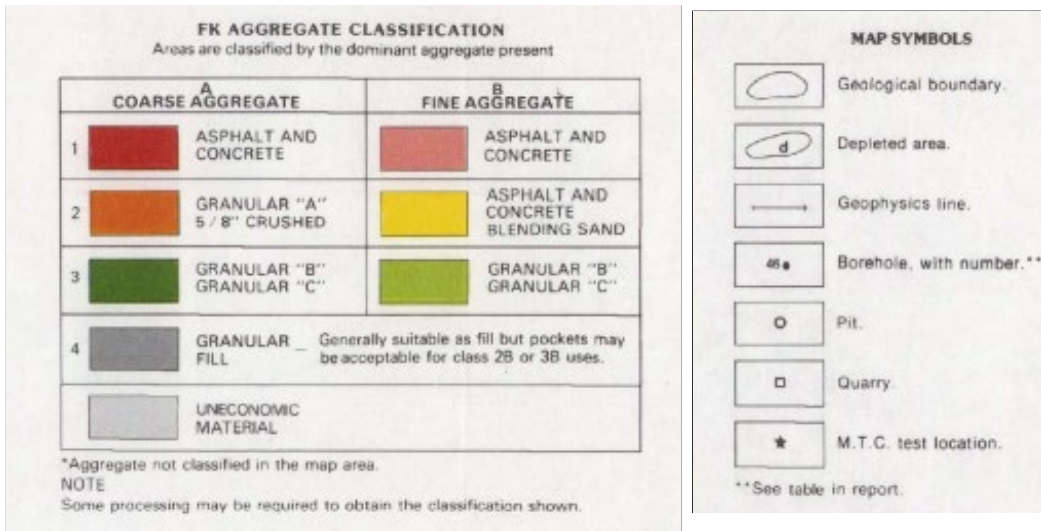
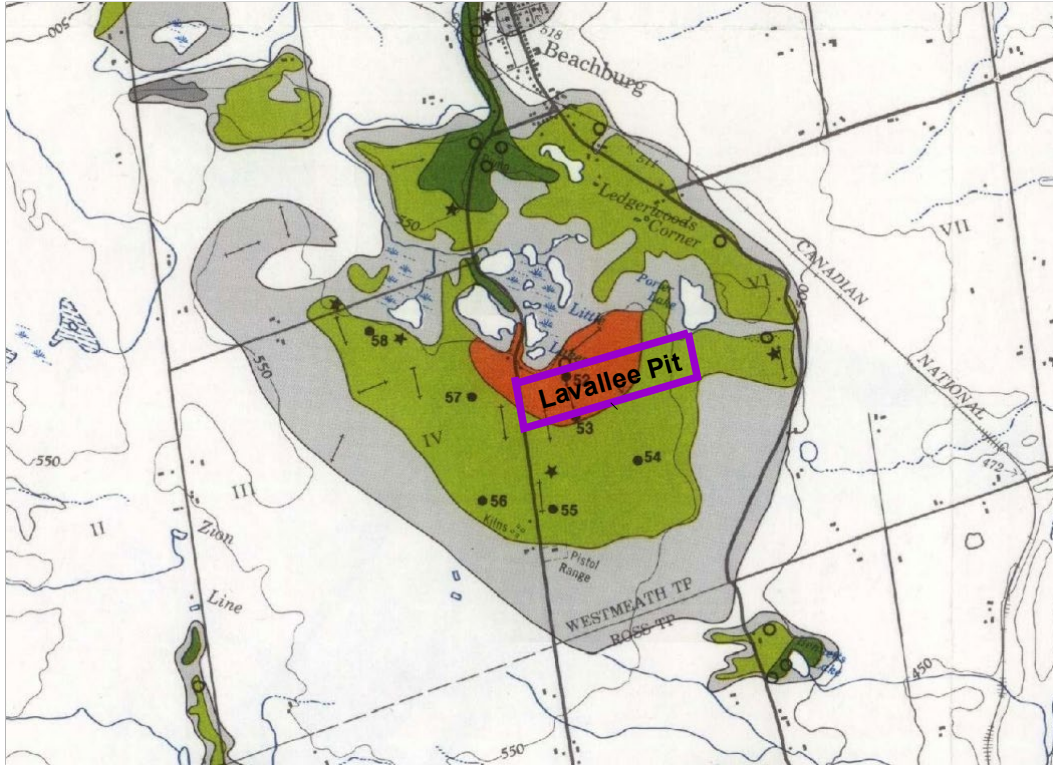
The Ontario Geological Survey prepared an **Aggregate Resource Inventory for the County of Renfrew, Southern Ontario, 1986. Open File Report (OFR) 5579, Map P2688** shows the majority of the Lavallee site as good quality, granular A, 5/8's coarse aggregate with granular B and C aggregates on the eastern extremity of the site. The test pit digging and water well drilling on site, further confirm these resources at the locations indicated by the mapping. OFR 5579 states: ***A large esker-like glaciofluvial deposit located south of Beachburg contains the only available reserves of Class "2a" material. This deposit has 3.31 million cubic metres of Class "2a" material and 47.32 million cubic metres of Class "3" material.***

For a more detailed analysis of the main Glacial Fluvial sediment deposit, refer to the **Maximum Predicted Water Table and Level 1 and Level 2 Water Study** prepared by GRI, August 2024, section 4.3, Surficial Geology. The link to this report is located in **Appendix C** to this report).



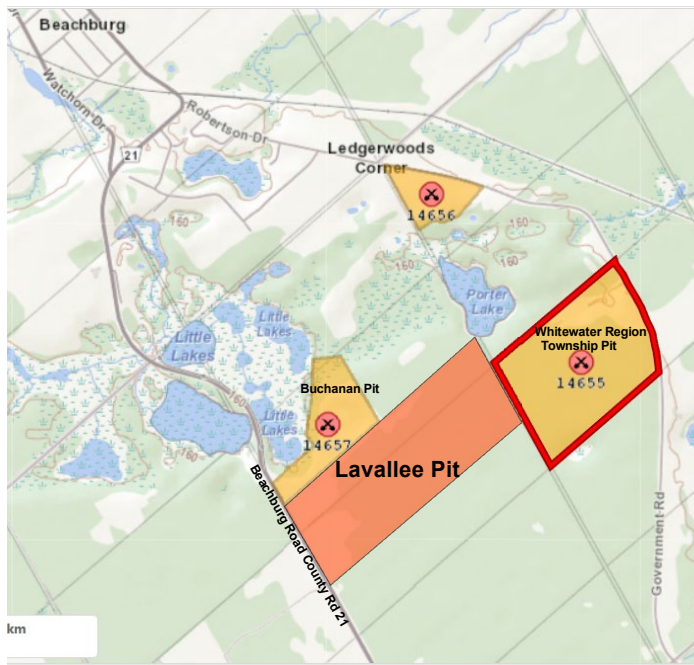
Jeff Lavallee "Lavallee Pit"  
 Beachburg Road

Figure 7.0 Ontario Geological Survey, Sand & Gravel Assessment of Renfrew County, P2688  
 Pembroke Sheet



The provincial Pits and Quarries on-line mapping tool also verifies the number of active pit operations extracting sand and gravel from this deposit location.

Figure 8.0 Pits and Quarries Online Showing Licenced Pits and Proposed Lavallee Pit



#### 4.4 Haulage routes, truck traffic and entrance permits (Section 1.5. of the Summary Statement Standards)

There is an approved entrance onto Beachburg Road, County Road 21 which is currently being used for the adjacent existing pit licence No. 14657. Beachburg Road is a half load road which means that weight restrictions restrict axle weights for trucks carrying bulk loads of materials such as sand and gravel. The Township of Whitewater Region imposes applicable haul load restrictions every spring during the spring thaw period.

The major market from this site will be south along Beachburg Road, (County Road 21) to Forester's Falls Road (County 7), to Highway 17 then north to Pembroke and south to Ottawa. The major extent of these materials will be used for high quality sand material for asphalt and concrete use in the west end Ottawa market. Ottawa has exhausted most of it's high-quality sand reserves for specialized uses. This application will generate additional truck traffic. The proposed annual extraction from the site will not exceed 500,000 tonnes.

