

PLANNING JUSTIFICATION REPORT AND ARA SUMMARY STATEMENT

Law Crushed Stone Quarry Extension
Township of Wainfleet

Date:

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Prepared for:

Waterford Sand and Gravel

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EXECUTIVE SUMMARY

MacNaughton Hermsen Britton Clarkson Planning Limited (“MHBC Planning”) has been retained by Waterford Sand and Gravel Ltd. (“Waterford”) to provide land use planning services for the proposed extension to the Law Crushed Stone Quarry (“existing Law Quarry”). The Law Quarry Extension is proposed to occur on several parcels of land located immediately east to the existing quarry. The property is legally described as Part of Lots 6 & 7, Concession 2 and Part of Road Allowance Between Lots 5 & 6, Concession 2, Township of Wainfleet, Region of Niagara. The area proposed to be licenced includes Bierderman Road and several other private properties. In addition to an Aggregate Resources Act Licence Application, Planning Act approvals are also required and include Amendments to Region of Niagara Official Plan and Township of Wainfleet Official Plan as well as a Zoning By-Law Amendment to the Township of Wainfleet Zoning By-Law.

The purpose of the proposed Law Quarry Extension is to replace the depleting reserves at the existing Law Crushed Stone Quarry located directly east of the proposed extension. The existing Law Crushed Stone Quarry is about 144ha in size and is nearing the last phase of extraction. Portions of the existing quarry have already undergone progressive rehabilitation, with additional progressive rehabilitation occurring on an on-going basis as the extraction limits are reached. The current Law Quarry supplies a source of high-quality aggregate materials which are predominately used to supply local construction projects as well as the on-site asphalt plant. The proposed Quarry Extension represents the next development phase for the existing quarry, which has undergone two previous westward extension. The proposed quarry extension will continue to make use of the existing and established haul route and entrances/exits which have been in operation for many decades. As the objective of the Quarry Extension is to replace reserves, there will be no increase or change to the existing operation in terms of annual tonnage or production rates. The Quarry Extension will ensure that there is a continued supply of high-quality aggregate materials to meet ongoing demand in a close-to-market location. In addition, aggregate extraction is already an established land-use within the immediate area.

The proposed operation of the quarry extension will maximize the efficiencies of the site through phased above and below water table extraction and through the use of the existing Law Quarry truck scales, entrance/exit and haul route. The Law Quarry Extension proposes a Licence area of 72.3 hectares (178 acres), with approximately 51.2 hectares (126 acres) proposed for extraction. The total tonnage to be excavated annually from the proposed extension area will not exceed 800,000 tonnes, in combination with the existing Law Quarry licences (ARA License #607541 and #4464).

As required for the submission of the *Aggregate Resources Act* Licence Application and *Planning Act* applications, a total of 12 studies as well as a Site Plan were completed to assess the potential

impacts of the proposed quarry extension on natural heritage features, water resources, cultural heritage resources, agricultural uses etc. as well as adjacent and surrounding sensitive uses.

Aggregate extraction is an interim rural resource use and is a well established land use in the area. The proposed quarry extension represents wise resource management, is consistent with the Provincial Policy Statement with respect to making close-to-market mineral aggregate resources available and protecting adjacent natural heritage features and on-site archaeological resources. As demonstrated in this Report and the submitted technical reports and site plan, the application conforms to the requirements and policies of the Growth Plan for the Greater Golden Horseshoe, Region of Niagara, and the Township Official Plan policies. The Law Quarry Extension will replace depleting resources at the existing Quarry and allow Waterford to secure additional reserves to continue to supply high quality aggregate from this strategic location in the Township of Wainfleet.

The *Aggregate Resources Act* Licence application has been prepared to meet requirements of the Aggregate resources of Ontario standards (August 2020). The Planning Act applications have been prepared in accordance with Region of Niagara and Township of Wainfleet requirements.

1.0

INTRODUCTION

Waterford Sand and Gravel Limited (hereinafter referred to as “Waterford”) is applying for a Class A License under the Aggregate Resources Act (ARA), and amendments to the Region of Niagara Official Plan, Township of Wainfleet Official Plan, and the Township of Wainfleet Zoning By-law No. 034-2014, under the Planning Act to permit an extension to the existing Law Crushed Stone Quarry (“existing Law Quarry”).

1.1 WATERFORD GROUP

Since 1958, the Waterford Group has serviced Southern Ontario’s industrial manufacturing and construction industries by safely providing high-quality aggregate products and innovative services. The Waterford Group includes Waterford Sand and gravel Ltd. and serves many facets of the construction industry through our supply of natural stone and sands, premium washed and unwashed limestone products, recycled asphalt, concrete products and ready-mix concrete for the building trade industry. Waterford Group owns and operates a number of pits and quarries within the Region of Niagara as well as adjacent municipalities.

1.2 SUBJECT LANDS

Waterford is proposing a western extension to the existing Law Crushed Stone Quarry located on Provincial Highway 3 in the Township of Wainfleet, approximately 3km west of the City of Port Colborne. The existing quarry began extraction in the 1930s and currently covers an area of approximately 144 hectares (356 acres). The lands proposed for the extension are located directly west of the existing quarry and are legally described as Part of Lots 6 & 7, Concession 2, Part of Road Allowance between Lots 5 & 6, Concession 2, Township of Wainfleet in the Regional Municipality of Niagara (“subject lands”) – See Figure 1: Location.

The subject lands are comprised of a number of separate land parcels that have been acquired by Waterford over time. A portion of the Subject Lands are currently designated as “Possible Aggregate Area” in the Region of Niagara Official Plan, indicating that a future quarry extension was intended and contemplated on these lands dating back several decades.

The majority of the subject lands are in a predominately agricultural condition and include crops and open pasture land. There are also some forested and brushy areas located on the subject lands. There is one single-detached residence located within the subject lands, but outside of the proposed limit of extraction.

The surrounding area is a mix of different rural land uses, including: rural residential, agriculture, highway commercial and aggregate extraction. A detailed review of surrounding land uses, as well as onsite natural, agricultural, and aggregate resources is included in Section 3 of this report.

The Licence and Planning Act applications include Biederman Road within the Licenced area as an "option", that would be subject to additional municipal approvals. The subject lands are bounded on the east by the existing quarry, to the south by Provincial Highway 3, to the west by Graybiel Road, and on the north by a portion of the Wainfleet Bog.

1.3 PROJECT DESCRIPTION

The subject lands are located immediately adjacent to the existing Law Quarry (License No's. 4464 and 607541) and have a total area of 72.3 hectares (178 acres), with approximately 51.2 hectares (126 acres) proposed for extraction. Biederman Road has been included within the proposed Licence area as an "option" (subject to municipal approvals) and would be mined through from the existing quarry to access the quarry extension. Alternatively, Biederman Road may be left in-place and the new quarry would be started via a sinking cut in Phase 1 of the quarry extension.

The quarry extension Licence will have a proposed annual extraction limit of 800,000 tonnes in combination with the existing quarry licences. The purpose of the quarry extension is to replace depleting reserves at the existing quarry; therefore, there is no increase to the annual tonnage or production rate proposed. The quarry extension will continue to use the existing entrance/exit off of Provincial Highway #3. No new entrance onto Highway #3 is proposed and trucks will not use Graybiel or Biederman Road.

Similarly to the existing quarry, the quarry extension is proposed to extract below the water table and will be dewatered to maintain dry working conditions. A total of five extraction phases are proposed with extraction occurring in the western portion of the subject lands and proceeding in a counter-clockwise direction through the property. The direction of extraction in each phase has been designed to mitigate noise and blasting impacts on surrounding properties.

Through the completed Archaeological work, a number of permanent archaeological "Avoidance Areas" have been identified and incorporated in the quarry design as implemented on the Aggregate Resources Act site plans. These areas will not be extracted and will be permanently protected from any type of site disturbance. There are additional Archaeological

sites located within the proposed limit of extraction that will required additional Stage 3 Archaeological field work and clearances. It is intended that this work will be completed sequentially as completed as the quarry progresses. These sites will be protected from any disturbance, until such a time that they can be cleared, through the fencing and monitoring measures as detailed on the site plan.

1.4 REQUIRED APPLICATIONS

Agency pre-consultation was first initiated with the Township of Wainfleet in the Fall of 2018. A number of subsequent pre-consultation meeting have been held with the Ministry of Northern Development and Mines Natural Resources and Forestry, Niagara Peninsula Conservation Authority, Township of Wainfleet, Ministry of Transportation, and the Region of Niagara.

The formal Pre-Consultation Meeting occurred on March 20, 2021 with subsequent discussions to confirm the submission requirements and fees. The Pre-consultation record is included in Appendix A. The following applications are required to be submitted to permit the proposed Law Quarry Extension:

Table 1: Required Applications for Proposed Quarry Extension

Application	Approval Authority
Region of Niagara Region Official Plan Amendment	Niagara Region
Township of Wainfleet Official Plan Amendment	Niagara Region
Township of Wainfleet Zoning By-law Amendment	Township of Wainfleet
Aggregate Resources Act Licence Application	Ministry of Northern Development, Mines, Natural Resources and Forestry

The following is a summary of each application:

- Niagara Region Official Plan Amendment for the proposed quarry extension to identify the subject lands as a “Licensed Pits and Quarries” on Schedule D4 (Mineral Resources). See Appendix B for a draft Regional Official Plan Amendment
- Township of Wainfleet Official Plan Amendment for the proposed quarry to designate the subject lands from “Rural” and “Environmental Protection Area” to “Extractive Industrial” on Schedule A (Future Land Use). See Appendix C for a draft Township Official Plan Amendment.

- Township of Wainfleet Zoning By-law Amendment for the proposed quarry to rezone the subject lands from “Agriculture (A)” and “Environmental Protection Overlay” to “Extractive Industrial (EI)”. See Appendix D for a draft Zoning By-Law amendment. This application is referred to as “ZBA” in this Report.
- A “Class A” Aggregate Resources Act License. This application is made under the Aggregate Resources Act and is submitted to the Ministry of Northern Development and Mines, Natural Resources and Forestry. The License Application is approved by the Minister.

The following technical Reports and Studies have been prepared and will be with the above application, include:

Table 2: Technical Reports

Study / Report	Author and Date	ARA and or Planning Act Submission Requirement
Water Report & Maximum Predicted Water Table Report	WSP, March 2022	ARA and Planning Act
Natural Environment Report	Riverstone Environmental Solutions, June 2022	ARA and Planning Act
Noise Impact Assessment	Aeroustics Engineering, May 2022	ARA and Planning Act
Blast Impact Assessment	Explotech Engineering, June 2022	ARA and Planning Act
Air Quality Assessment	RWDI, February 2022	Planning Act
Archaeological Reports	ASI (2020, 2021, and 2022)	ARA and Planning Act
Cultural Heritage Report	MHBC, May 2022	ARA
Financial Impact Study	Colliers International Niagara Ltd., May 2022	Planning Act
Scoped Agricultural Impact Study	MHBC, May 2022	Planning Act
Scoped Traffic Brief	JD Northcote Engineering, April 2022	Planning Act
Public Consultation Plan	MHBC, May 2022	Planning Act
Planning Justification Report and Summary Statement	MHBC, June 2022	ARA and Planning Act
Site Plans	MHBC, June 2022	ARA and Planning Act

2.0

LAND USE CONTEXT

2.1 EXISTING QUARRY AND PROPOSED EXTENSION

The proposed quarry is located immediately adjacent to the existing Law Quarry, which consists of approximately 144 hectares (356 acres) of land and is currently operated two adjacent Aggregate Resource Act Licences (Lic #4464 and 607541). The existing quarry was opened in the 1930s and was first licenced in in the 1970s when the Pits and Quarries Control Act was introduced. There have been two previous Licence extensions to the existing quarry, both of these occurred on adjacent properties to the east.

The current proposed extension to the existing quarry will take place on the lands to the west, between the existing quarry and Graybiel Road, north of Highway 3 (See Figure 2: Air Photo).

The proposed extraction area is primarily agricultural in nature, with some natural heritage features located along in the southeast corner and northern boundary of the lands. These features have been assessed and determined not to be significant (see 3.4 of this Report). According to investigations prepared by Riverstone Environmental Solutions Inc., the subject lands do not contain any significant wetlands, woodlands or wildlife. The majority of the lands within the extension area are occupied by cultivated agricultural fields or are agricultural fields that in a fallow (uncultivated) condition. The topography of the subject lands is relatively flat, with an elevation that varies from about 180 to 183 masl. There is a bedrock outcrop near the centre of the property that is around 186masl.

There is currently on residential structure located in the northeast corner of the subject lands that is located outside of the limit of extraction.

2.2 SURROUNDING LAND USES

Lands within 500 metres of the proposed quarry include (see Figure 3: Surrounding Land Uses):

North: The lands to the immediate north of the subject lands consist primarily of the Wainfleet Bog Conservation Area. The Conservation Area consists of Provincially Significant Wetlands and a large forested area. There is one small residential lot, not owned by Waterford, located north of the Subject Lands. There are some agricultural lands located between the subject lands and the Wainfleet Bog Conservation Area that are owned by Waterford.

South: The subject lands are located on the northern side of Provincial Highway 3. To the south of Highway 3, the lands consist of smaller agricultural fields, rural residential properties, and some Highway Commercial Uses. The Port Colborne Brethren in Christ Church is located on the southern side of Highway 3 across from the subject lands. The Reeb Quarry (ARA #607721) is located southwest of the subject property on the South side of Highway #3 across from the existing quarry. Approximately 1km south of the subject lands is the Wainfleet Wetlands Conservation Area, which was once the former Canadian Cement Company quarry (Quarry Lakes).

East: Immediately east of the subject lands is the existing Law Quarry. The existing quarry comprises approximately 144 hectares of land and consists of the lands between Biederman Road and Erie Peat Road. Further east are agricultural fields and rural residential properties. The City of Port Colborne is located approximately 3km to the west of the subject lands.

West: The lands to the west of the subject lands consists of agricultural fields and rural residential dwellings. The Wainfleet Bog Conservation Area, which is primarily located to the north of the subject lands is also located along the western side of the subject lands and consists of a forested area. Further west past the Conservation Area are agricultural fields.

The surrounding rural residential dwellings are considered sensitive land uses and the proposed quarry has been appropriately designed, buffered and/or separated to ensure that there will be no adverse impacts to these uses.

Although there are agricultural lands within the subject lands and surrounding lands, the area is not considered a Prime Agricultural Area in Provincial or local planning documents (see also Scoped Agricultural Impact Assessment, MHBC, May 2022).

3.0

DESIGN AND SUMMARY OF TECHNICAL ASSESSMENTS

3.1 OVERVIEW OF PROPOSED QUARRY DESIGN AND OPERATION

The quarry extension is proposed to be extracted in a total of five extraction phases, beginning in the northeast of the subject lands and working east to west, then from north to south (roughly in a counter clockwise direction). Figure 4 provides a simplified operations schematic which illustrates the proposed extraction area, phasing plan and archaeological avoidance areas. Extraction will occur to a depth of about 163masl in the south end of the quarry to a depth of about 168masl in the north end of the quarry.

There are a total of six permanent archaeological avoidance areas that are located within the proposed Licence Boundary, but outside of the limit of extraction. These areas will be permanently protected throughout the lifetime of the quarry. No disturbance at all will occur in these areas. The areas that are located within the limit of extraction that area identified as requiring further Stage 3 assessment will remain protected and undisturbed until cleared through the required archaeological assessments and Ministry of Culture clearances. These areas will be cleared sequentially as the quarry progresses.

3.2 QUARRY OPERATIONS

Similar to the existing quarry, quarry operations will include: 1. Site preparation and stripping activities; 2. Drilling and blasting. 3. Extraction and processing; 4. Shipping and loading; and 5. Progressive and final rehabilitation activities. Dewatering is also required to ensure a dry working area and is subject to Environmental Compliance Approvals.

1. **Stripping and site preparation activities include:** the removal of the soil and overburden on-site, construction of internal haul roads, installation of acoustical/visual

- berms, and the completion of any required pre-extraction monitoring and mitigation activities as outlined on the Site Plan.
2. **Drilling and Blasting includes:** the drilling of blast holes and blasting of rock at the working face using explosives. This activity is generally undertaken by specialized contractors.
 3. **Extraction and processing activities include:** The loading of blasted rock and internal transportation of blasted rock in rock trucks or on conveyors to the processing plant; the processing of rock materials including, crushing, washing, screening and stockpiling to create specific granular products. Extraction will occur in three tandem lifts/benches until the final depth of extraction is reached.
 4. **Shipping and Loading:** Shipping and loading activities include the loading of stockpiled materials onto highway trucks, weighing the trucks at the scales, and transporting the materials to market.
 5. **Progressive and Final Rehabilitation:** Rehabilitation activities include the establishment of side-slopes, where required, using on-site and imported material. Above the water-table side-slopes are graded and immediately seeded with a grass mixture to prevent erosion. Slopes in the quarry will vary from vertical faces, vertical faces with cliff and talus, 2:1 slopes and 3:1 slopes. Once extraction activities are complete, dewatering activities will discontinue and the quarry will fill with water over time. Rehabilitation activities will occur sequentially and will closely follow the completion of extraction in each phase. The final rehabilitation of the Law Quarry Extension will be a Lake with several island that represent the Archeological Avoidance Areas. Wildlife habitat and ecological enhancements will occur in the north end of the quarry extension to promote habitat linkage with the Wainfleet Bog to the north.

3.3 MINERAL AGGREGATE RESOURCES

The existing Law Quarry has been in operation since the 1930s and has undergone two prior expansion, demonstrating that the aggregate resources extracted and processed at the quarry are required for local construction projects. The existing quarry is nearing the last phase of extraction and has limited reserves remaining.

Bedrock resources at the proposed quarry extension include Onondaga and Bois Blanc Limestone formations as well as Bertie Formation. These bedrock resources are used to create specialty aggregate products to supply the on-site asphalt plant and also make granular products for local and regional construction projects. The Bois Blanc Formation consists of medium brownish grey, medium crystalline, medium, to thin bedded cherty limestone and is quarried throughout the Region of Niagara and adjacent municipalities. The Bertie Formation consists of medium bedded to massive-bedded aphanitic brown dolomite with minor shaly dolomite. The formation is quarried for crushed stone in the Niagara and surrounding areas¹.

¹ Paleozoic Geology of Southern Ontario. Geological Report 105. 1972. Ontario Geological Survey.

The presence of this high quality aggregate material is recognized in the Region's Potential Resource Areas Mapping: Stone – Schedule D1 of the Official Plan (Figure 5: Region of Niagara ScheduleD1). The proposed Law Quarry Extension is located entirely within a mapped "Outcrop area" on Schedule D1, indicating that the resource is within 3 feet of the surface and is more readily accessible.

There is an estimated 21 million tonnes of aggregate available within the extension lands. These resources will provide several decades of high quality resources for the Niagara Region construction industry.

3.4 NATURAL HERITAGE FEATURES

Waterford retained RiverStone Environmental Solutions to prepare a level 1 and 2 Natural Environment Report (NER) to support the application for license under the ARA and associated land use planning approvals. The purpose of the NER is to describe the existing natural environmental conditions on and within 120 metres of the subject lands (i.e. License Boundary), and to determine whether there are any significant natural heritage features present. The NER also discusses the potential for negative impacts on any identified significant natural heritage features and provides appropriate recommendations for preventative, mitigative, and remedial measures. This sections summarizes the findings and conclusions of the NER.

The proposed Quarry Extension is located immediately to the south of the Provincially Significant Wainfleet Bog Wetland Complex and the northern portion of the proposed Quarry is located within the Province's Natural Heritage System for the Greater Golden Horseshoe.

RiverStone staff met with MNRF representatives on the site on May 30, 2018 to review and map the boundary of the Wainfleet Bog PSW, as well as the status of other wetland features in the study area. The Wainfleet Bog boundary was subsequently adjusted by MNRF to the north of the Onandaga Escarpment, outside of the Licence Boundary and proposed extraction limit. Updated boundaries of the Provincially Significant Wainfleet Bog Wetland Complex were mapped with MNRF using the "50% wetland vegetation rule" as stipulated by the Ontario Wetland Evaluation System (OWES).

The NER confirms that Significant Woodlands and Significant Wildlife Habitat were also identified in the area between the PSW and norther limits of the proposed Licence boundary. The report also identified and accounted for potential impacts to endangered and threatened species. Two endangered and threatened species were identified, eastern whip-poor-will and spoon-leaved moss.

Appropriate setbacks have been identified and implemented in the quarry design to protect the identified significant natural heritage features. No extraction or any disturbance related to the quarry will occur in these setback areas and the setbacks will remain undisturbed as self-sustaining vegetation. Further, sediment and erosion control measures will be installed and

monitored, and all stockpiled aggregates will be stored in a location that will prevent the movement of sediment laden runoff into the PSW.

The proposed operations plan and limits of extraction have been carefully designed to ensure that negative impacts have been avoided, in accordance with consultation with MNDMNR and the MECP, and compliance with *The Endangered Species Act, 2007*.

The report concluded that with the implementation of the report recommendations to the ARA Site Plans, the proposed Law Quarry Extension is not anticipated to have any negative impacts on surrounding PSWs, Habitat of endangered or threatened species, significant woodlands, or significant wildlife habitat.

3.5 WATER RESOURCES

Waterford retained WSP to conduct a Level 1 and 2 Water study for the proposed Law Quarry Extension. A conceptual understanding of the hydrogeological conditions within the study area was developed to predict the potential effects of the proposed quarry extension on local groundwater users and surface water features.

Two aquifer systems were identified from the water levels at the Site. A shallow, unconfined system was identified within the Bois Blanc and Upper Bertie formations. Modelling completed by WSP suggests that minimal impacts to the shallow bedrock aquifer can be expected at full development of the extension. A drawdown of approximately 4m relative to baseline levels is expected in the deeper bedrock units of a small number of parcels adjacent to the southwest corner of the proposed extension lands. Local wells are expected to have an average of approximately 11 metres of available drawdown, and thus local water well interference is not expected.

The Water report also accounted for potential impacts to both the Wainfleet Bog PSW, the Biderman Drain, and the Eagle Marsh Drain. The results of the modelling, as well as previous studies completed by others, concluded that there is no hydraulic connection between the existing quarry sump and the Wainfleet Bog deposits, and as such no negative impacts to the bog are anticipated. The ecological functions of the Biderman Drain is not anticipated to be impacted at full development. The proposed quarry extension will result in an increased groundwater discharge at the Eagle Marsh Drain, however it is not anticipated to overwhelm the capacity of the Eagle Marsh Drain, nor is there any anticipated negative impacts on the ecological function of the Eagle Marsh Drain.

3.6 CULTURAL HERITAGE & ARCHAEOLOGICAL RESOURCES

Both Archaeological and Cultural Heritage Resources have been investigated at the proposed Law Quarry Extension.

Two separate Stage 1 and 2 Archaeological Assessments were completed for the Subject Lands by ASI. The Stage 2 Reports confirmed the presence of 34 Indigenous lithic or historical Euro-Canadian sites that were determined to require further Stage 3 and possible Stage 4 Archaeological Assessments. The high number of Indigenous lithic sites is due to the presence and availability of Onondaga chert on the subject lands which is one of the most widely used cherts for tool making by prehistoric peoples.

As a result of the number and size of the archaeological sites on the Subject Lands, the quarry extension has been designed to permanently protect a clusters of archaeological sites in six "Avoidance Areas". All of the "Avoidance Areas" are located outside of the proposed limit of extraction. These areas will be permanently protected and will not be quarried or undergo any form of disturbance or site alteration. The remaining Archaeological sites that are located within the limit of extraction, but outside of the Avoidance Areas, will have the required Stage 3/4 assessment work required, prior to any type of disturbance. Prior to being assessed these areas will be protected from site disturbance through fencing and monitoring. Given the number of Archaeological sites requiring Stage 3/4 assessments, it is intended that these areas will be cleared as the quarry extraction progresses through the five extraction phases. The Stage 3 work for the two sites identified in Phase 1b (AfGt-290 and AfGt-289) have already be cleared.

The required Stage 3/4 archaeological work for the identified sites requires mandatory consultation with Indigenous Communities. In addition, the Indigenous Communities have been provided a copy of all completed Stage 1 and 2 Reports for the Subject Lands for review and comment.

As required by the Aggregate Resources Act, a Cultural Heritage Screening and Evaluation was completed for the structures located in the northeast corner of the Subject Lands. There is a residential house located within the Licence Boundary, but outside of the limit of extraction and associated structures are located north of a gravel driveway outside of the Licence Boundary. At this time the structure is not proposed to be removed and is located outside of the limit of extraction. No direct or indirect impacts to the structure are anticipated as a result of the quarry extension.

3.7 AGRICULTURAL RESOURCES

A scoped Agricultural Impact Assessment (AIA) was completed for the proposed Law Quarry Extension (MHBC, April 2022).

The soils in the Subject Lands are a mix of Class 3, 4, and 6 soils – See Figure 11: CLI Soil Mapping. Although a portion of the subject lands are currently in agricultural production, the Subject Lands are not considered a Prime Agricultural Area or Specialty Crop Area. The Provincial

Agricultural System mapping identifies the Subject Lands as “Candidate Area” – See Figure 12: Provincial Agricultural System Mapping. In the Region of Niagara Official Plan (Consolidated 2014 version), the subject lands are designated as “Rural Area” and “Possible Extractive Industrial” and are not mapped as Good General Agricultural Area – See Figure 6: Official Plan Schedule A and Figure 7: Official Plan Schedule D4. The scoped AIA concluded that no impacts are anticipated to the surrounding and adjacent agricultural uses or operations as a result of the proposed quarry extension.

4.0

LAND USE COMPATABILITY CONSIDERATIONS

The following sections of this report outline considerations related to water wells, noise, blasting, air, visual, traffic, and how the proposed quarry has been designed to minimize impacts on the surrounding land uses.

4.1 WATER WELLS

A Level 2 Hydrogeological Study (dated March 2022) (“hydrogeological study”) was prepared by WSP. As part of this Study, potential impacts on local groundwater users was considered. A search of the MECP Water Well Record Database was undertaken to identify wells located within 1km of the proposed extension. A water well survey of all residences within a 1km radius of the Site was conducted by WSP staff in the summer of 2018 in accordance with the MECP technical guidance.

A total of 21 water well records were identified within the search area. Of these records, 17 are reported as domestic supply, 3 are reported as commercial supply, and 1 is reported as public supply. Of the 21 wells, 20 of these wells are reportedly installed in the bedrock and 1 well was determined to terminate in the overburden. The overburden well is located near the western limit of the study area, near the Onondaga Escarpment. Fresh water was reported in 12 wells, Sulphur water reported in 8, and mineralized water reported in 1 well.

The water well survey was conducted for 56 properties within a 1km radius of the proposed extension (this number does not include properties already owned by Waterford Sand and Gravel). Of the 56 properties, 15 surveys were either filled out in person during the door to door

survey or completed by the homeowner and mailed to WSP. Many of the property owners indicated they use a cistern for their primary water supply, or in addition to a well for their water supply.

WSP calculated the depth of the water wells within the radius of influence as an average of 17 meters deep. Using static water levels provided on the well records, the wells have an average of approximately 11 metres of available drawdown. Since the predicted drawdown from the proposed quarry extension is only up to 4 metres below baseline conditions, local water well interference is not expected.

