

JOINT AGENCY REVIEW TEAM (JART)

PROPOSED LAW QUARRY EXTENSION Township of Wainfleet, Niagara Region



JART REPORT

June 2024

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1.0 Executive Summary

This report summarizes the background work, analysis, and findings of the Joint Agency Review Team (JART) in the review of the proposed Law Quarry Extension application.

Aggregate applications are complex, involving multiple review agencies that consider a broad range of technical issues including water resources, natural environment, archaeology, air quality, noise, blasting, traffic, and others. To coordinate the agency review process for the applications, the Niagara Region (Region), together with the Township of Wainfleet (Township) and Niagara Peninsula Conservation Authority (NPCA) established a Joint Agency Review Team (JART). The members of the JART worked together with the Aggregate Advisor and technical peer review consultants to review and consider all matters related to the aggregate application. The JART does not make a recommendation on the applications, but provides a central point of contact for the review, and issues a report once the review process is complete. This JART Report is intended to provide a resource that will assist the JART agencies in their individual recommendation and decision-making responsibilities.

The JART members, together with the Aggregate Advisor and peer review consultants who have been retained for this project, completed a series of reviews based on the initial application submission in June 2022 and subsequent resubmissions by the applicant in September 2023 and March 2024.

This report provides a description of the proposal and outlines the required approvals, with a brief overview of the relevant planning policy framework and summarizes the technical reports and peer review comments provided through the process. The JART meetings, site visits, technical team meetings, and discussions with the applicant have resolved questions that have been raised through the technical review process. This JART Report has also documented the public and agency consultation process completed as part of the overall review process.

2.0 Introduction

2.1 Purpose of the Report

In June 2022, Waterford Sand and Gravel Ltd (Waterford) submitted applications for the proposed extension of the existing Law Crushed Stone Quarry (Law Quarry) in the Township of Wainfleet. The required approvals for the proposed quarry extension include Planning Act approvals in the form of a Niagara Region Official Plan Amendment (ROPA), Township of Wainfleet Official Plan Amendment (OPA), and an amendment to the Township of Wainfleet Zoning By-law (ZBLA). In addition, a licence under to the Aggregate Resources Act (ARA), administered by the Ministry of Natural Resources (MNR) is required.

A review of the applications was coordinated by a Joint Agency Review Team (JART). The JART is a team of planning staff from the Region, Township, and Niagara Peninsula Conservation Authority (NPCA) and is supported by an Aggregate Advisor. This JART Report was informed by the exchange of information between Waterford, their consultants, JART member agencies, the peer review consultants, and provincial agencies that provided input. In addition, public comments received through the review process have been considered.

The purpose of this JART Report is to:

- provide a plain language description of the proposal, the applicable policy framework, and roles and responsibilities of the Township, Region, NPCA, and Province in aggregate applications;
- provide a summary of the technical and peer review process;
- identify key issues that have been raised during the JART review and outline items that have not been resolved, if any; and
- provide an overview, and document, the public, agency, and stakeholder process that was undertaken.

This JART Report will then be used independently by planning staff at the Region and Township as the technical basis to develop their respective planning recommendation reports. The work of the JART also helps to inform comments made to the Province and applicant under the ARA.

2.2 Limitations of the Report

This JART Report does not make a recommendation on the Planning Act applications. It is a summary of the technical review completed since the relevant applications were filed in June 2022. The contents of this report are based upon information submitted up to May 2024. The technical review was generally based upon the documents listed in **Appendix A** of this report, public input, technical meetings, and other informal discussions and correspondence with the applicant and their consulting team.

3.0 Planning and Regulatory Context

The policy framework for managing aggregate resources is complex, as it is governed by numerous policy requirements at the provincial, regional, and local levels. In considering new aggregate operations or expansions of existing aggregate operations, proponents are generally required to submit applications under two Provincial acts, the Aggregate Resources Act (ARA), and the Planning Act.

While the licensing and management of aggregate resource operations in the province is governed by the ARA, land use planning considerations including siting of operations and assessment of impacts, is a municipal responsibility under the Planning Act.

As part of an ARA approval for a license, Section 12.1 of the ARA recognizes that the ARA does not stand alone and that the Planning Act also has to be complied with since it states that “no license shall be issued for a pit or quarry if a zoning by-law prohibits the site from being used for a pit or quarry”. This means that the zoning on the lands has to expressly permit the use of the lands as a pit or quarry for a license to be approved by the Ministry of Natural Resources (MNR).

In the case of mineral aggregate operations, often more than one provincial interest must be taken into consideration, and it is the goal of land-use planning to balance and protect these competing interests in the most effective manner, keeping in mind the long-term planning horizon and the public interest.

3.1 Aggregate Resources Act and Regulations

The Aggregate Resources Act (ARA) is administered by the MNR and provides guidelines for the management of aggregate resources in Ontario. The four established purposes for the ARA are:

- a. to provide for the management of the aggregate resources of Ontario;
- b. to control and regulate aggregate operations on Crown and private lands;
- c. to require the rehabilitation of land from which aggregate has been excavated, and;
- d. to minimize adverse impact on the environment in respect of aggregate operations.

Section 12 of the ARA outlines the conditions that the Minister must consider in determining whether or not to issue a license. These are:

- a. the effect of the operation of the pit or quarry on the environment;
- b. the effect of the operation of the pit or quarry on nearby communities;
- c. any comments provided by a municipality in which the site is located;
- d. the suitability of the progressive rehabilitation and final rehabilitation plans for the site;
- e. any possible effects on ground and surface water resources including on drinking water sources;
- f. any possible effects of the operation of the pit or quarry on agricultural resources;
- g. any planning and land use considerations;

- h. the main haulage routes and proposed truck traffic to and from the site;
- i. the quality and quantity of the aggregate on the site;
- j. the applicant's history of compliance with this Act and the regulations, if a licence or permit has previously been issued to the applicant under this Act or a predecessor of this Act; and
- k. such other matters as are considered appropriate.

Section 13 of the ARA indicates that the MNR may include such conditions as are considered necessary within a license and that the MNR has the discretion to add a condition or rescind or vary a condition at any time. In considering appropriate conditions and the Site Plan, the MNR generally consults with commenting agencies including municipalities.

In addition to their role in the licencing and permitting process, MNR oversees aggregate operations including the specific Site Plan conditions on individual licences, responds to complaints and enforces compliance.

The ARA was amended in 2017 through the Aggregate Resources and Mining Modernization Act (ARMMA) which introduced new enforcement powers and additional penalties for non-compliance. The Act includes provisions to encourage voluntary compliance. An inspector who finds that any provisions of the ARA or the regulations are being contravened may provide the person who he or she believes to be responsible for the contravention with a written report setting out a list of the provisions that have been or are being contravened and suggesting actions or measures the person could take to remedy the contraventions.

On the other hand, it significantly hikes penalties for non-compliance. Under the previous version of the ARA, every person who committed an offence under the ARA was liable on conviction to a fine of not less than \$500 and not more than \$30,000 for each day on which the offence occurs or continues. The ARMMA increased these penalties so that everyone who commits an offence is liable on conviction to a fine of not more than \$1,000,000 and an additional fine of not more than \$100,000 for each day or part of a day on which the offence occurs or continues.

The requirements for aggregate rehabilitation are outlined in Part VI of the ARA. Section 48 indicates that "Every licensee and every permittee shall perform progressive rehabilitation and final rehabilitation on the site in accordance with this Act, the regulation, the Site Plan and the conditions of the license or permit to the satisfaction of the Minister." In addition, this section provides the MNR with the ability to order a person to carry out progressive or final rehabilitation.

3.2 Planning Act

The Planning Act is the central piece of legislation governing land-use planning in Ontario. It establishes the various types of planning tools that municipalities may use to control land uses and development within their communities. The Planning Act outlines the rules and responsibilities around preparing and updating official plans and zoning by-laws, public consultation and notice requirements, and appeal rights and dispute resolution. The Planning Act also describes how land uses may be controlled and establishes land-use decision making processes that are intended to be open, accessible, timely and efficient.

When carrying out its responsibilities under the Planning Act, a municipality or any other authority that affects a planning matter must have regard for the provincial interests as identified in Section 2 of the Planning Act. These include: the protection of ecological systems, including natural areas, features and functions; the protection of the agricultural resources of the Province; the conservation and management of natural resources and the mineral resource base; the resolution of planning conflicts involving public and private interests; the protection of public health and safety; and other interests as outlined in the Act.

The Planning Act is implemented by provincial land-use planning documents such as the Provincial Policy Statement (PPS), Growth Plan, and Greenbelt Plan and municipal land-use planning documents such as official plans and zoning by-laws.

3.3 Provincial Policy Statement

The Provincial Policy Statement (PPS, 2020) states that the vision for Ontario's land-use planning system may be further articulated through provincial plans. The PPS recognizes that the province's natural heritage resources, water, agricultural lands, mineral aggregate resources, 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 fiber, minimize environmental and social impacts and meet its long-term economic needs. (PPS, Part IV).

Section 2.5.2.1 of the PPS recognizes that mineral aggregate resources are an integral component of the economy and makes it clear that the demonstration of need for mineral aggregate resources is not a factor in the development of resource strategies or in the consideration of individual applications, regardless of the municipality or location. The intent of this policy is to require that any application be considered on its land use merits only.

Section 2.5.2.2 provides the policy basis for the establishment of potential resource areas and to assess applications to establish resource uses. The determination of whether extraction minimizes social, economic and environmental impacts is an important consideration in making a decision on an application to establish a new resource use. It is also noted that the use of the word 'minimize' assumes and recognizes that some impacts may occur.

Extraction of mineral aggregate resources is recognized as a permitted non-agricultural use in prime agricultural areas (Sections 2.3.6.1 a)). The policies related to the identification and protecting long-term resource supply from development and activities that would preclude or hinder resource use are unchanged (Section 2.5.2).

Policy 2.5.2.4 of the PPS clarifies the responsibility for determining depth of extraction as a matter to be addressed through the Aggregate Resources Act process:

“Where the Aggregate Resources Act applies, only processes under the Aggregate Resources Act shall address the depth of extraction of new or existing mineral aggregate operations”. According to MNR the intent of this change is to clarify that zoning should not distinguish between above and below water extraction (vertical zoning) and that the ARA regulates this matter.

In April 2024, the province introduced a revised draft of the proposed Provincial Planning Statement (proposed PPS, 2024) which proposed to consolidate the existing Provincial Policy Statement (PPS, 2020) and Growth Plan into a single integrated provincial policy planning document. At the time of this report, the proposed changes are still under review, however, there is a possibility that the proposed PPS, 2024 will be in place at the time decisions are made on the ROPA, LOPA and ZBLA, and that the decisions will need to be consistent with the new PPS. Should this be the case, additional analysis would be provided in the respective Township or Regional planning reports.

3.4 A Place to Grow: Growth Plan for the Greater Golden Horseshoe

The Growth Plan is a planning document that applies to the Greater Golden Horseshoe (GGH) region of Ontario and guides decisions on a wide range of issues, such as transportation, infrastructure planning, land-use planning, urban form, housing, natural heritage, and resource protection in the interest of promoting economic prosperity.

Related to mineral aggregate resources, section 4.1 of the Growth plan notes: “Building compact communities and the infrastructure needed to support growth requires significant mineral aggregate resources. The Aggregate Resources Act establishes the overall process for the management of mineral aggregate operations, and this Plan works within this framework to provide guidance on where and how aggregate resource extraction can occur, while balancing other planning priorities. The GGH contains significant deposits of mineral aggregate resources, which require long term management, including aggregate reuse and recycling. Ensuring mineral aggregate resources are available in proximity to demand can support the timely provision of infrastructure and reduce transportation-related greenhouse gas emissions”. The policies encourage mineral aggregate resource conservation through means such as aggregate recycling.

Section 4.2.8 outlines the policy considerations for mineral aggregate resources, in some areas, with policy distinctions made between new aggregate operations and expansions to existing operations.

The Growth Plan policies regarding the protection of key natural heritage features and key hydrologic features are similar to the Greenbelt Plan with a similar distinction for new and expanding mineral aggregate operations. Within the Natural Heritage System for the Growth Plan, new mineral aggregate operations are not permitted in significant wetlands, habitat of endangered and threatened species and significant woodlands unless the woodland is a young plantation or early successional habitat. For expansions, the policies are more permissive and extraction may be permitted in key natural heritage features and key hydrologic features if the decision is consistent with the Provincial Policy Statement (PPS) (i.e. meets the protection standards of the PPS).

In addition, the Growth Plan policies reflect a greater emphasis on protection of agricultural resources and requires that an Agricultural Impact Assessment (AIA) be prepared to support development, including new aggregate operations, in prime agricultural areas.

The policies for rehabilitation of aggregate sites require that disturbed area be rehabilitated to a state of equal or greater ecological value, with an objective to maintain or enhance long-term ecological integrity. Outside of the Natural Heritage System, final rehabilitation should reflect the long term land use of the general area, taking into account existing municipal and provincial policies.

3.5 Niagara Region Official Plan

The new Niagara Official Plan (NOP) was approved, with modifications, by the Minister of Municipal Affairs and Housing and came into effect on November 4, 2022. Policy 7.12.2.5 of the NOP states that development applications deemed complete prior to the date of the NOP approval shall be permitted to be processed and a decision made under the 2014 Regional Official Plan (ROP) policies. The proposed Law Quarry Extension application was deemed complete in July 2022, and is therefore being processed under the 2014 ROP.

On October 23, 2023, the Minister of Municipal Affairs and Housing announced that legislation would be introduced to reverse the official plan decisions for several municipalities across Ontario, including Niagara Region.

On December 6, 2023, implementing legislation Bill 150 (*Planning Statute Law Amendment Act, 2023*) received Royal Assent, which reversed provincial changes made to the NOP, 2022 except for modifications number 5, 24, 25, 32, 33, 39, 42, and 44. The reversal of official plan decisions are dated retroactively to the original date that the decision on the NOP, 2022 was made (November 4, 2022).

Schedule H and those policies related to this ROPA are not the subject of any Provincial modifications. As such, it is not anticipated that the new decision from the Minister will impact the Law Quarry ROPA application.

An amendment to the ROP is required because the entirety of the proposed Law Quarry Extension site is not identified on Schedule D4 as a Possible Aggregate Area, pursuant to ROP Policy 6.C.13.

Regional staff have and will be reviewing the requested amendment relative to all applicable ROP policies, with particular attention being paid to policy 5.B.7, Chapter 6 and policy 14.D.5. In addition to the ROP, it is the responsibility of Regional Planning staff to review the application for consistency with the PPS and conformity with applicable Provincial Plans (i.e. Growth Plan). Supporting technical studies have and will be reviewed relative to those ROP topic specific policies, in addition to relevant Provincial policies.

As noted above, the applications have been prepared to reflect the policies in the 2014 ROP. Section 6 of the 2014 ROP contains the policies related to mineral resources. The stated objectives of Section 6 of the ROP are:

- To ensure an adequate supply of mineral resources (including sand, gravel, stone and shale) for the short-term and long-term construction, chemical, and metallurgical needs within the Niagara Region.
- To ensure the suitable location, operation and rehabilitation of mineral extraction activities in order to minimize conflicts with both the natural and human environment of the Region.

The proposed Law Quarry Extension is currently designated “Rural Area” and is identified as “Potential Resource Areas: Stone” on Schedule D1 of the ROP. The ROP policies set out the general considerations for new aggregate operations or expansions to existing operations. These considerations include compliance with the policies in the ROP including those related to protection of the natural environment, as outlined in Section 7 of the ROP; compatibility with surrounding land uses; the proposed manner of operation, site plan and rehabilitation; and the proposed haul routes and impacts on roads.

3.6 Township of Wainfleet Official Plan

The proposed quarry is located within the Township of Wainfleet. The proposed quarry site is designated Rural Area, Possible Extractive Industrial Area, and Environmental Protection Area in Schedule B of the Official Plan. An amendment to the Township’s Official Plan is required to designate the lands to Extractive Industrial Area to permit the proposed quarry operation.

3.7 Township of Wainfleet Zoning By-law

The zoning by-law is the legal document that implements goals, objectives, and policies described in the official plan. It regulates the use and development of buildings and land by stating exactly what types of land uses are permitted in various areas and establishing precise standards for how the land can be developed. These include setting lot sizes and frontages, building setbacks, the height and configuration of buildings, the number and dimensions of parking and loading spaces and requirements for open space. Zoning by-law amendments are used for major revisions to the by-law such as land use changes or significant increases in permitted building heights and densities.

The majority of the proposed quarry site is currently zoned 'Rural (A4)' with an Environmental Protection Overlay in the Township of Wainfleet Zoning By-law 034-2014.

To permit the proposed quarry operation, a zoning by-law amendment is required to rezone the proposed quarry site from 'Rural (A4)', to 'Extractive Industrial (M2-2)' zone. Exception 2 adds the following as additional permitted uses:

1. A quarry including processing and related plant and operation facilities for the crushing, screening and washing of aggregate material and aggregate stockpiling; and
2. Outside storage of goods and materials where such use is ancillary and incidental to a permitted aggregate operation use otherwise specified.

The application proposes that details pertaining to setbacks, operational requirements and rehabilitation will be addressed through the ARA Site Plans.

4.0 The Joint Agency Review Team (JART)

The JART was established to coordinate the technical review of applications submitted by the applicant. This technical review, which is supported by a team of peer review consultants, is intended to form a resource for the JART agencies to help formulate recommendations and reach decisions on the applications based on their respective jurisdictions. The JART review considers the applications in the context of applicable Provincial, Regional and Local planning policies and is based on the technical and other information, and public input, available at the time of writing. Staff from applicable provincial ministries have been engaged through the JART process as well.

4.1 Purpose of the JART

The purpose of the JART is to share information, resources, and expertise so that the application and the associated studies are reviewed in a streamlined and coordinated manner.

The JART does not make a recommendation on the application, rather the JART works to:

- ensure that the required range of studies and work is completed by the applicant;
- ensure that the studies are sufficient in terms of their technical content;
- review of the studies and work of the applicant either by technical staff or by peer reviewers;
- ensure a coordinated public and stakeholder consultation and engagement process; and
- prepare a technical JART Report on the application once all reviews are complete.

4.2 JART Members

The JART members for the review of the proposed Law Quarry Extension applications include:

- Niagara Region
- Township of Wainfleet
- Niagara Peninsula Conservation Authority

4.2.1 Niagara Region

The Region is responsible for implementing the regional official plan and reviewing the application relative to provincial policies and plans and is the approval authority for the regional and local official plan amendments. The Region reviews Planning Act applications on the basis of the impact on surrounding land uses and the compatibility of the proposed development with existing and future land uses. As part of their role, the Region considers issues related to the environment, transportation, infrastructure, financial impacts, cultural heritage, surface and groundwater resources, noise, dust, vibration, and impacts on human health.

4.2.2 Township of Wainfleet

The Township is responsible for implementing the Township's official plan and zoning by-law. Township planning staff will make a recommendation on the Township official plan amendment, and Township Council will make a decision on the proposed amendment. As noted above, the Regional Council the approval authority for the official plan amendment.

In addition, an amendment to the Township's zoning by-law will be required to support the proposed quarry extension. Township planning staff will make a recommendation on the proposed zoning by-law amendment, and Township Council will make a decision. The Township Council is the approval authority for the zoning by-law amendment.

4.2.3 Niagara Peninsula Conservation Authority (NPCA)

The role of the NPCA as part of the JART has changed since the time of the pre-consultation and submission of applications. Initially, the NPCA was providing comments on natural hazards and supporting review of natural heritage. With the passing of Bill 23 in late 2022, Conservation Authorities are prohibited from providing natural heritage comments on a range of applications, including those under the Planning Act and Aggregate Resources Act. The role of the NPCA is now to provide comments and support the JART in the area of natural hazards.

In addition, Conservation Authority regulations do not apply to sites that are licenced under the ARA. Therefore, the conditions of potential approval under the Planning Act or ARA cannot include the requirement to obtain a permit from the NPCA.

4.2.4 Aggregate Advisor

The Aggregate Advisor is an independent professional with experience dealing with aggregate applications and associated land-use planner matters. The Aggregate Advisor was retained by the Region on behalf of the JART and provides guidance and supports the JART throughout the length of the decision-making process for the regional official plan, local official plan, and zoning by-law amendment applications. The Aggregate Advisor also plays a crucial role in helping the JART understand and participate in the Aggregate Resources Act process.

4.3 Peer Review Consulting Team

Niagara Region, on behalf of the JART retained peer review consultants to review several of the technical studies which were required to support the applications.

For each of the technical disciplines, the work of the peer reviewers included:

- an initial site visit;
- a preliminary technical meeting with the applicant's consulting team;
- the review and comments on the first iteration of the technical studies;
- the review of the second and third iterations of the technical studies (as required); and
- participation in other technical and team meetings (as required).

Table 4-1 lists the JART peer review consultants for the proposed Law Quarry Extension applications:

Table 4-1: Peer Review Consultants

Technical Discipline	Firm
Noise, Air Quality, Blasting Impact	Englobe
Water Resources	TerraDynamics Inc.
Natural Heritage	Dougan & Associates
Financial Impact and Economic Benefits	Watson & Associates

The technical reviews of the Agricultural Impact Assessment, Traffic Impact Study, Planning Justification Report, and ARA Site Plans were completed by the JART and Aggregate Advisor with support from other Regional, Township, and NPCA staff as required. The review and clearance of the Archaeological Assessments and associated information was completed by Provincial Staff.

4.4 Provincial Ministries

The Township and Region are responsible for implementation of provincial, regional, and local planning policy in a way that reflects unique local conditions and community values. This is achieved through regional and local official plans, and local zoning by-laws. The JART is the coordinating body for the review of the Planning Act applications. Certain matters, such as transportation of aggregate on municipal roadways, entrance permits onto municipal roads, municipal drainage approvals, and other matters not governed by the ARA or other provincial ministries are also municipal responsibilities.

Further to the municipal responsibilities, there are several provincial ministries involved in the review of the applications. These agencies are not part of the JART; however, an understanding of the provincial perspective and position on the details of the application is helpful information for the JART process. The roles of these provincial ministries are briefly outlined below.

4.4.1 Ministry of Natural Resources (MNR)

MNR oversees the review and decision-making on licences for new aggregate operations and is responsible for the management of existing operations through the ARA. This includes the monitoring and enforcement of aggregate operations to ensure compliance with licence and Site Plan conditions.

In early 2024, the Provincial Auditor General pointed to deficiencies in the monitoring of aggregate operations, citing a lack of qualified field staff to perform inspections. This is partially a result of the restructuring of the aggregate program delivery in 2020, when many of the experienced field staff in the program, located in the District offices, moved into roles in the centralized approvals branch. The inspection of aggregate sites is currently the responsibility of “Integrated Resource Management Technicians” at the MNR District offices who have a

wide range of responsibilities, and varied training and experience. Only a portion of their time is dedicated to the aggregate program, whereas previously there were full time Aggregate Inspectors in every District office and inspections were conducted on a regular basis.

Although aggregate operators have an obligation to report on compliance annually, MNR's role in inspection and enforcement is critical to the integrity of the program. It is anticipated that MNR will address the issue with enhanced training and sufficient field staff to perform this function.

MNR is the approval authority for the required ARA licence for the proposed quarry extension, and for any future amendments to the licence. MNR's Aggregate Section manages the processing of the ARA application in accordance with the ARA and Regulations. Through the review process, the JART periodically consulted with MNR staff regarding the ARA process.

The MNR cannot issue a licence under the ARA unless the appropriate land use approvals under the Planning Act are in place to permit the use. Therefore, the Planning Act applications and approval of the zoning is considered a prerequisite for any decision on the quarry licence application.

4.4.2 Ministry of the Environment, Conservation and Parks (MECP)

The MECP is a commenting agency under the ARA and provides input regarding any effects of the proposed quarrying and related water management on drinking water supplies, local domestic wells, and nearby surface water features. MECP's Species at Risk Branch is also involved in the review of the ARA application.

In addition, MECP is the approval authority for many of the required secondary permits, such as a Permit to Take Water (PTTW) for quarry dewatering, or an Environmental Compliance Approval (ECA) under the Environmental Protection Act in relation to noise (extraction, processing and on-site haulage), blasting, and air quality (primarily dust). Obtaining many of these secondary permits is often a condition of the ARA licence and/or a note on the ARA Site Plans.

4.4.3 Ministry of Citizenship and Multiculturalism (MCM)

The Ontario Heritage Act (OHA) provides that MCM determines the policies and programs for the conservation, protection and preservation of Ontario heritage including resources of archaeological value. The OHA requires that archaeological reports be submitted to MCM for review. MCM reviews the reports for compliance with provincial standards and guidelines and provides clearance on the archaeological assessment and provides comments on cultural heritage matters. The reports are entered into the Ontario Public Register of Archaeology Reports.

The proposed Law Quarry extension site contains numerous sites of archaeological importance and therefore MCM was involved with the review of the file. Additional details

related to the review by MCM of the protection of archaeological resources is included in Section 7.1 of this report.

4.4.4 Ministry of Agriculture, Food and Agribusiness and Ministry of Rural Affairs (OMAFRA)

The OMAFRA provides comments as part of the ARA process on agricultural policy matters, as well as any minimum distance separation (MDS) concerns. In an e-mail dated January 27, 2023 the OMAFRA advised that they did not have any comments on the application.

4.4.5 The Ministry of Transportation (MTO)

The MTO will become involved in the application process if the affected property is to be accessed by a Provincial Highway or is located in close proximity to a Provincial Highway. Although a new access to Highway is not proposed, MTO provided several technical comments on the application. The MTO has vested ownership over a small portion of Biederman Road located in the travelled portion of Highway #3 as part of the closure and conveyance of the Road allowance.

5.0 The Proposed Law Quarry Extension

The following sections provide an overview of the proposed quarry extension.

5.1 Location

The subject lands are located immediately to the west of Waterford's existing Law Quarry on Highway 3 in the Township of Wainfleet. The extension lands include Part of Lots 6 and 7, Concession 2, and Part of the Road Allowance between Lots 5 and 6, Concession 2.

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.

The surrounding area is a mix of different rural land uses, including: rural residential, agriculture, highway commercial, and aggregate extraction. **Figure 1** shows the location of the proposed expansion area.

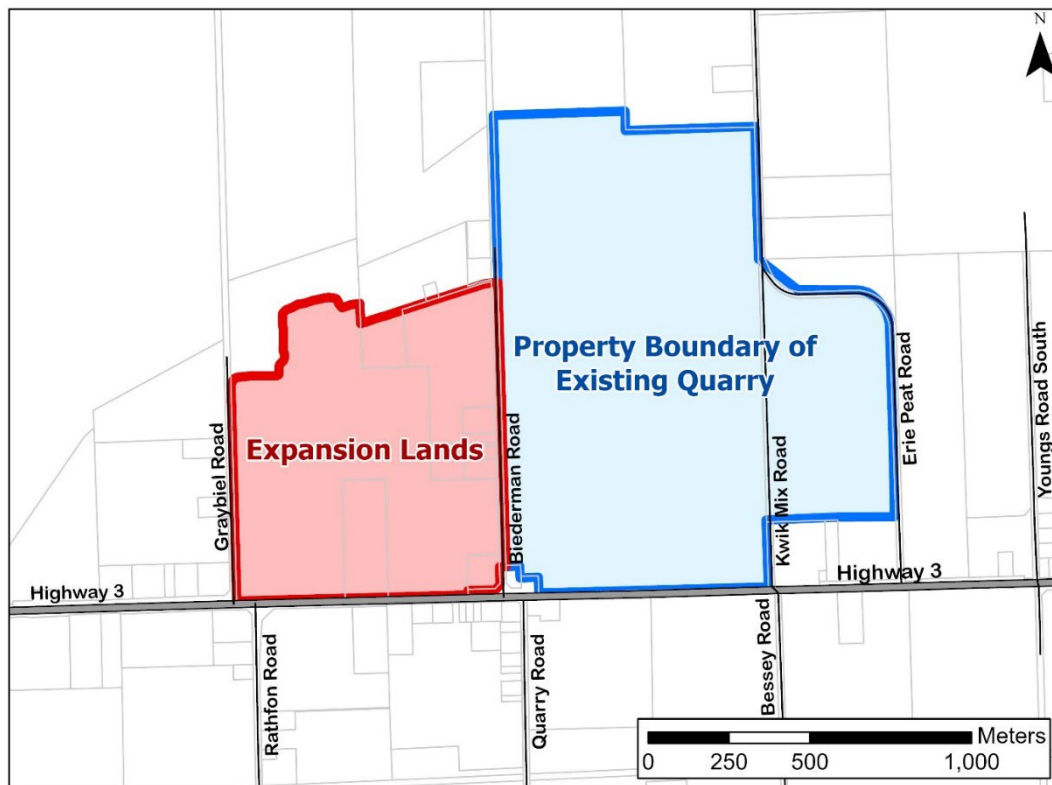


Figure 1: Location of Law Quarry Extension Lands

5.2 The Existing Quarry

Waterford operates an existing quarry located on Highway 3, approximately 3 km west of the City of Port Colborne. The quarry began extraction in the 1930's and covers an area of 144 hectares (356 acres). The proposed quarry extension would utilize the existing entrance onto

Highway 3. There have been two previous extensions to the Law Quarry, both on lands to the east of the existing quarry. **Figure 1** shows the location of the existing Law Quarry.

5.3 Surrounding Land Uses

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. 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 are some agricultural lands located between the subject lands and the Wainfleet Bog Conservation Area that are owned by Waterford. There are agricultural and rural residential uses to the west, and east of the existing quarry.

5.4 Description of the Proposed Law Quarry Extension

The application proposes a quarry below the water table with an annual tonnage limit of 800,000 tonnes which would be combined with the tonnage from the existing Law Quarry. The proposed quarry extension licenced area is 72.3 hectares in size with an extraction area of approximately 51.2 hectares.

The extraction plan is designed with a total of five extraction phases. Once extraction is complete the proposal would rehabilitate the site to a lake surrounding the islands where extraction is not proposed.

5.5 Overview of Key Aspects of the Proposed Operation

The following outlines some of the key aspects of the application and proposed operations plan.

5.5.1 Proposed Operations Plan

Prior to extraction in each phase, overburden and topsoil will be stripped and used to create the berms around the perimeter of the site, which function as a barrier for noise. Additional archaeological assessments are required in a number of areas before the overburden can be stripped and the berms can be constructed. The property will be fenced to restrict access in accordance with ARA requirements.

Operations will include drilling and blasting, crushing and screening, and washing and stockpiling. At the processing plant, aggregate will be processed, washed and stockpiled prior to loading into highway trucks for shipping to market. The proposed maximum annual aggregate production limit is 800,000 tonnes. With an estimated 21 million tonnes of resource, the quarry is expected to be in operation for approximately 25-30 years.

The hours of operation for extraction, processing and shipping are limited to daytime hours (7:00 am – 7:00 pm) Monday through Sunday. It is anticipated that there will be 2 blasts per week, between the hours of 10:00 am and 4:00 pm, with no blasting to occur on weekends or holidays.

Access to the site will be from the common licence boundary with the existing Law Quarry.

There are several archaeological sites within the licenced area that will be protected, resulting in the creation of three islands within the extension area.

5.5.2 Phasing and Sequencing

The operations have been designed in 5 phases with extraction beginning in the northeast portion of the site and proceeding generally in a clockwise direction. The Site Plan operation notes outline the details for each phase of the quarry operations. Extraction will occur in three lifts, with the depth of extraction varying from 13 metres to 22 metres across the site.

The conditions outlined for noise attenuation for each phase of the operations provide details on the timing, height, and location of acoustic berms required for noise mitigation and also provide specific details related to the orientation of the processing equipment, noise barriers around the equipment, and limitations within specified distances of the sensitive receptors around the quarry site. The conditions also outline the required setbacks and buffers from the identified natural heritage and archaeological features on and adjacent to the site.

All of the runoff within the limit of extraction will be directed via an internal drainage network to the sump within the existing quarry where water is then discharged via the existing drainage features into the Eagle Marsh Drain.

5.5.3 Proposed Mitigation and Monitoring Measures

The technical reports provided with the application include recommendations to mitigate the potential environmental and social impacts of the operations. The detailed recommendations are included as conditions on the Site Plans with a summary as follows.

5.5.3.1 Ecology

- A 30 metre undisturbed setback shall be maintained from the boundary of the Provincially Significant Wetland (PSW) area and erosion control measures shall be installed to prevent movement of sediment into the wetland.
- The 30 metre setback from the PSW also serves as a 30 metre setback from the significant woodlands on the site.
- Amphibian/reptile exclusion fencing shall be installed along the northern licence boundary and will be monitored and regularly maintained with inspections to occur 3 times each year during the active turtle season (March 31 to October 31).
- Prior to any site alteration within the identified Whip-poor-will habitat or Spoon-leaved moss colonies, consultation with MECP is required to determine whether authorization is required under the Endangered Species Act.

- All vegetation clearing within the extraction limit will be restricted between April 1 and August 31 to avoid the breeding bird nesting season.
- An invasive species management plan shall be developed by a qualified biologist/ecologist to prevent, control and remove invasive species during operation and rehabilitation.

5.5.3.2 Water

- The monitoring network includes 27 monitoring wells, including 2 residential drinking water wells off site, and 2 surface water stations.
- Semi-annual groundwater level monitoring will be completed at the 27 locations identified on the ARA Site Plans.
- Monitoring well inspections will be completed semi-annually.
- Daily monitoring of sump discharge volume
- A Private Drinking Well Interference and Mitigation Plan will be implemented proactively prior to the commencement of quarry operations.
- The limited quantities of fuel stored on site are subject to Spill Action Plan.

5.5.3.3 Noise

- Acoustics berms to be installed prior to extraction as outlined in the Phasing notes. The berm along the west and northwest portion of the site will be 7 metres and 8 metres respectively. The berm along Highway 3 will be 4 metres in height.
- For Phases 2, 3 and 4 a 4 metre acoustic barrier with a minimum length of 15 metres is required within 10 metres of the quiet rock drill.
- During Phases 3, 4 and 5 an acoustic barrier with a minimum height of 12 metres within 30 metres of the processing plant; or intervening unextracted land with a minimum height of 17 metres will be required within 60 metres of the processing plant.
- There are additional specific limits for operating equipment in each phase as detailed on the Site Plan notes.

5.5.3.4 Blasting

- All blasts shall be monitored for vibration and overpressure at the closest receptors to the site.
- Blasting procedures such as drilling and loading shall be reviewed on a yearly basis to ensure compliance with applicable guidelines and industry standards.
- In the event of an exceedance of MECP limits for vibration and overpressure, the blast designs and protocol shall be reviewed prior to any subsequent blasts.
- All reasonable measures shall be taken to prevent flyrock from leaving the site.

5.5.3.5 Air Quality

The ARA requires that dust be controlled on the site, which in this quarry is comprised almost entirely of dolostone, a form of limestone that is a naturally occurring material through the Niagara Peninsula. Dolostone dust has very low levels of silica or other compounds. The

MECP has prescribed limits for all contaminants generated by the quarry specifically developed to protect human health, including sensitive populations at schools, daycares, long-term care homes and hospitals. This includes any potential contaminants associated with an asphalt plant. The air quality assessment has recommended:

- Water or any provincially approved dust suppressant be applied to internal haul roads as required.
- Dust suppression or collection devices are required for any processing equipment within 300 metres of a sensitive receptor.
- 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

5.5.3.6 Archaeology

Details regarding archaeological mitigation and monitoring is included in Section 7.1 of this report.

5.5.4 Proposed Rehabilitation Plan

The quarry will be progressively rehabilitated in the direction of extraction, using the surplus overburden material to create side slopes against the quarry walls as extraction reaches the horizontal limits in each phase. Once excavation is complete, the quarry sumps will be decommissioned allowing the quarry cells to fill naturally with groundwater and precipitation.

5.6 Primary Approvals Required

The following primary approvals are required to permit the proposed Law Quarry Extension:

5.6.1 Planning Act

- Region of Niagara Official Plan Amendment (File Number: ROPA-22-0001)
- Township of Wainfleet Official Plan Amendment (OPA 04)
- Township of Wainfleet Zoning By-law Amendment (Z04/2022W)

5.6.2 Aggregate Resources Act

- Class A - Quarry Below the Water Table license

5.7 Secondary Approvals Required

In addition to the primary approvals required under the Planning Act and ARA as listed above, there are a number of secondary approvals that would be required. These approvals would be sought by the applicant after a licence was granted under the ARA.