#### 4.5 Suitability of Progressive and Final Rehabilitation having regard for adjacent land use (Section 1.6. of the Summary Statement Standard);

It is anticipated that the good quality material will be removed from above water table and below water to elevation 147.0 mASL (*GRI, 2024*) or to the intersection with the bedrock. Sides of the pit will be sloped to the small lake then an angle of repose will naturally occur below water. A littoral zone will be created along the north boundary setback by creating a 4:1 or 5:1 slope into the water to enhance amphibian, fish and aquatic habitat with a south facing slope. The shallow slope along the north limit of extraction will be enhanced with on-site oversize rock, stumps and grubbing materials to provide structure for aquatic species. The final rehabilitation will move away from marginal farm land toward more of a natural environment ecosystem with a small lake and enhance the mixed forest woodland area around the perimeter of the site. The vegetation around the water's edge will be a mixture of natural rejuvenation with plantings of lowland tree and shrub species. Upland areas will be planted to tree species indigenous to the area (e.g., Sugar Maple, White pine, etc.) while evasive non indigenous species will be removed from the rehabilitated areas on an on-going basis. The lake may be enhanced in some areas with extraction leaving shallow hummocks or peninsulas around the perimeter where lower quality material is intersected and below water extraction is terminated prematurely. Piles of large stone, stumps and logs would be added to the shoreline to provide structure for amphibians, fish and other wildlife. The rehabilitation plan will complement the adjacent lake system and mixed forest ecosystem.

#### 4.6 Source Water Protection area and drinking water threats (*section 1.3 of the Summary Statement Standards*);

There is a Source Water Protection Plan for the village of Beachburg referred to as: *WHPA Delineation and Source Water Protection Plan for Beachburg and Haley Townsite, The Corporation of the Township of Whitewater Region, February 2023*

Drinking water for the community of Beachburg is supplied by two municipal wells that are located northeast of Jackson Lake, on the south side of Robertson Drive. One of the municipal wells is a 7.6 m deep Dug Well that has a diameter of 3.6 m and lies within a building on the south side of the water treatment plant. The Dug Well installation date is unknown; however, it is reported that upgrades were made throughout the 1980s and 1990s. The second Beachburg municipal water supply well is a 30.5 m deep Drilled Well (water well record [WWR] 5510412), also located south of the water treatment plant near the treeline approximately 60 m from Jackson Lake. The Drilled Well was drilled in 1991. The Drilled and Dug wells are pumped alternatively, with an interlock device that ensures only one well can pump at a time (OCWA, 2021a).

The Beachburg Water Treatment Plant is located at 31 Robertson Drive. The Drinking Water System utilizes conventional treatment to treat groundwater through coagulation using alum and the precipitation of iron through pre-chlorination, sedimentation and filtration.

In the Provincial data base, 36 well records exist within a 2 km radius of the subject site. Of these, 15 wells are within 500metres. Due to the extent and permeability of the glacial fluvial deposit, presence of the water wells, location of existing below water table pit operations, and reliance on the water, there was a high vulnerability established that requires further investigation by way of a level 2 investigation. The main purpose of the level 2 is to assess potential impacts of the proposed operation on surface and ground water and provide recommended measures that mitigate the impacts and ensure that provincial Standards, guidelines and regulations can be met.

Four test holes were drilled on the Lavallee site using the sonic drilling method in April 2022. These wells were monitored for over a year to establish base line information about water quality and quantity prior to completion of the Water Study . There were also a series of test pits dug across the site to study the quality of materials, predict direction of ground water flow and other characteristics relating to water impacts from the proposed pit operation.

The four monitoring wells drilled on the proposed Lavallee pit site located within the setback areas of the along the licence boundary. These wells will continue to be measured and tested several times throughout the year according to the recommendations from the Water Report and in accordance with the Hydrogeological conditions stipulated on the ARA site plan. The data collected will be summarized in a

report by a qualified professional and any significant fluctuations noted and mitigated where necessary. It is not anticipated that there would be any impact on residential water wells existing in the residents west of the pit along Conty Road 21 or the municipal water supply for the village of Beachburg. The site is approximately 1.5 kms from the Beachburg communal wells with a wetland between the two entities

The operations of the site will include extraction of aggregate from above and below the water table using an excavator, drag line or other dredging equipment. Crushing, screening and washing operations are permitted. The sand and gravel from this site will be excavated without the need to pump, ditch or otherwise lower the ground water table by discharging off-site. Should pumping be considered in the future, an environmental compliance approval would need to be obtained for the discharge system. If required, a permit to take water (PTTW) will be obtained for taking ground and/or surface water in excess of 50,000 litres on any day by any means (pumping, gravity, drainage etc.)

The lowest pit floor elevation below water table would be to elevation 147.0 mASL for a total depth of approximately 24 metres. This would correspond to an elevation in the range of 10 to 13.5 metres below water table which has been determined to be approximately 160.5 mASL once the lake level flattens out during final rehabilitation. The surface water elevations at the Little Lakes and Potter Lakes are 159.1 mASL and 158.9 mASL respectively.

The four on site monitoring wells will be maintained for the duration of the operation. If any of the wells are decommissioned prematurely, they shall be replaced within 6 months unless the site is depleted and the licence offered for surrender. The documentation of off-site well surveys, monitoring of the four on site wells, and required reports with recommendations regarding future water monitoring and proposed mitigation, are stipulated as mandatory conditions on the pit site plans and also indicated in the Summary of Technical Reports below. .

An Adaptive Management Plan (AMP) was also prepared and was included as a condition of the site plan. The AMP includes triggers to assess potential surface and ground water impacts, including potential impacts to adjacent domestic water wells.

Discharge of water off site is not permitted for this application. This restriction is the main reason that no negative impacts to the Beachburg communal wells, adjacent landowner wells, or water levels in the adjacent lakes are predicted. The author is confident that the monitoring program and AMP prepared during level 2 of the Water Report establishes adequate warning mechanisms to protect neighbours and the community and the surrounding environment from negative impacts to surface and ground water supplies or the WHPA. Based on the site plan conditions imposed, provincial drinking water standards can be achieved for this pit operation with limited risk or impact.

## 5.0 SUMMARY OF TECHNICAL REPORTS

The technical reports and information standards for a Class A licence application are contained in *Part 2 of the Aggregate Resources of Ontario*, pursuant to *Ontario Regulation 244/97*. For the "Lavallee Pit" application, the following Technical Reports were prepared:

- Maximum Predicted Water Table and Level 1 and Level 2 Hydrogeological Assessment, "Lavallee Pit", August, 2024, prepared by GRI Inc. (authors, George Gorrell and Jennifer Gorrell);
- Natural Environment level 1 and 2 Report, "Lavallee Pit", was prepared by Ecological Services Inc. October 18, 2023 (author, Rob Snetsinger);
- Cultural Heritage Resource, Archeological Assessment Stage 1 dated February 10, 2020 and Stage 2 dated March 12, 2024 for "Lavallee pit" were prepared by Past Recovery Archeological Services Inc. (Stephanie Cleland, M.A. licence P1201);
- Acoustical Assessment for Lavallee Pit dated October 1, 2024, prepared by Freefield Ltd.

### 5.1 Hydrogeological Level 1

The maximum predicted water table in the unconfined aquifer is the lowest water table level recorded during the pre application monitoring program (one year's monitoring). and potential for impacts were assessed through completion of a hydrogeological level 1 and level 2 study completed by GRI Inc. in August 2024. The maximum predicted water table established after a year's monitoring of the four on-site wells was determined to be 160.5 mASL. The lake level elevation following rehabilitation will be level off at 159.7 mASL.

Following a preliminary review of the Natural Environment Report (Ecological Services 2023) and a moderate review of the study area during a level 1 Hydrogeological assessment, it was determined that there was potential for impacts to natural and man-made features (e.g. water wells, aquifers, and surface water courses and water bodies).

Consequently, a Level 2 Hydrogeological Report, consisting of a field investigation was completed and a detailed analysis of the potential impacts was undertaken.

#### 5.1.2 Hydrogeological Level 2

Where a Level 1 investigation has determined the perceived or probable negative impacts on surface or ground water resources, the impacts must be assessed and mitigation measures developed.