The proposed hydrogeological and surface monitoring program will comprehensively monitor water levels through the quarry extraction process and allow for proactive mitigation in advance of a private well being potentially adversely impacted. However, to ensure that private wells are protected, a Water Interference Mitigation Plan has also been developed and included on the Site Plans. In the event a well interference complaint is received by a private water well user, the Licencee will be required to implement the water well mitigation plan that is included on the Site Plan.

4.2 NOISE

An acoustical assessment was prepared by Aercoustics Engineering (May 2022) to assess potential noise impacts from the proposed quarry on nearby and surrounding sensitive receptors. The purpose of this study is to assess potential noise impacts and provide noise control recommendations for the aggregate quarry operations to satisfy the Ministry of the Environment, Conservation, and Parks (MECP) noise guidelines.

Sound level limits for the aggregate quarry noise on the nearby noise-sensitive receptors were first established based on the noise guidelines of the MECP. The noise impact predictions of the aggregate quarry operations on the nearby noise-sensitive receptors were then established. Where the predicted sound levels were found to exceed the applicable MECP sound level limits, noise control measures were recommended to satisfy these limits. A total of 17 adjacent and nearby noise-sensitive receptors were identified, including one vacant-land receptor.

Noise impacts from the proposed quarry extension were modelled and noise predictions are based on the predictable worst-case noise impact for each of the aggregate quarry operation areas at each noise-sensitive receptor. This represents a design case where the quarry is operating at full capacity with all of the equipment operating simultaneously and at locations where the noise impact is highest for each receptor. It is expected that a majority of the quarry operations would occur in other areas of the site, resulting in lower associated noise impacts.

Noise controls were recommended to limit the noise impact from the aggregate quarry activities to levels which comply with the MECP sound level limits. The recommended noise controls are implemented on the Site Plan and are summarized as follows:

- Installation of acoustical barriers and acoustical berms
- Directing the location of the processing plant and direction of extraction
- Processing and equipment restrictions in specific phases

Aercoustics concluded that with the implementation of the recommended noise controls, the proposed aggregate quarry operation is predicted to satisfy the MECP noise guidelines

4.3 BLASTING

A Blast Impact Analysis was prepared by Explotech Engineering (June 2022). The Blast Impact Analysis is based on the Ministry of the Environment, Conservation and Parks (MECP) Model Municipal Noise Control By-law (NPC 119) with regard to guidelines for blasting in mines and quarries. A ground vibration and overpressure attenuation study was also completed and included the installation of a comprehensive network of seismographs to measure ground vibration and air overpressure intensities for four blasts conducted between July 202 and September 2020.

The MECP guideline for blast-induced vibration is 12.5 mm/s (0.5 in/s) and blast induced overpressure is 128dB. All blasts will be monitored for overpressure and ground vibrations with blast designs adjusted in response to readings on site in order to confirm consistent compliance with established limits.

Explotech Engineering has recommended the following conditions be applied for all blasting operations at the proposed quarry extension. These conditions have been included on the site plan.

1. All blasts shall be monitored for both ground vibration and overpressure by an independent Blast Consultant at the closest privately owned sensitive receptors adjacent the site, or closer, with a minimum of two (2) instruments – one installed in front of the blast and one installed behind the blast.
2. The guideline limits for vibration and overpressure shall adhere to standards as outlined in the MECP Model Municipal Noise Control By-law publication NPC 119 (1978) or any such document, regulation or guideline which supersedes this standard.
3. In the event of an exceedance of NPC 119 limits or any such document, regulation or guideline which supersedes this standard, blast designs and protocol shall be reviewed prior to any subsequent blasts and revised accordingly in order to return the operations to compliant levels.

4. Orientation of the aggregate extraction operation will be designed and maintained so that the direction of the overpressure propagation will be away from structures as much as possible.
5. Blast designs shall be continually reviewed with respect to fragmentation, ground vibration and overpressure. Blast designs shall be modified as required to ensure compliance with current applicable guidelines and regulations.
6. Blasting procedures such as drilling and loading shall be reviewed on a yearly basis and modified as required to ensure compliance with industry standards.
7. Detailed blast records shall be maintained in accordance with current industry best practices

With these mitigation measures in place, Explotech concluded that blasting operations required for mineral extraction at the proposed Waterford Sand and Gravel – Law Quarry Extension lands can be carried out safely and within governing guidelines set by the Ministry of the Environment, Conservation and Parks. Modern blasting techniques will permit blasting to take place with explosives charges below allowable charge weights ensuring that blast vibrations and overpressure will remain minimal at the nearest receptors.

4.4 AIR QUALITY

RWDI was retained by Waterford Sand & Gravel Limited to conduct an Air Quality Assessment for the proposed Law Quarry Extension. The RWDI Air Quality Assessment (Feb 3, 2022), provides an estimate of emissions from expanded operations at the Quarry, and a prediction of impacts due to those emissions on nearby sensitive impact locations through a dispersion modelling analysis.

The Air Quality Assessment modelled the maximum operating scenario which reflects the maximum production and shipping operations at the site, based on the peak day in the peak year over the entire life of the Quarry. This scenario is meant to provide a conservative estimate of potential air emissions. Operations would realistically occur at levels below these levels over most of the life of the Quarry.

Aggregate Resources Act Ontario Regulation Section 0.12(2) 244/97 requires that the Quarry operate in accordance with the following operating standards pertaining to dust:

- The licensee or permittee shall apply water or another provincially approved dust suppressant to internal haul roads and processing areas, as necessary to mitigate dust, if the pit or quarry is located within 1,000 metres of a sensitive receptor.
- The licensee or permittee shall equip any processing equipment that creates dust with dust suppressing or collection devices if it is located within 300 metres of a sensitive receptor.

- The licensee or permittee shall obtain an environmental compliance approval under the Environmental Protection Act where required to carry out operations at the pit or quarry.

In addition, RWDI recommended the following mitigation measures which have been included on the Site Plan:

- The site will operate in accordance with a Best Management Practices Plan for fugitive dust (BMPP), which may be amended from time to time, considering actual impacts and operational considerations. The recommendations in the BMPP are based on the maximum daily production rates. At lower production rates, the control measures specified in the BMPP can be reduced accordingly, provided dust remains mitigated on site.

RWDI concludes that, with an appropriate BMPP for the site in place, concentrations at the nearby receptors are predicted to be at or below the relevant criteria for all contaminants 99.9% of the time during all phases. The results of their analysis demonstrate the proposed Quarry Extension has been appropriately designed, managed, and separated from surrounding sensitive land uses to prevent and mitigate adverse effects.

4.5 TRAFFIC

The existing Law Quarry is located on Provincial Highway #3 which serves as the main haul route. There is an existing entrance/exit onto Highway #3. The proposed extension will be internally connected to the existing quarry and will utilize the existing Law Quarry scales, entrance onto Highway 3 and truck haul routes. Biederman Road is located within the proposed extension extraction area and may be removed subject to securing the appropriate municipal approvals.

Highway 3 is identified as a Provincial road in the Niagara Region Official Plan, and these roads have a planned function to accommodate truck traffic and larger volumes of traffic to connect areas within and outside of the Region.

No increase in the average annual tonnage rate between the new license and existing license is anticipated as the proposed extension is meant to replace the depleted reserves of the existing quarry.

A Traffic Impact Study was completed for the quarry extension by JD Northcote Engineering (April 2022). The Traffic Impact Study concluded that, the existing entrance/exit will continue to operate efficiently and has adequate turning movement infrastructure and intersection sight distance and minimum stopping distance requirements. Truck traffic is directed away from settlement areas to the maximum extent feasible and is directed to Provincial and Regional road networks. The Traffic Study concluded that proposed Quarry Extension will not cause any operational issues and will not add significant delay or congestion to the local roadway network.

4.6 VISUAL IMPACT

The subject lands are relatively flat with an elevation around 184masl around the southern limits at Highway #3. The property gently slopes down towards the northern licence limit which has an elevation around 181masl. There is a small rise near the centre of the property where there is a bedrock outcrop; this area has an elevation of around 188masl at its highest point.

The extraction limits of the quarry will be setback a minimum of 30m from all public roadways and adjacent residential uses. In some cases there is a greater setback due to increased setback requirements to protect natural heritage or archaeological resources.

The area surrounding the proposed quarry is also relatively flat. The residential and commercial uses on the south side of Highway #3 are around 184masl and the residential uses on the west side of Graybiel Road are around 183masl. There is one residential property located north of the proposed quarry extension at an elevation of around 182masl.

Currently, the majority of the subject lands that are visible from public roadways. There is some dense vegetation located along Highway #3 and Biederman Road in the southeast corner of the property.

Acoustic berms are proposed to be located along portions of the western, southern, and northern Licence boundaries and will also serve as screening berms. Details of these berms is as follows:

- The southern berm will have a height of 4m (188-189masl)
- The western berm will have a height of 7-8m (190masl)
- The northern berm will have a height of 7-8m (190masl)

These berms will be located in the setback areas and will be seeded with self-sustaining vegetation and will have a side-slope that shall not exceed 1.5:1 on the interior (extraction) side and 2:1 on the exterior side facing a public road.

Along the southern Licence boundary where no acoustical berm is required, trees will be planted within the setbacks and will be established within one year of the Licence being issued. These trees will be maintained throughout the operation of the quarry and will be replaced if required.

Where possible, all naturally occurring vegetation will be retained in the setback areas to further limit visual impacts on surrounding land uses. This includes the three archeological avoidance areas which will not be extracted.

Through the installation of the use of setbacks, installation of berms, tree-planting and retention of existing vegetation where possible, the quarry operation should not be visible from the

adjacent public roadways and residential properties. Therefore, no adverse visual impact to adjacent and surrounding properties is anticipated.

5.0

PLANNING & POLICY ANALYSIS

The proposed quarry is located within the Township of Wainfleet, in the Region of Niagara Region. Based on the location of the site, the proposed quarry is subject to the:

- Provincial Policy Statement (PPS 2020);
- Growth Plan for the Greater Golden Horseshoe (Office Consolidation 2020);
- Region of Niagara Official Plan (2014 Consolidated Version);
- Township of Wainfleet Official Plan (January 2016 Consolidation); and,
- Township of Wainfleet Zoning By-law (034-2014).

5.1 PROVINCIAL POLICY STATEMENT (2020)

The Provincial Policy Statement (PPS) was issued under Section 3 of the *Planning Act* and came into effect on May 1, 2020. Any decisions made on the proposed Regional Official Plan Amendment, Township Official Plan Amendment and Zoning By-Law Amendment applications are required to be consistent with the PPS.

The PPS provides policy direction on matters of provincial interest related to land use planning and development, as set out in section 2 of the *Planning Act*. The PPS provides for appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural and built environment (Part 1, Preamble).

The PPS is a policy-led planning approach that recognizes and addresses the complex inter-relationship among environmental, economic and social factors in land use planning. The PPS supports a comprehensive, integrated and long-term approach to planning and recognizes linkages among policy areas. The PPS is more than a set of individual policies. It is to be read in its entirety and the relevant policies are to be applied to each situation. When more than one policy is relevant, a decision maker should consider all of the relevant policies to understand how they work together. (Part III, How to Read the Provincial Policy Statement).

The PPS recognizes that the Province's natural heritage resources, water resources, agricultural lands, mineral resources, and cultural heritage and archaeological resources provide important environmental, economic and social benefits. The wise use and management of these resources over the long term is a key provincial interest. The Province must ensure that its resources are managed in a sustainable way to conserve biodiversity, protect essential ecological processes and public health and safety, provide for the production of food and fibre, minimize environmental and social impacts, provide for recreational opportunities and meet its long-term needs (Part IV, Vision for Ontario's Land Use Planning System).

The following is a summary to demonstrate how the proposed quarry extension is consistent with the PPS.

- The management or use of mineral aggregate resources is a permitted use in the rural area (Policy 1.1.5.2);
- The proposed quarry extension represents an efficient use of existing infrastructure by continuing to use Highway 3, a Provincial Highway, as the main haul route (Policies 1.1.5.5, 1.6.7.1, 1.6.7.2, 1.7.1 a);
- The proposed quarry extension optimizes the long term availability of mineral aggregate resources, utilizes existing infrastructure and has been appropriately designed, buffered and/or separated to prevent or mitigate adverse effects on sensitive land uses (Policy 1.2.6.1);
- Making the identified potential resource area (bedrock) available for aggregate extraction represents the wise use and management of resources, providing economic benefits, while minimizing potential impacts (Section 2.0);
- The proposed quarry extension will protect natural features in the long term and ensure no negative impacts to significant natural heritage features. Proposed rehabilitation will maintain, restore and, where possible, will enhance the diversity and connectivity of natural features identified on-site and in the area and recognizes the linkages between the natural heritage features, surface water features and ground water features (Policies 2.1.1, 2.1.2)
- Except for the Habitat of Endangered and Threatened Species, there are no significant Natural heritage features located within the proposed License Boundary. The Natural Environment Report demonstrates that there will be no negative impacts on adjacent significant woodlands, significant wetlands, and significant wildlife habitat or its ecological function (2.1.5 and 2.1.8).
- Category 2 whip-poor-will habitat is located within the north portion of the proposed extraction area. Category 2 whip-poor-will habitat is considered habitat of endangered and threatened species (2.1.7). The Licencee will continue to work with MECP to ensure that the proposed quarry complies with the provincial Endangered Species Act, 2007. This will include seeking authorizations pertaining to Eastern Whip-poor-will (and any other relevant species) prior to undertaking the activities that represent an impact to

identified habitat. If required, the Licencee will obtain an overall benefit permit, prior to any disturbance occurring in this area.

- The proposed quarry will protect the quality and quantity of water through the proposed mitigation and monitoring program set out in Sections 5.4 and 6.1 of this Report (Policy 2.2.1);
- There are no municipal drinking water sources or designated vulnerable areas in the vicinity of the proposed quarry (Policy 2.2.1.f.1);
- Both of the existing quarry and proposed extension are situated within an area identified as a Highly Vulnerable Aquifer. The monitoring and mitigation measures recommended in the Hydrogeology Report and included on the Site Plan will ensure adequate protection of surface and ground water resources. In addition, all adjacent surface and ground water features will be protected (Policies 2.2.1.f, 2.2.2);
- The proposed quarry extension is an area identified as a potential mineral aggregate resource area (stone) (Policy 2.5.1);
- The proposed quarry makes available a mineral aggregate resource that is close to market to serve Niagara Region (Policy 2.5.2.1);
- The operation has been designed in a manner which minimizes social, economic and environmental impacts (2.5.2.2);
- Final rehabilitated use of the proposed quarry will be a lake with ecological habitat enhancements which is compatible with the surrounding lands and will increase long term biodiversity and connectivity in the area (Policy 2.5.3.1);
- The proposed quarry extension will be comprehensively rehabilitated to a lake and associated wetlands and beach access with the existing Law Quarry (Policy 2.5.3.2)
- The proposed quarry extension lands are not located in a Prime Agricultural Area as mapped by the Province, nor are they identified as “Good General Agriculture” (Regional designation that includes of Prime Agricultural Area) in the Region’s Official Plan. Additionally, the subject lands contain a mix of class 3, 4, and 6 soils. Only Class 3 soil are considered *Prime Agricultural Lands*. The proposed quarry is not located in a Prime Agricultural Area (Policy 2.5.4.1 a to d);
- The Stage 1 and 2 Archeological Reports have identified archaeological resources on the subject lands (within the Licence) and adjacent lands. Some of the identified archaeological sites will be permanently protected and no site disturbance will be included in these area. These areas will be protected with a 20 m protective buffer and a 50 m monitoring buffer. Other identified archaeological sites will be temporarily protected and further Stage 3/4 assessments will occur for these sites as the quarry extraction progresses. Archaeological sites that have been identified adjacent to the Licence boundary will remain undisturbed and protected. This approach will ensure that archaeological resources shall be appropriately conserved (Policies 2.6.1, 2.6.3);

- The Cultural Heritage value of the structures located within the subject lands has also been evaluated. These structures are not designated as a heritage structure. If the structure is proposed to be removed in the future, than additional investigations will be required to determine if a Cultural Heritage Impact Assessment is required. These structures are located outside of the area proposed to be extraction and are located in an Archaeological Protection area. Therefore, the proposed quarry extension will have no direct impact on any potential cultural heritage value of the structures. (Policies 2.6.1, 2.6.3);

In summary, for reasons set out in this Report, the proposed quarry extension is consistent with the Provincial Policy Statement (2020).

5.2 GROWTH PLAN (AUGUST 2020 CONSOLIDATION)

The proposed quarry is located within the Greater Golden Horseshoe (GGH) Growth Plan Area. The Growth Plan for the Greater Golden Horseshoe, 2019 was approved through an Order in Council under the *Places to Grow Act* and took effect on May 16, 2019, and amended in August 2020. Any decisions made on the proposed ROPA/OPA/ZBA applications are required to conform with the Growth Plan (2020).

Section 2.2.9 of the Growth Plan permits “the management and use of resources” as a permitted activity on rural lands subject to the policies of Section 4.

Section 4 of the Growth Plan outlines policies pertaining to Protecting what is valuable in the region, including hydrologic and natural features, the agricultural land base, cultural heritage resources, and mineral aggregate resources. The plan recognizes the importance of mineral aggregate operations for building the communities and infrastructure required for future growth (4.1).

A Natural Heritage System (NHS) for the Growth plan has been mapped to protect the region’s natural heritage and biodiversity (4.2.2). Development and site alteration within the NHS is subject to specific policies that require demonstrating that the development will not have negative impacts on key natural heritage features or functions (4.2.2.3.a). Notwithstanding these policies, new mineral aggregate operations proposed within the Natural Heritage System are prohibited in significant wetlands, habitat of endangered species and threatened species, and significant woodlands (subject to conditions) (4.2.8.2.a). However, policy 4.2.8.2.c) states the following:

4.2.8.2.c) An application requiring a new approval under the Aggregate Resources Act to expand an existing mineral aggregate operation may be permitted in the Natural Heritage System for the Growth Plan, including in key natural heritage features, key hydrologic features and any associated vegetation protection zones, only if the related decision is consistent with the PPS and satisfies the rehabilitation requirements of the policies in this subsection.

The northern portion of the proposed Law Quarry Extension is mapped as Growth Plan Natural Heritage System – See Figure 8: Growth Plan Natural Heritage System mapping. As this is considered an expansion to an existing mineral aggregate operation the growth plan prohibitions in 4.2.8.2 a) do not apply. As discussed in Section 5.1 of this Report, the application is consistent with the PPS. The proposed rehabilitation of the quarry satisfies the policies of the Growth Plan, as discussed below.

Section 4.2.8.3 states that applications in prime agricultural area will require agricultural impact assessments. The subject lands are not located in a prime agricultural area based on both the Agricultural System for the GGH mapping and the Region’s Official Plan designations. Therefore, there is no Provincial Plan requirement to complete an Agricultural Impact Assessment (AIA). However, a scoped AIA was prepared to address Municipal Official Plan policy requirements.

The following aggregate policies in Section 4.2.8 are applicable to the proposed application:

Table 3: Policy Conformity with the Growth Plan

2020 Growth Plan Policies S. 4.2.8	Proposed Application
<p>2. a) a) no new <i>mineral aggregate operation</i> and no new wayside pits and quarries, or any ancillary or accessory use thereto, will be permitted in the following <i>key natural heritage features</i> and <i>key hydrologic features</i>:</p> <ul style="list-style-type: none"> i. <i>significant wetlands</i>; ii. habitat of endangered species and threatened species; and iii. <i>significant woodlands</i> unless the woodland is occupied by young plantation or early successional habitat, as defined by the Province, in which case, the application must demonstrate that policies 4.2.8.4 b) and c) and 4.2.8.5 c) have been addressed and that they will be met by the operation; 	<p>n/a see policy 4.2.8.2 c</p>
<p>b) any application for a new <i>mineral aggregate operation</i> will be required to demonstrate:</p> <ul style="list-style-type: none"> i. how the connectivity between <i>key natural heritage features</i> and <i>key hydrologic features</i> will 	<p>The only Key Natural Heritage Feature proposed to be removed is Category 2 Whip-poor-will habitat. The majority of this area that overlaps with the proposed extraction area is in</p>

<p>be maintained before, during, and after the extraction of <i>mineral aggregate resources</i>;</p> <p>ii. how the operator could replace <i>key natural heritage features</i> and <i>key hydrologic features</i> that would be lost from the site with equivalent features on another part of the site or on adjacent lands;</p> <p>iii. how the <i>water resource system</i> will be protected or enhanced; and;</p> <p>iv. how any <i>key natural heritage features</i> and <i>key hydrologic features</i> and their associated <i>vegetation protection zones</i> not identified in policy 4.2.8.2 a) will be addressed in accordance with policies 4.2.8.4 b) and c) and 4.2.8.5 c); and</p>	<p>agricultural production with low ecological function and value.</p> <p>The quarry extraction limits have specifically been designed to avoid key natural heritage features. As the area is currently in active agricultural condition, there will be a limited loss to the existing connectivity. The quarry extension will be operated in phases to minimize overall disturbance. The progressive and final rehabilitation of the quarry extension will improve the connectivity of the adjacent natural heritage features through the creation of wildlife habitat and ecological enhancements within the Licenced area that is located outside of the limit of extraction and currently in agricultural production.</p> <p>The required ESA permit for the removal of the Category 2 Whip-poor-will habitat will include requirements for habitat replacement with equivalent or better features on another part of the site or on adjacent lands.</p>
<p>c) an application requiring a new approval under the Aggregate Resources Act to expand an existing <i>mineral aggregate operation</i> may be permitted in the <i>Natural Heritage System for the Growth Plan</i>, including in <i>key natural heritage features</i>, <i>key hydrologic features</i> and any associated <i>vegetation protection zones</i>, only if the related decision is consistent with the PPS and satisfies the rehabilitation requirements of the policies in this subsection.</p>	<p>The proposed quarry extension does include some areas of Category 2 Whip-poor-will habitat which is considered habitat of endangered species and threatened species.</p> <p>This Policy permits expansions to existing mineral aggregate operations in key natural heritage features, including habitat of endangered and threatened species.</p> <p>As required by the Endangered Species Act (ESA), a permit for the removal of the Category 2 Whip-poor-will habitat will be required. This will ensure that the application is consistent with Provincial ESA requirements and</p>

	<p>therefore satisfies the policies of the PPS and Growth Plan.</p> <p>No removal of significant wetlands or significant woodlands is proposed.</p>
<p>3. In <i>prime agricultural areas</i>, applications for new <i>mineral aggregate operations</i> will be supported by an <i>agricultural impact assessment</i> and, where possible, will seek to maintain or improve connectivity of the <i>Agricultural System</i>.</p>	<p>The subject lands are not a Prime Agricultural Area; therefore, no Agricultural Impact Assessment is required. A Scoped Agricultural Impact Assessment was prepared to address the Regional Official Plan requirements.</p>
<p>4. For rehabilitation of new mineral aggregate operation sites, the following apply:</p> <p>a) the disturbed area of a site will be rehabilitated to a state of equal or greater ecological value and, for the entire site, long-term ecological integrity will be maintained or enhanced;</p>	<p>The majority of the proposed Licence boundary is in an active agricultural condition with low ecological value. The quarry limits have been determined to avoid all significant natural heritage features (except for Category 2 Whip-or-will habitat). The proposed rehabilitation plan will result in a large lake with islands and various shoreline and slope treatments. Shallow shoreline areas, cliff and talus slopes, and ecological enhancements have been incorporated into the rehabilitation plan in ecologically strategic locations. Through the implementation of the rehabilitation plan the long-term ecological integrity of the area proposed to be disturbed will be enhanced over the existing condition.</p>
<p>b) If there are key natural heritage features or key hydrologic features on the site, or if such features existed on the site at the time of the application:</p> <p>i) The health, diversity and size of these key natural heritage features and key hydrologic features will be maintained or enhanced; and</p> <p>ii) Any permitted extraction of mineral aggregate resources that occurs in a feature will be completed, and the area will be rehabilitated, as early as possible in the life of the operation;</p>	<p>The area proposed to be disturbed includes Category 2 Whip-poor-will habitat. An ESA permit, if required by the Ministry of the Environment, Conservation, and Parks, will ensure that habitat enhancement/replacement occurs as required through the issuance of an Overall Benefit Permit.</p>

	<p>The Category 2 Whip-poor-will habitat is located in the north end of the proposed quarry extension and is the second phase of extraction. Therefore, this area will be extracted and progressively rehabilitated early in the life of the operation.</p>
<p>c) aquatic areas remaining after extraction are to be rehabilitated to aquatic enhancement, which will be representative of the natural ecosystem in that particular setting or ecodistrict, and the combined terrestrial and aquatic rehabilitation will meet the intent of policy 4.2.8.4 b); and</p>	<p>The lake that will be created through rehabilitation will include islands, a diversity of slope and shoreline treatments, cliff and talus slopes, and shallow/littoral areas in the north end. This will result in aquatic enhancement that is representative and will improve connectivity with the adjacent natural heritage features, including the Wainfleet Bog, to the north.</p>
<p>d) outside the Natural Heritage System for the Growth Plan, and except as provided in policies 4.2.8.4 a), b) and c), final rehabilitation will appropriately reflect the long-term land use of the general area, taking into account applicable policies of this Plan and, to the extent permitted under this Plan, existing municipal and provincial policies. In prime agricultural areas, the site will be rehabilitated in accordance with policy 2.5.4 of the PPS, 2014.</p>	<p>The majority of the proposed quarry extension is located outside of the Growth Plan Natural Heritage System. The proposed final rehabilitation appropriately reflects the long-term use of the general area and the lake will connect with the existing Law Quarry Lake. The subject lands are not located within a prime agricultural area.</p>
<p>6. Final rehabilitation for new mineral aggregate operations in the Natural Heritage System for the Growth Plan will meet these additional criteria:</p> <p>b) where there is extraction below the water table, no less than 35 percent of the non-aquatic portion of the land subject to each license in the <i>Natural Heritage System for the Growth Plan</i> is to be rehabilitated to forest cover, which will be representative of the natural ecosystem in that particular setting or ecodistrict. If the site is also in a <i>prime agricultural area</i>, the remainder of the land subject to the license is to be rehabilitated in accordance with policy 2.5.4 of the PPS, 2020; and</p>	<p>A portion of the northwest lands within the Licence Boundary is mapped as being located within the Growth Plan Natural Heritage System.</p> <p>A minimum of 1.5 ha of area, located in the Growth Plan Natural Heritage System mapped area, that will not be extracted below the water table will be rehabilitated to forest cover via nodal tree and shrub plantings. The current condition of this area is predominately agricultural. Nodal plantings mimic the natural form and progressions of forest succession and encourage micro-climate development and biodiversity.</p>

<p>c) rehabilitation will be implemented so that the connectivity of the <i>key natural heritage features</i> and the <i>key hydrologic features</i> on the site and on adjacent lands will be maintained or enhanced.</p>	<p>Greater biodiversity is achieved through nodal plantings by creating a greater range of habitat through natural succession processes. The nodal plantings will be located predominately in the north area of the Licence adjacent to the off-site significant woodlands and Wainfleet Bog PSW. This will improve and enhance overall connectivity with the adjacent key natural heritage features on adjacent lands</p>
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In summary, for reasons set out in this Report, the proposed quarry conforms to the policies of the Growth Plan (2020).