5.7.1 Permit to Take Water (PTTW)

A PTTW will be required from MECP for the quarry dewatering. In addition, water that is pumped out of the quarry and discharged back into the watercourse is considered 'industrial sewage works' under the Ontario Water Resources Act (OWRA). Accordingly, the applicant will be required to obtain an Environmental Compliance Approval (ECA) from the MECP.

5.7.2 Environmental Compliance Approval (ECA)

If the Planning Act applications are approved, and a license is issued under the ARA, Waterford will be required to obtain an Environmental Compliance Approval (ECA) from the Ministry of Environment, Conservation and Parks (MECP), for the discharge of water associated with dewatering. The technical documentation for the ECA application may include a Stormwater Management Plan and Report, an Environmental Impact Assessment (including a receiving watercourse assessment), a Site Plan and detailed description of the dewatering and quarry discharge activities.

5.7.3 Species at Risk Act (SAR) Permit

The proposal as submitted would impact the habitat of an endangered and threatened species (Whip-poor-will and Spoon-leaved moss). Three (3) Whip-poor-wills were identified within the northern portion of the study area. The proposed extraction plan will not include any portion of the identified Category 1 habitat however, the Category 2 habitat for this species overlaps with the proposed extraction area.

The applicant 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. The Site Plan conditions reflect the requirement to secure approvals from MECP under the ESA if they are required.

5.7.4 Stage 3 and 4 Archaeological Assessment

Stage 1 and 2 Archaeological Assessments were submitted with the applications and recommended further work for several archaeological sites within the subject lands. There are ARA Site Plan conditions which require Stage 3 (and possibly Stage 4) Archaeological Assessments to be completed before disturbance can occur in any areas of archaeological potential. Additional details related to the requirement for further archaeological work and protection of archaeological resources is included in Section 7.1 of this report.

6.0 Submission and Review Process

This section provides a summary of the submission and review process as well as highlights of the technical reports submitted, and technical and peer review process undertaken coordinated by the JART.

6.1 Key Dates in Submission and Review Process

This summary includes key dates in both the Planning Act and Aggregate Resource Act review processes.

- **March 30, 2021** – A pre-consultation meeting was held at the request of the applicant. Planning staff from the Region, Township, and NPCA met with the applicant (Waterford Sand and Gravel Ltd) and members of their consulting team. The Region and Township confirmed the submission requirements including the required technical reports and other information. A Pre-Consultation Meeting Form was signed by all parties and formed part of the complete application package.
- **June 22, 2022** – Planning Act applications were submitted to the Region and the Township (i.e. 1st submission of technical materials). A list of all materials submitted is included as **Appendix A**.
- **July 22, 2022** – Regional Official Plan Amendment application deemed complete by Niagara Region.
- **July 22, 2022** – Township Official Plan Amendment and Zoning By-Law Amendment applications deemed completed by the Township of Wainfleet.
- **September 14, 2022** - Regional staff provided a project initiation report to Regional Council (PDS 22-2022). The purpose of the report was to advise that applications to amend the Regional Official Plan, the Township of Wainfleet Official Plan, and the Township of Wainfleet Zoning By-law have been made. The report also provided an update on the JART process. A copy of PDS 22-2022 is included in **Appendix C**.
- **September 16, 2022** – NPCA prepared a report to the NPCA Board (FA-38-22) to seek the Board of Directors approval to sign a Memorandum of Understanding (MOU) to participate in the Joint Agency Review Team (JART). A copy of FA-38-22 is included in **Appendix C**.
- **November 10, 2022** – The applicant circulates the 60-day ARA notification letter. Deadline to provide comments is January 9, 2023. Region, Township, and NPCA respond with separate letters of objection on the basis that the municipal land use approvals are not in place.
- **November to December 2022** – Individual technical meetings held between the JART peer reviewers and the Waterford Sand and Gravel's consultants. The purpose of these

meetings was to clarify technical aspects of the application before formal written comments were prepared.

- **November 17, 2022** – Site Visit and Tour. The purpose was to allow the JART peer reviewers and Township and Region staff to view the site and surrounding land uses. Representatives of the applicant and their consulting teams were also in attendance.
- **November 18, 2022** - Regional Staff provided an information memorandum to Regional Council to inform that ARA public meetings would be hosted (virtually) by the applicant on Thursday November 24, 2022. (CWCD 2022-253). A copy of CWCD 2022-253 is included in **Appendix C**.
- **November 24, 2022** – Aggregate Resource Act (ARA) Public Information Sessions hosted by the applicant. The session was held in person at Port Colborne BIC Church, 10641 Hwy #3 West, Port Colborne.
- **January 13, 2023** – JART comment letter on the 1st submission provided to the applicant. A copy of the JART comment letter is included as **Appendix B**.
- **September 6, 2023** – The applicant provides a response to the JART comments from January 2023 (i.e. 2nd submission of technical materials). A list of all materials provided as part of the 2nd submission is included in **Appendix A**.
- **December 21, 2023** – JART comment letter on the 2nd submission provided to the applicant. A copy of the JART comment letter is included as **Appendix B**.
- **February 7, 2024** – Planning Act Statutory Public Meeting - Niagara Region. A copy of the Region's Staff Report (PDS 3-2024) is included in **Appendix C**.
- **February 20, 2024** – Planning Act Statutory Public Meeting – Township of Wainfleet. A copy of the Townships' Public Meeting Information Report is included in **Appendix C**.
- **March 26, 2024** – The applicant provides a response to the JART comments from December 2023 (i.e. 3rd submission of technical materials). A list of all materials provided as part of the 3rd submission is included in **Appendix A**.
- **May 2, 2024** – The applicant provides a response to MNR comments of the ARA application. The JART was provided a copy on May 15, 2024. This additional material is included as part of the list in **Appendix A**.

6.2 List of Technical Reports and Other Supporting Information

As identified through the Pre-Consultation Meeting Form, and as required by the applicable planning documents (PPS, Growth Plan, Region of Niagara Official Plan, and Township of Wainfleet Official Plan), the applications were supported by a number of technical studies. In most cases the technical studies required to support the Planning Act applications are similar

to those required to support the Aggregate Resource Act licenses application. The scope of the studies was designed to meet the requirements of both application processes.

In support of the applications, the following studies were submitted:

- Planning Justification Report and ARA Summary Statement
- ARA Site Plans
- Level 1 / 2 Water Resources Study & Maximum Predicted Water Table Report
- Natural Environment Level 1 & 2 Report (EIS)
- Scoped Agricultural Impact Assessment
- Noise Impact Study
- Air Quality Assessment Report
- Blasting Impact Analysis
- Traffic Impact Study
- Financial Impact Assessment & Economic Benefits Analysis
- Archaeological Assessments and Supplementary Documentation

Through the review and peer review process, a number of revisions were made to the technical documents and ARA Site Plan drawings to address comments from JART as well as Provincial ministries through the ARA licence application process. In some cases, this included a revision to original document, in other case a stand-alone addendum or similar document was prepared. A complete list of all technical material submitted for review can be found in **Appendix A**.

A brief synopsis of each of the technical reports is presented below, with highlights of the questions raised through the JART review process and a summary of key revisions and responses provided by Waterford and their consulting team. A complete set of the JART comments are provided in **Appendix B**.

6.3 Planning Justification Report & ARA Summary Statement

A Planning Justification Report (PJR) was prepared and submitted as part of the application package. The PJR included a review and analysis of the application in the context of current provincial, regional and local planning policies. The PJR also served as the ARA Summary Statement and included an overall summary and outline of the application.

JART reviewed the PJR Addendum, prepared by MHBC. The PJR Addendum addresses the relevant Provincial, Regional and Local planning policies. The planning related to finalizing the proposal to acquire Biederman Road and incorporate it into the licenced area and the long-term protection of archaeological resources on site have been addressed through several resubmissions of the application. There are no outstanding planning concerns related to the proposed quarry extension.

6.4 ARA Site Plans

The ARA Site Plans are the primary tool for implementing and enforcing the conditions of any approved mineral aggregate operation. In addition to reviewing the technical and other supporting studies, a review of the ARA Site Plans was undertaken by the JART and peer review team. A major component of the JART review process was to ensure that the conclusions and recommendations of each of the technical studies was adequately reflected in the design of the site, and that Site Plan notes and conditions were included as appropriate.

A number of revisions were made to the Site Plans to address JART's comments as well as comments received from MNR through the ARA process. There are no outstanding concerns with the ARA Site Plan drawings.

6.5 Level 1 / 2 Water Resources Study & Maximum Predicted Water Table Report

The consideration of impacts on water resources is an important aspect of the review process. A Water Resource Study was prepared and submitted with the application. The purpose of the Study was to evaluate the potential impacts of the proposed quarry extension on groundwater and surface water resources. The impact assessment considered the effects of the quarry during extraction and after final rehabilitation. The Water Resources Study was reviewed by staff from the Region, NPCA and the peer review consultant.

Surface and groundwater resources were a key aspect of the JART review because of the potential impacts that quarrying below the water table may have on groundwater quality and quantity, as well as the potential impacts on important natural environmental and aquatic features such as wetlands. The importance of protecting water resources is expressed through policy requirements that must be met by the ARA and Planning Act applications.

The proposed quarry will be developed below the natural groundwater table, and to a maximum depth of approximately 20 metres below ground surface. Two aquifer systems were identified at the Site as outlined in the Water Resources Study. A shallow, unconfined aquifer 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 4 metres relative to baseline levels is expected in the deeper bedrock units which will impact a small number of parcels adjacent to the southwest corner of the proposed extension lands. With the cumulative impact of the other below water quarry operations in the area, at the full extent of extraction, there may be a requirement to deepen private wells (at the expense of Waterford) in the event that water supply is impacted. A Well Interference and Mitigation Plan will be implemented prior to quarry operations commencing.

During the municipal review, a question arose about the potential impacts on the groundwater aquifer in this area. Please see Section 7 of this report for further details of this issue.

The Water Resources Study also accounted for potential impacts to both the Wainfleet Bog PSW, the Biederman 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 Biederman 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. No measurable effects to surface water quality are anticipated as a result of the proposed quarry dewatering.

The JART peer review has indicated that the proposed groundwater monitoring and response program is acceptable. The JART has no outstanding comments related to the Water Resources Study.

6.6 Natural Environment Level 1 & 2 Report (NER)

A Level 1 and 2 Natural Environment Technical Report (NER) was prepared by Riverstone and submitted with the applications. The NER is a requirement of the ARA and was scoped to also satisfy the JART requirement for an Environmental Impact Study (EIS). The purpose of the NER was to assess potential environmental impacts of the proposed aggregate extraction on the site with respect to the following:

- the environmental features and functions in the study area;
- the influence of extraction on the surrounding natural environment; and
- the rehabilitation potential of the site after extraction.

The NER reflects the requirements of the ARA as well as those outlined in the planning policies of the Region, Township and NPCA. MNR through their review of the ARA application also provided a series of comments on the NER and other natural heritage aspects of the proposal. The NER includes characterization of the natural environment and surrounding area, the evaluation of impacts of the proposed quarry and design of mitigation measures as appropriate, and rehabilitation of the site.

The initial peer review comments identified a number of questions related to the scope of the field surveys and the supporting data in the report. There was also a request for further details related to the assessment and potential impacts on habitat for Species at Risk, and suggested additional recommendations to be added to the Site Plan conditions for natural heritage. All outstanding natural environment comments and concerns were addressed in the applicant's 3rd submission with an updated NER and additional Site Plan notes as requested.

6.7 Scoped Agricultural Impact Assessment

Provincial and regional policies identify the Greater Golden Horseshoe as containing a diverse and productive agricultural area. Associated provincial and regional policies recognize that

agricultural land is a valuable resource that must be properly managed and protected. The subject lands are designated in the Region of Niagara Official Plan as a 'Rural Area' and are not designated 'Good General Agricultural Area'. The Subject Lands are also located within the Growth Plan for the Greater Golden Horseshoe Provincial Plan area. The Canada Land Inventory Mapping identifies the area to be licenced as containing Class 3, 4 and 6 lands. Class 1-3 lands are considered 'prime agriculture' and therefore a portion of the site meets the definition of prime agricultural land.

The PPS requires that impacts from any new or expanding non-agricultural uses on surrounding agricultural operations and lands be mitigated to the extent feasible. Policy 6.C.5 of the Niagara Region Official Plan (2014) requires that applications for new pits or quarries or expansions of existing licensed pits or quarries consider compatibility with surrounding land uses. A scoped AIA to support this application was prepared by MHBC Planning and submitted to satisfy the provincial and municipal planning policy requirements for new, non-agricultural land uses in agricultural areas, using the methodology outlined by OMAFRA.

Based on information in the OMAFRA Agricultural Systems Portal the AIA notes that there are no agricultural facilities or infrastructure located within the study area (e.g. tile drains, dairy plants, farm product warehouses etc.). The agricultural uses in the area are limited to some hay and cash crop production; there are no specialty crops. There is a small-scale agricultural operation (e.g. hobby farm) located to the west along Graybiel Road that has a barn with livestock.

The AIA report notes that the high fragmentation of land ownership, and poor soil quality, results in very limited agricultural use in the area of the proposed quarry extension. The report concludes that there are no anticipated adverse impacts to the agricultural system or to existing agricultural uses as a result of the proposed quarry extension. The report recommends that any existing agricultural use on the subject lands continue on area not being actively extracted.

The JART is satisfied with the conclusions and recommendations of the scoped AIA.

6.8 Noise Impact Study

An Acoustic Assessment Report was prepared by Aeroustics Engineering and submitted with applications. The report evaluated the potential impacts of the proposed quarry on neighbouring land users, using the guidelines provided by the MECP (NPC 300: Environmental Noise Guideline, Stationery and Transportation Sources). The noise sources from the proposed quarry include processing equipment, drill and blasting equipment, and haul trucks.

The report assessed the impacts at 17 adjacent properties, including one vacant parcel (referred to as "Points of Reception" or POIs) located near the proposed quarry extension. 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.

Based on the recommendations of the report, in order to mitigate noise from the operations, berms are required along the west, northwest and southerly limits of the licenced area. The berms along the west and northwest limit are 7 and 8 metres in height and the berm along the south limit, Highway 3 is 4 metres in height. No acoustic controls are required along the east limit adjacent to the existing quarry or the north limit adjacent to the Wainfleet Bog. In addition to the perimeter berms, the recommendations include additional acoustic screening for the rock drill and for the processing plant as outlined in the Site Plan notes.

The JART peer review provided comments on the Noise Report which were addressed in the resubmissions by the applicant November 2023 and March 2024. All of the issues have now been addressed and there are no outstanding concerns with the noise report and associated recommendations.

6.9 Air Quality Assessment Report

An Air Quality Assessment (AQIA) was prepared by RWDI and submitted with the applications. The 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.

A dispersion modelling analysis of estimated emissions of key contaminants from proposed on-site operations was used to predict impacts. The results of this analysis are combined with an appropriate background air quality concentration to provide a cumulative estimate of impacts on surrounding receptors. Indicator compounds considered in the assessment include total suspended particulate matter, respirable particulate matter, and crystalline silica within the inhalable portion of the dust. The predicted emissions are measured against the provincial air quality guidelines provided by MECP. The report concludes that with the implementation of the recommended Dust Best Management Practices Plan (BMPP) the predicted air quality will be maintained below the limits set out in provincial air quality guidelines through the life of the proposed quarry.

The maximum predicted concentrations of silica at the receptors near the site, combined with background concentrations, are well below the provincial air quality criteria and no exceedances are predicted.

The BMPP outlines preventative procedures and reactive controls to manage dust from the pit operations. These measures include watering off roadways, limiting truck speed through the site, control equipment for drill and blasting and reduced activity where warranted. Compliance with the BMPP is a Site Plan condition and enforced by the Province through the Aggregate

Resources Act. All of the issues have been addressed and there are no outstanding concerns with the air quality report and associated recommendations.

6.10 Blast Impact Analysis

A Blast Impact Assessment (BIA) was prepared and submitted with the applications. The purpose of the BIA was to provide an assessment of the potential effects of the ground and air vibrations that will be produced by the proposed quarry's blasting operations on adjacent lands and structures. The predicted impacts are measured against the MECP guideline limits for ground vibration and overpressure. The BIA also considers the MECP Model Municipal Noise Control By-law with regard to Guidelines for Blasting in Mines and Quarries (NPC 119).

As a condition of operating, the Site Plans note that 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.

The blasting peer review concluded that in the context of the requirements of blasting impact assessment the proponent has satisfied the requirements of the ARA as it applies to the effects of blast induced vibration and overpressure (noise) on sensitive receptors, provided the proponent implements all the recommendations of the BIA. JART has no outstanding concerns related to blasting.

6.11 Traffic Impact Study

Provincial and regional policies require that transportation systems be provided that are safe, energy efficient, facilitate the movement of people and goods, and are appropriate to address projected needs. Specific to proposed new or expansions to existing pits and quarries, the Regional Official Plan states that consideration be given to the proposed haulage roads and the possible effect on the roads and on adjacent development (policy 6.C.5e). In this regard, a Traffic Impact Study (TIS), was prepared and submitted with the applications to address transportation impacts on the local and Regional roads and Provincial highway.

The existing Law Quarry is located on Provincial Highway 3 which serves as the main haul route. There is an existing quarry entrance/exit onto Highway 3. The proposed extension will utilize the existing Law Quarry scales, entrance onto Highway 3 and truck haul routes.

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. The TIS 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.

The TIS was reviewed by Regional and Township transportation staff. The JART has no outstanding concerns with the Traffic report.

6.12 Financial Impact Assessment & Economic Benefits Analysis

Section 14.D.5 of the Regional Official Plan includes criteria that are to be considered when there is a proposed amendment to the plan, including “the effect of the proposed change on the financial, health, safety, and economic sustainability of the Region.” In order to assess this impact, an Economic Benefits Analysis was prepared and submitted with the application.

The analysis generated estimates for employment (direct and indirect), municipal tax revenues and licence fees, transportation and provincial revenues for education. Key conclusions of the study included:

- Annual revenue (Aggregate Fees and Property Taxes) of \$82,987 for the Township of Wainfleet and \$28,530 for Niagara Region over a period of 38 years
- Creation of direct and indirect employment (temporary during the site preparation and ongoing for quarry operations and trucking as well as employment for monitoring and archaeological clearances)
- Indirect benefits from close to market supply reducing transportation costs of aggregate, and provincial taxes generated from the project.

The Financial Impact Assessment & Economic Benefit Analysis was peer reviewed. All of the JART comments have now been addressed and there are no outstanding issues.

6.13 Archaeological Assessments and Supplementary Documentation

The PPS, Growth Plan, and Region and Township of Wainfleet Official Plans provide direction for the conservation of significant cultural heritage and archaeological resources. Specifically, development and site alteration (activities, such as grading, excavation and the placement of fill that would change the landform and natural vegetative characteristics of the site) are not permitted on lands containing archaeological resources or areas of archaeological potential, unless significant archaeological resources have been conserved.

Stage 1 and 2 Archaeological Assessments were submitted with the applications and recommended further work for several archaeological sites within the subject lands. There are Site Plan conditions which require Stage 3 (and possibly Stage 4) Archaeological Assessments to be completed before disturbance can occur in any areas of archaeological potential.

In April 2024, the Ministry of Citizenship and Multiculturalism (MCM) provided two separate clearance letters related to the completed and proposed archeological work on the site. The

MCM clearance letters are considered acceptable for the purpose of approval of the Planning Act applications. Additional details related to the protection of archaeological resources is included in Section 7.1 of this report.

7.0 Key Technical Issues of the Application

The following sections provide a more detailed description of key technical issues that were considered by the JART during the review process:

7.1 Long-term Protection of Archaeological Resources

Through the pre-consultation process Waterford and their consulting team advised that the long-term protection of archeological resources was to be a major component of the application and review process. Stage 1 and 2 Archaeological Assessments were identified as requirements in support of a completed application.

The Stage 1 and 2 Archaeological Assessments completed as part of the application process 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.

At the time of initial submission the proposed site design included the avoidance and permanent protection of several clusters of archaeological sites which, by virtue of the proposed below water extraction, would become “islands” within the rehabilitated quarry footprint. The archaeological sites that will be avoided require a 70 metre buffer which includes a 20 metre “no-go” area and a 50 metre monitoring area. Given the number of Archaeological sites requiring Stage 3/4 assessments, it is understood that some of these areas will be cleared as the quarry extraction progresses through the five extraction phases.

Upon first review by the JART, it was noted that this was a unique mitigation plan. It was determined that discussions with representatives from the Provincial Ministry of Citizenship and Multiculturalism (MCM) would be required to better understand MCM’s position. The JART needed to ensure that the proposed “islands” and other proposed mitigation and monitoring was acceptable to MCM in order to confirm that the Provincial and municipal land use planning policies related to the long-term protection of archaeological resources could be satisfied. Sign-off from MCM would be required before any recommendations by Region and Township staff could be made on the Planning Act applications.

A meeting was held with MCM staff and JART members on October 30, 2023. Based on discussions with MCM, it was confirmed the proposal to protect archaeological sites that would eventually become nearly inaccessible was unique. MCM advised that the review of the application was ongoing. This first and second JART comment letters (included as **Appendix**

B) noted that the protection of archaeological resources and clearance letters from MCM were major outstanding issues.

In April 2024, the Ministry of Citizenship and Multiculturalism (MCM) provided two separate clearance letters related to the completed and proposed archeological work on the site. The letters indicated that the work completed to date and proposed mitigation measures (subject to several conditions)

Conditions, mitigation, and monitoring related to archaeological sites are included on the ARA Site Plan drawings including “Schematic B” on page 2 of 5 and Section 5 on page 3 of 5.

These conditions include, but are not limited to:

- Until such a time that further archaeological assessments are completed for the archaeological sites identified as having further cultural heritage value and interest, a 70 metre buffer will be established around these sites and no ground disturbance activities shall be permitted within this 70 metre buffer area. The 70 metre buffer area shall be fenced with post and wire fencing. The post and wire fencing shall be maintained and repaired or replaced as needed. This restriction shall remain in place until such time that:
 - The 50 metre monitoring portion of the 70 metre buffer has been cleared in accordance with requirements of the Standards and Guidelines for Consultant Archaeologists and the 20 metre “no-go” buffer is in place and fenced; and/or,
 - A licensed consultant archaeologist has recommended in a report that the archaeological sites have no further cultural heritage value or interest, and MCM has stated its satisfaction with the report and entered it into the Ontario Public Register of Archaeological Reports according to section 48(3) of the Ontario Heritage Act; and,
 - Approval has first been obtained from the Ministry of Natural Resources (MNR) following review by MCM and the entry of the report into the Ontario Public Register of Archaeological Reports and additional further considerations and consultation considered necessary by MNR including, but not limited to, the Crown’s duty to consult.
- Should the completed archaeological assessments result in a change to the quarry or rehabilitation plan and amendment to the ARA Site Plan will be required. An ARA Site Plan amendment will be required for any changes to the limit of extraction.
- No ground disturbance related to the installation of acoustical berms shall be completed until the required archaeological assessments are completed and ministry clearance is issued for archaeological sites AfGt-266, AfGt-283, AfGt-278.
- During any further archaeological assessments within the licensed area, meaningful engagement with Indigenous communities shall be conducted as required by the archaeology Standards and Guidelines in place at the time and any other Provincial duty to consult requirements.

- Prior to surrendering the Licence, and to the satisfaction of MCM and MNR, the Licensee shall ensure that the appropriate protection measures are put place for any remaining Archaeological Sites that have further Cultural Heritage Value or interest (e.g. restrictive covenant, zoning, transfer of ownership to a public body etc.)

7.2 Partial Closure and Conveyance of Biederman Road

It is noted that an application to purchase a portion of the Biederman Road Allowance was submitted to the Township of Wainfleet by Waterford Sand and Gravel Ltd in the spring of 2023. Subsequently, a legal survey, Appraisal Report, and Offer to Purchase was also submitted to the Township. The ARA application has been revised on the assumption that the Road allowance will be purchased and included as part of the proposed extension area. On June 11, 2024 Township Council passed By-law No. 026-2024 authorizing the stopping up, closing and conveyance of a portion of Biederman Road. Township staff are therefore working with their solicitor to finalize the Agreement of Purchase and Sale of the road allowance that will form part of the extension area in the ARA and Planning Act applications.

7.3 Proximity to Wainfleet Bog

The Wainfleet Bog is located to the north of the proposed quarry, bounded on its south edge by the Onondaga Escarpment and underlain by approximately 25 metres of low permeability clay. Previous studies have indicated that the existing quarry has minimal effect on the Bog due to the aquitard function of the clay.

As shown on the Rehabilitation Page of the ARA Site Plan drawings, surface water from the rehabilitated areas of the site will flow towards the rehabilitated lake area and not overland towards the Wainfleet Bog. As outlined in the Water Report, there will be no hydrogeological connection between the quarry lake and the Wainfleet Bog to the north. Therefore, the water quality in the quarry lake will have no impact water resources in the Bog.

The boundary of the Wainfleet Bog Provincially Significant Wetland was confirmed in the field with staff from the Ministry of Natural Resources in 2018. Through the peer review process, additional notes have been incorporated into the Site Plans that require exclusion fencing along the north limit of the licensed area to prevent turtles and other wetland-dwelling wildlife from entering the extraction area.

7.4 Groundwater Quality and Quantity

During the Region's Statutory Public Meeting on February 7th, 2024 there were questions raised regarding the protection of groundwater resources and the predicted impacts from the proposed quarry extension. The JART connected with the applicant and the hydrogeologist working on the file and provide the following additional information:

The South Niagara Aquifer – what is it?

The 'South Niagara Aquifer' is the informal term used to refer to the broad carbonate bedrock plain with thin soil cover south of the Onondaga Escarpment along the shore of Lake Erie. The Niagara Peninsula Source Protection Area Updated Assessment Report refers to this area as the "Onondaga Formation bedrock water supply aquifer" and the applicants' water resources report refers to this area as the "shallow bedrock aquifer". Like many areas with thin soil cover in southern Ontario, this aquifer responds rapidly to infiltration from rain and snow melt but is therefore also susceptible to impacts from urbanization, agricultural runoff, and other forms of development and land-use.

Analysis that was completed in support of the application

In support of the application, Waterford was required to prepare a Level 1 and 2 Water Resources Study. The water study was required to consider both surface water and groundwater (hydrogeology). The hydrogeological study methodology is outline in Section 1.6 of the report. It included a water well survey of all properties within a 1km radius of the site, a drilling program with monitoring well installations in the shallow and deep bedrock aquifers, a hydraulic testing program to estimate the properties of the bedrock, continuous groundwater and surface water monitoring with data loggers, and the construction of a groundwater flow model to simulate baseline conditions and to make predictions regarding potential impacts from the proposed dewatering.

Predicted impacts of the proposed quarry extension

Section 3 of the water study is the impact assessment for the proposed quarry extension. In summary, there is minimal impact predicted in the shallow bedrock aquifer which some residents use as a source of drinking water. Greater drawdown is predicted within the deep bedrock aquifer where poor quality (i.e. sulfurous) water exists. These predictions are further supported by the fact that the existing Law Quarry has been continuously dewatered for nearly 100 years with no know interference to local residential wells.

Proposed mitigation measures

The proposed mitigation measures are provided in Section 4 of the water study. In summary they include a long-term groundwater monitoring program, a quarry dewatering management plan, a well interference mitigation plan, and a spills contingency program. All of the mitigation measures will be enforceable as conditions of a future license under the Aggregate Resources Act.

Long-term monitoring

A long-term groundwater monitoring program is provided in Table 1 and Figure 18 of the water study. The program includes a network of 27 monitoring wells and 2 private wells, all of which are equipped with dataloggers for continuous automatic water level monitoring. Results and analysis will be documented in annual reports prepared in accordance with the Site's permit-to-take-water (PTTW) and Environmental Compliance Approval (ECA) submitted to the Ministry of the Environment Conservation and Parks.

8.0 Public and Stakeholder Consultation

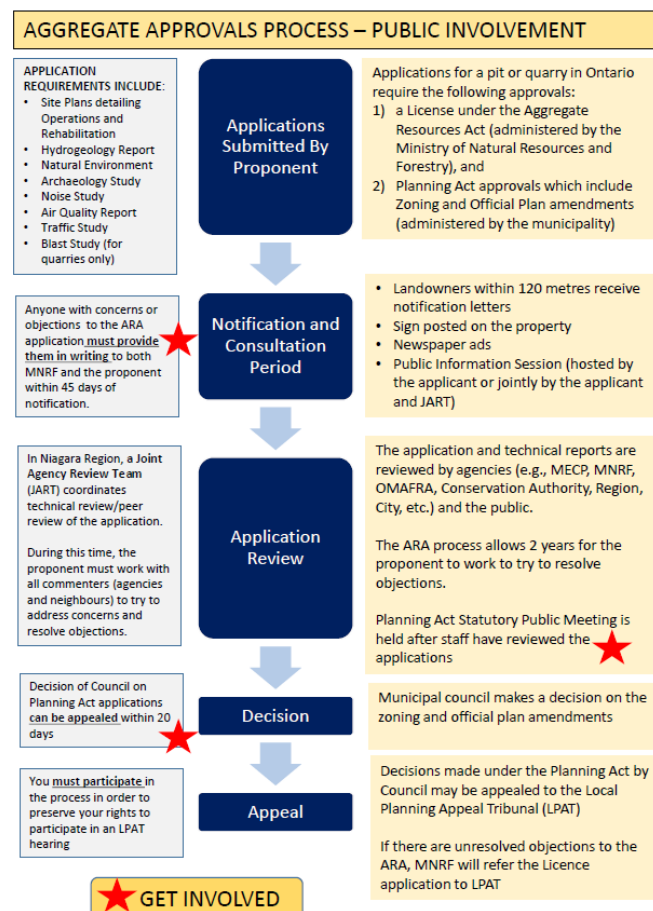
8.1 Overview of Public Consultation Process

Opportunities for public consultation on the proposed Law Quarry Extension application were available through both the Aggregate Resources Act (ARA) and Planning Act processes as overviewed in Figure 2. The public consultation program included public information sessions as required by the Aggregate Resources Act and Statutory Public Meetings as required by the Planning Act.

- November 24, 2023 - ARA Public Information Session
- February 7, 2024 - Statutory Planning Act Public Meeting, Region of Niagara
- February 20, 2024 - Statutory Planning Act Public Meeting, Township of Wainfleet

In addition to the public meetings and open houses, written comments were also accepted through the entirety of the application and review process.

Figure 2: Public Involvement Process



8.2 Integration with Aggregate Resources Act Consultation Process

The ARA and Planning Act application processes have separate timelines and consultation requirements as set out in provincial regulations, and unfortunately there is no formal integration between the two. The ARA consultation process is largely proponent driven, and the applicant is responsible for advertising and providing notice and for organizing a public information session. Public comments or objections must be provided in writing to both the applicant and the MNR within the 60-day notification and consultation period set out in the ARA regulations.

Waterford initiated their 60-day statutory notification process under the ARA on November 10, 2022 and hosted the ARA public information session on November 24, 2023. The 60-day comment period ended on January 9, 2023.

The Planning Act process has separate requirements for notice and the official plan and zoning by-law amendment applications are subject to a Statutory Public Meeting of municipal Council. In this case, since Planning Act approvals are required by both the Region and the Township, there were separate Statutory Public Meeting requirements.

8.3 Record of All Comments Received

The Township only received one submission (dated September 9, 2022) from Liberia Santos and Ronald Lindhorst owners of 20816 Graybiel Road, Wainfleet (attached as **Appendix D**). Their letter expressed concerns and objection to the quarry extension indicating the potential for devaluation of their property, water source concerns, structural integrity of their property, increased noise and traffic and potential damage to the environment. They have requested peer reviews of the documents (studies) submitted.

JART Response:

While there is merit in recognizing the concern regarding property protection, source water and natural heritage protections, as well as potential increased noise and traffic as a result of an aggregate expansion, the JART is satisfied that these matters have been adequately addressed through the substantial submission of reports and studies completed by qualified professionals. Review of the applications, the public commenting process and overview of the submitted reports have been discussed with this particular landowner by both Township staff and representatives for the Applicant. The JART further confirms that these concerns have been thoroughly assessed through the peer review process of all applicable reports. For more information, please see Section 6 “Submission and Review” above with respect to each matter that was assessed.

9.0 Conclusion and Next Steps

The JART has completed its technical review of the proposed Law Quarry Extension applications. Every attempt has been made to ensure a thorough and comprehensive analysis. The results are documented within this report.

The JART Report will be provided to the JART members to support the making of recommendations to their respective agencies. The Region and the Township will bring forward staff recommendations on the Planning Act applications (ROPA, OPA, and ZBA) for Council's consideration. The conclusion of the JART Report will also help to inform the Township, Region, and NPCA in providing comments to the applicant and Province under the Aggregate Resources Act.