The proposal will excavate the economical material above and below water table to a total depth of approximately 24 metres with extraction below water table ranging from 10 to 13.5 metres to final elevation of 124.0 mASL. Water table is established at 160.5 mASL. The planned extraction above water table would likely be by rubber tired or track excavator, while extraction below the water table would be using an excavator, dragline or cutter dredge. In general, an operation where the water table is not pumped or lowered by some other means usually does not result in significant hydraulic impacts (Green, Merritt and Leete 2005). The water level in the final lake created by extraction, will be +/- 159.7 mASL (the average of the water table measurements over the study period in the granular aquifer). Overall, the hydraulic impact of the proposed operation on the groundwater and surface water is predicted to be minimal (160.5 mASL to 159.7 mASL). This is primarily because the operation will not change the groundwater level in the granular aquifer or the current flow direction of surface and ground water.

There are seven recorded water wells in the provincial data base within 500 metres of the site. Three wells exist in the contact aquifer and four are 10 metres into the bedrock aquifer. There are 3 other residents of interest that may have a dug well or a sand point system that do not show up on the provincial data base. These maybe verified at a later date during door-to-door surveys. Locations and static water Levels are indicated in the Hydro G report.

Based on the review of available information, site visits, and satellite imagery, the following recommendations were developed based on the findings of the Level 2 report.

### **Conclusions and Recommendations for Hydrogeological Assessment and Conditions for the Site Plan**

The report concludes that the proposed operation will not result in an impact to the groundwater flow or hydrology in the area. The reason is that there will be no diversion, surface water drainage or lowering of the water table planned for the proposed operation.

There is a low to moderate risk of impact to water quality, which is considered manageable. The impact is avoidable through a diligent inspection program, adherence to regulatory requirements for fuel handling and storage, equipment storage, maintenance of at least 30 m separation between a contamination source and an open water source and best management practices.

Even though an impact is not predicted, monitoring of groundwater is recommended as a precautionary measure. The monitoring program will measure groundwater levels, changes that result from the operation and ensure that the operation does not result in a change or impact to local groundwater quality.



There are no Water Taking or Sewage works associated with this application. No impacts to water table or quality and quantity of ground or surface water are anticipated from the operation as proposed. However, it is recommended that the groundwater monitoring program be implemented for several years to support the impact assessment and provide data to protect both the licensee and surrounding groundwater and surface water interests and users. Piezometers TW1, TW2, TW3 and TW4 were positioned as sentry wells between the proposed operation, neighbouring groundwater users, lakes and wetlands and Beachburg communal wells. The monitoring and reporting program will be used to confirm the data analyses, provide continued groundwater assessment and monitor groundwater quality.

**NOTE:** *The following are recommendations from the Level 1 and Level 2 Hydrogeological Assessment have been modified into actions that provide for enforceable conditions on the site plan by changing the wording from "may" or "will" to "shall" and are noted in red font*

#### Conclusions

- Sensitive receivers are present within the study area. These consist of off-site wells, the Town of Beachburg municipal wells, springs and wetlands.
- The groundwater flow and hydrology in the area will not be affected by the proposed operation as there will be no diversion, surface water drainage or lowering of the water table in the proposed operation.
- There is a low to moderate risk of impact to water quality. The impact is avoidable through a diligent inspection program, adherence to regulatory requirements for fuel handling and storage, equipment storage, maintenance of at least 30 m separation between a contamination source and an open water source and best management practices.
- Monitoring of groundwater and surface water is recommended to strengthen the assessment, validate the predictions and provide baseline data that can be used to assess issues if they arise in the future.

#### Elevation of the Water Table

The maximum predicted water table elevation recorded between May 5, 2022, and July 14, 2023, was

160.44 mASL. The elevation of the water table should be set at 160.5 mASL.

#### Adaptive Management Plan

- Springs, wetlands, and nearby groundwater users are sensitive receivers. The adaptive management plan (AMP) consists of groundwater and surface water monitoring, assessment tools and contingency plans to protect the

sensitive receivers.

The AMP consists of data collection (monitoring), assessment and comparison to predicted outcomes, and mitigation if required. The components of the AMP may be revised and updated with additional data, subject to approval by the responsible authority.

Action may be required if the data review predicts an unacceptable impact to the groundwater or surface water. Action may also be required if an unpredicted impact is reported to the licensee, MECP or MNRF.

Action to address potential impacts by the operation should be addressed in a timely manner.

#### General Recommendations

- The groundwater and surface water monitoring program and assessment tools **shall** be reviewed regularly by a qualified professional and may be amended subject to approval by MNRF and/or MECP.

- 

#### Data Collection and Monitoring

##### 1. Baseline Data of Off-Site Groundwater Wells

A well survey **shall** be undertaken at properties within 500 m of the license boundary before operation begins.

The survey **shall** be repeated before the below water extraction lift begins if the period elapsed from the beginning of the operation has been 10 years or longer.

Participation in the survey by property owners is voluntary. The survey **shall** document the property setting, well location and construction, site use, and should confirm the water well record, if possible.

Water samples shall be collected from an untreated tap and analysed for general groundwater characteristics and pathogenic bacteria following industry standard sampling procedures. The QP may add parameters for analysis if indicated by the observed site conditions.

The water samples **shall** be analysed for at least:

<b>Parameter/ Analyte</b>	
Field Measurements	temperature, TDS, conductivity, dissolved oxygen, pH
General Characteristics	pH, Alkalinity, Hardness, TDS, Conductivity, Ca, Mg, Cl, NO <sub>2</sub> , NO <sub>3</sub> , NH <sub>3</sub> , Total Kjeldahl Nitrogen, SO <sub>4</sub> , Fe, Mn, Na, F, phenols
Bacteriological Analysis	E.coli, fecal coliforms, total coliforms, background plate count

## 2. Baseline Data of Springs

With permission from neighbouring property owners, map springs' location and baseline water condition. Record flow (either using a subjective scale or alternatively measure flow with velocity meter). Choose representative springs for monitoring.

## 3. Water Monitoring Plan

- Groundwater and surface water **shall** be monitored independently of whether the site is operational.
- The monitoring well elevations and the elevations of the staff gauges in the surface water program **shall** be surveyed to a geodetic elevation before the first annual review.
- Monitoring wells that are removed or irreparably damaged **shall** be replaced, and the elevation recalibrated if necessary. The monitoring schedule **shall** be consistent. When measurements are taken, observations and/or photos of the site activity and weather conditions on, and for two or three days before the monitoring should be recorded.
- The data **shall** be reviewed as they are collected with attention given to flag, address and explain anomalies. The observations and conclusions **shall** be included in the next review report.
- The data **shall** be analysed by a QP, with the data and analysis kept at the licensee's office.

- It is expected that the monitoring plan will evolve through the operational life of the site. Recommended changes to the monitoring program **shall** be implemented with approval by the regulatory authority. The current approved monitoring program **shall** be followed each year.

#### Surface Water Monitoring

Monitor selected springs in conjunction with other monitoring. Note presence or absence and subjective grade of flow, measure temperature.

Groundwater temperature measured at the site wells at the monitoring visits **shall** be used to assess wetland impacts.

#### Groundwater Monitoring

Groundwater monitoring **shall** be done in the wells specified in the current groundwater monitoring program. Initially, measurements **shall** be made at TW1, TW2, TW3 and TW4.

#### a. Above Water Operation

- In the above-water operation, water levels **shall** be recorded four times a year, or as amended;
  - once within a month before operations begin each year,
  - two times through the operating season;
    - spring (May or June), and
    - late summer (August or September).
  - within one month of active operations ending for the year.

Annually, a water sample **shall** be taken for laboratory analysis from each monitoring well. Field measurements will include pH, temperature, conductivity, dissolved oxygen, laboratory analysis for - PHCs, oil and grease (or as amended). The sampling should be consistent each year at either the spring or late summer visit.

After two years, recommendations can be made by a qualified professional for changes to the monitoring program, including the necessity to continue the monitoring through the above water operation.

#### b. Below Water Operation

- If it was paused, groundwater monitoring **shall** recommence at least one year before the below operation excavation begins
- Once a pond of +/- 0.3 ha has been created, a staff gauge **shall** be installed in the

open water, and water level measurements added to the monitoring program on the same day as the groundwater levels. As the open water area expands to 4 to 5 ha, or when another pond is created on the site, additional staff gauge(s) **shall** be installed to record the water level across the feature(s).

- Field measurements **shall** be taken for pH, temperature, conductivity, dissolved oxygen (or as amended). If, when the field measurements are made, the visual inspection indicates a sheen or film, a sample **shall** be taken and analysed for oil and grease and PHCs.
- After two years of below water excavation monitoring, recommendations may be made for changes to the monitoring program.