5.3 REGION OF NIAGARA OFFICIAL PLAN

The proposed quarry is located within Niagara Region. The Niagara Region’s Official Plan (ROP) came into effect on August 1, 2014 and any amendments made since that time have been consolidated as of that date. Any decisions made on the proposed ROPA/OPA/ZBA applications are required to conform with the ROP.

As mapped on Schedule A (Regional Structure) and Schedule B (Agriculture Land Base), the subject lands are located within the “Rural Area” (see Figures 6: Official Plan Schedule A and Figure 9: Official Plan Schedule B).

According to the ROP Schedule C (Core Natural Heritage), the subject lands are located outside of the “Environmental Conservation Area” and “Environmental Protection Area”. The Lands are located directly south of the Wainfleet Bog, which is identified as an “Environmental Protection Area” in Schedule C (See Figure 10: Official Plan Schedule C).

It is important to note that a portion of the lands are designated as “Possible Aggregate Areas” on Schedule D4 which recognizes this area as a potential future extension to the existing Law Quarry. If the development was proposed to be limited to the area designated as “Possible Aggregate Area”, than a Regional Official Plan Amendment would not be required. However, additional adjacent lands are also proposed to be included within the Licence Application. While the subject lands are also identified as “Potential Bedrock Areas: Stone” on Schedule D1 of the ROP (Figure 5), an amendment to the ROP is required to establish any new mineral aggregate operation (or expansion) in Rural Areas by identifying the proposed licence area on “Schedule D4: Mineral Resources”. See Appendix B for the proposed amendment to the Region OP.

The following is a summary to demonstrate how the proposed quarry conforms to key policies of the ROP and how the proposed amendment to the ROP is appropriate.

Chapter 2 of the Regional Official Plan (ROP) outlines policies and objectives pertaining to Growing the Economy in the Region. The ROP identifies 7 strategic objectives to foster economic development in the Region, including the conservation of aggregate resources and the need to protect mineral aggregate areas from development (2.1.c). The Region also promotes the wise use of mineral aggregate resources as a strategic objective for economic development (2.6.f).

Chapter 5 of the ROP outlines policies with regards to Rural and Agricultural lands in the Region. The Agricultural and Rural policies of the Plan identify the importance of conserving and enhancing the natural resources of the Agricultural and Rural areas.

The ROP sets out to preserve agricultural lands based on the prioritization identified in policies 5.b.1 & 5.b.2. These policies give the highest priority to preserving “Unique Agricultural Areas”, followed by the “Good General Agricultural Areas”. “Rural Lands” are thus the lowest priority for preservation. A variety of non-agricultural development may be located in the Rural Areas, subject to certain policies of the plan. The proposed quarry extension is located within the Rural Area which is the lowest priority agricultural area,

The policies regarding new and expanding mineral aggregate operations are within Chapter 6 of the ROP. The ROP states that ensuring an adequate supply of mineral resources for the short-term and long-term needs within the Region as key objective form the Mineral Resources policies. The following table is an analysis of the proposed Law Quarry extension against the mineral aggregate policies within the ROP.

Table 4: Policy Conformity with Chapter 6 of the Region of Niagara Official Plan

ROP Chapter 6 Policies for Mineral Resources	Proposed Law Quarry Expansion
<p>Policy 6.C.5 Applications for licenses to open new pits or quarries and applications for changes to or expansions of existing licensed pits or quarries will be considered in relationship to the Niagara Escarpment Plan policies within the Niagara Escarpment Plan area and to the following conditions:</p> <p>a) compliance with the provisions of other policies in this Plan including Policies 7.B.1.31 to 7.B.1.34 inclusive in Chapter 7 of this Plan;</p> <p>b) compatibility with surrounding land uses;</p>	<p>The proposed Law Quarry Extension is not located within the Niagara Escarpment Plan or the Greenbelt Natural Heritage System.</p> <p>The proposed quarry is located on adjacent lands to an Environmental Protection Area. The adjacent natural heritage features will be maintained and connectivity with these features will be enhanced through final rehabilitation. The ESA permit for the removal of the Category 2 whip-poor-will habitat will ensure that there is</p>

<p>c) the impact on the natural environment including surface watercourses and Groundwater;</p> <p>d) the proposed manner of operation, site plan, and rehabilitation;</p> <p>e) the proposed haulage roads and the possible effect on the roads concerned and on adjacent development</p>	<p>adequate habitat replacement and compensation (i.e. Overall Benefit Permit).</p> <p>Section 4.0 of this Report demonstrates that the Proposed Law Quarry Extension will be compatible with surrounding land uses and the management and mitigation measures included on the Site Plan will ensure that there are no adverse impacts to surrounding and adjacent properties.</p> <p>The NER and Water reports completed by Riverstone Environmental and WSP concluded that the proposed Law Quarry Extension will have no negative impacts on surface or ground water resources, or the natural environment.</p> <p>The proposed Law Quarry Extension will be operated and rehabilitated in accordance with the ARA site plans which are included in this application. The quarry extension has been designed so that extraction shall be undertaken in a manner which minimizes social, economic and environmental impacts.</p> <p>The existing quarry and the proposed quarry extension are located on Provincial highway #3. The proposed Extension will use the already established and existing haul route used by the current Law Quarry operation.</p>
<p>Policy 6.C.5.1 Notwithstanding any provisions in the Chapter 6 to the contrary:</p> <p>a) No new mineral aggregate operations, wayside pits and quarries or any ancillary or accessory use</p>	<p>The proposed Law Quarry Extension is not located between Lake Ontario and the NEP area.</p>

<p>iii. Where other alternatives have been considered by the applicant and found unsuitable, and in situations where complete agricultural rehabilitation to the same level of tender fruit and grape production is not possible due to the depth of planned extraction or a substantial aggregate deposit below the water table warranting extraction, agricultural rehabilitation in the remaining licensed area will be maximized as a first priority to allow production of tender fruit and grape crops.</p>	
<p>Policy 6.C.6 The Region desires full consultation among the Ministry of Natural Resources, the Region, the area municipalities and pit and quarry applicants before the licenses are issued or changed, to ensure that proposed new or expanded pit and quarry operations are found to be on satisfactory sites and that the rehabilitation plans are found suitable. Policies of local official plans and comments by area municipalities will be taken into account. In addition, within the Niagara Escarpment Plan area any pit and quarry application shall conform with the Niagara Escarpment Plan policies.</p>	<p>Pre- Consultation with the Ministry of Northern Development, Mines, Natural Resources, Forestry, the Region of Niagara, Township of Wainfleet, and the Niagara Peninsula Region Conservation Authority has already occurred. Once the ARA and Planning Act Applications have been submitted, additional consultation and review will occur with these Agencies.</p> <p>The proposed Law Quarry Extension is not located within the NEP.</p>
<p>Policy 6.C.7 The Region encourages progressive rehabilitation of operating pits and quarries, that is, the simultaneous stripping, extraction, and rehabilitation of licensed areas. The rehabilitation of the pit or quarry should be compatible with the surrounding land uses.</p>	<p>The proposed Law Quarry Extension will be progressively rehabilitated with the existing Law Quarry into a large lake with islands, varying slopes and shorelines and shallow areas in the north of the licensed area, adjacent to the Wainfleet Bog PSW. This is compatible with surrounding rural and natural land uses.</p>
<p>Policy 6.C.8 In the case of adjacent pit or quarry operations, the Region will, wherever practical, encourage the removal of all economically viable material between the pits, and encourage continuous and harmonious rehabilitation.</p>	<p>Biederman Road (Township Road) is located between the existing quarry and the proposed Extension. The Road area has been included within the Licence Boundary for the Quarry Extension. Removal of the road would be subject to municipal approvals and an alternative road being constructed to ensure landowner property access.</p>

In summary, for reasons set out in this Report, the proposed quarry is consistent with the policies of the Region of Niagara Official Plan (Consolidated 2014 version). A draft Regional Official Plan Amendment for this proposal has been included in Appendix C.

5.4 TOWNSHIP OF WAINFLEET OFFICIAL PLAN

The Township of Wainfleet Official Plan sets out the long term vision for the Township, establish goals and objectives to guide future land use changes in the municipality, and sets out specific policies to guide land use decision making in the Township. The Official Plan was last consolidated in January 2016.

The proposed Law Quarry Extension subject lands are designated Possible Extractive Industrial, Rural Area, and Environmental Protection Area in Schedule B of the Official Plan (Figure 13 – Township Official Plan Schedule B). The Possible Extractive Industrial Area Designation recognizes that this area may be suitable for quarry purposes in the future. An Official Plan Amendment is required to re-designate the lands to Extractive Industrial, in accordance with OP policy 3.6.5. The Extractive Industrial Area Designation permits uses normally associated with mineral aggregate operations as well as ancillary uses.

The Official Plan sets out policies regarding the Natural Heritage System within the Township. Policy 2.6.1 states the following:

The proposed Law Quarry is adjacent to the Wainfleet Bog PSW, which is accordingly mapped as EPA in Schedule B of the OP. A small portion of the area that is proposed to be re-designated is currently designated as Environmental Protection on Township Official Plan Schedule B as it corresponds to Ministry of Northern Development and Mines, Natural Resources and Forestry Wainfleet Bog mapping. As outlined in Township Official Plan Policy 2.6.1 the *“The Natural Heritage System, as illustrated on Schedule A, is schematic and shall be refined if and when land use changes are proposed. The spatial extent and functional requirements of the Natural Heritage System shall be determined through watershed plans, Secondary Plans and / or Environmental Impact Studies (EIS) and the boundaries of the Natural Heritage System shall be refined ...”*. As the Ministry of Natural Resources and Forestry approved the Wainfleet Bog Wetland Boundary change, in conjunction with the completion of the Natural Environment Report, the requested re-designation of this area represents an administrative change per Township policy 2.6.1.

A Natural Environment Report (Environmental Impact Assessment) was completed to accompany the proposed Law Quarry Extension Application. Several field surveys were completed as part of the assessment including updated mapping of the Wainfleet Bog wetland boundary with Ministry of Natural Resources and Forestry Staff. This updated mapping has identified that there is no PSW located within the subject lands. Based on the field work completed as part of the Natural Environment Report, no significant natural heritage features are proposed to be extracted, except for Category 2 Whip-poor-will habitat which will be

subject to the requirements of the Endangered Species Act and Species at Risk permitting process.

The revision of the Boundary of the EPA that is located on the northern portion of the Subject Lands is subject to this Official Plan Amendment. The NER supports the re-designation of this area from EPA to Extractive Industrial.

In accordance with Township Official Plan policy 3.2.1.6, the Natural Environment Report also confirms that there will be no negative impacts to any adjacent natural heritage features or their ecological functions, including the Wainfleet Bog.

The proposed Law Quarry extension is also designated Rural in Schedule B and is located outside of a Hamlet area. Therefore, the proposal conforms to Township Official Plan policy 3.1.4.6 which states that *“When reviewing applications to re-designate lands from the Rural Area designation, the following shall be considered a) The use cannot be located in a Hamlet”*.

The Township Official Plan also has policies which outline requirements for new or expanding pits and quarries in the Township. The Following table outlines how the proposed Law Quarry conforms to the Township OP Policies 3.6.6 and 3.6.8.

Table 5: Conformity with Township Official Plan Policies

Township of Wainfleet OP Policy 3.6.6 & 3.6.8	Proposed Law Quarry Extension
<p>3.6.6 Applications for a new or expanded Extractive Industrial Area designation shall provide the following information for consideration by the Township:</p> <p>a) The effect on the water resources, the Natural Heritage System and the Natural Environmental designations within 120 metres of the subject lands through the preparation of an EIS, and a hydrogeology study;</p>	<p>A Natural Environment Report and Water Report were completed by Riverstone Environmental and WSP which determined that the proposed Law Quarry Extension would not have a significant negative impact on surrounding natural features or surface and ground water resources.</p>
<p>b) The effect on ground water and existing wells surrounding the property</p>	<p>The Water report completed by WSP included a private and public well survey surrounding the property. The report concluded that the proposed Extension is not anticipated to significantly impact the quantity or quality of water in surrounding wells. A Water Well Complaint Contingency Plan is included on the Aggregate Resources Act Site Plan.</p>

<p>c) A rehabilitation plan as per Section 3.6.8;</p>	<p>The proposed Law Quarry will be rehabilitated to a large lake, with islands, varying slopes, and shallow shoreline areas.</p>
<p>d) A site development plan, which includes the following information:</p> <ul style="list-style-type: none"> i. The shape, topography, contours, dimensions, size and location of the property to be re-designated and/or rezoned as well as the extent of adjacent property held for future pit or quarry operations, ii. A description of the surrounding lands including land uses, location and use of buildings and structures, fences, significant natural features and wells within a distance of 120 metres and other lands owned by the applicant; iii. The location, height, dimensions and use of all buildings or structures existing or proposed to be erected on the property, iv. Existing and anticipated final grades of excavation, shown by contours where necessary, as well as excavation setbacks, v. Drainage provisions, vi. All entrances and exits, vii. As far as possible, ultimate pit development or quarry development, progressive and ultimate road plan, any water diversion or storage, location of stockpiles for stripping and products, progressive and ultimate rehabilitation, and where possible intended use of the land after the extractive operations have ceased, and viii. Cross-sections through the deposit and the estimated quality and quantity of the resource; 	<p>The ARA License application includes the submission of a detailed quarry site plan which includes information on the existing conditions of the property (including adjacent lands); information on the quarry operations and mining plan; detailed management, monitoring, and mitigation information; A Rehabilitation Plan; And cross-sections identifying pre and post extraction grades.</p> <p>The proposed ARA site plans also include information on the entrance and exit, internal haul routes, location of stockpiles, progressive rehabilitation, and cross sections of the proposed operation.</p> <p>The proposed Law Quarry Extension will be rehabilitated to a final landform which consists of a Lake, islands, varying slopes, and shallow shoreline areas.</p>
<p>e) The haulage routes proposed to and from the site, the traffic volumes anticipated and a traffic impact study;</p>	<p>The proposed Law Quarry Extension will use existing haul routes currently in place for the existing operation; Provincial Highway #3 is the primary haul route. A Traffic Impact Study was completed and determined that the</p>

	quarry Extension will not cause an operation issues and will not add significant delay or congestion to the local roadway network.
f) The effect of the operation on nearby residents including noise, dust and vibration concerns;	A Noise Impact Study, Blast Impact Assessment, and Air Quality Assessment were completed to evaluate the proposed Law Quarry Extension's potential noise, dust, and vibration impacts on surrounding land uses. All three reports concluded that with appropriate mitigation measures in place, the proposed Extension would operate within MECP regulatory and guideline limits.
g) The effect on archaeological resources and cultural resources;	Archaeological Assessments were completed and identified a number of Archaeological Resource areas of the property. Some of the areas will be permanently protected in "Archaeological Avoidance Areas". No disturbance or extraction can occur in these areas. The remaining archaeological resources areas will be fully assesses via a Stage 3 and 4 Archaeological Assessment sequentially as extraction in the quarry progresses.
h) A Planning Assessment Report, which assess land use compatibility and policy conformity issues including the relevant policies of this Plan, except that demonstration of need shall not be required;	This report serves to satisfy this policy and demonstrates that the proposed Law Quarry Extension conforms to the policies of the Township's Official Plan.
i) For applications on lands currently designated Agricultural Area, the applicant shall further demonstrate that the rehabilitation of the site will be carried out whereby substantially the same areas and same average soil quality, including soil capability for agriculture are restored; and	The proposed Law Quarry Extension is not located on lands designated Agricultural Area, and therefor is not required to be returned to an agricultural condition.

<p>3.6.8 All proposals for new licensed mineral aggregate operations shall include plans for rehabilitation. These rehabilitation plans shall:</p> <p>a) Provide for progressive sequential rehabilitation wherever feasible;</p>	<p>The proposed quarry will be extracted and rehabilitated progressively in five phases. Requirements for progressive rehabilitation are included on the Site Plan.</p>
<p>b) Be prepared in detail by a recognized expert under the Aggregate Resources Act prior to any approvals being given;</p>	<p>The ARA site plans were prepared and stamped by a qualified professional as required by O. Reg 244/97</p>
<p>c) Be compatible with the long-term uses permitted by the Official Plan;</p>	<p>The final, rehabilitated land uses will be a large naturalized lake. This will be compatible with the long-term, uses permitted in the Official Plan and will serve to enhance the existing Wainfleet Bog PSW.</p>
<p>d) Provide a detailed agricultural rehabilitation plan where lands have a Class 1, 2 or 3 soil capability. Rehabilitation must ensure that substantially the same acreage and same average soil quality including soil capability for agriculture are restored; and</p>	<p>The Law Quarry Extension is located on lands containing primarily class 4 and 6 soils, with some class 3 soils. The Lands have been appropriately designated Rural in both the Town of Wainfleet Official Plan and the Region of Niagara Official Pan. The lands are not identified as a Prime Agricultural Area in the Province’s agricultural systems mapping. It is therefore not required, nor proposed, that the lands be returned to an agricultural condition.</p>
<p>e) Consider the surrounding land uses and approved land use designations and recognize the interim nature of extraction.</p>	<p>The proposed final landform after rehabilitation recognizes the environmental land uses in the proximity of the subject lands. The proposed after uses is consistent with the surrounding land use context.</p>

In summary, for reasons set out in this Report, the proposed Quarry Extension is consistent with the policies of the Township of Wainfleet Official Plan. A draft Township Official Plan Amendment for this proposal has been included in Appendix C.

5.5 TOWNSHIP OF WAINFLEET ZONING BY-LAW

Township of Wainfleet Zoning By Law 034-2014 applies to all properties outside of the Township's Hamlets.

The entirety of the proposed Law Quarry Extension subject lands is located in the Rural (A4) zone in the Township of Wainfleet Zoning By-Law. A portion of the subject lands contains the Environmental Protection overlay (Figure 14 – Township Zoning By-Law).

To permit a quarry extension, a Zoning By-Law Amendment (ZBA) is required to re-zone the lands from A4 to the Extractive Industrial (M2) zone, which permits a Pit or a Quarry operation. Agricultural uses are also permitted in the M2 zone and will continue as the quarry is extracted sequentially.

The M2 zone has no minimum lot area, maximum lot coverage, or minimum lot frontage. The Zoning does require a 15 metre setback from the front lot line (front yard), or 30 metres from any street, occupied dwelling, or residential zone.

The required setbacks have been included from both Highway 3 and Graybiel Road from the roadways to the limit of extraction. Biederman Road is proposed to be located within the Licence Boundary. In some instances (Southwest and Southeast Corners) the buffer is larger than 30 metres. The proposed operation will thus be in compliance with the Township's Zoning By-Law if rezoned to the M2 zone.

A draft of the proposed Zoning By-Law Amendment is included as **Appendix D**.

6.0

AGGREGATE RESOURCES ACT SUMMARY STATEMENT

This Section is completed in accordance with the Aggregate Resources of Ontario: Technical Reports and Information Standards, August 2020. This Section of the Report fulfills “Part 1.0: Summary Statement” requirement of the Class A License Application.

Waterford Sand and Gravel Ltd. is applying for a Class A License under the Aggregate Resources Act (“ARA”) for a quarry extension below the water table. The proposed quarry is referred to as the Law Crushed Stone Quarry Extension (referred to as “Law Quarry Extension” or “Subject Lands” in this Report) and is located at Part of Lots 6 & 7, Concession 2 and Part of Road Allowance Between Lots 5 & 6, Concession 2 (geographic Township of Wainfleet), Township of Wainfleet, Region of Niagara. The Licence Application is comprised of several separate properties owned by Waterford Sand and Gravel or subsidiary companies.

The new proposed License will serve as an extension to the existing Law Quarry (existing licenses #4464 and #607541) and will replace the depleting bedrock reserves in these Licences which are required to support local and regional construction markets. The area proposed to be Licensed is 72.3ha with a limit of extraction of 51.2ha.

As identified on Page 2 of 3 of the site plans, the proposed Quarry Extension is to be operated in five sequential extraction phases in roughly a counter-clockwise direction starting along the centre of the eastern Licence Boundary. Biederman Road is proposed to be located in the Licence Boundary, subject to future Township of Wainfleet municipal approvals for removal.

The maximum number of tonnes of aggregate to be removed from the proposed new licence, in combination with existing Licence #4464 and #607541, in any calendar year, is 800,000 tonnes.

The Site Plans are included in the application package and are comprised of 3 pages that provide details and drawings on:

Page 1: Existing Features Plan
Page 2: Operational Plan
Page 3: Notes Plan
Page 4: Rehabilitation Plan
Page 5: Cross – Sections

The Site Plans have been completed in accordance with Aggregate Resources of Ontario Site Plan Standards (August 2020).

The following Technical Report are included with the Application and have been completed in accordance with the Technical Reports and Information Standards (August 2020),

- 2.1 Maximum Predicted Water Table Report and Water Report (WSP, March 2022)**
- 2.2 Natural Environment Level 1 and 2 Report (Riverstone Environmental Solutions, June 2022)**
- 2.3 Stage 1 and 2 Archaeological Assessment (ASI, 2020, 2021, and 2022) and Cultural Heritage Evaluation Report (MHBC, May 2022)**
- 2.6 Noise Assessment Report, Aercoustics, May 2022**
- 2.7 Blast Design Report, Explotech Engineering, June 2022**

The following Sections are structured to provide information required under the Provincial Standards for Class A Licence for a quarry operation which intends to extract aggregate material from below the maximum predicted water table elevation.

6.1 S. 1.1 AGRICULTURAL CLASSIFICATION

The area proposed to be Licensed is predominately in an active agricultural condition and produces field crops. However, the subject lands are not considered a Prime Agricultural Area. As shown on Figure 11, the subject lands are mapped as containing Canada Land Inventory Class 3, 4, and 6 soils. The subject lands are not mapped as *Prime Agricultural Area* or *Specialty Crop Area* in the Provincial Agricultural System Mapping. Further, the subject lands are designated "Rural Area" and "Possible Extractive Industrial" in the Region and Township Official Plan. Agricultural Impact Assessment (MHBC, May) has been completed as required to fulfil the application requirements for a Region of Niagara Official Plan Amendment. There is no requirement under the Aggregate Resources of Ontario: Technical reports and information standards to complete and Agricultural Impact Assessment for this Licence Application.

Agricultural rehabilitation is not proposed nor required by the policy framework for the proposed Quarry Extension Licence Application.

6.2 S. 1.2 PLANNING AND LAND USE CONSIDERATIONS

The subject property is located in a predominately rural area of the Township of Wainfleet that includes a diverse mix of rural uses including: the existing Law Quarry, Reeb Quarry, Rural Residential uses, institutional uses, agricultural uses, and highway commercial. The existing Law Quarry is an established land use in the area that has been in operation since the 1930's.

The Subject Lands are designated "Rural Area" and "Possible Extractive Industrial" in the Township of Wainfleet and Region of Niagara Official Plans (See Figure 6, Figure 7, and Figure 13). The Subject Lands are also mapped as a Potential Resource Area (Stone) in the Township and Region Official Plans. (See Figure 5).

In the Region of Niagara and Township of Wainfleet Official Plans, the area proposed to be Licenced is currently Designated as Rural Area. A Regional and Township Official Plan Amendment is required to re-designate the proposed Licence area to Extractive Industrial.

In the Township of Wainfleet Zoning By-Law 034-2014, the area proposed to be Licensed is currently zoned A4. A Zoning By-Law Amendment is required to re-zone the area proposed to be Licensed to the Extractive Industrial (M2) zone

It is anticipated that the required Planning Act Applications will be submitted concurrently with the ARA Licence Application.

As demonstrated in Section 45.0 of this Report, the proposed Quarry Extension represents good planning for the Region of Niagara and the Township of Wainfleet. The proposal is consistent with the Provincial Policy Statement (PPS 2020), conforms to the Growth Plan (2020), conforms to the Region of Niagara Official Plan (2014) and the Township of Wainfleet Official Pand meets the provisions of the Township of Wainfleet Zoning By-law 034-2014. See Sections 5.0 of this Report for additional information.

6.3 S. 1.3 SOURCE WATER PROTECTION

The Subject Lands are not located within a mapped Source Water Protection area. Source Water Protection is addressed in greater detail in Section 2.4.3 of the WSP Water Resources Report (March 2022).

The subject lands are located in the Niagara Region Source Protection Plan Area. As outlined in the WSP Hydrogeological Report, there are no municipal drinking water sources in the Region

of Niagara that rely on groundwater supply wells, and therefore, no Wellhead Protection Areas (WHPAs). The proposed quarry is not located in an Intake Protection Zone (IPZ).

The Clean Water Act identifies specific activities that pose a risk of contamination, which are prescribed by the MECP. Under the Clean Water Act, Aggregate Operations are not identified as a Prescribed Threat. No permanent fuel storage facilities will be located on the subject site and temporary fuel storage facilities are will be located in a designated area outside of the WHPA. No mobile re-fueling will be permitted in the area of the site mapped as a WHPA.

Both the existing quarry and the proposed extension are located in an identified Highly Vulnerable Aquifer (HVA). Ontario Regulation 244/97 requires that A Spills Contingency Plan be prepared and implemented for the Licence to mitigate and prevent any potential contamination from spills.

The Clean Water Act identifies specific activities that pose a risk of contamination, which are prescribed by the MECP. Under the Clean Water Act, Aggregate Operations are not identified as a Prescribed Threat.

6.4 S. 1.4 QUALITY AND QUANTITY OF AGGREGATE ON SITE

The proposed Law Quarry Extension lands are known to contain bedrock resources that are part of the Bois Blanc and Bertie Formations. The proposed Extension is located immediately adjacent to the existing Law Quarry that has been in operation since the 1930s. The Subject Lands are mapped in the Township and Region Official Plans as Potential Aggregate Resources Areas (Stone) and are further identified as Outcrop Areas where the bedrock resources is located within 3m of the ground surface.

Site specific investigations have confirmed the availability of approximately 21 million tonnes of resource available within the area proposed to be extracted. These high quality aggregate resources will be used to produce various aggregate products for use in construction and infrastructure projects in the local and regional areas. The Quarry Extension Licence will have a proposed annual extraction limit of 800,000 tonnes in combination with the existing quarry licences.

6.5 S. 1.5 HAUL ROUTES, TRUCK TRAFFIC AND ENTRANCE PERMITS

The existing quarry has an existing entrance/exit onto Provincial Highway #3. Provincial Highway #3 will continue to be the main haul road uses for the proposed Quarry Extension. No new entrance/exists are proposed Highway #3 and the existing quarry exit/entrance will

continue to be used. No new entrance permits are required. No increase in tonnage across the three licenses is proposed and the current level of truck traffic to and from the quarry will be maintained (e.g. 88am and 88pm peak hour trips from the quarry).

A scoped Traffic Impact Study (JD Northcote Engineering, April 2022) was completed for submission with the Planning Act Applications. The Scoped Traffic Impact Study concluded that proposed Quarry Extension will not cause any operational issues and will not add significant delay or congestion to the local roadway network.

6.6 S. 1.6 PROGRESSIVE AND FINAL REHABILITATION

Progressive rehabilitation of the proposed Quarry Extension will occur in closely follow the five extraction phases. The Site Plan Page 3 (notes pages) provides the details for the timing of progressive rehabilitation relative to sequential extraction. Progressive rehabilitation activities will predominately include the creation of side-slopes and the grading and seeding of areas above the water table. Topsoil, overburden and rock will be used in the progressive rehabilitation of the side-slope areas.