Appendix A

List of Technical Material Submitted

- List of Technical Material Submitted (dated May 22, 2024)

Proposed Law Quarry Extension**ROPA, LOPA, ZBLA Applications – List of Technical Material Submitted**

Item	Date Submitted
1st Submission	
1. Level 1 and 2 Water Study Report, prepared by WSP, dated March 2022	March 9, 2022
2. Maximum Predicted Water Table Report, prepared by WSP, dated March 2022	March 9, 2022
3. Submission Cover Letter, prepared by MHBC, dated June 22, 2022	June 22, 2022
4. Planning Justification Report and ARA Summary Statement, prepared by MHBC, dated June 2022	June 22, 2022
5. Regional Official Plan Amendment Application Form – June 2022	June 22, 2022
6. Township Official Plan Amendment Application Form – June 2022	June 22, 2022
7. Township Zoning By-Law Amendment Application Form – June 2022	June 22, 2022
8. Consultation Summary & Strategy, prepared by MHBC, dated April 2022	June 22, 2022
9. Aggregate Resource Act Site Plan Drawings (1-5), prepared by MHBC, dated June 2022	June 22, 2022
10. Natural Environment Report – Level 1 & 2 Assessment, prepared by Riverstone Environmental Solutions, dated June 2022	June 22, 2022
11. Scoped Agricultural Impact Assessment, prepared by MHBC, dated May 2022	June 22, 2022
12. Noise Impact Study, prepared by Aercooustic, dated May 26, 2022	June 22, 2022

Item	Date Submitted
13. Air Quality Assessment, prepared by RWDI, dated February 3, 2022	June 22, 2022
14. Blast Impact Analysis, prepared by Explotech, dated June 20, 2022	June 22, 2022
15. Blast Impact Analysis - Appendices, prepared by Explotech, dated June 20, 2022	June 22, 2022
16. Traffic Impact Study, prepared JD Northcote Engineering, dated April 26, 2022	June 22, 2022
17. Financial Impact Assessment & Economic Benefits Analysis, prepared by Colliers International Niagara Ltd., dated May 19, 2022	June 22, 2022
18. Stage 1 and 2 Archaeological Assessment of the Law Crushed Stone Quarry Extension – Revised Report, prepared by Archaeological Services Inc., dated August 21, 2020	June 22, 2022
19. Stage 1 and 2 Archaeological Assessment of the Law Crushed Stone Quarry Extension – Revised Supplementary Documentation, prepared by Archaeological Services Inc., dated August 21, 2020	June 22, 2022
20. Stage 1-2 Archaeological Assessment of Additional Lands at Waterford's Law Quarry Extension –, prepared by Archaeological Services Inc., dated August 6, 2021	June 22, 2022
21. Stage 1-2 Archaeological Assessment of Additional Lands at Waterford's Law Quarry Extension – Supplementary Documentation, prepared by Archaeological Services Inc., dated August 6, 2021	June 22, 2022
22. Stage 3 Archaeological Assessment of AfGt-289 and AfGt-290, Law Crushed Stone Extension, prepared by Archaeological Services Inc., dated August 24, 2021	June 22, 2022

Item	Date Submitted
23. Stage 3 Archaeological Assessment of AfGt-289 and AfGt-290, Law Crushed Stone Extension – Record of Indigenous Engagement, prepared by Archaeological Services Inc., dated August 24, 2021	June 22, 2022
24. Stage 3 Archaeological Assessment of AfGt-289 and AfGt-290, Law Crushed Stone Extension – Supplementary Documentation, prepared by Archaeological Services Inc., dated August 24, 2021	June 22, 2022
25. Stage 1 Archaeological Assessment of the Law Crushed Stone Quarry Extension, prepared by Archaeological Services Inc., dated June 22, 2022	June 22, 2022
26. Stage 1 Archaeological Assessment of the Law Crushed Stone Quarry Extension – Supplementary Documentation, prepared by Archaeological Services Inc., dated June 22, 2022	June 22, 2022
27. Stage 1 Archaeological Assessment of the Law Crushed Stone Quarry Extension, prepared by Archaeological Services Inc., dated September 27, 2022	October 6, 2022
28. Stage 1 Archaeological Assessment of the Law Crushed Stone Quarry Extension – Supplementary Documentation: Indigenous Engagement, prepared by Archaeological Services Inc., dated September 8, 2022	October 6, 2022
29. Letter re: Commitment to Avoidance and Protection of 25 Archaeological Sites, prepared by Ed Lamb – Waterford Sand and Gravel Ltd., dated October 4, 2022	October 6, 2022
30. Letter re: Commitment to Interim Protection of 12 Archaeological Sites, prepared by Ed Lamb – Waterford Sand and Gravel Ltd., dated October 4, 2022	October 6, 2022

Item	Date Submitted
31. Cultural Heritage Evaluation Report (20642 Biederman Road), prepared by MHBC, dated May 2022	July 18, 2022
2nd Submission	
32. Cover Letter to JART, prepared by MHBC (dated September 6, 2023)	September 7, 2023
33. PJR and ARA Summary Statement Response Matrix, prepared by MHBC (dated July 11, 2023)	September 7, 2023
34. PJR Addendum, prepared by MHBC (dated July 2023)	September 7, 2023
35. Updated ARA Site Plans, prepared by MHBC (dated June 2023)	September 7, 2023
36. Water Study Response Letter, prepared by WSP (dated April 18, 2023)	September 7, 2023
37. Natural Environment Response Table, prepared by Riverstone (dated August 25, 2023)	September 7, 2023
38. Revised Natural Environment Report, prepared by Riverstone (dated August 28, 2023)	September 7, 2023
39. Noise Study Response Letter, prepared by Aercoustics (dated July 6, 2023)	September 7, 2023
40. Updated Noise Impact Study, prepared by Aercoustics (dated July 6, 2023)	September 7, 2023
41. Air Quality Response Letter, prepared by RWDI (dated April 4, 2023)	September 7, 2023
42. Air Quality – Updated Figure 1	September 7, 2023
43. Air Quality – Updated Table 5	September 7, 2023

Item	Date Submitted
44. Blasting Response, prepared by Explotech (dated February 2, 2023)	September 7, 2023
45. Updated Draft Blasting Impact Assessment, prepared by Explotech (dated March 2023)	September 7, 2023
46. Financial Impact Assessment Response Letter, prepared by Colliers (dated August 31, 2023)	September 7, 2023
47. Updated Financial Impact Assessment, prepared Colliers (dated August 31, 2023)	September 7, 2023
48. Response to MNRF, prepared by MHBC (dated July 17, 2023)	October 13, 2023
49. WSP Response to MNRF Comments (dated January 24, 2023)	October 13, 2023
50. E-mail from MECP to MHBC (dated June 8, 2023)	October 13, 2023
51. E-mail from OMAFRA to MHBC (dated January 27, 2023)	October 13, 2023
3rd Submission	
52. 3 rd Submission Cover Letter, prepared by MHBC (dated March 26, 2024)	March 27, 2024
53. ARA Site Plan Response Letter, prepared by MHBC (dated March 21, 2024)	March 27, 2024
54. Revised ARA Site Plans, prepared by MHBC (dated March 2024)	March 27, 2024
55. Supplemental Level 1 and 2 Water Study Report, prepared by WSP (dated February 12, 2024)	March 27, 2024
56. Natural Environment Report Response Matrix, prepared by Riverstone (dated March 21, 2024)	March 27, 2024

Item	Date Submitted
57. Revised Natural Environment Report, prepared by Riverstone (dated March 2024)	March 27, 2024
58. Noise Study Response Letter, prepared by Aeroustics (dated February 7, 2023)	March 27, 2024
59. Air Quality Response Letter, prepared by RWDI (dated February 12, 2024)	March 27, 2024
60. Revised Air Quality Response Letter, prepared by RWDI (dated February 7, 2024)	March 27, 2024
61. FIA Response Letter, prepared by Colliers (dated January 31, 2024)	March 27, 2024
62. Revised Financial Impact Assessment, prepared by Colliers (dated January 31, 2024)	March 27, 2024
63. Final Blast Impact Assessment, prepared by Explotech (dated March 26, 2024)	March 27, 2024
64. Final Blast Impact Assessment - Appendices, prepared by Explotech (dated March 26, 2024)	March 27, 2024
65. Review and Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report, prepared Ministry of Citizenship and Multiculturalism (MCM) (dated April 3, 2024)	April 4, 2024
66. Review and Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report, prepared Ministry of Citizenship and Multiculturalism (MCM) (dated April 19, 2024)	April 19, 2024
67. Stage 1 and Stage 2 Archaeological Assessment of the Law Crushed Stone Quarry Extension – Revised Report, prepared by Archaeological Services Inc. (dated June 20, 2023)	April 30, 2024

Item	Date Submitted
68. Stage 1 and 2 Archaeological Assessment of Additional Lands at Waterford's Law Quarry Extension, prepared by Archaeological Services Inc. (dated September 15, 2023)	April 30, 2024
69. Stage 1 and 2 Archaeological Assessment of Additional Lands at Waterford's Law Quarry Extension – Supplementary Documentation, prepared by Archaeological Services Inc. (dated November 17, 2023)	April 30, 2024
70. Submission to MNRF Cover Letter (Response to February 22, 2024 Comments), prepared by MHBC (dated May 2, 2024)	May 15, 2024
71. Revised ARA Site Plans, prepared by MHBC (dated April 2024)	May 15, 2024

Appendix B

JART Comment Letters

- Appendix B1 – 1st JART Comment Letter (dated January 13, 2023)
- Appendix B2 – 2nd JART Comment Letter (dated December 21, 2023)

Planning and Development Services

1815 Sir Isaac Brock Way, Thorold, ON L2V 4T7

905-980-6000 Toll-free: 1-800-263-7215

Via Email Only

January 13, 2023

File No.: D.13.10.ROPA-22-0001

Ms. Caitlin Port, MES, MCIP, RPP
Associate, MHBC Planning
540 Bingmans Centre Drive, Suite 200
Kitchener, ON
N2B 3X9
cport@mhbcplan.com

Dear Ms. Port:

**Re: Comment Letter from Joint Agency Review Team (JART)
Proposed Expansion of the Law Crushed Stone Quarry
Regional Official Plan Amendment (ROPA-22-0001)
Local Official Plan & Zoning By-law Amendment (OPA 04 & Z04/2022W)
Owner/Applicant: Waterford Sand and Gravel Ltd.
Agent: Caitlin Port, MHBC Planning
Address/Location: Part Lot 6 & 7 and part of Road Allowance between Lot 5
& 6, Concession 2, Geographic Township of Wainfleet, Region of Niagara
Township of Wainfleet**

Members of the Joint Agency Review Team (JART) as well as the Aggregate Advisor and Peer Review consultants retained by the JART have reviewed the technical reports and other information submitted with the applications for the Regional Official Plan amendment (ROPA), Local Official Plan amendment (LOPA) and Zoning By-law amendment (ZBA) for lands legally described as Part Lot 6 & 7 and part of Road Allowance between Lot 5 & 6, Concession 2, Geographic Township of Wainfleet, Region of Niagara.

The applications were formally received on June 22, 2022, were deemed complete by the Township and Region on July 22, 2022, and were circulated to the JART, Aggregate Advisor, Peer Reviewers, internal Regional and Township departments as well as external agencies, including Indigenous Communities.

The proposed ROPA consists of text and schedule changes to add the subject lands to Section 13 (Site Specific Policies) of the Regional Official Plan in order to facilitate the expansion of the existing Law Crushed Stone Quarry. The LOPA and ZBA propose to change the designation to Extractive Industrial, and to rezone the lands to Extractive Industrial to permit the proposed quarry extension. The LOPA and ROPA are being processed concurrently.

In support of the applications, the following studies and other technical information were submitted and have been reviewed:

In advance of the formal application being made, on March 9, 2022:

- Level 1 and 2 Water Study Report, prepared by WSP, dated March 2022
- Maximum Predicted Water Table Report, prepared by WSP, dated March 2022

As part of the application package, under a cover letter dated June 22, 2022:

- Planning Justification Report and ARA Summary Statement, prepared by MHBC, dated June 2022
- Consultation Summary & Strategy, prepared by MHBC, dated April 2022.
- Aggregate Resource Act Site Plan Drawings (1-5), prepared by MHBC, dated June 2022
- Natural Environment Report – Level 1 & 2 Assessment, prepared by Riverstone Environmental Solutions, dated June 2022
- Scoped Agricultural Impact Assessment, prepared by MHBC, dated May 2022
- Noise Impact Study, prepared by Aercooustic, dated May 26, 2022
- Air Quality Assessment, prepared by RWDI, dated February 3, 2022
- Blast Impact Analysis, prepared by Explotech, dated June 20, 2022
- Traffic Impact Study, prepared JD Northcote Engineering, dated April 26, 2022
- Financial Impact Assessment & Economic Benefits Analysis, prepared by Colliers International Niagara Ltd., dated May 19, 2022
- Reports and other materials related to archaeological resources on site (as follows):

Included as part of the June 22, 2022 submission:

- Stage 1 and 2 Archaeological Assessment of the Law Crushed Stone Quarry Extension – Revised Report, prepared by Archaeological Services Inc., dated August 21, 2020
- Stage 1 and 2 Archaeological Assessment of the Law Crushed Stone Quarry Extension – Revised Supplementary Documentation, prepared by Archaeological Services Inc., dated August 21, 2020
- Stage 1-2 Archaeological Assessment of Additional Lands at Waterford's Law Quarry Extension –, prepared by Archaeological Services Inc., dated August 6 2021
- Stage 1-2 Archaeological Assessment of Additional Lands at Waterford's Law Quarry Extension – Supplementary Documentation, prepared by Archaeological Services Inc., dated August 6 2021
- Stage 3 Archaeological Assessment of AfGt-289 and AfGt-290, Law Crushed Stone Extension – Record of Indigenous Engagement, prepared by Archaeological Services Inc., dated August 24, 2021
- Stage 3 Archaeological Assessment of AfGt-289 and AfGt-290, Law Crushed Stone Extension, prepared by Archaeological Services Inc., dated August 24, 2021
- Stage 3 Archaeological Assessment of AfGt-289 and AfGt-290, Law Crushed Stone Extension – Supplementary Documentation, prepared by Archaeological Services Inc., dated August 24, 2021
- Stage 1 Archaeological Assessment of the Law Crushed Stone Quarry Extension, prepared by Archaeological Services Inc., dated June 22, 2022
- Stage 1 Archaeological Assessment of the Law Crushed Stone Quarry Extension – Supplementary Documentation, prepared by Archaeological Services Inc., dated June 22, 2022

Sent by e-mail on October 6, 2022:

- Stage 1 Archaeological Assessment of the Law Crushed Stone Quarry Extension, prepared by Archaeological Services Inc., dated September 27, 2022
- Stage 1 Archaeological Assessment of the Law Crushed Stone Quarry Extension – Supplementary Documentation: Indigenous Engagement, prepared by Archaeological Services Inc., dated September 8, 2022
- Letter re: Commitment to Avoidance and Protection of 25 Archaeological Sites, prepared by Ed Lamb – Waterford Sand and Gravel Ltd., dated October 4, 2022

- Letter re: Commitment to Interim Protection of 12 Archaeological Sites, prepared by Ed Lamb – Waterford Sand and Gravel Ltd., dated October 4, 2022

Other information sent via e-mail on July 18, 2022:

- Cultural Heritage Evaluation Report (20642 Biederman Road), prepared by MHBC, dated May 2022

It is noted that an application for a Below Water Quarry - Class A Licence to the Ministry of Natural Resources and Forestry (MNR) under the Aggregate Resources Act (ARA) has also been made. The total area to be licensed is 72.3 hectares, of which 51.2 hectares is proposed for extraction.

The formal ARA circulation letter was received by the Township and Region on November 10th, 2022. Both the Township and Region have responded to the ARA notification with an objection, noting that the ARA Licence should not be granted, as the land use approvals were not in place.

The comments outlined in this letter are intended to guide revisions to both the Planning Act and ARA applications and this letter aims to assist in addressing issues with the applications relative to Provincial, Regional, and Local policy conformity.

Regional Official Plan Policies

The new Niagara Official Plan (NOP) was approved, with modifications, by the Minister of Municipal Affairs and Housing and came into effect on November 4, 2022. Policy 7.12.2.5 of the NOP states that development applications deemed complete prior to the date of the NOP approval shall be permitted to be processed and a decision made under the 2014 Regional Official Plan (ROP) policies. As noted above the ROPA application was deemed complete on July 22, 2022, and is therefore being processed under the 2014 ROP.

An amendment to the ROP is required because the entirety of the proposed quarry site is not identified on Schedule D4 as a Possible Aggregate Area, pursuant to ROP Policy 6.C.13.

Regional staff have and will be reviewing the requested amendment relative to all applicable ROP policies, with particular attention being paid to policy 5.B.7, Chapter 6 and policy 14.D.5, in addition to Provincial policies and plan. Supporting studies have

and will be reviewed relative to those ROP topic specific policies (i.e. natural environment relative to Chapter 7), in addition to relevant Provincial policies.

Local Official Plan and Zoning By-Law

An amendment to the LOPA and ZBA is required because the entirety of the proposed quarry site is not identified as Extractive Industrial Area on LOPA Schedule B and as Extractive Industrial – M2 on ZBA Map 13.

Township staff have and will be reviewing the requested amendments relative to all applicable LOPA policies, with particular attention being paid to Section 3.6 (Extractive Industrial Area) and 3.1.4 (Rural Area), in addition to the ROP, Provincial policies and plans. Supporting studies have and will be reviewed relative to those LOPA topic specific policies (i.e. natural environment relative to Section 3.2 and noise, air quality and vibration control relative to Section 6.0), in addition to relevant Regional and Provincial policies.

Planning Justification Report & ARA Summary Statement

Regional and Township planning staff have reviewed the Planning Justification Report & ARA Summary Statement, prepared by MHBC (dated June 2022) (PJR). The PJR addresses most of the relevant Provincial, Regional and Local planning policies. Major outstanding issues include the proposal to remove Biederman Road and the archaeological resources on site. More detailed comments on the PJR and ARA Summary Statement are included in Appendix 1. In addition, any revisions based on changes to the technical studies should also be made as appropriate.

Aggregate Resource Act Site Plans

The ARA Site Plans are the primary tool for implementing and enforcing the conditions of any approved mineral aggregate operation. The ARA Site Plans submitted with the applications have been reviewed and detailed comments are provided in Appendix 2. In addition any revisions required based on changes to the technical studies should also be made as appropriate. Further comments on the Site Plans may be provided after the Biederman Road issue is resolved which may inform appropriate setbacks and require other changes.

Biederman Road

The potential removal of Biederman Road and the need to provide access to several properties north of the site is a major outstanding technical aspect of the proposal. Specific and detailed comments are provided in Appendix 3. It is strongly recommended that prior to making any resubmission on the applications or supporting technical

studies that this issue be addressed, and the Site Plans, technical studies, and other aspects of the proposal be updated to reflect the proposed resolution of the issue.

Water Resources

Policy 6.C.5 of the ROP requires that applications for new or expansions of existing licensed pits and quarries give consideration to the impact on the natural environment including both surface water and groundwater. The Township of Wainfleet Official Plan contains a similar policy in Section 3.6.6, which states that in considering an application for a new or expanded Extractive Industrial Area the effect on water resources, and groundwater, and existing wells surrounding the property will be evaluated based on submitted studies.

Members of the JART and the peer review consultant (Terra-Dynamics Consulting Inc.) have reviewed the Level 1 & 2 Water Study Report and Maximum Predicted Water Table Report, prepared by WSP (dated March 2022). The Study was evaluated for appropriateness with current requirements and professional standards, (e.g. Professional Geoscientists of Ontario (PGO), 2004). The appropriateness of proposed mitigation measures were also assessed, and technical study gaps identified. There are several technical issues that need to be addressed in an updated study. In addition, comments were received from the Ministry of Transportation (MTO) related to drainage along the Highway 3 corridor, these comments should also be addressed. A complete set of detailed comments are provided in Appendix 4.

Core Natural Heritage

The subject property contains and is adjacent to portions of the Region's Core Natural Heritage System (CNHS). Specifically, the CNHS on and adjacent to the property includes a Provincially Significant Wetland (PSW), Significant Woodland, Habitat for Endangered and Threatened Species and Significant Wildlife Habitat. Consistent with 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 to demonstrate there will be no significant negative impact on the features or their ecological functions. ROP policy 6.C.5 also requires that applications for new or expansions to existing pits and quarries be considered relative to compliance with the provisions of Chapter 7, and specifically policies 7.B.1.31 to 7.B.1.34. Section 3.6.6 is the corresponding policy in the Township of Wainfleet Official Plan which requires the consideration of the Natural Heritage System as part of the application for a mineral aggregate operation.

In this regard a Natural Environment Report – Level 1 & 2 Assessment, prepared by Riverstone Environmental Solution (dated June 2022) were submitted with the applications. The scope and analysis undertaken as part of the Natural Environment

Report (NER) is considered acceptable for meeting the requirements of an EIS. The NER has been reviewed by members of the JART and the peer review consultant (Dougan & Associates). More detailed comments are provided in Appendix 5, and should be addressed through revisions to the NER. Overall there are a range of issues related to the characterization of the natural environment and consideration of impacts that need to be addressed. A full understanding of the development limits and all activities proposed as part of the application and proposed quarry expansion is required as part of the resubmission of the report.

Agricultural Impact

The PPS requires that impacts from any new or expanding non-agricultural uses on surrounding agricultural operations and lands be mitigated to the extent feasible. Policy 6.C.5 of the ROP also requires that applications for new pits or quarries or expansions of existing licensed pits or quarries give consideration to compatibility with surrounding land uses. Regional staff required a Scoped Agricultural Impact Assessment (AIA) to be submitted with the applications to identify and assess potential impacts of the proposed quarry, which is a non-agricultural use, on agricultural operations and the agricultural system.

Regional staff have reviewed the Scoped Agricultural Impact Assessment, prepared by MHBC (dated May 2022) (AIA). Overall, the assessment of impacts to the agricultural system is satisfactory. The subject lands are not Prime Agricultural Lands in a Prime Agricultural Area. There are no impacts anticipated to the surrounding and adjacent agricultural uses or operations as a result of the proposed quarry extension. There are no outstanding comments or concerns with the AIA. However it does not appear that the recommendations from the AIA were carried forward onto the ARA Site Plans similar to the other technical reports. Additional details on this comment are provided in Appendix 2.

Land Use Compatibility

The PPS calls for a coordinated, integrated and comprehensive approach to land use planning matters. Specifically, sensitive land uses and major facilities are to 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...” Policy 6.C.5 of the ROP also requires that applications for new or expansions to existing pits and quarries give consideration to compatibility with surround land uses. Further, Section 8.8.5 of the Township of Wainfleet Official Plan requires an air quality study, a noise impact study, and/or a vibration study to be submitted in support of a Planning application as

appropriate. Given the potential for impacts from the proposed quarry expansion the studies were required as indicated on the pre-consultation form.

The following discipline specific studies were submitted with the application and reviewed by Region and Township staff as well as the peer review consultant (Englobe):

- Noise Impact Study, prepared by Aeroustics, dated May 26, 2022
- Air Quality Assessment Report, prepared by RWDI, dated February 3, 2022
- Blast Impact Analysis, prepared by Explotech, dated June 20, 2022

The above noted reports will require revisions based on the detailed comments on the Noise Impact Study included as Appendix 6, comments on the Air Quality Assessment included as Appendix 7, and detailed comments on the Blast Impact Analysis included as Appendix 8.

Transportation

Provincial and Regional policies require that transportation systems be provided that are safe, energy efficient, facilitate the movement of people and goods, and are appropriate to address projected needs. Specific to proposed new or expansions to existing pits and quarries, the ROP states that consideration be given to the proposed haulage roads and the possible effect on the roads and on adjacent development (policy 6.C.5e). In this regard, a Traffic Impact Study, prepared by JD Northcote Engineering, (dated April 26, 2022) was submitted with the applications to address transportation impacts on the local and Regional roads. The TIS was reviewed by Provincial and Regional and transportation staff, as it is understood that no new access to Highway 3 is proposed and no additional truck trips are proposed, there are no outstanding concerns related the TIS. As an outstanding issue of the application is the proposed removal of Biederman Road and potentially the need for an alternative access road. Provincial and Regional transportation staff may be circulated the resubmission of the application, and additional comments may be provided at that time.

Cultural Heritage

According to the PPS, Growth Plan and ROP, significant built heritage resources and significant cultural heritage landscapes shall be conserved. Heritage resources include buildings, structures, monuments, installations or any manufactured or constructed parts or remnants that contribute to a property's cultural heritage value or interest. Cultural heritage landscape refers to geographical areas that may have been modified by human activity and are identified as having cultural heritage value or interest. These landscape features may include buildings, structures, spaces, views, archaeological sites or natural elements that are valued together for their interrelationship, meaning or

association. Built heritage resources and cultural heritage landscape may be located on, or include, properties that have been determined to have cultural heritage value or interest under the *Ontario Heritage Act*.

The PPS also states that development and site alteration shall not be permitted on lands adjacent to a protected heritage property (including those designated under Parts IV, V or VI of the *Ontario Heritage Act*), except where the proposed development and site alteration has been evaluated and it has been demonstrated that the heritage attributes of the protected heritage property will be conserved. Similarly, ROP policy 10.C.2.1.5 requires that, where development and/or site alteration is proposed on or adjacent to a significant cultural heritage resource(s) or cultural heritage landscape(s), a heritage impact assessment is required.

Although not required as part of the Planning Act applications, a Cultural Heritage Impact Assessment was required as part of the Aggregate Resource Act application. The Cultural Heritage Evaluation Report prepared by MHBC (dated May 2022) was submitted as a courtesy as part of the application package.

Financial Impact

The ROP includes criteria to consider proposed amendments to the plan in policy 14.D.5, including v. “the effect of the proposed change on regional services and infrastructure” and vi. “the effect of the proposed change on the financial, health, safety, and economic sustainability of the Region.”

To provide the application with guidance on what level of detail was required to be submitted with the application to assess this potential impact – included as Schedule E to the Pre-consultation Meeting Form was “Financial Impact Assessment / Economic Benefits Guidance”.

The guidance includes reference to the local municipality in several locations. It was the expectation of the JART that the Financial Impact Assessment and Economics Benefits analysis would be completed with consideration on the potential impacts on both the Region and Township.

A Financial Impact Assessment & Economic Benefits Analysis, prepared by Colliers International Niagara Ltd. (dated May 19, 2022) was submitted with the application. Detailed comments are provided in Appendix 12. Clarifications and revisions to several aspects of the report are required to ensure the objectives of the study are satisfied.

Archaeology

The PPS, Growth Plan and ROP provide direction for the conservation of significant cultural heritage and archaeological resources. Specifically, development and site alteration (activities, such as grading, excavation and the placement of fill that would change the landform and natural vegetative characteristics of the site) are not permitted on lands containing archaeological resources or areas of archaeological potential, unless significant archaeological resources have been conserved. Based on the Ministry of Heritage, Sport, Tourism and Culture Industries' (MHSTCI) Criteria for Evaluating Archaeological Potential, the subject lands exhibit potential for the discovery of archaeological resources due to the presence of several registered archaeological sites on the subject lands.

As outlined in the introduction of this comment letter, a package of Archaeological Assessments were submitted with the applications. Given the complexity of the archaeological potential, the resources identified on the site, and the unique nature of the proposal in regards to mitigation and protection, the JART has requested a meeting be arranged with the applicant and their archaeological consultant and staff from relevant provincial ministries. The JART defers all comments on archeological resources until that meeting can be arranged.

Draft Regional Official Plan Amendment (ROPA)

Regional Planning staff will provide more detailed comments on the draft ROPA following the second submission, as revised or additional policy will likely be required based on the revised studies and/or plans.

Draft Township of Wainfleet Official Plan Amendment (OPA)

Township Planning staff will provide more detailed comments on the draft OPA following the second submission, as revised or additional policy will likely be required based on the revised studies and/or plans.

Draft Zoning By-Law Amendment (ZBA)

The lands are zoned Rural – A4 with an Environmental Protection Overlay on part of the lands under Zoning By-law No. 034-2014, as amended. The application is requesting the lands be rezoned to a site-specific Extractive Industrial M2-2 zone with regulations permitting a quarry including processing and related plant and operational facilities for the crushing, screening and washing of aggregate material and aggregate stockpiling, outside storage of goods and materials where such use is ancillary and incidental to a permitted aggregate operation use otherwise specified and one single-family dwelling.

Township Planning staff will provide more detailed comments on the Draft ZBA following the second submission, as revised or additional policy will likely be required based on the revised studies and/or plans.

Conclusion

In summary, there are a number of items that require clarification and/or revision for the majority of the submitted materials. These outstanding issues have the potential to impact the proposed land use for the property. In addition, Biederman Road and archaeological resources are major outstanding issues. Because of this, Regional and Township planning staff are unable to confirm that the proposed amendments are consistent with the Provincial Policy Statement and conforms with Provincial Plans and the Regional Official Plan as well as local Official Plan policies and Zoning By-Law.

A resubmission is required to address the items outlined in this letter prior to the applications being presented at a Statutory Public Meeting in front of Local and Regional Councils.

January 13, 2023

Kind regards,



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Appendix 1: Planning Justification Report & ARA Summary Statement Comments

Regional and Township planning staff have reviewed the Planning Justification Report & Aggregate Resources Act Summary Statement, prepared by MHBC (dated June 2022) and offer the following detailed comments. Additional revisions may also be required as a result of changes or revisions to the technical studies. As noted in the introduction section of this letter, all comments related to archaeology have been deferred until such time that a meeting can be arranged to further discuss the issue.

1. One of the overarching land use planning issues of the application is the proposed agreement with the Township which would allow the closure of Biederman Road. Detailed comments related to this issue are included as Appendix 3.
2. Page 23 – 1st bullet point – states that the PPS and Growth Plan permit aggregate extraction in the ‘rural area’. This comment could be misleading and not technically correct. Aggregate extraction is not permitted as a right, and there are some areas where extraction is not permitted, between the escarpment and Lake Ontario (Greenbelt Plan) for example. In addition the term ‘rural area’ is not technically correct. Outside of settlement areas Provincial Planning documents use the term ‘rural’ to describe land that is not ‘prime agricultural’. Although the intent is understood, using the term ‘rural area’ could be confused to be excluding ‘prime agricultural’ areas.
3. Section 5.1 - The planning analysis section provided a chart for each subsection which facilitates the review of how the project meets the policies of various Provincial and Municipal planning documents - this is included for all sections except for the PPS. For consistency it would have been helpful to have the PPS section contain the same chart that is included for other planning documents.
4. Section 5.2 – 2nd paragraph - Similar to comment #2. Aggregate extraction is not permitted as a right.
5. Table 3 – Growth Plan policy 4.2.8 – Subsection b) iii related to the water resource system was not addressed. More detailed commentary related to this issue is included in the comments related to the Level 1 and 2 Natural Environment Report.

Appendix 2: Aggregate Resource Act Site Plan Comments

The JART, Aggregate Advisor, and Peer Review Teams have reviewed the Aggregate Resource Act (ARA) Site Plans (1-5), prepared by MHBC, dated June 2022 submitted with the applications, and offer the following detailed comments. Additional revisions to the Site Plan drawings may also be required as a result of changes or revisions to the technical studies, further details on the proposal to remove Biederman Road, or following more fulsome discussions related to the archaeological resources on site.

The following comments are organized by Site Plan page:

1. Page 1 – Existing Features

- a. Please clarify the line symbol identifying significant wildlife habitat. It appears on the plans that the linework in the legend entry associated with significant wildlife habitat (---o---o---o---) identifies the archaeology monitoring buffer on the drawing?
- b. H. Technical Reports and I. Other Reports - How does MNR suggest that any revisions or addendums to the technical reports be reflected on the site plans? Perhaps a note would be helpful to indicate that the application submissions is based on these reports, but note “as revised through agency and peer reviews”?

2. Page 2 – Operational Plan

- a. An existing field entrance is shown in the northwestern area of the site (off of Graybiel Road). A gate is proposed at the end of that access point. Please confirm the intended use of this access point and whether impacts from its use have been considered through the Natural Environment Report.

3. Page 3 – Notes

- a. F. Berms and Screening - The berms required for noise attenuation on the north and west boundary of the site (Berm A and Berm B) are 7 – 8 metres high. Have any calculations been done to determine the extent of the area that would need to be stripped to provide material to construct Berms A and B? If a large area would need to be stripped (i.e., beyond the area of Phase 1 and 2), perhaps indicate in the report recommendation notes for Agricultural Impact Assessment that material

required for berm construction may influence the extent of the disturbed area.

- b. Report Recommendations – M1. Blasting - Please add “A licensee or permittee shall take all reasonable measures to prevent fly rock from leaving the site during blasting if a sensitive receptor is located within 500 metres of the boundary of the site” as per ARA Reg 244/97.
- c. Report Recommendations – M4. Natural Environment - The notes refer to restrictions for vegetation clearing and site alteration in the ecological communities occupied by Spoon-leaved moss. While these areas are described in the Natural Environment Report, they are not shown on the Site Plans. According to the Natural Environment Report, with the exception of the area in the SE corner of the site, the locations where Spoon-leaved moss was found are outside of the area of extraction. Perhaps the note could more closely reflect the comment in the NER, or identify areas where the restrictions apply?

There is also reference to a 30-metre undisturbed setback from the significant woodland, however this is not identified on the plans. If the significant woodland boundary is the same as the PSW perhaps note this on the plan.

- d. Report Recommendations – M5. Archaeology - Note 1 identified the sites within the area of extraction that are to be protected. One of the sites (AfGt-266) is outside of the area of extraction but in a location that is proposed for berm construction (Acoustic Berm B). Suggest revising drawings and note for clarity.
- e. Section M – Report Recommendations – It does not appear that the recommendations presented in the Agricultural Impact Assessment (AIA) were carried forward into the Site Plan notes as they were for other studies. The following are examples of AIA recommendations that do not appear to have been carried forward:
 - i. “If during extraction, the material below the water table is found to be of insufficient quality or quantity to warrant extraction, then the operator should consider revising the rehabilitation plan to implement agricultural rehabilitation of the property, where feasible.”

- ii. “A groundwater monitoring program is included on the quarry Site Plan.”

Draft Site Plan 3/5 Section 3 references the WSP “Level 1 & 2 Water Study Report” and “WSP Maximum Predicted Water Table Report”, however, site plan itself does not contain the language from the above item.

- iii. “All planting associated with the berms and future rehabilitation will be non-invasive species and will not impact surrounding agricultural producers.”

Draft Site Plan 3/5 Section F provides some detail on vegetation, however, the language above is not included.

- f. Section M – Report Recommendations – Some of the information included under section M appears to be conclusions of the study rather than recommendations that need to be implemented. It would be helpful to be as concise as possible with the information that is included on Sheet 3 of 5, as the amount of text is extensive which could hinder implementation.
- 4. Page 4 – Rehabilitation -The species list for the plantings is limited in terms of species diversity. Please consider adding a greater diversity of native species, especially within the aquatic communities, to improve the future ecological value of rehabilitated areas.
 - 5. Page 5 – Cross Sections - Should the groundwater table shown for the unextracted areas in the rehabilitated condition be adjusted to match the water elevation in the lake?

Appendix 3: Biederman Road Comments

Biederman Road is a major outstanding technical aspect of the proposal. This appendix is a summary of the key concerns. There may also be comments in relation to this issue in the appendices for each of the individual technical studies.

1. Biederman Road is shown as part of the extraction area on the Site Plans, although it is a Township road and is still owned by the Township. The applicant has submitted a formal request to the Township to close and purchase Biederman Road (dated Dec 14, 2022). Once staff completes the review and updates of our land disposal policy, Township Council will determine if they are interested in entertaining this request. The applicant should finalize discussions and ownership with the Township prior to making a resubmission of the applications. All plans, studies, and other technical information shall be updated accordingly.
2. Currently there are two properties not owned by the applicant that are accessed by Biederman Road. Neither the Planning Justification Report (PJR), Site Plans, nor other technical studies have considered an alternative access road (either public or private). An acceptable alternative access would be required and should be considered as part of the update and resubmission of the applications. The applicant is encouraged to resolve this issue with all affected parties prior to making a resubmission.
3. Currently the PJR states that it is an “option” to include Biederman Road in the application. However the Site Plans and most of the technical studies have been completed on the basis of Biederman Road being removed and included in the extraction area. The PJR, Site Plans, and all other aspects of the proposal should be updated and consistent in regards to this aspect of the application.
4. Of particular note, and specific concern would be the many natural features including Species at Risk which have been identified immediately to the north of the proposed expansion area. This is one of the locations where it is understood that an alternative access road could be proposed. The Natural Environment Report and other technical studies should be updated to include the alternative access road (if proposed).

Appendix 4: Level 1 & 2 Water Study Report Comments

The peer review consultant (Terra-Dynamics Consulting Inc.) as well as Region and NPCA staff reviewed the:

- Level 1 & 2 Water Study Report, prepared by WSP (dated March 2022).
- Maximum Predicted Water Table Report, prepared by WSP (dated March 2022).

A technical meeting including WSP and Terra-Dynamics staff was held on September 7, 2022 to discuss the work undertaken and key issues. Following the technical meeting e-mails were exchanged which included additional information in an attempt to resolve the key issues.

Based on the review of the technical reports, and the exchange of additional information following the technical meeting, the following commentary is provided:

1. Hydraulic Conductivity (Permeability) Descriptions and Numerical Groundwater Model - The Executive Summary described the Salina bedrock formation, which is located below the extraction depth of the quarry, as having the highest hydraulic conductivity of the bedrock formations in the vicinity of the Site. This was in contrast to the hydraulic conductivities assigned to the bedrock formations used in the predictive groundwater modelling exercise of the Site (Appendix H, Table H.4.6 Hydraulic Conductivity Parameter Values), namely that the overlying shale/shaley dolostone confining unit of Oatka Member of the Bertie Formation is also highly conductive, which is the floor of the existing quarry and the proposed floor of the western quarry extension.

This will need to be corrected for the revised Level 2 report to indicate that both the Salina Formation and the Oatka Member of the Bertie Formation are the most hydraulically conductive units in the vicinity of the Site. This issue is resolved once the report has been updated as described above.

2. Future Water Discharge Volumes from the Existing Quarry and Extension Area - As part of the surface water impact assessment, it was described that both the existing quarry, and the western extension area, would have a combined discharge increase to the Eagle Marsh Drain of 35% during the baseline spring season at a rate of approximately 10,800 m³ per day. In 2007 and 2008, Terra-Dynamics was retained by the Niagara Peninsula Conservation Authority to complete peer review tasks for the proposed Reeb Quarry directly south of the Law Quarry. On February 27, 2008, a meeting took place at the Law Quarry to assess the upward migration of groundwater through the quarry floor during frigid

weather conditions. Groundwater has an ambient temperature of approximately 10°C and was the only water in liquid form on February 27, 2008. At that time, a flow rate of approximately 10,000 m³/day was recorded by Law Quarry staff hence, clarification on the possible understated flow volumes reported in the WSP 2022a report was requested of WSP staff. Through the submission of additional information, WSP explained they took over the responsibility of the groundwater monitoring program of the quarry in 2010 and that the flow meters were all upgraded and a significant decrease in discharge volumes was observed after the new, calibrated flow meter was installed at the quarry sump. Therefore, this issue is resolved.