### **c. Revisions to Water Monitoring Program**

- Data shall be collected to monitor the effects of above water and below water excavation for at least two years, after which the water monitoring program may be revised on the recommendation of a qualified professional subject to approval by MNRF and/or MECP.
- The requirements for monitoring **shall** be reviewed regularly and adapted as the data and analysis indicate.

- 

### ***Assessment Tools and Trigger Mechanism***

Action may be required if the data review predicts an unacceptable impact to the groundwater or surface water will occur. Additionally, action may be required if an unpredicted impact is reported to the licensee, MECP or MNRF.

The tools incorporate the data from the monitoring plan to reduce uncertainty about the impact that the pit will have on natural systems on the site and surrounding area.

Following two years of monitoring each in the above water and below water operation stages, recommendations can be made on revisions to the monitoring program.

The revised monitoring program will be implemented subject to approval by the regulatory authority.

### **Contingency Plan**

Any change to private well water quality or quantity that is reasonably suspected to be an impact from the pit operation **shall** be addressed by the licensee.

## **1. Predicted Negative Impact on Sensitive Receiver**

If a negative impact on a sensitive receiver is predicted through data review, the conditions **shall** be evaluated by a QP and remediation **shall** be implemented to prevent the impact.

## **2. Receipt of Unexpected Well Problem**

The Licensee shall adopt the following Well Interference Complaint Procedure: Owners of water supply wells experiencing disruption or quality problems shall immediately notify the Licensee.

The Licensee, upon receipt of any water supply disruption complaint, shall retain the services of an independent Qualified Person ("QP", i.e., P. Geo. or P. Eng.) to investigate the cause of the interference complaint and within 15 days provide an opinion on cause and provide recommendations to remediate the issue.

If, through the investigation, it is determined that the pit operation has resulted in an adverse effect at the well in question, the Licensee shall, at their expense, either restore or replaced the affected water supply.

## **3. Replacement Well Construction and Quality**

Any work on a well by or on behalf of the licensee **shall** meet the Wells Regulation (O.Reg. 903 or current equivalent). Effort will be made to construct the well to as shallow a final depth as possible to obtain a suitable water quantity.

If natural water quality exceeding the ODWS is encountered because of the remediation, appropriate water treatment **shall** be considered.

## **4. Protection of Groundwater and Surface Water Quality**

Protection of the groundwater and surface water from contaminants **shall** be accomplished through management and operation of the materials and equipment to the industry standards and legislative requirements.

Re-fueling **shall** take place on an impervious surface, and materials storage **shall** be in an appropriate container, with secondary containment.

Regulatory requirements of the Technical Standards and Safety Act, 2000, Liquid Fuels Regulation O.Reg. 217/01 and the Liquid Fuels Handling Code, 2000 will be followed.

A minimum of 30 m **shall** be maintained between a contaminant source, and any surface water source including but not limited to, the pit pond, or any ditch system.

## 5. Emergency Spills Procedure

Appropriate clean-up material such as absorbent mats and granular absorbent material **shall** be kept on site when the pit is operating.

An emergency spills procedure **shall** be prepared for the site. If a spill occurs, action **shall** immediately be taken to contain and absorb the spilled material and prevent infiltration to groundwater or surface water. Any unexplained losses of fuel or other contaminants **shall** immediately be reported to appropriate management levels and/or agencies. Direction from the MECP will be followed under the responsibility of the licensee's designated staff.

Water surfaces, including puddles, ponds or other open water surfaces **shall** be inspected daily when the site is in operation for sheen, film or foam. An effort **shall** be made to identify the cause, and if needed, to take further action. The details and actions taken **shall** be logged.

### Additional Recommendations

Operational permits, such as a Permit to Take Water or a Certificate of Approval for Industrial Wastewater Treatment (part of the Environmental Compliance Approval) **shall** be obtained, if necessary.

### 5.2 Natural Environment Level 1

Jeffrey Lavallee is applying for a Class "A" pit licence to extract 20,000 tonnes annually from above and below the ground water table, pursuant to Provincial Standards, Part 1 and Part 2, adopted by **Ontario Regulation 244/97 under the Aggregate Resources Act** on Part of Lot 3 and 4, Concession 5, Township of Whitewater Region, County of Renfrew. Site access will be via Beachburg Road (i.e., Renfrew County Rd. 21). The proposed pit will be east of the Buchanan's Little Lakes Pit (Licence No. 14657) and south of the Township of Whitewater Region Pit (Licence No. 14655). The pit will not be within the jurisdiction of a Conservation Authority.

This class of application requires consideration and identification of any Significant Natural Heritage Features on or within 120 metres of the site being considered, and if present, a further assessment (Level 2 Report) to consider potential impacts and mitigation measures to minimise impacts to these features including species and their habitat. The land is currently zoned Extractive Industrial Reserve - Sand and Gravel (EMR-SG)– considered a holding zone for the 60.75 ha. parcel.

The Natural Heritage Technical Report (NETR) report followed the guidelines provided in the *Aggregate Resources Policy Manual* and Aggregate Resources of Ontario Standards, the most current version which came into effect on April 1, 2021 for a



Natural Environment Technical Report, which investigates whether significant natural heritage features are on or within 120 meters of a pit project, and whether the operation of the pit will have the potential to cause a negative impact to these features. This assessment also follows the requirements of the Provincial Policy Statement (PPS) and the Official Plan (OP) of Renfrew County. Natural heritage features of the site are described in this report along with the potential for impacts to these features.

The focus of an NETR is to determine if significant natural heritage features are present. This effort is primarily based on manuals provided by the Ministry of Natural Resources and Forestry (MNRF) and the Ministry of Environment Conservation and Parks (MECP). It is also based on the environmental impact assessment requirements of the Provincial Policy Statement (PPS), the Renfrew Official Plan (OP).

If significant natural heritage features are found, and it is determined that their features or functions are at risk of a negative impact, the NETR process can (a) determine that the negative impact is too great and not support the pit application, or (b) consider if mitigation and/or compensation can ameliorate the negative impact to allow consistency with provincial and municipal natural environment policy. It should be noted that all sites can have some ecological value and all pit applications, no matter where they are situated, will result in some ecological displacement. However, the mechanisms of the NETR process are intended to protect the significant natural heritage features that are outlined in the PPS and in Official Plans.

A Natural Environment level 1 and level 2 report was evaluated and prepared by Rob Snetsinger of Ecological Services Inc. This report was based on current protocols and a screening list for threatened and endangered species under the Endangered Species Act, for review by staff biologists at the Ministry Environment, Conservation and Parks. The report further considers any Significant Natural Heritage Features on or within 120 metres of the site protected under the Planning Act supported by policies and guidelines directed by the Ministry of Natural Resources and Forestry. The list of these features includes the following:

- *significant wetlands (including significant coastal wetlands);*
- significant habitat of endangered and threatened species;
- significant Areas of Natural and Scientific Interest (ANSIs);
- *significant woodlands (south and east of the Canadian Shield)*
- *significant valleylands (south and east of the Canadian Shield)*
- significant wildlife habitat; and
- fish habitat.

Within the application boundary, it was determined during the level 1 review that some endangered bird and bat species may use the site for foraging and there are natural

heritage features within 120 metres of the site, consisting of significant woodlands, fish habitat and wildlife habitat. For these reasons a level two assessment was carried out and the following recommendations were formulated to avoid or mitigate impacts to ensure low to moderate risk to these features, species and habitat.