The final rehabilitated land use will be a lake with several large islands that contain the permanent archaeological protection zones. If Biederman Road is removed, the existing quarry lake would be joined with the lake that will be created in the proposed Quarry Extension area. Both quarries will be rehabilitated comprehensively. Similarly to the existing quarry rehabilitation plan, various slope-treatments will be implemented throughout the quarry extraction phases, including 2:1 slopes, 3:1 slopes, cliff and talus slopes, and vertical faces. This approach will optimize the amount of on-site material available for rehabilitation and will also create different types of habitat.

In the north end of the Quarry Extension, ecological enhancements are proposed including: shallow shoreline area, exposed quarry faces with talus slopes and nodal tree and shrub plantings which will mimic and “kick-start” rehabilitation of this are to forest cover. All proposed plantings with be native and non-invasive. The ecological enhancements proposed in the northern portion of the Licnced are located adjacent to significant wetlands and woodlands and will improve overall connectivity with these offsite features.

7.0

CONCLUSIONS

The proposed Law Quarry Extension will serve as an extension to the existing Law Crushed Stone Quarry and will replace the depleting reserves at the existing quarry and allow the Law Quarry to continue to supply high quality aggregate products to local and regional markets. No increase to the annual tonnage is proposed and the three licences will maintain the current 800,000 annual tonnage limit.

The Law Quarry Extension has been designed to minimize impacts on adjacent sensitive uses and to ensure that there will be no negative impacts to surface and ground water resources as well as natural heritage features.

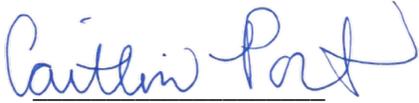
The subject lands will be rehabilitated to a lake with island and ecological enhancements. . The Rehabilitation Plan includes varying slope treatments to maximize the use of on-site materials and to create diverse habitats for wildlife. The Quarry Extension will be rehabilitated comprehensively with the existing quarry.

As demonstrated in this Report, the proposed Law Quarry Crushed Stone Extension is:

- Consistent with the Provincial Policy Statement 2020;
- Conforms with the policies of the Growth Plan 2020;
- Conforms to the Region of Niagara and Township of Wainfleet Official Plans; and,
- Includes all of the information required by the Aggregate Resources Act Provincial Standards (2020).

It is concluded that the proposed Quarry Extension is desirable, appropriate, and represents good planning.

Respectfully submitted by,
MHBC



Caitlin Port, MES, MCIP, RPP

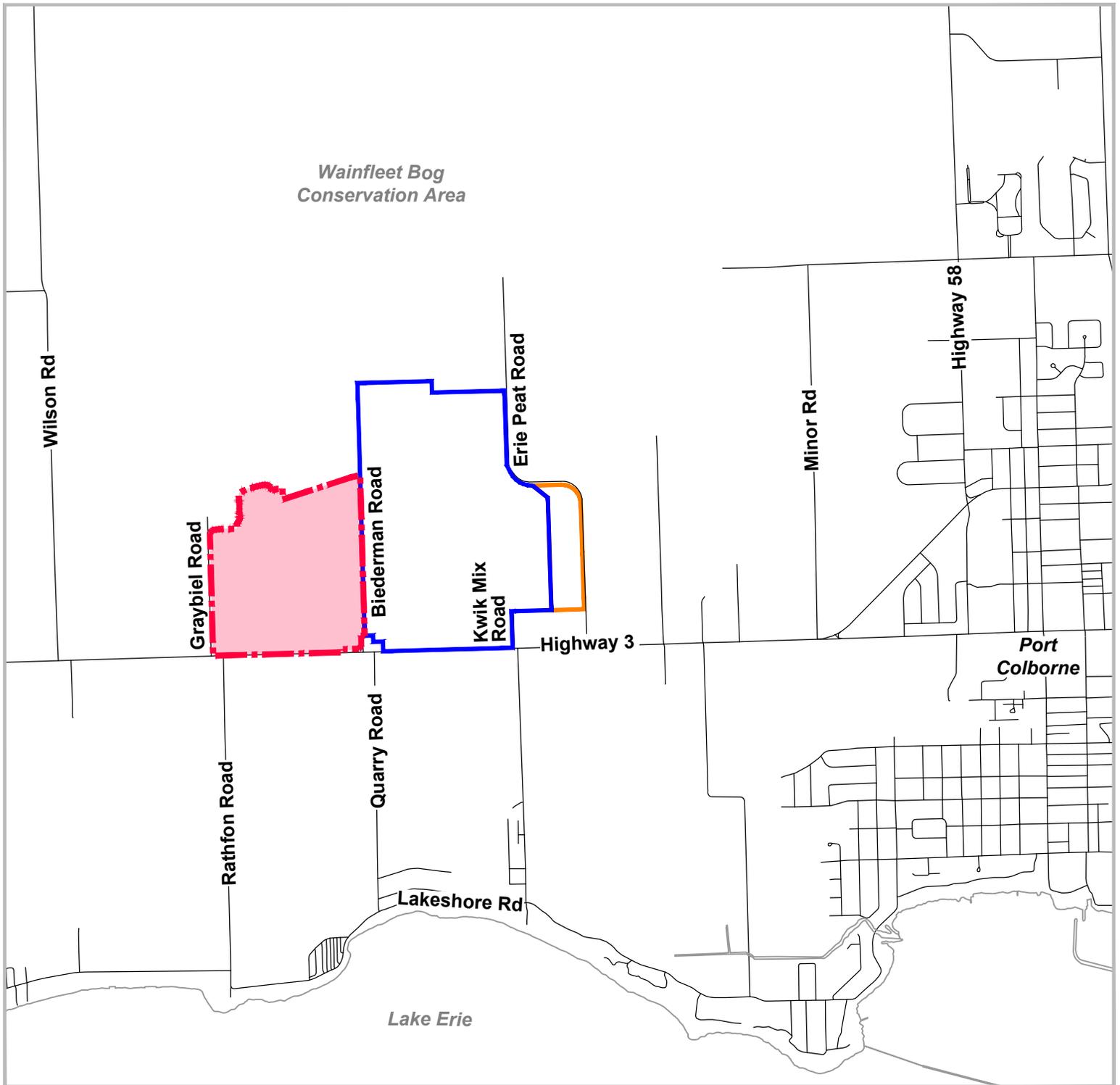


Dawson McKenzie, BA



Neal DeRuyter, BES, MCIP, RPP

REPORT FIGURES



**Figure 1
Location Map**

LEGEND



Proposed Licensed Boundary



Existing Law Quarry (Licence #4464)



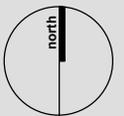
Existing Law Quarry (Licence #607541)

DATE: November 2020

FILE: 0956B

SCALE: 1:50,000

DRAWN: CAC/DGS



K:\0956C-WATERFORD SAND AND GRAVEL LIMITED LAW QUARRY EXTENSION\RPT\PLANNING JUSTIFICATION REPORT\LOCATION.DWG

Waterford Sand & Gravel Limited

Part of Lots 6 & 7, Concession 2
Part of Road Allowance Between Lots 5 & 6,
Concession 2,
Township of Wainfleet
Regional Municipality of Niagara



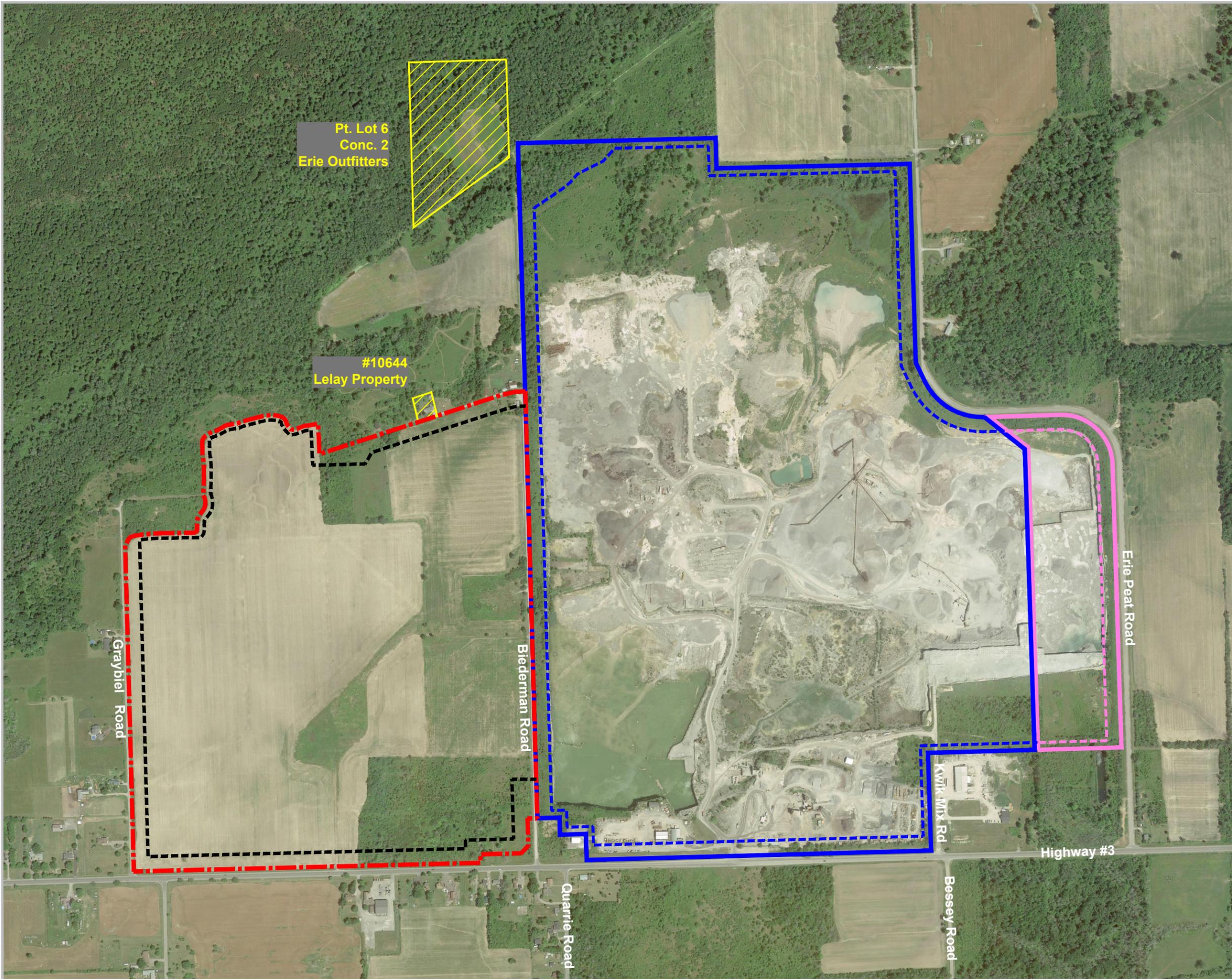
200-540 BINGEMANS CENTRE DR. KITCHENER, ON, N2B 3X9
P: 519.576.3650 F: 519.576.0121 | WWW.MHBCPLAN.COM

Figure 2
Property Air Photo

Waterford Sand & Gravel Limited
 Part of Lots 6 & 7, Concession 2
 Part of Road Allowance Between Lots 5 & 6,
 Concession 2,
 Township of Wainfleet
 Regional Municipality of Niagara

Legend

-  Proposed Licensed Boundary
-  Proposed Limit of Extraction
- Existing Law Quarry (Licence #4464)
 -  Licensed Boundary
 -  Limit of Extraction
- Existing Law Quarry (Licence #607541)
 -  Licensed Boundary
 -  Limit of Extraction
-  Properties on Biederman Road not Owned by Waterford



Pt. Lot 6
 Conc. 2
 Erie Outfitters

#10644
 Lelay Property

Base Plan Source:
 Air Photo - Google (2018)

DATE: September 11, 2020

SCALE: 1:7,500

FILE: 0956B

DRAWN: DGS



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Figure 3
Surrounding Context

Waterford Sand & Gravel Limited
 Part of Lots 6 & 7, Concession 2
 Part of Road Allowance Between Lots 5 & 6,
 Concession 2,
 Township of Wainfleet
 Regional Municipality of Niagara

- Legend**
- Proposed Licensed Boundary
 - Proposed Limit of Extraction
 - Existing Law Quarry (Licence #4464)
 - Existing Law Quarry (Licence #607541)



Source: Air Photo - Google (2018)

DATE: March 2022

SCALE: 1:20,000

FILE: 0956C

DRAWN: DGS/CAC

K:\0956C-Waterford Sand and Gravel Limited-Law Quarry Extension\Rpt\Planning Report
 2022\SurroundingContext.dwg



Archaeological Sites and Avoidance Zones

Waterford Sand & Gravel Limited
 Part of Lots 6 & 7, Concession 2
 Part of Road Allowance Between Lots 5 & 6,
 Concession 2,
 Township of Wainfleet
 Regional Municipality of Niagara

Legend

 Proposed Licensed Boundary [Biederman Road is included in the proposed extraction area subject to future agreements with Township of Wainfleet]

 Proposed Limit of Extraction (±50.2 ha) [excludes Avoidance Areas]

 Proposed Operational Phasing

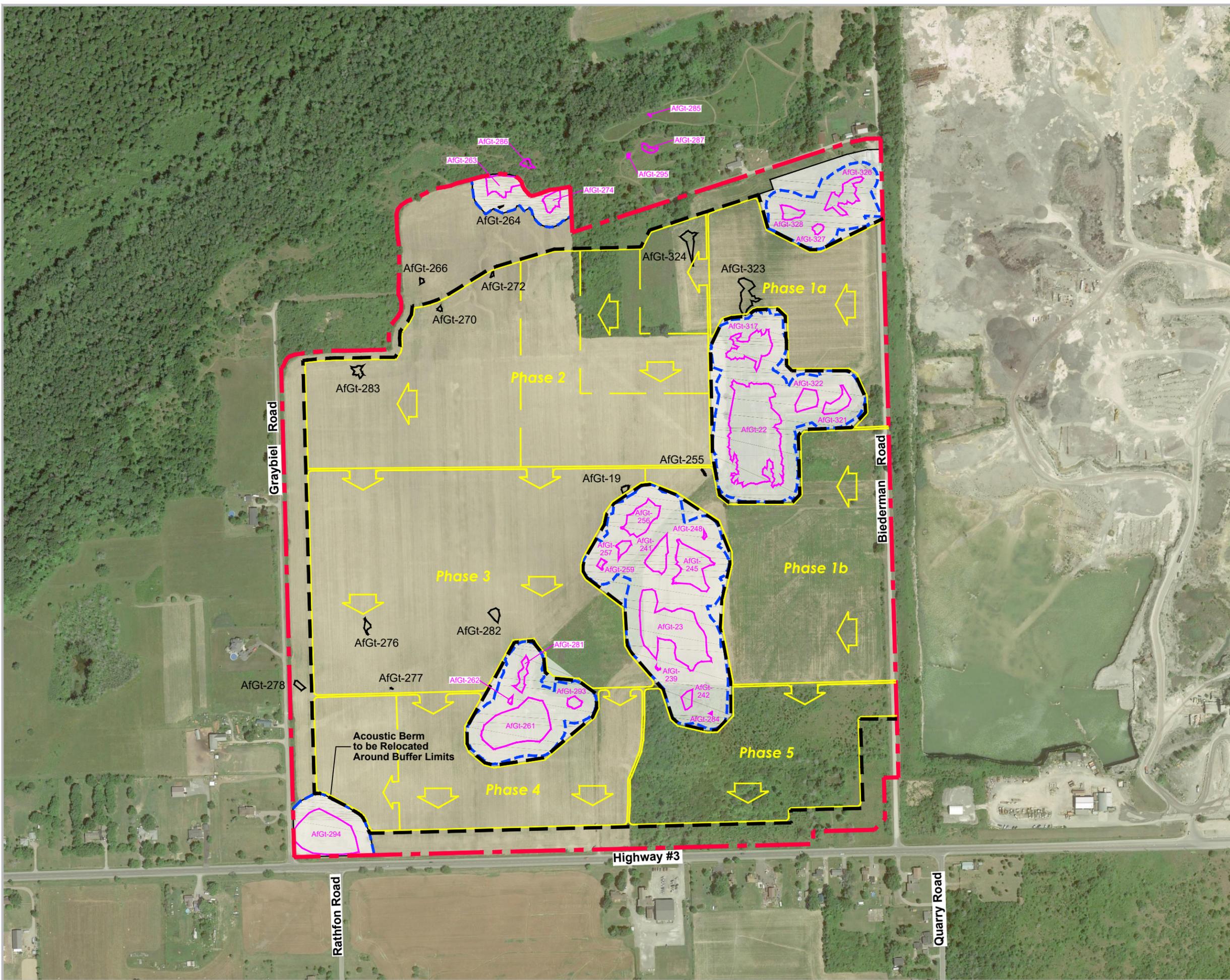
Archaeology

 Avoidance Areas

 Archaeological Sites

 20m Setback from Archaeological Sites

 Archaeological Sites where Stage 3 and/or 4 is required [clearances will be obtained]



Base Plan Source:
 Air Photo - Google (2018)

DATE: June 2022

SCALE: 1:5,000

FILE: 0956B

DRAWN: DGS



K:\0956C-Waterford Sand and Gravel Limited-Law Quarry Extension\Rp\Archaeological Sites and Avoidance Zone with Phasing June2022.dwg



Source: Niagara Region (August 2015)

Figure 5
Niagara Region
Official Plan -
Potential Resource
Areas: Stone
(Schedule D1)

LEGEND

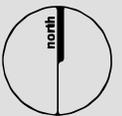
-  Proposed Licensed Boundary
-  Silurian Formation
-  Devonian Formation
-  Outcrop - Stone within 3' of Surface

DATE: August 2020

FILE: 0956B

SCALE: 1:50,000

DRAWN: CAC

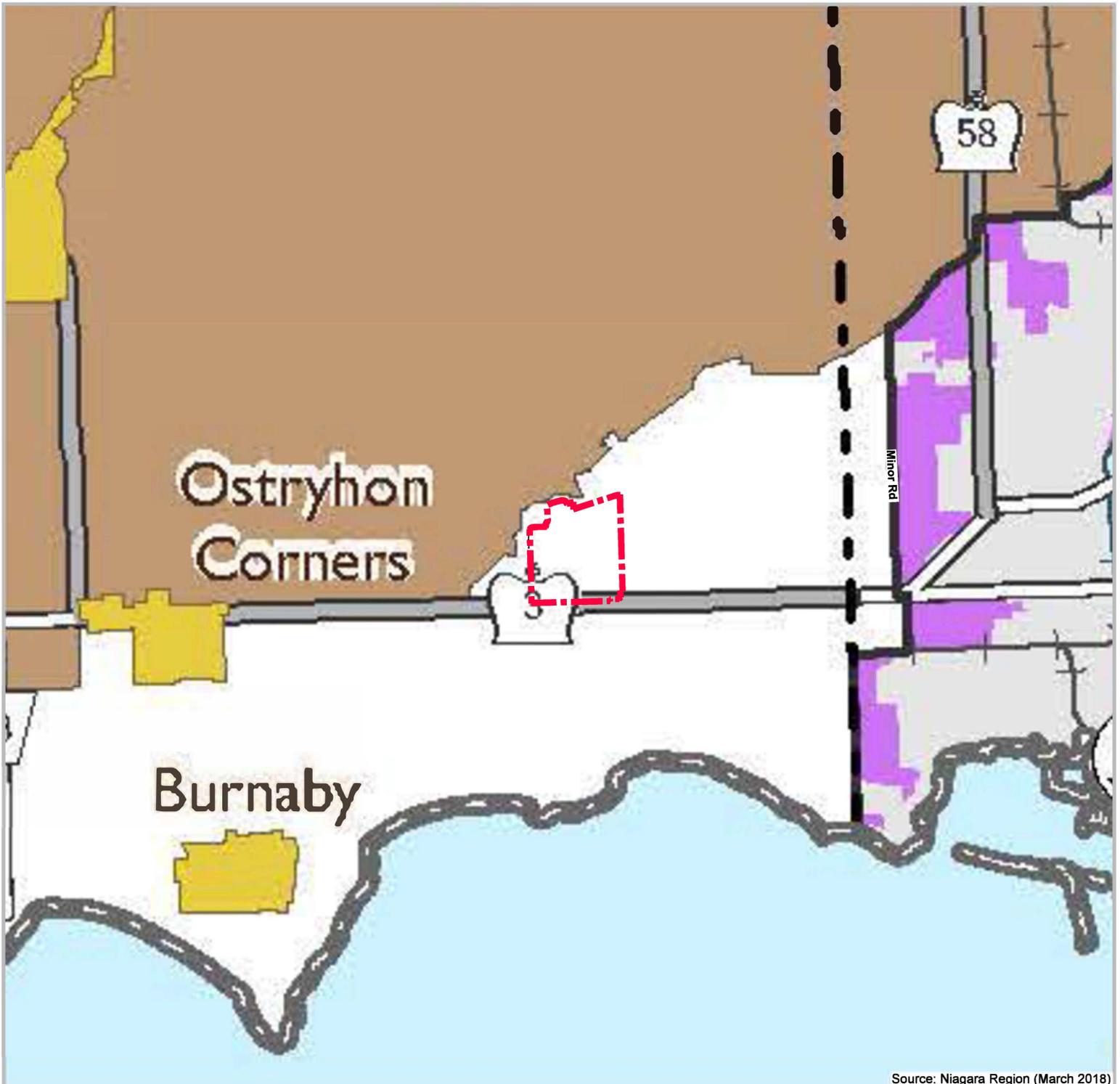


K:\0956B-WATERFORD SAND AND GRAVEL LIMITED-LAN QUARRY EXTENSION-RPT\PLANNING JUSTIFICATION REPORT\REGIONOP.DWG

Waterford Sand & Gravel Limited
 Part of Lots 6 & 7, Concession 2
 Part of Road Allowance Between Lots 5 & 6,
 Concession 2,
 Township of Wainfleet
 Regional Municipality of Niagara

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Source: Niagara Region (March 2018)

Figure 6
**Niagara Region
 Official Plan -
 Regional Structure
 (Schedule A)**

LEGEND

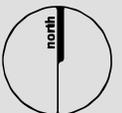
-  Proposed Licensed Boundary
-  Urban Area Boundary
-  Built-Up Area
-  Designated Greenfield Area
-  Good General Agriculture Area
-  Hamlet
-  Rural Area

DATE: November 2020

FILE: 0956B

SCALE: 1:50,000

DRAWN: CAC



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Source: Niagara Region (August 2015)

Figure 7
Niagara Region
Official Plan -
Mineral Resources
(Schedule D4)

LEGEND

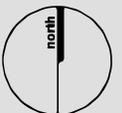
-  Proposed Licensed Boundary
-  Licensed Pits and Quarries
-  Possible Aggregate Areas

DATE: November 2020

FILE: 0956B

SCALE: 1:30,000

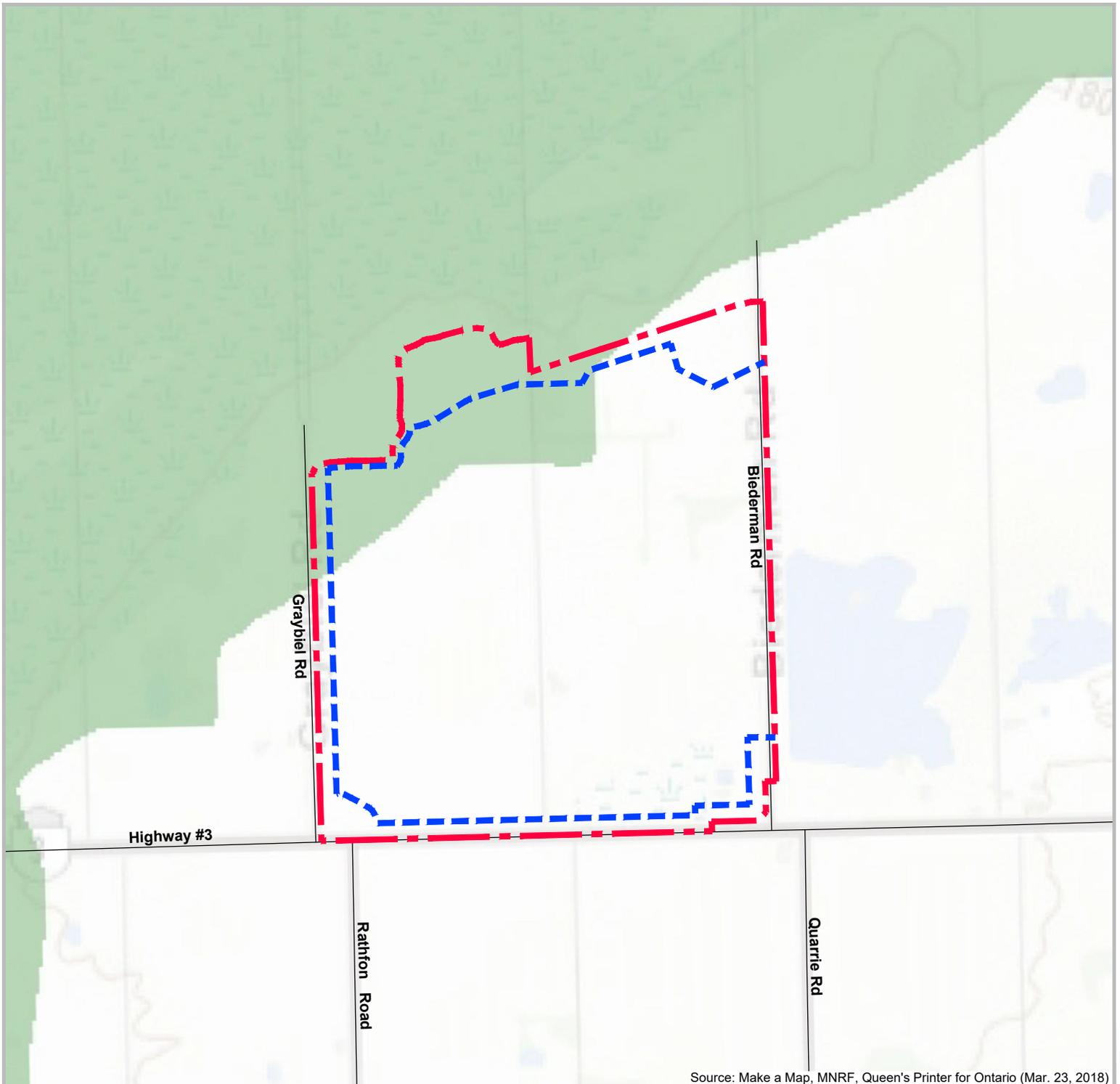
DRAWN: CAC



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Source: Make a Map, MNRF, Queen's Printer for Ontario (Mar. 23, 2018)

Figure 8 Provincial Natural Heritage System

LEGEND

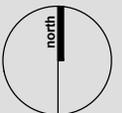
-  Proposed Licensed Boundary
-  Proposed Limit of Extraction
-  Natural Heritage System