3. Groundwater Modelling of the Potential Dewatering Impacts in the Vicinity of the Law Quarry - Groundwater model simulations were presented by WSP on the potential future impacts of (i) the Law Quarry (Figure 11, Predicted Drawdown in Deeper Bedrock Units) and (ii) the combined potential impacts of the Law Quarry, and the neighbouring Reeb Quarry (Appendix H, Figure H-11, Cumulative Impacts at Full Quarry Development – Deeper Bedrock Units), at full quarry or quarries development.

Clarification was provided by WSP in both plan view and cross-section simulation drawings indicating the drawdown of groundwater in private wells in the immediate vicinity of the quarry or quarries may require contingencies of deepening the private wells at the expense of the licensee.

These drawings are to be part of the revised Level 2 report. Potential water well interference from quarry dewatering is described in Section 4.3 Well Interference Mitigation Plan. This issue is resolved once the report has been updated as described above.

Comments from NPCA staff:

4. The sump discharge of the new quarry will be directed to the existing sump discharge into Eagle Marsh Drain. Section 3.1.2.1 indicates that an evaluation of the flow capacity of the Eagle Marsh Drain was undertaken in 2008 to support the Reeb Quarry application and that sufficient capacity existing in the watercourse. The NPCA requests that this supporting documentation be provided for our review as the flows from the new quarry into the Eagle Marsh drain are expected to increase by 10,800 m³/day.
5. There is a proposed surface water monitoring program in the Eagle Marsh Drain but no contingency plan is provided if the parameters that are being monitored

are exceeded. Exceedance thresholds should be provided and a contingency plan should be in place.

6. The surface water monitoring program should include erosion monitoring and a contingency plan.
7. The quarry proposes to stop all dewatering discharge during rainfall events greater than 25mm in order to prevent downstream flooding. The NPCA is supportive of this. In addition to events greater than 25mm precipitation events, perhaps quarry discharge operations should cease when the flood gate is closed due to high Lake Erie water levels or storm surges. If this is unrealistic, we understand that pumps at the Eagle Marsh flood gate operate if necessary when the gate is closed, an assessment should be done to determine if the capacity of these pumps are able to handle the increased discharge from quarry operations.
8. Section 4.1 indicates that well nest MW4 and monitoring wells GLL-7 and GLL-8 are within the zone of extraction and will eventually have to be removed. The NPCA would recommend that new wells be drilled as early as possible prior to decommissioning in order to obtain robust baseline data sets for these new wells.
9. The NPCA has no issues or comments with the assessment of the hydrogeological regime.

In addition to the comments above, the Ministry of Transportation (MTO) also provided comments related to the Water Study Report through the circulation of the application:

10. It is noted that there will be 35% increase in flow to Eagle Marsh Municipal Drain as a result of Quarry expansion. This could impact drainage along Highway 3 ditches and cross culverts.

The proponent should provide more details including calculations and plans that Highway 3 drainage will not be impacted.

11. The MTO doesn't allow any increase in flow for 5, 10, 25, 50 and 100 year storm events to its drainage system. One of the proposed outlets is Eagle Marsh Drain. Please indicate all outlets on mosaics along with drainage boundaries and major flow directions.
12. Please indicate a 14m setback from MTO right-of-way on all Site Plan drawings.

Appendix 5: Natural Environment Report – Level 1 & 2 Assessment Comments

Regional and NPCA staff and the peer review consultant (Dougan & Associates) have reviewed the Natural Environment Report – Level 1 & 2 Assessment, prepared by Riverstone Environmental Solution (dated October 2022) and offer the following detailed comments:

1. Section 3.4 - Drainage, surface water and hydrogeologic conditions – S. 3.4 notes “A small agricultural swale is mapped by NPCA in the northern portion of the extraction area, discharging north toward the Onondaga Escarpment. [...] Based on air photo interpretation it drains to several isolated wet pockets northeast of the site, but likely contributes ultimately to Biederman Drain.”

Appendix 2 (Agency Consultation) notes the following comment from Regional staff: “A high level/general water balance will be required to demonstrate no hydrologic impacts to the wetlands. The report should describe the pre- and post-development surface water drainage patterns and assess impacts to the wetlands.”

Based on observations during the site visit, there is a network of intermittent headwater drainage features on the site that conveys surface water toward Wainfleet Bog and Biederman Drain.

S. 3.7.7 of the report should acknowledge the presence of the surface water drainage feature network. Additionally, the report should explicitly acknowledge and address any impact associated with changing surface water inputs to Wainfleet Bog and Biederman Drain from an ecological perspective (also see related Fish Habitat comments #5-11 below).

2. Section 3.5.1, Figure 4 - Vegetation Communities and Dominant Flora - ELC communities were largely classified to Community Series or Ecosite. Specificity to vegetation community type was not provided. It is understood why this would be done for non-conforming communities (i.e. CUT2), but it is not clear why the FOD or SWT communities were not further refined.

In addition, it would be helpful for the reader to reference unique polygon numbers to distinguish between vegetation communities in the report and on mapping.

It is recommended that ELC communities be refined to vegetation type where possible or include a brief rationale why ELC communities were only able to be classified to Community Series or Ecosite level.

Please also include ELC polygon numbers on mapping and cross-reference in text.

3. Section 3.6.4 – Bats - This section notes: “The largest density of snags/cavity trees that were confined to the southeast corner of the surveyed area within the swamp thicket community. Even then these clusters of snags/cavity trees only provide marginal habitat potential due to their later stages of decline.” No further data was provided on the results of these surveys. Notably, the snag density for each community investigated should be provided to determine whether high quality roosting habitat for SAR bats may be present.

Please provide the field results from these surveys, including snag density calculations.

4. Section 3.6 – Wildlife – The intro sentence of S. 3.6 states that one (1) reptile was observed, however S. 3.6.5 indicates Eastern Gartersnake and Dekay’s Brownsnake were observed.

Please revise text to note that two (2) reptile species were observed.

5. Section 3.7.1 notes the presence of small wetland pockets in the southeast portion of the subject lands as well as the norther portion of the site. These wetland pockets were determined to be unsuitable for complexing with the Wainfleet Bog PSW due to either the small size or the distance from the PSW. NPCA staff have indicated no objection to this.

However, there is no indication in the report of any intent to compensate for the removal of these other wetland features. This should be explored further and a discussion of same included in the report.

6. Section 3.7.7 - Fish Habitat – S. 3.7.7 (Fish Habitat) begins with the statement “No watercourses, surface water features (e.g., rivers, creeks, drainage features, etc.) or other hydrological connections are present within the site or study area.” Based on observations during the site visit, there is a network of headwater drainage features on the site that conveys surface water from/across the site, toward, and presumably to, Biederman Drain. The confluence was not examined during the site visit.

The presence of the surface water drainage feature network on the site should be acknowledged and considered as appropriate.

7. Section 3.7.7 - Fish Habitat - It is currently proposed that all dewatering from the new quarry be directed to Eagle Marsh Drain. Flow that originates from the headwater drainage feature network mentioned above will no longer go to Biederman Drain. Effectively, the drainage network mentioned above will cease to exist. Based on aerial imagery and observations during the site visit, this feature is ephemeral and it probably does not meet the definition of fish habitat within the site. This does not, however, preclude it providing seasonal fish habitat downstream from the site.

An assessment of the fish habitat potential of the headwater drainage feature that flows from the site downstream from the site (i.e., between the study area and Biederman Drain) and an assessment of the potential effect of its elimination should be provided.

8. Section 3.7.7 - Fish Habitat – S. 3.7.7 of the report states that approximately 2% of the catchment area of Biederman Drain will be intercepted by the quarry and redirected to Eagle Marsh Drain but it does not discuss the effect of this on the hydrology and ecology of Biederman Drain. The proportion of the total drainage area of Biederman Drain that is redirected has relevance at the watershed scale, but the proportion of the drainage area upstream from where drainage from the site enters Biederman Drain that is eliminated is relevant to assessing the potential impacts of the proposed flow redirection to the proximate reach of Biederman drain. The proportion of the drainage area that is eliminated will decrease with distance downstream and where this occurs, based on the size of tributary drainage areas and points of entry, could be useful in predicting the downstream extent of any potential hydrologic impacts. Knowing the portion of the Biederman Drain drainage area that was eliminated by the existing quarry could also be of interest from the cumulative effects standpoint.

Please assess the potential hydrologic impacts to the proximate and downstream reaches of Biederman Drain and their potential effect on fish and fish habitat.

9. Section 3.7.7 - Fish Habitat – S. 3.7.7 states that quarry extension drawdown and effects on the deep bedrock aquifer will not influence the flow regime of Biederman Drain. No information is provided to support this statement.

Please support the statement that quarry extension drawdown and effects on the deep bedrock aquifer will not influence the flow regime of Biederman Drain. This might be achieved by integrating the results and discussion from the Level 1 and Level 2 Water Report, which is assumed to be “the hydrogeological

investigation”, which is referred to but not referenced. Revise the text to reflect that hydrogeologic impacts are not the only possible impacts.

10. Section 3.7.7 - Fish Habitat - No information is provided with respect to the fish habitat or fish community in Eagle Marsh Drain nor are the potential impacts of increasing discharge to that drain assessed.

Please provide information regarding fish habitat and the fish community in Eagle Marsh Drain and assess the potential ecological effects of increased flow.

11. Section 3.7.7 - Fish Habitat - No information is provided with respect to the quality of quarry discharge water as it relates to fish. This should be addressed.

An assessment of whether there are potential effects to fish in the receiving watercourse (Eagle Marsh Drain) as a result of the water quality of quarry discharge should be provided.

12. Section 3.7.7 - Fish Habitat - The Natural Environment Report does not assess the potential to achieve benefits to fish and fish habitat by managing discharge from the quarry during operations or post-closure.

Please assess the potential to achieve benefits to fish and fish habitat by managing discharge from the quarry during operations and post-closure.

13. Section 5.2 - Provincially Significant Wetlands - The third paragraph notes: “The physical effects that were assessed in detail in the groundwater modeling and analysis included in the Level 1 and Level 2 Water Study Report suggests that because the quarry will be lowering the groundwater elevation in the bedrock, extraction has the potential to “under-drain” the thick clay layer which underlies the bog. However, the under-draining effect is minimal and will take decades to propagate to the surface waters of the bog due to the thickness of the clay which underlies it. Therefore, the hydrogeological changes to the bog will be so low as to be “immeasurable” during the operational phase of the quarry. Surface water discharging from the proposed extraction area is intercepted by the Biederman Drain and a minor change in the annual water balance is interpreted to have an immeasurable effect on the wetland.”

Potential long-term groundwater impacts that will affect the Wainfleet Bog are concerning.

Please provide additional rationale to support the conclusion that the impact is 'immeasurable', and/or clarify how this potential long-term impact on the bog will be considered and addressed.

14. Section 5.2 - Provincially Significant Wetland - The last point notes that a detailed groundwater monitoring program will be undertaken, with annual monitoring reports submitted to NDMNRF or MECP. The duration of monitoring is unclear.

Please clarify the duration of the monitoring program.

15. Section 5.3.2 - Eastern Whip-poor-will - Based on the correspondence provided in Appendix E, it appears that consultation with MECP is ongoing regarding the need for an Overall Benefit Permit. The results of the permitting process may have implications on the proposed rehabilitation plan.

Please confirm the status of this consultation with MECP and when the outcomes will be made available for review.

16. Section 5.7 - Rehabilitation - This section notes that "vegetation will be added to create terrestrial habitat".

S. 5.7 would benefit from additional details and/or rationale on the target ecological communities proposed within the rehabilitated areas. Long-term water quality of the quarry lake should be a primary concern to be addressed through rehabilitation, given its adjacency to Wainfleet Bog and future wildlife usage.

Please provide additional details on the target ecological communities within proposed rehabilitation areas. Please also include a summary of the terrestrial habitat objectives that were considered in the design, and if/how the proposed rehabilitation areas contribute to water quality in the context of ecological features and functions. In addition, please provide an analysis of pre- to post-habitat areas to demonstrate the replacement ratio of natural cover.

17. Section 5.7 - Rehabilitation - The report and site plans do not mention whether soil reuse and/or transplanting existing native plant material will be considered as part of the rehabilitation efforts.

Please comment on whether opportunities to reuse soil on site and/or transplant existing native plant material were, or can be, considered in the ultimate rehabilitation plan.

18. Section 6.5 - Provincial Policy Statement (2020), pursuant to the Planning Act, R.S.O. 1990, c. P. 13 - There are incorrect references in this section to the 2014 PPS and Ecoregion 6E.

Please update all references to the 2020 PPS and Ecoregion 7E.

19. Figure 4 - Targeted survey locations and ecological communities - Spoon-leaved Moss and Bat Snag survey locations are not shown on Figure 4.

Please add Spoon-leaved Moss and Bat Snag survey locations to the figure.

20. Figure 4 - Targeted survey locations and ecological communities - It does not appear that nocturnal amphibian call surveys were undertaken at the northwest SWT community.

Please provide rationale as to why nocturnal amphibian call surveys were not undertaken at the northwest SWT community.

21. Figure 6 - Development Plan, Biophysical Constraints and Recommendations - The Significant Woodlands and Significant Wildlife are shown using the same symbology which is confusing when referring to the buffers for each feature type.

Please revise Figure 6 to distinguish between SWH and Significant Woodlands.

22. Appendix 2 - Agency consultation - Regional staff note that: "consider adding turtle surveys to their work program to definitively confirm presence/absence. The final Natural Heritage Evaluation should include an assessment of potential turtle habitat within the study area and include appropriate rationale if targeted turtle surveys (following an approved survey protocol) were deemed to not be necessary." It does not appear that turtle surveys were completed, nor was rationale provided in the report as to why they were not completed.

Please provide justification as to why turtle surveys were not undertaken.

23. Appendix 3 - Photos - Photo 5 refers to an SWD community, but this does not appear to be present on Figure 4.

Please confirm which community photo 5 is referring to.

24. Appendix 5: Table 1 - Results of desktop screening and on-site assessment for SWH - Column 1 of this table indicates the SWH categories for Ecoregion 6E, however this project location is in Ecoregion 7E.

Please change the reference, and any associated content to that which is relevant to Ecoregion 7E.

25. Appendix 5: Table 1 - Results of desktop screening and on-site assessment for SWH - Rare Vegetation Communities - Cliff and Talus Slopes: A TAS1 community is located within the adjacent lands and is not discussed in the table.

Please acknowledge the TAS1 community in Table 1.

26. Appendix 5: Table 1 - Results of desktop screening and on-site assessment for SWH - Other Rare Vegetation Communities – This category is difficult to assess since the ELC communities were only classified to Community Series or Ecosite. For this reason, it is unclear whether any of the ELC communities are provincially rare.

Please clarify if ELC communities can be further refined to Vegetation Type (ref. comment # 2). If so, please re-assess this category of SWH using the most current provincial list for Rare Vegetation Communities (S1-S3).

27. Appendix 6 - Flora documented within the study area between 2017 and 2019 - An S2 species Yellow-fruited Sedge (*C. annectens*) was noted in the vascular plant list and has not been discussed in the remainder of the report. S2 species are considered very rare in Ontario and should be considered under SWH for Special Concern and Rare Wildlife species.

Please confirm in which community this species was detected and acknowledge this species under the SWH for Special Concern and Rare Wildlife species category.

28. Appendix 7 - List of wildlife species - The wildlife list is missing several key details such as: federal, provincial, regional status information; number of individuals observed; date(s) observed; breeding evidence and corresponding level of breeding (possible, probable, confirmed). Tufted Titmouse, Dickcissel and Tennessee Warbler are interesting observations that warrant more details.

Please update the wildlife list to include the following details: federal, provincial, regional significance / status information; number of individuals observed; date(s) observed; breeding evidence and corresponding level of breeding (possible, probable, or confirmed).

29. Appendix 7 - List of wildlife species - Species at Risk: Bank Swallow (THR) and Peregrine Falcon (SC) vocalizations are noted but no further explanation is

provided in the report. Note that the SWH table in Appendix 6 notes that Bank Swallow was not identified during targeted surveys. This requires clarification.

Please provide additional information on breeding status, habitat suitability within the study area, and rationale on why/how these species will not be impacted.

30. Appendix 8 - Results of 2017 Calling Anuran Surveys - Regarding AN2 – the comments indicate that there were abundant calls coming from the ‘marsh’, however no MA community is present in this area.

Please clarify which community these comments are pertaining to and confirm whether abundance thresholds were met for SWH: Amphibian Breeding Habitat.

31. Appendix 9 - Site plans (prepared by MHBC) - The site plans appear to show ecological constraints such as Eastern Whip-poor-will habitat and wetlands. However, they do not appear to show the extent of Spoon-leaved Moss locations.

Please update site plans to display the extent of Spoon-leaved Moss.

Appendix 6: Noise Impact Study Comments

Regional and Township planning staff and the peer review consultant (Englobe) have reviewed the Noise Impact Study (NIS) prepared by Aerocoustics (dated May 26, 2022). The following comments are provided:

1. Page 2 makes reference to a single-family dwelling, understood as being currently inhabited, which is not considered a noise-sensitive receptor because it is located on lands owned by the Law Quarry Extension operator. Per NPC-300, specifically the definition of “Noise Sensitive Land Use”, the dwelling must be located within the property boundaries of the stationary source in order to not be considered a noise sensitive land use, which Englobe understands is not the case. Therefore, it is recommended that the assessment be revised to include this dwelling.
2. Page 3 indicates that Annual Average Daily Traffic (AADT) data for Highway 3 was provided by the Ministry of Transportation for the assessment of background traffic noise levels. Please include the data as part of the report.
3. Page 4 discusses the quarry’s proposed hours of operation, including a passage stating “Equipment maintenance may take place outside of these normal operating hours.” Are the equipment maintenance activities expected to be insignificant from a noise perspective? If not, please include them as part of the assessment, assuming that the maintenance will be occurring outside of regular operating hours.
4. Page 6 indicates the use of CadnaA for the noise predictions. Please provide details regarding the CadnaA setup parameters, including, but not limited to: ground absorption, maximum order of reflection, etc.
5. Page 6 describes the quarry operating scenario used as part of the worst-case assessment. It is not clear to Englobe whether or not this assessment represents noise emissions when the sources are operating at the 1st lift, when the sources are at their highest points and noise impacts to the surrounding areas are expected to be at their highest. Based on the Noise Control Recommendations in Appendix A, it seems like several scenarios were assessed, including at-grade processing. Clarifications regarding the worst-case operating scenario that was assessed are requested.
6. Page 6 describes the quarry operating scenario used as part of the worst-case assessment. Englobe understands that it is not yet known whether or not Biederman Road will be removed as part of the proposed quarry extension. It is

not clear whether or not the report considered the potential rock face along Biederman Road; if it was considered, it would be helpful to show the worst-case difference in noise level with vs. without the removal of Biederman Road.

Furthermore, if Biederman Road is to remain or be removed, operational differences are expected for on-site haul routes between the existing quarry and the extension – specifically, the trucks would be expected to need to drive up to grade to pass over Biederman Road when going between the pits, potentially increasing truck noise impacts on surrounding receptors. It is recommended that this be addressed as part of the report.

7. Page 8 discusses a scenario where R16 would not be considered noise sensitive if it were owned by WG. Similar to Comment #2, above, the receptor is not located in the stationary source property boundaries and should therefore be considered, per NPC-300. However, Englobe also notes that conditions are provided which, if satisfied, may reasonably justify that R16 not be considered noise sensitive. Have these conditions been satisfied for the dwelling referred to in Comment #2, above? The report gives the impression that both of these dwellings are being treated differently regarding whether or not they are noise sensitive. Please revise the report in order to provide consistency regarding whether or not a dwelling could potentially be considered noise sensitive or not.
8. Page 8, Table 5. Englobe understands that the Daytime Sound Level Limit at R02 is 56 dBA, not 57 dBA. While this does not impact the result, please update for consistency with Table 2.

Appendix 7: Air Quality Assessment Report Comments

Regional and Township planning staff and the peer review consultant (Englobe) have reviewed the Air Quality Assessment, prepared by RWDI, dated February 3, 2022

The following comments are provided:

1. Introduction:

- a. As the main purpose of the AQA report is to present dispersion modelling results, a short introduction to dispersion modelling is recommended, including atmospheric processes, modeling objectives and options related to the project.
- b. The processes and limitations of selecting sensitive receptor locations should be described here based on the project requirements.
- c. Please provide a list of references from the literature for the Best Management Practices Plan for dust. Practices include reducing the traffic, reducing the speed, improving road design, watering the road, covering the road with gravel, increasing the moisture content of the road surface, binding the road particles together, sealing unpaved roads, reducing exposed ground, and slowing the surface wind.

2. Site Description and Operations:

- a. Please detail the surrounding lands and emphasize that the eastern fence line of the current quarry is more than 2 km away from Port Colborne, i.e., the geographical location of the extension helps minimize the impact of emissions from the quarry on the City.
- b. In the Introduction it is mentioned that the annual extraction limit will be 800,000 tonnes per year, which corresponds to a daily average of 2,200 tonnes. In paragraph 2 of the current section, it is written: “a maximum daily capacity of 8,000 tonnes per day”. Which one was considered for the conservative approach?

3. Operating Scenario:

- a. The expression “conservative approach” could be introduced in the first paragraph to indicate that the AQ impact assessment is based on the “worst-case” scenario for the emissions and the dispersion.

- b. Please quantify the “peak day”, i.e., in terms of extraction and/or operations?

4. Sensitive Impact Locations:

- a. Detail the criteria to select receptors for this study. A good practice for locating receptors is to draw a 1-km circle over the main activity area and check what potential receptors are inside the circle and closer to the future extension of the quarry.



- b. Residential buildings on the west side (along Graybiel Rd) and south side (along Highway 3) of the domain were included in the dispersion modeling study. Since there are not too many receptors, a short list detailing them could be included in this section: which ones are residential? Which ones are churches? Include their positions relative to the site (south, west, northeast), which is a key parameter when dispersion modeling results and impact on receptors are presented in a subsequent section.

Receptor#	Location	
1 to 10	South	
11 to 15	West	
16 to 17	Northeast	R17 appears in the Tables but its location is not shown in the figures. Is R17 the residence beside R16?

- c. Please specify why the 2 receptors in the southwest corner of Highway 3 and Rathfon Rd were not considered in the dispersion modeling exercise.

5. Contaminants and Sources Considered:

- a. It is common practice to include in the text a table listing the relevant air quality criteria and standards for the air pollutants of concern (NO₂, TSP, PM₁₀, PM_{2.5}, silica) with proper references.
- b. Please modify. Dust emissions are mostly TSP, PM¹⁰, and PM^{2.5}. However, NO², PM¹⁰, PM^{2.5} are key representatives of combustion products (we usually do not consider TSP in this case).

6. Emission Estimation:

- a. US Environmental Protection Agency's document "AP-42: Compilation of Air Emissions Factors" is the main reference to estimate emissions for this type of AQA study. Therefore, it should be cited in this section, such as [AP-42: Compilation of Air Emissions Factors from Stationary Sources](https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emissions-factors) (https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emissions-factors) date of access; US Environmental Protection Agency, year).
- b. What data are included in the meteorological records used for the study? Which years are considered? 1996-2000?
- c. Please provide a short description for each operating scenario considered in the study. Are the scenarios the same as the phases (#) indicated in the figures?

7. Discussion of Mitigation Measures:

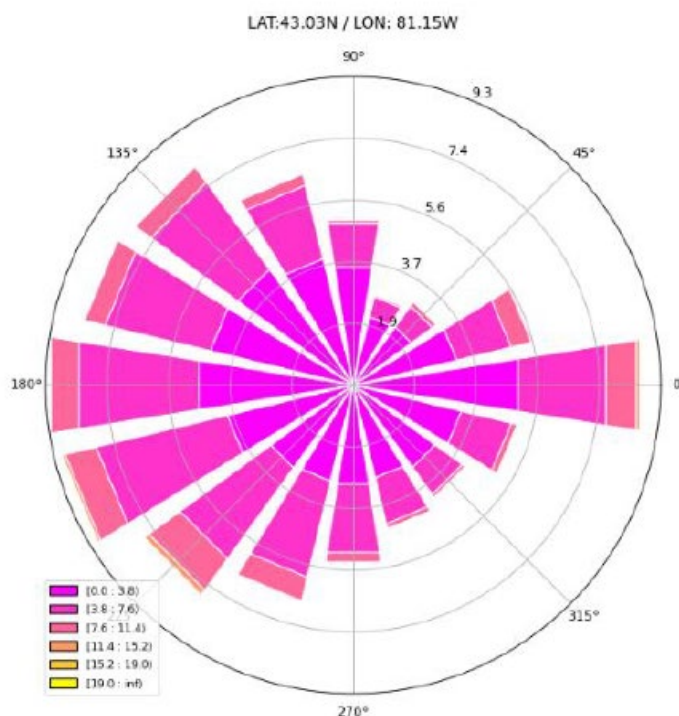
- a. "by maintaining a road surface moisture level of five times that of the ambient soil": Please indicate what the initial moisture level considered in the EPA study is.

8. Dispersion Modelling:

- a. Please indicate the date of the version for AERMOD such as "AERMOD version 19191 dispersion model (version date July 10, 2019)".
- b. In that section it should be specified that the dispersion simulation was conducted with the 95% level of control applied to the emissions.
- c. The meteorological dataset was obtained from [Map: Regional Meteorological and Terrain Data for Air Dispersion Modelling](#)

(<https://www.ontario.ca/page/map-regional-meteorological-and-terrain-data-air-dispersion-modelling>). Based on the location and characteristics of the project site, the file “West_Central_Crops”, including the “London 1996-2000” dataset, seems to be the dataset required by MECP to run AERMOD. Is it the land use type used in the simulations with AERMOD?

- d. The wind rose shown below indicates that the prevailing wind direction is mostly from the southwest, west, and northwest. Including the wind rose in the report would allow to indicate the x% of days that the sensitive receptors are downwind of the quarry. x% could be calculated from the wind direction data included in the meteorological records used to run AERMOD.



- e. Include the bibliographic reference for the Oxygen Limiting Method.

9. Local Emission Sources:

- a. This section includes important information that could be reorganized by sub-sections in order to make it clearer:
- i. 9.1 Reeb Quarry (across Highway 3).

- ii. 9.2 Kwik-Mix Materials Limited (next to the quarry).
- iii. 9.3 Other sources (such as the Vale Facilities in Port Colborne).

10. Background Air Quality Data:

- a. “Nearest” is too vague: Please consider replacing it with the approximate distance between the quarry and the closest AQ monitoring station operated by MECP, such as: “The St. Catharines ambient air monitoring station (43°09’36” N, 79°14’05” W) is approx. located 30 km from the proposed Law Quarry site extension”.
- b. The St. Catharines AQ station is considered an urban site. In general, background PM^{2.5} and NO² levels (by-products of combustion processes, such as road traffic) are expected to be higher at an urban site than in a rural area where Law Quarry is located.
- c. “A review of stations with similar land use profiles”. Could you provide a list of the stations that were reviewed?

11. Conclusions and Recommendations:

- a. This section should emphasize that the mitigation measures (e.g., 95%) appear sufficient to significantly decrease dust emissions and to minimize their impact on local air quality (i.e., at the receptors).
- b. It should also emphasize that the wind blows from SW and NW quadrants, which will help minimize the impact of operations on the closest receptors.

12. Tables:

- a. All Tables: Relevant Criteria, PM¹⁰ row, top left of page. Should “Interim” be replaced with “24-Hour”?
- b. Table 1: [1] corresponds to the air pollutants (i.e., PM^{2.5}, O³, NO²) measured at the St Catharines’ station. Writing [1] beside the title of the table is confusing. It would be better to write it in the relevant column headers, such as “PM^{2.5}[1]”, “NO²[1, 4]” and “O³[1, 4]”
- c. Table 5: Correct “Cumulative”. Receptor 14, PM¹⁰ row; “number of predicted excursions above criteria over 5 years” should be > 0 since “% of Relevant Criteria” is 111%.

- d. Summarizing dispersion modeling results show that operations (from all phases) have only a very limited (negligible?) impact on 24-hour TSP concentrations at receptors and that this impact would be mostly noticeable at receptors (1 to 8) located south of Highway 3. Is this impact mostly due to area sources in the Reeb Quarry?

Table#	Phase(s)	Receptors with 24-hr TSP exceedance
2	Phase 1A or 1a?	South: 1 to 8 Northeast: 16 & 17
3	Phase 1B or 1b? Phase 5 is not indicated on the figures.	South: 1 to 8
4	Phase 2	South: 1 to 8 West: 15
5	Phase 3. Phase 4 is not indicated on the figures.	South: 1 to 8 West: 12 & 14

13. Figures:

- a. It is recommended that the figures include the names of the roads in the area of the current Law Quarry site and its extension.
- b. The location of receptor R17 is missing on Figure 1. Is R17 the residence beside R16 (i.e., northeast of extension)?

14. References: Please consider including a section at the end of the document listing the bibliographical references cited in the report.

Appendix 8: Blast Impact Analysis Comments

Regional and Township planning staff and the peer review consultant (Englobe) have reviewed the Blast Impact Analysis, prepared by Explotech, dated June 20, 2022 and offer the following detailed comments which should be addressed when updating the report.

1. The property at 20650 Biederman Rd is identified as the closest sensitive receptor in table 1, at 35m from the new quarry Boundary, However, in the body of the report (page 9), this distance is mentioned as 275m. Please clarify and correct the closest sensitive receptor and its associated distance.
2. Vibrations and sound pressures induced due to blasting expand radially. In the report, there is a mention of vibration monitoring in front and behind any given blast. However, sensitive receptors could be situated on the sides as well. Please use appropriate wording to include all sensitive receptors that are “adjacent” or in the Zone of Influence (ZOI) to the blast.
3. Please provide further explanation regarding the statement “normal temperature and humidity changes can cause more damage to residences than blast vibrations and overpressure”. Is this related to this topic?
4. Please provide more explanations for the MECF’s limits and guidelines for PPV and PSPL. The report should provide further explanation about the significance of using these limits and why they were selected as the limits for this report.
5. Please elaborate on what is meant by “1 borehole radius” for a none-technical person to comprehend the content.
6. For the calculations regarding the vibration levels at the nearest sensitive receptor, please ensure the proper distances are used. As per table 1, 20650 Biederman Road is situated 35m from the edge of the quarry property, however, the Author uses a distance of 275m (page 14). Englobe believes it is necessary to indicate the closest sensitive receptor to the edge of the quarry (perimeter boreholes) and the maximum explosive load per delay.
7. The overall presentation of the formula and some of the numbers used in the formula on page 15 needs to be corrected. The current formula shows $12.5=257.6m$.
8. In the section dealing with overpressure, one gets the impression that the report assumes the overpressure radiates linearly in front of the blast and the sensitive

receptors adjacent and behind the blast are not affected. The distance of 920m selected in the calculations on page 17 and only dealing with the front of the blast seems a bit conservative.

9. Please expand on the statement “when weather patterns are less favourable” (page 18). This statement is very general, and some examples of weather conditions that affects overpressure would clarify this statement.
10. The report does not mentioned the current blasting practices (drill pattern, bench heights, type of explosives used, etc.) at the current operations. In Engobe’s view it would be beneficial to mention a bit more details about the ongoing blasting methods.
11. Based on the vibration, and overpressure analysis, for the new quarry, the author can develop a guideline or mitigation plan that outlines the maximum bench height, type of explosives, and the maximum kgs/delay when the operations approaches certain distances from sensitive receptors. This information would provide a guideline for the third-party blasting company to design their blasts to contain both vibrations and overpressures associated with their blasts within the allowable limits.
12. The final report should contain the names of authors, their titles and positions along with their professional seals. Please include the missing information.
13. Please consider adding a section to the report called “Definitions or Terminology”, where all abbreviations are expanded.
14. The report notes that given the close proximity of some of the residences (as close as 57 metres) the blast load will have to be reduced substantially to meet the MECP limits for vibration. There is a comment in the report that the economics of recovering material close to those residences would have to be explored by the operator to determine whether it is worthwhile to extract to the limits shown on the plans.

Although it is understood that this is ultimately a business decision for the applicant, it would be helpful to understand whether the blast design adjustments were considered in determining the extraction limits.

15. Table 2 of the report notes that no sinking cut will required and that extraction would be in 1-2 benches. Use of sinking cuts has greater potential for both blasting and flyrock impacts. Sinking cuts can be avoided only in Biederman Road is included as part of the application (which has not yet been confirmed),

and it is understood that 2-3 benches is more likely scenario for extraction. Assumptions in the report should be updated to more accurately reflect the proposed operation.

16. The bottom of Page 24 of the report should be updated to properly reference the proposed expansion of the Law Crushed Stone Quarry.

Appendix 9: Financial Impact Assessment and Economic Benefits Analysis Comments

Regional and Township staff and the peer review consultant (Watson & Associated Economists Ltd.) have reviewed the Financial Impact Assessment & Economic Benefits Analysis, prepared by Colliers International Niagara Ltd., (dated May 19, 2022) and offer the following detailed comments:

1. Scope of the study – In the second paragraph of the summary on Page 5 of 31 it states that “approval of the proposed expansion will have zero to minimal negative impact on the Region...”. The study should consider impacts on both the Township and Region.
2. Aggregate Production - The report should clearly indicate that the expansion is needed to maintain current operation and economic activity and output levels.
3. Economic Activity - Page 14 of the report states that construction costs of the quarry expansion, including machinery & equipment and capital improvements, would generate $\pm \$3,000,000$ in direct economic activity, however Page 23 states that $\pm \$3,000,000$ is the total capital investment required for the quarry expansion.

It is important to differentiate between the initial capital investment and what the economic impacts of the capital investment are, such as the impact on gross domestic product (GDP). The report should be clear that \$3,000,000 is the capital investment for the quarry expansion. An economic impact analysis has not been prepared, and it is recommended that it is undertaken to understand the GDP impacts of the quarry expansion using Statistics Canada input-output multipliers.

4. Employment Impacts - The Executive Summary of the report states the quarry expansion will result in temporary employment during the construction phase and on-going employment related to the operation. Temporary employment is identified for the site preparation stages and archaeological clearances of the quarry expansion. Permanent employment is identified related to the quarry operation, on-site dependant businesses and trucking.

Page 14 of the report identifies the temporary employment for the site-preparation stage, and Page 15 identifies the employment for on-site dependant businesses and their off-site employment yield. There are no references outside the Executive Summary to the temporary archaeological clearance employment, permanent employment related to the operation of the quarry, or trucking jobs. It is recommended that the report speaks to all the employment types identified in

the executive summary for consistency, in addition to how the temporary construction employment was identified.

Further, since this expansion will be replacing the current quarry site operations, the report should clearly indicate that the expansion is needed to maintain current permanent employment levels.

5. Labour Income - Labour income is an important metric to understand because it illustrates how much money is made from employment associated with the quarry operations, and that the majority of it will be spent in the local and regional market on goods and services.

Page 15 identifies estimated annual wages earned by quarry workers and truckers, wages earned during the site preparation and archaeological clearances stages. It is recommended the source of the labour income is included in the report.

6. Introduction and Overview of Methodology - As noted above, in general, the report focuses on revenues and does not identify expenditures related to the development. This may be a fair assumption as the extension is a “replacement” of current activities and is anticipated to continue the existing levels of employment.

There are a number of items that require clarification/updates. The following sections provide Watson’s review and commentary on each of the components of the analysis.

7. Tonnage Assumptions - The report utilizes an annual extraction amount of 550,000 tonnes, however, the Transportation Impact Study and Planning Justification Report utilize 800,000 tonnes. This was discussed at the technical meeting and it was noted that this figure was used based on the current annual extraction amounts at the existing site. This would provide for a conservative revenue estimate (for Aggregate License fees) and is a fair assumption.

This discrepancy should be clearly addressed in the Report.

8. Site Area - The report identifies the total area of existing properties to be 190.33 acres with approximately 51 hectares (126 acres) being the extraction area. No identification of the total licensed area is provided.