### 5.2.1 Natural Environment Level 2

A level 2 assessment of the natural environment was completed by Ecological Services to consider potential impacts to natural environment features and endangered species by the pit operation and recommend adequate avoidance and mitigation measures. The following is a summary and list of recommendations from the Level 2 assessment:

#### **Summary Findings**

***Pit Footprint:** Foraging overhead and potential future nest use by Species at Risk and Special Concern species.*

***Adjacent lands (i.e., 120 m):** Significant Woodland, Fish Habitat, and Significant wildlife habitat.*

#### **Summary Conclusion:**

*It is our opinion that the following mitigation recommendations can ameliorate any negative impact that may be caused by the proposed pit, and that the operating pit will conform with the Renfrew County Official Plan.*

**List or Recommendations: The use of the term recommended has been elevated as enforceable conditions on the site to mean 'THE LICENSEE SHALL'.**

***SAR Recommendation 1:** As a general precaution against potential SAR tree use, it is always recommended that any clearing of trees be restricted to outside the spring/summer roost season that extends from April 1 to September 31.*

***SAR Recommendation 2:** It is recommended that an intervening 650 m long turtle fence (see MNR 2013a for possible plans) be built along the western edge of the pit, starting at Beachburg Rd., to prevent turtles from accessing the pit property from the Little Lakes wetland, as the pit area may provide desirable nesting features once it is operational.*

***SAR Recommendation 3:** It is recommended that when pit operations are to move north of the currently occupied soybean fields, they be preceded by Whip-poor-will surveys in the year prior to that move. If Whip-poor-wills are found to be nesting here at that time, then it is recommended that the pit activity be registered with the MECP.*

***Significant Wildlife Habitat Recommendation 1:*** *As a standard precaution for all developments that involve migratory birds, we recommend that initial site clearing take place outside of the migratory birds breeding season (April 15 to August 15 for Environment Canada Zone C3) to avoid contravening the Migratory Birds Act.*

***SWH Recommendation 2:*** *It is recommended that when pit operations are to move north of the currently occupied soybean fields, they be preceded by Common Nighthawk surveys in the year prior to that move. If Common Nighthawk are found to be nesting here at that time, then it is recommended that the pit activity avoid those nest areas with a 100-metre separation buffer around the nest site, until after the nesting season (August 15).*

The Natural Environment Report prepared to satisfy the **ARA Provincial Standards, August 2020**, can also be submitted to meet the Environmental Impact Statement requirements for the rezoning application and conformity with the County of Renfrew Official Plan (OP).

### 5.3 Cultural Heritage Resource Report - Stage 1

There was a Stage 1 Cultural Heritage Assessment prepared by Past Recoveries Archeological Services Inc. in Feb. 10, 2020 pursuant to the provincial cultural heritage standards (*Part 2 of the Technical Report Standards, Aggregate Resources of Ontario*, pursuant to *Ontario Regulation 244/97*) for a pit application for the 60.75-hectare site. The following are recommendations prepared at the end of the Stage 1 review:

#### ***Stage 1 Recommendations:***

*The results of the Stage 1 assessment form the basis for the following recommendations:*

- 1) *All portions of the study area determined to have archaeological potential (see Map 13) should be subject to a Stage 2 archaeological assessment prior to any proposed development that would involve ground disturbance.*
- 2) *Any future Stage 2 archaeological assessment should be undertaken by a licensed consultant archaeologist, in compliance with Standards and Guidelines for Consultant Archaeologists (MTCS 2011), and should involve a physical survey of the property, with all areas identified as retaining archaeological potential subjected to assessment. Any portions of the study area consisting of actively cultivated lands should be ploughed, allowed to weather, and assessed by means of a pedestrian survey conducted at 5 metre intervals. Any portions of the study area where ploughing is no longer viable should be assessed by means of a shovel test pit survey conducted at 5 metre intervals.*

*The reader is also referred to Section 4.0 below to ensure compliance with relevant provincial legislation as it may relate to this project.*

#### **4.0 ADVICE ON COMPLIANCE WITH PROVINCIAL LEGISLATION**

In order to ensure compliance with the *Ontario Heritage Act*, the reader is advised of the following:

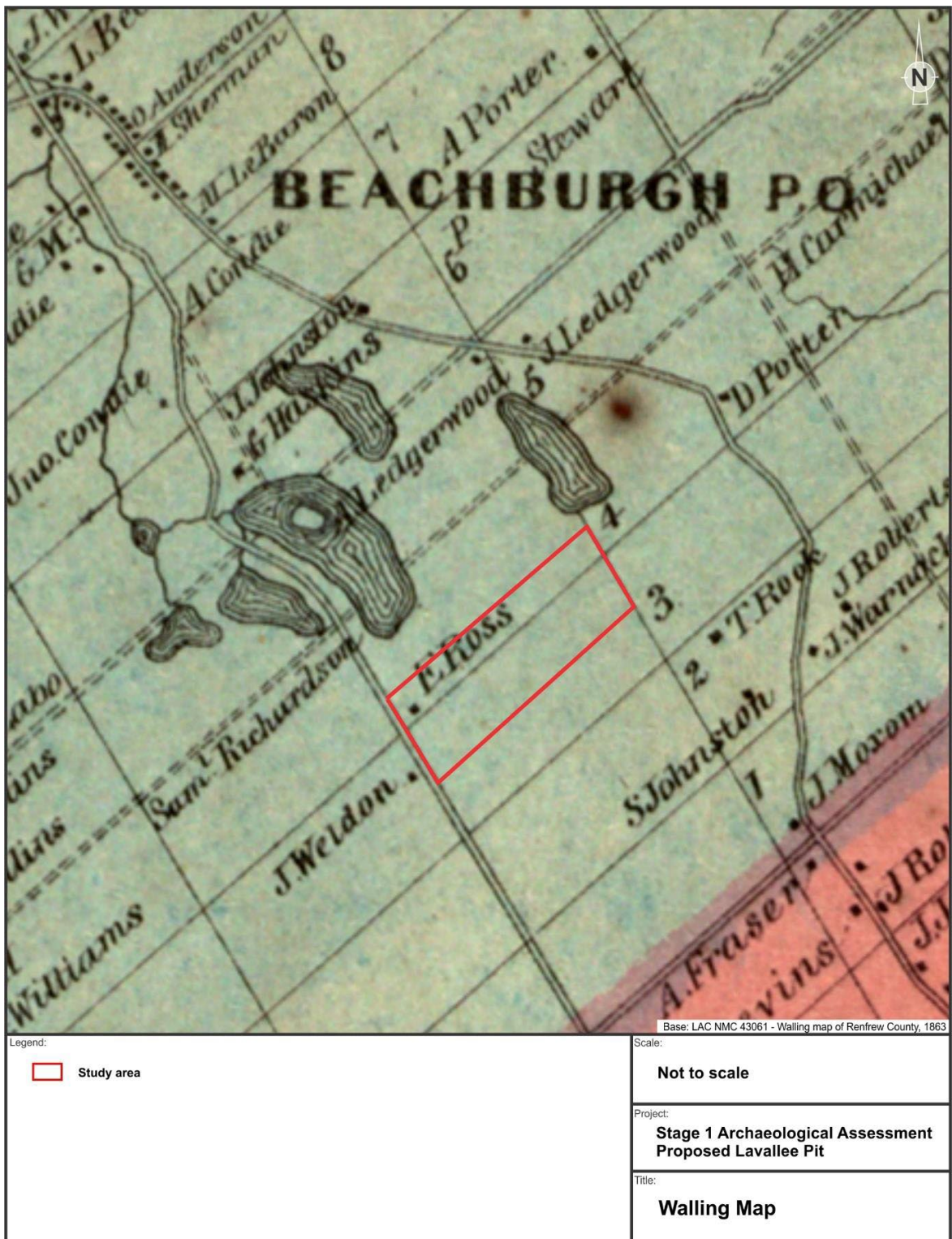
- 1) This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism, Culture and Sport, a letter will be issued by the Ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.
- 2) It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
- 3) Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.
- 4) The *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.
- 5) Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the *Ontario Heritage Act* and may

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Beachburg Road

not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.



Figure 9.0 Archaeological Map of Renfrew County



**Map 7. Segment of Walling's 1863 map of Renfrew County showing the study area.**  
The Ross family log cabin is shown in the southeast corner of Lot 4 along the road frontage.

### 5.3.1 Cultural Heritage Resource Report - Stage 2

The purpose of the Stage 2 investigation was to determine whether or not there were archaeological resources on the subject property, and if so to recommend an appropriate Stage 3 assessment strategy.

The archaeological fieldwork for the Stage 2 property survey was completed over the course of ten days between May 9<sup>th</sup> and June 24<sup>th</sup>, 2022. The crew consisted of a licensed field director and up to six experienced field technicians. All fieldwork was conducted according to criteria outlined in *Standards and Guidelines for Consultant Archaeologist*. In total, approximately 50.3 ha (77.5% of the property) was tested by means of shovel test pit survey. Approximately 12 ha of this area (18.4% of the property) had not been impacted by logging activities and was subject to shovel pit testing at 5 m intervals. The remaining 38.4 ha (59.1% of the property) of the forested portion of the property had been clear cut resulting in an extensive debris field, with active machinery, that required the altering of excavation methodology to judgmental intervals (Images 4 and 5). A further 12.2 ha (18.8% of the property) were assessed by pedestrian survey. Areas excluded were those with steep slope (>20 degrees; 0.013 ha or 0.03% of the property), and where there was significant deep disturbance, consisting of existing roadways and an existing logging depot in the centre of the property (2.4 ha or 3.69% of the property). For further detail on the method of fieldwork and excavation, please refer to the Archeological Assessment Stage 2 Report by Part Recoveries dated May/June 2022.