DATE: March 2022

FILE: 0956C

SCALE: 1:10,000

DRAWN: CAC



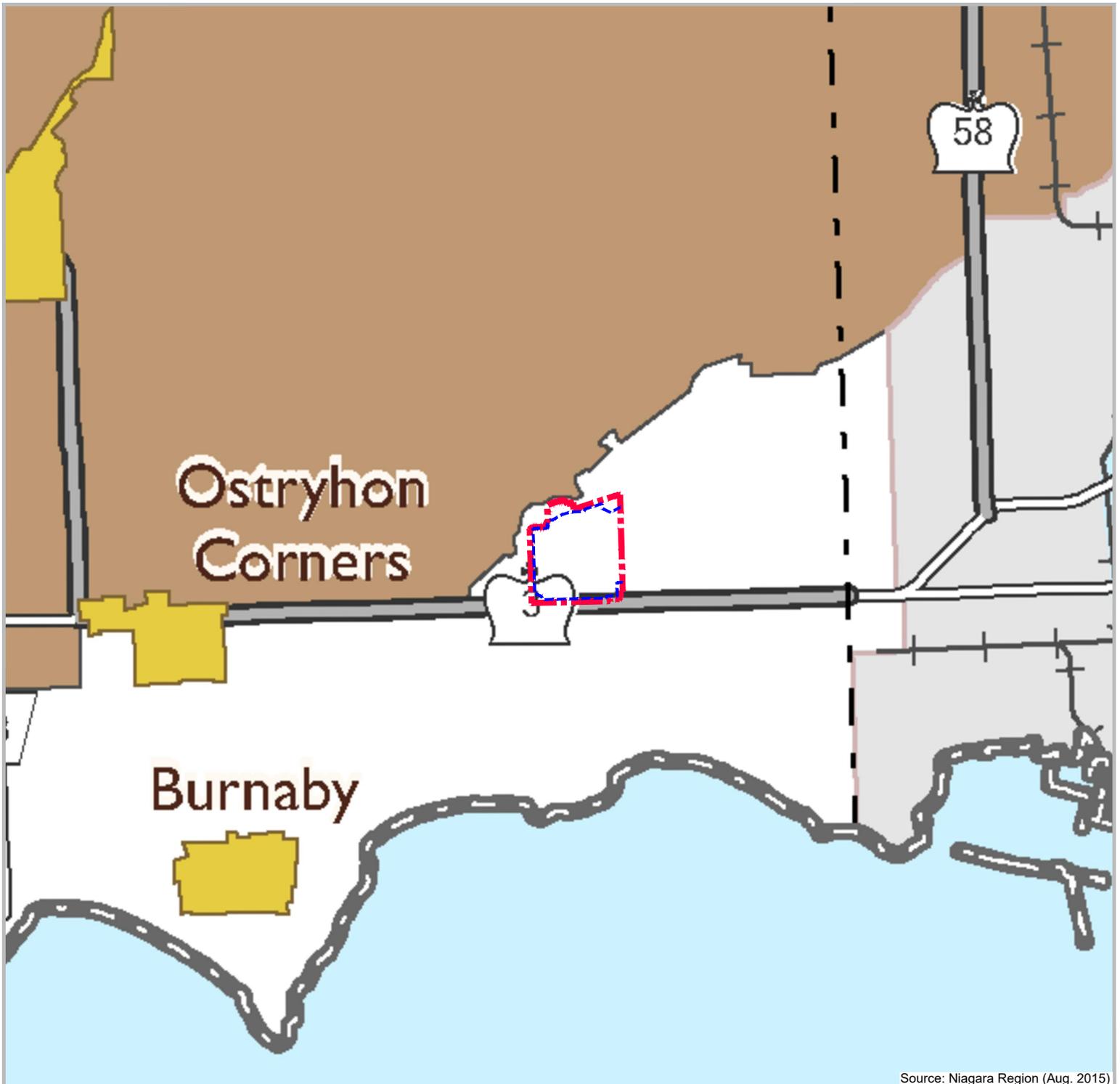
K:0956C-WATERFORD SAND AND GRAVEL LIMITED-LAW QUARRY EXTENSION/RPT/PLANNING REPORT
2022/PROVINCIAL/NHS.DWG

Waterford Sand & Gravel Limited

Part of Lots 6 & 7, Concession 2
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Source: Niagara Region (Aug. 2015)

Figure 9
**Niagara Region
 Official Plan -
 Agricultural Land
 Base (Schedule B)**

LEGEND

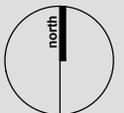
-  Proposed Licensed Boundary
-  Proposed Limit of Extraction
-  Good General Agriculture Area
-  Rural Area
-  Urban Area
-  Hamlet (Refer to Policy 4.H.I.6)
-  Provincial Road
-  Regional Road

DATE: March 2022

FILE: 0956C

SCALE: 1:50,000

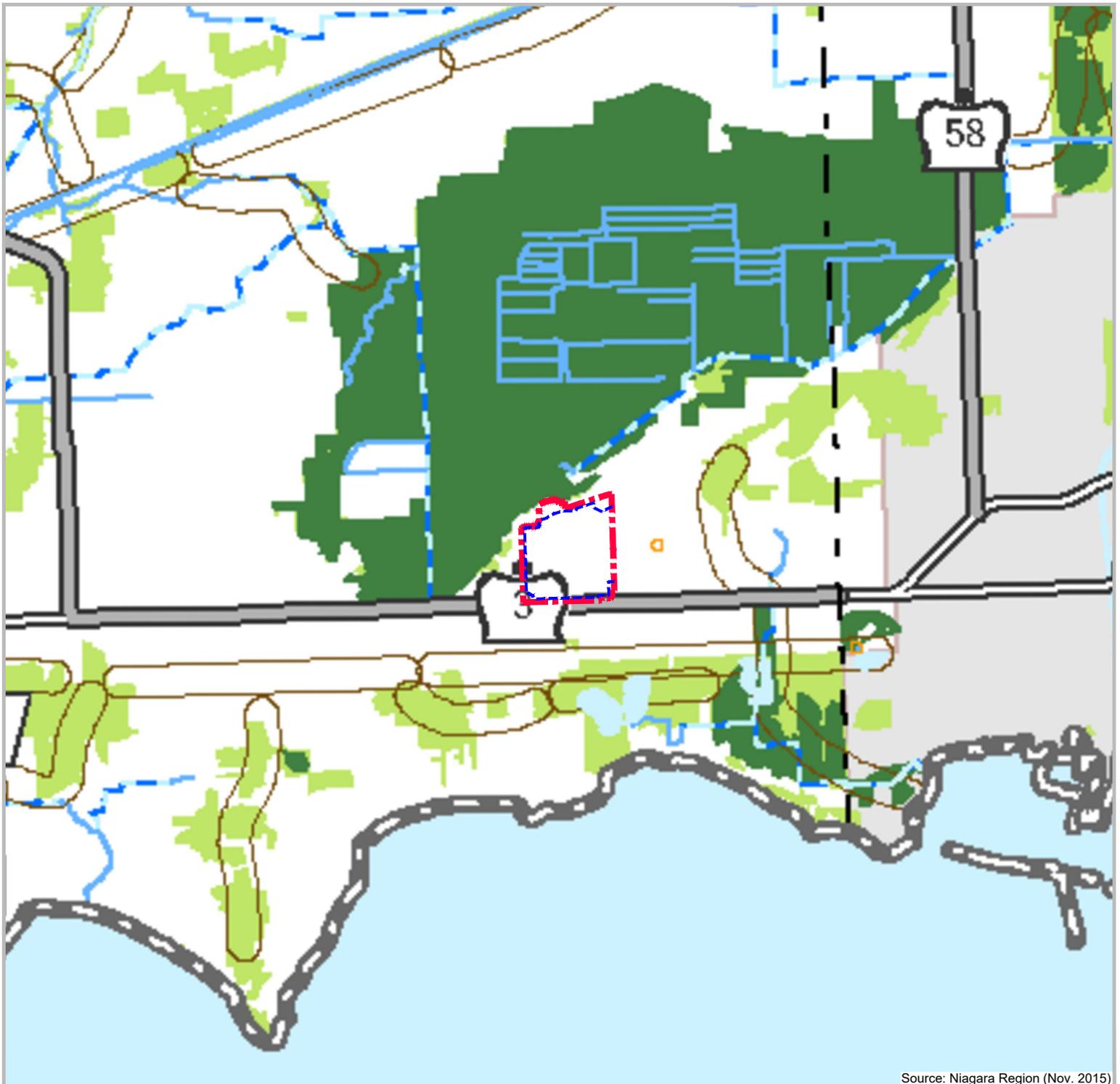
DRAWN: CAC



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2022\REGIONOP.DWG

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Source: Niagara Region (Nov. 2015)

Figure 10
**Niagara Region
 Official Plan -
 Core Natural
 Heritage
 (Schedule C)**

Waterford Sand & Gravel Limited
 Part of Lots 6 & 7, Concession 2
 Part of Road Allowance Between Lots 5 & 6,
 Concession 2,
 Township of Wainfleet
 Regional Municipality of Niagara

LEGEND

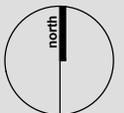
-  Proposed Licensed Boundary
-  Proposed Limit of Extraction
-  Environmental Protection Area
-  Environmental Conservation Area
-  Fish Habitat
-  Municipal Drain
-  Potential Natural Heritage Corridor
-  Provincial Road/Regional Road

DATE: March 2022

FILE: 0956C

SCALE: 1:50,000

DRAWN: CAC



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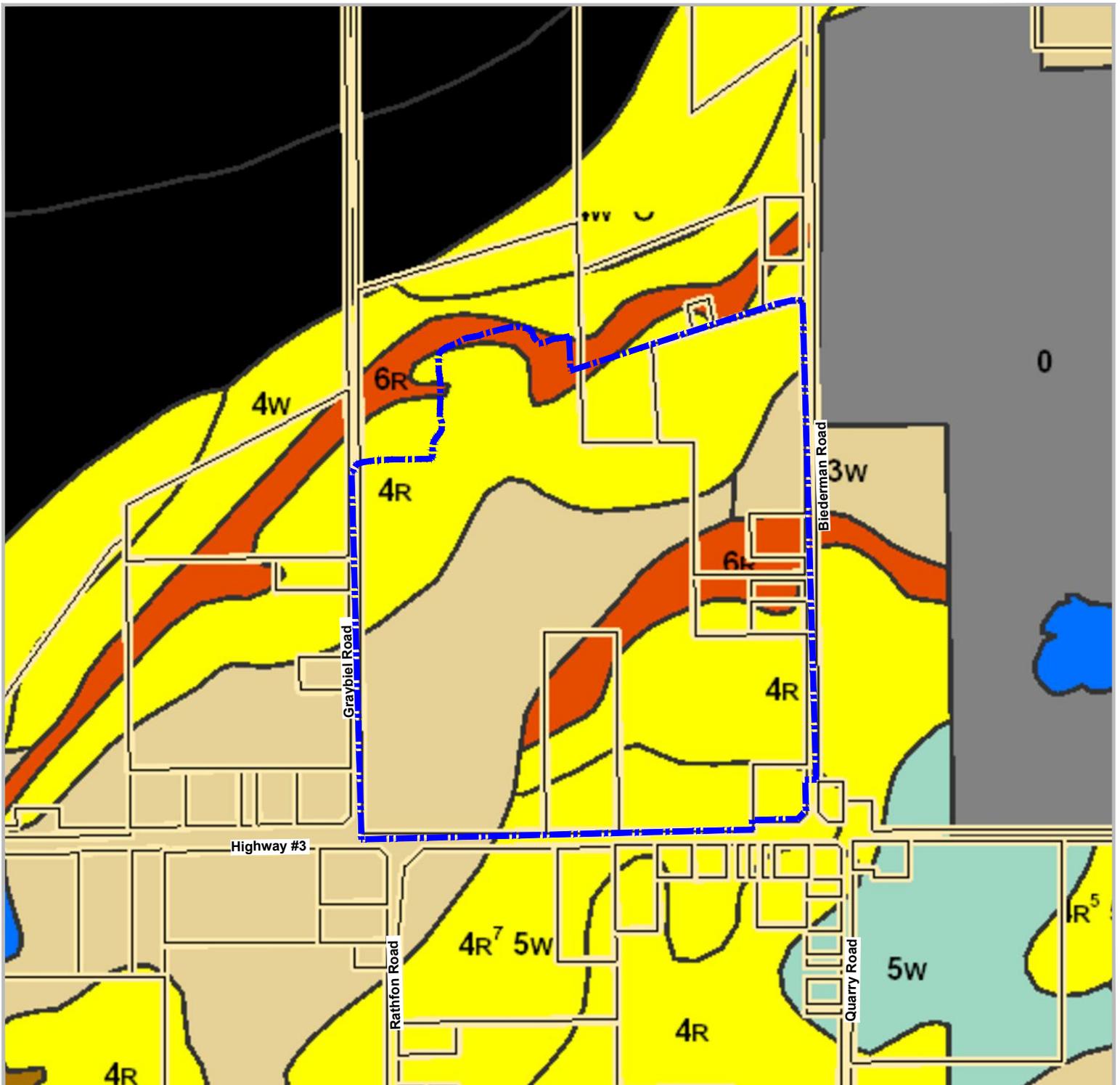


Figure 11

Soil Capability for Agriculture

Waterford Sand & Gravel Limited

Part of Lots 6 & 7, Concession 2
 Part of Road Allowance Between Lots 5 & 6, Concession 2,
 Township of Wainfleet
 Regional Municipality of Niagara

LEGEND



Proposed Licensed Boundary

CLI Agriculture Capability

- Unclassified
- Class 3
- Class 4
- Class 5
- Class 6
- Organic Soil

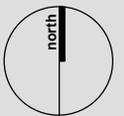
Source: AgMAPs online mapping service, ©Queen's Printer for Ontario 2021

DATE: February 17, 2021

FILE: 0956B

SCALE: 1:10,000

DRAWN: DGS



K:\0956C-WATERFORD SAND AND GRAVEL LIMITED-LAW QUARRY EXTENSION\RP\PLANNING JUSTIFICATION REPORT\SOIL CAPABILITY FOR AGRICULTURE.DWG



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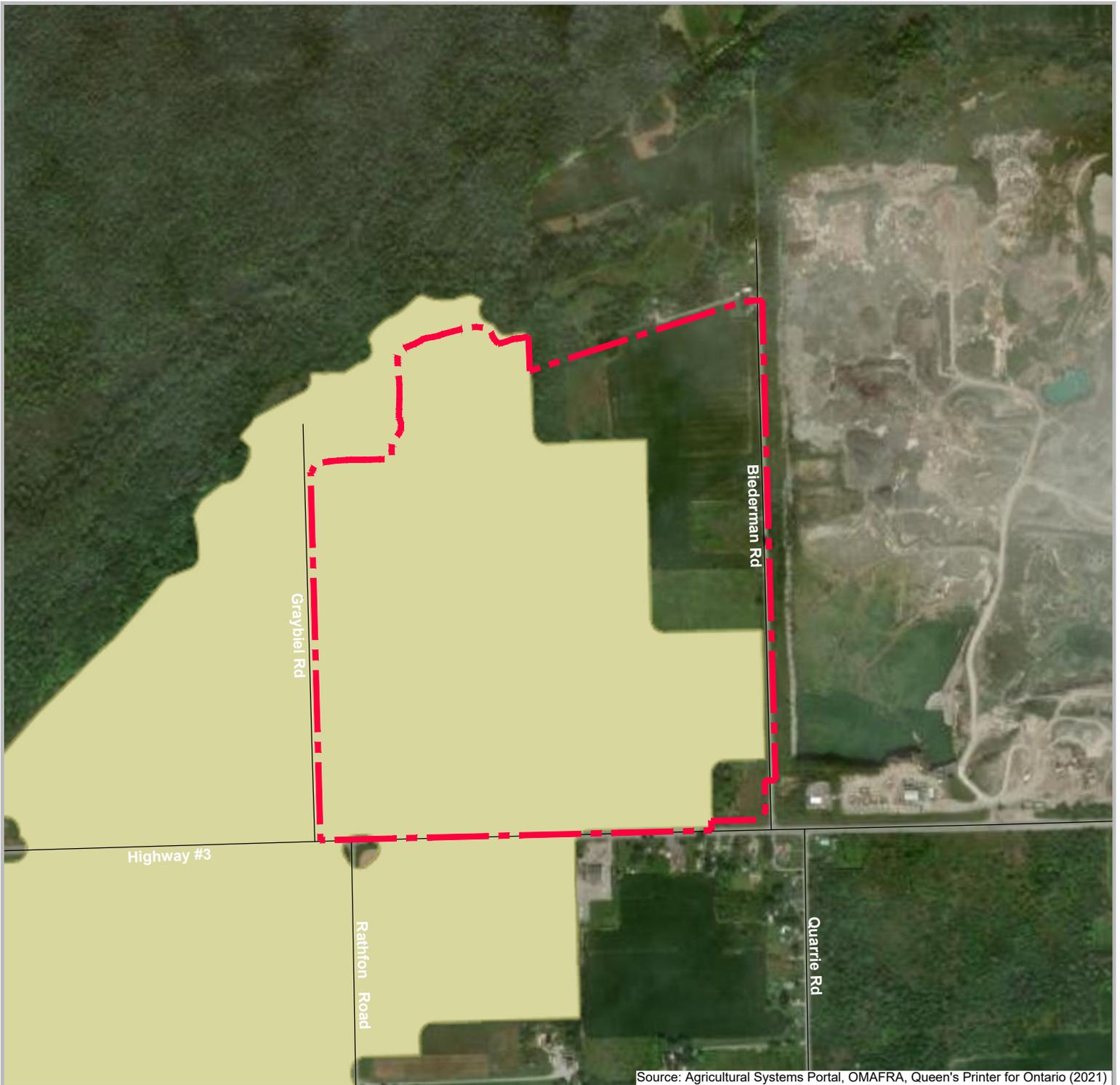


Figure 12
**Provincial
 Agricultural
 System**

LEGEND



Proposed Licensed Boundary



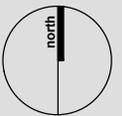
Candidate Area

DATE: May 2022

FILE: 0956C

SCALE: 1:10,000

DRAWN: CAC



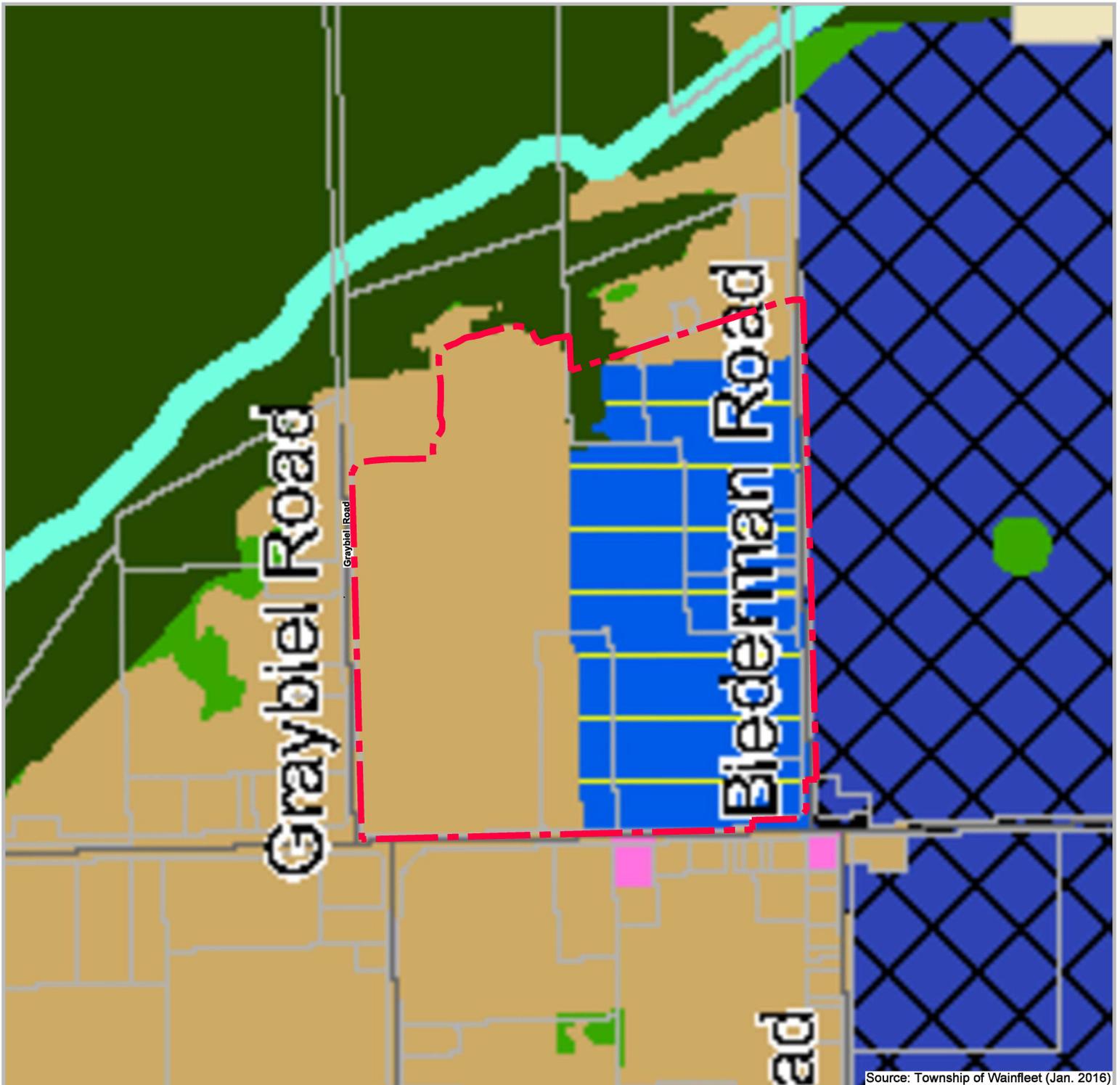
K:\0956C-WATERFORD SAND AND GRAVEL LIMITED-LAW QUARRY EXTENSION\RPT\PLANNING REPORT
 2022\PROVINCIALAGSYSTEM.DWG

Waterford Sand & Gravel Limited

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 Regional Municipality of Niagara



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Source: Township of Wainfleet (Jan. 2016)

Figure 13
**Township of Wainfleet
 Official Plan -
 Township Land Use
 (Schedule B)**

Waterford Sand & Gravel Limited
 Part of Lots 6 & 7, Concession 2
 Part of Road Allowance Between Lots 5 & 6,
 Concession 2,
 Township of Wainfleet
 Regional Municipality of Niagara

LEGEND

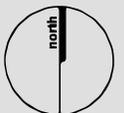
-  Proposed Licensed Boundary
-  Rural Area
-  Institutional
-  Extractive Industrial
-  Poss Extra Industrial
-  Fish Habitat
-  Environmental Conservation Area (ECA)
-  Environmental Protection Area (EPA)

DATE: November 2020

FILE: 0956B

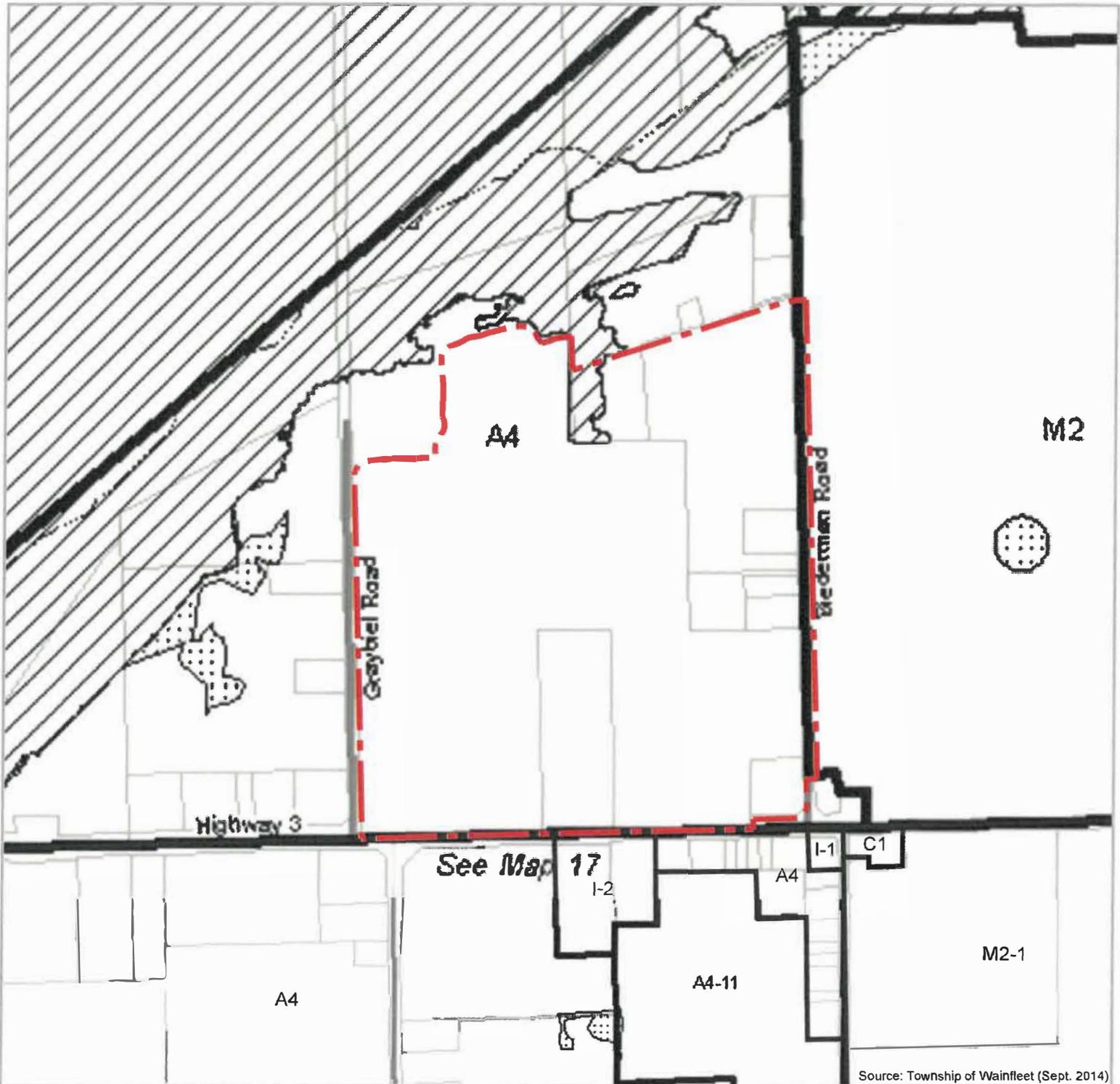
SCALE: 1:10,000

DRAWN: CAC



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Source: Township of Wainfleet (Sept. 2014)

Figure 14
Township of Wainfleet
Zoning By-Law
034-2014

- LEGEND**
-  Proposed Licensed Boundary
 -  Environmental Protection Overlay
 -  Environmental Conservation Overlay

- A4 - Rural
- C1 - Hamlet Commercial
- I - Institutional
- M2 - Extractive Industrial

DATE: November 2020
 FILE: 0956B
 SCALE: 1:10,000
 DRAWN: CAC



Waterford Sand & Gravel Limited
 Part of Lots 6 & 7, Concession 2
 Part of Road Allowance Between Lots 5 & 6,
 Concession 2,
 Township of Wainfleet
 Regional Municipality of Niagara

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APPENDIX A

PRE-CONSULTATION DOCUMENTS

Pre-consultation Meeting Form

Niagara Region &
Township of Wainfleet

Persons intending to make an application for a proposed development are required to consult with planning staff prior to submitting an application. A pre-consultation meeting will identify what is required to be submitted for a complete application and will provide the opportunity to discuss:

- The nature of the application;
- Development and planning issues;
- Fees;
- The need for information and/or reports to be submitted with the application;
- The planning approval process;
- Other matters, as determined.