In review of the Planning Justification Report, it is noted that the proposed area for extraction is 51.2 hectares (126 acres) and the proposed licensed area is 72.3

hectares (178 acres). Based on the two reports, it would appear that the following would be a summary of the areas:

- Total site area: 190.33 acres
- Licensed area: 178 acres
- Extraction area: 126 acres

As outlined in the sections below, these areas are required in calculating the anticipated tax revenue to be received from the site area. The report should be updated to reflect these values.

9. Assessment Assumptions - In estimating the assessment to be generated from the expansion of the quarry, the report looks at various quarry properties (Table on Page 27 of 31) in the area and undertakes a survey of assessed values. This approach is consistent with best practice; as part of the Assessment Act, section 44 (3) (b) notes that land valuation will have reference to the value of similar lands in the vicinity and make adjustments to maintain equity with these lands. However, the following summarizes our comments on the approach to the calculations:

- Properties Surveyed
 - It appears the \$7,900 per acre is based solely on the three Fort Erie properties and one Port Colborne property. It is unclear why all properties were not included in the average calculations.
 - The survey included the Port Colborne Quarries properties and quarry properties in Fort Erie but did not include the existing Law Quarry property. This should be included in the survey.
 - There appears to be duplication in the quarries surveyed. It is our understanding that “Lic. No. 4444” in the second part of the table is the same as the Port Colborne Quarries properties that were surveyed in the first part of the table.
- Average Calculation
 - The calculation of the average is based on the assessment per acre for each property, however, the appropriate approach would be to analyze the total area of all properties in the survey and divide by the total

assessment of all properties in the survey. This approach will take into account the difference in assessed values for varying property sizes.

- MPAC Adjustments
 - MPAC provides assessment adjustments to residential properties abutting and within 1km of quarries. The proposed quarry extension may reduce assessed values of residential properties directly adjacent to the extension to the West and South as well as other properties now within 1km of the extension. This would reduce tax revenues for the Township and Region. This should be included in the analysis.
 - For properties outside of the GTA, the reductions were 4% for abutting properties and 2% for properties within 1 km of a licensed quarry.

10. Tax Revenue Calculations -

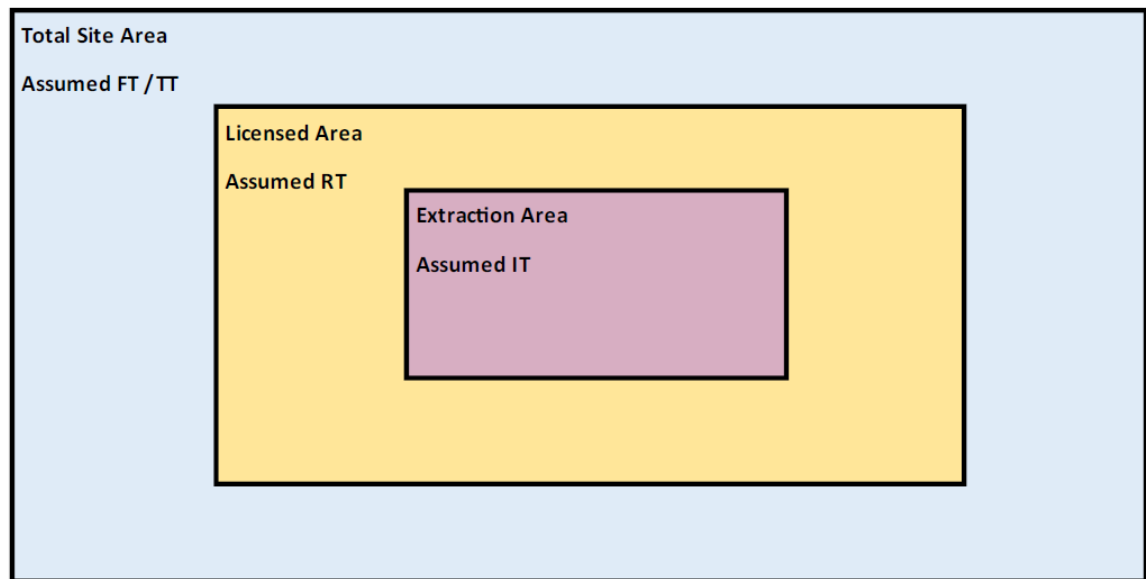
a. Property Taxes for Existing Properties

The analysis includes a summary of the 2019 property taxes for the existing properties. As the future tax revenues are estimated based on 2021 assessed values and 2021 tax rates, the existing properties should be based on 2021 (or the most current year available) taxes.

Additionally, the existing property tax revenue calculations were not provided. If this is based on a database of information, please identify the source. If this was calculated, please show the details of the calculations (i.e. assessed value multiplied by the applicable tax rate for the Township separate from the Region).

b. Tax Class Assumptions

The analysis assumes that the proposed quarry will be assessed as 100% industrial. This includes the licensed area, extraction area, and remaining areas. In our experience, and based on the regulations to the Assessment Act, the industrial assessment (IT) applies to the extraction area, residential assessment (RT) would generally apply to the remaining licensed area, and any remaining lands may be assessed as their actual use (typically farmland (FT) and/or managed forests (TT)). This is provided in the following diagram:



The report only provides the total site area and extraction area and does not identify the licensed area. Based on the values provided in comment #8, the tax revenue calculations should be updated to reflect these site areas.

As a result of assuming industrial assessment only, the tax revenue has been overestimated since the tax rate for industrial properties is higher than that of residential and farm/managed forests. This should be recalculated to align with the Assessment Act.

11. Operating Revenues (non-tax) and Operating Costs - Generally with financial impact analyses, a review of the impact on operating revenues and operating costs is undertaken. This may be provided through a review of the existing operating costs and revenues on a per capita/per employee basis, which are then multiplied by the incremental population and/or employment forecasted. Based on our initial review and discussions with the applicant, it appears the quarry extension is proposed to “replace” operations on the current quarry site. This will allow the applicant to continue extraction once the existing site is depleted. As a result, there is no additional employment anticipated. Excluding the operating revenue and operating cost analysis may be a fair approach as the extension is a “replacement” of current activities and does not include additional employment or an increase in truck traffic.

12. Long-term Monitoring and Mitigation - As part of the Terms of Reference, objectives of the financial impact study were provided. One item included the

potential cost of any long-term monitoring and mitigation. The following provides for the stated objective in the Terms of Reference:

- 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.

Generally, the ongoing monitoring and mitigation costs would be the responsibility of the landowner, however, the study should provide an estimate of this cost and discuss any potential liabilities to the municipalities (e.g. if the property owner does not keep up with the monitoring and mitigation responsibilities). This would, at a minimum, provide the municipalities with an order-of-magnitude cost, should they be required to assume responsibility.

13. Biederman Road - There are outstanding questions with respect to Biederman Road which may be purchased by the applicant. As there are properties to the North of the site, a different access road would be required. It is not clear if this new access road would result in additional capital/operating costs to the Township or Region. The updated Financial Impact Assessment should specifically address the issue of Biederman Road, any potential alternative access roads, and potential costs to the Township or Region. Although the applicant may plan on paying for the construction of the additional access road, the analysis should provide the following:

- Potential length of new road;
- Estimate of the difference in operating cost to the Township of removing Biederman Road and adding new road;
- Identification of responsibility of capital costs to construct the new road; and
- Difference in lifecycle costs (ultimate replacement costs) between Biederman Road and the new road.

This would provide the JART with full information regarding the potential options, should the applicant wish to purchase the right-of-way.

Growth Strategy and Economic Development

1815 Sir Isaac Brock Way, Thorold, ON L2V 4T7

905-980-6000 Toll-free: 1-800-263-7215

Via Email Only

December 21, 2023

File No.: D.13.10.ROPA-22-0001

Ms. Caitlin Port, MES, MCIP, RPP
Associate, MHBC Planning
540 Bingemans Centre Drive, Suite 200
Kitchener, ON
N2B 3X9

cport@mhbcplan.com

Dear Ms. Port:

Re: Comment Letter from Joint Agency Review Team (JART) – 2nd Submission of
Technical Materials

Proposed Expansion of the Law Crushed Stone Quarry
Regional Official Plan Amendment (ROPA-22-0001)
Township of Wainfleet Official Plan & Zoning By-law Amendment (OPA 04 &
Z04/2022W)
Owner/Applicant: Waterford Sand and Gravel Ltd.
Agent: Caitlin Port, MHBC Planning
Address/Location: Part Lot 6 & 7 and part of Road Allowance between Lot 5 & 6,
Concession 2, Geographic Township of Wainfleet, Region of Niagara
Township of Wainfleet

Members of the Joint Agency Review Team (JART) as well as the Aggregate Advisor and Peer Review consultants retained by the JART have reviewed the information submitted in response to the JART comments dated September 6, 2023. (i.e. 2nd submission of technical material)

The following was reviewed as part of the resubmission package:

- Cover Letter to JART, prepared by MHBC (dated September 6, 2023)

- PJR and ARA Summary Statement Response Matrix, prepared by MHBC (dated July 11, 2023)
- PJR Addendum, prepared by MHBC (dated July 2023)
- Updated ARA Site Plans, prepared by MHBC (dated June 2023)
- Water Study Response Letter, prepared by WSP (dated April 18, 2023)
- Natural Environment Response Table, prepared by Riverstone (dated August 25, 2023)
- Revised Natural Environment Report, prepared by Riverstone (dated August 28, 2023)
- Noise Study Response Letter, prepared by Aeroustics (dated July 6, 2023)
- Updated Noise Impact Study, prepared by Aeroustics (dated July 6, 2023)
- Air Quality Response Letter, prepared by RWDI (dated April 4, 2023)
- Air Quality – Updated Figure 1
- Air Quality – Updated Table 5
- Blasting Response, prepared by Explotech (dated February 2, 2023)
- Updated Draft Blasting Impact Assessment, prepared by Explotech (dated March 2023)
- Financial Impact Assessment Response Letter, prepared by Colliers (dated August 31, 2023)
- Updated Financial Impact Assessment, prepared Colliers (dated August 31, 2023)
- Response to MNRF, prepared by MHBC (dated July 17, 2023)
- WSP Response to MNRF Comments (dated January 24, 2023)
- E-mail from MECP to MHBC (dated June 8, 2023)
- E-mail from OMAFRA to MHBC (dated January 27, 2023)

Format of this Comment Letter

The purpose of this comment letter is to provide an analysis and response to the resubmission package. The basis for this letter are the comments originally prepared on the first submission of the application. Following each original comment a notation has been included to indicate whether or not the comment has been addressed to the satisfaction of the JART (in red text).

Additionally, through the review of the resubmission of the application several further comments were identified. As appropriate, those comments have been included at the end of the relevant appendix to this letter, and are also shown in red text.

The context and background for the Region, Township, and NPCA review of the file was included as part of the January 13, 2023 comment letter. That information remains relevant, but has not been duplicated as part of this comment letter.

Please advise if any further meetings between technical experts are required to discuss any of the outstanding issues.

Aggregate Resources Act Application

It is acknowledged that Waterford Sand and Gravel Ltd. has also filed an application for a Below Water Quarry - Class A Licence to the Ministry of Natural Resources and Forestry (MNRF) under the Aggregate Resources Act (ARA). The Region, Township, and NPCA have all submitted objection letters in response to the ARA application on the basis that the appropriate land-use approvals under the Planning Act are not in place. The comments outlined in this letter are intended to guide revisions to both the Planning Act and ARA applications and to assist in addressing issues with the proposal relative to Provincial, Regional, and Township policy conformity.

Planning Justification Report & ARA Summary Statement

Regional and Township planning staff have reviewed the PJR Addendum, prepared by MHBC (dated July 2023) (PJR). The PJR addresses most of the relevant Provincial, Regional and Local planning policies. Major outstanding planning issues include finalizing the proposal to acquire Biederman Road and incorporate it into the licenced area and the proposed long-term protection of archaeological resources on site.

More detailed comments on the PJR and ARA Summary Statement are included in Appendix 1. Additional comments are pending on a Provincial Clearance Letter related to the archaeological aspects of the application and final resolution of the Biederman Road and alternative access issue.

Aggregate Resource Act Site Plans

The ARA Site Plans submitted with the resubmission applications have been reviewed and detailed comments are provided in Appendix 2.

Biederman Road

It is noted that an application to purchase Biederman Road has been made by the applicant to the Township, and that an application has also been made to provide for an alternative access to the remaining parcel of land not owned by the applicant. Specific and detailed comments are provided in Appendix 3.

The first JART Comment Letter strongly recommended that prior to making any resubmission on the applications or supporting technical studies that this issue of Biederman Road be fully resolved. Township and Region staff caution that continuing to proceed with the application without this issue being fully resolved is at the risk of the applicant. Should revisions to the application, site plan drawings, or technical studies be required – additional time and costs associated with the technical and peer review of the application may be required.

Water Resources

Members of the JART, NPCA technical staff, and the peer review consultant (Terra-Dynamics Consulting Inc.) have reviewed the Water Study Response Letter and WSP Response to MNRF Comments.

Detailed comments are provided in Appendix 4. It is noted that the Response Letter referred to a “Supplemental Level 1 and 2 Water Study Report”. This report however was not included in the response package.

Core Natural Heritage

The Natural Environment Response Table and Revised Natural Environment Report has been reviewed by members of the JART, NPCA technical staff, and the peer review consultant (Dougan & Associates). There are several comments which have not been fully addressed or remain outstanding.

More detailed comments are provided in Appendix 5.

Agricultural Impact

There are no outstanding comments or concerns with the Agricultural Impact Assessment (AIA). It is noted that the 2nd submission included an e-mail from the Ontario Ministry of Food, Agriculture, and Rural Affairs (OMFRA) confirming that the Ministry had no comments on the AIA or application.

Land Use Compatibility

The following discipline specific studies (and associated response letters) reviewed as part of the resubmission package

- Update Noise Impact Study & Response Letter
- Air Quality Response Letter and Updated Drawings
- Updated Blast Impact Analysis & Response Letter

Detailed comments on the Noise Impact Study included as Appendix 6, comments on the Air Quality Assessment included as Appendix 7, and detailed comments on the Blast Impact Analysis included as Appendix 8.

Transportation

The Traffic Impact Study (TIS) was reviewed by Provincial and Regional and transportation staff as part of the first submission, as it is understood that no new access to Highway 3 or other roadways are required, and no additional truck trips are proposed, there are no outstanding concerns related the TIS.

Cultural Heritage

The JART has no outstanding concerns with the applications from a cultural heritage perspective.

Financial Impact

The updated financial Impact Assessment & Economic Benefits Analysis, prepared by Colliers International Niagara Ltd. (dated August 31, 2023) and associated response letter was reviewed. Detailed comments are provided in Appendix 9. Some minor clarifications are required to ensure that all objectives of the study are satisfied.

Archaeology

In October 2023 members of the JART met with representatives Provincial Ministry of Citizenship and Multiculturalism (MCM) to better understand the status of the review of the archaeological assessments and MCM's position on the proposed mitigation plan for the archaeological resources on site. It is the understanding of JART that the review is ongoing and to date no clearance letter has been issued by MCM.

The JART defers all comments on archeological resources until such time that comments or a clearance letter is received from MCM.

Township and Region staff caution that continuing to proceed with the application without the archaeological clearance letter is at the risk of the applicant. Should revisions to the application, site plan drawings, or technical studies be required – additional time and costs associated with the technical or peer review of the application may be required.

Draft Regional Official Plan Amendment (ROPA)

The Draft ROPA will be included as an appendix to the staff report for the Regional Statutory Public Meeting. Regional Planning staff will provide more detailed comments on the draft ROPA as part of the preparation of that report.

Draft Township of Wainfleet Official Plan Amendment (OPA)

The Draft local OPA will be included as an appendix to the staff report for the Township's Statutory Public Meeting. Planning staff will provide more detailed comments on the draft OPA following the applicant finalizing of the Biederman Road closure and conveyance and confirming the status of the residential dwelling on site (vacancy date/demolition permit issuance), as revised or additional policy will likely be required to address this matter.

Draft Zoning By-Law Amendment (ZBA)

The lands are zoned Rural – A4 with an Environmental Protection Overlay on part of the lands under Zoning By-law No. 034-2014, as amended. The application is requesting the lands be rezoned to a site-specific Extractive Industrial M2-2 zone with regulations permitting a quarry including processing and related plant and operational facilities for the crushing, screening and washing of aggregate material and aggregate stockpiling, outside storage of goods and materials where such use is ancillary and incidental to a permitted aggregate operation use otherwise specified and one single-family dwelling.

Township Planning staff will provide more detailed comments on the Draft ZBA as part of the preparation of the staff report for the Statutory Public Meeting.

Further - This is concern that there is a single family dwelling on the property that may be still occupied. The Township cannot redesignate the property to an Extractive Industrial M2-2 zone with a single family dwelling occupied on the property. The Applicant shall be made aware of the risk, and that planning tools such as holding provisions may have to be utilized if the property is not vacated by the time the final Planning Act approvals are considered by Council. Please provide confirmation on the timing for vacancy/demo permits, etc.

Indigenous Consultation

Indigenous consultation is ongoing. Please continue to provide a copy of any Indigenous consultation related to the archaeological assessment or other aspects of the application. A goal of the JART process is to streamline the consultation and engagement process to the extent feasible.

Conclusion

Although many of the previous comment have been addressed as part of the resubmission package – there are still some outstanding concerns with the technical studies and other aspects of the applications.

Based on the clarification and additional information required on a number of the submitted studies, Regional and Township Planning staff cannot confirm that the proposed amendments are consistent with the Provincial Policy Statement and conform with Provincial Plans and the Regional Official Plan as well as Township Official Plan policies and Zoning regulations. Revisions and clarifications to the submitted plans and studies are required to address the items outlined in this letter before staff can make a recommendation on the proposed amendments.

Kind regards,



Sean Norman, PMP, MCIP, RPP
Senior Planner

Copy: ARAApprovals@ontario.ca

Michelle Sergi, MCIP, RPP, Commissioner, Growth Strategy and Economic Development, Niagara Region

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Pat Busnello, MCIP, RPP, Manager, Development Planning, Niagara Region

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Lindsay Earl, MES, MCIP, RPP, Manager of Community and Development Service, Township of Wainfleet

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Appendix 1: Planning Justification Report & ARA Summary Statement Comments

Regional and Township planning staff have reviewed the:

- Cover Letter to JART, prepared by MHBC (dated September 6, 2023)
- PJR and ARA Summary Statement Response Matrix, prepared by MHBC (dated July 11, 2023)
- PJR Addendum, prepared by MHBC (dated July 2023)

and offer the following based on our previous comments.

1. Page 23 – 1st bullet point – states that the PPS and Growth Plan permit aggregate extraction in the ‘rural area’. This comment could be misleading and not technically correct. Aggregate extraction is not permitted as a right, and there are some areas where extraction is not permitted, between the escarpment and Lake Ontario (Greenbelt Plan) for example. In addition the term ‘rural area’ is not technically correct. Outside of settlement areas Provincial Planning documents use the term ‘rural’ to describe land that is not ‘prime agricultural’. Although the intent is understood, using the term ‘rural area’ could be confused to be excluding ‘prime agricultural’ areas. **Comment addressed.**
2. Section 5.1 - The planning analysis section provided a chart for each subsection which facilitates the review of how the project meets the policies of various Provincial and Municipal planning documents - this is included for all sections except for the PPS. For consistency it would have been helpful to have the PPS section contain the same chart that is included for other planning documents. **Comment addressed.**
3. Section 5.2 – 2nd paragraph - Similar to comment #2. Aggregate extraction is not permitted as a right. **Comment addressed.**
4. Table 3 – Growth Plan policy 4.2.8 – Subsection b) iii related to the water resource system was not addressed. More detailed commentary related to this issue is included in the comments related to the Level 1 and 2 Natural Environment Report. **Comment addressed.**

Appendix 2: Aggregate Resource Act Site Plan Comments

The JART, Aggregate Advisor, and Peer Review Teams have reviewed the Updated ARA Site Plans, prepared by MHBC (dated June 2023) and offer the following based on our previous comments.

The JART notes that additional revisions to the Site Plan drawings may still be required as a result of finalizing the proposal to acquire Biederman Road and incorporate it into the licenced area and the proposed long-term protection of archaeological resources on site.

The following comments are organized by Site Plan page:

1. Page 1 – Existing Features

- a. Please clarify the line symbol identifying significant wildlife habitat. It appears on the plans that the linework in the legend entry associated with significant wildlife habitat (---o---o---o---) identifies the archaeology monitoring buffer on the drawing? **Comment addressed.**
- b. H. Technical Reports and I. Other Reports - How does MNRF suggest that any revisions or addendums to the technical reports be reflected on the site plans? Perhaps a note would be helpful to indicate that the application submissions is based on these reports, but note “as revised through agency and peer reviews”? The Site Plans refer to the Technical Reports dated on submission. **The suggestion to include a note indicating that the reports may have been revised through peer review has not been incorporated, however, this approach is consistent with other quarry applications and MNRF standards so the comment is considered addressed.**

2. Page 2 – Operational Plan

- a. An existing field entrance is shown in the northwestern area of the site (off of Graybiel Road). A gate is proposed at the end of that access point. Please confirm the intended use of this access point and whether impacts from its use have been considered through the Natural Environment Report. **Comment addressed by agent confirming that the intended use of this access is outlined in Note C1 on Page 3 of the Site Plan. The wording has been slightly revised. This access will be used for: agricultural activities, setback maintenance, and rehabilitation activities only. The**

reference to an alternative driveway access via this field entrance in Note H3 has been deleted as this is no longer proposed.

3. Page 3 – Notes

- a. F. Berms and Screening - The berms required for noise attenuation on the north and west boundary of the site (Beam A and Berm B) are 7 – 8 metres high. Have any calculations been done to determine the extent of the area that would need to be stripped to provide material to construct Berms A and B? If a large area would need to be stripped (i.e., beyond the area of Phase 1 and 2), perhaps indicate in the report recommendation notes for Agricultural Impact Assessment that material required for berm construction may influence the extent of the disturbed area. **Comment only partially addressed. Please review.**
- b. Report Recommendations – M1. Blasting - Please add “A licensee or permittee shall take all reasonable measures to prevent fly rock from leaving the site during blasting if a sensitive receptor is located within 500 metres of the boundary of the site” as per ARA Reg 244/97. **Comment addressed.**
- c. Report Recommendations – M4. Natural Environment - The notes refer to restrictions for vegetation clearing and site alteration in the ecological communities occupied by Spoon-leaved moss. While these areas are described in the Natural Environment Report, they are not shown on the Site Plans. According to the Natural Environment Report, with the exception of the area in the SE corner of the site, the locations where Spoon-leaved moss was found are outside of the area of extraction. Perhaps the note could more closely reflect the comment in the NER, or identify areas where the restrictions apply?

There is also reference to a 30-metre undisturbed setback from the significant woodland, however this is not identified on the plans. If the significant woodland boundary is the same as the PSW perhaps note this on the plan. **Comment addressed.**

- d. Report Recommendations – M5. Archaeology - Note 1 identified the sites within the area of extraction that are to be protected. One of the sites (AfGt-266) is outside of the area of extraction but in a location that is proposed for berm construction (Acoustic Berm B). Suggest revising

drawings and note for clarity. **Comment partially addressed.** The archaeology notes and buffer locations have been revised, and the requirement to clear areas prior to any site prep or extraction taking place is detailed in the updated Phasing notes. The retained archaeological sites show a 20m buffer on the “islands” that defines the limit of extraction within the licenced area. The letter to MNRF from the applicant indicates that this buffer and the proposal to retain these areas has been discussed with MCM and has the Ministry’s support. A clearance letter from MCM is an outstanding component of the application.

- e. Section M – Report Recommendations – It does not appear that the recommendations presented in the Agricultural Impact Assessment (AIA) were carried forward into the Site Plan notes as they were for other studies. The following are examples of AIA recommendations that do not appear to have been carried forward:

- i. “If during extraction, the material below the water table is found to be of insufficient quality or quantity to warrant extraction, then the operator should consider revising the rehabilitation plan to implement agricultural rehabilitation of the property, where feasible.”
- ii. “A groundwater monitoring program is included on the quarry Site Plan.”

Draft Site Plan 3/5 Section 3 references the WSP “Level 1 & 2 Water Study Report” and “WSP Maximum Predicted Water Table Report”, however, site plan itself does not contain the language from the above item.

- iii. “All planting associated with the berms and future rehabilitation will be non-invasive species and will not impact surrounding agricultural producers.”

Draft Site Plan 3/5 Section F provides some detail on vegetation, however, the language above is not included. **Comment addressed.**

- f. Section M – Report Recommendations – Some of the information included under section M appears to be conclusions of the study rather than recommendations that need to be implemented. It would be helpful to be

as concise as possible with the information that is included on Sheet 3 of 5, as the amount of text is extensive which could hinder implementation.

Comment addressed.

4. Page 4 – Rehabilitation -The species list for the plantings is limited in terms of species diversity. Please consider adding a greater diversity of native species, especially within the aquatic communities, to improve the future ecological value of rehabilitated areas. Comment partially addressed. It is acknowledged that a more diverse species list has been provided on Page 4 of the site plan. Please note that *Potamogeton spp* is on the list and should be revised to capture only native *Potamogeton* species, as *Potamogeton crispus* is a highly invasive non-native and should not be planted.

The woody plantings proposed on the Site Plan appear to be very sparse. Please consider an increase in planting density for woody species (note that it would be acceptable to include direct seeding in addition to whips and caliper trees).

Please review Table 3-1 of the NPCA's Planning and Permitting Procedure Manual (2022) for minimum planting density for the various target communities.

This document is available at: https://npca.ca/images/uploads/common/NPCA_Planning_and_Permitting_Procedural_Manual__Nov_21_2022%28Compressed%29.pdf)

5. Page 5 – Cross Sections - Should the groundwater table shown for the unextracted areas in the rehabilitated condition be adjusted to match the water elevation in the lake? Comment addressed.

Appendix 3: Biederman Road Comments

Biederman Road is a major outstanding technical aspect of the proposal. This appendix is a summary of the key concerns. There may also be comments in relation to this issue in the appendices for each of the individual technical studies.

It is noted that an application to purchase the Biederman Road Allowance was submitted to the Township of Wainfleet by Waterford Sand and Gravel Ltd in the Spring of 2023. Subsequently, a legal survey, Appraisal Report, and Offer to Purchase was also submitted to the Township. Discussions with the Township regarding the purchase of the Biederman Road Allowance are ongoing. The application has been revised on the assumption that the Road allowance will be purchased and included as part of the proposed extraction area. The applicant has also made a Consent application to the Township which will allow for an easement and access to the only remaining property which is not owned by the applicant. The easement would be to the north of the existing quarry property and not the north of the proposed quarry expansion.

1. Biederman Road is shown as part of the extraction area on the Site Plans, although it is a Township road and is still owned by the Township. The applicant has submitted a formal request to the Township to close and purchase Biederman Road (dated Dec 14, 2022). Once staff completes the review and updates of our land disposal policy, Township Council will determine if they are interested in entertaining this request. The applicant should finalize discussions and ownership with the Township prior to making a resubmission of the applications. All plans, studies, and other technical information shall be updated accordingly. **Comment pending, discussions with the Township are ongoing.**
2. Currently there are two properties not owned by the applicant that are accessed by Biederman Road. Neither the Planning Justification Report (PJR), Site Plans, nor other technical studies have considered an alternative access road (either public or private). An acceptable alternative access would be required and should be considered as part of the update and resubmission of the applications. The applicant is encouraged to resolve this issue with all affected parties prior to making a resubmission. **Comment pending, a consent application for an alternative access has been submitted to the Township.**
3. Currently the PJR states that it is an “option” to include Biederman Road in the application. However the Site Plans and most of the technical studies have been completed on the basis of Biederman Road being removed and included in the extraction area. The PJR, Site Plans, and all other aspects of the proposal

should be updated and consistent in regards to this aspect of the application.

Comment addressed.

4. Of particular note, and specific concern would be the many natural features including Species at Risk which have been identified immediately to the north of the proposed expansion area. This is one of the locations where it is understood that an alternative access road could be proposed. The Natural Environment Report and other technical studies should be updated to include the alternative access road (if proposed). **Comment addressed. The alternative access is not proposed to be north of the proposed expansion area.**

Appendix 4: Level 1 & 2 Water Study Report Comments

The peer review consultant (Terra-Dynamics Consulting Inc.) as well as Region and NPCA staff reviewed the:

- Water Study Response Letter, prepared by WSP (dated April 18, 2023)
- WSP Response to MNRF Comments (dated January 24, 2023)

and offer the following based on our previous comments.

1. Hydraulic Conductivity (Permeability) Descriptions and Numerical Groundwater Model - The Executive Summary described the Salina bedrock formation, which is located below the extraction depth of the quarry, as having the highest hydraulic conductivity of the bedrock formations in the vicinity of the Site. This was in contrast to the hydraulic conductivities assigned to the bedrock formations used in the predictive groundwater modelling exercise of the Site (Appendix H, Table H.4.6 Hydraulic Conductivity Parameter Values), namely that the overlying shale/shaley dolostone confining unit of Oatka Member of the Bertie Formation is also highly conductive, which is the floor of the existing quarry and the proposed floor of the western quarry extension.

This will need to be corrected for the revised Level 2 report to indicate that both the Salina Formation and the Oatka Member of the Bertie Formation are the most hydraulically conductive units in the vicinity of the Site. This issue is resolved once the report has been updated as described above. *The WSP response letter notes: We agree that the wording in the Executive Summary, page iv, second paragraph, line 1 should be revised to read as follows: "In general, the results of the hydraulic testing suggest that bedrock of the Salina Formation and Oatka Member of the Bertie Formation (i.e., the deep aquifer), located below the quarry extraction depth, are the most conductive units in the vicinity of the Site, likely as a result of enhanced weathering in these units." This change has been included in the Supplemental Level 1 and 2 Water Study Report (Supplemental Report). The response is acceptable, however, please note that it does not appear the Supplemental Report was included in the resubmission package.*

2. Future Water Discharge Volumes from the Existing Quarry and Extension Area - As part of the surface water impact assessment, it was described that both the existing quarry, and the western extension area, would have a combined discharge increase to the Eagle Marsh Drain of 35% during the baseline spring season at a rate of approximately 10,800 m³ per day. In 2007 and 2008, Terra-

Dynamics was retained by the Niagara Peninsula Conservation Authority to complete peer review tasks for the proposed Reeb Quarry directly south of the Law Quarry. On February 27, 2008, a meeting took place at the Law Quarry to assess the upward migration of groundwater through the quarry floor during frigid weather conditions. Groundwater has an ambient temperature of approximately 10°C and was the only water in liquid form on February 27, 2008. At that time, a flow rate of approximately 10,000 m³/day was recorded by Law Quarry staff hence, clarification on the possible understated flow volumes reported in the WSP 2022a report was requested of WSP staff. Through the submission of additional information, WSP explained they took over the responsibility of the groundwater monitoring program of the quarry in 2010 and that the flow meters were all upgraded and a significant decrease in discharge volumes was observed after the new, calibrated flow meter was installed at the quarry sump. Therefore, this issue is resolved. **Comment was for information only, no response required.**

3. Groundwater Modelling of the Potential Dewatering Impacts in the Vicinity of the Law Quarry - Groundwater model simulations were presented by WSP on the potential future impacts of (i) the Law Quarry (Figure 11, Predicted Drawdown in Deeper Bedrock Units) and (ii) the combined potential impacts of the Law Quarry, and the neighbouring Reeb Quarry (Appendix H, Figure H-11, Cumulative Impacts at Full Quarry Development – Deeper Bedrock Units), at full quarry or quarries development.

Clarification was provided by WSP in both plan view and cross-section simulation drawings indicating the drawdown of groundwater in private wells in the immediate vicinity of the quarry or quarries may require contingencies of deepening the private wells at the expense of the licensee.

These drawings are to be part of the revised Level 2 report. Potential water well interference from quarry dewatering is described in Section 4.3 Well Interference Mitigation Plan. This issue is resolved once the report has been updated as described above. **Comment not fully addressed. In the WSP Response Letter (Response to Comment 3), there is reference that additional figures have been included in the Supplemental Report. The figures provided by WSP in the Response to JART Comments letter report were as follows:**

- **Figure H9A Predicted Groundwater Contours at Full Quarry Development – Deeper Bedrock Units**
- **Figure H9B Cross Section A-A'**

- Figure 11A Cumulative Impacts at Full Quarry Development – Deeper Bedrock Unit
- Figure H11B Cross Section C-C'

These figures were also supplied to Terra-Dynamics in a September 13, 2022 e-mail from WSP. A further e-mail from WSP was sent from WSP in response to a request for additional hydrological cross-sections. That e-mail included the following figures:

- Figure 19A Conceptual Cross Section, Highway 3
- Figure 19B Conceptual Cross Section, Rathforn Rd / Graybeil Rd
- Figure 19C Conceptual Cross Section – Quarry Rd

These three figures were not provided in the WSP Response to JART Comments, it does not appear that the Supplemental Report was included as part of the resubmission package. Please ensure these figures are included in the report when it is submitted to the JART.

Comments from NPCA staff:

4. The sump discharge of the new quarry will be directed to the existing sump discharge into Eagle Marsh Drain. Section 3.1.2.1 indicates that an evaluation of the flow capacity of the Eagle Marsh Drain was undertaken in 2008 to support the Reeb Quarry application and that sufficient capacity existing in the watercourse. The NPCA requests that this supporting documentation be provided for our review as the flows from the new quarry into the Eagle Marsh drain are expected to increase by 10,800 m³/day. **Comment addressed.**
5. There is a proposed surface water monitoring program in the Eagle Marsh Drain but no contingency plan is provided if the parameters that are being monitored are exceeded. Exceedance thresholds should be provided and a contingency plan should be in place. **Comment addressed.**
6. The surface water monitoring program should include erosion monitoring and a contingency plan. **Comment addressed.**
7. The quarry proposes to stop all dewatering discharge during rainfall events greater than 25mm in order to prevent downstream flooding. The NPCA is supportive of this. In addition to events greater than 25mm precipitation events, perhaps quarry discharge operations should cease when the flood gate is closed due to high Lake Erie water levels or storm surges. If this is unrealistic, we

understand that pumps at the Eagle Marsh flood gate operate if necessary when the gate is closed, an assessment should be done to determine if the capacity of these pumps are able to handle the increased discharge from quarry operations.

Comment addressed.

8. Section 4.1 indicates that well nest MW4 and monitoring wells GLL-7 and GLL-8 are within the zone of extraction and will eventually have to be removed. The NPCA would recommend that new wells be drilled as early as possible prior to decommissioning in order to obtain robust baseline data sets for these new wells.

Comment addressed.

9. The NPCA has no issues or comments with the assessment of the hydrogeological regime. **Comment was for information only.**

In addition to the comments above, the Ministry of Transportation (MTO) also provided comments related to the Water Study Report through the circulation of the application:

The MTO was circulated a copy of the resubmission by JART. We will advise under a separate cover regarding the following comments once a response is received.

10. It is noted that there will be 35% increase in flow to Eagle Marsh Municipal Drain as a result of Quarry expansion. This could impact drainage along Highway 3 ditches and cross culverts.

The proponent should provide more details including calculations and plans that Highway 3 drainage will not be impacted.

11. The MTO doesn't allow any increase in flow for 5, 10, 25, 50 and 100 year storm events to its drainage system. One of the proposed outlets is Eagle Marsh Drain. Please indicate all outlets on mosaics along with drainage boundaries and major flow directions.

12. Please indicate a 14m setback from MTO right-of-way on all Site Plan drawings.

Appendix 5: Natural Environment Report – Level 1 & 2 Assessment Comments

Regional and NPCA staff and the peer review consultant (Dougan & Associates) have reviewed the:

- Natural Environment Response Table, prepared by Riverstone (dated August 25, 2023)
- Revised Natural Environment Report, prepared by Riverstone (dated August 28, 2023)
- Response to MNRF, prepared by MHBC (dated July 17, 2023)
- E-mail from MECP to MHBC (dated June 8, 2023)

and offer the following based on our previous comments:

1. Section 3.4 - Drainage, surface water and hydrogeologic conditions – S. 3.4 notes “A small agricultural swale is mapped by NPCA in the northern portion of the extraction area, discharging north toward the Onondaga Escarpment. [...] Based on air photo interpretation it drains to several isolated wet pockets northeast of the site, but likely contributes ultimately to Biederman Drain.”