Findspot 1 (FS001) was located along the northern edge of a ploughed field. A total of 121 surface finds were recovered from a 0.16 ha area distributed approximately 35 m north-south by 45 m east-west (Map 10; Table 4; Images 19 to 22). The highest density of artifacts was concentrated around an old tree on top of a small rise. The majority of the artifacts recovered belonged to the *Foodways* class of artifacts (69.42%), followed by *Architectural* (14.05%), *Medical/Hygiene* (4.96%), *Faunal/Floral* (4.13%), *Activities* (2.48%), *Personal* (1.65%), *General Function* (1.65%), and *Unidentifiable* (1.65%) (Table 5).

Findspot 2 (FS002) was located in the larger of the two ploughed fields close to the southwest corner of the property. Soil conditions and visibility were optimal; the topography was flat and relatively uniform. A total of 104 surface finds were recovered from a 0.16 ha area distributed approximately 35 m north-south by 45 m east-west.



## 6.5 Stage 2 Recommendations

This report forms the basis for the following recommendations:

- 1) *The Stage 2 archaeological assessment of the subject property resulted in the identification of two archaeological sites, BkGf-8 and BkGf-9, though the cultural heritage value or interest of both has been sufficiently documented with the Stage 2 research conducted to date and for this reason there are no further archaeological concerns for the study area as illustrated on Map 2.*
- 2) *In the event that future planning results in the identification of additional areas of impact beyond the limits of the present study area, further archaeological assessment may be required. It should be noted that impacts requiring consideration include all aspects of proposed development causing soil disturbances, soil impacts, or other alterations, including temporary property needs (i.e. access roads, staging/lay down areas, associated works etc.).*
- 3) *Any future archaeological assessment should be undertaken by a licensed consultant archaeologist, in compliance the Standards and Guidelines for Consultant*

The following conditions have been included on the site plan resulting from engagement with the Algonquins of Ontario on similar applications in their traditional territory:

- 1) ***Since the potential always exists to miss important information in archaeological surveys, if any artifacts of Indigenous interest or human remains are encountered during the development of the subject property, please contact: Algonquins of Ontario Consultation Office, 31 Riverside Drive, Suite 101, Pembroke, ON, K8A 8R6; Tel: 613-735-3759; Fax: 613-735-6307; Email: [algonquins@tanakiwin.com](mailto:algonquins@tanakiwin.com).***

Figure 10.0 Satellite Image of Proposed Lavallee Pit



Map 8. Recent (2020) orthographic imagery of the study area showing the results of the Stage 2 assessment.

## 5.4 Acoustical (Noise) Report

The acoustical standards under the *Aggregate Resources Act, Ontario Regulation 244/97*, are identified in *Part 2 of the Aggregate Resources of Ontario, Technical Reports and Information Standards*, section 2.6 Noise Assessment Report. The standard stipulates that for a Class "A", Pit Below Water, where extraction or processing is intended to occur within 150 metres of a sensitive receptor, a noise study is required. An Acoustical Assessment was prepared by Freefield Ltd. on October 1, 2024.

The acoustic assessment has been carried out according to the applicable Ministry of Environment, Conservation and Park, MECP, Noise Assessment Guidelines, including NPC-300, published August 2013.

The assessment considers the impacts on nearby noise sensitive lands, including existing residences and land zoned for potential noise sensitive use, of noise generated by all on-site equipment operations, including extraction by loaders, excavators or a dredge, aggregate processing by a portable processing plant, consisting of crushing, screening and washing units and an associated diesel generator, loading and

stockpiling operations by loaders or excavators and onsite truck movements used for delivery and shipping of product. Noise impacts have been predicted and compared to the MECP sound level limits as set out in NPC-300. Where applicable, noise mitigation measures such as barriers and limits to operations have been designed to ensure all operations comply with the applicable sound level limits.

Based on the location of adjacent sensitive land uses, including residential dwellings the pit site was modelled to assess the mitigation and avoidance measures that should be considered for this operation based on the provincial noise guidelines.

The following is a list of recommended noise mitigation measures which have been included on the ARA Licence site plan as enforceable 'conditions':

## 7.0 Mitigation Measures (Site Plan Recommendations)

Noise mitigation measures for the pit operations are detailed below. It is recommended that these measures be included on the official ARA Site Plan for the pit.

The predicted noise impacts in Tables A2.8.1 to A2.8.4 are based on the implementation of the following mitigation measures:

### 7.1 Noise Barriers and Berms:

- 7.1.1 Noise barriers and berms are to be provided as per Table 7 and Figure 11, 12 and 13.
- 7.1.2 Noise barriers and berms are to be solid, have no gaps, and are to have a surface density of not less than 20 kg/m<sup>2</sup>. Examples of suitable barriers or berms are as follow:
  - 7.1.2.1 Lift face or existing terrain;
  - 7.1.2.2 Earth, gravel or aggregate berms or stockpiles;
  - 7.1.2.3 Concrete or brick walls;
  - 7.1.2.4 Commercial noise barriers;
  - 7.1.2.5 Shipping containers or buildings,
  - 7.1.2.6 A portable barrier such as a truck trailer equipped with movable flaps to block the space between the ground and the bottom of the trailer and increase height if required.

### 7.2 Portable Processing Plant

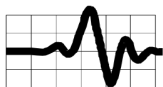
- 7.2.1 The operation of the portable processing plant (plant) and associated diesel generator may take place only during the daytime period (07:00 to 19:00) and shall comply with the following:
  - 7.2.1.1 Noise barriers are to be provided as per Table 7 and Figure 12 and 13.
  - 7.2.1.2 The plant is to be located on the pit floor at a maximum elevation of 162 mASL.
  - 7.2.1.3 The maximum outdoor sound power of the generator used to provide power to the plant must not exceed the levels given in Table 2. To achieve these ratings the generator is to be located inside an enclosure / trailer and fitted with an exhaust silencer that meets the minimum insertion loss requirements listed in Table 8. The silencer is to be located inside the enclosure or as close as possible to the location where the exhaust exits the enclosure with the duct material between the silencer and the generator constructed of 16-gauge weather resistant metal. The silencers shall have a high transmission loss casing.

### 7.3 Cutter Suction Dredge

- 7.3.1 The operation of the cutter suction dredge (dredge) may take place only during the daytime period (07:00 to 19:00), anywhere in the extraction area.

### 7.4 Loaders and Excavators

- 7.4.1 The operation of the loaders and excavators may take place only during the daytime period (07:00 to 19:00), anywhere in the extraction area, above or below grade, and shall comply with the following:
  - 7.4.1.1 When operating in Phase 1 and 2:



- i. A maximum of four loaders OR four excavators may be in operation concurrently with other pit operations.

**7.4.1.2 When operating in Phase 3:**

- i. A maximum of two loaders OR two excavators may be in operation concurrently with other pit operations.

## **7.5 Aggregate Trucks**

7.5.1 The delivery of raw material from the extraction face to the processing area using aggregate trucks may take place only during the daytime period (07:00 to 19:00) and shall comply with the following:

7.5.1.1 When operating on-site, aggregate trucks shall not exceed 20 km/h and shall not use compression braking (Jake Brakes).

7.5.1.2 A maximum of 6 loads of raw material may be delivered from the extraction face to the processing area per hour.

## **7.6 Highway Trucks**

7.6.1 The loading and shipping of product using highway trucks may take place only during the daytime period (07:00 to 19:00) and shall comply with the following:

7.6.1.1 When operating on-site, highway trucks shall not exceed 20 km/h and shall not use compression braking (Jake Brakes).

7.6.1.2 When operating during the daytime period (07:00 – 19:00): A maximum of 12 loads of processed aggregate may be shipped off-site by highway truck per hour.

## **7.7 Portable construction equipment**

7.7.1 Portable construction equipment used for site preparation (e.g. land clearing and construction of berms) and rehabilitation shall comply with MECP Publication NPC-115, Construction Equipment, August 1978. (This publication gives noise standards to be met by construction equipment in Ontario.) Site preparation and rehabilitation activities shall take place only during daytime hours (07:00 – 19:00).