Pre-Consultation Meeting Date: March 30, 2021, 3:00 P.M. to 4:30 P.M., via Zoom

Site Address: See Schedule 'A' attached. **Approximate Land Area (metric):** 72 ha
Lands located generally between Graybiel Road and Biederman Road on the north side of Highway 3, Wainfleet, directly west of existing Law Quarry.

Site Legal Description: Part of Lots 6 and 7, Concession 2, Part of Road Allowance Between Lots 5 and 6, Concession 2, Township of Wainfleet, Region of Niagara

Owner Contact Information:

Name of Owner: Waterford Sand and Gravel Limited **Contact:** Ed Lamb

Phone Number: 519-752-1300 **Email:** elamb@waterfordgroup.ca

Agent Contact Information:

Name of Agent: MHBC Planning **Contact:** Caitlin Port, MCIP, RPP

Phone Number: 519-576-3650 **Email:** cport@mhbcplan.com

Regional, Local and Agency Contact Information:

See Schedule 'D' attached

Application Types:

- Regional Official Plan Amendment Local Official Plan Amendment Zoning By-law Amendment

1. Brief description of proposed development:

Regional Official Plan Amendment, Township of Wainfleet Official Plan and Zoning By-law Amendments to permit the proposed above and below water aggregate quarry operation.

2. Existing Regional Official Plan Designations:

Rural Area (area of proposed extraction), Good General Agricultural Area/Environmental Protection Area (remaining portion of the property not proposed for extraction)

Conformity with Regional Official Plan land use designations and policies?

Yes No

If 'No', what is the nature of the amendment needed?

To add site specific policies to Section 13 to permit the proposed quarry operation

3. Check All Applicable: Brownfield Greenfield Built-up NEP Greenbelt

4. Existing Local Official Plan Designation:

Rural Area, Possible Extractive Industrial and Environmental Protection Area

Conformity with Official Plan land use designations and policies?

Yes No

If 'No', what is the nature of the amendment needed?

To redesignate the subject lands to Extractive Industrial

5. Existing Zoning:

A4 Rural and Environmental Protection Overlay

Conformity with existing zoning?

Yes No

If 'No', what is the proposed zoning?

M2 Extractive Industrial

6. **Is Site Plan approval required?** Yes No

7. **Fees Required at time of Submission of the Application:**

Application	Township of Wainfleet	Niagara Region	Niagara Peninsula Conservation Authority
Regional Official Plan Amendment		\$115,025	\$2,770
Local Official Plan Amendment	\$4,342	\$9,815	
Zoning By-law Amendment	\$3,799	\$1,315	
Plan of Subdivision			
Plan of Condominium			
Consent			
Site Plan Control or Amendment			
Other		\$1,890 Stormwater Management review fee (site over 5ha) \$1,215 Hydrogeology review fee (per study) \$2,270 Major EIS Review Fee (a \$400 EIS Terms of Reference review fee will be required if a Terms of Reference for this study is submitted prior to submission of the application and this amount will be deducted from the Major EIS Review Fee when the application is submitted) + Peer Review and Aggregate Advisor costs	\$1,755 Hydrogeology Technical Review \$1,015 EIS Technical Review \$1,755 SWM/Hydrology Study Technical Review
TOTAL	\$8,141	\$131,530 + Aggregate Advisor and Peer Reviews	\$7,295 <i>Note: An additional \$7,452 will be required for review of ARA application</i>

Notes:

- Notwithstanding the fees noted above, all fees are payable based upon the rate in the fee by-laws in effect on the date the application is received.
- Further fees may be required later as per the fee schedule by-law.
- Separate cheques shall be made payable to the appropriate agency.
- The owner/applicant shall bear the cost of peer reviews and an aggregate advisor as per the Regional Municipality of Niagara Fee By-Law.
- As provided for under Section 69 of the *Planning Act* an applicant may pay the fees under protest.

8. Additional Agencies to be contacted:

<input checked="" type="checkbox"/> Hydro	<input checked="" type="checkbox"/> Pipelines	<input type="checkbox"/> NEC	<input checked="" type="checkbox"/> Other	MMAH (one window circulation includes all other Ministries), City of Port Colborne
---	---	------------------------------	---	--

9. Required Information and Studies to be submitted with the Application(s):

See Schedule 'B' attached.

10. Additional Comments:

In addition to the comments provided below, please see other preliminary staff comments attached as Schedule 'C'.

- All studies listed in Section 9 (Schedule 'B') of this form may be peer reviewed. The Terms of Reference for a peer review is determined by the Joint Agency Review Team (JART) and paid for by the applicant. An Aggregate Advisor will be required. As per the Regional Municipality of Niagara Fee By-Law, the applicant/owner shall bear all costs associated with the peer reviews and the aggregate advisor. The applicant/owner shall be required to sign a cost acknowledgment agreement, which must be signed and submitted as part of the complete application.
- Some of the required studies/information may be combined. If the required information/study is not found in a standalone report, the applicant will be required to indicate in a cover where the information/study can be found within the application package. In addition, if a report contains information/studies on multiple topics from the table above, the qualified person writing each section shall be clearly identified within the report and this portion of the report shall be signed and dated by the qualified professional.
- A Joint Agency Review Team will be formed. The purpose of the JART is to share information and expertise among review agencies; review, analyze and comment on the completeness of the submissions; engage the public more efficiently; and, improve decision-making and efficiency associated with aggregate applications. A JART does not make recommendations on whether or not applications should be approved.
- Certain reports, such as the Environmental Impact Study/Natural Heritage Evaluation, Transportation Impact Brief and Land Use Studies, shall not be more than five years old when submitted, and will not be accepted unless previously agreed to by the JART. All

studies shall be in accordance with current applicable regulations, policies and standards.

- To date, Terms of References for the following studies have been submitted to the JART for review:
 - Agricultural Impact Assessment (dated July 13, 2021);
 - Natural Heritage Evaluation (dated May 12, 2021); and,
 - Hydrogeological Study (dated July 13, 2021).

Comments on the AIA and Hydrogeological Study were provided by email from Regional staff on July 15, 2021 and July 16, 2021, respectively. Comments on the Natural Heritage Evaluation will be provided by email to the applicant and their agent once reviewed. The JART may request additional scoping or Terms of Reference for other studies, as necessary. Generally, the individual or agency responsible for reviewing the study provides Terms of Reference comments. However, it is noted that the Aggregate Advisor and peer reviewers have not been retained to date. The Aggregate Advisor or a peer reviewer may provide future scoping or Terms of Reference comments when they are retained. The JART is willing to review any Terms of References provided by the applicant in advance of the applications being submitted.

11. Site Visits:

- Site visits, as required, may be requested. Reasonable requests for site visits will be accommodated. The owner consents to these site visits by signing this Pre-Consultation Meeting Checklist.

12. Items Requiring Follow-up:

- Landscaping Plans – confirmation as to whether a Professional Landscape Architect is willing to stamp ARA site plan submission (James Parkin)
- Public Consultation Plan – provide example once available (Britney Fricke)
- Archeological Assessment – confirmation of requirements from Ministry of Heritage, Sport, Tourism and Culture Industries relating to mitigation of archeological sites (Britney Fricke)
 - Mitigation/conservation can be addressed as a condition of the ARA license.

Additional Notes:

1. The purpose of this document is to identify the information required to commence processing and evaluating an application as set out in the *Planning Act*. This pre-consultation process is designed to proceed based on the mutual agreement of the parties as shown by the signatures below.
2. Pre-consultation does not imply or suggest any decision whatsoever on behalf of staff or the municipality to either support or refuse the application.
3. The applicant should be aware that the information provided is accurate as of the date of the pre-consultation meeting. Should an application not be submitted in the near future, and should other policies, by-laws or procedures be approved by the Province, Municipality, Region or other agencies prior to the submission of a formal application, the applicant will be

subject to any new policies, by-laws or procedures that are in effect at the time of the submission of a formal application. If an application is not submitted within 1 year, it is advisable that the applicant confirm with the municipality the directives of the original pre-consultation meeting.

4. Any application submitted without the information identified in this Pre-consultation Document will be deemed incomplete and not processed. Alternately, staff may recommend refusal of the application based upon insufficient information to evaluate properly the application.
5. The applicant acknowledges that the Municipality and Region considers the application forms and all supporting materials including studies and drawings, filed with any application to be public information and to form part of the public record. With the filing of an application, the applicant consents and hereby confirms that the consent of the authors of all supporting reports have been obtained, to permit the Municipality and Region to release the application and any supporting materials either for its own use in processing the application, or at the request of a third party, without further notification to, or permission from, the applicant. In order to comply with the requirements of the *Accessibility for Ontarians with Disabilities Act* (AODA), all submitted materials must be AODA-compliant.
6. It is hereby understood that during the review of the application additional studies or information may be required because of issues arising during the processing of the application or the review of the submitted studies.
7. If the Municipality or Region does not have sufficient expertise to review and determine that a study is acceptable, the municipality may require a peer review. The Terms of Reference for a peer review is determined by the Municipality or Region and paid for the applicant.
8. Some studies may require NPCA review and clearance/approval. In this instance, the applicant shall pay the NPCA review fee.
9. All plans and statistics must be submitted in metric. All plans must be folded. Rolled drawings will not be accepted.
10. This Pre-consultation Meeting Form and the contents included herein will expire one year from the date of signing. If formal applications are not submitted within that date, a new pre-consultation meeting may be required.

Signatures:

Township of Wainfleet
Planning Staff

Signature

Date

Britney Fricke

Niagara Region
Planning Staff

Signature

Date

NPCA Staff

Signature

Date

Agent

Signature

Date

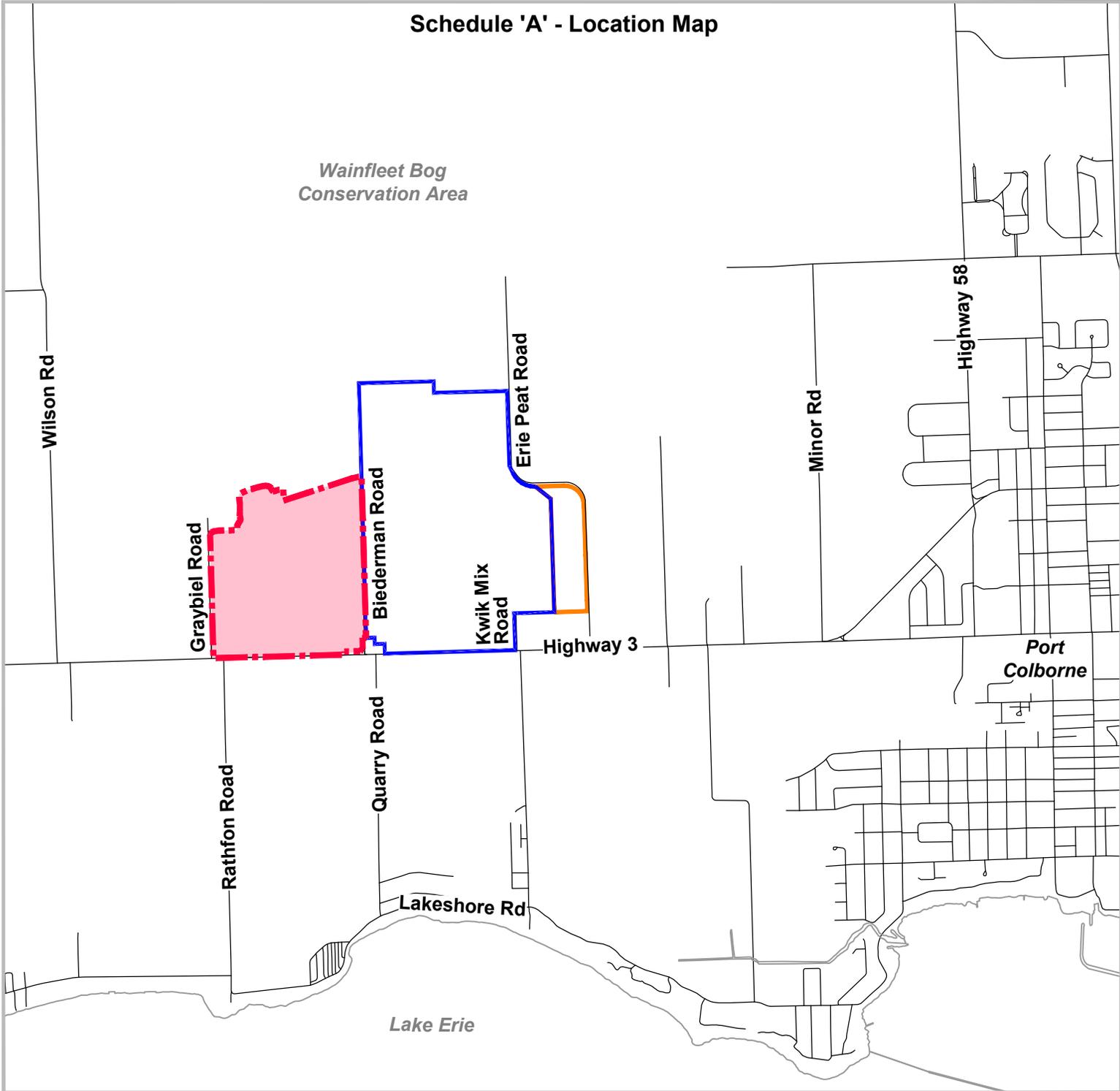
Owner

Signature

Date

Schedule 'A' - Location Map

Wainfleet Bog Conservation Area



Location Map

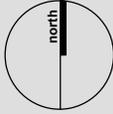
- LEGEND**
-  Proposed Licensed Boundary
 -  Existing Law Quarry (Licence #4464)
 -  Existing Law Quarry (Licence #607541)

DATE: November 2020

FILE: 0956B

SCALE: 1:50,000

DRAWN: CAC/DGS



Waterford Sand & Gravel Limited
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 Part of Road Allowance Between Lots 5 & 6,
 Concession 2,
 Township of Wainfleet
 Regional Municipality of Niagara

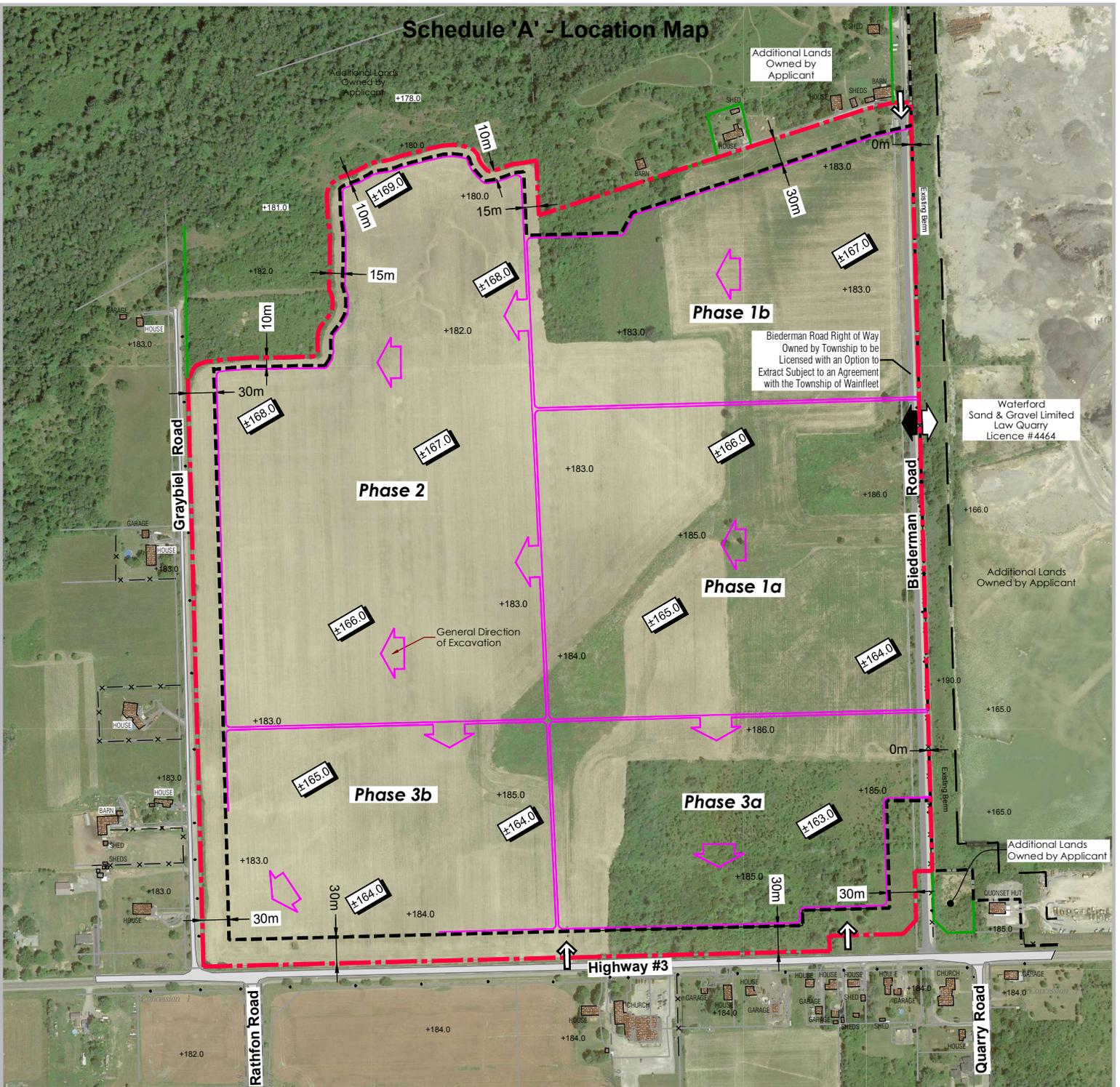
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Schedule 'A' - Location Map



Law Quarry Extension Operational Concept Plan

Waterford Sand & Gravel Limited
 Part of Lots 6 & 7, Concession 2
 Part of Road Allowance Between Lots 5 & 6, Concession 2,
 Township of Wainfleet
 Regional Municipality of Niagara

LEGEND

-  Proposed Licensed Boundary
-  Proposed Limit of Extraction
-  Proposed Phase Limits
-  Existing Spot Elevation
-  Proposed Spot Elevation
Quarry Floor - Bottom of Falkirk Formation

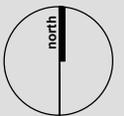
Base Plan Source:
 Air Photo - Google (2018)

DATE: November 2020

FILE: 0956B

SCALE: NTS

DRAWN: DGS



K:\0956B-WATERFORD SAND AND GRAVEL LIMITED-LAW QUARRY EXTENSION\RPT\SEQUENCE OF OPERATIONS SIMPLIFIED.DWG

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Schedule 'B' – Required Information and Studies

Region	Township	NPCA	Submission Requirement (See Notes for Additional Details)	Notes	Peer Review	Number of Physical Copies	Digital Copy
✓	✓	✓	Completed Application Forms			1 original + 13 copies	✓
✓	✓	✓	Draft Regional Official Plan Amendment			13	✓
✓	✓	✓	Draft Local Official Plan Amendment			13	✓
✓	✓	✓	Draft Zoning By-Law Amendment			13	✓
✓	✓	✓	Survey Plan/Sketch	Site Plan prepared based on plan of survey can be submitted in lieu, provided all lands owned by the applicant are included with bearings and dimensions, as well as a legal description, and the survey base is prepared by an OLS. Information may also be submitted as a component of the ARA site plan.		13	✓
✓	✓	✓	Site Plans	As per Aggregate Resources Act (ARA) standards (including Existing Features, Proposed Operations, Cross-Sections), show phasing.		13	✓
✓	✓	✓	Landscaping Plans	Including fencing and screening (coordinate with Grading Plan). Must be certified by a licensed Professional Landscape Architect.		13	✓
✓	✓	✓	Rehabilitation Plan / End Use Plan / Long-Term Monitoring	Including progressive rehabilitation and final rehabilitation. Must address comprehensive rehabilitation as per PPS 2.5.3.2. Information may also be submitted as a component of the ARA site plan.		13	✓
✓	✓	✓	Planning Justification Report	Must be prepared by a Registered Professional Planner (RPP). Specifically address 14.D.5 of ROP. Please include surrounding land uses plan within 500 m of property (including buildings and structures). Provincial policies shall also be		13	✓

				addressed (including Provincial Natural Heritage System policies as a portion of the subject lands is within the Provincial Natural Heritage System under the Growth Plan).			
✓	✓	✓	Public Consultation Plan	Must outline in detail how public, stakeholder and indigenous consultation required under both the ARA and the Planning Act will be achieved and coordinated wherever possible.		13	✓
✓	✓		Agricultural Impact Assessment	<p>Must be prepared in accordance with the Ministry of Agricultural, Food and Rural Affairs' Draft Guidance Document for Agricultural Impact Assessments (2018), by a qualified professional who has knowledge in:</p> <ul style="list-style-type: none"> • Agri-business, agricultural supply chain linkages, rural/agricultural economic development in Ontario, and within the GGH, the agri-food network, where relevant; • Rural and agricultural lands use planning • Canada Land Inventory (CLI) classifications of capability for agriculture assessment and, where relevant, a practical understanding of soil science, including the ability to review technical information from non-agricultural disciplines and assess its relevance and utility in identifying potential agricultural impacts; and • Assessment and evaluation of the potential effectiveness of agricultural impact mitigation measures to reduce impacts. 		8	✓
✓	✓		Land Use Compatibility / Sensitive Land Use Study	Must be prepared by a registered professional engineer, licensed in Ontario (Association of Professional Engineers of Ontario) or a RPP. Includes Land Use Compatibility / Sensitive Land Use Study, informed by applicable Provincial Guidelines (e.g., D-Series, NPC-300) and applicable Air Quality, Noise and Vibration Studies. Analysis may also be provided as a component of the	✓	8	✓

				Planning Justification Report, as outlined in the notes below the table.			
✓	✓		Air Quality Assessment	Must be prepared by a registered professional engineer, licensed in Ontario (Association of Professional Engineers of Ontario).	✓	8	✓
✓	✓		Noise Study	Must be prepared by a registered professional engineer, licensed in Ontario (Association of Professional Engineers of Ontario).	✓	8	✓
✓	✓		Blasting Impact Assessment / Vibration Study	May be prepared by a registered professional engineer, licensed in Ontario (Association of Professional Engineers of Ontario).	✓	8	✓
✓	✓		Visual Impact Study	Analysis may also be provided as a component of the Planning Justification Report, as outlined in the notes below the table.		8	✓
✓	✓	✓	Environmental Impact Study / Natural Heritage Evaluation	Must be prepared by a Senior Ecologist or professional with comparable experience. Will be combined with Natural Environment Level 1 and Level 2 Studies required as part of the ARA process.	✓	13	✓
✓	✓	✓	Hydrological / Surface Water Resources Study / Stormwater Management Plan/Report	Includes an analysis of the ability of the site to support private services and a plan illustrating the location of services. Includes on-site sedimentation and erosion control plans; drainage and grading plans.	✓	13	✓
✓	✓	✓	Hydrogeological / Groundwater Study	Must be prepared by a licensed Professional Geoscientist. In addition, the Region may also accept Hydrogeological Studies prepared by a Professional Engineer or Hydrogeologist. Hydrogeological components of the study will include geotechnical considerations.	✓	13	✓
✓	✓		Stage 1 and 2 Archaeological Assessment	Must be prepared by a Professional Archaeologist licensed in Ontario. Over 50 registered sites are located on the subject lands. Confirmation that they have been fully mitigated prior to disturbance will be required.		8	✓
✓	✓		Transportation Impact Brief	Must be prepared by a registered professional engineer, licensed in Ontario with experience in transportation planning and traffic		8	✓

				engineering, and supported by previous transportation impact studies completed in support of earlier applications.			
✓	✓		Financial Impact Assessment / Economic Benefits	Must be prepared by an economist specializing in municipal finance or a Professional Land Economist (PLE), in accordance with the guidance provided in Schedule 'E'.	✓	8	✓
✓	✓	✓	Summary of Well Records	Including information related to the decommissioning of on-site wells. May also be submitted as a component of the Hydrogeology Study, as outlined in the notes below the table.		13	✓
✓	✓	✓	Required Fees				
✓			Cost Acknowledgement Agreement			1	✓

- Please note that some of the above mentioned studies/required information may be combined. If the required information/study as listed above is not found in a standalone report, the applicant will be required to indicate in a covering letter to the application where the information/study can be found within the application package. In addition, if a report contains information/studies on multiple topics from the table above, the qualified person writing each section shall be clearly identified within the report and this portion of the report shall be signed and dated by the qualified professional.
- Comments on detailed study requirements can be found in Schedule 'C' and 'E'.
- In accordance with the Memorandum of Understanding and Regional Fee By-Law, the Joint Agency Review Team (JART) will retain third party consultants to peer review certain technical studies and to provide advice and recommendations on specific topics. Please note that the "Peer Review" column above is provided for information only at this time and represents a preliminary prediction of which studies will be peer reviewed. The applicant/owner shall be required to sign a cost acknowledgment agreement, which must be signed and submitted as part of the complete application. Costs borne by the application for the Peer Reviews is subject to the terms and conditions of the cost acknowledgement agreement.
- Guidance regarding the Financial Impact Assessment is provided in Schedule 'E'.

Schedule 'C' - Other Preliminary Comments

Based on information received to date, the following preliminary comments are provided. These comments are not intended to be comprehensive and are provided to assist the applicant in preparing the application and technical reports:

Niagara Region

Planning

The lands proposed for licensing/extraction are located on Rural Lands as per the Provincial Policy Statement (PPS) and the A Place to Grow: Growth Plan for the Greater Golden Horseshoe (Growth Plan), and are designated Rural Area in the Regional Official Plan (ROP). A quarry is not permitted, and an amendment to the Regional Official Plan is required for the proposed use.

A Planning Justification Report (PJR), prepared by a Registered Professional Planner, is required to demonstrate how the proposal meets the goals, objectives and policies of the planning policy regime (Provincial/Region/Local), and to provide an indication of whether the proposal conforms to and is consistent with policy plans. The PJR should include an analysis of all applicable planning policy as well as conformity to the plans overall, and rationale for the application/whether it is supported by the policy regime. Draft Regional and Local Official Plan Amendments, as well as a Draft Zoning By-law Amendment should be included in the PJR or as stand-alone documents. The Rehabilitation/End Use Plan and Public Consultation Plan should also be addressed in the PJR.

In accordance with Policy 14.G.2 of the ROP, an Agricultural Impact Assessment is required, as the applications propose development for a non-agricultural use on lands situated outside of the Urban Area. The Agricultural Impact Assessment should identify and assess potential impacts of the proposed quarry on agricultural operations and the agricultural system. The AIA should evaluate the soil, microclimate and drainage conditions, existing pattern of agricultural or non-agricultural activities, and any potential impacts on surrounding agricultural activities. The AIA should demonstrate that there are no reasonable alternative sites for the proposed use located in urban areas, rural areas, or lower priority agricultural land. The AIA should be prepared in accordance with the Ministry of Agricultural, Food and Rural Affairs' Draft Guidance Document for Agricultural Impact Assessments (2018). The JART reviewed the Revised AIA Terms of Reference (dated July 13, 2021) and were satisfied with the updated content and organization, which was conveyed to the agent by email on July 15, 2021.