Appendix 2 (Agency Consultation) notes the following comment from Regional staff: “A high level/general water balance will be required to demonstrate no hydrologic impacts to the wetlands. The report should describe the pre- and post-development surface water drainage patterns and assess impacts to the wetlands.”

Based on observations during the site visit, there is a network of intermittent headwater drainage features on the site that conveys surface water toward Wainfleet Bog and Biederman Drain.

S. 3.7.7 of the report should acknowledge the presence of the surface water drainage feature network. Additionally, the report should explicitly acknowledge and address any impact associated with changing surface water inputs to Wainfleet Bog and Biederman Drain from an ecological perspective (also see related Fish Habitat comments #5-11 below). **Comment addressed.**

2. Section 3.5.1, Figure 4 - Vegetation Communities and Dominant Flora - ELC communities were largely classified to Community Series or Ecosite. Specificity to vegetation community type was not provided. It is understood why this would be done for non-conforming communities (i.e. CUT2), but it is not clear why the FOD or SWT communities were not further refined.

In addition, it would be helpful for the reader to reference unique polygon numbers to distinguish between vegetation communities in the report and on mapping.

It is recommended that ELC communities be refined to vegetation type where possible or include a brief rationale why ELC communities were only able to be classified to Community Series or Ecosite level.

Please also include ELC polygon numbers on mapping and cross-reference in text. **Comment addressed.**

3. Section 3.6.4 – Bats - This section notes: “The largest density of snags/cavity trees that were confined to the southeast corner of the surveyed area within the swamp thicket community. Even then these clusters of snags/cavity trees only provide marginal habitat potential due to their later stages of decline.” No further data was provided on the results of these surveys. Notably, the snag density for each community investigated should be provided to determine whether high quality roosting habitat for SAR bats may be present.

Please provide the field results from these surveys, including snag density calculations. **Comment partially addressed. Snag inventory data and mapping was provided confirming that snag density within the assessed communities (SWT2-2 and CUT2, and CUM1) did not indicate presence of potential high quality roosting habitat. Please provide rationale for excluding the FOD4 communities in the snag inventory. Forested ELC communities are suitable habitat for Species at Risk bats and Significant Wildlife Habitat for Bat Maternity Colonies (MNR, 2015).**

4. Section 3.6 – Wildlife – The intro sentence of S. 3.6 states that one (1) reptile was observed, however S. 3.6.5 indicates Eastern Gartersnake and Dekay’s Brownsnake were observed.

Please revise text to note that two (2) reptile species were observed. **Comment addressed.**

5. Section 3.7.1 notes the presence of small wetland pockets in the southeast portion of the subject lands as well as the norther portion of the site. These wetland pockets were determined to be unsuitable for complexing with the Wainfleet Bog PSW due to either the small size or the distance from the PSW. NPCA staff have indicated no objection to this.

However, there is no indication in the report of any intent to compensate for the removal of these other wetland features. This should be explored further and a discussion of same included in the report. **Comment addressed.**

6. Section 3.7.7 - Fish Habitat – S. 3.7.7 (Fish Habitat) begins with the statement “No watercourses, surface water features (e.g., rivers, creeks, drainage features, etc.) or other hydrological connections are present within the site or study area.” Based on observations during the site visit, there is a network of headwater drainage features on the site that conveys surface water from/across the site, toward, and presumably to, Biederman Drain. The confluence was not examined during the site visit.

The presence of the surface water drainage feature network on the site should be acknowledged and considered as appropriate. **Comment addressed.**

7. Section 3.7.7 - Fish Habitat - It is currently proposed that all dewatering from the new quarry be directed to Eagle Marsh Drain. Flow that originates from the headwater drainage feature network mentioned above will no longer go to Biederman Drain. Effectively, the drainage network mentioned above will cease to exist. Based on aerial imagery and observations during the site visit, this feature is ephemeral and it probably does not meet the definition of fish habitat within the site. This does not, however, preclude it providing seasonal fish habitat downstream from the site.

An assessment of the fish habitat potential of the headwater drainage feature that flows from the site downstream from the site (i.e., between the study area and Biederman Drain) and an assessment of the potential effect of its elimination should be provided. **Comment addressed.**

8. Section 3.7.7 - Fish Habitat – S. 3.7.7 of the report states that approximately 2% of the catchment area of Biederman Drain will be intercepted by the quarry and redirected to Eagle Marsh Drain but it does not discuss the effect of this on the hydrology and ecology of Biederman Drain. The proportion of the total drainage area of Biederman Drain that is redirected has relevance at the watershed scale, but the proportion of the drainage area upstream from where drainage from the site enters Biederman Drain that is eliminated is relevant to assessing the potential impacts of the proposed flow redirection to the proximate reach of Biederman drain. The proportion of the drainage area that is eliminated will decrease with distance downstream and where this occurs, based on the size of tributary drainage areas and points of entry, could be useful in predicting the

downstream extent of any potential hydrologic impacts. Knowing the portion of the Biederman Drain drainage area that was eliminated by the existing quarry could also be of interest from the cumulative effects standpoint.

Please assess the potential hydrologic impacts to the proximate and downstream reaches of Biederman Drain and their potential effect on fish and fish habitat.

Comment addressed.

9. Section 3.7.7 - Fish Habitat – S. 3.7.7 states that quarry extension drawdown and effects on the deep bedrock aquifer will not influence the flow regime of Biederman Drain. No information is provided to support this statement.

Please support the statement that quarry extension drawdown and effects on the deep bedrock aquifer will not influence the flow regime of Biederman Drain. This might be achieved by integrating the results and discussion from the Level 1 and Level 2 Water Report, which is assumed to be “the hydrogeological investigation”, which is referred to but not referenced. Revise the text to reflect that hydrogeologic impacts are not the only possible impacts. **Comment addressed.**

10. Section 3.7.7 - Fish Habitat - No information is provided with respect to the fish habitat or fish community in Eagle Marsh Drain nor are the potential impacts of increasing discharge to that drain assessed.

Please provide information regarding fish habitat and the fish community in Eagle Marsh Drain and assess the potential ecological effects of increased flow.

Comment addressed.

11. Section 3.7.7 - Fish Habitat - No information is provided with respect to the quality of quarry discharge water as it relates to fish. This should be addressed.

An assessment of whether there are potential effects to fish in the receiving watercourse (Eagle Marsh Drain) as a result of the water quality of quarry discharge should be provided. **Comment addressed.**

12. Section 3.7.7 - Fish Habitat - The Natural Environment Report does not assess the potential to achieve benefits to fish and fish habitat by managing discharge from the quarry during operations or post-closure.

Please assess the potential to achieve benefits to fish and fish habitat by managing discharge from the quarry during operations and post-closure.

Comment addressed.

13. Section 5.2 - Provincially Significant Wetlands - The third paragraph notes: “The physical effects that were assessed in detail in the groundwater modeling and analysis included in the Level 1 and Level 2 Water Study Report suggests that because the quarry will be lowering the groundwater elevation in the bedrock, extraction has the potential to “under-drain” the thick clay layer which underlies the bog. However, the under-draining effect is minimal and will take decades to propagate to the surface waters of the bog due to the thickness of the clay which underlies it. Therefore, the hydrogeological changes to the bog will be so low as to be “immeasurable” during the operational phase of the quarry. Surface water discharging from the proposed extraction area is intercepted by the Biederman Drain and a minor change in the annual water balance is interpreted to have an immeasurable effect on the wetland.”

Potential long-term groundwater impacts that will affect the Wainfleet Bog are concerning.

Please provide additional rationale to support the conclusion that the impact is ‘immeasurable’, and/or clarify how this potential long-term impact on the bog will be considered and addressed. **Comment addressed.**

14. Section 5.2 - Provincially Significant Wetland - The last point notes that a detailed groundwater monitoring program will be undertaken, with annual monitoring reports submitted to NDMNRF or MECP. The duration of monitoring is unclear.

Please clarify the duration of the monitoring program. **Comment partially addressed. Please define what is considered “stable conditions”. Please include a contingency plan If monitored conditions do not match modelled predictions and potential impacts to the PSW are identified.**

15. Section 5.3.2 - Eastern Whip-poor-will - Based on the correspondence provided in Appendix E, it appears that consultation with MECP is on going regarding the need for an Overall Benefit Permit. The results of the permitting process may have implications on the proposed rehabilitation plan.

Please confirm the status of this consultation with MECP and when the outcomes will be made available for review.

16. Section 5.7 - Rehabilitation - This section notes that “vegetation will be added to create terrestrial habitat”. **Comment addressed.**

S. 5.7 would benefit from additional details and/or rationale on the target ecological communities proposed within the rehabilitated areas. Long-term water quality of the quarry lake should be a primary concern to be addressed through rehabilitation, given its adjacency to Wainfleet Bog and future wildlife usage.

Please provide additional details on the target ecological communities within proposed rehabilitation areas. Please also include a summary of the terrestrial habitat objectives that were considered in the design, and if/how the proposed rehabilitation areas contribute to water quality in the context of ecological features and functions. In addition, please provide an analysis of pre- to post-habitat areas to demonstrate the replacement ratio of natural cover. **Comment partially addressed. The response and updated site plan notes are appropriate and thorough, although it is noted the recommendations have not been included in the revised NER. While this has been included on the site plan notes, the NER should be clear that only native species should be used in plantings. Please ensure these target community recommendations (including the recommendation to use only native species) are captured in the revised NER. In addition, it is recommended that a commitment to manage invasive species within restored areas be included in the NER and Site Plan notes E and F as part of the performance monitoring. Please also see the outstanding comment regarding planting density.**

17. Section 5.7 - Rehabilitation - The report and site plans do not mention whether soil reuse and/or transplanting existing native plant material will be considered as part of the rehabilitation efforts.

Please comment on whether opportunities to reuse soil on site and/or transplant existing native plant material were, or can be, considered in the ultimate rehabilitation plan. **Comment addressed.**

18. Section 6.5 - Provincial Policy Statement (2020), pursuant to the Planning Act, R.S.O. 1990, c. P. 13 - There are incorrect references in this section to the 2014 PPS and Ecoregion 6E.

Please update all references to the 2020 PPS and Ecoregion 7E. **Comment addressed.**

19. Figure 4 - Targeted survey locations and ecological communities - Spoon-leaved Moss and Bat Snag survey locations are not shown on Figure 4.

Please add Spoon-leaved Moss and Bat Snag survey locations to the figure.

Comment addressed.

20. Figure 4 - Targeted survey locations and ecological communities - It does not appear that nocturnal amphibian call surveys were undertaken at the northwest SWT community.

Please provide rationale as to why nocturnal amphibian call surveys were not undertaken at the northwest SWT community. **Comment addressed.**

21. Figure 6 - Development Plan, Biophysical Constraints and Recommendations - The Significant Woodlands and Significant Wildlife are shown using the same symbology which is confusing when referring to the buffers for each feature type.

Please revise Figure 6 to distinguish between SWH and Significant Woodlands. **Comment addressed.**

22. Appendix 2 - Agency consultation - Regional staff note that: “consider adding turtle surveys to their work program to definitively confirm presence/absence. The final Natural Heritage Evaluation should include an assessment of potential turtle habitat within the study area and include appropriate rationale if targeted turtle surveys (following an approved survey protocol) were deemed to not be necessary.” It does not appear that turtle surveys were completed, nor was rationale provided in the report as to why they were not completed.

Please provide justification as to why turtle surveys were not undertaken.

Comment partially addressed. The justification for not completing turtle surveys is sufficient See outstanding comment regarding mitigation. Given the potential for turtles and other wetland-dwelling wildlife present in the PSW, it is recommended that wildlife exclusion fencing be installed along the boundary of the site and be maintained throughout the operational phase to proactively prevent amphibians and reptiles from entering work zones associated with the extraction area. This should be recommended in the NER and included on the Site Plan.

23. Appendix 3 - Photos - Photo 5 refers to an SWD community, but this does not appear to be present on Figure 4.

Please confirm which community photo 5 is referring to. **Comment addressed.**

24. Appendix 5: Table 1 - Results of desktop screening and on-site assessment for SWH - Column 1 of this table indicates the SWH categories for Ecoregion 6E, however this project location is in Ecoregion 7E.

Please change the reference, and any associated content to that which is relevant to Ecoregion 7E. **Comment partially addressed. Please note the first table heading and footer in Appendix 5 still refers to Ecoregion 6E. This is a minor clerical error, and we have no concerns with the analysis or conclusions made within the appendix.**

25. Appendix 5: Table 1 - Results of desktop screening and on-site assessment for SWH - Rare Vegetation Communities - Cliff and Talus Slopes: A TAS1 community is located within the adjacent lands and is not discussed in the table.

Please acknowledge the TAS1 community in Table 1. **Comment addressed.**

26. Appendix 5: Table 1 - Results of desktop screening and on-site assessment for SWH - Other Rare Vegetation Communities – This category is difficult to assess since the ELC communities were only classified to Community Series or Ecosite. For this reason, it is unclear whether any of the ELC communities are provincially rare.

Please clarify if ELC communities can be further refined to Vegetation Type (ref. comment # 2). If so, please re-assess this category of SWH using the most current provincial list for Rare Vegetation Communities (S1-S3). **Comment addressed.**

27. Appendix 6 - Flora documented within the study area between 2017 and 2019 - An S2 species Yellow-fruited Sedge (*C. annectens*) was noted in the vascular plant list and has not been discussed in the remainder of the report. S2 species are considered very rare in Ontario and should be considered under SWH for Special Concern and Rare Wildlife species.

Please confirm in which community this species was detected and acknowledge this species under the SWH for Special Concern and Rare Wildlife species category. **Comment addressed.**

28. Appendix 7 - List of wildlife species - The wildlife list is missing several key details such as: federal, provincial, regional status information; number of individuals observed; date(s) observed; breeding evidence and corresponding

level of breeding (possible, probable, confirmed). Tufted Titmouse, Dickcissel and Tennessee Warbler are interesting observations that warrant more details. Please update the wildlife list to include the following details: federal, provincial, regional significance / status information; number of individuals observed; date(s) observed; breeding evidence and corresponding level of breeding (possible, probable, or confirmed). **Comment partially addressed. Appendix 7 has been updated accordingly with justification for absence of regional significance, whilst federal and provincial status has been included.**

Breeding status categories are not included in the bird species list Appendix 7, and only in the Breeding Bird Survey results Appendix 9. For clarity and consistency, breeding status should accompany the master bird species list, rather than 'Nature of record'. This would allow for easy interpretation of which species were breeding or which were seen outside of the breeding season. E.g. Slate-coloured Junco is typically a winter visitor and seasonal migrant, and therefore was likely just incidentally observed during other surveys, outside of breeding bird season. Rusty Blackbird (Special Concern) is another unusual one requiring clarification on whether this was a migrant.

Barn Swallow and Bank Swallow – Contradictory information has been provided on these SAR observations. These species do not appear in breeding bird data (Appendix 9), but they appear on the species list (Appendix 7). Breeding evidence or lack of should be recorded in Appendix 7 and mentioned in the report (this is implied for 'flyover' species but could be clearer). Further, Appendix 4 states that Barn Swallow and Bank Swallow were not detected during field surveys, which is contradictory to Appendix 7.

Dickcissel is noted as Possible breeder in breeding bird data, which contradicts August 25 response and report section 3.7.6. Additional clarification is required.

Breeding evidence: D&A notes that none of the bird species were assigned breeding status categories higher than 'Possible'. It is unusual not to have 'Probable' or 'Confirmed' breeders during June (peak time for breeding evidence) following targeted breeding surveys. E.g. were no pairs of any species observed? Pair = Probable. Can Riverstone confirm the assessment of breeding category is accurate (i.e. only 'possible' breeding evidence was exhibited)?

Section 3.6.2 states that 4 Endangered species, 3 Special Concern species and 6 Area Sensitive birds were recorded but no further discussion is included. Only

Eastern Wood-pewee is addressed in Section 5.3. Appendix 7 does not contain Area Sensitivity column to indicate which species are relevant to that category. It is difficult to draw conclusions that these species will not be impacted by the proposal without further detail on the observations. Please provide additional information on the SAR observations and Area Sensitive observations in section 3.6.2 of the report (i.e. species, breeding evidence, location(s) of observations to demonstrate that these species will not be impacted by the proposal) and include Area Sensitivity as a column in Appendix 7.

29. Appendix 7 - List of wildlife species - Species at Risk: Bank Swallow (THR) and Peregrine Falcon (SC) vocalizations are noted but no further explanation is provided in the report. Note that the SWH table in Appendix 6 notes that Bank Swallow was not identified during targeted surveys. This requires clarification. Please provide additional information on breeding status, habitat suitability within the study area, and rationale on why/how these species will not be impacted. **Comment partially addressed.** Aggregate land use has potential to create suitable habitat for Bank Swallow and Peregrine Falcon. To address potential impacts to these and other SAR that may move into the site throughout the operational phase, D&A recommends the following additional mitigation recommendation be included in the NER and on the Site Plan: A wildlife encounter protocol should be established and communicated to on-site workers in the event wildlife, especially Species at Risk, are detected within the extraction area. Workers should report any observations of Bank Swallow and/or for Peregrine Falcon, which could move in if suitable habitat is created by land-use changes or creation of suitable nesting habitat.

30. Appendix 8 - Results of 2017 Calling Anuran Surveys - Regarding AN2 – the comments indicate that there were abundant calls coming from the ‘marsh’, however no MA community is present in this area.

Please clarify which community these comments are pertaining to and confirm whether abundance thresholds were met for SWH: Amphibian Breeding Habitat. **Comment addressed.**

31. Appendix 9 - Site plans (prepared by MHBC) - The site plans appear to show ecological constraints such as Eastern Whip-poor-will habitat and wetlands. However, they do not appear to show the extent of Spoon-leaved Moss locations.

Please update site plans to display the extent of Spoon-leaved Moss. **Comment addressed.**

New Comment:

1. The NER does not include a summary of the proposed activities that are anticipated to occur as a result of the proposed quarry expansion. While the NER generally describes the phasing and operations plan (section 4) and includes a discussion of the overall footprint of extraction, other activities associated with the proposal, such as blasting, access roads, etc. have not been explicitly described. Please include a description of all anticipated activities that will occur, and brief rationale on whether or not they will result in ecological impacts.

Appendix 6: Noise Impact Study Comments

Regional and Township planning staff and the peer review consultant (Englobe) have reviewed the:

- Noise Study Response Letter, prepared by Aeroustics (dated July 6, 2023)
- Updated Noise Impact Study, prepared by Aeroustics (dated July 6, 2023)

and offer the following based on our previous comments:

1. Page 2 makes reference to a single-family dwelling, understood as being currently inhabited, which is not considered a noise-sensitive receptor because it is located on lands owned by the Law Quarry Extension operator. Per NPC-300, specifically the definition of “Noise Sensitive Land Use”, the dwelling must be located within the property boundaries of the stationary source in order to not be considered a noise sensitive land use, which Englobe understands is not the case. Therefore, it is recommended that the assessment be revised to include this dwelling. **Comment addressed.**
2. Page 3 indicates that Annual Average Daily Traffic (AADT) data for Highway 3 was provided by the Ministry of Transportation for the assessment of background traffic noise levels. Please include the data as part of the report. **Comment partially addressed. The overall AADT data is provided in Appendix B of the Updated NIS. However, only the overall AADT data is provided, without the hourly distribution, which is used to find the worst-case (lowest volume) daytime traffic volume as outlined in Section 3.3 of the Updated NIS. Please include the hourly distribution data, along with any supporting calculations if necessary, showing how the 232 vehicles/hour value used in the STAMSON calculations was obtained.**
3. Page 4 discusses the quarry’s proposed hours of operation, including a passage stating “Equipment maintenance may take place outside of these normal operating hours.” Are the equipment maintenance activities expected to be insignificant from a noise perspective? If not, please include them as part of the assessment, assuming that the maintenance will be occurring outside of regular operating hours. **Comment addressed.**
4. Page 6 indicates the use of CadnaA for the noise predictions. Please provide details regarding the CadnaA setup parameters, including, but not limited to: ground absorption, maximum order of reflection, etc. **Comment partially**

addressed. The CadnaA setup parameters are provided in Appendix C of the Updated NIS. Englobe notes that a maximum order of reflection value of “0” was used. In Englobe’s experience, a maximum order of reflection of at least “1” (rural areas with little-to-no reflectors in the area) and “3” or more (urban areas) is typical. Furthermore, CadnaA’s Reference Manual (Release 3.8) states that “[...] a reflection has to be calculated first before its contribution can be evaluated as irrelevant.”. Please revise the maximum order of reflection to “1” or higher.

5. Page 6 describes the quarry operating scenario used as part of the worst-case assessment. It is not clear to Englobe whether or not this assessment represents noise emissions when the sources are operating at the 1st lift, when the sources are at their highest points and noise impacts to the surrounding areas are expected to be at their highest. Based on the Noise Control Recommendations in Appendix A, it seems like several scenarios were assessed, including at-grade processing. Clarifications regarding the worst-case operating scenario that was assessed are requested. **Comment addressed.**
6. Page 6 describes the quarry operating scenario used as part of the worst-case assessment. Englobe understands that it is not yet known whether or not Biederman Road will be removed as part of the proposed quarry extension. It is not clear whether or not the report considered the potential rock face along Biederman Road; if it was considered, it would be helpful to show the worst-case difference in noise level with vs. without the removal of Biederman Road. Furthermore, if Biederman Road is to remain or be removed, operational differences are expected for on-site haul routes between the existing quarry and the extension – specifically, the trucks would be expected to need to drive up to grade to pass over Biederman Road when going between the pits, potentially increasing truck noise impacts on surrounding receptors. It is recommended that this be addressed as part of the report. **Comment addressed.**
7. Page 8 discusses a scenario where R16 would not be considered noise sensitive if it were owned by WG. Similar to Comment #2, above, the receptor is not located in the stationary source property boundaries and should therefore be considered, per NPC-300. However, Englobe also notes that conditions are provided which, if satisfied, may reasonably justify that R16 not be considered noise sensitive. Have these conditions been satisfied for the dwelling referred to in Comment #2, above? The report gives the impression that both of these dwellings are being treated differently regarding whether or not they are noise sensitive. Please revise the report in order to provide consistency regarding

whether or not a dwelling could potentially be considered noise sensitive or not.

Comment addressed.

8. Page 8, Table 5. Englobe understands that the Daytime Sound Level Limit at R02 is 56 dBA, not 57 dBA. While this does not impact the result, please update for consistency with Table 2. **Comment addressed.**

Appendix 7: Air Quality Assessment Report Comments

Regional and Township planning staff and the peer review consultant (Englobe) have reviewed the:

- Air Quality Response Letter, prepared by RWDI (dated April 4, 2023)
- Air Quality – Updated Figure 1
- Air Quality – Updated Table 5

and provide the following based on our previous comments:

1. Introduction:

- a. As the main purpose of the AQA report is to present dispersion modelling results, a short introduction to dispersion modelling is recommended, including atmospheric processes, modeling objectives and options related to the project. **Comment not addressed. The JART does not agree with the response that “The report is intended for a qualified and experienced peer reviewer, not the general public.”**
- b. The processes and limitations of selecting sensitive receptor locations should be described here based on the project requirements. **Comment not addressed. Elements of the response would add useful information to the Sensitive Impact Locations section (#4) or at the beginning of the report.**
- c. Please provide a list of references from the literature for the Best Management Practices Plan for dust. Practices include reducing the traffic, reducing the speed, improving road design, watering the road, covering the road with gravel, increasing the moisture content of the road surface, binding the road particles together, sealing unpaved roads, reducing exposed ground, and slowing the surface wind. **Comment partially addressed. References should also be provided in the Report.**

2. Site Description and Operations:

- a. Please detail the surrounding lands and emphasize that the eastern fence line of the current quarry is more than 2 km away from Port Colborne, i.e., the geographical location of the extension helps minimize the impact of emissions from the quarry on the City. **Comment not addressed. Section 2**

provides a few names of the roads close to the Project site. However, none of the maps includes names of the roads.

- b. In the Introduction it is mentioned that the annual extraction limit will be 800,000 tonnes per year, which corresponds to a daily average of 2,200 tonnes. In paragraph 2 of the current section, it is written: “a maximum daily capacity of 8,000 tonnes per day”. Which one was considered for the conservative approach? **Comment addressed.**

3. Operating Scenario:

- a. The expression “conservative approach” could be introduced in the first paragraph to indicate that the AQ impact assessment is based on the “worst-case” scenario for the emissions and the dispersion. **Comment addressed.**
- b. Please quantify the “peak day”, i.e., in terms of extraction and/or operations? **Comment addressed.**

4. Sensitive Impact Locations:

- a. Detail the criteria to select receptors for this study. A good practice for locating receptors is to draw a 1-km circle over the main activity area and check what potential receptors are inside the circle and closer to the future extension of the quarry. **Response noted. It continues to be recommended that adding elements which were included in the response would greatly improve the clarity of the document. However it is noted that this would not affect the conclusions and recommendations of the study.**



- b. Residential buildings on the west side (along Graybiel Rd) and south side (along Highway 3) of the domain were included in the dispersion modeling study. Since there are not too many receptors, a short list detailing them

could be included in this section: which ones are residential? Which ones are churches? Include their positions relative to the site (south, west, northeast), which is a key parameter when dispersion modeling results and impact on receptors are presented in a subsequent section. **Comment addressed.**

Receptor#	Location	
1 to 10	South	
11 to 15	West	
16 to 17	Northeast	R17 appears in the Tables but its location is not shown in the figures. Is R17 the residence beside R16?

- c. Please specify why the 2 receptors in the southwest corner of Highway 3 and Rathfon Rd were not considered in the dispersion modeling exercise. **Comment addressed.**

5. Contaminants and Sources Considered:

- a. It is common practice to include in the text a table listing the relevant air quality criteria and standards for the air pollutants of concern (NO₂, TSP, PM₁₀, PM_{2.5}, silica) with proper references. **Response noted. It continues to be recommended that adding a simple table listing current air quality standards pertinent to the project would greatly improve the clarity of the document. However it is noted that this would not affect the conclusions and recommendations of the study.**
- b. Please modify. Dust emissions are mostly TSP, PM₁₀, and PM_{2.5}. However, NO₂, PM₁₀, PM_{2.5} are key representatives of combustion products (we usually do not consider TSP in this case). **Comment not addressed. The comment did not ask to remove TSP from the inventory. The comment meant that PM₁₀ and PM_{2.5} are key components of combustion particles, not TSP. PM₁₀, PM_{2.5}, and TSP are related to dust particles.**

6. Emission Estimation:

- a. US Environmental Protection Agency's document "AP-42: Compilation of Air Emissions Factors" is the main reference to estimate emissions for this type of AQA study. Therefore, it should be cited in this section, such as (<https://www.epa.gov/air-emissions-factors-and-quantification/ap-42->

compilation-air-emissions-factors, date of access; US Environmental Protection Agency, year). **Comment not addressed. We do not agree that this is a “stylistic preference”. The AQA relies on the emission factors/calculation/data provided in US EPA – AP-42, and this is not properly referenced in the text.**

- b. What data are included in the meteorological records used for the study? Which years are considered? 1996-2000? **It is agreed that the AQA follows the MECP guideline. However, mentioning the years in the section emphasizes the fact that that the AQ assessment study is based on an old wind dataset (20+ years old) that may not be representative of the current situation at the site, in the context of rapid changing climate conditions in Canada.**
- c. Please provide a short description for each operating scenario considered in the study. Are the scenarios the same as the phases (#) indicated in the figures? **Comment addressed.**

7. Discussion of Mitigation Measures:

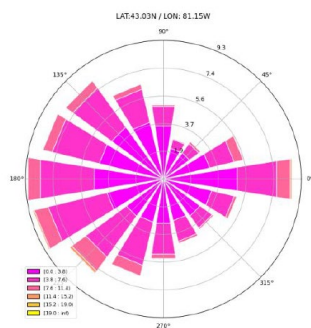
- a. “by maintaining a road surface moisture level of five times that of the ambient soil”: Please indicate what the initial moisture level considered in the EPA study is. **Comment addressed.**

8. Dispersion Modelling:

- a. Please indicate the date of the version for AERMOD such as “AERMOD version 19191 dispersion model (version date July 10, 2019)”. **Response noted. It continues to be recommended that the date be included for clarity. However it is noted that this would not affect the conclusions and recommendations of the study.**
- b. In that section it should be specified that the dispersion simulation was conducted with the 95% level of control applied to the emissions. **Response noted. It continues to be recommended that that the section should be revised. However it is noted that this would not affect the conclusions and recommendations of the study.**
- c. The meteorological dataset was obtained from [Map: Regional Meteorological and Terrain Data for Air Dispersion Modelling](https://www.ontario.ca/page/map-regional-meteorological-and-terrain-) (https://www.ontario.ca/page/map-regional-meteorological-and-terrain-

data-air-dispersion-modelling). Based on the location and characteristics of the project site, the file “West_Central_Crops”, including the “London 1996-2000” dataset, seems to be the dataset required by MECP to run AERMOD. Is it the land use type used in the simulations with AERMOD?
Comment addressed.

- d. The wind rose shown below indicates that the prevailing wind direction is mostly from the southwest, west, and northwest. Including the wind rose in the report would allow to indicate the x% of days that the sensitive receptors are downwind of the quarry. x% could be calculated from the wind direction data included in the meteorological records used to run AERMOD. **Response noted. It continues to be recommended that presenting wind direction in % would show where the prevailing wind is blowing from, annually or seasonally. However it is noted that this would not affect the conclusions and recommendations of the study.**



- e. Include the bibliographic reference for the Oxygen Limiting Method.
Comment addressed.

9. Local Emission Sources:

- a. This section includes important information that could be reorganized by sub-sections in order to make it clearer:
- 9.1 Reeb Quarry (across Highway 3).
 - 9.2 Kwik-Mix Materials Limited (next to the quarry).
 - 9.3 Other sources (such as the Vale Facilities in Port Colborne).

Response noted. We do not agree that this is a “stylistic preference”. The comment was provided to help improve the readability of the section and to better communicate the results of the assessment.

10. Background Air Quality Data:

- a. “Nearest” is too vague: Please consider replacing it with the approximate distance between the quarry and the closest AQ monitoring station operated by MECP, such as: “The St. Catharines ambient air monitoring station (43°09’36” N, 79°14’05” W) is approx. located 30 km from the proposed Law Quarry site extension”. Response noted. It continues to be recommended that providing the actual distance would better communicate the methodology and assumptions of the report.
- b. The St. Catharines AQ station is considered an urban site. In general, background PM^{2.5} and NO² levels (by-products of combustion processes, such as road traffic) are expected to be higher at an urban site than in a rural area where Law Quarry is located. Comment for information only.
- c. “A review of stations with similar land use profiles”. Could you provide a list of the stations that were reviewed? Comment addressed.

11. Conclusions and Recommendations:

- a. This section should emphasize that the mitigation measures (e.g., 95%) appear sufficient to significantly decrease dust emissions and to minimize their impact on local air quality (i.e., at the receptors). Comment addressed.
- b. It should also emphasize that the wind blows from SW and NW quadrants, which will help minimize the impact of operations on the closest receptors. Comment addressed.

12. Tables:

- a. All Tables: Relevant Criteria, PM10 row, top left of page. Should “Interim” be replaced with “24-Hour”? Comment not addressed. Specifying the averaging period of 24 hours is more relevant to the study. See section on Regulations and Guidelines at [Outdoor Air Pollution Profile](https://www.carexcanada.ca/profile/outdoor_air_pollution/). (https://www.carexcanada.ca/profile/outdoor_air_pollution/). For PM10 24-hr is indicated in the table, interim is provided as a footnote.

- b. Table 1: [1] corresponds to the air pollutants (i.e., PM^{2.5}, O³, NO²) measured at the St Catharines' station. Writing [1] beside the title of the table is confusing. It would be better to write it in the relevant column headers, such as "PM^{2.5}[1]", "NO²[1, 4]" and "O³[1, 4]" **Comment addressed.**
- c. Table 5: Correct "Cumulative". Receptor 14, PM¹⁰ row; "number of predicted excursions above criteria over 5 years" should be > 0 since "% of Relevant Criteria" is 111%. **Comment addressed.**
- d. Summarizing dispersion modeling results show that operations (from all phases) have only a very limited (negligible?) impact on 24-hour TSP concentrations at receptors and that this impact would be mostly noticeable at receptors (1 to 8) located south of Highway 3. Is this impact mostly due to area sources in the Reeb Quarry? **Comment addressed.**

Table#	Phase(s)	Receptors with 24-hr TSP exceedance
2	Phase 1A or 1a?	South: 1 to 8 Northeast: 16 & 17
3	Phase 1B or 1b? Phase 5 is not indicated on the figures.	South: 1 to 8
4	Phase 2	South: 1 to 8 West: 15
5	Phase 3. Phase 4 is not indicated on the figures.	South: 1 to 8 West: 12 & 14

13. Figures:

- a. It is recommended that the figures include the names of the roads in the area of the current Law Quarry site and its extension. **Response noted. It continues to be recommended that the figures include the names of the roads in the area of the current Law Quarry site and its extension. However it is noted that this would not affect the conclusions and recommendations of the study.**
- b. The location of receptor R17 is missing on Figure 1. Is R17 the residence beside R16 (i.e., northeast of extension)? **Comment not addressed. Receptors which are not relevant should be removed from the document.**

14. References: Please consider including a section at the end of the document listing the bibliographical references cited in the report. **Response noted.**

Appendix 8: Blast Impact Analysis Comments

Regional and Township planning staff and the peer review consultant (Englobe) have reviewed the:

- Blasting Response, prepared by Explotech (dated February 2, 2023)
- Updated Draft Blasting Impact Assessment, prepared by Explotech (dated March 2023)

and offer the following based on our previous comments.

As there are no outstanding comments the “DRAFT” watermark should be removed from the report and a final version submitted.

1. The property at 20650 Biederman Rd is identified as the closest sensitive receptor in table 1, at 35m from the new quarry Boundary, However, in the body of the report (page 9), this distance is mentioned as 275m. Please clarify and correct the closest sensitive receptor and its associated distance. **Comment addressed.**
2. Vibrations and sound pressures induced due to blasting expand radially. In the report, there is a mention of vibration monitoring in front and behind any given blast. However, sensitive receptors could be situated on the sides as well. Please use appropriate wording to include all sensitive receptors that are “adjacent” or in the Zone of Influence (ZOI) to the blast. **Comment addressed.**
3. Please provide further explanation regarding the statement “normal temperature and humidity changes can cause more damage to residences than blast vibrations and overpressure”. Is this related to this topic? **Comment addressed.**
4. Please provide more explanations for the MECP’s limits and guidelines for PPV and PSPL. The report should provide further explanation about the significance of using these limits and why they were selected as the limits for this report. **Comment addressed.**
5. Please elaborate on what is meant by “1 borehole radius” for a none-technical person to comprehend the content. **Comment addressed.**
6. For the calculations regarding the vibration levels at the nearest sensitive receptor, please ensure the proper distances are used. As per table 1, 20650 Biederman Road is situated 35m from the edge of the quarry property, however, the Author uses a distance of 275m (page 14). Englobe believes it is necessary

- to indicate the closest sensitive receptor to the edge of the quarry (perimeter boreholes) and the maximum explosive load per delay. **Comment addressed.**
7. The overall presentation of the formula and some of the numbers used in the formula on page 15 needs to be corrected. The current formula shows $12.5=257.6m$. **Comment addressed.**
 8. In the section dealing with overpressure, one gets the impression that the report assumes the overpressure radiates linearly in front of the blast and the sensitive receptors adjacent and behind the blast are not affected. The distance of 920m selected in the calculations on page 17 and only dealing with the front of the blast seems a bit conservative. **Comment addressed.**
 9. Please expand on the statement “when weather patterns are less favourable” (page 18). This statement is very general, and some examples of weather conditions that affects overpressure would clarify this statement. **Comment addressed.**
 10. The report does not mentioned the current blasting practices (drill pattern, bench heights, type of explosives used, etc.) at the current operations. In Engobe’s view it would be beneficial to mention a bit more details about the ongoing blasting methods. **Comment addressed.**
 11. Based on the vibration, and overpressure analysis, for the new quarry, the author can develop a guideline or mitigation plan that outlines the maximum bench height, type of explosives, and the maximum kgs/delay when the operations approaches certain distances from sensitive receptors. This information would provide a guideline for the third-party blasting company to design their blasts to contain both vibrations and overpressures associated with their blasts within the allowable limits. **Comment addressed.**
 12. The final report should contain the names of authors, their titles and positions along with their professional seals. Please include the missing information. **Comment addressed.**
 13. Please consider adding a section to the report called “Definitions or Terminology”, where all abbreviations are expanded. **Comment addressed.**
 14. The report notes that given the close proximity of some of the residences (as close as 57 metres) the blast load will have to be reduced substantially to meet the MECP limits for vibration. There is a comment in the report that the

economics of recovering material close to those residences would have to be explored by the operator to determine whether it is worthwhile to extract to the limits shown on the plans.