## **7.8 New Process**

7.8.1 If a new process is introduced to the site, then this process shall be assessed by a qualified acoustical consultant prior to commissioning. Noise mitigation measures shall be reviewed, and altered, if necessary, to ensure that MECP sound level limits are met at all points of reception.

**NOTE: Refer to Appendix F "Acoustical Report" for Figures and Tables corresponding to the above Mitigation Measures (Site Plan Revisions)**

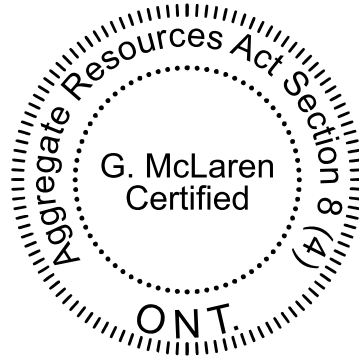
## 6.0 CONCLUSIONS

The material is considered to be a Primary Aggregate in the Ontario Geological Survey, Aggregate Assessment for Renfrew County, and confirmed by the geological assessment contained in Hydro Geo. Assessment by GRI, 2023, and will be used for construction, industrial, landscape and manufacturing projects to supply the local and regional markets. The lands will be returned to a modified natural state. The extraction of aggregate material is consistent with the Provincial Policy Statement, 2024 and complies with the local Official Plan for the County of Renfrew. The subject property is partially zoned in an industrial extractive reserve – sand and gravel, holding zone which is intended for extractive industrial land use.

We would therefore conclude that based on technical report evaluation and mitigation measures proposed, the risk of impact to environmental and social values will be minimal within the 120 metre influence area of the site and beyond. Adjacent cumulative impacts of this operation are minimal and the site is in compliance with the intended local planning decisions. The utilization of this site is considered to be wise management of a natural resource, which is designated for such and therefore supports the issuance of a Pit licence for a Class A, below water site extraction site.

## 7.0 REPORT DATED AND SUBMITTED

This Summary Statement was prepared for submission to the Ministry of Natural Resources and Forestry by:



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Gary McLaren  
President  
Phone: [613-272-6795](tel:613-272-6795)  
Mobile: [613-893-6227](tel:613-893-6227)





## **8.0 QUALIFICATIONS AND EXPERIENCE OF AUTHOR OF THE SUMMARY REPORT**

### **GARY D. MCLAREN**

#### **EDUCATION**

Secondary School Graduation Diploma, 1977  
Napane District Secondary School

#### **OTHER SPECIAL QUALIFICATIONS**

Ontario Police College Law Enforcement Certificate Course – Aylmer (MNR-Level 1)  
Pits and Quarries Inspection Certificate (Ministry of the Environment)  
Pits and Quarries Enforcement (Ministry of Natural Resources)  
Aggregates/Petroleum Resources Enforcement and Compliance (MNR)  
Lands and Waters Certificate  
Restricted Radio Operator's Certificate  
Transportation of Dangerous Goods Basic Emergency Management Training Course  
Temperate Wetlands Restoration Training Course  
Small Non-Pleasure Vessel Basic Safety  
CCG Pleasure Craft Operators Certificate  
Occupational Health and Safety Certification Course (Level one, basic and level two, site specific)

#### **EMPLOYMENT HISTORY**

##### **President of Milestone Aggregate Consulting Services Inc. (2015 to present)**

Over the past 8 years my company has provided the following services to the aggregate industry in Eastern and South-Central Ontario:

- Provided compliance monitoring and reporting (completion and submission of annual Compliance Reports for licensees under ARA), and prepared comprehensive compliance strategies for licensees based on site audits;
- Project Management services for complex pit licence applications under the Aggregate Resources Act (ARA);
- Facilitated licence and site plan amendment approvals under the ARA, the Planning Act, the Environmental Registry, and the Water Resources Act, and various other related legislation, policies and guidelines intended to develop mining and sand and gravel operations and protect significant features of a provincial interest;
- Provide credible planning advice to support the protection of Aggregate Resource areas pursuant to the Provincial Policy Statement (PPS). Preparation of 25 Mineral Resource Impact Assessment Reports to support planning applications (severances, minor variances, building permits) near active pit and quarry operations and designated aggregate resource areas across eastern Ontario (City of Ottawa, Counties of Lanark, Renfrew and Leeds and Greville);

- Act as an approvals liaison representative for the industry when seeking licence, permit, approvals and amendments from local and upper tier municipalities, provincial government agencies, non-government organizations, stakeholders and the general public;
- Contracted to represent MNRF Aggregate Program Inspectors with a job specification special case presentation to Provincial Government and union task teams;
- Contracted to develop and facilitate an MNRF Issues Management scoping list for Ontario Stone, Sand and Gravel Association (OSSGA);
- Commented on Government initiatives (Blue Print for Change – Aggregate Resources and Mining Modernization Act);
- Member of working Group for OSSGA East Region Committee reviewing several draft documents for submission to provincial initiatives (e.g. Prov. Gov. Red tape Review, MNRF Scoping Issues Report, preparation for Meeting with MNRF regarding proposed regulations under the Aggregate Resources Act;

**Senior Program Adviser, Aggregates (MNR) – September 2014 to December 2014**

- Lead an Operations Division working group to scope potential delivery mechanisms resulting from the 2013 Aggregate Resources Act Review;
- Develop a performance matrix for provincial aggregate inspectors; and
- Develop and deliver training for a risk-based compliance program for supervisors and inspectors.

**Aggregate Resources Coordinator (MNR) – January 2008 to September 2013**

- Provide advice and leadership for all matters related to the Ministry's Aggregate Resources program to operations division;
- Provide leadership and direction to regional directors and assistant deputy minister in the resolution of highly complex issues;
- Collaborate with others in the preparation of Ministry (and Inter-Ministry) policy initiatives related to aggregate resources and the Aggregate Resources Act and regulations;
- Provide expert advice and assistance on all matters related to the Aggregate Resources program;
- Act as expert witness at provincial tribunals (Ontario Municipal Board hearings and Mining Lands Commissioner);
- Contribute to and deliver training packages to Ministry staff as required;
- Lead and participates on planning policy teams identifying and developing provincial policy initiatives and issues relating to Aggregate Resources;
- Consult and liaise on a regular basis with other ministries, industry, non-government organizations and stakeholders;
- Promote cooperative partnerships and develop and implement strategies to achieve aggregate resources program goals and objectives; and
- Develop an approvals template for Inspectors following the 2011 change in Delegation of Authority under the Aggregate Resources Act.

**Mineral Resource Administrator and Pits and Quarries Inspector (MNR) – April 1977 to December 2008.min**

- Implement, administer and enforce the Aggregate Resources Act, regulations and related Ministry policies and guidelines;
- Provide advice on Aggregate Resource deposit areas, license properties and other planning matters to Ministry front line field staff responsible for plan input and review;
- Coordinate the implementation of abandoned pit and quarry rehabilitation projects for the area office;
- Monitor and inspect on a regular basis aggregate extraction sites under licence or permit to assess compliance with the Aggregate Resources Act, regulations, provincial operational standards, and conditions of the license and the site plan;
- Investigate complaints and provide direction on remedial action and recommend enforcement action where warranted;
- Coordinate pit and quarry license and permit applications as well as site plan amendment approvals in accordance with the Aggregate Resources Act policy and procedures manual; and
- Consider other related federal, provincial and municipal legislation as part of compliance monitoring and approval processes using current inspection techniques. (e.g. Environmental Protection Act, Water Resources Act, Environmental Bill of Rights, Occupational Health and Safety regulations for Mining and Mining Plants, Planning Act, Municipal Act, etc.).