The PPS requires that major facilities (including quarries) and sensitive land uses be planned to "ensure they are appropriately designed, buffered and/or separated from each other to prevent or mitigate adverse effects from odour, noise and other

contaminants, minimize risk to public health and safety...”. An Air Quality Assessment and Noise/Vibration Study must be submitted with the applications to evaluate the impact of the quarry on existing and zoned sensitive land uses to prevent or minimize land use incompatibility. The Noise Study should be prepared based on the Ministry of Environment, Conservation and Parks (MECP) Noise Guidelines (NPC-300). The Air Quality Assessment should be prepared based on MECP’s Ambient Air Quality Criteria and the D-series Guidelines. Please note that the MECP released draft Land Use Compatibility Guidelines after the pre-consultation meeting; if those guidelines are in effect when the application is submitted, the studies will need to conform to those guidelines. Because more than one technical study is required, it is recommended that the consultant(s) provide a “Sensitive Land Use Report”, which summarizes the results of the studies and provides an analysis of the proposal against the applicable Provincial Guidelines (e.g., D-Series, NPC-300), and section 1.2.6.1 of the PPS.

In accordance with Chapter 7 of the ROP, a Hydrogeological Study is required because the subject lands are located within a Highly Vulnerable Aquifer. The Hydrogeological Study should, among other things, determine whether the proposal will have a negative impact on the quantity and quality of ground water, the function of ground water recharge and discharge areas, aquifers and headwaters, and the water supply to ensure the safety and quality of drinking water will be protected or improved. The JART reviewed the Hydrogeological Study Report- Terms of Reference (dated July 13, 2021) and provided comments to the agent by email on July 16, 2021.

The PPS and ROP require that archeological resources be conserved prior to site alteration or development. The lands contain several registered archaeological sites. All archaeological assessments completed for the subject lands as of the date of the application should be submitted, together with the acknowledgement letters from the Ministry of Heritage, Sport, Tourism and Culture Industries. At a minimum, Stage 1-2 Archaeological Assessment of the lands is required to constitute a complete application. Confirm that all sites will be fully mitigated prior to disturbance will be required.

The PPS and ROP require that significant built heritage resources and cultural heritage landscapes be conserved; however, the Township of Wainfleet has not identified any built heritage resources on the subject lands. A Cultural Heritage Impact Assessment is not required.

A Financial Impact Assessment (FIA) is required in accordance with Policy 14.D.5 of the ROP. Guidance on the FIA is provided in Schedule ‘E’.

Environmental

The subject properties is impacted by the Region’s Core Natural Heritage System (CNHS), consisting of the Provincially Significant Wainfleet Bog Wetland Complex (PSW), Significant Woodland and Type 2 (Important) Fish Habitat. The portion of the

properties that contain these features are also partially mapped as part of the Growth Plan Provincial Natural Heritage System (PNHS). As such, these features are considered Key Natural Heritage Feature (KNHF) and Key Hydrologic Features (KHF). The subject properties are also identified as a Groundwater Protection Area (HVA).

Consistent with Regional Official Plan (ROP) policies 7.B.1.11 and 7.B.1.15, an Environmental Impact Study (EIS) is required in support of site alteration and/or development proposed within 120 m of PSW, within 50m of Significant Woodland and within 15 m of Type 2 Fish Habitat, to demonstrate there will be no significant negative impact on the features or their ecological functions. In addition, consistent with ROP policy 7.B.1.31, the EIS must include consideration of:

- a) Whether the following will be maintained or enhanced before, during or after mineral aggregate extraction:
 - i. Connectivity among Core Natural Areas and hydrologic features; and
 - ii. Significant hydrologic features and functions; and
- b) How significant natural heritage features and ecological functions that would be affected will be replaced, on or off site, with features and functions of equal or greater ecological value that are representative of the natural ecosystem in that particular setting or ecodistrict.

The EIS must also include consideration of appropriate Growth Plan policies regarding mineral aggregate resources. Consistent with ROP policy 7.B.2, a Terms of Reference-Natural Heritage Evaluation (dated May 12, 2021) was submitted on July 14, 2021. Regional Environmental Planning staff reviewed the TOR and provided comments to the agent by email on August 6, 2021. Please note that additional comments from the Township of Wainfleet and NPCA may be forthcoming and will be provided by email to the applicant and agent if received.

Transportation

A Transportation Impact Brief will be required, addresses the following:

- What is the amount of material being moved off site on a daily basis and to how many daily trucking movements does that translate?
- What is the current/proposed haulage route?
- What are the documented traffic / safety complaints of the existing operations along Highway 3, and what process is proposed for addressing truck speeding / safety complaints along Highway 3?

NPCA

The subject lands are impacted by the Wainfleet Bog Wetland Complex, which is a Provincially Significant Wetland (PSW). We have interest in the hydrologic impact of the proposed quarry operations for all portions within 120 metres of the PSW. While

applications under the ARA are not subject to our Regulation (Ontario Regulation 155/06, as amended), we are a commenting agency under the *Planning Act* and ARA and will be providing comments with respect to our Policies.

Please note that the NPCA is currently reviewing their fee schedule and anticipate an updated fee schedule some time in 2021. The NPCA fees required will be the fees in effect at the time the applications are submitted. The applicant is encouraged to confirm the NPCA fees in effect prior to filing the applications.

Township

Planning

The subject lands are designated as Rural Area and Possible Extractive Industrial Area with an Environmental Protection Area and Environmental Conservation Area in the Township's Official Plan. The subject lands are zoned Rural – A4 with an Environmental Protection Overlay under Zoning By-law 034-2014.

The proposed quarry expansion requires an official plan amendment to designate the subject lands as Extractive Industrial and a zoning by-law amendment to zone the subject lands as Extractive Industrial – M2. A site plan application will only be required if there are any proposed structures accessory to the operation.

The planning justification report shall address conformity/consistency with Provincial, Regional and Township planning policies for aggregate operations.

In accordance with the policies in Section 3.6 of the Official Plan, applications for a new or expanded Extractive Industrial Area designation shall provide the following information:

- The effect on water resources and the Natural Heritage System within 120m of the subject lands through the preparation of an Environmental Impact Study (EIS) and a hydrogeology study;
- The effect on groundwater and existing wells surrounding the property;
- A rehabilitation plan;
- Site development plan;
- Haulage routes/Transportation Impact Study;
- Effect on nearby residents including noise, dust and vibration concerns;
- The effect on archaeological resources and cultural resources;
- Planning justification report assessing land use compatibility and conformity analysis of the official plan policies.

The subject lands are also within a Significant Ground Water Recharge Area and an Area of High Aquifer Vulnerability. As such, the policies require the completion of a hydrogeological study to assess impacts on the quantity and quality of surface and

groundwater, the functions of ground water recharge and discharge areas, aquifers and headwaters and other items listed in Section 4.2.

In accordance with Sections 6 & 7 of the Official Plan, an archaeological assessment and noise and vibration study are required.

The Official Plan and Zoning By-law can be found on the Township's website at www.wainfleet.ca.

Drainage

The Township's Drainage Department has an interest in the hydrologic impact on the adjacent municipal drains. The subject lands are assessed to the Biederman Drain, Eagle Marsh Drain and the Consolidated South Wainfleet Drain.

The Biederman and Eagle Marsh Drains are undergoing a Section 78 Engineer's Report update with Brandon Widner of Spriet Associates and the Consolidated South Wainfleet Drain is undergoing a Section 76 Engineer's Report updated with Danielle Anders of GM Blue Plan. Section 78 reports allow for physical improvements to the existing municipal drain, deepening, widening, new crossings, enclosures etc. and Section 76 reports allow for the reorganization of the assessment scheduled but no physical work.

Any parcel boundary changes, land use changes and redirection of water from one drain to another will need to be captured in an Engineer's Report. This can potentially be completed while the reports are undergoing updates, or after utilizing Section 4, 65, 76 or 78 of the Drainage Act.

Drainage staff request information as to how and where water will be drained from the quarry expansion to review and provide guidance on the appropriate actions under the Drainage Act.

Ministry of Transportation

Transportation

MTO will require a Transportation Impact Study Brief.

The subject quarry expansion is located within MTO Permit Control Area for the Hwy 3, as a result, an MTO Building and Land Use Permit is required prior to the commencement of any on-site construction/works. Information regarding the application process, forms and the policy can be found at the link:

<http://www.mto.gov.on.ca/english/engineering/management/corridor/building.shtml>

No features that are essential to the overall viability of the site are permitted within the MTO 14 m setback area. Essential features include, but are not limited to, buildings/structures (above or below grade) including shoring/tie backs, required parking spaces (required per the municipal zoning by-law), retaining walls, utilities, stormwater management features, snow storage, loading spaces, fire routes, essential landscaping (berms), etc.

Stormwater/Drainage

MTO will require a Drainage and Stormwater Management Report. The report should have existing condition mosaics and flow calculations at all outlets for 5, 10, 25, 50 and 100 year storm events. The report should also have existing pumping outlet locations and peak discharges.

MTO requires control for post to pre development flows for all storm events. Peak discharges from pumping should not cause any erosion and flooding of MTO ditches. This should be demonstrated in the report through calculations. The report should be signed and stamped by a Professional Engineer of Ontario.

Schedule 'D' – Preconsultation Meeting Attendees

Name	Organization	Email Address
Caitlin Port	MHBC Planning	cport@mhbcplanning.com
James Parkin	MHBC Planning	jparkin@mhbcplanning.com
Ed Lamb	Waterford Sand and Gravel Ltd.	elamb@waterfordgroup.ca
Amy Shanks	Niagara Region	amy.shanks@niagararegion.ca
Britney Fricke	Niagara Region	britney.fricke@niagararegion.ca
Sean Norman	Niagara Region	sean.norman@niagararegion.ca
Pat Busnello	Niagara Region	pat.busnello@niagararegion.ca
Cara Lampman	Niagara Region	cara.lampman@niagararegion.ca
Sarah Ivins	Township of Wainfleet	sivins@wainfleet.ca
David Deluce	Niagara Peninsula Conservation Authority	ddeluce@npca.ca

Schedule 'E' - Financial Impact Assessment / Economic Benefits Guidance

Policy 14.D.5 of the Niagara Region Official Plan states:

Where an amendment is proposed to the Regional Official Plan, the Region should consider the following criteria in evaluating the Amendment....

- v. The effect of the proposed change on regional services and infrastructure...*
- vi. The effect of the proposed change on the financial health, safety, and economic sustainability of the Region...*

A Financial Impact Assessment:

- is required for development applications that may cause a financial, environmental, or economic hardship for the local municipality and the Region;
- assesses the financial implications of a proposed development on municipal services and infrastructure (hard and soft);
- considers financial, environmental, and economic hardships associated with the proposed development for both the local and upper tier Municipality; and
- will be prepared by an economist specializing in municipal finance or a Professional Land Economist (PLE).

Niagara Region does not currently have detailed guidelines for Financial Impact Assessment for new mineral aggregate operations. However, direction provided in the 'Halton Region Aggregate Resource Reference Manual' can be relied upon in developing the terms of reference for the study. An excerpt from those guidelines is as follows:

"4.5 Financial Impact Study

Purpose of the Study:

- 1. To demonstrate that the proposal will have a minimal negative financial impact on the Region or taxpayers from the cost of providing services such as road maintenance, long term monitoring and replacement water supplies among other matters.*
- 2. To demonstrate that extraction will occur in a manner that minimizes social, economic and environmental impacts.*
- 3. To demonstrate that there will be no public costs associated with the proposal throughout extraction, complete rehabilitation and any long term continuing mitigation and monitoring requirements, and to demonstrate that there will be adequate securities put in place, through an agreement or legislation, to ensure that the public and agencies will not be put at financial risk as a consequence of the approval.*

4. *To demonstrate to what degree the proposal will create direct and indirect financial benefits or costs to the municipalities affected.*
5. *To demonstrate what financial benefits to the community may be created as a consequence of the approval.*

Objectives of the Study:

1. *To quantify the amount of assessment to be generated as a consequence of the approval of the application (compared to loss of existing use i.e. farmland).*
2. *To identify what the economic impacts may be.*
3. *To estimate how much in license fees will be provided to the affected municipalities.*
4. *To determine what impacts the additional truck traffic will have on the cost of providing maintenance on affected roads.*
5. *To determine whether the proposal, if approved, will impact on the timing and/or need for road improvements to be paid for by the municipality.*
6. *To identify the financial benefits that may occur generally as a consequence of the approval (i.e. TOARC payments for road improvements).*
7. *To identify the potential cost of any long-term monitoring and mitigation on the site and the responsibility for that monitoring and the liability to any public authority or agency associated with that responsibility.”*

APPENDIX B

REGION OFFICIAL PLAN AMENDMENT

THE REGIONAL MUNICIPALITY OF NIAGARA
BY-LAW NO.
A BY-LAW TO PROVIDE FOR THE ADOPTION OF AMENDMENT XX
TO THE OFFICIAL PLAN FOR THE NIAGARA PLANNING AREA
to identify Lands On Schedule D4: Mineral Resources
as “Licensed Pits And Quarries” and permit a new mineral aggregate
operation together with ancillary facilities on such Lands through site
specific policy
(Law Quarry)

WHEREAS the lands subject to this Amendment are described as Part of Lots 6 & 7, Concession 2, Part of Road Allowance between Lots 5 & 6, Concession 2 (Geographic Township of Wainfleet), Township of Wainfleet in the Regional Municipality of Niagara. (hereinafter referred to as “the subject lands”);

WHEREAS the subject lands are currently designated “Rural Area & Possible Extractive Industrial” on *Schedule A: Regional Structure* and *Schedule D4: Mineral Resources*; in the Niagara Region Official Plan

WHEREAS the Niagara Region Official Plan provides consideration for the establishment of new or expanded mineral aggregate extraction operations on lands designated “Rural Area & possible Extractive Industrial”, subject to an assessment of the potential impacts of such a land use on the natural environment, agricultural operations, and surrounding land uses;

WHEREAS the subject lands are within an area identified as “Silurian Formation, Devonian Formation and Outcrop” on *Schedule D1: Potential Bedrock Areas – Stone*;

WHEREAS the approval of any new or expanded mineral aggregate operations require an amendment to the Niagara Region Official Plan and, through that amendment, are to be identified as “Licensed Pits and Quarries” on *Schedule D4: Mineral Resources*;

WHEREAS Subsection 22 of the *Planning Act, 1990* states when the requirements of subsections (15) to (21), as appropriate, have been met and Council is satisfied that the plan as prepared is suitable for adoption,

WHEREAS it is deemed appropriate to further amend the Official Plan as adopted by Regional Council for the Niagara Planning Area,

NOW THEREFORE the Council of The Regional Municipality of Niagara enacts as follows:

1. That the text attached hereto is hereby approved as Amendment ___ to the Official Plan for the Niagara Planning Area.
2. That the Regional Clerk is hereby authorized and directed to give notice of Council's adoption in accordance with Section 17(23) of the *Planning Act, 1990*.

3. That this By-law shall come into force and take effect on the day after the last day of appeal provided no appeals have been received.

THE REGIONAL MUNICIPALITY OF NIAGARA

James Bradley, Regional Chair

AnnMarie Norio, Regional Clerk

Passed: _____, 2022

**Amendment No.
To The Official Plan
for the Niagara Planning Area**

PART "A"- THE PREAMBLE

The preamble provides an explanation of the Amendment including the purpose, location, background, and basis of the policies and implementation, but does not form part of this Amendment.

- Title and Components
- Purpose of the Amendment
- Location of the Amendment
- Background
- Basis for the Amendment
- Implementation

PART "B"- THE AMENDMENT

The Amendment describes the additions and/or modifications to the Official Plan for the Niagara Planning Area, which constitute Official Plan Amendment No. XX

- Map Change
- Text Change

PART "C"- THE APPENDICES

The Appendices provide information regarding public participation and agency comments relevant to the Amendment, but do not form part of this Amendment.

PART "A" - THE PREAMBLE

TITLE AND COMPONENTS:

This document, when approved in accordance with Section 17 of the *Planning Act, 1990*, shall be known as Amendment ___ to the Official Plan of the Niagara Planning Area. Part "A"- The Preamble, contains background information and does not constitute part of this Amendment. Part "B" – The Amendment, consisting of map and text changes, constitutes Amendment ___ to the Official Plan of the Niagara Planning Area. Part "C" – The Appendices, does not constitute part of the Amendment. These Appendices contain information related to public involvement and agency comments associated with the Amendment.

PURPOSE OF THE AMENDMENT:

The purpose of this Amendment is amend Schedule D4 to identify lands, as described below and shown on Map 1 attached to this Amendment, as "Licensed Pits and Quarries" to the Niagara Region Official Plan that reflects and supports the approval of the Upper's Quarry.

LOCATION OF THE AMENDMENT:

The amendment area is within the Township of Wainfleet and on lands described as Part of Lots 6 & 7, Concession 2, Part of Road Allowance between Lots 5 & 6, Concession 2 (Geographic Township of Wainfleet), Township of Wainfleet in the Regional Municipality of Niagara as shown on Map 1 attached to this Amendment.

BACKGROUND

The subject lands are identified by the Niagara Region Official Plan Schedule D1 as being within a 'Potential Resource Areas: Stone'.

To permit the proposed quarry, an amendment to the Niagara Region Official Plan is required to identify the subject lands as a "Licensed Pits and Quarries" on Schedule D4: Mineral Resources. In addition, the applicant has applied to amend the Township of Wainfleet's Official Plan and Zoning By-law. An application for a Class A licence (for a below water table quarry) under the Aggregate Resources Act has also been submitted concurrently to the Ministry of Northern Development, Mines, Natural Resources and Forestry (MNDMNR).

In support of the proposed applications, the proponent has participated in pre-consultation with Niagara Region, the Township of Wainfleet, the Niagara Peninsula Conservation Authority and the MNDMNR. The applications have been submitted together with the prescribed technical reports and information requested through pre-consultation and in accordance with the Aggregate Resources Act Standards, including detailed Site Plans.

BASIS FOR THE AMENDMENT:

- a) The Amendment was the subject of a Public Meeting held under the *Planning Act, 1990* on _____. Public and agency comments were addressed as part of the preparation of this Amendment.
- b) The Amendment will allow for the proper conservation and management of an identified important provincial source of high quality aggregate resource from being sterilized by development;
- c) The Amendment will support provincial policy that aims to protect a long term supply of mineral aggregate resources by making available as much mineral aggregate resource as is realistically possible as close to markets as possible;
- c) Based on the Region's review of the *Planning Act, 1990*, the Provincial Policy Statement (2020), the Growth Plan (2020), the Provincial Plans (2017), the Regional Official Plan, and public and agency consultation, Regional staff is of the opinion that the Amendment is consistent with the Provincial Policy Statement, is in conformity and does not conflict with the Provincial Plans that are in effect, is in conformity with Provincial and Regional policies and represents good planning.

IMPLEMENTATION:

Section 14, Implementation of the Official Plan for the Niagara Planning Area, shall apply where applicable.

PART "B" – THE AMENDMENT

**Amendment XX
To the Official Plan for the
Niagara Planning Area**

The Official Plan for the Niagara Planning area is amended as follows:

Map Changes (attached)

1. "Schedule D4 - Mineral Resources" is amended to add and identify lands described as Part of Lots 6 & 7, Concession 2, Part of Road Allowance between Lots 5 & 6, Concession 2 (Geographic Township of Wainfleet), Township of Wainfleet in the Regional Municipality of Niagara in the Regional Municipality of Niagara, as shown on Map 1 attached to this Amendment as "Licensed Pits and Quarries"

Text Changes

The Official Plan for the Niagara Planning Area is amended as follows:

Part I – Modifications to Existing Policies

1. Add to Section 13.J (Site Specific Policies for Wainfleet the following site specific policy:

13.J.1 Land Use

Policy 13.J.1.____ Notwithstanding any other policy to the contrary in this Plan, a mineral aggregate operation (quarry) and ancillary uses and facilities are permitted in accordance with approval under the Aggregate Resource Act on lands described as Part of Lots 6 & 7, Concession 2, Part of Road Allowance between Lots 5 & 6, Concession 2 (Geographic Township of Wainfleet), Township of Wainfleet in the Regional Municipality of Niagara in the Regional Municipality of Niagara, in the Regional Municipality of Niagara.

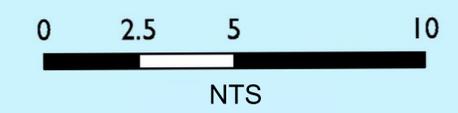
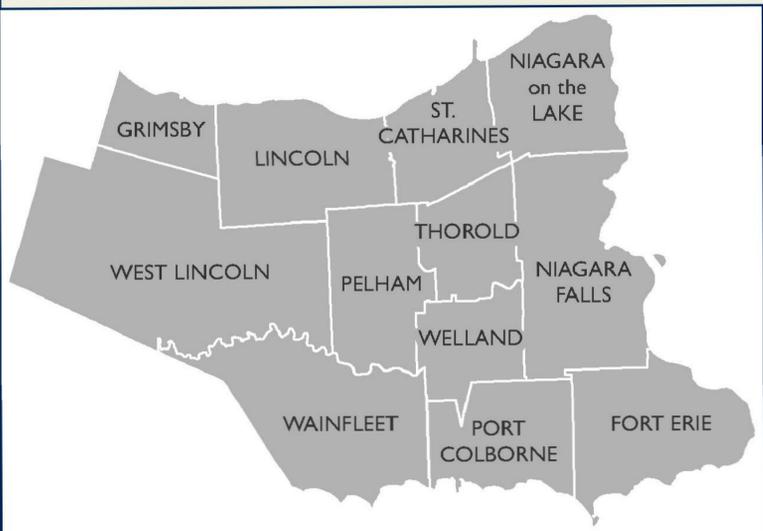
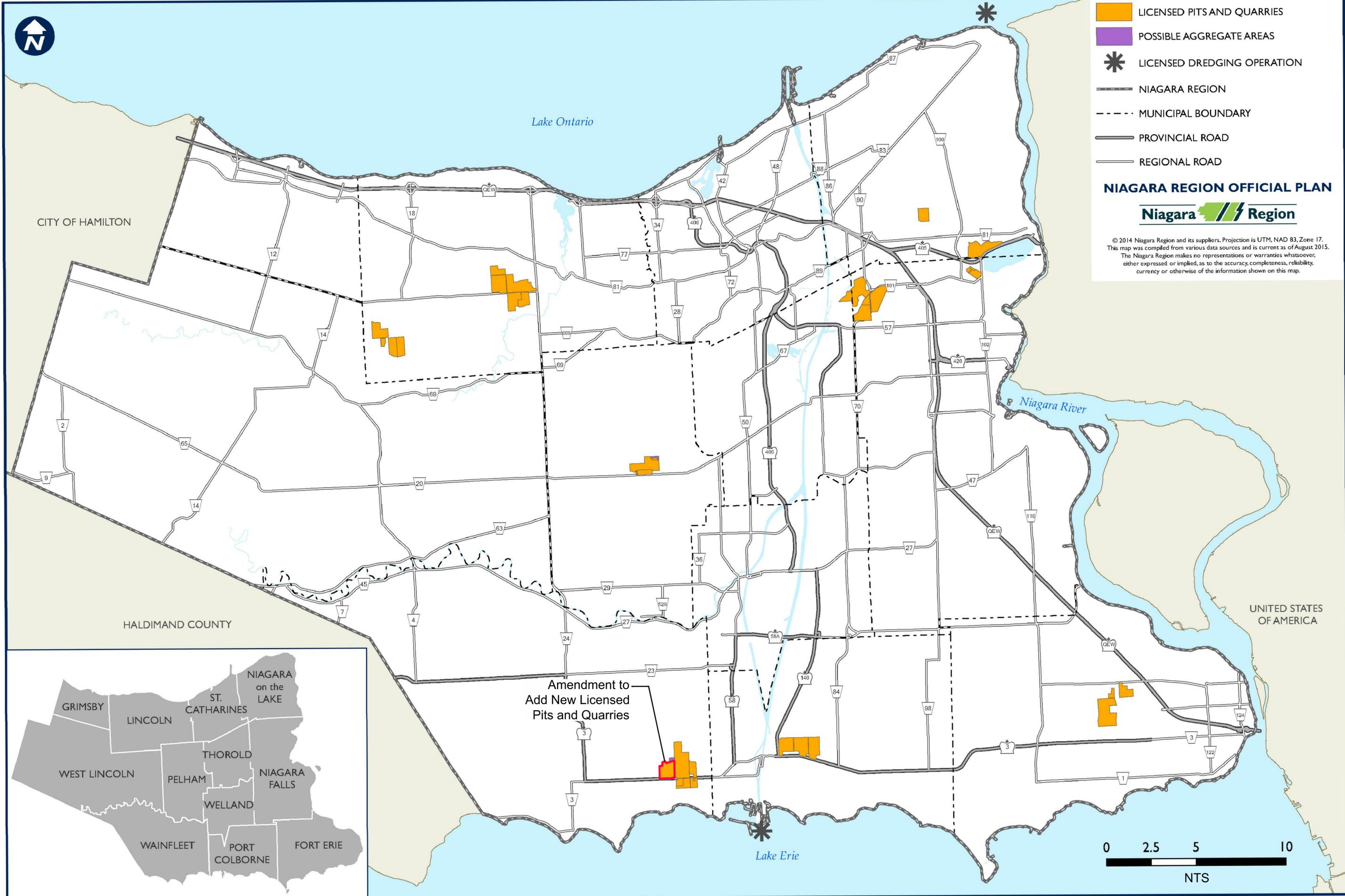


- LICENSED PITS AND QUARRIES
- POSSIBLE AGGREGATE AREAS
- LICENSED DREDGING OPERATION
- NIAGARA REGION
- MUNICIPAL BOUNDARY
- PROVINCIAL ROAD
- REGIONAL ROAD

NIAGARA REGION OFFICIAL PLAN



© 2014 Niagara Region and its suppliers. Projection is UTM, NAD 83, Zone 17.
 This map was compiled from various data sources and is current as of August 2015.
 The Niagara Region makes no representations or warranties whatsoever,
 either expressed or implied, as to the accuracy, completeness, reliability,
 currency or otherwise of the information shown on this map.



APPENDIX C

TOWNSHIP OFFICIAL PLAN AMENDMENT

**CORPORATION OF THE
TOWNSHIP OF WAINFLEET
BY-LAW NO. 0XX-2022**

Being a by-law to adopt Amendment No. 0XX to the Official Plan for the Township of Wainfleet with respect to those lands forming Part of Lots 6 & 7, Concession 2 and Part of Road Allowance Between Lots 5 & 6, Concession 2 (geographic Township of Wainfleet), Township of Wainfleet, Region of Niagara.

WHEREAS the Planning Act, R.S.O. 1990, c.P.13, as amended, authorizes the Township of Wainfleet to pass by-laws for the adoption or repeal of Official Plans and amendments thereto;

AND WHEREAS Amendment No. 0XX to the Township of Wainfleet Official Plan is exempt from approval of the Council of the Regional Municipality of Niagara in accordance with the Memorandum of Understanding;

NOW THEREFORE the Council of the Corporation of the Township of Wainfleet **HEREBY ENACTS AS FOLLOWS:**

THAT Amendment No. 0XX to the Township of Wainfleet Official Plan is hereby adopted.