Although it is understood that this is ultimately a business decision for the applicant, it would be helpful to understand whether the blast design adjustments were considered in determining the extraction limits. **Comment addressed.**

15. Table 2 of the report notes that no sinking cut will required and that extraction would be in 1-2 benches. Use of sinking cuts has greater potential for both blasting and flyrock impacts. Sinking cuts can be avoided only in Biederman Road is included as part of the application (which has not yet been confirmed), and it is understood that 2-3 benches is more likely scenario for extraction. Assumptions in the report should be updated to more accurately reflect the proposed operation. **Comment addressed.**
16. The bottom of Page 24 of the report should be updated to properly reference the proposed expansion of the Law Crushed Stone Quarry. **Comment addressed.**

Appendix 9: Financial Impact Assessment and Economic Benefits Analysis Comments

Regional and Township staff and the peer review consultant (Watson & Associated Economists Ltd.) have reviewed the:

- Financial Impact Assessment Response Letter, prepared by Colliers (dated August 31, 2023)
- Updated Financial Impact Assessment, prepared Colliers (dated August 31, 2023)

and offer the following based on our previous comments:

1. Scope of the study – In the second paragraph of the summary on Page 5 of 31 it states that “approval of the proposed expansion will have zero to minimal negative impact on the Region...”. The study should consider impacts on both the Township and Region. **Comment addressed.**
2. Aggregate Production - The report should clearly indicate that the expansion is needed to maintain current operation and economic activity and output levels. **Comment addressed.**
3. Economic Activity - Page 14 of the report states that construction costs of the quarry expansion, including machinery & equipment and capital improvements, would generate ±\$3,000,000 in direct economic activity, however Page 23 states that ±\$3,000,000 is the total capital investment required for the quarry expansion.

It is important to differentiate between the initial capital investment and what the economic impacts of the capital investment are, such as the impact on gross domestic product (GDP). The report should be clear that \$3,000,000 is the capital investment for the quarry expansion. An economic impact analysis has not been prepared, and it is recommended that it is undertaken to understand the GDP impacts of the quarry expansion using Statistics Canada input-output multipliers. **It is recommended to state exactly which input-output multiplier has been used. Based on a review of the multipliers in StatsCan Table: 36-10-0113-01, it is the mining, quarrying and oil extraction industry "Simple" multiplier for "Within Ontario". As defined by Statistics Canada, the simple multiplier measures the total value of production required from all industries across all stages of production to produce one unit of output for final use. This means 0.78 value of production input will produce one unit of output for final use, so the total GDP impact is \$3,846,150. The report states \$2,340,000.**

4. Employment Impacts - The Executive Summary of the report states the quarry expansion will result in temporary employment during the construction phase and on-going employment related to the operation. Temporary employment is identified for the site preparation stages and archaeological clearances of the quarry expansion. Permanent employment is identified related to the quarry operation, on-site dependant businesses and trucking.

Page 14 of the report identifies the temporary employment for the site-preparation stage, and Page 15 identifies the employment for on-site dependant businesses and their off-site employment yield. There are no references outside the Executive Summary to the temporary archaeological clearance employment, permanent employment related to the operation of the quarry, or trucking jobs. It is recommended that the report speaks to all the employment types identified in the executive summary for consistency, in addition to how the temporary construction employment was identified.

Further, since this expansion will be replacing the current quarry site operations, the report should clearly indicate that the expansion is needed to maintain current permanent employment levels. **Comment partially addressed. The report has been updated to clearly differentiate between temporary construction employment and on-going employment related to the operation, and that the expansion is needed to maintain current permanent employment levels. The method used to calculate temporary construction employment has not been identified. It is recommended this is added to the specific assumptions section of the report.**

5. Labour Income - Labour income is an important metric to understand because it illustrates how much money is made from employment associated with the quarry operations, and that the majority of it will be spent in the local and regional market on goods and services.

Page 15 identifies estimated annual wages earned by quarry workers and truckers, wages earned during the site preparation and archaeological clearances stages. It is recommended the source of the labour income is included in the report. **Comment addressed.**

6. Introduction and Overview of Methodology - As noted above, in general, the report focuses on revenues and does not identify expenditures related to the development. This may be a fair assumption as the extension is a “replacement”

of current activities and is anticipated to continue the existing levels of employment.

There are a number of items that require clarification/updates. The following sections provide Watson's review and commentary on each of the components of the analysis. **Comment for information only, no response required.**

7. Tonnage Assumptions - The report utilizes an annual extraction amount of 550,000 tonnes, however, the Transportation Impact Study and Planning Justification Report utilize 800,000 tonnes. This was discussed at the technical meeting and it was noted that this figure was used based on the current annual extraction amounts at the existing site. This would provide for a conservative revenue estimate (for Aggregate License fees) and is a fair assumption.

This discrepancy should be clearly addressed in the Report.

8. Site Area - The report identifies the total area of existing properties to be 190.33 acres with approximately 51 hectares (126 acres) being the extraction area. No identification of the total licensed area is provided.

In review of the Planning Justification Report, it is noted that the proposed area for extraction is 51.2 hectares (126 acres) and the proposed licensed area is 72.3 hectares (178 acres). Based on the two reports, it would appear that the following would be a summary of the areas:

- Total site area: 190.33 acres
- Licensed area: 178 acres
- Extraction area: 126 acres

As outlined in the sections below, these areas are required in calculating the anticipated tax revenue to be received from the site area. The report should be updated to reflect these values. **Comment addressed.**

9. Assessment Assumptions - In estimating the assessment to be generated from the expansion of the quarry, the report looks at various quarry properties (Table on Page 27 of 31) in the area and undertakes a survey of assessed values. This approach is consistent with best practice; as part of the Assessment Act, section 44 (3) (b) notes that land valuation will have reference to the value of similar lands in the vicinity and make adjustments to maintain equity with these lands.

However, the following summarizes our comments on the approach to the calculations:

- Properties Surveyed
 - It appears the \$7,900 per acre is based solely on the three Fort Erie properties and one Port Colborne property. It is unclear why all properties were not included in the average calculations.
 - The survey included the Port Colborne Quarries properties and quarry properties in Fort Erie but did not include the existing Law Quarry property. This should be included in the survey.
 - There appears to be duplication in the quarries surveyed. It is our understanding that “Lic. No. 4444” in the second part of the table is the same as the Port Colborne Quarries properties that were surveyed in the first part of the table.
- Average Calculation
 - The calculation of the average is based on the assessment per acre for each property, however, the appropriate approach would be to analyze the total area of all properties in the survey and divide by the total assessment of all properties in the survey. This approach will take into account the difference in assessed values for varying property sizes.
- MPAC Adjustments
 - MPAC provides assessment adjustments to residential properties abutting and within 1km of quarries. The proposed quarry extension may reduce assessed values of residential properties directly adjacent to the extension to the West and South as well as other properties now within 1km of the extension. This would reduce tax revenues for the Township and Region. This should be included in the analysis.
 - For properties outside of the GTA, the reductions were 4% for abutting properties and 2% for properties within 1 km of a licensed quarry.

10. Tax Revenue Calculations -

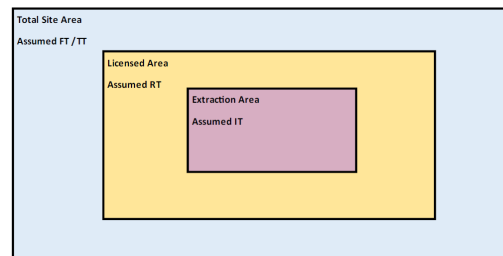
a. Property Taxes for Existing Properties

The analysis includes a summary of the 2019 property taxes for the existing properties. As the future tax revenues are estimated based on 2021 assessed values and 2021 tax rates, the existing properties should be based on 2021 (or the most current year available) taxes.

Additionally, the existing property tax revenue calculations were not provided. If this is based on a database of information, please identify the source. If this was calculated, please show the details of the calculations (i.e. assessed value multiplied by the applicable tax rate for the Township separate from the Region).

b. Tax Class Assumptions

The analysis assumes that the proposed quarry will be assessed as 100% industrial. This includes the licensed area, extraction area, and remaining areas. In our experience, and based on the regulations to the Assessment Act, the industrial assessment (IT) applies to the extraction area, residential assessment (RT) would generally apply to the remaining licensed area, and any remaining lands may be assessed as their actual use (typically farmland (FT) and/or managed forests (TT)). This is provided in the following diagram:



The report only provides the total site area and extraction area and does not identify the licensed area. Based on the values provided in comment #8, the tax revenue calculations should be updated to reflect these site areas.

As a result of assuming industrial assessment only, the tax revenue has been overestimated since the tax rate for industrial properties is higher than that of residential and farm/managed forests. This should be recalculated to align with the Assessment Act.

The response did address some, but not all, of the comments provided in #9 and #10 above, and in some cases, there was disagreement on the appropriate

approach. Based on the opinion of the peer review team of the potential variation of the estimated tax revenues, the differences in approach would result in relatively minor differences in revenue estimates. As a result, no further response is required.

11. Operating Revenues (non-tax) and Operating Costs - Generally with financial impact analyses, a review of the impact on operating revenues and operating costs is undertaken. This may be provided through a review of the existing operating costs and revenues on a per capita/per employee basis, which are then multiplied by the incremental population and/or employment forecasted. Based on our initial review and discussions with the applicant, it appears the quarry extension is proposed to “replace” operations on the current quarry site. This will allow the applicant to continue extraction once the existing site is depleted. As a result, there is no additional employment anticipated. Excluding the operating revenue and operating cost analysis may be a fair approach as the extension is a “replacement” of current activities and does not include additional employment or an increase in truck traffic. **Comment for information only, no response required.**

12. Long-term Monitoring and Mitigation - As part of the Terms of Reference, objectives of the financial impact study were provided. One item included the potential cost of any long-term monitoring and mitigation. The following provides for the stated objective in the Terms of Reference:

- 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.

Generally, the ongoing monitoring and mitigation costs would be the responsibility of the landowner, however, the study should provide an estimate of this cost and discuss any potential liabilities to the municipalities (e.g. if the property owner does not keep up with the monitoring and mitigation responsibilities). This would, at a minimum, provide the municipalities with an order-of-magnitude cost, should they be required to assume responsibility.

Comment partially addressed. Although the responsibility and liability portions were addressed the potential cost was not provided. An estimated cost is requested as per the Terms of Reference.

13. Biederman Road - There are outstanding questions with respect to Biederman Road which may be purchased by the applicant. As there are properties to the

North of the site, a different access road would be required. It is not clear if this new access road would result in additional capital/operating costs to the Township or Region. The updated Financial Impact Assessment should specifically address the issue of Biederman Road, any potential alternative access roads, and potential costs to the Township or Region. Although the applicant may plan on paying for the construction of the additional access road, the analysis should provide the following:

- Potential length of new road;
- Estimate of the difference in operating cost to the Township of removing Biederman Road and adding new road;
- Identification of responsibility of capital costs to construct the new road; and
- Difference in lifecycle costs (ultimate replacement costs) between Biederman Road and the new road.

This would provide the JART with full information regarding the potential options, should the applicant wish to purchase the right-of-way. **Comment addressed.**

Appendix C

Staff Reports to Township and Regional Council & NPCA Board

- Appendix C1 – Niagara Region Report (PDS 22-2022)
- Appendix C2 – NPCA Report (FA-38-22)
- Appendix C3 – Niagara Region Report (CWCD 2022-253)
- Appendix C4 – Niagara Region Report (PDS 3-2024)
- Appendix C5 – Township of Wainfleet Public Meeting Report

Subject: Initiation Report for the Proposed Law Crushed Stone Quarry Regional Official Plan Amendment

Report to: Planning and Economic Development Committee

Report date: Wednesday, September 14, 2022

Recommendations

1. That this Report **BE RECEIVED** for information; and
2. That Report PDS 22-2022 **BE CIRCULATED** to the Township of Wainfleet and the Niagara Peninsula Conservation Authority (NPCA).

Key Facts

- The purpose of this report is to advise Regional Council that applications to amend the Regional Official Plan (ROP), the Township of Wainfleet Local Official Plan (LOP), and the Wainfleet Zoning By-law have been made by Waterford Sand and Gravel Inc. to expand the existing Law Crushed Stone Quarry.
- The Region is the approval authority of the Regional Official Plan Amendment (ROPA) and Local Official Plan Amendment (LOPA). The Township is the approval authority for the Zoning By-Law Amendment.
- The applicant has also filed an application for a Category 2 (Below Water Quarry) - Class A Licence to the Ministry of Natural Resources and Forestry (MNRF) under the Aggregate Resources Act (ARA). The Province is the approval authority for licences under the ARA.
- A Joint Agency Review Team (JART) has been formed to streamline and coordinate the technical review of the applications. The JART team includes Regional and Township staff. Niagara Peninsula Conservation Authority (NPCA) staff have been invited to join the JART, but have not yet confirmed their participation.

Financial Considerations

There are no financial considerations arising from this report, as the cost of work associated with the review of this application is recovered through planning fees (\$134,180) in accordance with the Council approved Schedule of Rates and Fees.

In addition, the Region has entered into a Cost Acknowledgement Agreement with the applicant for full recovery of the cost associated with the peer review of the technical studies submitted with the application, as well as the costs associated with retaining a third party Aggregate Advisor.

Analysis

The application proposes that the Regional Official Plan be amended to permit an expansion of the existing Law Crushed Stone Quarry. If approved, this expansion would occur on lands immediately to the west of the existing quarry between Biederman Road and Graybiel Road, north of Highway 3, in the Township of Wainfleet (Appendix 1: Location Map). The lands are south of the Wainfleet Bog and are currently used for agricultural purposes. The site is designated as Rural in the Regional Official Plan.

Based on the policies of the ROP, where a new pit or quarry, or an extension to an existing pit or quarry are to be located outside a 'possible aggregate area' (illustrated on Schedule D4 of the currently in-effect Official Plan), a Regional Official Plan Amendment (ROPA) is required. Although a portion of the lands are shown as a 'possible aggregate area', the proposed area to be licenced extends beyond that designation, therefore, a ROPA is required.

The ROPA application was submitted on June 23, 2022. The application was deemed complete on July 22, 2022. Applications for a LOPA and a Zoning By-law Amendment have been submitted to the Township of Wainfleet. The ROPA and LOPA applications will be processed concurrently.

A statutory public meeting, in accordance with the requirements of the Planning Act will be scheduled at a later date. Details of other non-statutory public and stakeholder consultation sessions are currently being finalized in coordination with Wainfleet planning staff. All comments received from the public either before, or at the statutory public meeting will be brought forward to Planning and Economic Development Committee for consideration.

An application for a Category 2 (Below Water Quarry) - Class A Licence has also been submitted to the MNRF under the ARA. The area proposed to be licensed is 72.3 ha, with 51.2 ha proposed for extraction. Extraction will occur both above and below the water table and the proposed quarry expansion will rehabilitated comprehensively with the existing quarry. Prior to the final approval of the provincial ARA license, the

appropriate municipal land use approvals (i.e., Official Plan designation and zoning) must be in place.

JART Process

A JART has been formed to coordinate the technical review of the applications. The JART is a team of planning staff from the Region and the Township of Wainfleet. NPCA planning staff have also been invited to join the JART, but have not yet confirmed their participation. The JART process was previously endorsed by Regional Council and is currently being used for other aggregate applications in the Region. The purpose of JART is to share information, resources, and expertise so that the applications and the associated studies are reviewed in a streamlined and coordinated manner. Staff from various provincial ministries will be engaged through the JART process as well. The JART does not make a recommendation on the applications, but works collaboratively to review the studies and ensure coordinated public and stakeholder engagement and consultation. An Aggregate Advisor will be retained to provide advice to the JART as required.

Once all reviews are complete, a technical JART report will be prepared on the applications for use independently by staff at each agency as the technical basis to develop a recommendation report, which is then considered by the decision-makers at each individual agency.

Alternatives Reviewed

As this report is for information, there are no alternatives reviewed.

Relationship to Council Strategic Priorities

This report is provided to execute Regional Council's Strategic Priority for a Sustainable and Engaging Government and Responsible Growth and Infrastructure Planning. By reviewing development planning applications for conformity with the planning policy regime, the Region fulfills our commitment to high quality, efficient and coordinated service through enhanced communication, partnership and collaboration. Review of the applications in a coordinated manner will also ensure that Council's priority for preservation of the natural environment is addressed in a holistic manner.

Other Pertinent Reports

- N/A

Prepared by:

Sean Norman, PMP, MCIP, RPP
Senior Planner
Planning and Development Services

Recommended by:

Michelle Sergi, MCIP, RPP
Commissioner
Planning and Development Services

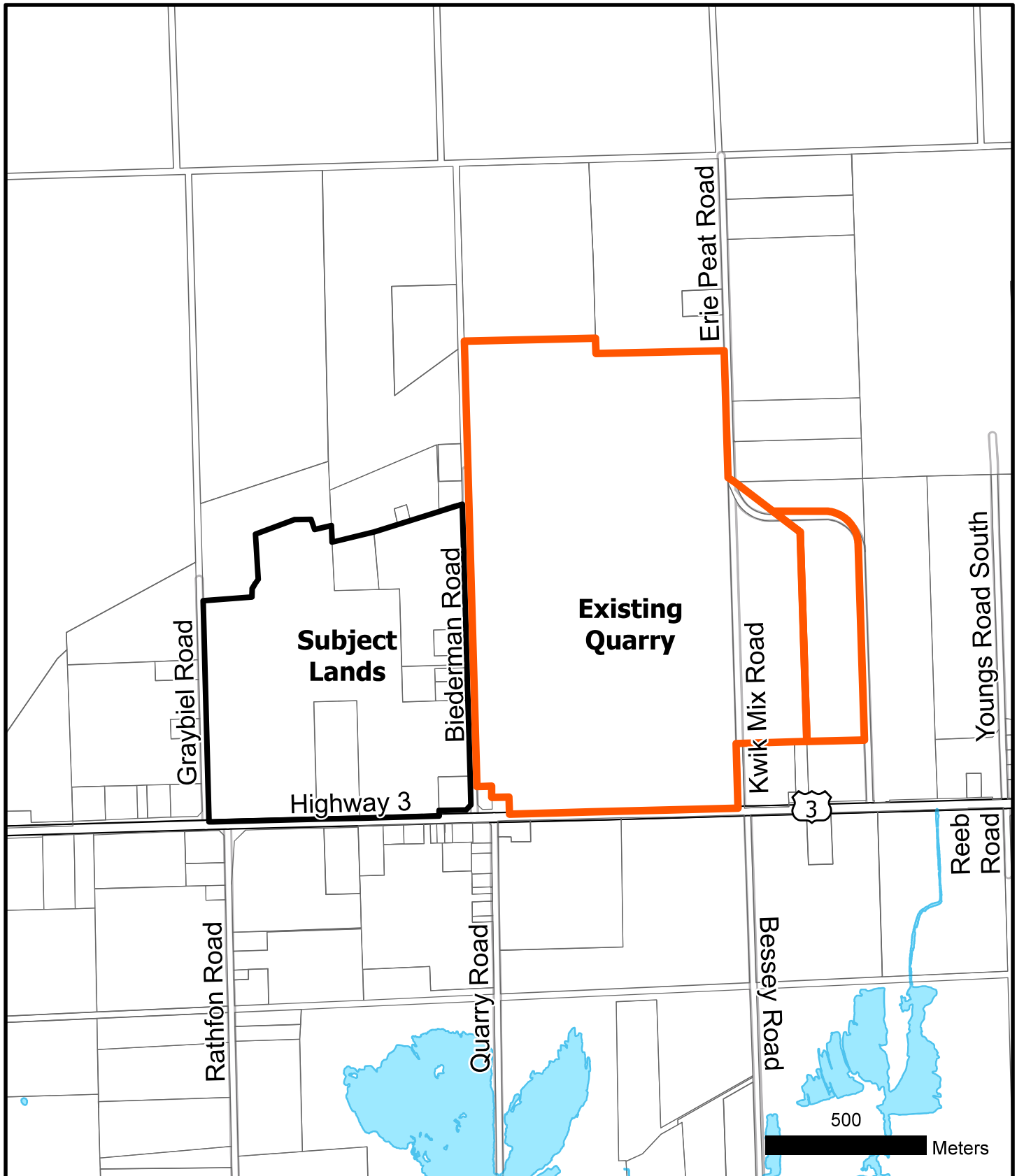
Submitted by:

Ron Tripp, P.Eng.
Chief Administrative Officer

This report was reviewed by Erik Acs, MCIP, RPP, Manager of Community Planning and Angela Stea, MCIP, RPP, Director of Community and Long Range Planning.

Appendices

Appendix 1 Location Map



© 2022 Niagara Region and its suppliers. Projection is UTM Zone 17N CSRS, NAD83. This map was compiled from various data sources. 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.

Report To: Board of Directors

Subject: Law Crushed Stone Quarry – Joint Agency Review Team Memorandum of Understanding

Report No: FA-38-22

Date: September 16, 2022

Recommendation:

1. **THAT** Report No. FA-38-22 RE: Law Crushed Stone Quarry – Joint Agency Review Team Memorandum of Understanding **BE RECEIVED**.
2. **THAT** the Chief Administrative Officer / Secretary - Treasurer **BE AUTHORIZED** to sign the Joint Agency Review Team Memorandum of Understanding for the Wainfleet Law Quarry attached as Appendix 2 to Report No. FA-38-22 RE: Law Crushed Stone Quarry – Joint Agency Review Team Memorandum of Understanding.

Purpose:

The purpose of this report is to seek the Board of Director's approval to sign a Memorandum of Understanding (MOU) to participate on the Law Crushed Stone Quarry (the Quarry) Joint Agency Review Team (JART).

Background:

The Niagara Peninsula Conservation Authority (NPCA) has received applications for a Regional Official Plan Amendment (ROPA), local Official Plan Amendment (OPA) and Zoning By-law Amendment (ZBA), all to facilitate the expansion of the Law Crushed Stone Quarry located north of Highway 3, between Biederman Road and Graybiel Road, in the Township of Wainfleet. The proposed quarry expansion is located on lands immediately south of the Wainfleet Bog Conservation Area. The applications are currently being reviewed by staff.

A JART has been formed by the Region of Niagara and the Township of Wainfleet to facilitate technical review of the applications. An invitation to participate on the JART has been extended to the NPCA. Unlike other quarry files in which the NPCA is a participating member of the JART, this is the first instance where the subject lands directly abut NPCA-owned lands.

The Wainfleet Bog Conservation Area is the NPCA's largest property (approximately 800 hectares) and will be the focus of an upcoming management plan update. Given NPCA's dual mandate of

Regulatory Authority and land management, staff felt it prudent to seek the Board's approval to participate on the JART.

Discussion:

NPCA's Role in the JART Process

The NPCA is a commenting agency for approvals of ARA applications. Subsection 28(12) of the Conservation Authorities Act exempts activities approved under the ARA. This means that the NPCA cannot require an aggregate operator to obtain a Permit for works in a Regulated Area.

NPCA staff work alongside our peers at the Region and lower tier municipalities to ensure the appropriate information is provided by the applicants with the application submissions and municipal partners are supported with NPCA's technical review. The NPCA has executed MOU's with our partner municipalities to support this review process.

The purpose of the JART is to share information, resources, and expertise so that the applications and the associated studies are reviewed in a streamlined and coordinated manner. Staff from various provincial ministries will also be engaged through the JART process. The JART does not make a recommendation on the applications but works collaboratively to review the studies and ensure coordinated public and stakeholder engagement and consultation. An Aggregate Advisor will be retained by Niagara Region to provide advice to the JART as required.

Once all reviews are complete, a technical JART report will be prepared on the applications for independent use by staff at each agency as the technical basis to develop a recommendation report, which is then considered by the decision-makers at each individual agency. The JART itself does not make any recommendations on the application, therefore, the NPCA is able to make its own conclusions and is not restricted by the JART report. The NPCA is also able to leave the JART should it desire to by providing 90 days notice.

The NPCA is participating on the JART for two other quarry applications – the proposed Upper's Quarry in Niagara Falls and the Port Colborne Quarry Expansion in Port Colborne. In both of those cases, the NPCA is not an abutting property owner. The NPCA's commenting role in the current quarry application goes beyond standard Plan Review comments on natural hazards and regulated features to include comments as an abutting property owner.

The key benefit of participating on the JART is access to peer review comments on all the technical reports submitted with the application at no cost. This means that in addition to NPCA staff's comments, we would have access to comments from third-party peer reviewers providing a truly independent review of the technical studies. We would also be able to participate in the JART meetings between the applicant's consulting team and the JART peer reviewers. This is an important opportunity to help ensure NPCA technical concerns are appropriately addressed. The drawback to not participating on the JART is not having access to this additional technical review information.

NPCA's Role as a Land Owner

Given the close proximity of NPCA's Conservation Area to the proposed Quarry site, NPCA staff will also be directly commenting on the Quarry application as an adjacent land owner and important

stakeholder. In this capacity NPCA staff comments will be focused on areas of interest related to the long term management of Wainfleet Bog.

As directed through the amendments to the *Conservation Authorities Act* and associated regulations, the NPCA is required to update Conservation Area management plans. On February 3rd, 2021, Wainfleet Bog was also designated as a site under the 'Pathway to Canada Target 1 Initiative'. It was assessed to contain the attributes of a "protected area and/or other effective area-based conservation measures" to be formally recognized as contributing to the conservation of Canada's biodiversity and to Canada's area-based conservation target - Canada Target 1. This recognition acknowledges the ways in which Wainfleet Bog is already being managed to conserve biodiversity. This designation is strictly voluntary and does not result in any additional policy or regulatory restrictions for the Wainfleet Bog property. However, to be recognized, all criteria must be met, including that NPCA management will ensure that conservation will continue long-term.

Conclusion

Staff have completed their due diligence to address any potential or perceived conflict of interest on this particular Quarry proposal given NPCA's dual role. Based on the legal advice obtained on this matter staff are satisfied that there is no real or perceived conflict of interest in participating as a member of the JART while commenting on the Quarry application an adjacent property owner. Staff have also clarified that the JART MOU does not prevent the NPCA from participating on the JART as an abutting property owner. Further, staff will ensure our dual mandate and areas of interest are clearly articulated during the commenting process. Given the benefits of participating as a member of the JART and the lack of any conflict of interest, NPCA staff recommend the Board authorize the CAO to sign the MOU.

Financial Implications:

There are no financial implications from this report.

Links to Policy/Strategic Plan:

The daily work of the Planning and Regulations section contributes to a healthy and resilient climate and supports sustainable growth by protecting people and properties from natural hazards and climate impacts, and maintaining a high standard of client services, tools, and procedures for planning review and permits.

Related Reports and Appendices:

Appendix 1 – Map of Subject Lands
Appendix 2 – Wainfleet Law Quarry JART MOU

Authored by:

Original Signed by:

David Deluce, MCIP, RPP
Senior Manager, Environmental Planning & Policy

Reviewed by:

Original Signed by:

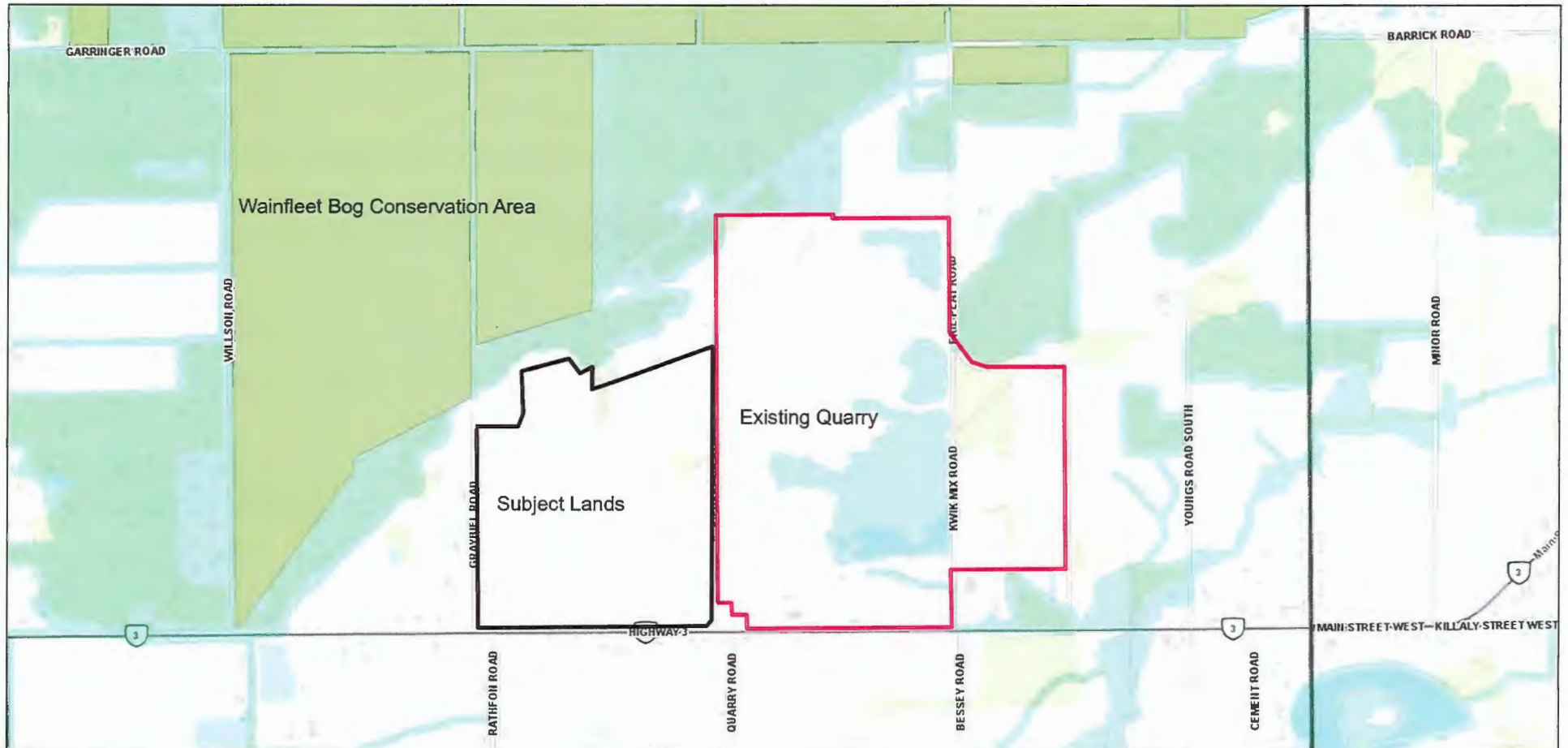
Leilani Lee-Yates, MCIP, RPP
Director, Watershed Management

Submitted by:

Original Signed by:

Chandra Sharma, MCIP, RPP
Chief Administrative Officer/Secretary-Treasurer

Appendix 1 - FA-38-22



9/8/2022, 10:08:14 AM

Lines

— Override 1
— Override 2

Corporate Watershed Divide NPCA

Conservation Properties

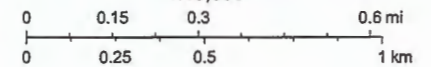
Member Municipal Boundary Line

MEMBER MUNICIPALITY Labels

Roads

NPCA APPROXIMATE REGULATION LANDS

1:18,056



NPCA, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

MEMORANDUM OF UNDERSTANDING

Between:

WATERFORD SAND & GRAVEL LIMITED.

("Waterford")

- and -

THE REGIONAL MUNICIPALITY OF NIAGARA

("Region")

- and -

THE TOWNSHIP OF WAINFLEET

("Township")

- and -

THE NIAGARA PENINSULA CONSERVATION AUTHORITY

("NPCA")

WHEREAS Waterford intends to submit an application (the "application") for the 'Proposed Law Quarry Extension' on lands situated within the Township of Wainfleet located in the Niagara Region;

AND WHEREAS *Planning Act* approvals are required at the Township and Regional level through Township and Regional Official Plan amendments and a Township Zoning By-law amendment;

AND WHEREAS an *Aggregate Resources Act* approval is required for a Class A, Category 2 license at the Provincial level including site plan approval as required under the *Aggregate Resource Act*;

AND WHEREAS the *Planning Act* and *Aggregate Resources Act* approval and licensing processes provide for or require analysis and input from interested stakeholders, including without limitation the Region, Township, and the NPCA;

AND WHEREAS to facilitate and expedite that analysis and input and to provide same in an open and transparent manner, the Region, Township, and the NPCA have committed to proceeding using the Joint Agency Review Team ("JART"), generally on the terms outlined herein;

NOW THEREFORE the parties agree to work together in the following manner:

General

1. The purpose of this Memorandum of Understanding ("MOU") is to establish the parties' commitment to the Joint Agency Review Team ("JART") process and to working through the resultant decision-making process in a respectful, efficient and methodical way. Additionally, the parties intend through this process to outline the process, terms of reference, scope, and other particulars of other matters that will be required throughout the application process.

Principles

2. For the purposes of this MOU, the parties acknowledge and agree to the following principles:
 - (a) Waterford operates an existing quarry operation adjacent (to the east) of the location of the Proposed Law Quarry Extension.
 - (b) The Township and Regional Official Plans identify this area as a potential aggregate resource area as per the information provided in the Aggregate Resource Papers that were developed by the Ministry of Natural Resources and Forestry.
 - (c) As part of the approval and licensing process, a technical review of Waterford's application is required.
 - (d) It is in the parties' mutual interest that the technical review be conducted in an efficient, cost-effective, and transparent manner and include consultation with the public and any interested stakeholders.
 - (e) The JART process has been established as a best practice for the review of aggregate applications in Niagara and in other municipalities.

JART Process

3. The JART process is the establishment of a team of professional staff from interested public agencies who are responsible for coordinating the technical review of all matters related to a mineral aggregate operation application. The purpose of JART is to have a sharing of information, resources, and expertise so that the application and the associated studies are reviewed in a streamlined and coordinated manner. The JART does not make a recommendation on the application, rather the JART works to:
 - Ensure that the required range of studies and work is completed by the applicant
 - Ensure that the studies are sufficient in terms of their technical content
 - Ensure review of the studies and work of the applicant either by technical staff or by peer reviewers
 - Ensure a coordinated public and stakeholder consultation and engagement process
 - Prepare a technical JART report on the application once all reviews are complete

For additional information on the Niagara JART process, please refer to Niagara Region Report - ICP 85-2013 '*Streamlined Review of Mineral Aggregate Applications Process*'

JART Membership

4. The JART will be comprised of planning and other staff from the Region, Township, and NPCA. Once retained, an Aggregate Advisor will provide expertise and support to the JART. Additionally, where appropriate:
 - The JART may invite Waterford's staff, consultants, or advisors to participate in meetings and/or the technical review - to facilitate JART's understanding of the application and to resolve technical questions as efficiently as possible.
 - The JART may invite Provincial staff to participate in meetings and/or the technical review - to facilitate JART's understanding of the application and/or or the *Aggregate Resources Act*

application process and/or other Provincial Legislation, Regulations, or Guidelines as required.