**AFFILIATIONS, ACCREDITATIONS AND ACCOMPLISHMENTS:**

- Associate Member of the Ontario Stone, Sand and Gravel Association (OSSGA) Active since 2017
- Member of the OSSGA Eastern Region Committee and working Group;
- Received Approval from MNR to prepare site plans under the Aggregate Resources Act (Mar. 2017);
- Member of Aggregate Resources Program Policy and Procedures Manual 2006;
- Member of Aggregate Resources Program Policy, Procedures Manual Apr. 1986;
- Co-chair of Non-Renewable Resources task team for the 2010 Provincial Policy Statement review;
- Co-chair of the Southern Region Aggregate Inspector Task Team and the Lands, Aggregates and Waters NE Regional Forum and lead Inspector task teams with development of annual work plans, performance measures and annual reports;
- MNR Member of the City of Ottawa Steering Committee, for the 1993-95 Aggregate Resource Mapping and O.P. Policy Review;
- Lead the Planning exercise for the development and approval of the Mississippi River Water Management Plan;
- Prepared and monitored Southern and Northeast region Aggregate Program work plans, performance measures and annual reports;
- As a member of one of MNR's Southern Region Operational Forums (Safety and Health forum) MNR's southern region was presented with the Canada Award for Excellence for achievements in quality, customer service and a healthy workplace;
- Member of inter-ministerial committee (federal provincial and local government) responsible for the development of the Cornwall Sediment Strategy to protect the Cornwall water front;
- Member of the Health and Safety committee for the Nepean Relay for Life (Cancer Fundraiser);
- Chair of Joint health and Safety Committee Kemptville MNR office and member of JHSC MNR Peterborough Robinson Place;
- Acting District Planner, member for Inter-ministerial committee reviewing comprehensive municipal official plans;
- Peer reviewer, MNR member for eastern Ontario Source Water Protection Plans; and

- Tracking and tagging moose calves in Algonquin Park

## **PUBLICATIONS AND PRESENTATIONS**

- Working Group member for the Risk Based Compliance Handbook for Aggregate Inspectors;
- Co-authored the Aggregate Resources Program Administration Manual 2005 and the previous ARA Administration Manual 1986;
- Co-authored the Kemptville District Health and Safety Plan;
- Strategic Operations Report for Aggregate Resources Kemptville District – 1998;
- Co-authored with Stacy Robertson, Background Report for Mineral Extraction Policy Areas in Drummond Township – 1991;
- Co-authored with Amarjit Sandhu and Stacey Robertson, Aggregate Resources Annual Review, 1988 and 1990, MNR Carleton Place District;
- Guest lecturer for the Ministry of Natural Resources, Land and Waters Certificate Course on the Aggregate Resources Act, 1989;
- Guest lecturer on the Aggregate Resources Act, 1989 for the Ministry of Transportation's Municipal Update Course;
- Co-authored with S.M. Thatcher and M. McMaster, Hazard Mine Inventory, Tweed and Napanee Districts, 1986; and
- Co-authored with S.M. Thatcher and M. McMaster, Abandoned Pits and Quarries Inventory Reports for Tweed District (Middle Hastings County) 1983 and Abandoned Pits and Quarries Inventory Report for Napanee District (Prince Edward County) 1985;

## **PRIOR ONTARIO MUNICIPAL BOARD (OMB) and SUBSEQUENT ONTARIO LAND TRIBUNAL (OLT) EXPERIENCE**

I have been qualified by the Board to provide opinion evidence for matters under the Aggregate Resources Act and the Provincial Policy Statement including the following examples:

- 2024 provided technical support addressing technical Reports and conditions addressing social impacts to OLT member and to the OLT Mediation consultant assigned to the Gerry Crepin Cartage Ltd. Pit Licence Application referral;
- 2023 prepared witness statement for OLT hearing for zoning referral to Crain Construction Pit Application under the Planning Act;
- 1996 – Hostile licence transfer under the ARA (Secaspina, Polowin, Wilson), West Carleton Twp.;
- 1995 - Environmental, Social and Economic impacts relating to a Quarry Licence application referral under ARA in Montague Township, Lanark County;
- 1992 - Dust, noise, ground vibration and air overpressure impacts, truck traffic and other environmental, social, economic impacts in an MNR appeal to a severance application under the Planning Act Goulbourn Township (Leubert);
- 1991 - Environmental, social, and economic criteria for identifying and protecting bedrock reserve areas in a municipal official plan, Aggregate Producers Association of Ontario and Dechan Construction appeal to Beckwith Township Official Plan;
- 1990 - Dust, noise, truck traffic, ground vibration and air overpressure impacts of an operating quarry on lands adjacent to proposed residential development – MNR appeal of severance application under P.A. in Pakenham Township, Lanark county (Kennedy);
- 1989 - Acting as Agent for the appellant in a land consent appeal (severance application). Prepared all background evidence, e.g. photographs, aerial photos, O.M.B. maps, pertinent O.P. policies, Provincial legislation, zoning by-laws, influence areas, etc.; and

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- 1982 - Haul route impacts on nearby residents during referral of a pit licence application under the Pits and Quarries Control Act (PQCA) in Hungerford Township, Hastings county.

### **PRIOR COURT EXPERIENCE**

On ten occasions, I have provided opinion evidence as an investigating officer and also as a witness for charges in cases of non-compliance with the Aggregate Resources Act and the Pits and Quarries Control Act. Evidence included the auditing of production figures, site plan interpretation, calculation of disturbed areas, digital and paper photographs, sketches, etc.

I have prepared Crown Briefs, Information's, Subpoenas, Supplemental Information documents, Guilty Plea Synopsis for convictions with recommended deterrents. I have prepared recommendations for fines and court orders for restoration and rehabilitation to bring sites back into conformity with regulations, site plans and conditions of the licence.

Prepared by:



**Gary McLaren**

President

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Mobile: [613-893-6227](tel:613-893-6227)

email: [gmclaren@milestoneaggregate.com](mailto:gmclaren@milestoneaggregate.com)

## 9.0 REFERENCES

*County of Renfrew Official Plan, and Schedule "A" and Schedule "B" Map for Township of Whitewater Region*

*Township of Whitewater Region, Schedule 'A' Zoning Map West Half of Westmeath*

*Department of Agriculture, 1967 - Canada Land Inventory Soil Capability for Agriculture, Map 31 G — Map prepared by Energy Mines and Resources.*

*Canada Land Inventory Map, 1966 Pembroke Sheet*

*Ontario Geological Survey, Sand & Gravel Assessment of Renfrew County, P2688 Pembroke Sheet*

*Maximum Predicted Water Table and Level 1 and Level 2 Water Studies, "Lavallee Pit", Geo. Twp. of Westmeath, Part of Lot 3 and 4 Concession V prepared by: GRI Inc., August 2024*

*Stage 1 and 2 Archeological Assessment for "Lavallee Pit" Geo Twp. Westmeath, Part of Lot 3 and 4 Concession V prepared by Past Recovery, Archeological Services Inc., February 10, 2020.*

*Site Plan for the "Lavallee Pit" Part of Lot 3 and 4 Concession V, prepared by Egis, November, 2024*

*Acoustical Assessment for the "Lavallee Pit", prepared by Freefield Ltd., October 1, 2024*

*Ministry of Municipal Affairs, 2024 – Provincial Policy Statement*

*Ministry of Natural Resources and Forestry, 2006 - Aggregate Resources Program Policies and Procedures*

*Aggregate Resources of Ontario Standards adopted by Ontario Regulation 244/97 under the Aggregate Resources Act, 2022.*

## **10.0 ACRONYMS**

ANSI – Area of Natural and Scientific Interest

ARA – Aggregate Resources Act

ARPPM - Aggregate Resources Program Policy and Procedure (MNRF)

MECP – Ministry of Environment, Conservation and Parks

MNRF - Ministry of Natural Resources and Forestry

OGS – Ontario Geological Survey

OP – Official Plan (County of Renfrew)

OLT – Ontario Land Tribunal (which has replaced the OMB, Ontario Municipal Board)

PPS – Provincial Policy Statement 2024

PSW – Provincial Significant Wetland

Regs. – Ontario Regulation 244/97 under the Aggregate resources Act

ZB –Zoning By-Law (Township of Whitewater Region)



## **11.0 APPENDICES**

### **APPENDIX A – Licence Application**

Licence Application

### **APPENDIX B - Site Plans**

Operations Plan

Existing Features

Rehab Plan

Cross Section

Notes and Recommendations

### **APPENDIX C – Maximum Predicted Water Table and Level 1 & 2 Water Studies**

Maximum Predicted Water Table and Level 1 and Level 2 Water Studies

### **APPENDIX D – Natural Environment Report Level 1 & 2**

Natural Environment Technical Report

### **APPENDIX E - Cultural Heritage Report Stage 1 & 2**

Stage 1 Archeological Report

Stage 2 Archeological Report

MCM Clearance Letter

Criteria for Evaluating Archeological Potential

Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes

### **APPENDIX F – Acoustical Assessment**

Acoustical Assessment