THAT the Clerk of the Township of Wainfleet is hereby authorized and directed to give Notice of Adoption of the aforementioned Amendment to the Township of Wainfleet Official Plan in accordance with the Planning Act. R.S.O. 1990, c.P.13, as amended.

THAT this By-law shall come into force, take effect and be passed on the final reading hereof.

BY-LAW READ AND PASSED THIS XXTH DAY OF MONTH, YEAR.

K. Gibson, MAYOR

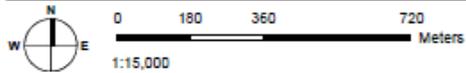
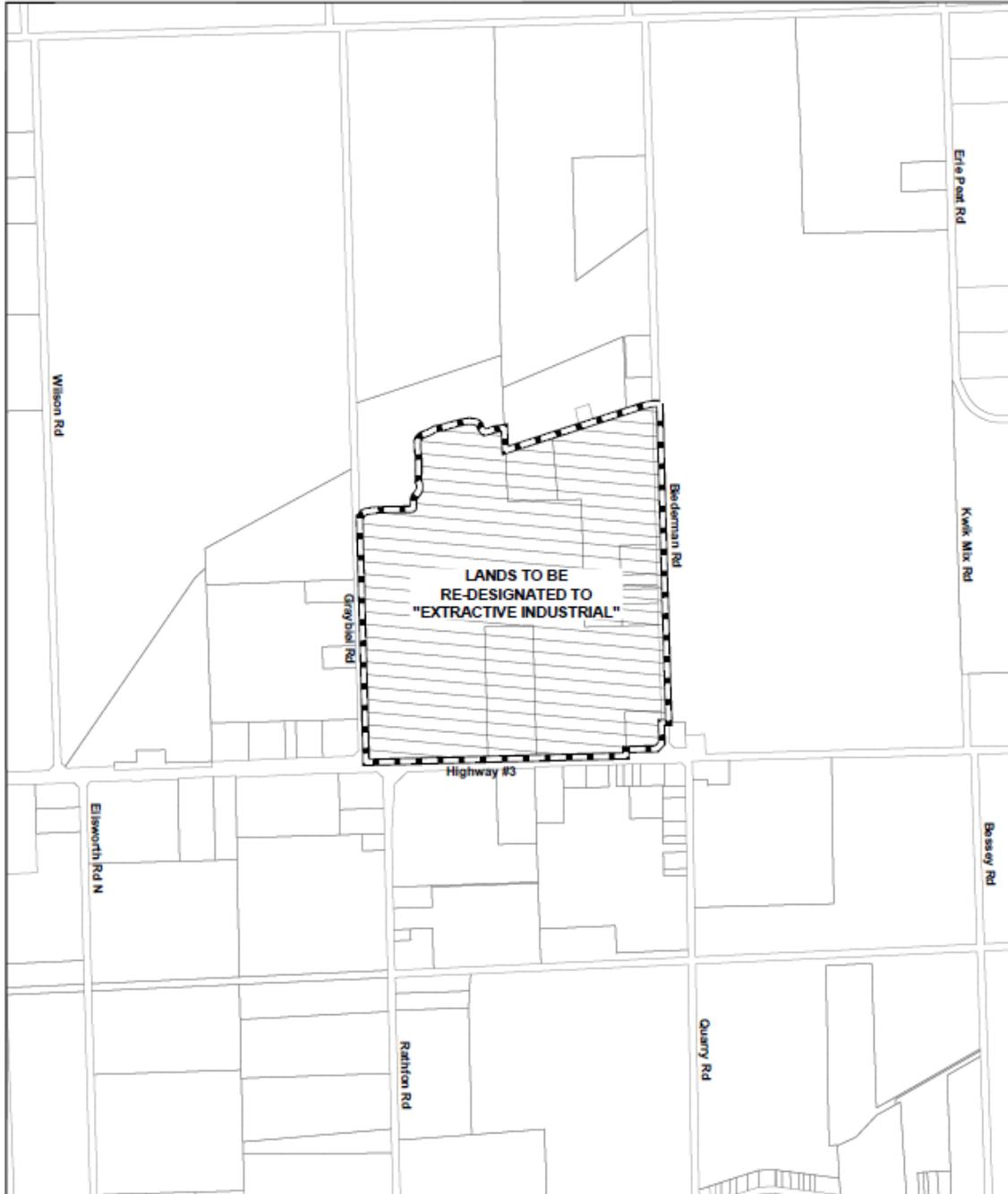
M. Ciuffetelli, DEPUTY CLERK

Amendment No. 0XX to the Township of Wainfleet Official Plan

Purpose and Effect	The purpose of this Amendment is amend Schedule B of the Township of Wainfleet Official Plan to designate lands, as described below and shown on Map 1 attached to this Amendment, as “Extractive Industrial” to support the approval of the Law Quarry Extension
Location:	Part of Lots 6 & 7, Concession 2 and Part of Road Allowance Between Lots 5 & 6, Concession 2 (geographic Township of Wainfleet), Township of Wainfleet, Region of Niagara.
Basis:	<ul style="list-style-type: none"> a) The Amendment was the subject of a Public Meeting held under the <i>Planning Act, 1990</i> on _____. Public and agency comments were addressed as part of the preparation of this Amendment. b) The Amendment will allow for the proper management of an identified provincial source of high quality aggregate resources The Amendment will support provincial policy that aims to protect a long term supply of mineral aggregate resources by making available as much mineral aggregate resource as is realistically possible as close to markets as possible; c) Based on the Townships review of the <i>Planning Act, 1990</i>, the Provincial Policy Statement (2020), the Growth Plan (2020) the Regional Official Plan, the Township Official Plan and public and agency consultation, Township staff are of the opinion that the Amendment is consistent with t h e Provincial Policy Statement, is in conformity and does not conflict with the Provincial Plans that are in effect, is in conformity with Provincial and Regional policies and represents good planning.
Amendment:	"Schedule B – Land Use - Township" is amended to add and designate the lands described as Part of Lots 6 & 7, Concession 2 and Part of Road Allowance Between Lots 5 & 6, Concession 2 (geographic Township of Wainfleet), Township of Wainfleet, Region of Niagara, as shown on Map 1 attached to this Amendment, “Extractive Industrial”.
Implementation:	This Official Plan Amendment shall be implemented in accordance with Section 8, Implementation of the Official Plan of the Township of Wainfleet.
Interpretation:	This Official Plan Amendment shall be interpreted in accordance with Section 1.5, Interpretation of the Official Plan of the Township of Wainfleet.

SCHEDULE "A" to Official Plan Amendment 0XX

Law Quarry Extension - Waterford Sand and Gravel Limited
(Part of Lots 6 & 7, Concession 2; Part of Road Allowance Between Lots 5 & 6, Concession 2)



APPENDIX D

TOWNSHIP ZONING BY- LAW AMENDMENT

CORPORATION OF THE TOWNSHIP OF WAINFLEET
BY-LAW NO. 00X-2022

Being a by-law pursuant to the provisions of Section 34 of the Planning Act, R.S.O. 1990 to amend Zoning By-law No. 034-2014 of the Corporation of the Township of Wainfleet with respect to those lands described as Part of Lots 6 & 7, Concession 2 and Part of Road Allowance Between Lots 5 & 6, Concession 2 (geographic Township of Wainfleet), Township of Wainfleet, Region of Niagara.

WHEREAS the Corporation of the Township of Wainfleet has reviewed Zoning By-law No. 034-2014 and deems it advisable to amend same:

NOW THEREFORE the Council of the Corporation of the Township of Wainfleet **HEREBY ENACTS AS FOLLOWS:**

THAT Map 13 of Zoning By-law No. 034-2014, as amended, is hereby further amended by changing the zoning of the subject property from A4 and EP Overlay to M2 as shown on Schedule “A” attached hereto.

THAT Table 19 of Section 9.0 entitled “Permitted Use Exceptions” is hereby further amended by adding the following text under the M2 section:

Zone	#	By-Law #	Address	Description of Special Provision
M2	XX	00X-2022	Part of Lots 6 & 7, Concession 2 and Part of Road Allowance Between Lots 5 & 6, Concession 2	<p>A quarry including processing and related plant and operational facilities for the crushing, screening and washing of aggregate materials; Aggregate stockpiling;</p> <p>The outside storage of goods and materials where such use is ancillary and incidental to a permitted aggregate operation use otherwise specified herein</p> <p>One single-family dwelling is permitted</p>

THAT pursuant to Section 34(17) of the Planning Act, as amended, no further public meeting is required.

THAT this By-law shall come into force, take effect and be passed on the final reading hereof subject to the provisions of Section 34 of the Planning Act.

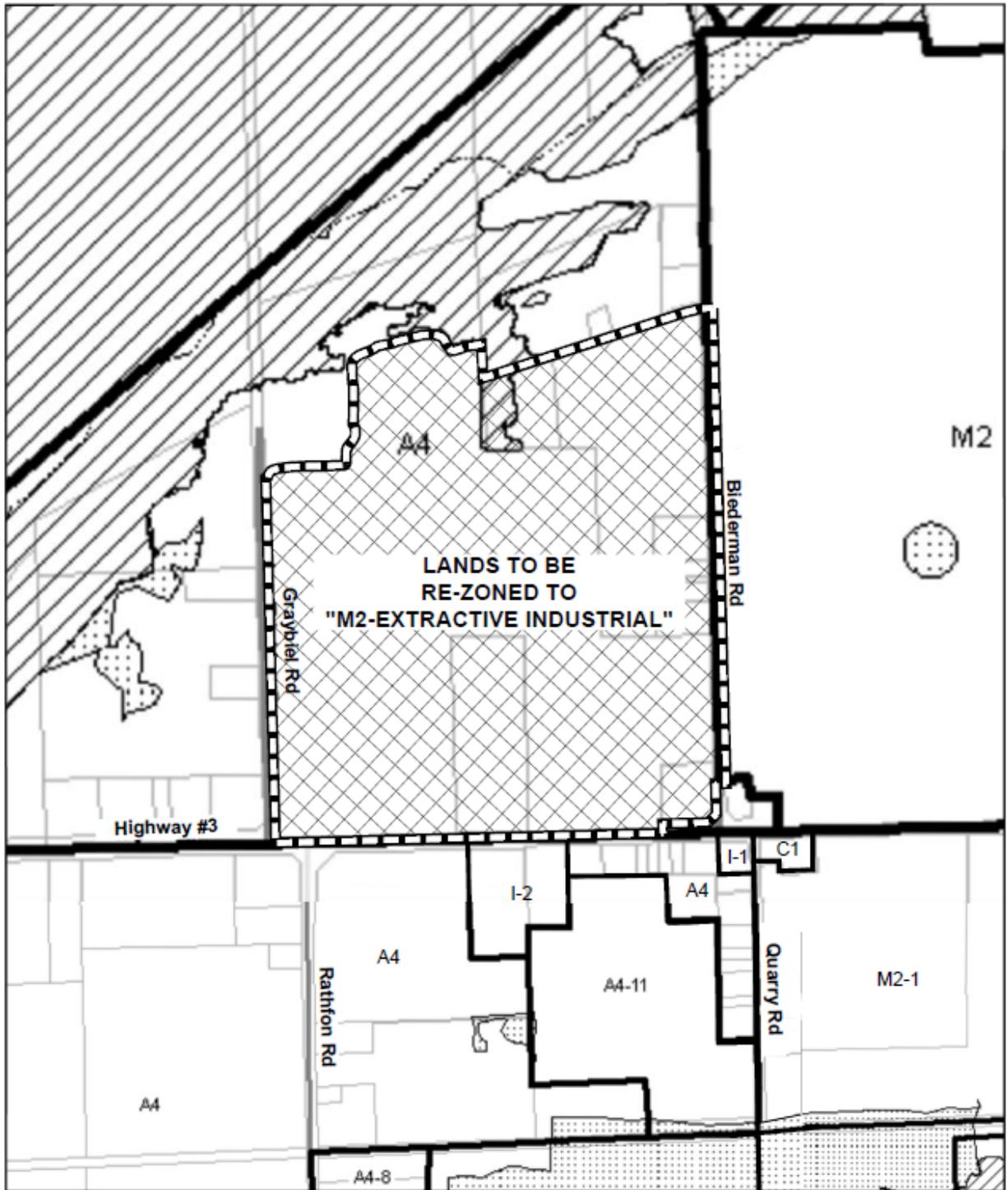
BY-LAW READ AND PASSED THIS XXTH DAY OF MONTH, YEAR.

K. Gibson, MAYOR

M. Ciuffetelli, DEPUTY CLERK

SCHEDULE "A" TO BY-LAW 00X-2022

Law Quarry Extension - Waterford Sand and Gravel Limited
(Part of Lots 6 & 7, Concession 2; Part of Road Allowance Between Lots 5 & 6, Concession 2)



APPENDIX E

CIRRICULUM VITAE OF REPORT AUTHORS



CURRICULUM VITAE

Neal DeRuyter, BES, MCIP, RPP

EDUCATION

2008
Bachelor of Environmental Studies
Honours Planning (Co-op)
University of Waterloo

Neal DeRuyter, a Partner with MHBC, joined the firm in 2009 after graduating from the University of Waterloo in the Honours Planning Co-op program. Mr. DeRuyter has worked as a Planner in the private and public sectors with experience in aggregate resource, development and municipal planning.

Mr. DeRuyter has processed and managed several development applications including zoning by-law amendments, official plan amendments, and licence and site plan applications under the Aggregate Resources Act. He is certified by the Ministry of Natural Resources & Forestry to prepare site plans under the Aggregate Resources Act. He is a Registered Professional Planner and is a member of the Canadian Institute of Planners. He has provided expert evidence before the Ontario Municipal Board and Local Planning Appeal Tribunal.

He has participated and authored several research studies and articles related to aggregate resource management. Mr. DeRuyter has presented on several occasions for various events at the School of Planning at the University of Waterloo. Mr. DeRuyter is a member of the Pragma Council at the University of Waterloo.

PROFESSIONAL HISTORY

2017- Present	Partner MacNaughton Hermsen Britton Clarkson Planning Limited
2013- 2017	Associate, MacNaughton Hermsen Britton Clarkson Planning Limited
2009- 2013	Planner, MacNaughton Hermsen Britton Clarkson Planning Limited

PROFESSIONAL ASSOCIATIONS

Full Member, Ontario Professional Planners Institute
Full Member, Canadian Institute of Planners

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CURRICULUM **VITAE**

Neal DeRuyter, BES, MCIP, RPP

PROFESSIONAL SERVICE

2014-Present Member, University of Waterloo PRAGMA Council

2012-Present Member, Ontario Expropriation Association

2015-Present Member, Eastern Ontario Committee, Ontario Stone, Sand & Gravel Association

PUBLICATIONS

- 'Future Aggregate Availability and Alternatives Analysis, State of the Aggregate Resource in Ontario Study, 2009' (MNR)
- 'The Future of Ontario's Close to Market Aggregate Supply: The 2015 Provincial Plan Review' (OSSGA, 2015)
- Agricultural Impact Assessment and Rehabilitation Plan Guidelines for Aggregate Extraction, 2016 (OMAFRA)

SELECTED PROJECT EXPERIENCE

- Research, preparation and coordination of reports / applications under the Planning Act, Niagara Escarpment Planning and Development Act and Aggregate Resources Act.
- Project management services for development applications.
- Conduct notification and consultation processes under the Aggregate Resources Act.
- Due diligence and property overview reports for prospective aggregate sites.
- Aggregate Resources Act site plan amendments.
- Planning assessment for commercial, residential, agricultural and industrial developments.

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CURRICULUM VITAE

Neal DeRuyter, BES, MCIP, RPP

- Planning assessment for proposed urban use requests in Niagara Escarpment Plan through 2015-2017 Review.
- Research and preparation of reports / evidence for hearings before the Ontario Municipal Board / Local Planning Appeal Tribunal.
- Planning research and assessment for expropriation matters on behalf of public and private sector clients.

SELECTED PROJECT EXAMPLES

- AAROC Aggregates Bardoel Pit, Township of Southwest Oxford
- Badger Daylighting Pits, Township of Puslinch and City of Ottawa
- Bell Sand Farms Grose Pit Extension, Perth County
- Brock University, Niagara Escarpment Plan Lands, City of St. Catharines
- CBM Ayr Pit Site Plan Amendment, Township of North Dumfries
- CBM Bromberg Pit, Township of North Dumfries
- CBM Dorchester Pit, Municipality of Thames Centre
- CBM Eramosa Pit Extension, Township of Centre Wellington
- CBM Lake Pit, Township of Puslinch
- CBM Lanci Pit Expansion, Township of Puslinch
- Caledon Sand & Gravel Site Plan and Licence Amendments, Town of Caledon
- Capital Paving Shantz Station Pit, Township of Woolwich
- City of Kingston, Barriefield Affordable Housing Feasibility Study
- Gallo Contracting Industrial Use, Township of Puslinch
- Graham Brothers Caledon Pit Site Plan Amendment and NEP Amendment, Town of Caledon
- Halton Crushed Stone Erin Pit Extension, Town of Erin
- James Dick Construction Ltd. Adjala Pit Extension, Township of Adjala-Tosorontio
- James Dick Construction Ltd. Erin Pit Extension, Town of Caledon
- James Dick Construction Ltd. Gamebridge Quarry Site Plan Amendment, Township of Ramara
- James Dick Construction Ltd. Reid Road Quarry, Town of Milton
- Kaneff Properties, Royal Niagara Golf Club, City of St. Catharines
- Kieswetter Excavating Heidelberg Pit Site Plan Amendment, Township of Wilmot

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CURRICULUM VITAE

Neal DeRuyter, BES, MCIP, RPP

- KPM Brantford Plant Expansion, Brant County
- Lillycrop Highway 6 Expropriation, Township of Puslinch
- Limehouse Clay Products Ltd. Site Plan Amendment, Town of Halton Hills
- Ministry of Transportation, Highway 410 Expropriation, Town of Caledon
- Ontario Stone, Sand & Gravel Association, Municipal Official Plan Reviews in Ontario
- Ontario Trap Rock Quarry, Town of Bruce Mines
- Queenston Quarry Reclamation Company Redevelopment, Town of Niagara-on-the-Lake
- Ramada Beacon Hotel, Town of Lincoln
- R.W. Tomlinson Ltd. Brechin Quarry, City of Kawartha Lakes
- R.W. Tomlinson Ltd. Brickyards Quarry, City of Ottawa
- R.W. Tomlinson Ltd. Moodie Quarry Expansion, City of Ottawa
- R.W. Tomlinson Ltd. Moore Quarry, City of Ottawa
- R.W. Tomlinson Ltd. Napanee Asphalt Plant, Town of Greater Napanee
- R.W. Tomlinson Ltd. Reids Mills Pit, City of Ottawa
- R.W. Tomlinson Ltd. Rideau 1 Quarry Extension, City of Ottawa
- R.W. Tomlinson Ltd. Stittsville Quarry, City of Ottawa
- R.W. Tomlinson Ltd. Storyland Pit, Renfrew County
- R.W. Tomlinson Ltd. Ready-Mix Site Plan Approval, City of Ottawa
- Thomas Cavanagh Construction Almonte Quarry Extension, City of Ottawa
- Thomas Cavanagh Construction Arnott Pit, Lanark County
- Thomas Cavanagh Construction Highland Line Pit, Lanark County
- Township of Guelph-Eramosa, Review of Tri-City Spencer Pit
- Township of West Lincoln, Preliminary Bedrock Resource Assessment in Smithville
- Walker Aggregates Inc. Amherstburg Quarry and McGregor Quarry, Town of Amherstburg

PRESENTATIONS

- "Planning as a Profession" – Faculty of Environment Open House at the University of Waterloo, March 2013
- "Rehabilitation of Licensed Pits and Quarries" – Canadian Association of Certified Planning Technicians Professional Development Conference, October 21, 2011
- Professional Practice, Public and Private Administration (PLAN 403), University of Waterloo, January 2010

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CURRICULUM **VITAE**

Neal DeRuyter, BES, MCIP, RPP

ARTICLES

- “Planning for a sustainable community” – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 1, Issue 2, 2011
- “The closer the better” – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 2, Issue 2, 2012
- “Diminishing supply” - Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 3, Issue 1, 2013
- “Shipping aggregate from further afield” – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 3, Issue 2, 2013
- “The feasibility of alternative transportation options” – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 4, Issue 1, 2014
- “Keeping residents safe and dry” – Avenues Magazine (Ontario Stone, Sand & Gravel Association), Volume 4, Issue 2, 2014

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CURRICULUMVITAE

Caitlin Port, MES, MCIP, RPP

EDUCATION

2013
Master of Environmental Studies in Planning
University of Waterloo

2009
Bachelor of Environmental Studies
Honours Environment & Resource Studies
Biology Minor
University of Waterloo

Caitlin Port, is a Senior Planner with MHBC specializing in aggregate resource management and rural land use planning.

Ms. Port has coordinated and prepared a number of aggregate projects across southern and central Ontario, including Licence Applications, Official Plan Amendments, and Zoning By-Law Amendments. She has experience writing and analyzing planning policies, preparing Planning Justification Reports, presenting at Public Meetings, and participating in Ontario Municipal Board Hearings.

In addition, Ms. Port has authored three studies on aggregate rehabilitation in Ontario for the Ontario Stone, Sand, and Gravel Association and has presented on aggregate rehabilitation to a number of academic, municipal and community groups.

Ms. Port is a Registered Professional Planner and is qualified by the Ontario Municipal Board as an expert in Land Use Planning.

PROFESSIONAL ASSOCIATIONS

Full Member, Canadian Institute of Planners (CIP)
Full Member, Ontario Professional Planners Institute (OPPI)

PROFESSIONAL HISTORY

2017 - Present Senior Planner,
MacNaughton Hermsen Britton Clarkson Planning Limited

2014 - 2017 Planner,
Skelton Brumwell and Associates Ltd.

2013 - 2013 Field and Research Assistant,
Ontario Stone, Sand, and Gravel Association

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CURRICULUMVITAE

Caitlin Port, MES, MCIP, RPP

SELECTED AGGREGATE RESOURCES PROJECT EXPERIENCE

- Reid Road Reservoir Quarry – Co-Author *Aggregate Resources Act* Summary Statement and assist with preparation, submission, and circulation of the Licence Application. Participate in meetings with agencies to discuss and resolve objections
- Brickyards Quarry - Co-Author *Aggregate Resources Act* Summary Statement and assist with preparation, submission, and circulation of the Licence Application.
- Aggregate Rehabilitation Best Management Practices – Undertake a comprehensive literature and research review and summary results in a report to the Ministry of Natural Resources and Forestry. Prepare and submit set of Aggregate Rehabilitation Best Management Practices to the Ministry of Natural Resources and Forestry.
- VicDom Sand and Gravel Utica Pit – Coordinate and undertaken an Aggregate Resources Act Licence Application, Regional of Durham Official Plan Amendment, Township of Uxbridge Official Plan Amendment, Township of Uxbridge Zoning By-Law Amendment.
- Lippa Pit and Quarry - Coordinate and undertaken an Aggregate Resources Act Licence Application, Official Plan Amendment, and Zoning By-Law Amendment. Participate in several meetings with residents and the Cottagers Association and undertake First Nations engagement.
- VicDom Sand and Gravel Brock Road Amalgamation – Coordinate and undertake Licence Amendments, License Transfer, Major and Minor Site Plan Amendments, and development of a new Site Plan for the amalgamation of four separate Pit Licenses

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CURRICULUMVITAE

Caitlin Port, MES, MCIP, RPP

- Giofam Investments Inc. – Coordinated preparation for an OMB Hearing & provided Expert Testimony on the *Aggregate Resources Act* Licence Application and *Planning Act Applications*.
- Miller Paving Ltd. – Coordinated the Aggregate Resources Act Licence Application and coordinate OMB Hearing Preparation
- Undertake various planning reviews and due diligence reports for clients across Ontario
- Authored the Ontario Stone, Sand, and Gravel Association *Study of Aggregate Site Rehabilitation in Ontario Study* Part II (2013) and Part II Addendum (2014)
- Authored the Ontario Stone, Sand, and Gravel Association *Aquatic Aggregate Rehabilitation Study* (2017)

SELECTED MUNICIPAL PLANNING EXPERIENCE

- Erin Estate Weddings – Zoning By-Law Amendment to permit a wedding event use on the property
- Hearthstone Homes – Plan of Vacant Land Condominium to permit a 20 unit condominium development.
- Colacem Cement Plan – Assist with the preparation of evidence and materials for a Local Planning Appeal Tribunal Hearing on a Official Plan Amendment and Zoning By-Law Amendment to permit the establishment of a cement plant.
- Victoria Mews Seniors Housing Community – Zoning By-Law Amendment and Site Plan Application for a 30 unit residential housing project in Victoria Harbour

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CURRICULUMVITAE

Caitlin Port, MES, MCIP, RPP

- Granite Ridge Phase II Subdivision - Plan of Subdivision, Condominium Application, Official Plan Amendment, Zoning By-Law Amendment, to permit the development of a 33 lot estate residential subdivision with common element features including a central water feature and open space
- Undertook a planning review and public consultation as part of the development of the Delphi Point ANSI Park Management Plan for the Town of the Blue Mountains
- Stewart Industrial Development – Zoning By-Law Amendment and OMB Hearing Preparation
- Various Consent and Minor Variance Applications across central Ontario

PUBLICATIONS

- Port, C. (February 2015). The Real Story, Avenues, Volume 5, Issue 1, pp 17-18 Port, C. (2015). Study of Aggregate Site Rehabilitation in Ontario, Part III, Study Addendum. The Ontario Stone, Sand, & Gravel Association.
- Port, C & Moos, M. (2014). Growing food in the suburbs: estimating the land potential for sub-urban agriculture in Waterloo, Ontario. Journal of Planning Practice and Research. 29(2), 152-170
- Port, C. (February 2014). Closing the Gap. Avenues, Volume 4, Issue 1, pp 10-13 Port, C. & Scott, M. (2014).
- Study of Aggregate Site Rehabilitation in Ontario, Part II, Consolidated Report 2010-2013. The Ontario Stone, Sand, & Gravel Association. Port, C. (2013). Reducing aggregate-related land use conflicts. Ontario Planning Journal, 28, 4 (pg.18)

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EDUCATION

2015 - 2019
Bachelor of Arts, Honours
Princeton University

2020 - Present
Masters of Science (Planning)
University of Guelph

CURRICULUMVITAE

Dawson McKenzie, BA, MSc (Candidate)

Dawson McKenzie joined MHBC as a Planner in 2021. Prior to joining MHBC, Mr. McKenzie worked as a researcher at the University of Guelph and as a Research Associate in the private sector. Mr. McKenzie provides a range of planning services to municipal and private sector clients including land use planning advice, policy review, preparation of planning justification reports, as well as obtaining development approvals for a range of development applications

PROFESSIONAL ASSOCIATIONS

Student Member, Canadian Institute of Planners (CIP)
Student Member, Ontario Professional Planners Institute (OPPI)

PROFESSIONAL HISTORY

- 2021 - Present Planner,
MacNaughton Hermsen Britton Clarkson Planning Limited
- 2020 - 2021 Research Assistant,
University of Guelph
- 2019 - 2021 Research Associate,
Wilton Consulting Group

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