Aggregate Advisor

5. Niagara Region, conditional upon receipt of appropriate financial guarantees from Waterford, will retain an Aggregate Advisor to provide technical expertise and to assist in coordinating the review of the applications. The Aggregate Advisor will be qualified as a Registered Professional Planner with experience in aggregate planning and license applications and/or have substantial professional experience reviewing aggregate planning and license applications. The Aggregate Advisor will work with and support the JART throughout the length of the process. The Aggregate Advisor will very actively participate in the JART process, but will not be a formal member.

Peer Reviewers

6. Niagara Region, conditional upon receipt of appropriate financial guarantees from Waterford, will retain third party consultants appropriately qualified to peer review certain technical studies and to provide advice and recommendations on specific topics. It is to be acknowledged that Waterford is not entitled to make final determinations or decisions as to the selection of the third party consultants or the scope of their engagement. Waterford may object to the retainer of a third party consultant only on the basis of a conflict of interest.

Public and Stakeholder Consultation and Engagement

7. Public, stakeholder, agency, and Indigenous consultation and engagement is required under the *Planning Act* and the *Aggregate Resources Act* as part of the applications. The JART and Waterford will work together to plan and coordinate the consultation and engagement program and to provide an open and transparent process. Wherever possible, the public process for the *Planning Act* and *Aggregate Resources Act* approvals will be jointly notified and held.

Facilitator

8. The JART, through discussions with Waterford, may determine that a facilitator is required to assist with the public or other sessions. The scope of work for such a facilitator would be determined through coordination by the JART and authorized by Waterford.

JART Decision-Making

9. The JART does not have decision-making authority and the JART does not make a recommendation on the applications. The JART report is used independently by staff at each agency as the technical basis to develop a recommendation report, which is then considered by the decision-makers at each individual agency. Technical information arising from the JART Report or process shall not limit any JART member from obtaining all such additional technical information and advice as that member considers advisable.

Financial Commitments

10. Waterford has agreed to assume responsibility for the costs of any consultants retained by the Region for the purposes of advancing the applications, in accordance with a separate Cost Acknowledgement Agreement.

No Referral to Local Planning Appeal Tribunal (LPAT)

11. At the beginning of the process, the parties will agree to a timetable for the completion of the protocol. The parties hereto agree that, for so long as the JART protocol is proceeding according to the timetable, no resort, referral or appeal to the LPAT by Waterford will be made in respect, without limitation, of the failure by either the Township or the Region to make a decision with respect to the applications or for any other reason related to or arising from the application review process. The timetable may be subject to modification upon mutual agreement by all parties. In any case, the agreement not to resort, refer or appeal to the LPAT ends if any party exercises its right to terminate the MOU as set out in Item 12 below.

Without Prejudice & Termination

12. Any party shall have the right to terminate the MOU by giving three months' written notice in writing to the other parties at any time. If the MOU is terminated by any party, steps shall be taken to ensure that the termination does not affect any prior obligation, project or activity already in progress.
13. The Region shall have the right to suspend or terminate on ten days written notice to the other parties, Niagara Region's participation in the JART process and their obligations pursuant to this MOU, in the event of the suspension or termination of Niagara Region's Cost Acknowledgement Agreement with Waterford described in section 10 of this MOU. The Parties agree that the continuation of this MOU is dependent upon the continued funding provided by Waterford pursuant to its Cost Acknowledgement Agreement with Niagara Region.

Dated at the Regional Municipality of Niagara this 8 day of June, ²⁰²¹~~2020~~ *pf*

WATERFORD SAND & GRAVEL LIMITED

Per: _____

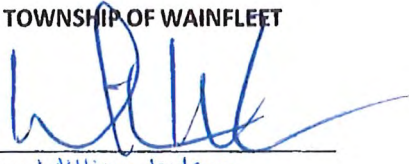
Johnson
Name: Sheryl Johnson
Title: Secretary/Treasurer
I have authority to bind the Corporation.

THE REGIONAL MUNICIPALITY OF NIAGARA

Per: _____

Name: _____
Title: _____
I have authority to bind the Corporation.

THE TOWNSHIP OF WAINFLEET



Per: _____

Name: William Kolasa

Title: CAO/Clerk

I have authority to bind the Corporation.

**THE NIAGARA PENINSULA CONSERVATION
AUTHORITY**

Per: _____

Name: _____

Title: _____

I have authority to bind the Corporation.

MEMORANDUM

CWCD 2022-253

Subject: Notice of ARA Public Open House – Proposed Law Quarry Expansion (Wainfleet)

Date: Friday November 18, 2022

To: Regional Council

From: Sean Norman, Senior Planner

On September 14, 2022 (PDS 22-2022) Regional Council was informed that Waterford Sand and Gravel had submitted an application to the Region and Township of Wainfleet to expand the existing Law Crushed Stone Quarry. An application has now been made to the Province for a licence under the Aggregate Resource Act (ARA).

An ARA license is administered by the Ministry of Natural Resources and Forestry (MNRF) and is required to operate a pit or quarry in Ontario. The ARA process is often undertaken concurrently with Planning Act approvals. Prior to the MNRF issuing an ARA license, Local and Regional planning approvals must be in place.

Waterford Sand and Gravel will be hosting a public open house for their ARA application. The open house is being conducted in accordance with the requirements of the ARA. This public open house is not being hosted by Region or Township staff. Public open house(s) and public meetings hosted by Region and City Township staff for the Planning Act applications will follow at a later date.

The details of the open house are:

Date: Thursday November, 24, 2020

Time: Drop In – 5:00 pm to 7:00 pm

Location: Port Colborne BIC Church, 10641 Hwy #3 West, Port Colborne

If you require additional information or receive any inquiries related to the project please contact Sean Norman (sean.norman@niagararegion.ca).

Respectfully submitted and signed by:

Sean Norman, PMP, MCIP, RPP
Senior Planner

Subject: Statutory Public Meeting for a Regional Official Plan Amendment Application - Proposed Law Quarry Expansion, Township of Wainfleet

Report to: Planning and Economic Development Committee

Report date: Wednesday, February 7, 2024

Recommendations

1. That this Report **BE RECEIVED** for information; and
2. That this Report **BE CIRCULATED** to the Township of Wainfleet and the Niagara Peninsula Conservation Authority.

Key Facts

- The purpose of this report is to provide information for a Regional Official Plan Amendment (ROPA) application Statutory Public Meeting, which is being held in accordance with the prescribed requirements of Section 17 of the Planning Act.
- The purpose of the statutory meeting is to receive comments from the public with respect to the ROPA application submitted by Waterford Sand and Gravel Ltd. for a proposed expansion of the Law Quarry in the Township of Wainfleet. A Location Map is included as Appendix 1.
- In addition to the ROPA, applications have also been submitted to amend the Township of Wainfleet Official Plan and Zoning By-Law. These applications are being reviewed concurrently.
- Staff are not making a recommendation, and no decision or approvals are sought from Council at this time.
- This Statutory Public Meeting was advertised by posting notices on the subject lands, mailing notice to residents within 120 metres of the subject lands, and e-mailing notice to agencies and utilities. In addition, notice was also posted on the Region's website and social media pages.
- The Township of Wainfleet will hold a separate Statutory Public Meeting for the Local Official Plan and Zoning By-Law Amendment applications.

Financial Considerations

There are no financial considerations arising from this report as the cost of work associated with application processing and review is recovered through planning fees in accordance with the Council-approved Schedule of Rates and Fees. Costs of advertising for open houses and public meetings are paid by the applicant, and the Region has entered into a Cost Acknowledgement Agreement with the applicant to cover other costs associated with the application (i.e., aggregate advisor and peer reviews).

Analysis

Background

An application for a Regional Official Plan Amendment (ROPA) to permit the expansion of the Law Quarry operation was received on June 22, 2022. The application was deemed complete on July 22, 2022. To date no comments from the public have been received on the application.

Regional Official Plan Policies

The Niagara Official Plan (NOP) was approved, with modifications, by the Minister of Municipal Affairs and Housing and came into effect on November 4, 2022. Policy 7.12.2.5 of the NOP states that development applications deemed complete prior to the date of the NOP approval shall be permitted to be processed and a decision made under the 2014 Regional Official Plan (ROP) policies. As noted above the ROPA application was deemed complete on July 22, 2022, and is therefore being processed under the 2014 ROP. A Draft Regional Official Plan amendment is included as **Appendix 2**.

Site Location

The subject lands are located within the Township of Wainfleet and described as Part of Lots 6 & 7, Concession 2, Part of Road Allowance between Lots 5 & 6, Concession 2 (Geographic Township of Wainfleet), and Township of Wainfleet in the Regional Municipality of Niagara.

These lands are bound by the existing Law Quarry operation (Aggregate Resources Act Licence #4464 & 607541) to east, Provincial Highway 3 to the south, Graybiel Road to

the West, and the Wainfleet Bog to the north. A Location Map is included as **Appendix 1**.

JART Process

To coordinate the technical review of the applications, a Joint Agency Review Team (JART) was formed. The JART consists of planning staff from the Region, the Township, and the Niagara Peninsula Conservation Authority (NPCA). The purpose of JART is to share information, resources, and expertise so that the application and the associated studies are reviewed in a streamlined and coordinated manner. Staff from applicable provincial ministries are being engaged through the JART process as well.

The JART does not make a recommendation on the application, rather the JART works to:

- ensure that the required range of studies and work is completed by the applicant;
- ensure that the studies are sufficient in terms of their technical content;
- coordinate the review of the studies and work of the applicant either by technical staff or by peer reviewers;
- ensure a coordinated public and stakeholder consultation and engagement process; and
- prepare a technical JART report on the application once all reviews are complete.

The JART report will be used independently by planning staff at the Region and the Township as the technical basis to develop their respective recommendation reports.

Material Submitted in Support of the Applications

In support of the ROPA application the following technical studies have been submitted:

- Planning Justification Report and ARA Summary Statement
- Consultation Summary and Strategy
- Agricultural Impact Assessment
- Archaeological Assessments
- Acoustic (Noise) Assessment Report
- Blasting (Vibration) Impact Assessment
- Air Quality Impact Assessment
- Financial Impact Assessment & Economic Benefits Analysis

- Level 1 & 2 Water Resources Study
- Natural Environment Level 1 & 2 Report
- Visual Impact Assessment
- Traffic Impact Study
- Cultural Heritage Evaluation Report

The Region, on behalf of the Joint Agency Review Team (JART) has retained an Aggregate Advisor and consulting teams to assist with the review and peer review of many of the individual technical studies.

In addition, the Aggregate Resources Act (ARA) Site Plan drawings are being reviewed as part of the ROPA process. The ARA Site Plans outline the proposed operating conditions of the quarry and are the primary tool used by the Province for enforcement. All of the proposed mitigation measures for each of the individual technical studies are noted and included as part of the Site Plans.

An index of all technical material that have been submitted to date is included as **Appendix 3**, and can be accessed on the [Region's website](https://www.niagararegion.ca/official-plan/amendments.aspx):
(<https://www.niagararegion.ca/official-plan/amendments.aspx>)

Associated Applications

A separate Statutory Public Meeting regarding the Local Official Plan Amendment and Zoning By-law Amendment will be held by the Township of Wainfleet at a later date. Separate notice of this meeting will be distributed by the Township.

In addition, the applicant has also filed an application to the Ministry of Natural Resources and Forestry for a licence under the Aggregate Resources Act. The Aggregate Resources Act application process includes a separate public consultation and notification process. Any comments submitted to Niagara Region or Township of Wainfleet regarding the Planning Act applications should also be submitted in response to the Aggregate Resources Act notices.

Next Steps

The review of the application and supporting technical information is ongoing. Regional staff, supported by other members of the JART, the Aggregate Advisor, and Peer Reviewers are analyzing the applications and supporting studies relative to Regional and Provincial planning documents. All comments submitted on this application,

including those received through this Statutory Public Meeting will be responded to by staff through a future recommendations report.

Alternatives Reviewed

The Planning Act (R.S.O. 1990) requires that all complete applications be processed and that public consultation be conducted as part of all proposed amendments to municipal official plans. Notice has been provided for this Statutory Public Meeting as required by the legislation.

As this report is for information, and the Public Meeting is a statutory requirement, there are no alternatives to review.

Relationship to Council Strategic Priorities

This report is not linked to strategic priorities. The review of applications to amend the Regional Official Plan is a legislative process under the Planning Act (1990).

Other Pertinent Reports

PDS 22-2022	Initiation Report for the Proposed Law Crushed Stone Quarry Regional Official Plan Amendment
CWCD 2022-253	Notice of ARA Public Open House – Proposed Law Quarry Expansion (Wainfleet)

Prepared by:

Sean Norman, PMP, MCIP, RPP
Senior Planner
Growth Strategy and Economic
Development

Recommended by:

Michelle Sergi, MCIP, RPP
Commissioner
Growth Strategy and Economic
Development

Submitted by:

Ron Tripp, P.Eng.

Chief Administrative Officer

This report was reviewed by Erik Acs, MCIP, RPP, Manager of Community Planning and Angela Stea, MCIP, RPP, Director of Corporate Strategy and Community Sustainability.

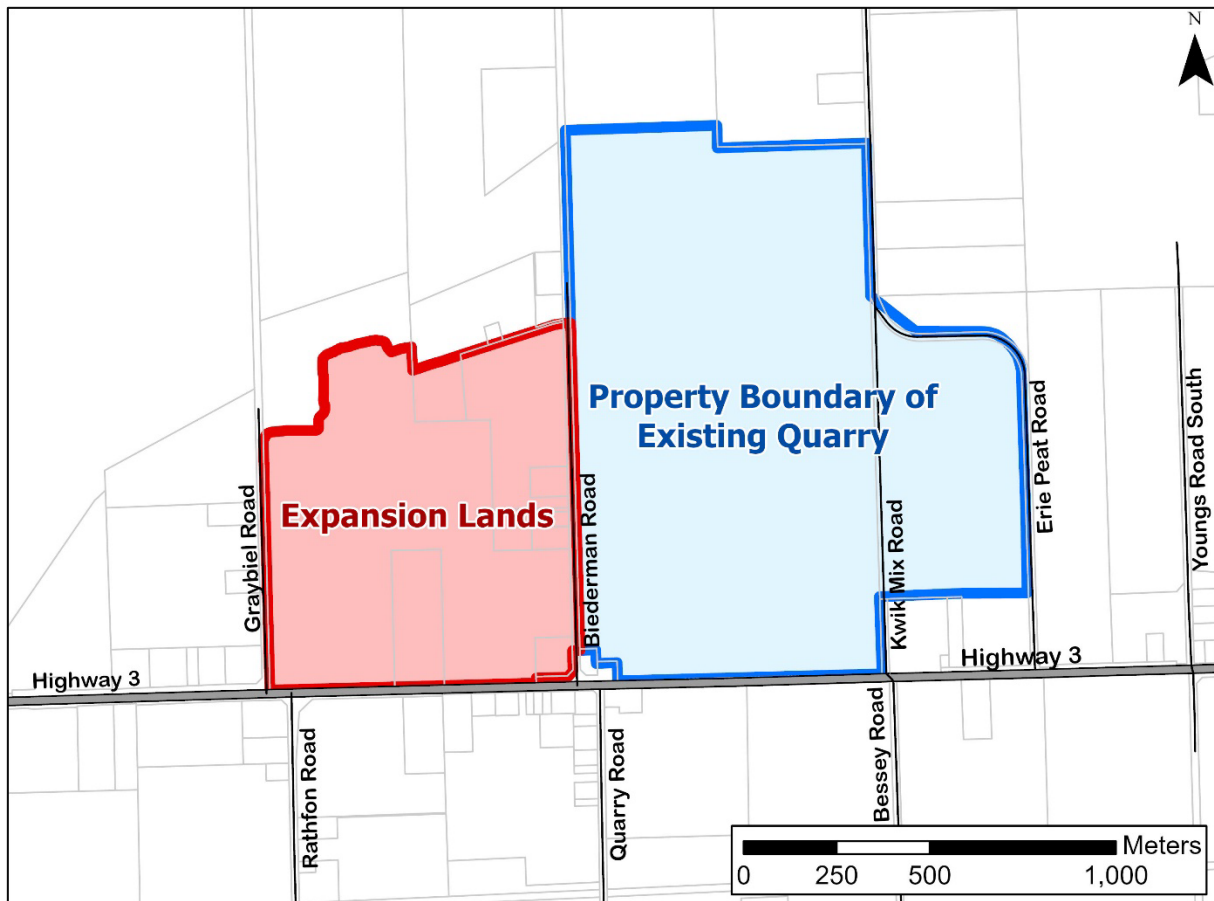
Appendices

Appendix 1 Site Location Map

Appendix 2 Draft Regional Official Plan Amendment

Appendix 3 List of Technical Materials Submitted in Support of the Application

Appendix 1
PDS 3-2024
Site Location Map
Proposed Law Quarry Expansion
Township of Wainfleet



THE REGIONAL MUNICIPALITY OF NIAGARA

BY-LAW NO. 2023-____

A BY-LAW TO PROVIDE FOR THE ADOPTION OF AMENDMENT ____

TO THE OFFICIAL PLAN FOR THE REGIONAL MUNICIPALITY OF NIAGARA

to permit the Law Quarry Expansion

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,

AND WHEREAS it is deemed appropriate to further amend the Official Plan as adopted by Niagara Region for the Regional Municipality of Niagara,

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

1. That the text attached hereto as Part "B" is hereby approved as Amendment No. ____ to the Official Plan for the Regional Municipality of Niagara.
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

Ann-Marie Norio, Regional Clerk

Passed: [DATE]

Amendment No. ____

To the Official Plan for the Regional Municipality of Niagara

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 Regional Municipality of Niagara, which constitute Official Plan Amendment No. ____.

- Text Changes
- Schedule Changes

PART “C” – THE APPENDICES

The Appendices provide information regarding public 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 Regional Municipality of Niagara.

- Part “A” – The Preamble, contains background information and does not constitute part of this Amendment.
- Part “B” – The Amendment, consisting of text and schedule changes constitutes Amendment ___ to the Official Plan of the Regional Municipality of Niagara.
- Part “C” – Does not constitute part of the Amendment. This Part is a list of all public comments received. A copy of all individual comments is available as part of the Joint Agency Review Team (JART) Report prepared as part of the Amendment review process.

PURPOSE OF THE AMENDMENT:

The purpose of this Amendment is to permit the expansion of the existing Law Quarry in the Township of Wainfleet.

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), and Township of Wainfleet in the Regional Municipality of Niagara.

These lands are bound by the existing Law Quarry operation (Licence #4464 & 607541) to east, Provincial Highway 3 to the south, Graybiel Road to the West, and the Wainfleet Bog to the north.

BACKGROUND:

The subject lands are identified by the Niagara Official Plan as being within a Stone Resource Area. The applicant (Waterford Sand and Gravel) participated in pre-submission consultation and subsequently submitted an application to amend the Regional Official Plan, which was received on June 22, 2022. The requested and prescribed material, including planning justification and technical reports to satisfy numerous planning instruments including the Provincial Policy Statement (2020), A

Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020), Regional Official Plan (2014), and the Township of Wainfleet Official Plan were submitted and the application was deemed complete by Niagara Region on July 22, 2022.

A new Niagara Official Plan was approved, with modifications, by the Minister of Municipal Affairs and Housing and came into effect on November 4, 2022. Policy 7.12.2.5 of the new plan states that development applications deemed complete prior to the date of the approval shall be permitted to be processed and a decision made under the 2014 Regional Official Plan (ROP) policies. The application was deemed complete on July 22, 2022, and is therefore being processed under the policies of the 2014 ROP.

The site-specific policy to permit the Law Quarry expansion, site-specific maps, and all required updates to the schedules would be reflected in the new Niagara Official Plan.

BASIS FOR THE AMENDMENT:

- a) Policy 6.C.13 of the 2014 Regional Official Plan requires an amendment to the plan for expansions of existing mineral aggregate operations outside of a “possible aggregate area”. Only a portion of the Law Quarry expansion lands are within a “possible aggregate area”, and therefore a Regional Official Plan amendment is required.
- b) The Amendment was the subject of a Statutory Public Meeting held under the Planning Act, 1990 on February 7, 2024. Public and agency comments were addressed as part of the preparation of this Amendment.
- c) The Amendment will allow for the proper conservation and management of source of high quality aggregate resource.
- d) The Amendment is consistent with 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.
- e) The Regional Official Plan Amendment will allow the Township of Wainfleet Official Plan Amendment to be approved by Regional Council and the rezoning of the lands from Agriculture to Extractive Industrial to be approved. The rezoning of the lands will allow the Minister of Natural Resources and Forestry to make a decision to issue a quarry licence under the Aggregate Resources Act.
- f) Based on the review of the application, planning analysis completed, and the consideration of all input received through public and agency consultation process. Regional staff is of the opinion that the ROPA has appropriate regard for matters of Provincial Interest as set out in Section 2 of the Planning Act; is consistent with the Provincial Policy Statement, 2020; conforms, or does not conflict, with the A Place to Grow: Growth Plan for the Greater Golden Horseshoe, 2020; conforms to the intent of the Regional Official Plan, 2014; represents good planning; and, is in the public interest.

IMPLEMENTATION:

Section 7, Implementation, of the Official Plan for the Regional Municipality of Niagara, shall apply where applicable.

PART “B” – THE AMENDMENT

Amendment __

To the Official Plan for the Regional Municipality of Niagara

The Official Plan for the Regional Municipality of Niagara is amended as follows:

Text Changes:

1. Add a new Policy 8.11.4 to the Township of Wainfleet site specific policies in Chapter 8 to permit the Law Quarry expansion:

Notwithstanding other policies in this Plan, a mineral aggregate operation (quarry) and ancillary uses and facilities are permitted west of the existing licensed area on an approximately 72.3 hectare site located on the lands bounded by Highway 3 to the south, Graybiel Road to the West, and the Wainfleet Bog to the north, 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).

The entirety of the total site area, 72.3 hectares, is proposed to be licensed under the Aggregate Resources Act of which 51.2 hectares is proposed to be extracted. The operation of the mineral aggregate operation shall be in accordance with any license issued under the Aggregate Resources Act by the Ministry of Natural Resources and Forestry.

2. A site-specific location map will be added to Chapter 8 following the new Policy 8.11.4 showing the subject lands as follows:



Schedule Changes:

1. Schedule H – “Known Deposits of Mineral Aggregate Resources and Mineral Aggregate Operations” is amended to add and the subject lands as “Licensed Aggregate Operations” as per the corresponding legend.

Appendix 3 to PDS 3-2024
Proposed Law Quarry Expansion
ROPA, LOPA, ZBLA Applications – List of Technical Material Submitted

Materials can be accessed on the [Region's website](https://www.niagararegion.ca/official-plan/amendments.aspx):
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PUBLIC MEETING INFORMATION REPORT

Public Meeting:	Tuesday February 20 th , 2024 at 6:30 p.m. in Council Chambers
File No.:	Official Plan Amendment File No. OPA 04 (Law Quarry) Zoning By-law Amendment File No. Z04/2022W
Applicant:	MacNaughton Hermsen Britton Clarkson (MHBC) Planning Ltd. on behalf of Waterford Sand and Gravel Ltd.
Subject Property:	Part of Lots 6 & 7, Concession 2 and Part of Road Allowance between Lots 5 & 6, Concession 2, Township of Wainfleet

Purpose of a Public Meeting

The purpose of the Public Meeting is to provide more information about the applications and provide an opportunity for public input. No recommendations are provided at the Public Meeting and Township Council will not be making any decisions at this meeting. A recommendation report will be prepared by staff and presented at a subsequent meeting of Township Council following a full review of the applications.

Any person may make written or verbal representation either in support of or in opposition to the proposed Official Plan and Zoning By-law Amendments. Please note that all submissions, including personal information, will become part of the public record and may be publicly released. The Public Meeting will also be live-streamed through the Township's [Youtube](https://www.youtube.com/live/NvFBHuD13qk) (<https://www.youtube.com/live/NvFBHuD13qk>) page. Written comments are encouraged and can be submitted by email to planning@wainfleet.ca, personal delivery to the Township Office at 31940 Highway #3, Wainfleet or regular mail to P.O. Box 40, Wainfleet ON L0S 1V0, to the attention of Lindsay Earl, Manager of Community and Development Services. The public commenting period closes at the end of the Public Meeting.

Property Information

The subject lands are legally described as Part of Lots 6 & 7, Concession 2 and Part of Road Allowance between Lots 5 & 6, Concession 2, laying north of Highway #3 between Graybiel Road and Biederman Road and are shown in Appendix "A".

Application Details

The application for Official Plan Amendment proposes to change the designation of the subject lands from Rural Area, Possible Extractive Industrial and Environmental Protection Area to Extractive Industrial.

The application for Zoning By-law Amendment proposes to change the zoning of the subject lands from Rural – A4 with an Environmental Protection Overlay to Extractive Industrial – M2-2 to permit:

- a quarry including processing and related plant and operational facilities for the crushing, screening and washing of aggregate material and aggregate stockpiling; and
- outside storage of goods and materials where such use is ancillary and incidental to a permitted aggregate operation use otherwise specified.

Associated Applications

An application for a Regional Official Plan Amendment (File No. ROPA-22-0001) has also been submitted to Niagara Region. This application proposes text and schedule changes to add the subject lands to Section 13 (Site Specific Policies) of the Regional Official Plan in order to facilitate the expansion of the existing quarry. The Township and Regional Official Plan amendments will be processed concurrently. The Statutory Public Meeting for the ROPA was held on February 7, 2024.

An application for a Category 2 (Below Water Quarry) – Class A License has also been submitted to the Ministry of Northern Development, Mines, Natural Resources and Forestry under the Aggregate Resources Act. The total area to be licensed is 72.3 hectares with 51.2 hectares proposed to be extracted.

In support of the applications, the following technical studies have been submitted:

- Planning Justification Report and ARA Summary Statement
- Consultation Summary and Strategy
- Agricultural Impact Assessment
- Archaeological Assessments
- Acoustic (Noise) Assessment Report
- Blasting (Vibration) Impact Assessment
- Air Quality Impact Assessment
- Financial Impact Assessment & Economic Benefits Analysis
- Level 1 & 2 Water Resources Study
- Natural Environment Level 1 & 2 Report
- Visual Impact Assessment
- Traffic Impact Study
- Cultural Heritage Evaluation Report

Due to the complexity of the submission, an index of all technical material that have been submitted to date is included as Appendix “B” and can be accessed through the Region’s website:

(<https://www.niagararegion.ca/official-plan/amendments.aspx>)

JART Process

To coordinate the technical review of the applications, a Joint Agency Review Team (JART) was formed. The JART consists of planning staff from the Region, the Township, and the Niagara Peninsula Conservation Authority (NPCA). The purpose of JART is to share information, resources, and expertise so that the application and the associated studies are reviewed in a streamlined and coordinated manner. Staff from applicable provincial ministries are being engaged through the JART process as well. The JART does not make a recommendation on the application, rather the JART works to:

- ensure that the required range of studies and work is completed by the applicant;
- ensure that the studies are sufficient in terms of their technical content;
- coordinate the review of the studies and work of the applicant either by technical staff or by peer reviewers;
- ensure a coordinated public and stakeholder consultation and engagement process; and
- prepare a technical JART report on the application once all reviews are complete.

The JART has retained an Aggregate Advisor and consulting teams to assist with the review and peer review of many of the individual technical studies. In addition, the Aggregate Resources Act (ARA) Site Plan drawings are being reviewed as part of the Planning Act process. The ARA Site Plans outline the proposed operating conditions of the quarry and are the primary tool used by the Province for enforcement. All of the proposed mitigation measures for each of the individual technical studies are noted and included as part of the Site Plans.

The JART report will be used independently by planning staff at the Region and the Township as the technical basis to develop our respective recommendation reports.

Consultation

In accordance with the *Planning Act*, a Notice of Complete Application was mailed to all landowners within 120m of the subject property on August 9, 2022, a Notice of Public Meeting was mailed to all landowners within 120m of the subject property on January 30, 2024 and a public notice sign was posted on the subject lands. The notice, along with the submitted studies, were also posted on the Township's website at www.wainfleet.ca/lawquarry.

The application was circulated to external agencies and internal departments for review and comment on January 30, 2024 with comments requested by February 29, 2024.

To date, there have been no written public comments received regarding the public meeting.

Any additional comments received prior to the public meeting will be addressed verbally at the public meeting and addressed through the future planning recommendation report.

Next Steps

A planning report regarding a complete review of the Official Plan and Zoning By-law Amendment applications and all comments received will be brought forward by staff and considered by Council at a later date.

If a person or public body does not make oral submissions at the public meeting or make written submission to the Township of Wainfleet regarding the proposed Official Plan and Zoning By-law Amendments before the approval authority gives or refuses to give approval to the applications, the person or public body is not entitled to appeal the decision of the Township of Wainfleet to the Ontario Land Tribunal.

If a person or public body does not make oral submissions at the public meeting and/or make written submissions to the Township of Wainfleet regarding the proposed Official Plan and Zoning By-law Amendments before the approval authority gives or refuses to give approval to the applications, the person or public body may not be added as a party to the hearing of an appeal before the Ontario Land Tribunal unless, in the opinion of the Tribunal, there are reasonable grounds to do so.

If you wish to be notified of the decision of the Corporation of the Township of Wainfleet in respect of the proposed applications, you must make a written request to the Deputy Clerk of the Township of Wainfleet at the address below and quote the appropriate file number(s).

Contact

For further information regarding the proposed applications please contact Lindsay Earl, MES, MCIP, RPP, Manager of Community and Development Services at 905-899-3463 ext. 288 or learl@wainfleet.ca. Written comments can also be sent to the attention of Lindsay Earl.

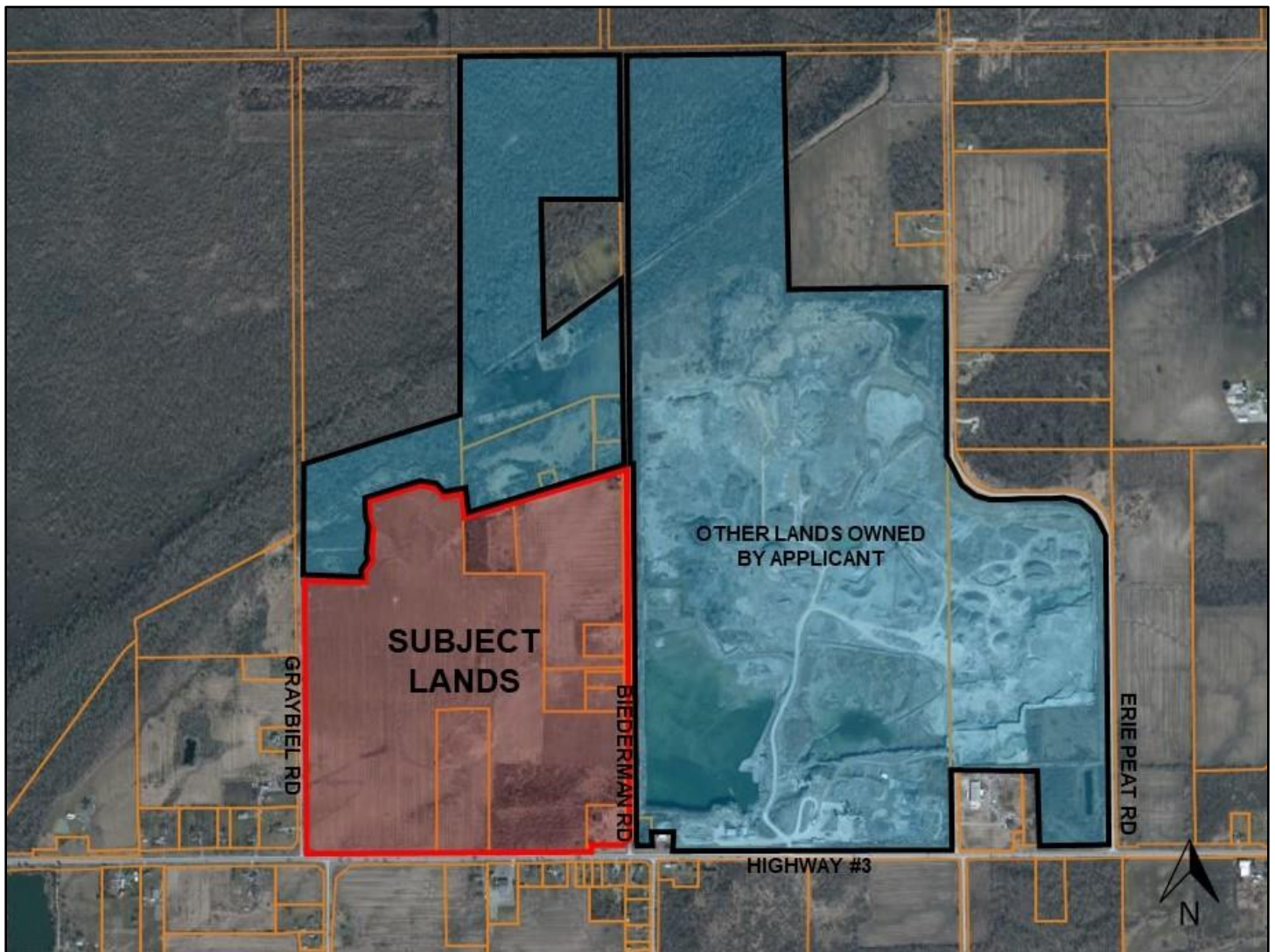
For information regarding the proposed Regional Official Plan Amendment please contact Sean Norman, Senior Planner, at 905-980-6000 ext. 3179 or sean.norman@niagararegion.ca.

To request to be notified of the decision, please contact the Deputy Clerk at 31940 Highway #3, P.O. Box 40, Wainfleet, ON L0S 1V0 or achrastina@wainfleet.ca.

Attachments

Appendix "A" – Aerial Photograph

Appendix "B" – List of Technical Studies Submitted



**Official Plan Amendment Application
Zoning By-law Amendment Application**

**Waterford Sand and Gravel Ltd.
MHBC Planning Ltd. (Agent)**

Part of Lots 6 & 7, Concession 2 and
Part of Road Allowance between Lots 5 & 6, Concession 2

AERIAL PHOTOGRAPH



Date: February 2024

File No.: OPA 04 & Z04/2022W

Appendix “B”

Proposed Law Quarry Expansion

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Appendix D

Public Comments Received

September 9, 2022

To: The Township of Wainfleet and The Niagara Region

From: Liberia Santos and Ronald Lindhorst – 20816 Graybiel Road

**RE: NOTICE OF COMPLETE APPLICATIONS
PROPOSED OFFICIAL PLAN AMENDMENT FILE NO. OPA 04
PROPOSED ZONING BY-LAW AMENDMENT FILE Z04-2022W
LAW CRUSHED STONE QUARRY EXPANSION**

We are in receipt of the above Notice of Applications and wish to express our concerns and objection to this expansion. We own and live at 20816 Graybiel Road and our understanding of the documents submitted to us via mail and the online information on the Township website clearly indicate that these proposed changes will detrimentally affect the surrounding residents and our quality of life.

Our concerns are

- *The devaluation of our properties*
- *Potential harm to our well water source*
- *The structural integrity of our properties once work begins i.e. foundation/walls cracking*
- *The increased noise and traffic impact in the area*
- *The damage to the environment and the wild life in the affected area*
- *The proximity to all the designated conservation area; i.e. Wainfleet Bog, etc*

All our neighbours that live in and around the affected area have concerns similar to ours.

We have started to read the Waterford Sand & Gravel PDF documents available on the Township website and the first document that we reviewed was the Water Quality Report: WPS page V, Groundwater Use line 3 states **“of the surveyed property owners 3 wells were used for domestic purposes, 1 well was used for lawn and/or garden watering/irrigation; 2 wells were used for livestock and gardening and 6 wells were not in use”**.

The above statement is totally incorrect as we at 20816 Graybiel Rd only use well water for our consumption which goes through an elaborate processing system. We do not have an alternative water supply

In the recent past we have noticed a change in our water it now has a dark discoloration and we must run the taps for a while before it clears up and has a very strong sulphur smell. We have lived here for 12 years and have never had this issue.

We ask that an independent review of all the documents submitted for the Proposed Official Plan Amendment be review by independent experts in the particular field to ensure all those affected by this proposed change are protected including the wild life and their habitats.

We look forward to hearing from you with our concerns addressed

Libby and Ron